



Submit Proposals To:
 City of Hollywood
 2600 Hollywood Boulevard
 Hollywood, Florida 33020
 Office of City Clerk, Room 221

CITY OF HOLLYWOOD, FLORIDA

REQUEST FOR PROPOSALS

PROPOSER ACKNOWLEDGMENT

RFP Title: Unified Communications System RFP No.: RFP-4398-14-JE Service Required: A Cone of Silence is in effect with respect to this RFP. The Cone of Silence prohibits certain communications between potential vendors and the City. For further information, please refer to Section 30.15(F) of the City's Code of Ordinances.	Proposals must be received prior to 3:00 P.M., May 29, 2014 and may not be withdrawn within 90 calendar days after such date and time. Proposals received by the date and time specified will be opened in Room 303. All Proposals received after the specified date and time will be returned unopened. Procurement Services Contacts: Janice English or Joel Wasserman, or his designee Telephone No.: (954) 921-3345 or (954) 921-3290
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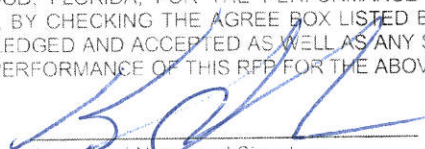
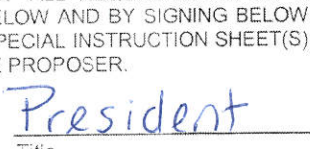
PROPOSER ACKNOWLEDGMENT

THIS FORM MUST BE COMPLETED AND SUBMITTED ALONG WITH THE COMPLETE PROPOSAL PRIOR TO THE DATE AND THE TIME OF PROPOSAL OPENING. THE PROPOSAL SUMMARY SHEET PAGES ON WHICH THE PROPOSER ACTUALLY SUBMITS A PROPOSAL AND ANY PAGES UPON WHICH INFORMATION IS REQUIRED MUST BE COMPLETED AND ATTACHED WITH ALL PAGES OF THE PROPOSAL DOCUMENT.

Proposer's Name: SwitchTech International	Fed. ID No. or SS Number 65-0318988
Complete Mailing Address: 2920 NW 109th Ave Miami, FL 33172	Telephone No.: 305-593-9292 (Ext 200)
	Fax No.: 305-593-9220
Do You Have a Permanent Office Located in the City of Hollywood? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	E-Mail Address: dmay@teleswitch.com
Indicate type of organization below: Corporation <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Individual <input type="checkbox"/> Other	

ATTENTION: FAILURE TO SIGN (PREFERABLY IN BLUE INK) OR COMPLETE ALL RFP SUBMITTAL FORMS AND FAILURE TO SUBMIT ALL PAGES OF THE RFP DOCUMENT AND ANY ADDENDUMS ISSUED MAY RENDER YOUR RFP NON-RESPONSIVE.

THE PROPOSER CERTIFIES THAT THIS PROPOSAL IS BASED UPON ALL CONDITIONS AS LISTED IN THE PROPOSAL DOCUMENTS AND THAT HE HAS MADE NO CHANGES IN THE PROPOSAL DOCUMENT AS RECEIVED. HE FURTHER PROPOSES AND AGREES, IF HIS PROPOSAL IS ACCEPTED, HE/SHE WILL EXECUTE AN APPROPRIATE AGREEMENT FOR THE PURPOSE OF ESTABLISHING A FORMAL CONTRACTUAL RELATIONSHIP BETWEEN HIM AND THE CITY OF HOLLYWOOD, FLORIDA, FOR THE PERFORMANCE OF ALL REQUIREMENTS TO WHICH THIS PROPOSAL PERTAINS. FURTHER, BY CHECKING THE AGREE BOX LISTED BELOW AND BY SIGNING BELOW IN BLUE INK ALL RFP PAGES ARE ACKNOWLEDGED AND ACCEPTED AS WELL AS ANY SPECIAL INSTRUCTION SHEET(S) IF APPLICABLE. I AM AUTHORIZED TO BIND PERFORMANCE OF THIS RFP FOR THE ABOVE PROPOSER.


 Authorized Name and Signature
 
 Title
 5/28/2014
 Date



RFP-4398-14-JE

CITY OF HOLLYWOOD, FLORIDA**BID PROPOSAL NOTIFICATION****PROCUREMENT SERVICES DIVISION**

Notice to Offerors: Log on to www.hollywoodfl.org and select the link to Vendor Registration & Bids to register as a supplier.

BID / PROPOSAL DOCUMENT INFORMATION

Bid/Proposal Number:	RFP-4398-14-JE
Bid/Proposal Name:	Unified Communications System
Procurement Contact Person:	Janice English
Email Address:	jenglish@hollywoodfl.org
Telephone Number:	(954) 921-3345
Bid/Proposal Opening Date:	Friday, May 29, 2014
Pre-Bid/Proposal Conference Date:	Pre-Proposal Conference on Thursday, May 15, 2014 at 9:30 in Room 215
<input type="checkbox"/> Mandatory if Box is Checked	

To view or download this Bid or RFP and any addenda go to:

www.hollywoodfl.org/purchasing/bids_pdf.asp and click on the bid or proposal number referenced above on this document or the corresponding addendum.

A Cone of Silence is in effect with respect to all Formal Bids and Request for Proposals. The Cone of Silence prohibits certain communications between potential vendors and the City. For further information, please refer to Section 30.15 (F) of the City's Code of Ordinances.

.....
Bid/Proposal Name: Unified Communications System

Bid/Proposal Number: RFP-4398-14-JE

Bid/Proposal Opening Date: May 29, 2014

Firm Name/Address: _____

Return to:

City of Hollywood, Florida
c/o: Office of City Clerk
2600 Hollywood Blvd., Rm#: 221
Hollywood, Florida 33020

NOTE: Always use the label
to the left on all packages
when returning your bid or
proposal to the City.



NOTICE TO ALL PROPOSERS AND PROPOSERS

Cone of Silence

The City of Hollywood City Commission adopted Ordinance No. 0-2007-05, which created Section 30.15(F) imposing a Cone of Silence for certain City purchases of goods and services.

The Cone of Silence refers to limits on communications held between vendors and vendor's representatives and City elected officials, management and staff during the period in which a Formal Solicitation is open.

The Ordinance does allow potential vendors or vendor's representatives to communicate with designated employees for the limited purpose of seeking clarification or additional information. The names and contact information of those employees that may be contacted for clarification or additional information are included in the solicitation.

The Cone of Silence does not prohibit a vendor or vendor's representative from communicating verbally, or in writing to the City Manager, the City Manager's designee, the City Attorney or the City Attorney's designee on those procurement items to be considered by the City Commission.

The Cone of Silence does not prohibit a vendor or vendor's representative from making public presentations at a duly noticed pre-bid conference or duly noticed evaluation committee meeting or from communicating with the City Commission during a duly noticed public meeting.

The Cone of Silence shall be imposed when a formal competitive solicitation has been issued and shall remain in effect until an award is made, a contract is approved, or the City Commission takes any other action which ends the solicitation.

To view the Cone of Silence, Ordinance No. 0-2007-05, go to the City of Hollywood's Official website at <http://www.hollywoodfl.org/ConeOfSilence>

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REQUESTFORPROPOSALFORM
CITY OF HOLLYWOOD, FLORIDA

"AN EQUAL OPPORTUNITY AND SERVICE PROVIDER AGENCY"

PART I:

Scope of Services:

Overview

The City of Hollywood has an estimated population of 140,000 residents and employee base of approximately 1,500 employees. Its phone system is a Siemens PBX phone system (HiPath 4000) with both TOM and IP endpoints. Tellident is used to maintain the City's 911 premise notification, and Traffic analyst is used to provide Call Detail Recording. Our network infrastructure is based on Cisco switches, IBM xSeries servers (both physical and virtual), and Lenovo Thinkcenter M92P desktop computers.

Purpose of RFP

The City of Hollywood (City) is seeking Request for Proposals ("RFP") from qualified firms to replace its hybrid PBX telephone/voicemail/911 premise identification system for a new Unified Communications platform. The proposed solution shall take full advantage of the existing Cisco infrastructure that exists throughout all of the City's locations.

Desirable features for the proposed system shall include, but are not limited to "call hunt"/"find me"-where a phone call to a user of the system will allow the recipient to be reached at multiple locations (home, cellular, alternate desk) simultaneously; the ability to create web collaboration meetings from the user's desktop; the ability to easily configure one or more call centers; the ability to easily configure call routing procedures for during and after defined business hours; the ability for users to be easily notified of and access voicemail at multiple endpoints (telephone, e-mail, smartphone, tablet); the ability to integrate with Microsoft Active Directory and Microsoft Exchange for dialing phone numbers, scheduling meetings and determining the scheduling availability of users on a Microsoft Exchange network; the ability to integrate smartphones with the endpoints by moving calls from an endpoint to a smartphone or vice versa; the ability to integrate smartphones with endpoints by allowing smartphones to make and receive calls as though they were an extension of the endpoints; the ability to easily maintain premise information for 911/E-911; and the ability to easily create, generate, and e-mail call history reporting and tracking information.

SIP trunking has achieved reliability and stability, and it will become necessary for The City of Hollywood to take a position that will enable us to take advantage of this technology that is growing in acceptance. Any proposal must indicate a path of succession which addresses the growth from PRI to SIP trunking capabilities.

EXISTING ENVIRONMENT

Our current telephony environment consists of a Siemens PBX phone system, (HiPath 4000) with both TOM and IP endpoints, with Xpressions handling the voice mail and call processing functions. Tellident is used to maintain the City's 911 premise notification, and Traffic analyst is used to provide Call Detail Recording. Our network infrastructure is based on Cisco switches, IBM xSeries servers (both physical and virtual), and Lenovo Thinkcenter M92P desktop computers.

Unified Communications Infrastructure

City of Hollywood network infrastructure topology diagram is included as an Attachment B to this file.

Contact Center Size

Contact Center Solution Requirements/Architecture

The City of Hollywood's contact center requires flexible call control, comprehensive reporting and management, agent desktop capabilities and options for multi-media, CRM, workforce planning and quality assurance solutions. Our goals are to increase customer service responsiveness, improve agent handling efficiency and optimize management of the center with a centrally deployed application that can meet scalability requirements.

Proposer design should accommodate 80 agents with the ability to scale to 160 agents, without the need for additional equipment.

[Response: The proposed ShoreTel solution meets these requirements.](#)

In addition to other specifications set forth herein, the contact center solution must meet the following minimum requirements:

- Be configured as Voice over IP contact center.
- Supervisor must be able to function as agents without the need for additional licenses.
- Must provide full functionality of database integration, and call recording. This must be able to be accomplished natively.
- Must be standard 'off the shelf' version of native product, no modified solution by a third party will be accepted.
- Be a single 'box' on which SIP, PRI and session border control functions. Equipment must be by a single manufacturer from end to end.
- The solution needs to be virtualized; frontend/backend and any database with which it interfaces.
- Provide intelligent routing of customer contacts based on group routing or agent skills and preferences, source/destination, contact center performance or data-directed routing.

[Response: The proposed ShoreTel solution meets these requirements.](#)

Provide a single GUI-based management tool with visual, click-and-drag configuration and real-time changes.

- Provide user-customizable real-time and statistical reporting for contact center activities.
- Provide agent GUI desktop application with integrated call handling and contact information, performance feedback and real-time presence and collaboration tools.
 - Support remote agents and supervisors (e.g., remote site, home office, mobile agent, etc.).
- Provide music/announcements on hold and while in queue.
- Support scalability requirements of up to 160 active agents.
- 100% virtualized.
- Support concurrent agents.

Response: The proposed ShoreTel solution meets these requirements.

The contact center application must also support options for fully integrated multi-media support, CRM integration, multi-site networking, IVR integration and other applications and functionality to enhance contact center productivity.

Proposer should confirm that the contact solution proposed complies with the requirements set forth above and include a brief overview of the solution. Proposer should include how the contact center solution will assist The City of Hollywood in reaching its stated goals.

Response: The proposed ShoreTel solution meets these requirements.

Organizations that offer a product or service and create a purchasing experience that meets the unique needs and preferences of their customers gain an important competitive advantage in the modern global economy. This means achieving the optimum balance between the convenience of automation and the attentiveness of the human touch in the contact center.

Many organizations still rely on separate communication and messaging systems to support customer service, yet these systems can be difficult to integrate, leading to an unsatisfactory customer experience and duplicate work efforts. Building customer loyalty means responding to customers quickly, and in the way they choose, and managing those communications to ensure efficiency without driving costs through the roof.

The ShoreTel Enterprise Contact Center solution is designed to help organizations respond to the consumer-driven market place with a communications platform that puts business intelligence right where it's needed. By deploying ShoreTel Enterprise Contact Center, organizations quickly realize the benefits of a fully integrated business communications system. ShoreTel Enterprise Contact Center is a powerful call center solution that includes universal queuing and enterprise resource matching, and offers optimized call routing by service level, skill matching, priority, customer identity, schedules and caller location. It also supports email and Web contacts, and outbound calling as service options. Voicemail and fax can also be routed to individual agents

through emails.

Increase efficiency, reduce costs

ShoreTel Enterprise Contact Center is designed to deliver a rapid return on investment by helping to reduce costs. For instance, agent screen pops with detailed customer information can dramatically help reduce interaction time. Agents have an unified desktop client which provides the option of seeing the presence status of experts outside the call center. Through the ShoreTel Communicator interface, they can manage multiple voice, chat and email sessions – improving first call resolution and overall agent utilization.

Customizable real-time and historical information about callers, trunks, groups and agent utilization allows supervisors to optimize resources. Plus, advanced call routing based on service levels, skills and priority helps ensure calls go to the right agents, reducing the service time per call.

Highly Available Virtual Contact Center

The Enterprise Contact Center can be deployed on customer premises or in the data center. Running ShoreTel Enterprise Contact Center in a virtual environment benefits customers in many ways. When deployed on a shared hardware resource in a data center, VMware Ready certified Enterprise Contact Center not only provides complete multimedia and outbound capabilities but also ensures a high level of application availability, improved operational effectiveness and reduced hardware and energy costs thanks to its efficient use of the VMware platform.

Integrated Into Your Business Processes

The ShoreTel Unified Communications (UC) system is based on open standards, so where additional business intelligence is required, ShoreTel Enterprise Contact Center workflow easily integrates with other enterprise applications to increase the overall value of information, and to deliver business intelligence. Applications integrate into customer relationship management (CRM) solutions, trouble ticketing solutions or, in fact, any backend database/customer management system to increase agents' productivity while optimizing the customer experience

Fully Integrated, All-In-One Solution

ShoreTel Enterprise Contact Center is integrated into the ShoreTel UC system, and runs without specialized computer-telephone integration (CTI) platforms. Supervisors and agents are connected to the server via intuitive user interfaces that provide the tools they need to deliver superior customer service.

High Availability with Brilliant Simplicity

ShoreTel enables previously stand-alone contact center functions, including ACD, IVR, computer telephony integration (CTI), outbound campaigns, and multimedia routing, to be integrated onto a single, centrally web managed, highly available platform. ShoreTel also makes it possible to integrate contact center workflow with other enterprise applications, increasing the overall value of information, and expanding business intelligence.

Key Features

Supervisor Capabilities: Advanced Real Time Dashboard

Supervisors get a real time dashboard of the call center and can react to conditions by bringing more agents or taking out agents from groups. For example:

- Read the pulse of your call center by getting visual and audible threshold alerts on critical conditions.
- React to higher call abandons or lower traffic by bringing agents in or taking them out of queues with simple clicks.
- Monitor whether agents are in a no-work mode (release) and see the code along with the duration of that state allowing them to closely monitor agent activity.
- Supervise agents in training closely by monitoring specific extensions visually and also by using silent monitor, barge in, and coach features.
- Track all media types: voice, email, chat, outbound campaigns, through a single reporting interface.
- Compare real-time information with historical information to understand trends better and schedule agent availability accordingly.

Comprehensive Historical Reports

Review advanced statistics of all the activity in the call center without requiring database programmers or third-party reporting applications. This provides customer insight, interaction traffic, agent activities and queue performance.

- Easily create flexible reports by date or by interval.
- Enjoy the convenience of reports being delivered to the person and media of choice.
- Schedule reports to be generated automatically to be saved in various formats (csv, xls, pdf, htm etc) and also be automatically emailed.
- Monitor how a queue or group is performing using typical KPIs.
- See detailed agent activity for billing purposes or for performance evaluations.
- Analyze the reasons for customer calls by creating reports on post-call activity or wrap codes.
- Measure the effectiveness of outbound campaign by getting call-by-call details on each outbound call made by the system.

Agent Capabilities

- Increase agent productivity by automating agent tasks through CRM or trouble ticketing integration.
- Agents can easily hot desk and log into any phone/extension easily enabling call centers working in multiple shifts.
- Unified agent desktop client for interaction management from a single client with powerful telecommuting functionality.
- Easily view queue and group statistics to manage their activities and transactions without requiring supervisor intervention.
- View complete details of interactions in queue.
- Enter auxiliary and wrap codes to mark calls or inform supervisors of their availability.
- Agents can easily route calls to their personal queues

Advanced Functionality

Outbound Dialer

ShoreTel Enterprise Contact Center has a sophisticated yet simple outbound dialer that can be used for campaigns such as collections, customer follow-throughs or compliance. The ShoreTel outbound dialer provides a versatile solution to meet the needs of your preview and progressive campaigns.

Interactive Voice Response (IVR)

ShoreTel Enterprise Contact Center has a built in IVR engine that can also be used as a standalone application for customers who choose to help themselves. It is built on an easy to use, scalable framework supported by an easy yet powerful scripting engine.

Applications

are designed through a graphical script editor, allowing you to leverage your database investments, provide a consistent customer experience and improve your productivity.

Standard features to interface with customers includes collecting customer information through DTMF and playing prompts in multiple languages. Customer information can be processed through a workflow to automate decision making. The system automatically plays back information to customers including digits, dates, currencies or numbers. The IVR application integrates with any standard database through ODBC connectors. Standard SQL queries as well as stored procedure calls are supported. All the information retrieved can be displayed to agents when the call is transferred.

Call Routing and Control

The contact center solution must be able to support the following call routing capabilities:

- Groups
- Agent skills / skill preferences
- Source/destination routing
- Caller input and/or database lookup
- Real-time conditions and/or performance criteria

Response: The proposed ShoreTel solution meets these requirements.

The solution must also be capable of supporting remote or mobile agents and supervisors as an integrated part of the solution, including for routing. Proposer should describe the routing features proposed, as well as which routing features are optional based on the requirements above. Proposer should also describe how multi-media features are integrated into the routing scheme (i.e. Is there one routing engine for all media? How do various media queue? How is media integrated into the contact center, etc.).

Response: The proposed ShoreTel solution meets these requirements. Remote agents are supported from any location, using either hot-desking to an IP Phone, softphone, Extension Assignment (where any dialable number like a cell phone or home analog line can be used),

and/or ShoreTel Mobility.

Interaction routing determines how the customer interacts with your contact center. Interaction (telephony, e-mail, chat) routing ranges from the most basic configuration—a single phone number (or an e-mail address or web chat box) that connects customers to the first available agent—to a complex system that relies on a sophisticated rules engine to distribute interactions according to customer requirements and best-fit agent criteria. Highly trained agents are of little value if you cannot connect them to customers who need information quickly.

All ShoreTel Contact Center Solutions can be customized to offer basic interaction routing features, including queuing for all interactions and menu interactions, music on hold, and schedules for telephony. For example, if a call arrives when all agents are unavailable, it is placed in a queue of callers awaiting delivery to the next available agent who can handle the call. Basic call routing allows caller interaction through menus that callers can use to select a service. Once the service is identified, the system can then route the call to a group of agents best equipped to handle the caller's needs. Basic call routing supports music on hold and recorded announcements that let your callers know they have not been forgotten. Recorded messages can be customized with additional "comfort" information including their place in line or estimated wait time.

Advanced interaction routing techniques built into ECC let you get maximum value from your knowledge resources and deliver the highest possible levels of customer satisfaction. The advanced interaction routing features built into ECC include service-level routing, skills-based routing, identity routing, domain routing, day and date routing, outbound call routing, and IVR scripting (for telephony). ECC also allows agents to have their personal queues, which can be used for advanced routing scenarios, managing higher priority interaction, calls, and, scheduling callbacks to their own queues etc.

Agent Desktop Client Requirements

The City of Hollywood requires an integrated agent desktop client for contact handling. Agents must be able to sign on at different workstation locations while retaining customized settings.

Standard features of the agent desktop application must include:

- Softphone telephony features.
- The ability to view an individual or contact center performance statistics.
- Presence and collaboration capabilities, such as team lists, other agents' status, directory functionalities, etc.

Proposer should confirm compliance and describe agent desktop capabilities, including the specifications for a customer-provided PC.

Response: The proposed ShoreTel solution meets these requirements. Agent desktop minimum specs are listed below:

Agent PC with ECC and Communicator:

- Vista/Windows 7/ Windows 8 Operating System
- CPU: Pentium IV 2.0 GHz
- Available Memory: 1 G
- Hard Disk Space: 1 G
- CD Optional
- First Network Adapter: 10/100 Mb

Multi-media Agent Features

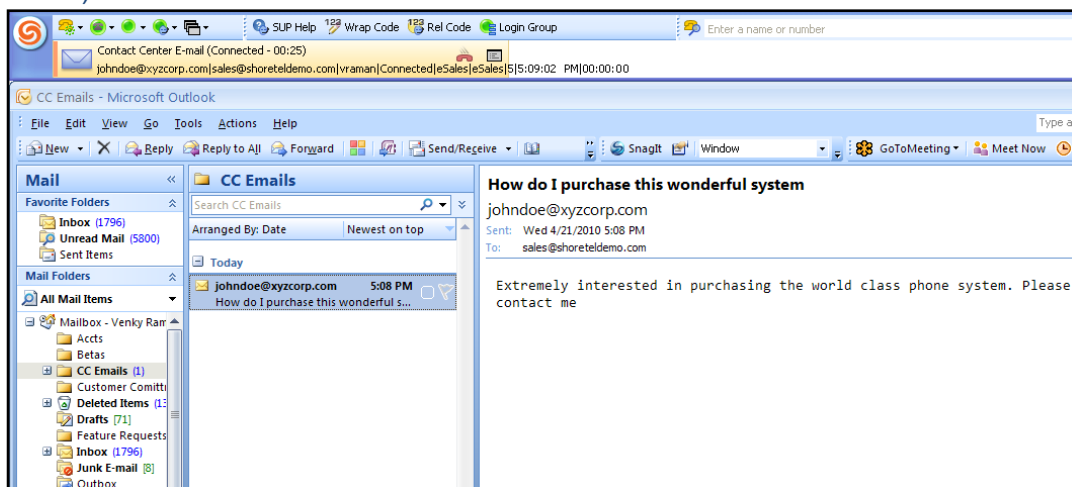
The agent desktop should be able to support multi-media contacts. Proposer should describe how multimedia is integrated into the agent desktop and what features are available.

Response: The proposed ShoreTel solution meets these requirements.

ShoreTel ECC provides a multi-media solution including voice (inbound and outbound), e-mail, chat, and fax (attached to an e-mail), SMS and anything that can be delivered via email including Social Media. These interactions are intelligently routed by the same routing solution, reported on by all of the ShoreTel ECC reporting tools, and delivered to the best skilled representative to handle that type of interaction.

The email intelligent routing feature of ECC integrates to standard mail servers using IMAP (inbound) and SMTP (outbound) protocols. Mailboxes are defined on the enterprise mail server (e.g., Exchange Server, G-Mail, Hotmail, etc). Based on rules configured by the ECC administrator, ECC periodically downloads email messages to an equivalent store on the ECC server. These e-mail messages can be downloaded from one or many e-mail servers.

Agents answer, reply, and terminate email messages from the ShoreTel Communicator using the same icons they use to answer voice and chat contacts. Email messages must be processed using a standard email client, such as Outlook or Outlook Express (see below).



Web Chat is out-of-the-box functionality within the ShoreTel ECC Solution, providing a Universal Queue for all media types, such as: Voice Calls, Web Chat, Web Callback, Email, Fax, etc. The ShoreTel ECC can also define which agents receive what type of contact communication, allowing Supervisors and Managers to control the agent ECC work environment within the Universal Queue. The chat interface is customizable, allowing clients to “brand” the user chat experience, by client or by queue. Multiple chats and emails per agent is also permitted. Email contacts are displayed in the Queue Calls window, of the Agent Toolbar, just as any voice and chat contact. As with voice calls, the calling party’s contact information may be displayed. For

email contacts the contact information would include the customer's email address. Other call profile variables may be displayed, such as media type, priority, place in queue, etc

Supervisor Desktop Client

Supervisor Desktop Client Requirements

The City of Hollywood requires an integrated supervisor desktop client for managing the contact center. The supervisor desktop application must provide the ability to view performance in summary and detailed levels, real-time and historical.

As standard features, supervisors must also be able to:

- Create and access real-time and historical reports from a single interface across the local and wide area networks.
- Adjust the amount of detail provided and the order in which information is presented in standard report templates.
- Define alarms and alerts for monitoring contact center performance.
- Re-queue calls in response to real-time conditions, reserve calls for specific agents and change priority of multiple calls simultaneously.

Proposer should confirm compliance and describe supervisor desktop capabilities, including the specifications for a customer-provided PC.

Response: The proposed ShoreTel solution meets these requirements, with the following caveat: ShoreTel's advanced scripting logic and overflow/interflow routing features are designed to allow the contact center to determine call flows automatically based on your business logic. This prevents the supervisor from needing to manually "move" calls between queues or to specific agents. During the implementation discovery phase of this project, we would determine what business logic would dictate the need for such manual intervention, and attempt to eliminate that need via contact center configuration. Supervisors are able to change agents' states (such as from a not-ready state to a ready state), and they can log agents into and out of various contact center groups.

The Agent Manager Software allows managers and supervisors to obtain statistical information concerning contact center activities. The information can be displayed in tables, forms, and graphic formats, providing a clear picture of what is going on in the contact center. The interface is color coded with thresholds that can be set for each service to make it easy for supervisors to track their agents.

The Agent Manager Software also allows supervisors to adjust their resources by adding or removing agents from groups. The Agent Manager Software displays real-time statistical and graphical data about contact center activity. Because this information is presented in real time, it allows a supervisor to manage his or her agents and react to changing situations. The data is continually updated based on two configurable settings: a display interval and a refresh rate. The display interval displays accumulated data for a specified interval, such as total calls answered in the last 15 minutes. By default, the application updates once a second, creating a sliding display interval, so that the time period changes each second. The refresh rate is the frequency of updates to displayed data. The refresh rate automatically adjusts to compensate for network latency.

Real-time status of the contact center is presented via reports configured to watch a specified group, agent, or other entity, as required by the supervisor. Supervisors may customize their own workspaces to include any of the various reports about agents, groups, super groups, etc., according to their needs and defined privileges. Each supervisor can save his or her

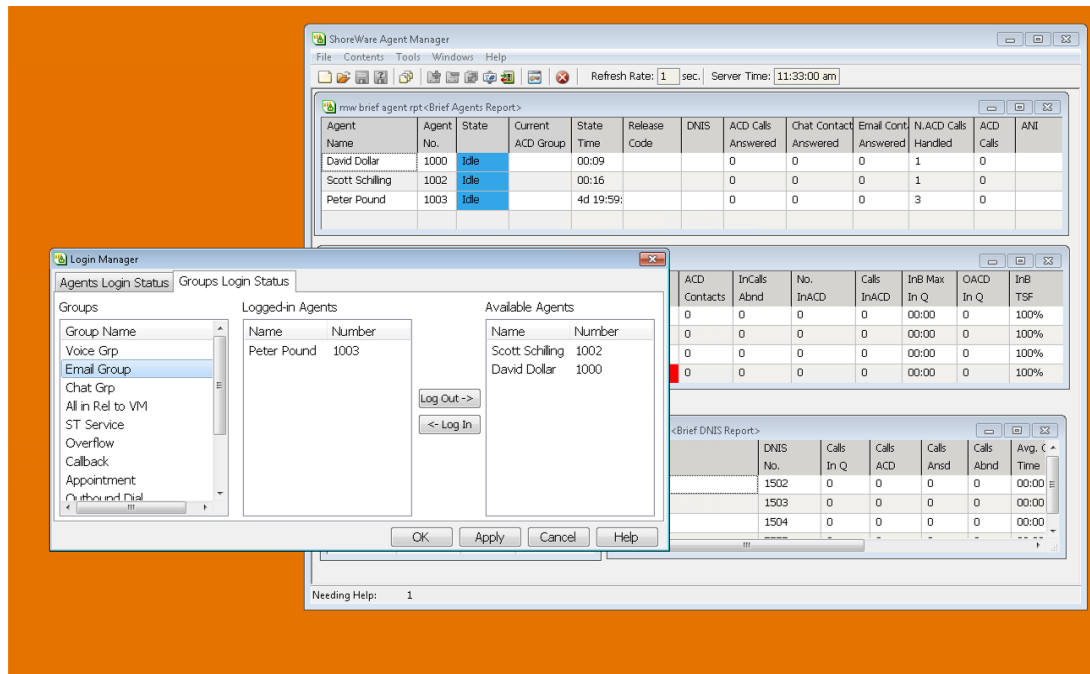
selected reports and screen layouts as a default workspace. Once saved, the supervisor will be returned to the same setting automatically each time he or she logs in:

Login Status Window

The Login Status Window allows you to monitor the agents and groups that are logged into the system. There you can transfer agents into or remove them from groups as needed to adjust resources. Note that you cannot log in an agent in from this window.

The Login Status Window can display either agents and their respective groups, or groups and their respective agents. The left arrow button is used to move an agent or group from an available state to a logged-in state. The right arrow button is used to move an agent or group from a logged-in state to an available state.

A Quick Search text box is available for each section of the window. Simply type one or more characters in the text box and the first closest match is highlighted in the window.

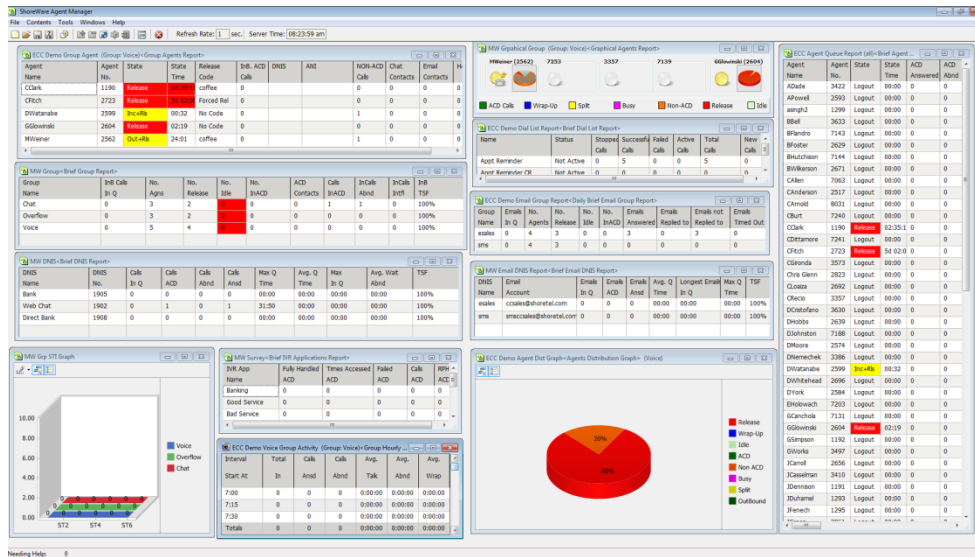


Supervisor Capabilities:

Advanced Real Time Dashboard: Supervisors get a real time dashboard of the call center and can react to conditions in the call center by bringing more agents or taking out agents from groups. For example:

- Read the pulse of your call center by getting visual and audible threshold alerts on critical conditions.
- React to higher call abandons or lower traffic by bringing agents in or taking them out of queues with simple clicks.
- Monitor whether agents are in a no-work mode (release) and see the code along with the duration of that state allowing them to closely monitor agent activity.

- Supervise agents in training closely by monitoring specific extensions visually and also by using silent monitor, barge in, and coach features.
- Track all media types: voice, email, chat, outbound campaigns, through a single reporting interface
- Compare real-time information with historical information to understand trends better and schedule agent availability accordingly.

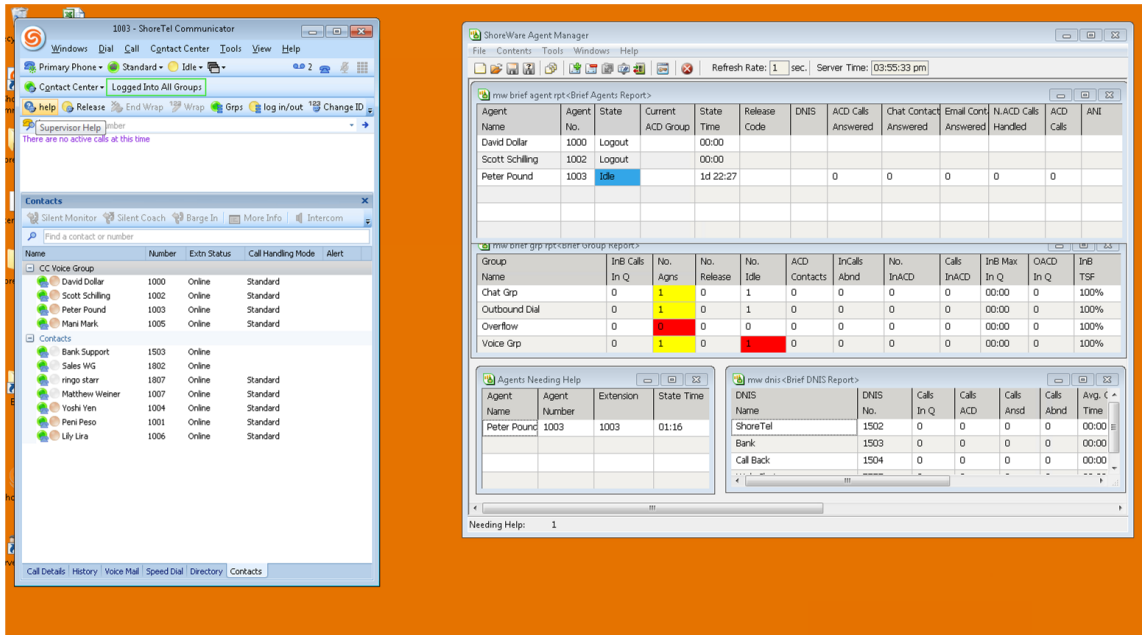


Example of "pop up" agent report showing one agent's multiple simultaneous interactions in real time.

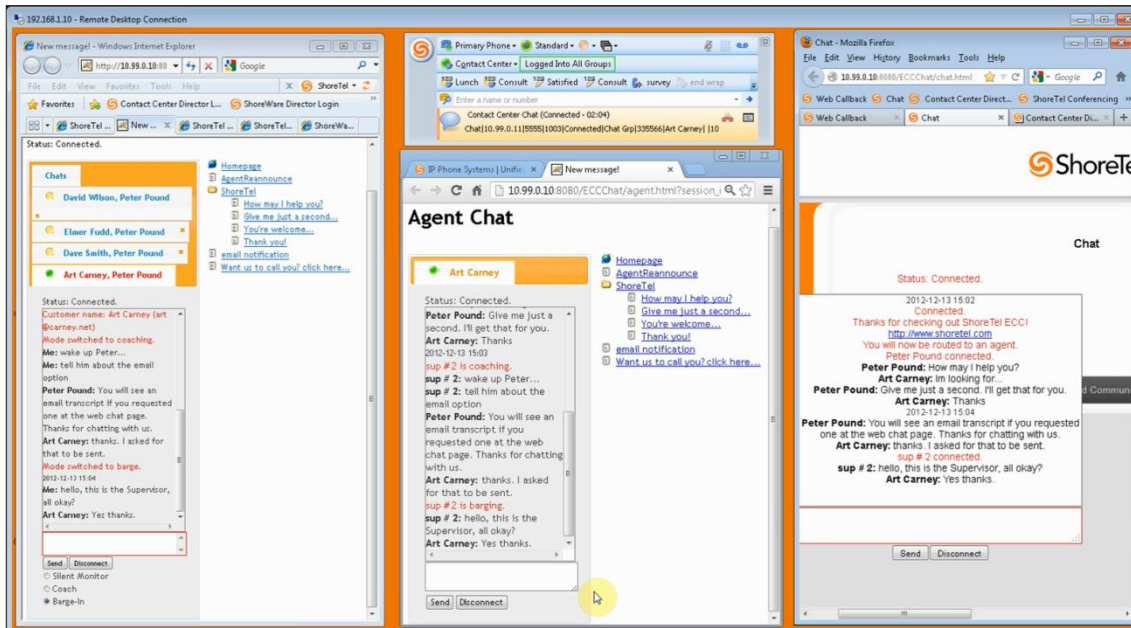
Interaction Type	State	State Time	Group	ANI	DNIS
Chat	ACD	04:17	Chat	10.0.4.83	1902
Chat	ACD	03:23	Chat	10.0.4.83	1902
Email	ACD	00:01	sms	<2016155	smssccsales

Example of "pop up" agent report showing one agent's multiple simultaneous interactions in real time.

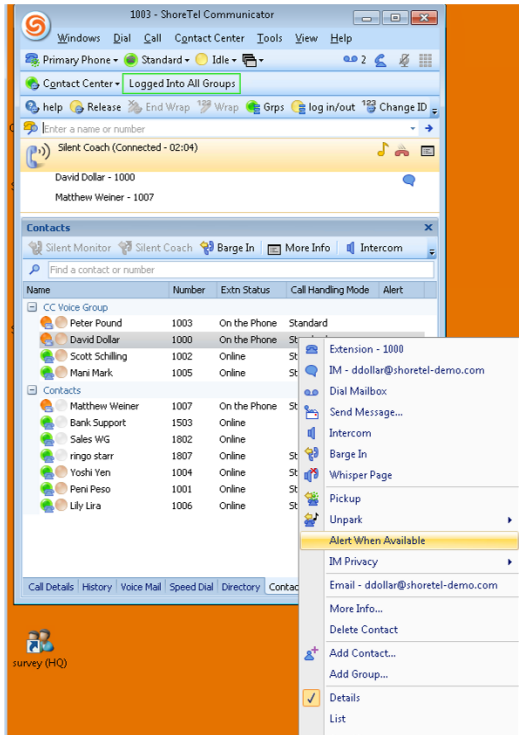
Agents can request help from the Supervisor. This is accomplished through Communicator and pops a visual alert for the Supervisor. It is also popped into a Real Time Report entitled "Agents Needing Help":



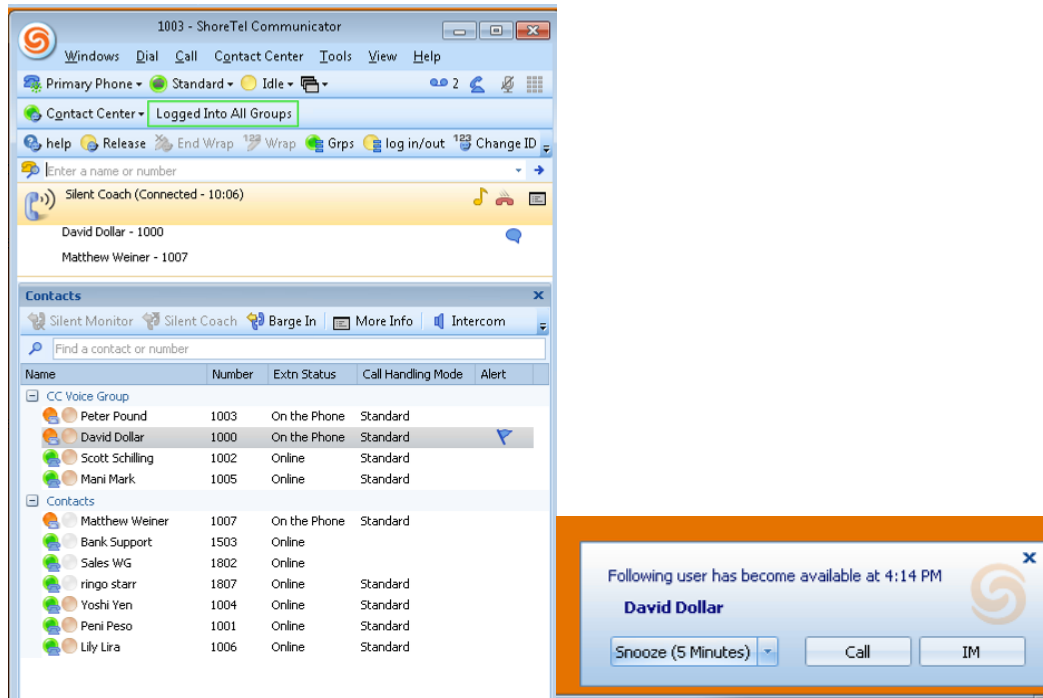
Supervisors have the exact same capability to Monitor/Coach/Barge on a chat as they do with a phone call. The Supervisors capabilities include being able to work several Agent Chats at once, retaining the chats in their browser if needed utilizing mouse over moves and radio buttons (circled) to work with agents. Below is an example of a Supervisor observing (left most browser); and the Agent interacting with a CC chat caller:



Supervisors can monitor/coach/barge calls, which is core PBX functionality is controlled through user groups and permissions:



A Supervisor could support active calls in the following manner: The Supervisor could be contacted via an IM indicating that an agent needed help, or the Agent could use the Help button as described above. Depending upon the business rules in place, the next step could likely be a continued chat alongside the call as well as being able to step up the support and go to a monitoring state or escalate to a coaching state as shown above. Beyond that a Barge can occur where the Supervisor is part of the call in a conference. At that point the Supervisor can take over the call by hanging up the agent or step out by hanging themselves up. An additional feature is the ability to have the supervisor notified when an agent is off their call ("Alert When Available" as seen in the above image) for follow-up communication:



The specs for the Supervisor PC are as follows:

- Vista/Windows 7/ Windows 8 Operating System
- CPU Dual Core 1.6 GHz
- Available Memory 1 G
- Hard Disk Space 2 G
- CD Optional
- First Network Adapter 10/100 Mb

Real-time Reporting

The supervisor desktop application must provide ability to view real-time performance in summary and detailed levels. Information displays must provide

agent, group and queue status, as well as active contact status. Supervisors must be able to monitor specific agents or groups, and view information for a user-specified period.

Proposer should confirm compliance and describe real-time reporting and monitoring capabilities.

Response: The proposed ShoreTel solution meets these requirements. Please see the response to the previous section for summary information on the Agent Dashboard real-time reporting capabilities.

Historical Reporting

The supervisor desktop application must provide access to historical reporting. Historical reports must cover agents, groups and queues (including abandoned and answered contacts). The system must be able to record call "events", agent "events" and their durations from the time a call enters the contact center system until it is disconnected.

Proposer should confirm compliance and provide a historical reporting overview, including a list of standard contact center reports, along with a brief description of their content. Describe how reports are scheduled and run. Proposer should also describe any customization options available.

Response: The proposed ShoreTel solution meets these requirements. Historical reports are fully customizable and can be scheduled and distributed automatically.

Comprehensive historical reports: Get advanced statistics of all the activity in your call center without requiring database programmers or third-party reporting applications. This gives you the power to understand your customers, interaction traffic, agent activities and queue performance.

- Get flexible reports by date or by interval with built in "Help".
- Enjoy the convenience of reports being delivered to the person and media of choice.
- Schedule reports to be generated automatically to be saved in various formats (csv, xls, pdf, htm etc) and also be automatically emailed.
- Monitor how your queue or group is performing using typical KPIs.
- See detailed agent activity for billing purposes or for performance evaluations.
- Analyze the reasons for your customer calls by doing reports on post-call activity or wrap codes.
- Measure the effectiveness of outbound campaign by getting call-by-call details on each outbound call made by the system.

While monitoring applications deliver the real-time information a supervisor needs to manage day-to-day operations, the long-term success of the contact center depends on your ability to deliver consistent performance over time (historically). The ShoreTel ECC offers reporting features that help you track the performance of your operations over a period of hours, days, weeks, months, and/or even years. The ShoreTel Contact Center Reporting (SCCR) historical reporting tool presents historical data in report windows. The historical reports are generated from templates. Users can use the templates "as is", or modify them to create the custom report that meets their specific needs. Modification of the reports includes; modifying column headings, text, font and color, moving columns around (arranging the order), and adding and removing columns based on the need of the contact center. The reports can be generated in tabular or graphical format. SCCR has assignable security levels for reports, allowing the user to have both private reports, your eyes only, and public reports that can be share with other administrators.

SCCR analytical tools including sorting by columns, filtering data, and defining non-continuous period reports allow a comprehensive and flexible environment for generating sophisticated reports with no prerequisite knowledge of database tables, SQL queries, or programming languages. An integrated scheduler allows automated reports to be printed at required times. Once a report is generated it can printed or saved to a file in a variety of external formats including HTML, TXT, CSV, PDF and others. Reports can also be automatically emailed to one or more people. This advanced reporting gives the user a wide range of pre-defined reports that can be used "as is," or modified to create a custom report

that meets specific contact center needs. An extensive collection of report templates is available for generating data views of contact center performance that extend beyond basic call handling and queue metrics. In addition to an extensive number of report templates, SCCR provides up to 600 different statistics (group reports can have up to 600 statistics that can be added individually to a template) that can be added to any report (based on the type of report).

Predefined Templates

The following predefined templates are available for generating historical reports:

- BP1.1 WFM- Blue Pumpkin Report
- RA1.1 Agent Performance Report by Interval
- RA1.2 Agent Performance Report by Date
- RA2.1 Group Agents Performance Report
- RA3.1 Agent Activity Log Report
- RG1.1 Group Performance Report by Interval
- RG1.2 Group Performance Report by Date
- RG2.1 Group Staffing Report by Interval
- RG2.2 Group Staffing Report by Date
- RG3.1 ACD Calls Distribution by Interval
- RG3.2 ACD Calls Distribution by Date
- RG4.1 Abandoned Calls Analysis by Interval
- RG4.2 Abandoned Calls Analysis by Date
- RG5.1 Detailed Group Wrap-Up Report by Interval
- RG5.2 Detailed Group Wrap-Up Report by Date
- RG6.1 Group Wrap-Up Code Report
- RG7.1 Abandoned Calls Log
- RQ1.1 Agent Queue Report by Interval
- RQ1.2 Agent Queue Report by Date
- RS2.1 ACD Calls Distribution by Interval
- RS2.2 ACD Calls Distribution by Date
- RS3.1 Abandoned Calls Analysis by Interval
- RS3.2 Abandoned Calls Analysis by Date

Blank Templates

Contact Center provides the following blank templates for generating historical reports:

- 1.1 Group by Interval
- 1.2 Group by Date
- 3.1 Agent by Interval
- 3.2 Agent by Date
- 3.3 Group Agent by Interval
- 3.4 Group Agent by Date
- 3.7 Agent Groups by Interval
- 3.8 Agent Groups by Date
- 3.9 Agent Calls Distribution by Agent
- 4.2 Group Agents by Date
- 6.1 Detailed Wrap-Up Code Report by Interval
- 6.2 Detailed Wrap-Up Code Report by Date
- 6.3 Wrap-Up Code Report By Interval

- 6.4 Wrap-Up Code Report By Date.
- 6.5 Group Wrap-Up Code Report By Interval.
- 6.6 Group Wrap-Up Code Report By Date.
- 6.7 Agent Wrap-Up Code Report By Interval.
- 6.8 Agent Wrap-Up Code Report By Date.
- 6.9 Agent Group Wrap-Up Code Report By Interval.
- 6.10 Agent Group Wrap-Up Code Report By Date.
- 6.11 Agent Queue Wrap-Up Code Report By Interval.
- 6.12 Agent Queue Wrap-Up Code Report By Date.
- 7.1 Wrap-Up
- 8.1 Agent Queue by Interval
- 8.2 Agent Queue by Date
- 12.1 DNIS by Interval
- 12.2 DNIS by Date
- 13.1 Group DNIS by Interval
- 13.2 Group DNIS by Date
- 13.3 DNIS Call Distribution by ACD Group
- 13.4 DNIS Call Distribution by DNIS
- 14.1 Agent DNIS by Interval
- 14.2 Agent DNIS by Date
- 16.2 ANI Distribution by Date
- 16.5 ANI Distribution by Period
- 17.1 IVR Applications Reports by Interval
- 17.2 IVR Applications Reports by Date
- 18.1 IVR Ports Groups Reports by Interval
- 18.2 IVR Ports Groups Reports by Date
- 19.2 Outbound Calls Report by Date
- 19.3 Dial List by Date
- 19.4 Dial List Calls by Date
- 19.6 Dial List Calls Status by Date
- 21.1 Release Codes by Interval
- 21.2 Release Codes by Date
- 21.3 Group Release Codes by Interval
- 21.4 Group Release Codes by Date
- 21.5 Agent Release Codes by Interval
- 21.6 Agent Release Codes by Date
- 21.7 Agent Group Release Codes by Interval
- 21.8 Agent Group Release Codes by Date
- 21.10 Agents Release Codes by Date

Contact Center Reports provides completely customizable templates. Each report has a comprehensive list of metrics which can be inserted into a report template. A group report, for instance, has nearly 500 distinct metrics from which to choose. Once a bespoke report has been created, it may be saved as a template, generated, set to auto generate on a pre-defined schedule, or a combination of these:

1.2 Group by Date

08/21/2009 Contact Center Reports 14:51

1.2 Group By Date Report

Date From :
Time From :
Group Name :
Requested By :
Date

Report Type
☒ Table Report
☐ Graphical Report

Add New Column

323 Cmltv wait time before answered of chat contacts (hh:mm:ss).
 324 Cmltv wait time before answered of mail contacts (hh:mm:ss).
 325 Cmltv wait time in queue of abandoned calls (hh:mm:ss).
 326 Cmltv wait time in queue of all calls (hh:mm:ss).
 327 Cmltv wait time in queue of calls requested callback (hh:mm:ss).
 328 Cmltv wait time in queue of outbound ACD calls (hh:mm:ss).
 329 Cmltv wait time of abandoned chat contacts (hh:mm:ss).
 330 Cmltv wait time of all chat contacts (hh:mm:ss).
 331 Cmltv wait time of all mail contacts (hh:mm:ss).
 332 Cmltv wait time of failed outbound ACD calls (hh:mm:ss).
 333 Cmltv wait time of pending outbound ACD calls (hh:mm:ss).
 334 Cmltv wait time of successful outbound ACD calls (hh:mm:ss).
 335 Cmltv wrap-up time of ACD calls (hh:mm:ss).
 336 Cmltv wrap-up time of chat contacts. (hh:mm:ss).
 337 Cmltv wrap-up time of mail contacts. (hh:mm:ss).

Quick Search

Description:
 Percentage of ACD calls abandoned in the first STI, out of abandoned calls.

Add Column Help Close

ECC also gives the user the ability to create custom formulas. These can be percentage, time or activity based across all our 13 reporting entities (Agent, DNIS, Group etc). Included is a verification option to test formulas. Addition, subtraction, Multiplication, Division and parenth functions are all available. Formulas created in this tool are written to the db and passed forward in upgrades as well.

ECC can export historical data to HTML, PDF, XLS, SQL, and CSV which lends it to extensive customization options. ECC can also create custom formulas for its reports, as well as, it also offers CCAD and CCIV applications:

The minimum interval for ECC Historical Reporting is 15 minutes. We can therefore deliver any of our reports as often as every 15 minutes. You have the ability to control when reports are sent including the ability to “not send reports on “non-working days”:

Historical Report output can be scheduled by need and by user. Options for output of report data include the ability to print directly to a file; deliver report to an email; reports can be scheduled; reports can be PRIVATE or PUBLIC. We can automate delivery of reports to shares where they can be accessed by any number of applications including web servers and data mining applications. We can email with ease and also facilitate “rolling” reports to a share that a supervisor could utilize directly from a toolbar:

Supervisor Multi-media Features

The supervisor desktop should be able to support multi-media contacts. Proposer should describe how multimedia is integrated into the supervisor desktop including what features are available for real-time and historical reporting. Indicate which multimedia options have been proposed.

Response: All the real-time and historical reporting capabilities described above capture information on all media types, including multi-media email and web chat. Comprehensive “fully blended” agent reports are available, both in real-time and historical.

Contact Center Management

The contact center solution must provide a single, easy-to-use, GUI-based desktop management tool for system administration and contact center managers. The solution must provide:

- Visual multi-media call flow configuration tool.
- Ability to reconfigure call flows without taking application out of service.
- Ability to adjust configuration parameters based on real-time conditions (e.g., number of agents available for email, outbound dialing, and web collaboration, if appropriate).
- Ability to configure integrated message prompts, performance messages and digit collection.
- Configuration synchronization with associated communication platform.
- Real-time system reliability and IT monitoring.

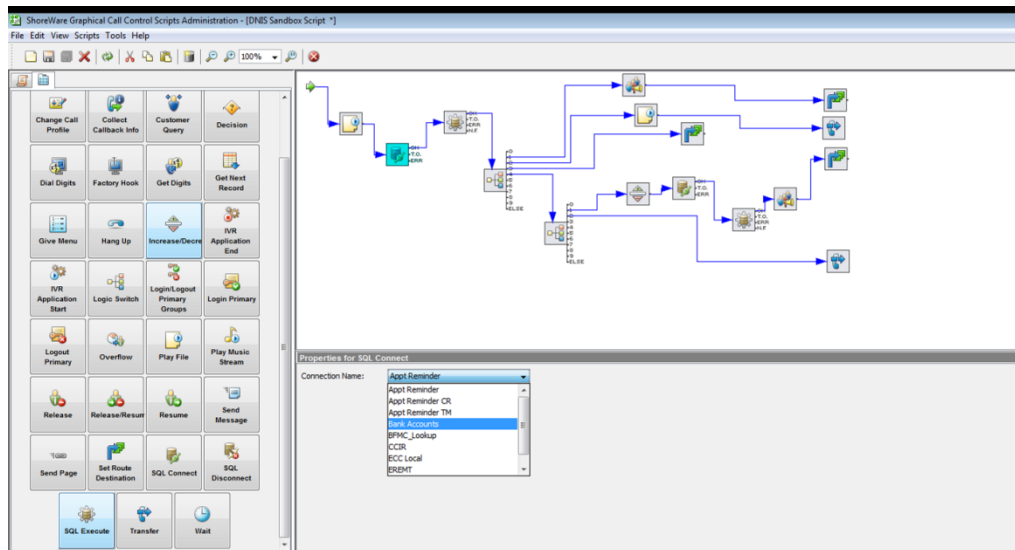
Proposer should confirm compliance and provide an overview of the system management tool including specifications for a customer-provided PC.

Response: The proposed ShoreTel solution meets these requirements. The PC specs are those of the Supervisor PC described above.

ECC is managed through an intuitive web based management interface that makes the administration and management of the ECC brilliantly simple.

The web management interface is supported on Internet Explorer, Safari and Firefox browsers. Contact Center Director makes it easy for administrators to search for records and keywords, copy configurations quickly. Advanced error checking and inline help further makes the administration simpler. Supervisors can bookmark the interface to show their frequently used elements in their favorites section. Quick navigation links also enable supervisors to go back and forth between different configuration entities.

A screenshot of our Graphical Call Control Scripting (GCCS) tool is below:



Contact Center Options

Optional features available must include, at a minimum:

- Automated announcements (including queue specific announcements such as estimated wait time), caller navigation menus and digit collection for incoming voice calls.
- Message-board support.
- Integration to third-party applications, such as IVR, CRM, workforce management applications and quality monitoring systems.
- Multi-site networking.

Proposer should state their ability to meet these optional requirements and provide a brief overview of options available.

Response: The proposed ShoreTel solution meets these optional requirements. All these features are standard features with ECC.

Contact Center Architecture

The proposed contact center solution must be modular, scalable and capable of supporting numerous configuration requirements (e.g., multi-media, remote agents, various CRM integrations, etc.).

Proposer should describe the software and hardware architecture of the proposed contact center solution, including integration with the softswitch, maximum capacities and any customer-provided servers or equipment required. Proposer should also include an overview of the licensing structure for the contact center solution and how to add application options and users.

The ShoreTel Enterprise Contact Center solution is designed to help organizations respond to the consumer-driven market place with a communications platform that puts business intelligence right where it's needed. By deploying ShoreTel Enterprise Contact Center, organizations quickly realize the benefits of a fully integrated business communications system. ShoreTel Enterprise Contact Center is a powerful call center solution that includes universal queuing and enterprise resource matching, and offers optimized call routing by service level, skill matching, priority, customer identity, schedules and caller location. It also supports email and Web contacts, and outbound calling as service options. Voicemail and fax can also be routed to individual agents through emails.

ShoreTel Enterprise Contact Center is designed to deliver a rapid return on investment by helping to reduce costs. For instance, agent screen pops with detailed customer information can dramatically help reduce interaction time. Agents have an unified desktop client which provides the option of seeing the presence status of experts outside the call center. Through the ShoreTel Communicator interface, they can manage multiple voice, chat and email sessions – improving first call resolution and overall agent utilization

Endpoints

In addition to other specifications set forth, the Proposer's proposed endpoints must meet the following minimum requirements:

- **Standards:** The SIP endpoints included as part of the proposal must conform to IETF SIP standards as well as other industry standards, as previously specified in the RFP. **Response: Comply**
- **Flexibility:** A variety of SIP phones must be available. The City of Hollywood requires the flexibility to choose from basic to high-end capability based on end user and/or location requirements. Any phone proposed must be supported across the entire enterprise. Additionally, all endpoints must be VoiP and SIP capable. Please describe clearly how a possible migration to SIP would be achieved on an endpoint if this endpoint does not currently have SIP capabilities. **Please see attached ShoreTel Endpoint Spec Sheet in the appendice**
- **Investment Protection:** All SIP endpoints must be capable of firmware/software downloads to support future requirements. Please describe how firmware updates to endpoints are done and define the level of support needed for this update. **All software updates are included at no charge while under a support program with ShoreTel/TeleSwitch**

- End User Feature Support: The SIP endpoints must provide support for the End User Features set forth in the table in section.

Response: The proposed ShoreTel solution meets these requirements

Proposer should confirm that the solution meets the minimum requirements set forth above. Proposer should clearly state any areas of non-compliance.

Response: The proposed ShoreTel solution meets these requirements

Endpoint Description:

The City of Hollywood requires availability of a variety of models (e.g., speaker/non-speaker, display/non-display, etc.). Proposer should provide a brief description, with pictures, of available SIP phones offered by the Proposer.

The proposal being presented to the City of Hollywood includes model 420, 480 and 485g endpoints

ShoreTel IP Phones

ShoreTel IP Phone 655

ShoreTel's most advanced telephone; the IP 655 provides 12-line appearances, a large backlit touch color display and haptic (vibrational) feedback. Advanced microphone technology delivers superb speakerphone capability for offices and small and midsize conference rooms when used with the optional extension microphone accessories.

ShoreTel IP Phone 565



ShoreTel's advanced telephone, the IP 565 provides six line appearances, color-lit line buttons for instant call recognition and identification, a rich backlit color display, and a Bluetooth interface that lets users connect with Bluetooth headset for hands-free calling.

ShoreTel IP Phone 560g



The phone of choice for telephony-intensive professionals and executive assistants who require Gigabit Ethernet connectivity at the desktop for data-intensive functions, the IP 560g builds on the IP 230g feature set with six line appearances and color-lit line buttons that provide instant call recognition and identification.

ShoreTel IP Phone 265



The ShoreTel IP Phone 265 is a six-line phone in a compact form factor with a crisp back-lit color display for knowledge workers with advanced requirements. It has eight feature keys and four soft keys for easy access to the rich ShoreTel feature set. A full duplex speakerphone and integrated headset jack are also standard.

ShoreTel IP Phone 230



Ideal for the knowledge worker who relies on telephone communications, the IP 230 delivers a wealth of features including three line appearances, eight function keys, four soft keys, and a headset jack.

ShoreTel IP Phone 230g



Ideal for the knowledge worker who relies on telephone communications and requires Gigabit Ethernet connectivity at the desktop for data-intensive functions. The IP 230g delivers a wealth of features including three line appearances, eight function keys, four soft keys, and a headset jack.

ShoreTel IP Phone 212k



Available in black or silver plastic, the IP 212k is ideal for branch offices and small businesses that require "key system" behavior from their phone system. The phone has two soft keys and twelve self-labeling programmable buttons that can be configured to meet the needs of the organization and its users. The phone has eight hard keys (transfer, conference, intercom, hold, voicemail options, directory and redial) and complete audio controls for the handset, speakerphone and headset. The IP 212k features a high-contrast display, oriented vertically to look and feel like a key system telephone.

ShoreTel IP Phone 115



The single-line IP 115 is a cost-effective telephone ideal for open areas, including lobbies, classrooms and dorm rooms. The IP 115 has six feature keys for common operations, a one-line display for caller ID, date and time, and a speakerphone for two-way hands-free communication. Like all ShoreTel IP phones, the IP 115 features an integrated Ethernet switch, allowing a network drop to be shared with a desktop PC.

ShoreTel IP Phone 110



The single-line IP 110 is a cost-effective telephone ideal for open areas including lobbies, classrooms and dorm rooms. The IP 110 has six feature keys for common operations, a one-line display for caller ID, date and time, and a speaker for one-way intercom. Like all ShoreTel IP phones, the IP 110 features an integrated Ethernet switch, allowing a network drop to be shared with a desktop PC.

ShoreTel IP Phone 420



The IP420 is a cost-effective telephone ideal for contact center, lobbies, classrooms and dorm rooms. The IP 420 has six feature keys for common operations, a two-line display for caller ID, date and time. Like all ShoreTel IP phones, the IP 420 features an integrated Ethernet switch, allowing a network drop to be shared with a desktop PC.

ShoreTel IP Phone 480/480G



The IP480 is ideal for high phone usage and professionals. The IP 480 has six feature keys for common operations includes a backlit mono screen, 8 line keys, expanded call history and visual voice mail. Like all ShoreTel IP phones, the IP 480 features an integrated 10/100 Ethernet switch, allowing a network drop to be shared with a desktop PC. The ShoreTel IP 480g features an integrated 10/100/1000 Ethernet switch.

ShoreTel IP Phone 485g



The IP485g is designed with the advanced professional in mind. The IP490g has a unique angular design and backlit display. The IP 485G has 6 feature keys for common operations includes a backlit mono screen, 8 line keys, expanded call history and visual voice mail and an integrated 10/100/1000 Ethernet switch, allowing a network drop to be shared with a desktop PC.

ShoreTel Dock



(iPhone not included)

The ShoreTel Dock is the first and only business-grade device that transforms the Apple® iPad® and iPhone® into desk phones for the mobile generation. It fuses together what users like about their desk phones with the convenience of their mobile devices. It is designed from the ground up to support both the iPhone and iPad and includes an articulating arm that allows users to rotate their iPad into landscape orientation if desired. It is designed to support both Bluetooth connectivity and direct connectivity through the Apple 30-pin or Lightning connector to deliver the best audio quality possible while charging the mobile device.

ShoreTel IP Phone 930D



The ShoreTel IP Phone 930D solution is a state-of-the-art DECT (Digital Enhanced Cordless Telecommunications) system that seamlessly adds wireless handsets to any ShoreTel installation running ShoreTel 14 or later software. Ideally suited for users looking for a full telephony feature set along with in-building roaming capabilities, the IP930D allows users to step away from their desks without losing the ability to manage incoming inquiries or monitor shared extensions. Easy to deploy and use, the IP930D system offers a handset display that emulates the user interface of the ShoreTel IP Phone 230 models, making it familiar for many users.

ShoreTel IP Phone BB24



The ShoreTel IP Phone BB24 programmable button box provides operators and assistants with at-a-glance presence information and fast, one-button feature access. The 24 buttons can be customized to suit the needs of different users. Self-labeling keys eliminate paper labels, saving time while ensuring the accuracy of configuration. The only IP-based device on the market, the BB24 includes an Ethernet switch and provides PoE power forwarding for one downstream device. Up to four devices can be associated with an IP Phone.

QoS Requirements

As previously specified, the Proposer's solution (including SIP phones) must support industry standard QoS requirements. Proposer should describe standards-based support, including:

Plug & play registration capabilities.

How VLAN segmentation and prioritization of desktop PC and VoIP traffic is accomplished using the phone's Ethernet switch and a single data cable to the wiring closet, including how the SIP phone places itself in the correct Voice VLAN.

Support for Layer 3 QoS based on the RFC 2474 standard for DiffServ. Explain if phones support more than one DiffServ code point.

Support for LLDP-Med (Link Layer Discovery Protocol-Media Endpoint Discovery) for simplification of auto-configuration and network management.

The ShoreTel system requires a switched environment, with static IP addresses for each ShoreGear Switch, and the ShoreWare Server, although the system can operate in a DHCP environment. IP phones may be addressed via DHCP or static, and utilize a switched port at the desktop that may be shared with the PC. QoS needs to also taken into consideration to help ensure audio quality. Four primary items need to be reviewed.

- [L2/L3 Prioritization using 802.1p and DiffServ/ToS](#)
- [Switches should be manageable](#)
- [VLAN 802.1q should be support in the network equipment.](#)
- [Rate shaping is not required but is good to have should one need to set bandwidth allocation.](#)

The ShoreTel server provides the IP phones with the latest application software and the configuration information that enables the IP phone to be automatically added to the ShoreTel system. The ShoreTel server's address must be provided to the phone as a vendor-specific DHCP option.

ShorePhone-IP110/115/212k/230/420/480/480g/485g/560/560g/655 are preconfigured to look for the ShoreTel server's address to be specified as Vendor Specific DHCP option 156. If this option is not available, the ShoreTel IP phones will use option 66.

The phones are automatically configured by the ShoreTel system and made available for user assignment. The benefits of this feature are the elimination of manual configuration of IP phones. The time saved on configuration, leads to tremendous reductions in labor costs and improved user experience.

When IP Phones are used, power is supplied to the phone via powered Ethernet switches, inline power modules, or wall power. ShoreTel IP phones support the loop powering standard 802.3af.

The system automatically detects the presence of IP phones when the IP phone first identifies itself to the network. The phones are automatically configured by the ShoreTel system and made available for user assignment.

Power Requirements

The City Of Hollywood requires that all SIP phones conform to IEEE 802.3af Power over Ethernet (PoE) standards. Proposer should confirm compliance and provide information on any attributes of the SIP phones that can assist the City of Hollywood in saving on energy costs. [Comply](#)

Acoustic Requirements

All SIP speakerphone models proposed must be full duplex. Additionally, all SIP phones should support the G.722 wideband codec, silence suppression (VAD) and echo cancellation to ensure the highest voice quality. Proposer should confirm compliance to these minimum requirements. [All endpoints with the exception of the wireless Dect model phone meet the full duplex and G.722 requirements.](#)

Applications Support Requirements

Proposer should offer SIP phone models that support integrated application support for LDAP directories, a customized phonebook, call log and open standards customizable application download via XML, JAVA, HTML and WML. Proposer should confirm which models support these capabilities and describe integrated functionality. [The ShoreTel 655, 560g and 265 currently support XML with the API's available today. The 400 series hardware will support XML with the appropriate API's at a later date.](#)

Add-on Functionality

Proposer should offer SIP phone models that support add-on adapters or modules to expand the phone's functionality (e.g., additional buttons, etc.). Describe adapters and modules available. The 200 series phones have the ability to have a button box added however this is not available on the 400 series phones at the current release of software. However most customers use the Personal/Professional etc Access Licenses to see detailed presence of all users throughout all locations.

Additional SIP Phone Attributes

Proposer should describe the attributes, other than those detailed above, that distinguish your SIP phones, including any planned enhancements to the SIP phones that may be of interest to The City of Hollywood, and expected timeframes for release. Additionally the Proposer should indicate the end date of manufacturer endpoint proposed. Then enhanced quality of the ShoreTel endpoint speakphones sets the endpoint apart from it's competition. Also the ability to connect a Plantronics headset to any of the endpoints with no additional equipment. The 400 series phones have been out for a little over a year meeting the 7-10 year support, but another great advantage to being under a current support agreement is that even if a switch or endpoint is no longer available it will be replaced with the current comparable replacement at no cost.

SIP Soft Phones

The City Of Hollywood requires a SIP soft phone for users. SIP soft phone capabilities must meet the following minimum requirements:

- Customizable graphical user interface (GUI)
- Call control features (e.g., hold, transfer, MWI, etc.)
- Dialing via the keypad, address books, call lists, using drag/drop or copy/paste
- LDAP integration
- Call lists (missed calls, received calls, attempted calls)
- Post-connect DTMF dialing
- Access to online help
- Video Support

The Personal Access License provide all the above which is included with all extension licenses with the exception of video. The Professional Access License (MSRP \$80 one time charge) includes all of the above as well as point to point video and soft phone. However with the Personal Access License the ability to have call control for the users desk phone on their PC is included. The soft phone will allow a user to have their computer as their "phone".

Proposer should confirm compliance with the requirements and describe soft client capabilities, including but not limited to mobility, call handling features and video support. Provide graphics, where applicable, depicting the GUI interface. Also, provide

the minimum customer-provided PC requirements for supporting the SIP soft phone.

Agent PC with ECC and Communicator:

- Vista/Windows 7/ Windows 8 Operating System
- CPU: Pentium IV 2.0 GHz
- Available Memory: 1 G
- Hard Disk Space: 1 G
- CD Optional
- First Network Adapter: 10/100 Mb

Analog Devices

The City of Hollywood intends to reuse existing analog devices (e.g., fax, analog phones, etc.) Proposer should confirm that the proposed configuration has been sized to support the required analog devices and describe how the analog phones connect to the system.

The proposed solution was based on the counts provided in the RFP per location. Each ShoreGear Appliance has the ability to connect both FXO and FXS ports. However based on the number of FXS devices the ShoreGear 24A was selected for all the locations which provides the ability to have 24 FXS devices connected to each appliance. TeleSwitch would also recommend moving forward looking into a Fax Server solution that would reduce the overall operating costs of the fax machines over time and would allow you to connect the Fax Server to the ShoreTel UC solution using SIP licenses rather than needing to have the physical analog connection to an appliance.

Other Devices

Proposer should describe other SIP devices available from the Proposer that support end users (e.g., wireless handsets not requiring adjunct wireless system, PDAs, etc.).



Ideal for the receptionists, retail store staff, facilities and warehouse managers needing in-building mobility, the IP 930D delivers a comparable feature set to the IP230 in a cordless phone, including three line appearances, four function keys, three soft keys, and a 2.5 mm headset jack.

One Base supports up to four handsets, and a single site or location can support up to a maximum of 40 handsets in the USA and Canada,

Financial Requirements

Payment Options

Proposer shall offer methods of payment to include leasing options. These options must encompass hardware, software (major and minor releases) and maintenance cost for the life of the lease.

Payment Schedule

Proposer must include payment schedules available with the proposed leasing options.

Cash, and leasing options (FMV & Dollar Buyout) for a 72 month term has been included in the pricing tab

FINANCING

The City of Hollywood currently has a leasing agreement with its telephony provider and we are in the seventh year of a ten year leasing and maintenance structure. This agreement offers the option of a dollar buyout upon completion of the leasing terms. The proposal must be able to provide options of a buyout of the existing lease whereby the City retains ownership of its current system. A creative option to repackage a new payment structure is desired, and this new payment must be equal to, or less than rates currently being paid by the City of Hollywood for leasing and annual maintenance of the current system.

Included as Attachment A is a copy of the payment schedule remaining on the lease of the current phone system and associated maintenance cost which shows the total average monthly payment currently incurred.

PROPOSAL EXECUTIVE SUMMARY

Briefly describe the key elements of your proposal. Highlight any major features, functions, or areas of support that differentiate your product or service offering from your competitors'.

TeleSwitch proposes a distributed UC solution that utilizes VoIP IPBX voice technology by ShoreTel. The solution encompasses UC, Enterprise Contact Center, Enterprise Mobility, IP audio and web conferencing and an integrated call recording solution. The proposed design will “drop into” the data network infrastructure, efficiently utilizing the LAN and WAN infrastructure to provide UC to all users. The design also incorporates the requirements set forth in this RFP for features and functionality essential to The City of Hollywood.

VENDOR FINANCIAL INFORMATION

Please provide copies of your Company's audited annual financial statements for the past three fiscal years, including all financial notes and disclosures that are attached to the audited financial report. If audited financial reports are not available, then please provide the company's unaudited financial reports signed and dated by an authorized Officer of the company who would be able to attest to the authenticity of the financial information under penalties of law. The unaudited financial report should include at the minimum, a complete and accurate: Balance Sheet, an Income and Expense Statement, a Cash Flow Statement and a Statement of Retained Earnings and all attached financial notes and disclosures for the fiscal year(s) as furnished. Please note that quarterly interim financial reports may be required for the current fiscal year as well. In addition, if your Company enters into an agreement with the City of Hollywood, the agreement will require your Company to provide copies of your annual audited or unaudited financial reports, including all attached financial notes and disclosures upon the City of Hollywood's written request.

Financial Statements are located in the “Company Information Tab”

VENDOR BACKGROUND

Provide a brief overview and history of your organization, highlighting specific experience in projects of this type. Key individual expertise should be set forth in detail.

Describe the organizational structure of your company and provide the following information:

- A corporate organizational chart, including subsidiaries, affiliates, list of the board of directors ***See attached Organizational Chart***
- The total number of W-2 employees-***30 employees***
- The turnover rate for the previous twelve months-***<5%***
- Brief overview of the type of product or services provided ***TeleSwitch is a 21 year old Solutions provider based in South Florida, who offers the ShoreTel Unified Communications solution. The ShoreTel ecosystem consists of the ShoreTel Unified Communications system, ShoreTel Enterprise Contact Center, ShoreTel Mobility, and ShoreTel Sky. Along with 3rd Party application partners like Lifesize, Polycom, Uptivity, Brocade, HP and many more.***

Reference Accounts

Please provide three current customers' contact information, each from a different company. If possible, include references where your company is providing services similar in size and scope to what is being requested in this RFP. Include the following for each reference:

- Company name
- Customer Contact with phone number and email address
- Brief overview of the type of product or services provided

City of Pompano Beach
100 West Atlantic Blvd.
Pompano Beach, Fl. 33060
IT Director, Eugene Zamoski
954-786-4537
eugenezamoski@copbfl.com

The City of Pompano Beach purchased a complete ShoreTel Unified Communication System including Contact Center on 5/27/2011. The solution was bundled with Brocade switching and Lifesize video. Pompano has a complex network and the installation included deploying ShoreTel over their Motorola Canopy. Teleswitch currently maintains and services The City of Pompano Beach.

City of South Miami
6130 Sunset Drive
South Miami, FL 33143
Director of Finance, Alfredo Riverol
ariverol@cityofsouthmiami.net

The City of South Miami purchased a complete ShoreTel Unified Communication Solution on 10/17/2012 and the installation was completed on 12/12/2012. Teleswitch currently maintains and services the system.

Kaufman Rossin & Company
2699 South Bayshore Drive Suite 300
Miami, FL 33123
Principal & CIO, Steve Berwick
305-858-5600
sberwick@kaufmanrossin.com

Kaufman Rossin and Company deployed a ShoreTel UC System on 11/23/2010. Teleswitch currently maintains and services the system. Teleswitch also provides Kaufman Rossin & Company with Managed Data Services, Disaster Recovery, Data Back-up and Restore and Video.

Ryder Systems
11690 NW 105 Street
Medley, FL 33178
Telecom Manager: Mark Waltrip
305-500-4500
Mark_waltrip@ryder.com

Ryder deployed its first ShoreTel in 8/8/2011 and is continuing to install ShoreTel in all of their Ryder Fleet and Service locations nationwide. Teleswitch also provides Ryder with Lifesize Video Conferencing.

City of Parkland
6600 University Drive
Parkland, FL 33067
IT Manager: Ned Franklin
954-757-4141
nfranklin@cityofparkland.org

The City of Parkland deployed ShoreTel originally with a different partner. Teleswitch took over the maintenance and expansion of the ShoreTel UC System in 2012. Teleswitch is also working with the City of Parkland to provide a new Disaster Recover/ Data Back-up and Restore Solution

Future Plans

Please set forth in detail a description of future company plans for growth and expansion. Such description should highlight any current discussions for the sale to or acquisition by any other company or any material change in ownership under consideration.

TeleSwitch is an established and growing Solutions provider based in Miami Florida and the largest ShoreTel VAR in South Florida. Currently TeleSwitch has no plans for any sale and/or Acquisitions. TeleSwitch is dedicated to providing world-class customer service and is proud to be continually recognized as one of ShoreTel's Global Leaders in Net Promoter Customer Satisfaction Surveys, with over 20,000 ShoreTel phones under support worldwide.

Proposed IP/SIP Communications System

-Provide a brief description of the proposed system. Include diagrams if desired.

[See the attached network diagram.](#)

The proposed solution offers both distributed and centralized telephony capabilities. Based on the City of Hollywood's robust self healing metropolitan area network, we have leveraged the ShoreTel Distributed design to place resources at mission critical POP's i.e. City Hall, Police Station, Waste Water etc. to enable resilient call processing and PSTN trunking, even in a network compromised states, such as WAN failures. For those locations that currently only have analog interfaces we have placed only IP phones, but could provide a distributed voice appliances for under \$1,100 per site to provide real-time call processing at the smaller edge locations. Currently all major POPs would provide redundant capacity in the event of a WAN failover, along with a resilient VMWare design including an N+1 appliance virtualized at the core, leveraging the City's self healing Metropolitan Area Network or MAN.

-What are the model names and version numbers of all relevant components of the proposed system?

ShoreTel 14.2 Software for Unified Communications, ECC 8 for Contact Center, VMWare Vsphere 8, Virtual Service Appliance, Virtual Voice Appliance, SG90 (Hardened Voice Appliance), SGT1k (Hardened Voice Appliance), IP420 (SIP Handset), IP480 (SIP Handset) and IP 485 (Color Display SIP Handset/Gigabit).

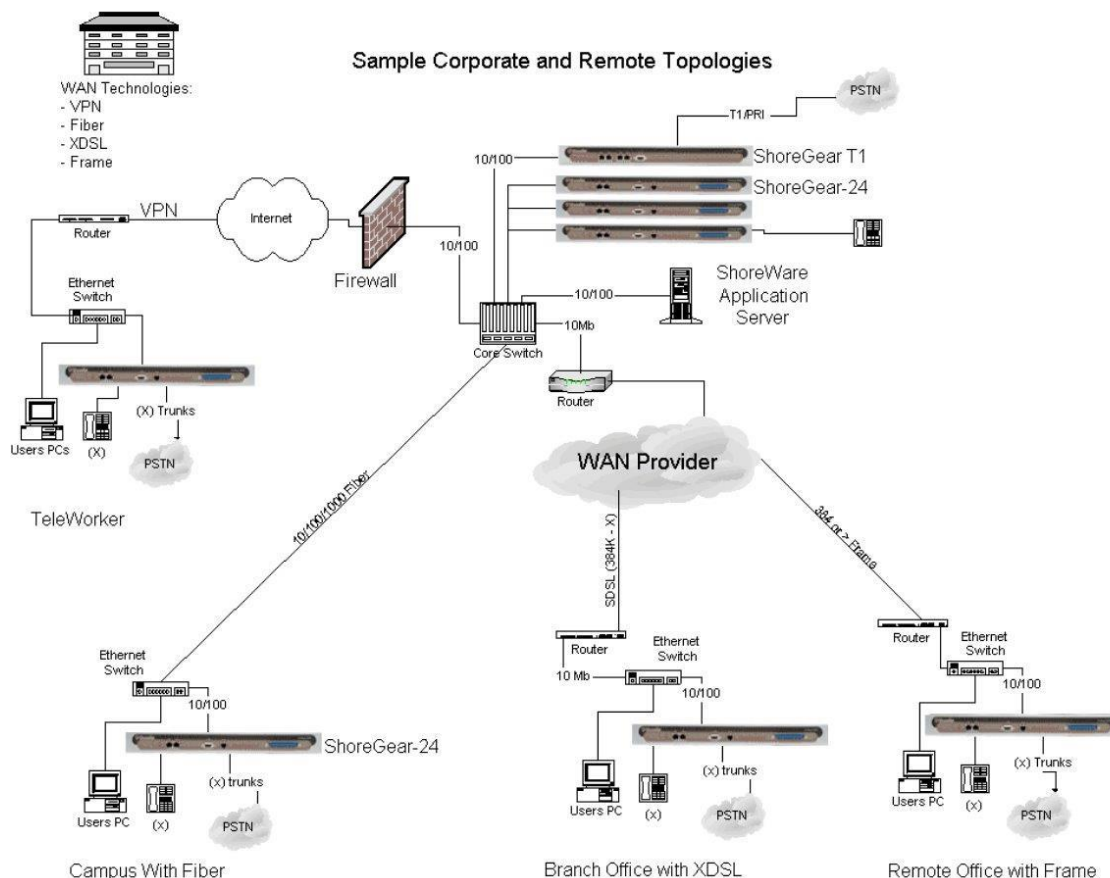
-Describe how your solution can be used to decrease time to market, improve customer responsiveness, or increase end-user productivity.

The ShoreTel brand is built on “Brilliantly Simple™” yet reliable architecture. Manufactured from the ground up as a fully distributed IP PBX, it has the scalability, usability and administrative functionality to simplify your deployment. Designed as a Hybrid Centralized and Distributed IP PBX, we can leverage the latest in Virtual technology to provide centralized functionality for things like Management, System Administration and Monitoring, Presence, Instant Messaging, Audio and Web Conferencing, and Contact Center. Then distribute call processing, PSTN trunking, Analog Termination via solid state appliances at the edge. By doing this we can reduce WAN load and time to market vastly. Having done a deployment like this for another large municipality here in South Florida, by deploying appliances we were able to reduce time to troubleshooting complicated City wide Motorola Canopy networks. Allowing us to install and certify at the edge, while working through complicated Canopy QoS.

IP/SIP Communications System Architecture

-Provide a brief description and discussion of your system architecture.

The ShoreTel IP voice communications system is a completely distributed, modular UC solution with no single point of failure that is layered on top of your IP network. At the heart of the system is the standards-based Distributed IP Voice Architecture (software switching) which uniquely distributes call handling intelligence to distributed voice switches, and voice services (voicemail and automated attendant) to distributed servers across multiple local or remote locations, rather than centralizing it at the network core. At the same time, the ShoreTel architecture enables a single system view and centralized management of the whole network. Distributed voice services allow IT managers to host key applications closer to large user groups and more effectively leverage WAN bandwidth. Thus, the Distributed IP Voice Architecture enables a customer to efficiently deploy a ShoreTel system across local and multiple remote sites, and still manage all distributed resources as a single, integrated IP voice communications system. This greatly simplifies such normally complex configuration and administration tasks as adds, moves, and changes – substantially lowering Total Cost of Ownership (TCO) and eliminating the IT manager's "pain points". The Distributed IP Voice Architecture gives companies a simple, "Lego-like" approach to building a distributed, easily scalable IP voice communications system that has no single point of failure. Following is a representation of a ShoreTel UC system in a multi-site networked enterprise



The ShoreGear Voice Switches are stand-alone, hardware devices that work in an isolated fashion but complement each other on a network to provide a seamless, single system image for all users. All ShoreGear switches run an embedded Operating System that runs from, non-volatile, flash memory and is supported by local DSPs and power supply. The ShoreGear voice switches run either VxWorks or Linux depending on the model. Additionally, all ShoreGear switches run a local copy of the ShoreWare® application that delivers dial-tone to all of its local users, supports the standard PBX features such as hold, conference, transfer, call park and call pick and contains the complete call routing table for all extensions, inbound/outbound call routing and trunk access. The

distributed, fully meshed architecture allows each of the voice switches to remain in contact with another, checking to make sure that each switch is “live” and functioning as expected. Each ShoreGear switch includes an auto-sensing 10/100 Ethernet connection and attaches directly to an industry-standard Ethernet switch.

Distributed IP Voice Architecture

As its name suggests, the Distributed IP Voice Architecture represents a radical departure from traditional PBX architecture. For example, PBX systems centralize most components into a single cabinet. These components include the TDM bus (the communications path for voice traffic within the PBX), line cards (connection points for each telephone extension), trunk cards (access to external PSTN), and proprietary processors (providing call set up and tear down). In addition, the PBX cabinet may accommodate add-on applications such as voice mail or automated attendant. Unfortunately, these pieces do not work well within a company's distributed IP network infrastructure – which means a separate, proprietary voice network is required. In contrast, ShoreTel's Distributed IP Voice Architecture literally “explodes” this centralized model by disassembling and distributing voice communications intelligence throughout the IP network.

With ShoreTel's Distributed IP Voice Architecture, a switched Ethernet network replaces the TDM bus. Likewise, ShoreGear IP voice switches, which can be distributed throughout the network, providing distributed call control, replace PBX line cards and plug-and-play connectivity for all users with IP access, regardless of their physical location. ShoreGear switches support standard analog phones, as well as ShoreTel IP phones and convert the analog signal to an IP packet for transmission over the IP network. Each switch employs a UNIX operating system to maintain network routing tables and manage real-time call setup and tear down between any two users, replacing the centralized circuit-switching matrix in the PBX. In addition, ShoreGear switches replace PBX trunk cards by providing analog, T-1, SIP or BRI trunk interfaces to the PSTN. The net result is that each ShoreGear IP voice switch functions like a self-contained PBX.

ShoreTel's Distributed IP Voice Architecture also allows software intelligence to be distributed throughout the network. For example, every user on the network is empowered with ShoreTel Communicator software and unified messaging through Microsoft Outlook. This combination of capabilities enables users to leverage the PC interface to manage every aspect of their voice and data communications. In addition to these core productivity applications, ShoreTel's Distributed IP Voice Architecture enables every user to participate in a distributed customer care process by supporting voice-enabled CRM on every desktop. To ensure optimum performance, the ShoreTel architecture allows application servers to be distributed wherever they are needed on the network. Finally, ShoreTel's Distributed IP Voice Architecture enables IT managers to have a pervasive view of the IP voice network through a single, web-based application for managing all sites, all users, and all voice applications.

This unique architectural approach to distributed voice communications is extremely synergistic with today's architecture for distributed data communications. In fact, ShoreTel's architecture enables voice and data to seamlessly merge and create an enterprise-class communications environment that improves business collaboration and productivity, while reducing unnecessary cost and complexity.

The ShoreTel system allows users to move from desk to desk, or office to office, without having to unplug and carry a phone with them. The ShoreTel Office Anywhere feature allows users anywhere on or off the network to sit at any phone (office, home, or mobile phone) and have that phone ring when their extension is dialed.

ShoreTel Mobility extends voice and UC applications to a wide range of mobile platforms including Android, BlackBerry, iPhone, and Nokia, while integrating with major PBX and UC systems – including Cisco, Avaya, Nortel, ShoreTel, and Microsoft. Users can leverage a single converged device for both business and personal communications, and access desk-phone and UC capabilities on their devices without having to learn a new interface. Additionally, the solution's fast and automatic selection of the best network (Wi-Fi or cellular, voice over 3G/4G) allows for optimization of cost, call quality, and coverage.

ShoreTel is committed to supporting open ratified standards for many important functions. ShoreTel supports standards-based voice-enabled devices/interfaces including RTP (for call handling), G.711 and G.729 (for voice packet compression across the WAN), MAPI (for unified

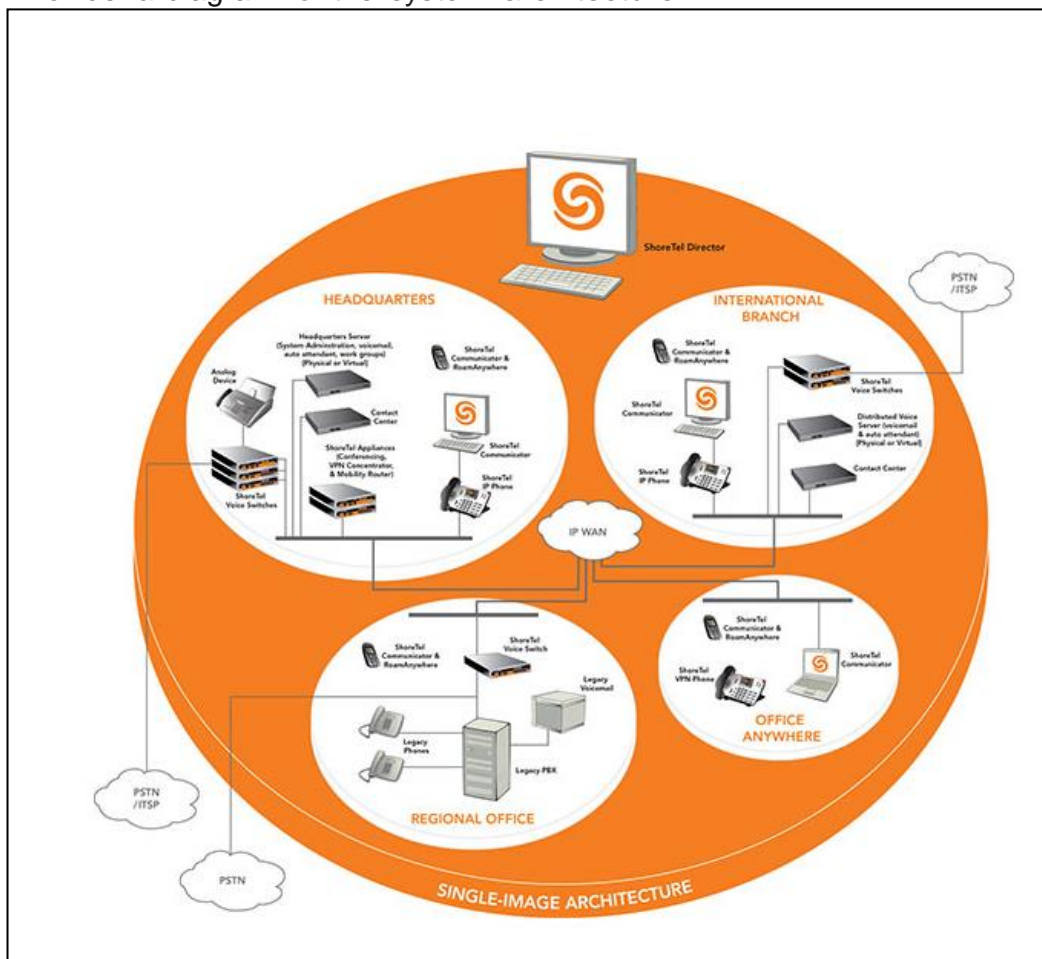
messaging integration), SNMP (management), and SQL (for database access). ShoreTel also supports SIP, LDAP, MGCP, PoE, PRI, T1, Analog, etc

-Describe your philosophy on open architecture and your ability to support other

The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI, JTAPI, MAPI, QSIG, as well as several SIP RFC's. All IP handsets recommended as part of the proposal response use both SIP and MGCP standard signaling protocol. Most of the system features are available on analog sets.

-Provide a diagram of the system architecture.
vendors' equipment.

-Provide a diagram of the system architecture.



-Describe your company's experience with building intelligent network infrastructures.

Teleswitch has a 21 year history of building intelligent network infrastructures and implementing voice and Internet technologies. Our experiences are reflected within the appropriate section of the proposal response.

-How does your proposed intelligent network infrastructure support end-to-end QoS? In a converged network supporting voice, broadcast video, H.323 video, and data, how are QoS issues resolved?

The ShoreTel system sends voice traffic via dynamic UDP. ShoreTel supports different QOS methods, such as TOS and DiffServ.

The ShoreTel system is an IP-based voice solution deployed across your IP network. This allows the components of the system to be located anywhere on your IP network, resulting in a single system for all your voice applications at all locations. This single system approach significantly reduces the complexity associated with legacy systems that consist of multiple PBXs, multiple voice mail systems, multiple auto-attendants, and multiple automatic call distribution systems, each with their unique management interfaces.

Since the ShoreTel system becomes another application on your IP network, it is important to understand how the system integrates with your data network. As you include voice, another application across your wide area network, it becomes necessary for your IP LAN and WAN to provide a network environment that meets the requirements for toll quality voice. The ability of your network to deliver this performance will vary based on the number of simultaneous calls between locations, the voice quality required, and the other application traffic on the network.

Some of the key considerations are:

- [Bandwidth](#)
- [Service levels](#)
- [Addressing](#)

Understanding the Requirements for Toll Quality Voice

The ShoreTel system has been designed to deliver the highest possible voice quality. With the superior design of the ShoreTel system, all that is needed to achieve toll quality voice communications is to deploy the system over a properly designed network infrastructure.

In general, to ensure voice quality on the LAN, the ShoreTel system must be used in a switched Ethernet network. To ensure voice quality on the WAN, the ShoreTel system requires that you do the following:

- [Get a service level agreement \(SLA\) from your service provider.](#)
- [Using your routers, prioritize your voice traffic ahead of your data traffic.](#)
- [Set the ShoreTel Admission Control feature to ensure that the voice traffic does not flood the WAN links.](#)

With these items taken into consideration, you can simply and easily achieve toll quality voice using the ShoreTel system.

Summary of Network Requirements

The table listed below summarizes the network requirements for bandwidth, latency, jitter, and packet loss.

Parameter	Requirement
Bandwidth (WAN)	<p>With ADPCM and no RTP Header Compression: 52 Kbps per call</p> <p>With G.729a and no RTP Header Compression: 26 Kbps per call</p> <p>With G.711 and no RTP Header Compression: 82 Kbps per call</p> <p>If your network uses VPN, bandwidth use is affected.</p>
Latency and jitter for toll quality	<p>< 100 msecs total</p> <p>100 msecs less 42 msecs allocated for the ShoreTel system yields a 58 msec budget for the network.</p> <p>When G.729a encoding is used, 100 msecs less 62 msecs allocation for the ShoreTel system yields a 38 msec budget for the network.</p>
Latency and jitter for acceptable quality	<p>< 150 msecs total</p> <p>150 msecs less 42 msecs allocated for the ShoreTel system yields a 108msec budget for the network.</p> <p>When G.729a encoding is used, 150 msecs less 62 msecs allocated for the ShoreTel system yields an 88 msec budget for the network.</p>
Packet loss	< 1% for voice calls, and no packet loss for fax and modem calls

Network Requirements

When your voice traffic travels across your IP network, you must ensure that your network does all of the following:

- Delivers enough bandwidth
- Meets the latency and jitter requirements
- Meets the packet loss requirements for toll quality voice

You will also need to prioritize your voice traffic over your data traffic and configure the ShoreTel system's Admission Control feature.

Bandwidth Requirements

The amount of bandwidth for voice calls will depend on these details:

- [Number of simultaneous calls](#)
- [Voice encoding scheme in use](#)
- [Amount of signaling overhead](#)

Voice Encoding

Within a site, linear broadband encoding is recommended since bandwidth in the LAN is inexpensive and readily available. Between sites, G.729a is recommended because it uses the least amount of bandwidth. The linear codec provides slightly higher voice quality than G.711, but should not be used if there are any bandwidth concerns. If you select linear broadband or linear encoding, end points that do not support either codec will negotiate for the highest quality codec for both end points and G.711 is the only high-quality codec shared by all end points. The table below provides bandwidth information for different codecs.

<u>Codec</u>	<u>Sample Rate</u>	<u>Effective Sample Size</u>	<u>Data Rate</u>	<u>Supported ShoreTel Endpoints</u>
L16/1600 (Linear Broadband)	16 KHz	16 bits	256 Kbps	Ip 110/115/212/230/230g/265/ 420/480/480g/485g/560/560g/655
L16/8000 (Linear)	8 KHz	16 bits	128 Kbps	All
PCMU/8000 (G.711 u-law)	8 KHz	8 bits	64 Kbps	All
PCMA/8000 (G.711 A-law)	8 KHz	8 bits	64 Kbps	
G.722 /8000 (ADPCM)	8 KHz	4 bits	32 Kbps	all
G.729a/8000	8 KHz	1 but	8 Kbps	All
AAC_LC/32000	32 KHz			
BV-32/16000	16 KHz		32 Kbps	
BV-16/8000	8 KHz		16 Lbps	
DV-14/8000	8 KHz			
T.38				

Latency

Latency is the amount of time it takes for one person's voice to be sampled, packetized, sent over the IP network, de-packetized, and replayed to the other person. This one-way delay, from "mouth to ear", must not exceed 100 msec for toll quality voice or 150 msec for acceptable quality voice.

If the latency is too high, it will interrupt the natural flow of the conversation, causing the two parties to confuse the latency for pauses in speech. The resulting conversation will be reminiscent of international calls over satellite facilities.

The latency introduced by the ShoreTel system can be understood as follows: When a person talks, the voice is sampled by the ShoreGear voice switch, generating a latency of 5 msec. If the call does not traverse switches and is handled completely internally by the switch, the latency is generated by the basic internal pipeline of the switch. In this case, the switch samples the voice, processes it, combines it with other voice streams (switchboard), and then converts it back to audio for output to the phone in 5-msec packets, for a total latency of about 17 msec.

When the call transfers between switches, the voice is packetized in larger packets—10-msec for LAN and 20-msec for WAN—to reduce network overhead. The larger packets take more time to accumulate and convert to RTP before being sent out. On the receive side, the incoming packets are decoded and placed in the queue for the switchboard. For a 10-msec packet, this additional send/receive time is approximately 15 msec, and for a 20-msec packet it is about 25 msec.

When the codec is G.729a, the encoding process takes an additional 10 msec and the decoding process can take an additional 10 msec.

The following table provides specific information about latency on the ShoreTel system.

Configuration	Overhead	Encoding	Frame Size -5	Jitter Buffer ^a	Decoding	Total (+/- 5 msec) ^b
Switch	17	0	0	Varies	0	17
LAN	17	5	5	Varies	5	32 + Jitter Buffer
WAN	17	5	15	Varies	5	42 + Jitter Buffer
G.729a (LAN and WAN)	17	15	15	Varies	15	62 + Jitter Buffer

a jitter buffer varies, depending on network conditions. See below for more information.

b If a call comes in on a trunk through either T1/E1 or analog loop-start, the total latency is increased by the delay in the PSTN. You must add this latency to the total latency. Latency for the PSTN varies; however, it is probably a minimum of 10 msec (for local), and it could be as high as hundreds of msec (for long international calls).

Jitter for Voice Switches

Jitter is the variation of latency across the network and the variation in packet processing inside the switches. To compensate for jitter, the ShoreGear voice switches continuously measure the jitter in the system and dynamically change the size of the receive jitter buffers to optimize voice quality.

If the jitter buffer is too small, there can be packet loss from buffer underflows. This occurs when the jitter buffer runs out of valid voice samples. If the jitter buffer is too large, there will be unnecessary latency. Both conditions have a negative impact on voice quality.

The jitter buffer starts at the minimum size of 0 msec as packets from the network are placed into the switchboard queue for immediate processing. When jitter is detected on the network, the jitter buffer dynamically increases in increments of 5 msec to compensate for increased jitter and decreases in size in reaction to less jitter. The maximum value of the jitter buffer is set by ShoreWare Director and ranges from 20 to 200 msec, with a default of 50 msec.

As the jitter increases on the network and the jitter buffer needs to be increased to guarantee timely audio play, the latency of the audio also increases. The system attempts both to maintain a minimum jitter buffer size that provides good-quality voice without dropping packets and to provide minimum latency.

For IP phones that are configured into the ShoreTel system, the jitter buffer is not configurable.

The minimum jitter buffer is 30 msec, and the maximum is 80 msec.

NOTE Maximum values greater than 100 should rarely be necessary. If needed, this could indicate a problem in your network that should be addressed in another way.

Packet Loss

Lost packets can occur on the IP network for any number of reasons. Packet loss above 1% begins to adversely affect voice quality. To help reduce this problem, the ShoreGear voice switches have a feature called lost packet concealment. When there is no voice sample to be played, the last sample available is replayed to the receiving party at a reduced level. This is repeated until a nominal level is reached, effectively reducing the clicking and popping associated with low levels of packet loss.

NOTE Fax and modem calls demand essentially zero packet loss to avoid missing lines on fax calls and to avoid dropped modem calls. In addition, fax and modem calls, when detected, may change to a higher-rate codec.

Impact of Long Network Outages

The ShoreTel system is a completely distributed system in which each ShoreGear voice switch provides all call control functionality for inbound and outbound calls, as well as features such as transfer, conference, pickup, and trunk selection. When there is a long network outage, the switches will detect the problem and run isolated from the switches that can no longer be reached.

In the ShoreTel system, switches communicate every 30 seconds and disconnect when there is no response after 60 seconds.

Bandwidth Management

In addition to the network requirements discussed above, bandwidth management techniques need to be deployed to ensure that real-time voice data is not affected by bursts or high amounts of data traffic.

Local Area Network

To manage bandwidth in the local area network (intra-site) and meet the requirements for toll quality voice, use Ethernet switching. Ethernet switching is cost-effective and simple to provision.

Your LAN configuration requirements will vary depending on your infrastructure and whether your network includes IP phones.

When IP phones are not used, voice quality can be guaranteed by putting each of the ShoreGear voice switches and the ShoreWare server on their own Ethernet Switch port. A network with this topology meets the bandwidth, jitter, and latency requirements for toll quality voice without the additional need for special prioritization of voice packets.

When IP phones are used, the desktop connection to the user's computer and phone must also be part of your switched Ethernet network. The user's phone is connected to the port of the Ethernet switch, and the user's computer or other data device is connected to the integrated two-port Ethernet switch inside the IP phone. In this configuration, the switch port connected to the phone must be configured to prioritize the voice packets from the phone above the data packets. With ShoreTel, the voice packets are always sent from the phone on UDP port 5004, so you should prioritize this UDP port within the switch and in your network's routers.

NOTE PCs connected through IP phones will lose connection to the network if the IP phone loses power.

Wide Area Network

To manage bandwidth in the wide area network, prioritize your voice traffic ahead of your data traffic. RTP Media will dynamically select a UDP port per media stream from the configured port range.

You can also prioritize based on the voice switch IP address, the MAC address, or the physical port on the Ethernet switch. As an additional step, you can also prioritize the distributed call control signaling that always travels on UDP port 5440 through UDP port 5445.

Admission Control in the Wide Area Network

To ensure that your voice traffic does not overwhelm the WAN and degrade voice quality, the ShoreTel system has an Admission Control feature. From ShoreWare Director, you can limit the amount of WAN bandwidth used for telephone calls on a per site basis. For a telephone call to be established between sites, admission control must be met at both sites. If the admission control limit is reached at a site, additional calls cannot be placed to or from the site, ensuring the voice quality of calls already in progress. If the user is making an outbound call, the call is automatically routed out of a trunk at the site. When making an extension-to-extension call, the user is informed that there is insufficient network bandwidth to complete the call. The user can try again later or dial the external number of the other use

-How do LAN switches recognize voice traffic to guarantee QoS?

See response above

-How does the intelligent network infrastructure recognize voice traffic at the WAN edge and guarantee QoS across WAN links?

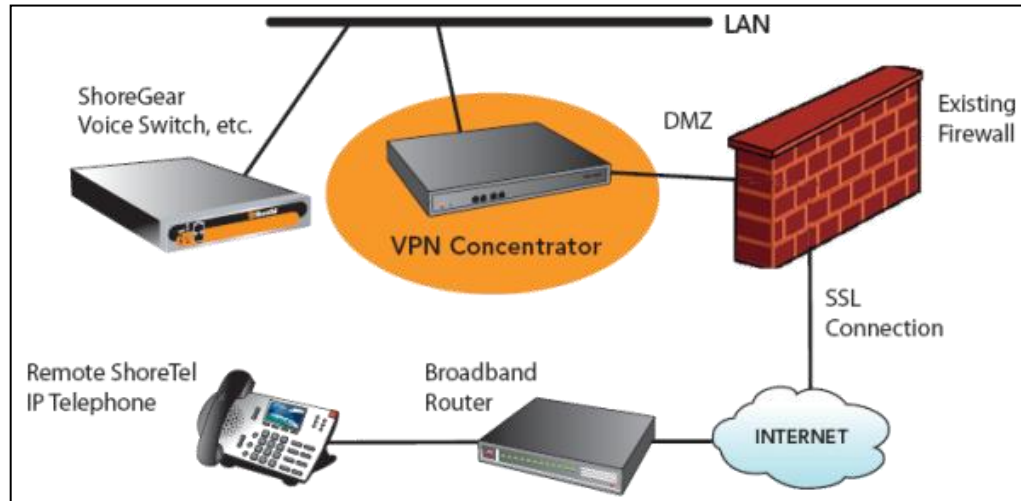
See response above

-How does your system provide for Call Admission Control to guarantee that LAN/WAN links are not oversubscribed?

See response above

-Explain how the intelligent network architecture provides power to IP phones over the Ethernet. Can the network automatically detect the presence of the IP phones? If so, how is this done, and what are the benefits of this feature?

The ShoreTel VPN Phone solution provides full IP phone functionality for remote users via a secure VPN connection to the corporate network.



Easy to deploy

Simply connect to broadband router at remote location – no additional networking hardware required

Improved traffic flows

Manage VPN voice traffic independently from VPN data traffic – purpose built VPN voice concentrator eliminates a single security point of failure.

Industry-leading security

Uses Secure Socket Layer (SSL) technology, commonly used in Web browsers to secure everything from on-line shopping to on-line banking sessions.

Survivable Remote Site Telephony-

-Does your solution support remote office phones from a centralized phone system? If so, how does this work and what equipment is required at the remote site?

Yes

-Are applications also available to users at remote sites?

-Describe what local survivability capabilities are provided for remote sites during a WAN outage (for remote sites hosted off of a central server).

Each switch in the system is capable of independently establishing and terminating calls without relying on a centralized call control server. As a result, enterprise UC can survive a variety of Local Area Network (LAN), Wide Area Network (WAN) and hardware failures.

The reliability of the system can be further improved by adding an additional “spare” switch to the headquarters location. This allows for the spare switch to take over for a failed switch anywhere in the connected environment to deliver redundancy via a “n+1” capability, where (n) can be up to 500 switches protected by deployment of a single (+1) (or if desired, multiple) spare switch(es). This unique ShoreTel architecture feature achieves mission critical uptime and availability at a fraction of the cost of competing solutions requiring Primary/Spare or “n+n” architectures, typically requiring a dedicated back-up switch for each primary component.

IP Addressing and VLAN Support-

-Explain how you can provide easy addressing of the IP phones without having to change the addressing scheme of the existing IP data network.

The ShoreTel server provides the IP phones with the latest application software and the configuration information that enables the IP phone to be automatically added to the ShoreTel system. The ShoreTel server's address must be provided to the phone as a vendor-specific DHCP option.

ShorePhone-IP110/115/212k/230/420/480/480g/485g/560/560g/655 are preconfigured to look for the ShoreTel server's address to be specified as Vendor Specific DHCP option 156. If this option is not available, the ShoreTel IP phones will use option 66.

The phones are automatically configured by the ShoreTel system and made available for user assignment. The benefits of this feature are the elimination of manual configuration of IP phones. The time saved on configuration, leads to tremendous reductions in labor costs and improved user experience

-Can IP phones share existing Ethernet ports with data devices, or do the IP phones require additional Ethernet ports to be added by the customer to support voice?

Each IP phone has a built-in 2 port 10/100 or 10/100/1000 switch. As a result, only one Ethernet connection is required at each location. The user's PC can be plugged into the 2nd port on the back of the ShoreTel IP Phone.

Do your phones have a built-in switch to support automatic VLAN? Please comment in detail about your VLAN support.

Response: Yes. IP phones are a specialized device on the data network and have capabilities and requirements which need to be considered when designing the data network. For example, to help better utilize port capacity on data switches, a PC is allowed to piggy-back on an IP phone and share a single data switch port, utilizing VLAN trunking or tagging the Voice and Data VLANs for each device respectively.

ShoreTel IP phones have an internal 2-port switch on the back of the IP phone to connect it to the data network through the network port as well as a PC through the access port. ShoreTel IP Phones prioritize voice so the connected PC is unable to disrupt outbound voice quality.

Most data network equipment manufacturers have a voice VLAN feature either at the data switch access port or VLAN level that supports various VoIP capabilities (i.e. to mitigate deteriorating IP phone sound quality of a call if the data is unevenly sent due to lack of layer-2 output switch interface buffer prioritization). The Voice VLAN feature helps QoS use classification and scheduling to send network traffic from the switch in a predictable manner for IP phones.

ShoreTel IP Phones have a built-in configuration to seek the ShoreTel server's address with the Vendor Specific DHCP option 156. If this option is not available, ShoreTel's IP phones use option 66. The specific parameters in option 156 are sent directly to each phone to automatically configure the phone that would otherwise need to be configured manually with the phone's keypad to connect to the ShoreTel HQ server (or local DVS in a multi-site deployment) and download phone firmware and other configuration files.

-Under what circumstances would a phone outage affect the PC communicating to the network?

Response: If the phone is powered off, the switch will not be operational.

-The City of Hollywood needs to ensure that the U.C. maintains a high level of 'up time', and to this end needs to have four levels of failure before critical mass is reached. A configuration with active/active state is highly desired. Please describe in detail how your proposal addresses this along with load balancing.

Response: It should be noted that the ShoreTel system architecture has no single point of failure. The unique distributed model has multiple built-in redundancies at all levels to safeguard voice communications, thereby delivering 99.999% availability.

A key component of the ShoreTel architecture is the ShoreGear voice switch. Dial tone and call routing runs from the ShoreGear voice switches. The ShoreGear voice switches are 100% distributed and have no dependence on the other voice switches to continue providing voice services. If a ShoreGear voice switch goes out of service, only the users

on that individual switch are impacted. IP phones associated with that ShoreGear switch have the ability to failover to another ShoreGear switch if spare IP Phone ports are available. Mean Time Between Failure on ShoreGear Switches is projected at 12+ years based on units shipped. All hardware devices are self-contained, solid state devices with no moving parts (other than a fan). The embedded operating systems used are either Linux or VxWorks, making this a high availability system.

In the event of a server failure, ShoreTel accepts calls without disruption or loss of dial tone – switching and routing is managed by the distributed switches. The server supports voice mail, auto attendant and administration applications. Core telephony continues regardless of server status. Temporary loss of voice applications (voice mail, automated attendant, etc.) can be avoided by implementing a server clustering strategy for automatic fail over to a redundant back-up server.

The ShoreTel system distributes the voice intelligence throughout the network. All ShoreGear voice switches are capable of supporting their local users regardless of availability of the WAN. Should there be a WAN disruption, all sites will run independently. The ShoreTel system is designed to leverage the WAN when it is available without a specific dependency on the WAN for individual site operations. Should there be a complete power failure at a site, each ShoreGear has a built in bypass that will connect one analog phone user per ShoreGear to one analog trunk.

Our distributed software architecture for premise customer includes software that:

- allows a geographically-distributed system to operate and be managed as a single system;
- enables calling between ShoreTel Voice Switches and allows calls to be distributed among Voice Switches instead of using a single centralized call control server;
- enables ShoreTel Voice Switches to obtain call routing information;
- monitors the bandwidth consumed on each WAN segment and prevents the system from exceeding bandwidth limitations;
- monitors all call activity on Voice Switches, and enables integration of ShoreTel and third-party applications;
- coordinates the functions of all servers and Voice Switches on the system, allowing them to perform as a single, virtual server; enables remote ShoreTel and third-party applications to access and modify our systems;
- enables the Voice Switches to communicate with the application server, and receive system configuration information; allows each Voice Switch to maintain a comprehensive view of the system; provides a graphical user interface for our phones; and allow the system to scale from small (10 users) to large (20K users) simply by adding additional components in the same hardware platform and system image

ShoreTel provides a unique modern hardware and software architecture for premise customers, which offers the high availability and reliability needed for mission critical communications previously served by TDM technologies. Our premise business communication solutions are comprised of hardware and software components including ShoreTel Voice Switches, ShoreTel IP Phones, ShoreTel Service Appliances and ShoreTel Client and Server Software Applications. ShoreTel provides client and server-side application software for control and management of IP phones for individuals, workgroups such as contact centers, as well as the system manager. Client applications are available for personal computers, mobile phones and web browsers. Our systems are

based on a combination of our proprietary software, industry-standard interfaces and protocols, and customized and off-the-shelf hardware components.

ShoreTel Voice Switches: We offer a range of ShoreTel designed switches of varying capabilities to meet the needs of enterprises of all sizes. These appliances provide call management functionality to the system, connecting to a wide variety of carrier interfaces (such as Primary Rate Interface (PRI), POTS (plain old telephone lines) or SIP), and connectivity to telephony end points – either our own award winning phones, analog phones or supported third party handsets. The modular nature of our switches allows our enterprise customers to easily expand their system capacity by deploying additional switches across their network, easily expanding sites, capacities, resources and failover abilities ShoreTel Voice Switches are comprised of, embedded microprocessors and networking components, such as Ethernet controllers, and customized integrated circuits. These Voice Switches run on an embedded operating system, and use flash memory as well as our switch call management software for application processing. Each switch in the system is capable of independently establishing and terminating calls without relying on a centralized call control server. As a result, enterprise UC can survive a variety of Local Area Network (LAN), Wide Area Network (WAN) and hardware failures. The reliability of our switches is enhanced by three key design features: (i) the use of flash memory instead of disk drives and (ii) running an embedded operating system optimized for real-time processing, such as call management. (iii) A design approach that embeds all components to the motherboard, eschewing cards and user replaceable or serviceable components. Unlike disk drives, flash memory does not rely on mechanical movement, and therefore is less likely to break down. Furthermore, our embedded operating system enables a higher performing and more reliable software platform relative to server-centric IP systems because it is optimized for real-time processing. The result of this approach is a Mean Time Between Failure (MTBF) of the call control between 12-15 years depending on the model.

Building an extremely reliable appliance is only part of the system resiliency. ShoreTel switch provide for dual network ports so as to protect against failures of individual ports, LAN cables or network switches. Integrated Amphenol connections provide for easy connectivity to local POTS trunks for failover, including power transfer so as to ensure that even in the event of power loss, end users can still pick up an analog phone and get dial tone for emergencies. The system architecture also provides for the ability of local switches to allow for users currently assigned to a ShoreGear switch to automatically and elegantly failover to an alternative local switch in the case of their switch becoming unavailable if there are resources available – in fact it won't even interrupt calls in process on the problem switch.

The reliability of the system can be further improved by adding an additional “spare” switch to the headquarters location. This allows for the spare switch to take over for a failed switch anywhere in the connected environment to deliver redundancy via a “n+1” capability, where (n) can be up to 500 switches protected by deployment of a single (+1) (or if desired, multiple) spare switch(es). This unique ShoreTel architecture feature achieves mission critical uptime and availability at a fraction of the cost of competing solutions requiring Primary/Spare or “n+n” architectures, typically requiring a dedicated back-up switch for each primary component.

ShoreTel Service Appliances: We offer a range of ShoreTel designed appliances for specific applications, such as conferencing and collaboration and to provide for business continuity for mission critical applications. The administration of these service appliances is functionally integrated with the IP Telephony Web Administration. Appliances are automatically recognized by the ShoreTel Director software and user functions are

seamlessly integrated with the user management application, eliminating the complexity found with other systems.

ShoreTel Director: ShoreTel Director provides enterprises with a single point of system management, enabling IT administrators to view and manage the entire system from any location using a single, web based application. A new end user's extension, mailbox, and automated attendant profile can be added from a single management screen, avoiding the additional work required with most PBXs, voice mail systems and automated attendants. This is the native management interface and supports all configuration and management configuration of the system, including context sensitive help and documentation.

The proposed solution must fully support 3,000 IM and presence clients and the Proposer must specify the maximum supported clients per server and entire system; with 50 percent of them being able to upgrade to full UC suite offering, video softphone capabilities, desktop sharing and document sharing.

Response: Service Appliance's provide IM features to users. Each SA can support 2,000 IM users. There can be (5) SAs deployed in a single image.

-In terms of support for open industry standards, which of the following standards do you support in your proposed solution? If the standard is not currently supported, indicate in the "Availability Date" column when you expect to support it.

RECOMMENDATIO	STATUS	
1. G.711	Supported	
2. G.726	Not Supported	
3. G.728	Not Supported	
4. G.729	Supported	
5. G.729a	Supported	
6. H.323 V2	Supported only via SIP-to-H.323 gateway or PRI-to-H.323	
7. T.120	Not Supported	
8. O.931	Supported	
9. 802.1d	Supported	
10.802.1p	Supported	
11.802.1q	Supported	
12.802.3	Supported	
13.SNMP	Supported	
14.FAX- Group 3	Supported	
15.FAX - Group 4	Supported	
16.T.37	Supported via integration to 3 rd party fax server	
17.T.38	Supported	
18.1P Precedence	Supported	
19.Differentiated	Supported	
20.RSVP	This would be part of the data (LAN) infrastructure	
21.Weighted Fair	This would be part of the data (LAN) infrastructure	

22.CBWFQ	This would be part of the data (LAN) infrastructure	
23.PQWFQ	This would be part of the data (LAN) infrastructure	
24.RED	This would be part of the data (LAN) infrastructure	
25.Weighted RED	This would be part of the data (LAN) infrastructure	
26.RTP	Supported	
27.CRTP	Not Supported	
28.RTCP	Supported	
29.RTSP	Not Supported	
30.Policy Based Routing	Supported, in terms of call routing	
31.Committed Access	Supported, in terms of voice bandwidth admission control	
32.1Pv6	Not supported; ShoreTel will support v6 when there is a true need	
33.MGCP	Supported	
34. H.225	Supported only via SIP-to-H.323 gateway	
35. H.245	Supported only via SIP-to-H.323 gateway or PRI-to-H.323 gateway	
36. TCP/IP	Supported	
37. UDP/IP	Supported	
38. DHCP	Supported	
39.DCL	Not Supported	
40. DNS	Supported	

Systems Reliability and Availability

-Does the system support clustering? If so, across how many systems?

Response: ShoreTel uses a fully distributed, single-image architecture where the database is distributed across all call-processing instances (ShoreGears), which can be physical or virtualized. We do not “cluster.” Our architecture is unique in the industry. ShoreTel supports up to 20,000 users in a distributed, single-image system.

Our distributed software architecture includes software that:

- allows a geographically-distributed system to operate and be managed as a single system;
- enables calling between ShoreTel Voice Switches and allows calls to be distributed among Voice Switches instead of using a single centralized call control server;
- enables ShoreTel Voice Switches to obtain call routing information;
- monitors the bandwidth consumed on each WAN segment and prevents the system from exceeding bandwidth limitations;
- monitors all call activity on Voice Switches, and enables integration of ShoreTel and third-party applications;
- coordinates the functions of all servers and Voice Switches on the system, allowing them to perform as a single, virtual server;
- enables the Voice Switches to communicate with the application server, and receive system configuration information;
- allows each Voice Switch to maintain a comprehensive view of the system;

-What is the highest number of IP devices currently supported under a single instance of the software? How many IP devices are supported by a cluster?

Response: ShoreTel supports up to 20,000 users in a distributed, single-image system.

-Does the system have a web-based or GUI-based administration tool? Is this included in the base price?

Response: Yes. This is a base included feature

-Can a single instance of the administration tool be used to manage all systems within an enterprise simultaneously?

Response: Yes.

-How does the system provide for fault tolerance? Identify the components that can be duplicated in your system. Fully describe the systems redundancy capability. Is it "hot standby redundancy", "shared redundancy", etc.

Response: It should be noted that the ShoreTel system architecture has no single point of failure.

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The reliability of the system can be further improved by adding an additional “spare”

switch to the headquarters location. This allows for the spare switch to take over for a failed switch anywhere in the connected environment to deliver redundancy via a “n+1” capability, where (n) can be up to 500 switches protected by deployment of a single (+1) (or if desired, multiple) spare switch(es). This unique ShoreTel architecture feature achieves mission critical uptime and availability at a fraction of the cost of competing solutions requiring Primary/Spare or “n+n” architectures, typically requiring a dedicated back-up switch for each primary component.

-Explain in detail how a switchover occurs in a redundant system.

Response: IP Phones will be supported by any ShoreGear resources within a given site, and this failover happens automatically and generally in a matter of several seconds. If there are no resources available at the given site, the N+1 Spare ShoreGear will become active so that the phones can be served via the Spare switch. The Spare can be located anywhere on the enterprise.

-In redundant systems, how are databases synchronized?

Response: ShoreTel's fully distributed architecture means that databases are distributed across all ShoreGears automatically.

-Identify each component that is duplicated in your proposal. In the pricing section, redundancy and fault tolerance must be included.

Response: Redundancy and fault tolerance are included in the proposal. Due to our unique architecture, we do not need to duplicate each component in the solution. A single Spare ShoreGear, placed anywhere in your enterprise, can provide failover services for any ShoreGear, located anywhere in the network.

-What is the anticipated mean time between failures (MTBF) of the components quoted in this RFP?

Response: Our MTBF chart is below:

Product Model	Predicted MTBF Hours	Demonstrated MTBF Hours	Availability, 1 Hour MTTR
ShoreGear 90	171,493	215,037	99.9998%
ShoreGear 90v	159,416	N/a	99.9994%
ShoreGear 50	190,606	252,823	99.9998%
ShoreGear 50v	175,803	N/a	99.9994%
ShoreGear 30	190,606	252,823	99.9998%
ShoreGear 24A	72,698	N/a	99.9999%
ShoreGear 220t1	189,373	N/a	99.9994%
ShoreGear 220t1a	163,516	N/a	99.9994%
ShoreGear E1K		312,709	99.9997%

-How would you provide redundancy and disaster recovery ensuring no single point of failure for our entire voice network? Please detail recovery methodology including recovery times and outages.

-In consideration of a full-scale rollout of voice over IP, which would include our remote sites, please describe how voice services are maintained at these remote sites if there is an outage at the remote site.

Response: It should be noted that ShoreTel's system architecture has no single point of failure. Our unique distributed model has multiple built-in redundancies at all levels to safeguard voice communications delivering 99.999% availability.

Even in the event of a power failure, ShoreTel provides automatic fail over to the PSTN for continuous dial tone availability. In the event of a server failure, ShoreTel accepts calls without disruption or loss of dial tone – switching and routing is facilitated by the distributed ShoreGear switches. Temporary loss of voice applications (voice mail, automated attendant, etc.) can be avoided by implementing a server clustering strategy for automatic fail over to a redundant back-up server.

The following is a list of potential emergency and disaster conditions that could occur and how the ShoreTel system would handle them.

WAN Failure

The ShoreTel system distributes the voice intelligence throughout the network. All ShoreGear voice switches are capable of supporting their local users regardless of the WAN. All sites would run independently. System is designed to leverage the WAN when it's available – no dependencies.

ShoreWare server failure

Dial tone and call routing runs from the ShoreGear voice switches. The server supports voice mail, auto attendant and administration applications. Core telephony continues regardless of server status.

Through the use of distributed ShoreWare servers and ShoreGear 30BRIV, 50V or 90V switches, voice mail and auto attendant applications can be maintained across the network. Some customers may choose to use software packages like DoubleTake or Xlink to provide automatic failover to a redundant server to maintain full management capabilities.

Even though the ShoreTel solution uses a distributed architecture, it functions as a single image system so there is only one database to backup making disaster recovery or replacement of the ShoreWare server very easy. Again call processing is handled by the ShoreGear switches so core telephony continues regardless of server status.

The ShoreTel system does not provide for an automatic backup of its files. Customer's should implement their own backup process, and include the ShoreTel database files within that process.

If restoring from a ShoreTel backup file, customers will lose the following:

- Any "adds, moves, changes" made since the backup
- Any voicemails recorded since the backup.

PC Failure

The ShoreTel system runs desktop productivity tools from the PC, core telephony continues regardless of the PC status. The user's telephone is not affected and functions normally.

ShoreGear Voice Switch

The ShoreGear voice switches are 100% distributed and do not rely on each other. If a ShoreGear switch goes out of service, only the users on that individual switch are impacted. Assuming no wire, telephone system, or other infrastructure damage, replacement of ShoreGear switch is a simple "plug and play" operation. Simply unplug the cables on the disabled ShoreGear switch, plug them into the replacement ShoreGear switch, and reassign an IP address – and you're ready to go.

Complete Power failure, with no UPS backup

Each ShoreGear switch has built in bypass that will connect one analog phone user per ShoreGear switch to one analog trunk.

IP Phones

ShoreTel IP Phones are controlled by the ShoreGear Voice Switches. If a ShoreGear Voice Switch is disabled the IP Phones can "auto failover" to another ShoreGear Voice Switch

-What virus and intrusion protection comes with your product?

Response: None comes with the product, but third-party anti-virus and intrusion detection software can be used as long as it does not interfere with the operation of ShoreTel software. Virus checker utilities that run on the server must exclude MySQL database files.

-How often is it maintained and enhanced?

Response: This would be determined by the 3rd-party software being used.

-What is your response time to the identification of new viruses and attacks?

Response: This would be determined by the 3rd-party software being used.

-How do you monitor new viruses and intrusions?

Response: This would be determined by the 3rd-party software being used.

-What toll fraud protection is available? How is it monitored?

Response: ShoreTel provides a Security Best Practices document outlining recommendations to secure the system. Among the recommendations are the following:

For User Account Security for Clients, AD Admin accounts should be used when possible. AD accounts already have higher security policies that can be set such as, account lockout and complexity rules. This also provides an easier way for Administrators to manage their system without remember another username/password. Plus, this password is not stored in the ShoreTel Database.

For Voicemail Security, Turn on password aging the change to "Lifespan of Voicemail Password (30-365)" can be made in the Director. ShoreTel recommends 90 days as a starting number.

Set "Max Voice Mail Errors" to a low number. The change to "Max Voice Mail Errors (2-50)" can be made in the Director. ShoreTel recommend 3-5.

Use the ShoreTel supplied audit tool periodically for weak access password scanning. This tool can scan for weak passwords and enforce a reset of passwords if needed.

Set up Microsoft Event Alerts for invalid logon attempts for Mailboxes. We recommend that you enable this alert for the Microsoft Event Viewer. You can use this feature to send email to PBX admins and alert the Admin if a Mailbox has too many invalid logon attempts. This number is based on the "Max Voice Mail Errors".

Run CDR reports from time to time to monitor call activity. This can used to view unwanted international or local I dialing.

-Describe any UPS or "battery" back-up capabilities for the proposed system. Can these capabilities benefit a redundant system? Please explain.

Response: All ShoreTel hardware and virtual components (such as ShoreGears and IP Phones), can take advantage of UPS to provide functionality in the event of power loss.

Advanced Routing Features

Fully describe your advanced routing features. Please be sure to include a discussion of the following applications:

- Amount and type of routing plans.
ShoreTel is a single system image so the entire call routing database is available across all locations. ShoreTel will work through the call routing hierarchy to automatically find an avail trunk to complete the call, regardless of where that trunk is located.
- Types of trunks supported in routing scheme
Any valid trunks can be part of the routing scheme: analog, PRI, and SIP
- Queuing and overflow capabilities.
If a given trunk group is full or unavailable, ShoreTel will automatically and immediately overflow to complete the call over any other available trunk
- Use of authorization codes on individual routes.
ShoreTel supports this, based on a user's calls of service permissions. For instance, a given user may be able to dial domestic long distance, but will be prompted for an account code for international LD.
- Describe how your system handles digit deletion and insertion regarding the North American Dialing Plan. Include system limitations.

Digit insertion and deletion is supported, on a trunk group by trunk

group basic

- Describe the route filtering method

Trunk groups can be restricted to certain types of calls (for instance, local call only) and can be made available only to certain groups of users, if desired.

-Describe the Dial Plan structure.

As a single image system, ShoreTel has an enterprise-wide dial plan. Extensions can be anywhere from 3 to 5 digits. Thus, if you have a 4 digit dial plan, all extensions must be unique across all locations. This is the normal deployment model for ShoreTel customers. However, if you need to allow for extension duplication, we support anywhere from a 1 to 3 digit dial “prefix” to be used. Often, this is used as a site code. For example, if I need to call extension 1000 at my own site, I simply dial 1000 and the call it send to the local extension 1000. If I need to dial extension 1000 at another site, I would dial the appropriate prefix (aka, site code), such as 5-1000.

-Describe the Dial Plan configuration options.

Extensions can be anywhere from 3 to 5 digits. Thus, if you have a 4 digit dial plan, all extensions must be unique across all locations. This is the normal deployment model for ShoreTel customers. However, if you need to allow for extension duplication, we support anywhere from a 1 to 3 digit dial “prefix” to be used. Often, this is used as a site code. For example, if I need to call extension 1000 at my own site, I simply dial 1000 and the call it send to the local extension 1000. If I need to dial extension 1000 at another site, I would dial the appropriate prefix (aka, site code), such as 5-1000.

-Is the system compliant with the North American Numbering Plan (NANP)?
[Yes](#)

Emergency Services

-If emergency-911 municipal services are mandated for commercial systems, is your proposed system in compliance today?

[See Below](#)

-Identify the system's ability to redirect callers who dial "911" or "9+911" to a predetermined location; i.e., security desk, operator's console, etc. [See Below](#)

-Describe how the system identifies location information of an IP or SIP phone and makes a 9-1-1 call.

[See Below](#)

-How often does the PS-ALI database need to be updated after new phones are added to the system, or phones move? [See Below](#)

ShoreTel Emergency Notification provides crucial communications and safety benefits through automated alerting and real-time internal notification of emergency and code blue calls. The application's bi-level alerting and built-in messaging helps mobilize internal resources to coordinate a response in emergency situations.

The Emergency Notification application integrates seamlessly into the ShoreTel unified communications solution, expanding native emergency number support. With capabilities that are ideally suited to campus environments such as schools and universities, medical institutions, retirement communities, and to virtually all office and manufacturing facilities, it features site-specific and code blue alerting as well as support for US and International emergency numbers.

EMERGENCY: 212 (User212)

CALL ALERT

Date: Thursday, January 22, 2009

Time: 10:52:24 AM

Caller Extension: 212

Caller Name: User212

Caller Site: Headquarters

Caller Location: ShoreTel 560

Features and Benefits:

Real-Time Notification and Communication

Generates real-time, audible desktop alerts & phone calls when an emergency or less urgent “code blue” call is detected. Built-in broadcast text messaging facilitates instant communications for key company personnel.

Informative, Site-Specific Alerts

Both emergency and code blue alerts include physical location and ShoreTel site information in addition to the caller’s name and extension, critical for geographically-dispersed organizations to coordinate in-house first responses for emergent situations.

Multi-media Alerts

Individual users decide on alert types and specify originating sites for which they will receive notifications. Alerts replay until acknowledged.

Wide-Range of Coverage

Supports international and multiple external emergency numbers. Continuously monitors system trunks for emergency calls and also can be triggered by incoming code blue calls]

Proposed System Cabling

- Provide information on the cable type (fiber, copper, other) number of pairs / strands required between buildings.
- Does your cabling requirement take into account redundancy, disaster recovery, and single points of failure?
- Is there a preferred manufacturer for your proposed system required cabling?
- How many pairs of wires are needed to support the specified instruments, terminals and consoles?
- Identify and describe the distance limitations and wire gauge limitations to your station equipment, consoles, administrative terminals, etc.

ShoreTel only requires CAT 5 or newer cable from each ShoreGear switch, and to a switched data port for network connectivity, they are peers and NOT daisy chained.

Analog phones merely require UTP to the desktop, and IP phones require a standard CAT 5 or newer cable from an RJ45 jack at the desktop.

Analog trunk connectivity to the PSTN is accomplished through a standard modular (RJ-21X) punch-down block and a standard 25 pair telephony cable running to the appropriate ShoreGear Voice Switches.

Digital (T1/E1) trunks are terminated at a service provider demark with an RJ-48 connector and then cabled to an RJ-48 connector on the ShoreGear T1/E1 voice switches. Note: the ShoreGear T1/E1 come equipped with an internal Channel Service Unit (CSU).

When connecting a ShoreGear T1/E1 to a legacy PBX, you must use a crossover cable between the two systems.

System Administration Requirements

- Describe the system administration tool(s) available to meet the following requirements.
- Is the system administration application accessible from any workstation on the LAN/WAN?

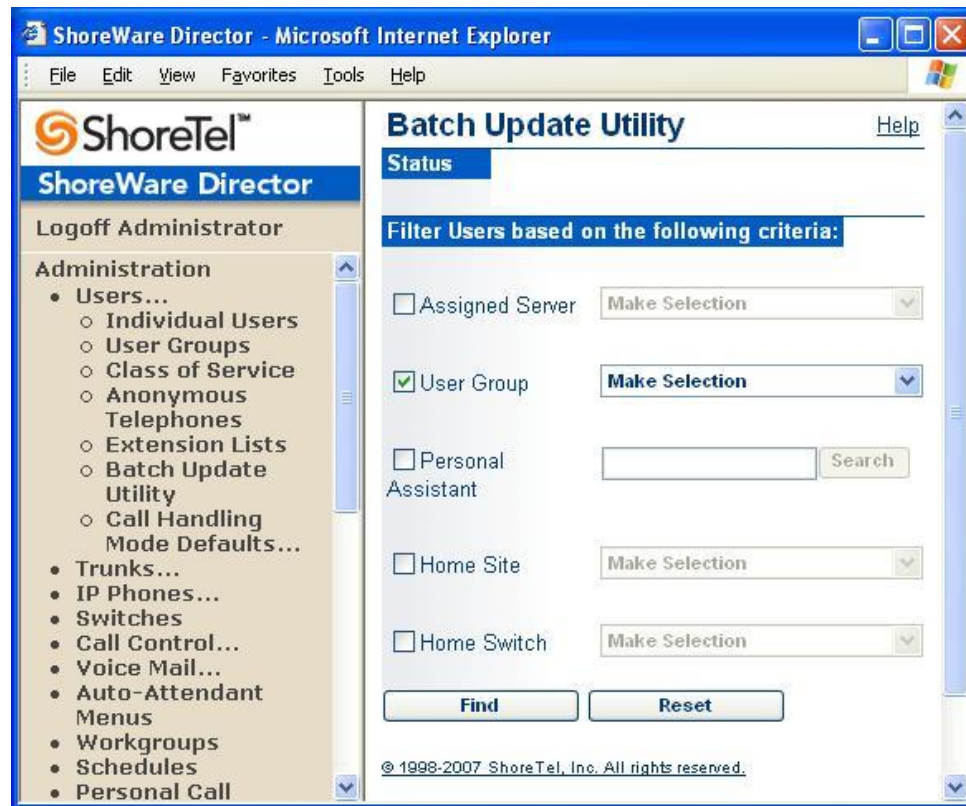
Yes. The ShoreWare Director application is accessible via a standard web browser.

- Is the system administration application accessed through a standard web browser? What Windows OS clients can it run on?

Yes. The ShoreWare Director application is accessible via a standard web browser.

-Can moves and changes be "batched"; that is, can block copy changes be made to a number of subscribers or class of service simultaneously?

Yes, batch updates can be selected and filtered for users using a variety of different criteria. Please refer to the screen shot below:



-Can administration of multiple remote sites be done through a centralized workstation? Is there any limit to how many workstations are supported?

Unique to the industry, ShoreTel is managed as one Enterprise Voice System from a single interface. DVA (Distributed Voice Architecture) enables a customer to efficiently deploy a ShoreTel system across local and multiple remote sites, yet still manage all distributed resources as a single, integrated IP voice communications system. This greatly simplifies such normally complex configuration and administration tasks like adds, moves, and changes – substantially lowering TCO and eliminating the IT manager's "pain points".

-How is security provided to prevent unauthorized access to the administration application? How many levels of security can be defined? Is there any limit to the number of administrative users that can be given access passwords? Can some administrative users be defined with "view-

only" permissions? Can different individuals be given individualized permission levels?

ShoreWare Director is ID, and password protected. If preferred, access may also be controlled through Active Directory credentials.

-Explain how the administrator would reload the database if they needed to restore a previous configuration.

All ShoreTel configuration information is stored in an ODBC MySQL database on the ShoreWare Server. The ShoreWare Data folder in the directory contains all the pertinent configuration data, and typically becomes part of the IT/IS server backup regimen. If a ShoreWare Server at any time needed to have its configuration reloaded all that is required is to restore the ShoreWare Data folder.

-Is there a limit to the number of administrators that can be logged on to the system at one time?

NO

-Does the administrative application system have an alternate form of access if the primary access is unavailable?

No

-Does the administrative application have on-line help? If yes, describe.

All ShoreTel Documentation is context sensitive help delivered in .pdf Adobe Acrobat format, and is installed with the system software. On-line context based Help quickly guides the administrator through system installation and configurations using an easy point-and-click interface. Documentation is refreshed on upgrades.

-Does the system have a web-based or GUI-based administration tool? Is this included in the price?

Web based and it is included in the proposed solution

-Can a single instance of the administration tool be used to manage all systems within an enterprise simultaneously?

Unique to the industry, ShoreTel is managed as one Enterprise Voice System from a single interface. DVA (Distributed Voice Architecture) enables a customer to efficiently deploy a ShoreTel system across local and multiple remote sites, yet still manage all distributed resources as a single, integrated IP voice communications system. This greatly simplifies such normally complex configuration and administration tasks like adds, moves, and changes – substantially lowering TCO and eliminating the IT manager’s “pain points”.

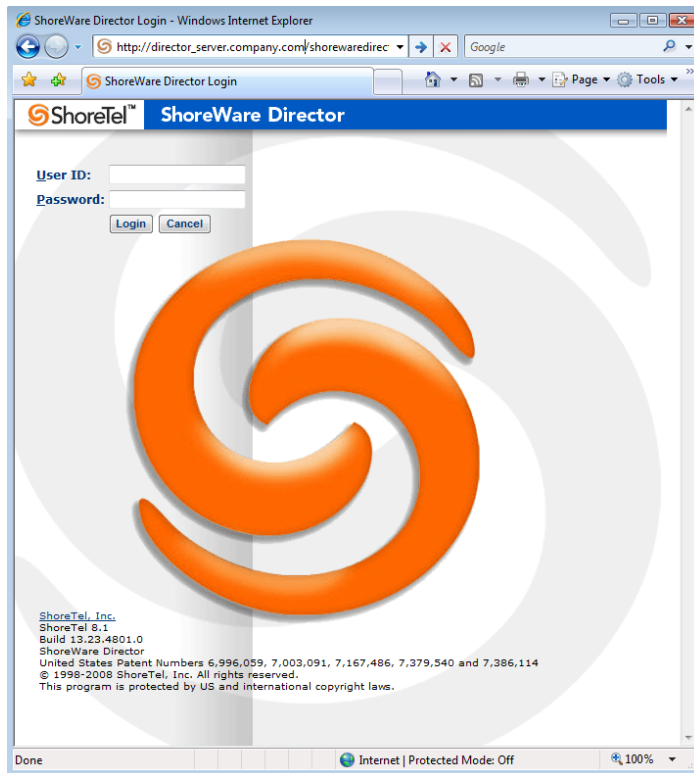
-Describe the database used to administer the IP PBX and populate the telephone tables. Describe how this database might be integrated with the City of Hollywood's current email, NT, and HR databases.

ShoreWare Director Software is a powerful web-based tool that enables IT organizations to manage all sites, users, and applications as a single image voice communications network. There are no command-line scripts to learn, no ponderous reference guides to study. The simple, browser-based, point-and click interface makes it easy to add or delete trunks, switches, and users in seconds, eliminating the need for expensive training or outside consultants. On-line Help quickly guides the administrator through system installation and configurations using an easy point-and-click interface. ShoreWare Director Software offers a new paradigm in voice system administration, eliminating the need for multiple management consoles and enabling a single IT administrator to easily manage voice communications for the entire network from a single location anywhere in the enterprise.

ShoreWare Director Software automates software updates to the ShoreGear voice switches and ShoreWare Communicator applications. Using an integrated software distribution mechanism, ShoreWare Director Software maintains an inventory of the firmware running on the ShoreGear voice switches, as well as the version of the ShoreWare Communicator software, and automatically performs updates to keep the system running optimally.

ShoreWare Director Software is a browser-based management interface. System administrators use this graphical management tool to configure and monitor all the functions of the system. The ShoreWare Director software’s point-and-click interface provides quick access to useful information anywhere, anytime. The ShoreWare Director Web interface lets any PC on the network be used as the management station, eliminating the requirement for a dedicated management

console.



System Monitoring and Diagnostics

-What diagnostic tools are available? Does the system support the Windows 2008 or 2012 Event Log? What diagnostic reports are available to aid in isolating faults? Can diagnostics be remotely accessed? Are the system's diagnostic tools SNMP compliant?

-What remote diagnostics are available? Can administrators see and access any alarms or alerts on the system from remote terminals?

-Describe the system monitoring report(s) available from the IP PBX. If monitoring reports are not supported with the current proposed product, state when they will be available in a released product, and what the expected limitations of these reports will be at that time.

-For each of the following system monitoring items listed below, respond with a "Yes" if the proposed IP PBX monitoring reports can support this feature. If the answer is "Partly Yes", then define exactly what is supported and what is not supported, and when you expect the IP PBX to be able to support this feature. If the answer is "No", then state when you expect the IP PBX to be able to support this feature.

Feature	YES	NO	Availability Date
Status Trunking	X		
Real-time traffic	X		
Status of all routing components	X		
Status of all remote components	X		
Status of individual stations	X		
Status of all gateway ports	X		
Provide call trace capability	X		

-Describe the system alarms and alarm notification available from the IP PBX.

ShoreTel's Diagnostics and Monitoring (D&M) is a web-based application that provides detailed information and tools for managing your ShoreTel system. The focus of the application is on the following key management tasks:

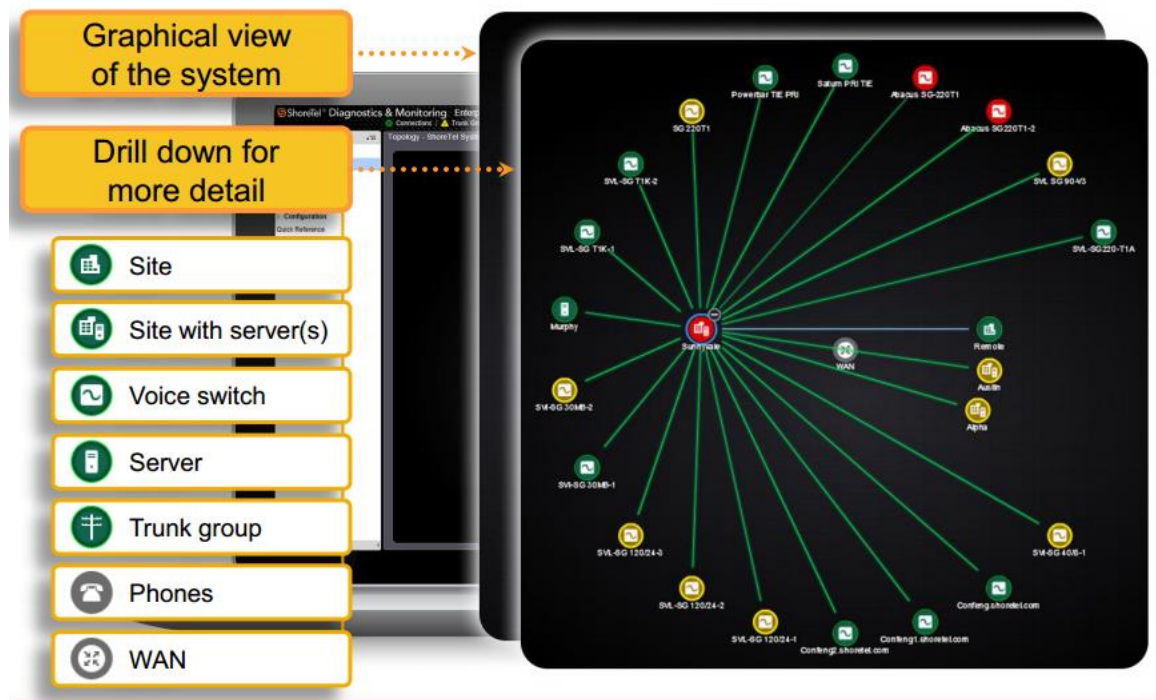
- ☐ **Status, fault and performance monitoring**
- ☐ **System capacity planning**
- ☐ **Voice quality monitoring**
- ☐ **Troubleshooting and root cause analysis**

The clean interface of the D&M application within ShoreTel 14 provides clear visibility across the system with relevant information consolidated and collected in an easy-to-use format.

D&M allows quicker action, which further lowers TCO because the system is now even easier to monitor and diagnose. With no waiting on end users to report problems, problems are resolved faster due to speed of access to important system information. Improved upgrade experience: faster upgrade of phones, scheduled backup and restore capability, persistent logging through upgrades

D&M is launched from the ShoreTel Director main page. A quick view Status Bar gives an immediate visual indication of the health of various key elements in the system, including connections, trunk groups, bandwidth, voice quality, switches and servers.

The D&M Dashboard gives a graphical representation of Call Volume, Call Quality, Bandwidth Utilization, Trunk Group Usage, Feature Usage and CPU usage so you can easily and quickly have an overview of the overall health and performance of the system. A visual map of the system topology is presented with color coding to indicate quickly if there are any issues.



IP TELEPHONY SYSTEM HARDWARE AND SOFTWARE

System Hardware

KEY REQUIREMENTS

GATEWAYS.

A single gateway is desired, and should be able to handle five PRI's with the ability to grow to accommodate ten. This needs to be accomplished, without the need to change the original gateway, or add more gateways for growth. The gateway should also be able to function as a SBC, as well as host FXS/FXO, PRI, TI-CAS and provide survivability.

The proposed configuration has (12) T-1K configured as per the specifications presented by Janice English on 5/9/2014. Each T-1k supports one PRI, T1 or 20 fully featured SIP trunks. Instead of having a gateway that supports multiple PRI's and having an "all in one basket" approach, ShoreTel views redundancy on the traditional trunking side as having one low cost appliance to support one PRI and if there are multiple circuits which City of Hollywood has if there is an appliance outage it will only affect that one circuit and calls can be rerouted through the carrier to the other circuits. Each ShoreGear Appliance 30/50/90 and 220 T1a supports FXO and FXS ports as well as the 24a which supports 24 FXS ports

TELEPHONY CALL CONTROL

The City of Hollywood requires that the U.C. environment must be able to have survivability and provide the following full features during failover:

- Video
- SIP Trunking
- SIP Lineside functions
- Session Manager
- Telephony

The proposed solution must have a four level redundancy architectural design before total system failure is experienced.

Response: It should be noted that the ShoreTel system architecture has no single point of failure. The unique distributed model has multiple built-in redundancies at all levels to safeguard voice communications, thereby delivering 99.999% availability.

A key component of the ShoreTel architecture is the ShoreGear voice switch. Dial tone and call routing runs from the ShoreGear voice switches. The ShoreGear voice switches are 100% distributed and have no dependence on the other voice switches to continue providing voice services. If a ShoreGear voice switch goes out of service, only the users on that individual switch are impacted. IP phones associated with that ShoreGear switch have the ability to failover to another ShoreGear switch if spare IP Phone ports are available. Mean Time Between Failure on ShoreGear Switches is projected at 12+ years based on units shipped. All hardware devices are self-contained, solid state devices with no moving parts (other than a fan). The embedded operating systems used are either Linux or VxWorks, making this a high availability system.

In the event of a server failure, ShoreTel accepts calls without disruption or loss of dial tone – switching and routing is managed by the distributed switches. The server supports voice mail, auto attendant and administration applications. Core telephony continues regardless of server status. Temporary loss of voice applications (voice mail, automated attendant, etc.) can be avoided by implementing a server clustering strategy for automatic fail over to a redundant back-up server.

The ShoreTel system distributes the voice intelligence throughout the network. All ShoreGear voice switches are capable of supporting their local users regardless of availability of the WAN. Should there be a WAN disruption, all sites will run independently. The ShoreTel system is designed to leverage the WAN when it is available without a specific dependency on the WAN for individual site operations. Should there be a complete power failure at a site, each ShoreGear has a built in bypass that will connect one analog phone user per ShoreGear to one analog trunk.

Our distributed software architecture for premise customer includes software that:

- allows a geographically-distributed system to operate and be managed as a single system;
- enables calling between ShoreTel Voice Switches and allows calls to be distributed among Voice Switches instead of using a single centralized call control server;
- enables ShoreTel Voice Switches to obtain call routing information;
- monitors the bandwidth consumed on each WAN segment and prevents the system from exceeding bandwidth limitations;
- monitors all call activity on Voice Switches, and enables integration of ShoreTel and third-party applications;
- coordinates the functions of all servers and Voice Switches on the system, allowing them to perform as a single, virtual server; enables remote ShoreTel and third-party applications to access and modify our systems;
- enables the Voice Switches to communicate with the application server, and receive system configuration information; allows each Voice Switch to maintain a comprehensive view of the system; provides a graphical user interface for our phones; and allow the system to scale from small (10 users) to large (20K users) simply by adding additional components in the same hardware platform and system image

VOICE MAIL.

Active/active and load
balanced.

Response: It should be noted that the ShoreTel system architecture has no single point of failure. The unique distributed model has multiple built-in redundancies at all levels to safeguard voice communications, thereby delivering 99.999% availability. Using the features of VMware only adds to the high level of availability

CONTACT CENTER.

Active/Standby

Call preservation is paramount, and must be maintained, and to that end failover must be less than three seconds (less than industry standards).

-Describe in detail the hardware platform supporting the solutions in the small, medium, and large deployment scenarios. Include whether the solution uses open-market industry standards-based hardware (with specifications) or is a closed (proprietary) platform.

Highly Available Virtual Contact Center

The Enterprise Contact Center can be deployed on customer premises or in the data center. Running ShoreTel Enterprise Contact Center in a virtual environment benefits customers in many ways. When deployed on a shared hardware resource in a data center, VMware Ready certified Enterprise Contact Center not only provides complete multimedia and outbound capabilities but also ensures a high level of application availability, improved operational effectiveness and reduced hardware and energy costs thanks to its efficient use of the VMware platform.

Integrated Into Your Business Processes

The ShoreTel Unified Communications (UC) system is based on open standards, so where additional business intelligence is required, ShoreTel Enterprise Contact Center workflow easily integrates with other enterprise applications to increase the overall value of information, and to deliver business intelligence. Applications integrate into customer relationship management (CRM) solutions, trouble ticketing solutions or, in fact, any backend database/customer management system to increase agents' productivity while optimizing the customer experience

Fully Integrated, All-In-One Solution

ShoreTel Enterprise Contact Center is integrated into the ShoreTel UC system, and runs without specialized computer-telephone integration (CTI) platforms. Supervisors and agents are connected to the server via intuitive user interfaces that provide the tools they need to deliver superior customer service.

High Availability with Brilliant Simplicity

ShoreTel enables previously stand-alone contact center functions, including ACD, IVR, computer telephony integration (CTI), outbound campaigns, and multimedia routing, to be integrated onto a single, centrally web managed, highly available platform. ShoreTel also makes it possible to integrate contact center workflow with other enterprise applications, increasing the overall value of information, and expanding business intelligence.

-What equipment will have to be purchased to support the proposed solution? The Enterprise Contact Center is comprised of the Base software package along with agent and supervisor licenses(voice and multimedia) All included in the pricing for 80 agents. TeleSwitch is also including the VM server to run the ECC component.

-Can the solution work on a customer-specified platform, or is a specific vendor platform required?

ShoreTel Enterprise Contact Center solution requires a windows operating system environment which can be run in an industry standard server or VM. TeleSwitch has included the VM component

-What is the model name and number of the proposed IP call processing system (gatekeeper)? Enterprise Contact Center Version 9

-Describe the IP call processing hardware platform in detail. Is it based on industry standard hardware, or is it proprietary? ShoreTel Enterprise Contact Center database is SQL based.

-What standard components are included on the call-processing platform? What components are optional? The ShoreTel Enterprise Contact Center includes the base software with the appropriate licenses for the agents and supervisors

-What is the maximum user capacity of the proposed IP communications system? Provide a description of how scalability is achieved. For example, describe what is required to scale from 100 users to over 25,000 users. The ShoreTel system can scale to 22,000 endpoints in a single image and multiple images can be connected via SIP. The system can grow using hardware appliance as well as virtualized voice appliances and just adding virtual licenses for the users. The configuration for the City of Hollywood is a combination of hardware and virtualization.

-What is the maximum number of simultaneous conversations supported by the proposed system? Is the system non-blocking for voice calls? 5,000

-What is the maximum number of busy hour call attempts supported by the proposed system? 50,000, 2,500 calling 2,500 x 20 calls per hour

-Describe all the gateways the vendor can provide to support connectivity to legacy TDM equipment and the Public Switched Telephone Network (PSTN). Be sure to include a description of the gateway options available for analog station and trunk and digital trunk connectivity.

The following trunk interfaces are supported:

- [Analog loop start](#)
- [Analog Direct Inward Dial](#)
- [Digital loop start](#)
- [Digital wink start](#)
- [PRI](#)
- [SIP](#)
- [BRI \(supported in some EMEA & APAC countries\)](#)

-Identify all PRI services that you support: [ANI](#), [call-by-call](#), [DNIS](#).

-Identify all PRI feature and signaling options.

[ShoreTel supports PRI protocols 4ESS, 5ESS, DMS-100, and NI2. By using NI2 on a PRI, ANI, DNIS,](#)

[are supported. QSIG – Calling name is supported if the standard is similar to NI2.](#)

[Caller ID and DNIS are supported on SIP Trunks.](#)

-Identify all the PRI features that the proposed system has supported at working customer sites.

[ShoreTel supports PRI protocols 4ESS, 5ESS, DMS-100, and NI2. By using NI2 on a PRI, ANI, DNIS,](#)

[are supported. QSIG – Calling name is supported if the standard is similar to NI2.](#)

[Caller ID and DNIS are supported on SIP Trunks.](#)

-Please provide a list of PBXs and Central Office switches to which your PRI trunk has been

successfully connected.

ShoreTel supports PRI protocols 4ESS, 5ESS, DMS-100, and NI2. By using NI2 on a PRI, ANI, DNIS,

are supported. QSIG – Calling name is supported if the standard is similar to NI2.

Caller ID and DNIS are supported on SIP Trunks.

-Does the Proposer support H.323-compliant gateways from other manufacturers?

ShoreTel does not support H.323. We can connect to H.323 end-points via a SIP-to-H.323 gateway, but we do not certify any of them. Generally though, a Cisco router could be used for this.

Does the system have a web-based or GUI-based administration tool? Is this included in the base price? **Yes**

-Can a single instance of the administration tool be used to manage all systems within an enterprise simultaneously? **Yes**

System Software

-Which software package is being proposed? Please provide the release and version?

Response: For the core UC platform, we propose ShoreTel release 14.x (whichever is current at time of deployment). For the contact center, we propose ECC release 9.

-Is this the most recent release of this software? When is the next software release due? **Yes**

-Does the system main memory utilize RAM and/or ROM, or other? RAM would be associated with the Headquarter server, and Enterprise Contact Center. TeleSwitch has provided the necessary configuration for a VM server to accommodate all components being proposed.

-How does your company provide future software releases? How are software upgrades performed?

ShoreTel is continually improving its software product line. We will supply the latest version of our General Availability release to customers at the time of purchase. As upgrades become available, Release Notes are published for our customers to understand the differences between the upgrade and the current release. Medium is on DVD or TFTP.

For software upgrades, you simply install the new software on the

ShoreWare server, and all the ShoreGear voice switches, across all locations, are automatically upgraded to the new release.

In addition, users are notified of the new software release and will be prompted to automatically upgrade their software or administrators can easily upgrade the software on all client machines using Microsoft Active Directory Group Policies regardless of the permissions associated with those machines or the users who log into those machines.

While a customer is under support all software upgrades are included at no cost to The City of Hollywood.

-When system or station software updates are performed, must the system be shut down, or can these types of activities take place in an on-line environment?

The ShoreTel system provides automated software distribution for all components on the system. When you add a new ShoreGear voice switch or IP Phone to the system, the ShoreWare server will automatically upgrade it to the current software release. When you add a new user on the system, they will receive an E-mail with a URL from which they can automatically download and install their desktop call control and unified messaging applications or these applications can be “silently deployed” to the user’s desktop using Active Directory Group Policies.

System upgrades – load new release on server. Server pushes new code to all switches and IP Phones on the network, simultaneously, or by individual selection (administrator option).

- Average downtime experienced with Server/Software upgrade: 20 minutes
- Average downtime experienced with the ShoreGear Switch: 60 seconds

System upgrades begin at the server that supports the Director software. This upgrade is performed via an installer software package, once performed; any other Distributed Application Servers can then be upgraded. Once all server components are upgraded, ShoreTel switches can then be upgraded. These can be upgraded either immediately after the servers are upgraded, or can be set to upgrade automatically when the ShoreGear switch is idle. This can even be done in a stepwise manner to limit or eliminate any downtime for users. Once the ShoreGear switches are upgraded, user telephones can also be upgraded all at once, a site at a time or individually as required. Finally, the ShoreTel Communicator client can be upgraded at the convenience of the IT administrator. This can be done by the users (if allowed) or can be pushed via an Active

Directory Group Policy.

-How frequently do you back-up the operating software, which includes up- to-date moves and changes? Is a copy secured off-site, and how frequently is that copy updated?

The ShoreTel system does not provide for an automatic backup of its files. Customer's should implement their own backup process, and include the ShoreTel database files within that process.

If restoring from a ShoreTel backup file, customers will lose the following:

- Any "adds, moves, changes" made since the backup
- Any voicemails recorded since the backup.

-What non-proprietary open systems computer telephony (CTI) applications are available with the proposed system?

Response: The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI, JTAPI, MAPI, QSIG, as well as several SIP RFC's. All IP handsets recommended as part of the proposal response use the MGCP or SIP standard signaling protocol. Most of the system features are available on analog sets.

-What is your plan of record for developing CTI applications?

Response: The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI, JTAPI, MAPI, QSIG, as well as several SIP RFC's. All IP handsets recommended as part of the proposal response use the MGCP or SIP standard signaling protocol. Most of the system features are available on analog sets. The ShoreTel Innovation network is always allowing for 3rd parties to develop applications for the ShoreTel solution as well

-What Telephony Application Programming Interface (TAPI) applications do you support or currently offer?

Response: In addition, the ShoreTel system includes TAPI compliant voice applications that are bundled with the system. These include: Voice Mail, Automated Attendant, Automatic Call Distribution, Call Detail Recording, Unified Messaging, and Desktop Call Control. Also, 3rd party TAPI-aware applications can take advantage of our TAPI interfaces.

-What Java Telephony Application Programming Interface (JTAPI)

applications do you support or currently offer?

Response: The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI,

JTAPI, MAPI, QSIG, as well as several SIP RFC's.

Do you have a partner program for third-party applications development? If so, list certified example offerings.

The ShoreTel Innovation Network provides market and innovation leaders with the opportunity to develop, validate, and document your product's interoperability with ShoreTel's UC solution. Additionally, it provides a unique way to introduce your company to ShoreTel's array of Reseller Partners and end-user customers.

The Innovation Network offers two levels of membership: Foundation and Alliance.

Foundation-level membership is designed to provide the technical information and tools necessary for third parties to integrate their solutions with ShoreTel (no charge to join)

Alliance-level membership is intended for members who have completed the development necessary to integrate with ShoreTel's UC solutions and wish to validate, document and market its interoperability.

Companies that are part of the Alliance-level are SIP carriers such as Windstream, ATT etc. Applications such as DuVoice and BridgeSpeak and Wireless with Ruckus to name just a few. The members of the ShoreTel Innovation Alliance members are constantly being updated on the ShoreTel website.

-Describe how the system supports workers who may perform their job from more than one location.

All users have the ability to "Hot Desk" into any phone in the system. This will allow the user to move their profile not just perform a call forward, all class of service features, etc will move with the user. The "Hot Desk" feature does not require a license.

Conferencing

-If your system supports Meet-Me conferencing, how many parties to a conference and how many simultaneous conferences to a resource? Describe the resources and their limitations.

Yes. We support both scheduled "meet-me" conference and reservation-less "ad-hoc" conferencing

-Is there password protection and entry and exit tones?

Yes, both entry and exit tones can be played. When Hosts are setting up the meeting, he/she has the option of Participant Announcement listed below:

- None: No audio indication that a user has entered or left the conference.
- Tone: Audio tone when a user enters or leaves the conference.
- Detailed: Detailed message when user enters or leaves the conference. The user is prompted for their name.

-Is there a scheduling package for managing defined capacities?

Conference resources are not reserved

-What hardware and software resources are required?

The SA-100/400 is an appliance that installs on a ShoreTel server site and performs processing functions for conference calls and IM sessions. In conference calls, the SA-100/400 serves as a hub that receives audio and data streams from the participants, bundles the streams, and distributes the bundle in multicasts to the other conference participants. The SA-100/400 also maintains conference Web pages and manages IM sessions for users.

The SA-100/400 provide seamlessly integrate with user desktop applications such as ShoreTel Communicator and Microsoft Outlook. The SA-100/400 is an appliance, therefore uses an embedded OS and does not virtualize today.

The SA-100 supports up to 30 web and 50 audio conferences.

The SA-400 supports up to 100 web and 200 audio conferences.

-How many simultaneous conference calls can be scheduled? How many participants are supported per conference?

The ShoreTel system can handle 6 party conference calls.

For conference calls larger than six parties in a single call, you have the option of adding a conference bridge, starting at 10 ports and ranging up to 200 ports of audio. The conference bridges come in two options: audio only and multi-media versions.

The system allows users to preload an application, share applications, and schedule calls using Outlook or a web browser interface.

-Describe how the City of Hollywood employees from non-company telecommuting locations can (a) gain authorized access to the IP PBX to make calls to (b) local or (c) long distance calls. ShoreTel mobility(100 users are configured in solution) can be used for a City of Hollywood employee to make calls using their cell phone(smart device) this can be done using WiFi, cellular data or cellular voice. By the employee using WiFi they would not incur an expense in

using their cell phone.

System Features

For the following features, use the table to indicate their availability. Note if any of these features are optional or result in additional charges.

FEATURE
Answer/Answer Release yes
Application Sharing yes with SA-400 included in price
Attendant Console yes (included in price)
Audio Volume Adjust yes
Auto Echo Cancellation yes
Automated Call-by-call Bandwidth Selection- Yes
Automated Phone Installation Configuration- Yes with DHCP configuration
Automatic Phone Moves- Yes with DHCP configuration
Call Detail Records yes
Call forwarding (Off Premise) yes based on COS
Call forwarding (Ring and/or No Answer) yes based on COS
Call forwarding (Self Directed) yes
Call Hold / Release yes
Call Park / Pickup yes
Call Transfer yes
Call Waiting yes
Calling Line ID Line and Name yes if provided by Central Office
Chat yes with SA-400 included in price
Conference (unicast)- Yes
Conference (multicast)- NO
Direct Inward Dialin_g_ yes
Direct Outward Dialing (DOD)- Yes
Distinctive Ringing (internal vs. external call) yes

Distinctive Station Ringing Pitch yes
Event Logging and Reports yes
Event Viewer Interface yes
External SMDI Interface No
File Transfer- Yes
H.323 V2 RAS Support- not supported only through SIP or PRI Gateway
IP Phones set IP Precedence Bit- Yes
IP Routable- Yes
IP-based Integrated Messaging Yes
JTAPI- Yes
Last Number Redial yes
License Management yes
Multiple Calls Per Line Appearance
Multiple Line Appearances
Number Portability This is a feature of the carrier
Performance Monitor Interface
PRI Protocol Support (NI-2 and EuroiSDN) yes
Privacy (prevent barge in on bridged extension)- Yes
Redundant Call Managers Yes
Remote Process Control Yes all management is via a web browser
Ringer Pitch Adjust Yes
Ringer Volume Adjust Yes
Shared Extensions on Multiple Phones Yes
Single Button Collaborative Computing/ Virtual Meetings Yes
Speakerphone Mute- Yes
Speed Dial (Auto-Dial) Yes
System Events on Windows NT Event Viewer- System Events and Monitoring comes standard with the ShoreTel solution
TAPI2.1- Yes
Toll and Nuisance Number (900,976,970,550,540 exchanges) Restriction Yes
Tone On Hold- Yes
Video Yes with Professional Access License
Visual Message Displays (All digital telephones) (name, extension, etc.) Yes on all IP phones digital phones are not included
Web Administration Yes
Web Documentation Yes
Web-based Speed Dial (Auto-Dial) Yes
Whiteboard Yes with SA-400

Station Hardware and IP Softphone

- What methods are available for disposition of blocked calls (announcements, reorder, queuing, others)? Each user has the ability to create call routing rules based on caller ID in order to forward calls or send calls to announcement.
- Provide a description of each IP telephone available with the proposed system

ShoreTel IP Phone 420	
	
<p>The IP420 is a cost-effective telephone ideal for contact center, lobbies, classrooms and dorm rooms. The IP 420 has six feature keys for common operations, a two-line display for caller ID, date and time. Like all ShoreTel IP phones, the IP 420 features an integrated Ethernet switch, allowing a network drop to be shared with a desktop PC.</p>	

ShoreTel IP Phone 480/480G



The IP480 is ideal for high phone usage and professionals. The IP 480 has six feature keys for common operations includes a backlit mono screen, 8 line keys, expanded call history and visual voice mail. Like all ShoreTel IP phones, the IP 480 features an integrated 10/100 Ethernet switch, allowing a network drop to be shared with a desktop PC. The ShoreTel IP 480g features an integrated 10/100/1000 Ethernet switch.

ShoreTel IP Phone 485g



The IP485g is designed with the advanced professional in mind. The IP490g has a unique angular design and backlit display. The IP 485G has 6 feature keys for common operations includes a backlit mono screen, 8 line keys, expanded call history and visual voice mail and an integrated 10/100/1000 Ethernet switch, allowing a network drop to be shared with a desktop PC.

-Do you offer an IP softphone? ShoreTel offers the Professional Access License which will allow for a Soft Phone [Yes](#)

-Provide a general description of the IP softphone and its features and capabilities. [See Below](#)

-What PC operating system is required for the IP softphone? [See Below](#)

-What are the PC requirements for the IP softphone? [See Below](#)

-What standards are supported by the IP softphone? [See Below](#)

-Does the IP softphone support teleconferencing applications like Microsoft Lync or does it include an industry standard compatible application? [The ShoreTel Professional Access License provides integration with the ShoreTel Conference Appliance. ShoreTel provides integration to Microsoft Lync which would provide Telephony information within the Lync client](#)

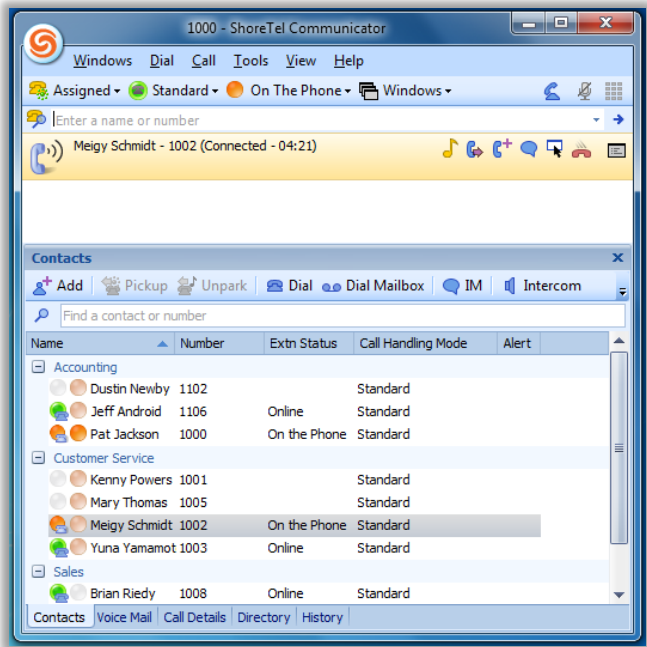
-Is a physical IP phone required in addition to the IP softphone?
NO

ShoreWare Professional Communicator

ShoreWare Professional Communicator provides all of the capabilities of the ShoreWare Personal Communicator and helps organizations streamline business communications, improve communication accuracy, and enhance overall end user productivity at or away from the desk. The feature-rich, advanced functionality in ShoreWare Professional Communicator serves an integral part of ShoreTel's end-to-end UC solution, which helps organizations improve customer service, and optimize system performance and utilization.

Highlights:

- [Integrated SoftPhone](#)
- [Find and connect to people fast](#)
- [Know who is available, and by what means](#)
- [Add contacts and instantly know their phone and IM presence](#)
- [Utilize IM and open up more opportunities to communicate](#)
- [Conduct clear, person-to-person video calls](#)
 - Vista/Windows 7/ Windows 8 Operating System
 - CPU: Pentium IV 2.0 GHz
 - Available Memory: 1 G
 - Hard Disk Space: 1 G
 - CD Optional
 - First Network Adapter: 10/100 Mb



-Can the user set up conference calls by dragging and dropping the participants from a list on their display or from a directory? Can the user place a call by dragging and dropping the party to be called from a directory? [The Operator and mobility clients provide drag and drop capability](#)

-Is the graphical user interface configurable by the user? Describe which features can be customized.

ShoreWare Communicator

ShoreWare Communicator is a UC end-user application suite, which includes:

- [ShoreWare Personal Communicator](#)
- [ShoreWare Professional Communicator](#)
- [ShoreWare Workgroup Agent Communicator](#)
- [ShoreWare Workgroup Supervisor Communicator](#)
- [ShoreWare Operator Communicator](#)
- [ShoreWare Mobile Communicator](#)

Each application offers your organization a way to empower your users to communicate via video, voice (wired or wireless) or IM, streamlining business communications, improving communication accuracy, and enhancing overall end user productivity.

With ShoreWare Communicator, ShoreTel offers unprecedented ease and flexibility. ShoreWare Communicator provides easy licensing, easy setup, flexible features, telephony and IM control, integrated advanced call management, quality desktop video and a highly customizable interface.

With ShoreTel Communicator, you can:

- [Quickly Access Your Directories](#)

ShoreTel Communicator provides immediate access to your online directories and personal Microsoft Outlook contacts. This feature makes it easy to quickly connect to the right person and to contact coworkers using IM or email.

- [Manage your Contacts from within Microsoft Outlook](#)

With Microsoft Outlook integration, you can manage your voice mail and contacts using a full set of flexible, productivity-enhancing features. This includes the ability, from within Outlook, to call contacts and define how your calls are handled when in a meeting or appointment.

- [Identify a Contact's Phone and IM Presence](#)

Uniquely, ShoreTel Communicator indicates both phone and IM presence. So you can immediately see a contact's phone and IM presence status, allowing you to determine the best way to reach them. Presence status is also displayed in Microsoft Outlook.

- [Never Miss a Call](#)

You can choose to be reached through multiple phones, or through a progression of escalated phones. And if you are unable to answer a phone, you can specify that your calls go directly into voice mail.

- [Personalize Call Handling](#)

Using ShoreTel Communicator, you can personalize how your incoming calls are handled based on caller identity, when a call was placed, and your active call handling mode. Calls can be automatically sent to voice mail or to another phone number. You can also play specific ringtones based on caller identity.

- [Turn Your PC into a Telephone](#)

With ShoreTel Communicator's SoftPhone, any Microsoft Windows computer can be turned into a telephone to be used in your home office or on the road. The ShoreTel Communicator fully integrated interface makes it easy to turn your PC into a telephone.

The ShoreTel Communicator window is made up of the following:

- [ShoreTel button](#)
- [Assignment Bar](#)
- [Toolbars](#)
- [QuickDialer](#)
- [Active Call area](#)
- [Content area and Content Windows](#)
- [Status Bar](#)

The components of your ShoreTel Communicator window may be different depending on how your system administrator has configured the application, your platform, and the current viewing mode.

-Does the IP softphone include an integrated help function? **NO**

-Does the IP softphone maintain a call history log (separate from the system CDR)? **Yes the last 1000 calls just like the Personal Access License**

-Are shared extensions supported on the **IP** phones? Explain how these work in a call coverage application. **Yes**

-Do the phones require manual labeling of features or lines? **No, self Labeling keys**

-Do the phones support pushing of **URL** content? **Yes the 655, 560g and 265 have supported API's the 400 series phones will have the supported API's in the future**

-Can the phones be configured to point to a primary and backup server for redundancy? **Yes**

If "Yes" is answered to the above question, is failover automatic and how long does it typically take to connect to the backup server? **It is automatic and immediate**

If yes, how many servers can the phone be configured to point to? **Primary and secondary**

-How are software/firmware upgrades applied to the phones?

The reliability of the system can be further improved by adding an additional "spare" switch to the headquarters location. This allows for the spare switch to take over for a failed switch anywhere in the connected environment to deliver redundancy via a "n+1" capability, where (n) can be up to 500 switches protected by deployment of a single (+1) (or if desired, multiple) spare switch(es). This unique ShoreTel

architecture feature achieves mission critical uptime and availability at a fraction of the cost of competing solutions requiring Primary/Spare or “n+n” architectures, typically requiring a dedicated back-up switch for each primary component.

-Do phones support "log in" to use another person's phone and have your calls directed to that phone? Yes it is called Hot Desking and it is supported with no additional license fees

-Describe all methods for forwarding calls to cover positions, Voice Mail and the Operator. Identify how many cover points can be included in the call forwarding, hunting or cover path.

-Please describe the proposed system's speed dialing capabilities.

The ShoreTel solution has a **system wide directory** available by phone or via Personal Communicator. This directory allows a user to search for another user regardless of their physical site location by first or last name or by extension.

-Identify any of your system's telephone sets that require local power. Is power required locally at the station? Please specify the power requirements for each type of set and if they require local or closet power. If power is lost (for any telephone type), is the telephone set completely disabled or, is support services such as LCD/LED devices disabled?

-Please describe the type of headsets available for all IP phones.

-Does your station equipment provide the following features?

FEATURE	YES	NO	OPTIONAL
Application Sharing	Yes		
Audio Volume Adjust	Yes		
Auto Echo Cancellation	Yes		
Call Forward Busy	Yes		
Call Forward No Answer	Yes		
Call Forward All Calls	Yes		
Call Hold / Release	Yes		
Call Park / Pickup	Yes		
Call Transfer	Yes		
Call Waiting	Yes		
Calling Line ID Line and Name	yes		
Chat	Yes		With SA-400
Conference (unicast)	Yes		
File Transfer	yes		With SA-400
Last Number Redial	Yes		
Meet Me Conference (multicast)	NO		

Multiple Calls Per Line Appearance	Yes		
Multiple Line Appearances	Yes		
Prime Line Select			
Privacy	Yes		
Ringer Pitch Adjust	Yes		
Ringer Volume Adjust	Yes		
Shared Extensions on Multiple Phones	Yes		
Single Button Collaborative Computing / Virtual Meetings	Yes		
Single Button Retrieve			
Speakerphone Mute	yes		
Speed Dial (Auto-Dial)	Yes		
Video	Yes		Profession lic.
Whiteboard	yes		With SA-400

-Are the ethernet ports autosensing and auto-negotiable?

Each ShoreGear switch includes an auto-sensing 10/100 Ethernet connection and attaches directly to an industry-standard Ethernet switch.

-Can your solution be configured for VLANs?

Response: Yes. IP phones are a specialized device on the data network and have capabilities and requirements which need to be considered when designing the data network. For example, to help better utilize port capacity on data switches, a PC is allowed to piggy-back on an IP phone and share a single data switch port, utilizing VLAN trunking or tagging the Voice and Data VLANs for each device respectively.

ShoreTel IP phones have an internal 2-port switch on the back of the IP phone to connect it to the data network through the network port as well as a PC through the access port. ShoreTel IP Phones prioritize voice so the connected PC is unable to disrupt outbound voice quality.

Most data network equipment manufacturers have a voice VLAN feature either at the data switch access port or VLAN level that supports various VoIP capabilities (i.e. to mitigate deteriorating IP phone sound quality of a call if the data is unevenly sent due to lack of layer-2 output switch interface buffer prioritization). The Voice VLAN feature helps QoS use classification and scheduling to send network traffic from the switch in a predictable manner for IP phones.

ShoreTel IP Phones have a built-in configuration to seek the ShoreTel server's address with the Vendor Specific DHCP option 156. If this option is not available, ShoreTel's IP phones use option 66. The specific parameters in option 156 are sent directly to each phone to automatically configure the phone that would otherwise need to be configured manually with the phone's keypad to connect to the ShoreTel HQ server (or local DVS in a multi-site deployment) and download phone firmware and other configuration files.

-Can your solution be configured for secondary VLANs? If so, describe how

the configuration is accomplished.

Response: Yes. IP phones are a specialized device on the data network and have capabilities and requirements which need to be considered when designing the data network. For example, to help better utilize port capacity on data switches, a PC is allowed to piggy-back on an IP phone and share a single data switch port, utilizing VLAN trunking or tagging the Voice and Data VLANs for each device respectively.

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-Is VLAN trunking supported, or multiple VLANs on a single interface?

Response: Yes. IP phones are a specialized device on the data network and have capabilities and requirements which need to be considered when designing the data network. For example, to help better utilize port capacity on data switches, a PC is allowed to piggy-back on an IP phone and share a single data switch port, utilizing VLAN trunking or tagging the Voice and Data VLANs for each device respectively.

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-How does your system support power fail transfer?

Every ShoreGear switch that has analog lines is mapped to a power fail transfer

IP Manager-Assistant

-Are there special features or configurations associated with Manager/Boss and Admin/Secretary telephones? [Shared Call appearances are supported](#)

-Is additional hardware or software required? [NO](#)

Managers

-Does the manager have a GUI application for setup or configuration? [All users have the application](#)

-Do managers have access to select assistants that will support their calls? [Through Class of Service delegation can be established](#)

-Are they accessible from Telephone, Application or both? [Both](#)

-Can a manager select whether or not all calls will ring only on assistant's telephone? [Yes](#)

-Are they accessible from Telephone, Application or both? [Both](#)

-If all calls are ringing only on assistant's telephone, does a manager have the ability to see who is calling for them? [Yes](#)

-If so, can a manager intercept or take call from assistant's phone? [Yes](#)

-Can the manager manually re-route an incoming call from his/her phone to the assistant? [Yes](#)

-Can managers configure filters to allow or disallow certain calls to be answered directly by the manager? [Yes](#)

-Are they accessible from Telephone, Application or both? [Both](#)

Assistants

-Does the assistant have a GUI application to support managers? [All users have the application](#)

-Can the assistant send an active call directly to manager's voicemail?

If yes, how many steps are involved? [Yes with only 3 steps on the actual endpoint](#)

-Can the assistant send an active call directly to a manager?

If yes, how many steps are involved? [Yes with only 2 steps](#)

-Can assistant view the manager's status? All users have presence for all users on the system

-Can assistant change or update manager's configuration?
With Class of Service the manager can allow delegation for an assistant to perform these changes.

Attendant Console

The City Of Hollywood prefers a PC-based attendant console application rather than a traditional hardware console. Does your system offer a PC-based attendant console application? If so, please respond in detail to this section.

-Provide a description of the general capabilities and features of your PC-based attendant console application.
[See Below](#)

-Is the PC-based attendant console application browser-based? What PC operating systems are supported?

-Provide an illustration of the PC-based attendant console application GUI and describe its key features.
[See Below](#)

-Does the PC-based attendant console have loop keys?
[Loop keys are features of key system generally. ShoreTel does not have loop keys per se on the console, although we could create custom trunk access code buttons that would look and act like loop keys, if this were required.](#)

[How many loop keys are supported?](#) [N/A](#)

-Does the PC-based attendant console application have a busy lamp field (or equivalent)? [All ShoreTel Client licenses include presence of all endpoints](#)

-Can the PC-based attendant console application access the corporate (LDAP) directory? Can the operator search the directory? Can the operator use the directory list to drag and drop incoming calls to the destination extension? [Comply](#)

-Is the PC-based attendant console application a separately priced option? If so, what is the price? [Yes please see line item pricing section](#)

-Do all of the PC-based attendant console applications that are running share the same information? [No they](#)

can be configured for each user

-How many PC-based attendant console applications can be supported by the system? 200

-What is the maximum number of simultaneous calls that can be handled by the PC-based attendant console application? Based on Class of Service and each operator can stack up to 16 calls

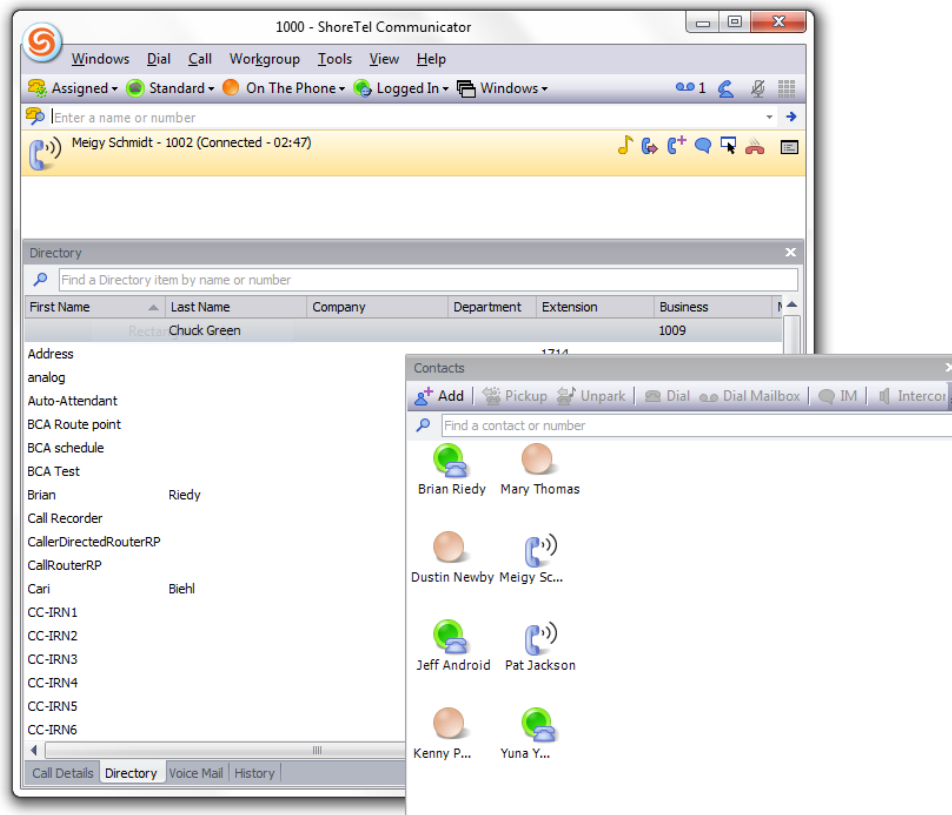
ShoreWare Operator Communicator allows businesses to cost-effectively provide callers with a higher level of personalized, professional service, ensuring that high volumes can be handled quickly and accurately. The customizable interface allows all users to configure the view according to the way they work. Since ShoreWare Operator Communicator shares the same single interface as Personal and Professional Communicator, training efforts as well as capital and operating expenditures are reduced.

Highlights:

- Advanced call management features raise productivity
- Customizable interface lets users arrange the view based on their work style
- One single interface reduces training efforts
- Virtual operator capabilities reduce staffing requirements
- Detailed information enables users to deliver a higher level of service
- Virtual operator functionality frees up your workforce
- Extension Assignment feature lets users work competently from home

For corporate operators, executive administrators and departmental receptionists, ShoreWare Operator Communicator is a flexible tool for managing enterprise UC. Call coverage features, such as extension monitoring, drag and drop call transfers, and call pick-up, speed up connections to your employees. In addition, with IM and presence information, operators can consult a target user via IM before transferring a call.

When transferring a call an operator can see if an extension is available, then select the call and drop it onto the waiting extension to complete the transfer. Operator Communicator also provides access to dynamic, online directories, allowing routing inbound calls to extensions, mobile phones or home phones with the click of a button, speeding up customer service.



System Reporting and Call Detail Reporting

-Describe how system CDR reporting is configured. How are these records accessed? There are 12 reports in the Headquarter Server and all CDR records are stored on the server as well

-What is the format of the CDR records? Can they be exported to an external application for analysis? Yes all reports can be exported into such applications like Crystal Reports

-Does your CDR package offer extensive functionality and ease of use similar to that of OfficeWatch XT? Metropolis is a certified Innovation Partner.

-Does the system have the capability to report by location and on a consolidated enterprise level? Provide examples. The ShoreTel UC system reports on all users regardless of what location they are in. It is a single image system with one management and reporting tools

-What standard reports are included with the system?
Please see the (12) standard reports in the appendice

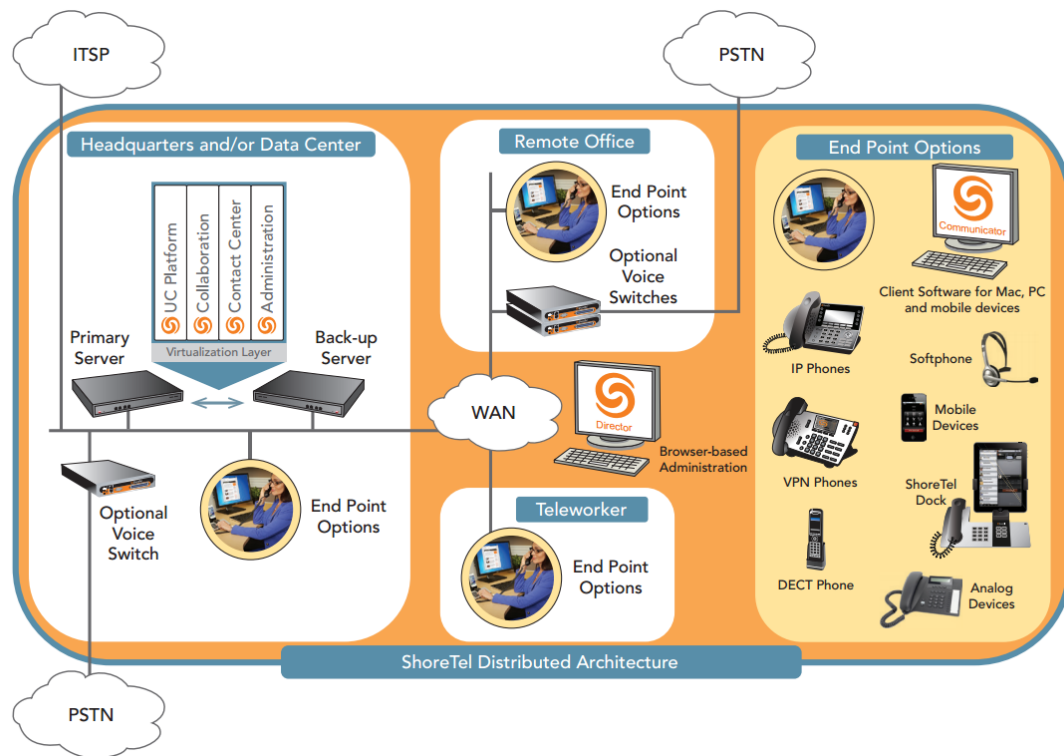
-How are customized reports generated?
By accessing the ShoreWare Director and
sending the report to a system printer or
exporting to a document to email .

VOICE MAIL AND UNIFIED MESSAGES SYSTEM SPECIFICATIONS

Voice/Unified Messaging System Description and Support Options

-Describe in detail your voice/unified messaging product offering. Include an overview of the hardware, software, architecture, and components of the equipment proposed to meet The City of Hollywood's requirements.

Response: ShoreTel unified messaging features can be deployed flexibly—either centralized in a data center or distributed across the network on industry-standard servers (stand-alone or virtualized) or ShoreTel Voice Switches. As a stand-alone system, ShoreTel provides a feature-rich voicemail solution that uses advanced call routing rules to let workers customize how their callers are handled. When combined with the ShoreTel Communicator desktop and mobile user interfaces, users can take advantage of easy-to-use visual voicemail, can integrate their voicemail inside their Microsoft Outlook inbox, and can easily direct their calls based on their calendar.



-What is the typical method of support for future software updates, and how are licensing upgrades handled?

Response: ShoreTel provides a single software load for the entire solution. Under any support model, software updates, upgrades, and new releases are available to users at no charge from ShoreTel.

ShoreTel is continually improving its software product line. We will supply the latest version of our General Availability release to customers at the time of purchase. As upgrades become available, Release Notes are published for our customers to understand the differences between the upgrade and the current release. Medium is on DVD or TFTP.

For software upgrades, you simply install the new software on the ShoreWare server, and all the ShoreGear voice switches, across all locations, are automatically upgraded to the new release.

In addition, users are notified of the new software release and will be prompted to automatically upgrade their software or administrators can easily upgrade the software on all client machines using Microsoft Active Directory Group Policies regardless of the permissions associated with those machines or the users who log into those machines.

-What hardware level support is available? Can the appropriate hardware for our design be purchased directly from Cisco or only from a third party?

Response: Voicemail and unified messaging is a soft-ware only solution deployed on standalone or virtualized (via VMWare or Hyper-V). Hardware support would be provided via the server platform solution.

-Voice mail must be active/active and load balanced. Describe how your solution achieves this.

Response: ShoreTel's architecture is completely distributed. ShoreTel unified messaging features can be deployed flexibly—either centralized in a data center or distributed across the network on industry-standard servers (stand-alone or virtualized) or ShoreTel Voice Switches. When a users' voicemail platform is unavailable, voicemails will be captured by the next available voicemail platform according to the site hierarchy. No voicemails are lost during this period.

Voice/Unified Messaging System Specifications

-How many ports are proposed to support The City of Hollywood's voice mail system? If additional ports are required in the future, how are these added? Explain how the system scales beyond the number of proposed ports.

Response: ShoreTel does not license ports. Each server instance of voicemail provides the full 254 media ports available under the Windows OS. So 2 voicemail servers would provide almost 500 ports of voicemail.

-Are voice messages stored in an industry standard format? How many Mbytes of disk space are required for each hour of voice storage?

Response: Voicemail is stored as WAV files, at approximated 30MB per hour.

-What operating system does the voice mail/unified messaging system use?

Response: ShoreTel unified messaging features can be deployed flexibly—either centralized in a data center or distributed across the network on industry-standard servers (stand-alone or virtualized) or ShoreTel Voice Switches. When deployed on servers, Windows Server 2008/2012 is used, and when deployed on voice switch, Linux OS is used.

-Does the voice mail/unified messaging system support AMIS-A and/or VPIM for networking?

Response: ShoreTel is a completely distributed architecture so there is no need to "network" voicemail systems together, since they are all part of a single system image. AMIS is supported for connection to legacy voicemail systems, if required.

-Does the voice mail/unified messaging system support direct connectivity to Microsoft Exchange? If so, please explain how this functionality is supported.

Response: Exchange can be used as the voicemail platform if desired. There is a license required to enable this. No additional hardware or software need be deployed.

-What database is used for the message store?

Response: ShoreTel uses MySQL for all databases.

-Once a voice mail is left, can it be forwarded to another user? Can the user append comments before forwarding the message to another user? Explain how this works.

Response: Yes. They forward the email, append their message to the recording.

-Is the voicemail/unified messaging system remotely accessible for both subscribers and administrators? Can the system be accessed from a standard touch-tone phone? What other types of clients and points of access are supported?

Response: Yes, voicemail can be accessed remotely via touch-tone phones. It can also be reached via the desktop UC client or via ShoreTel Mobility clients on smart devices such as iPad, iPhone, Android phones, etc. We can also send WAV-file attachments in an email to any email address.

-Specify if the ports on the proposed system are used in one direction or used for both incoming and outgoing call activities such as message notifications and voice application call handling. Can this be programmed under administrative control?

Response: Voicemail media streams (254 per server) are used during any voicemail access, whether inbound or outbound.

-Does the proposed system use analog or digital interface ports? If analog, include in your proposal the specific interface card required for the IP Communication system. If proposed ports are digital, provide all specifications that the telephone system must meet for proper operation. Is your offering truly an "IP/voice converged system"? Please explain, and use architectural diagrams if possible.

Response: ShoreTel is a modern VOIP solution. We use neither digital nor analog ports

Voice Mail System – System Features

-Describe in detail the voice digitization technique and voice digitization rate used for recording users' speech.

Response: The voice digitization technique used in the voice mail store for voice messages is 8-bit mu-law 8KHz (G.711), stored as a WAV file. The format used for the VoIP media stream between the internal or external caller and the voicemail server will vary based on the configuration for inter-site and intra-site codecs. For the VoIP media

stream the format may any one of linear, G.711, ADPCM, or G.729.

-Indicate the capacity limits that can be defined for a particular voice mailbox. Indicate whether or not this is configurable by class of service.

Response: Mailbox capacities are configurable by class of service. A sample screenshot is below highlighting all configurable parameters,

Class of Service
 Edit Voice Mail Permissions

[New](#) [Copy](#) [Save](#) [Delete](#) [Reset](#) [Help](#)

Edit this record [Refresh this page](#)

Name:

Incoming Message Length (0 - 3600): seconds

Incoming Max. Messages (0 - 500):

Outgoing Message Length (0 - 3600): seconds

☐ Enable Voice Mail Callback

☐ Lifespan of Voice Mail Password (30-365): days

☐ Days in Advance of Password Expiration Before Warning (1 - 30): days

☒ Allow Access to Broadcast Distribution List

☒ Allow Access to System Distribution Lists

☒ Allow Message Notification

☒ Allow Message Notification to External Number

☒ Allow Downloading Voice Messages as WAV Files

Voice Mail Prompt Style: ▼

Auto-Delete:

☐ Delete Saved / Unheard Messages after (7 - 2000) days

☐ Delete Heard Messages after (7 - 2000) days

☐ Enable Auto-Delete Notification

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-What is the length of the longest message that can be recorded by a caller?

Response: A single message can be up to 60 minutes in length

-How many messages can be stored in a subscriber's mailbox?

Response: Up to 500

-What is the maximum total number of minutes of messages that can be stored in a single voice mailbox? How is this controlled with your system?

Response: A total of 500 hours (500 messages of one hour each), as indicated in the above screenshot.

-Are users given any notification that these limits have almost been reached?

Response: No.

-Does the system provide an "end of recording" warning?

Response: Yes.

-Does the system provide user adjustable playback speed control (with full pitch preservation)?

Response: No

-Does the system provide alternate system wide conversations? Please explain.

Response: Not sure what this refers to.

-Does the unified messaging system provide any text to speech capabilities? If so, please explain how a typical subscriber would take advantage of this feature.

Response: Speech-to-text (i.e., transcription service) is an optional capability which can be provided by ShoreTel via a monthly recurring service per user. Alternatively, we could deploy our 3rd party Innovation Network solution from Mutare for Speech-to-Text.

-Does the unified messaging system provide ASR and speech recognition features?

Response: This is not currently available

-Can system prompts be interrupted by experienced users? In other words, is there a "fast path" for users? Can system prompts be repeated?

Response: Yes. Users can interrupt prompts and prompts can be repeated.

-If a caller does not know a particular subscriber's extension number, can they "look up" the subscriber by "spelling" the name via touch tone input? Explain how the system would resolve the situation where one name has multiple entries (e.g., "Jones")?

Response: Yes, dialing by first or last name is a standard feature. The caller would be given a choice of the matching users. A recording of the user's full name would be played for the call to choose from.

-Does the voice mail system support multiple greetings? If yes, describe all available greetings.

Response: Up to five (5) different greetings can be recorded by each user as part of their Call Handling Mode capabilities. This allows different greetings based on the user's current status (such as In a Meeting or Out of Office.)

-Are touch-tone keys dedicated to a specific function, or are they context-sensitive?

Response: They are context sensitive.

-Does the voice mail system support a "zero out" to the attendant feature? Is this feature configurable by class of service? Can the "zero out" destination be a station rather than the attendant? If the "zero out" destination is busy, or rings unanswered, will the call be re-directed?

Response: Yes, and this "zero out" extension can be set by each user. Calls will be redirected to whatever "no answer" routing is specified for the zero-out destination.

-Describe the voice mail systems capabilities with regard to security features?

Response: The following voicemail security features are suggested:

For Voicemail Security, Turn on password aging the change to "Lifespan of Voicemail Password (30-365)" can be made in the Director. ShoreTel recommends 90 days as a starting number.

Set "Max Voice Mail Errors" to a low number. The change to "Max Voice Mail Errors (2-50)" can be made in the Director. ShoreTel recommend 3-5.

Use the ShoreTel supplied audit tool periodically for weak access password scanning. This tool can scan for weak passwords and enforce a reset of passwords if needed.

Set up Microsoft Event Alerts for invalid logon attempts for Mailboxes. We recommend that you enable this alert for the Microsoft Event Viewer. You can use this feature to send email to PBX admins and alert the Admin if a Mailbox has too many invalid logon attempts. This number is based on the "Max Voice Mail Errors".

-Users should be required to enter a password to access their voice mailbox. What is the minimum and maximum password length? How is this configured? Can it be different for different classes of users?

Response: Passwords can be required to be anywhere from 4 to 26 digits in length. This is a system-wide setting impacting all users.

-Does the system track failed password entries in a single session? Does the system automatically disconnect the caller after a configurable number of failed attempts?

Response: Password errors are tracked and users are disconnected when the retry threshold is reached.

-Does the system track failed password entries across multiple sessions? Does the system automatically lock out the user after a configurable number of failed attempts?

Response: Yes.

-Does the system log information about failed password attempts?

Response: Yes.

-Does the system require a system administrator password?

Response: Yes.

-How does your Voice Mail solution achieve active/active state and load balancing?

Response: ShoreTel provides archiving/back/restore scripts that can be scheduled via Windows Scheduler, or 3rd party archiving solutions can be deployed.

Voice Mail System – User Features

-Can system subscribers conduct the following actions:

Pause and replay messages

-Record messages; send and mark "urgent", "private", etc.

-Transfer messages to other users and append them with their own comments

-Create their own distribution lists

-Edit / Modify their own distribution lists

-Dial internally by name / company directory

-Obtain user instruction through system prompts

-Record personal greetings. How many different greetings can they have?

-Modify own passwords.

-Set business days and hours for alternate greetings.

Response: ShoreTel supports all these features.

Voice Mail System-System Administration

-Is system administration done through a standard web-enabled GUI? If so, please explain the advantages of this type of administration over other methods?

Response: ShoreTel provides a single web-based management interface for the entire PBX. This allows access from any workstation without requiring client software to be downloaded.

-The system administrator should be able to perform the following actions:

Add or modify a class of service. State what user permissions or characteristics within a class of service can be created or modified.

-Set the minimum and maximum password length for a user.

-Set the maximum length of voice messages.

-Set the maximum failed login attempts before a user lockout from the mailbox.

-Assign default passwords for users, and reset passwords for users that have been locked out of their mailboxes.

-Set the "disk space remaining" warning level.

-Add, delete, or modify a user.

Response: ShoreTel supports all these features.

-Explain how the system administrator would perform a backup and restore on the voice messaging system.

Response: ShoreTel provides archiving/back/restore scripts that can be scheduled via Windows Scheduler or initiated manually by the administrator. The script is a command line application that the administrator would run.

-Please explain the major features provided by your system that directly support administration of remote branch office users.

Response: ShoreTel is a single-image system. Thus, every user is administered exactly the same whether they are at the main location, a remote location on the enterprise, or a remote worker at a home. Administrators no longer need to work about a user's location in order to provision their access to ShoreTel features and services: every user has access to every feature set regardless of location.

IP CONTACT CENTER SYSTEM SPECIFICATIONS

This section is to provide an overview of the vendor's proposal and its architecture, and experience in the manufacturing, installation, and support of the type of system proposed. It also covers how the vendor will provide an intelligent network infrastructure to support the IP Contact Center system.

Hardware Configuration

-What is the model name and number of the proposed IP Contact Center Solution?

Response: ShoreTel Enterprise Contact Center (ECC) Release 9

-Describe your integrated IVR functionalities, as well as "media" on hold capabilities.

Response: The advanced call routing techniques in ECC enable you to get maximum value from your knowledge resources and deliver the highest possible levels of customer satisfaction. The advanced call routing features in ECC can be specified by service level, skills, identity, day/date, outbound calls, CRM database, and IVR scripting.

Basic call routing features include queuing, menu interactions, music-on-hold, and schedules. It facilitates caller interaction through menus that callers can use to select a service. After the service is identified, the system can route the call to a group of agents who are best equipped to handle the caller's needs.

If a call arrives when no agent is available, it goes into a queue of calls waiting for delivery to the next available agent. Music-on-hold and recorded announcements can let callers know they have not been forgotten. Recorded messages can be customized with additional information, including the caller's place in line or estimated wait time.

A basic routing solution also helps a company adjust to fluctuations in the size of the contact center staff. The ShoreTel administrator can set up automatic routing options that depend on the time of day, day of the week, or date. The capabilities include:

- Recorded announcements and menus enable callers to select the type of service they want music-on-hold. The ECC customer can customize these functions for each type of service that the call center provides.
- Mandatory announcements to callers prior to entering the queue, notifying

CRM database routing customizes call routing on the basis of intelligence resident in your relationship management system. By employing customer information or other business data in the call routing rules engine, you can optimize the customer experience with intelligent call routing and customized announcements.

IVR scripting provides a higher level of automated customer interaction by allowing the collection of more detailed caller information and employing CRM information to make more complex call routing decisions. The system can route calls from specific area codes

or specific customers to groups or agents against a database as part of the built in SQL based routing/decision making. Advanced scripting options make it possible for call center managers to modify call routing, collect caller information, query external databases, perform logic decisions, manage overflow or interflow, and provide callers with automated feedback and results. IVR scripting is used to build an automated interface between the caller and your corporate information systems. An IVR-based, selfservice system delivers immediate, effective customer service without straining agent resources. Your

scripts can prompt callers for actions, record dual-tone multi-frequency (DTMF) inputs, check and change the status of records in the corporate database, and provide customers with report results and status information.

ECC provides tools to build and implement scripts that augment call routing features. You can write scripts that provide deeper interaction with customers by querying customer data stores, diverting calls to different locations, modifying skills or properties, or delivering information to callers.

-What is the maximum number of agents supported in a single group?

Response: 1,000.

-What is the maximum number of simultaneous conversations supported by the proposed system? Is the system non-blocking for voice calls?

Response: All users can be on phone calls simultaneously, with the number of external calls being limited by the number of PSTN trunks.

-What email integration does your system support? Is email an integrated component of your system? If so, please describe.

Response: Full unified messaging via Outlook and Exchange integration is supported as part of the core UC platform. Unified Messaging solutions enable users to obtain voice mail messages from a variety of devices, including desktop phones, and various third party tablets and smart phones. In addition, our technology is integrated with Microsoft Outlook, enabling end users to receive, send, be notified of, and play voice mail messages through their laptops. With Microsoft Outlook integration, you can manage your voice mail and contacts using a full set of flexible, productivity-enhancing features. This includes the ability, from within Outlook, to call contacts and define how your calls are handled when in a meeting or appointment.

Additionally, ECC provides for Email integration into the contact center, as described in the responses to the questions below.

-What web collaboration (co-browse, text chat, web callback) does your system support? Is Web-based support an integrated component of your system? If so, please describe.

Response: ShoreTel enables enterprises to conduct large audio conferences and provides collaboration tools for application sharing, desktop sharing, and instant messaging and end-user presence information, managed from the same easy to use, web based management interface as the PBX system.

Immersive Audio Conferencing

Whether it's a one-time conference or an always-on conference, users can invite their colleagues, partners or customers to dial into audio conference services in a single step. Eliminate the dead-time associated with waiting for parties to join a conference by simply dialing them in. ShoreTel Conferencing offers support for wide-band codecs, provides a new level of listening comfort and immerses everyone in the conversation, regardless of the location.

Brilliantly Simple Web Conferencing

Whether you use a PC or Mac, you can share your desktop to collaborate on documents with your team, conduct a sales presentation to prospective customers or simply use the interface to manage any audio conference. You can manage documents in your own personal library or through the public library. You can make your conference even more efficient by leveraging the pointer or whiteboarding session. At the end of your meeting, share your results by sending the resulting document to participants. On the attendee side, Web conferencing is as simple as clicking a website. Your attendees will see your desktop within seconds, with no download.

Secure, Standards based IM

The Service Appliance embeds an XMPP server that can be used with existing ShoreTel Communicator Instant Messaging features. The Contact List, with point-to-point and multi-point conversation, privacy and encryptions, introduces offline messaging that delivers a user's missed Instant Messages at login. Leveraging the new XMPP IM service, Mac users can communicate with both Mac and Window platforms via iChat software.

One Click Conference Scheduling for Outlook

Users can schedule or create spontaneous reservation-less conferences with no need for IT supervision, through an intuitive Web interface. Outlook users simply press the Conference button in the Outlook ribbon and a ShoreTel Conferencing access code will be automatically associated with the meeting, with all information required for the host and participants to join. During the conference, the system changes your availability to "Meeting" and will play a user-defined greeting.

Instant Recording

To keep an archive of the event, or to enable the distribution of the information to a broad audience, store a recording of the call along with the Web presentation

-What voice mail integration does your system support?

Response: Voicemails can be controlled via the "Voice Mail" tab in ShoreTel's desktop Communicator UC client. They can also be controlled via our Outlook unified messaging plug-in, or via voicemail-to-email WAV file forwarding.

System Software

-Which software package is being proposed? Please provide the release and version?

Response: For the core UC platform, we propose ShoreTel release 14.x (whichever is current at time of deployment). For the contact center, we propose ECC release 9.

Is this the most recent release of this software? When is the next software release due?

Response: These are the most recent releases. Future roadmap items can be discussed under NDA.

-How does your company provide future software releases? How are software upgrades performed?

Response: Software releases are distributed as ZIP files containing a "setup.exe" file. ShoreTel is continually improving its software product line. We will supply the latest version of our General Availability release to customers at the time of purchase. As upgrades become available, Release Notes are published for our customers to understand the differences between the upgrade and the current release. Medium is on DVD or TFTP.

For software upgrades, you simply install the new software on the ShoreWare server, and all the ShoreGear voice switches, across all locations, are automatically upgraded to the new release. In addition, users are notified of the new software release and will be prompted to automatically upgrade their software or administrators can easily upgrade the software on all client machines using Microsoft Active Directory Group Policies regardless of the permissions associated with those machines or the users who log into those machines.

-When system or station software updates are performed, must the system be shut down, or can these types of activities take place in an on-line environment?

Response: Software updates can be performed in an on-line environment. Switches are updated when all ports are idle – new code is written to flash and rebooted on success.

-How frequently do you back-up the operating software, which includes up-to-date moves and changes? Is a copy secured off-site, and how frequently is that copy updated?

Response: All ShoreTel configuration information is stored in an ODBC MySQL database on the ShoreWare Server. The ShoreWare Data folder in the directory contains all the pertinent configuration data, and typically becomes part of the IT/IS server backup regimen. If a ShoreWare Server at any time needed to have its

configuration reloaded all that is required is to restore the ShoreWare Data folder.

-What non-proprietary open systems computer telephony (CTI) applications are available with the proposed system?

Response: The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI, JTAPI, MAPI, QSIG, as well as several SIP RFC's. All IP handsets recommended as part of the proposal response use the MGCP or SIP standard signaling protocol. Most of the system features are available on analog sets.

-What Telephony Application Programming Interface (TAPI) applications do you support or currently offer?

Response: In addition, the ShoreTel system includes TAPI compliant voice applications that are bundled with the system. These include: Voice Mail, Automated Attendant, Automatic Call Distribution, Call Detail Recording, Unified Messaging, and Desktop Call Control. Also, 3rd party TAPI-aware applications can take advantage of our TAPI interfaces.

-What Java Telephony Application Programming Interface (JTAPI) applications do you support or currently offer?

Response: The proposed solution utilizes voice communication equipment manufactured by ShoreTel Inc. ShoreTel is committed to supporting open system industry standards, such as G.729, 802.1p and 802.1q, MGCP, SIP, RTP, TAPI, JTAPI, MAPI, QSIG, as well as several SIP RFC's.

Agent Station Hardware and Software

-Do IP agent phones work on standard Ethernet port? Provide details on all models supported with specific mention of the models that have a built-in switch to connect agent desktop.

Response: All SHoreTel phones support built-in 2-port Etherent switches, allowing desktop workstations to be "daisy-chained" off the phone so that only one LAN drop is needed.

-Does the IP phone use a single directory that is common for the data network and allow display of name, extension browsing and dialing by press of a button?

Response: Yes.

-Please describe the agent desktop interface to manage and process agent incoming/outgoing contacts.

-Does your solution require a "hard phone" for the agent desktop to be VoIP enabled?

Response: No. Agents can use softphones, cell phones, and home analog lines if they wish.

-Do the agent IP phones support the following features?

FEATURE	YES	NO	OPTIONAL
Audio Volume Adjust	Yes		
Auto Echo Cancellation	Yes		
Call Forward Busy	Yes		
Call Forward No Answer	Yes		
Call Forward All Calls	Yes		
Call Hold / Release	Yes		
Call Park / Pickup	Yes		
Call Transfer	Yes		
Call Waiting	Yes		
Calling Line ID Line and Name	Yes		
Chat	Yes		With SA-400
Conference (unicast)	Yes		
Last Number Redial	Yes		
Ringer Pitch Adjust	Yes		
Ringer Volume Adjust	Yes		
Speakerphone Mute	Yes		
Speed Dial (Auto-Dial)	yes		

-Can callers be presented with the option of leaving a message, and can this message be routed accordingly?

Response: Yes

-Are pre-defined responses available as an agent tool in your solution? Please describe.

Response: Yes. Web Chat sessions can have a pre-defined list of responses available for the agent.

-Does your solution support remote agents or satellite offices? Please describe.

Response: ShoreTel's single-image architecture is fully distributed, allowing agents to be located anywhere across the enterprise. Also, remote workers can be supported via softphone, extension assignment (where any dialable number like a home phone or a cell phone can be used), and ShoreTel Mobility.

-Please describe the supervisor capabilities of your solution, barge-in, silent monitoring, etc.

Response: Using their advanced real-time dashboard, Supervisors get a real time dashboard of the call center and can react to conditions in the call center by bringing more agents or taking out agents from groups. For example:

- Read the pulse of your call center by getting visual and audible threshold alerts on critical conditions.
- React to higher call abandons or lower traffic by bringing agents in or taking them out of queues with simple clicks.
- Monitor whether agents are in a no-work mode (release) and see the code along with the duration of that state allowing them to closely monitor agent activity per interaction even as they handle multiple interactions.
- Supervise agents in training closely by monitoring specific extensions visually and also by using silent monitor, barge in, and coach features.
- Track all media types: voice, email, chat, outbound campaigns, through a single reporting interface
- Compare real-time information with historical information to understand trends better and schedule agent availability accordingly.
- Comprehensive historical reports: Get advanced statistics of all the activity in your call center without requiring database programmers or third-party reporting applications. This gives you the power to understand your customers, interaction traffic, agent activities and queue performance.
- Get flexible reports by date or by interval.
- Enjoy the convenience of reports being delivered to the person and media of choice.
- Schedule reports to be generated automatically to be saved in various formats (csv, xls, pdf, htm etc) and also be automatically emailed.
- Monitor how your queue or group is performing using typical KPIs.
- See detailed agent activity for billing purposes or for performance evaluations.
- Analyze the reasons for your customer calls by doing reports on post-call activity or wrap codes.
- Measure the effectiveness of outbound campaign by getting call-by-call details on each outbound call made by the system.

Call Routing and Reporting Software Functionality

-Does your system manage call routing from a single application for all Contact Center locations?

Response: Yes

Can the following routing strategies be used with your proposed system?

	ROUTING
1	Application Based Routing and Reporting-Yes
2	Automatic Call Distribution-Yes
3	Call By Call Routing-Yes
4	Call Re-Routing Based on Wait Time- Yes
5	Call Re-Routing Based on Non-

	Answer-Yes
6	Conditional Routing based on Time of Day, Day of Week and Holidays-Yes
7	Conditional Routing based on Calls in Queue-Yes
8	Conditional Routing based on Caller Origin-Yes
9	Conditional Routing based on Dialed Number-Yes
10	Conditional Routing based on Caller Entered Digits (CEO)-Yes
11	Directed Agent Routing (single agent selection)-Yes
12	Database Call Handling-Yes
14	Look Ahead Queuing-Yes
15	Look Back Queuing-Yes
17	Overflow (retains queue position)-Yes
18	Priorities-Yes
19	Skill-Based Routing-Yes
20	Build your own Strategy Routing-Yes

-Describe with detail your skills based routing algorithm? Does this apply to all media channels?

Skills-based routing optimizes the customer experience by matching interactions to the agent best equipped to address the customer's needs. This applies across all media channels. When multiple agents are available, ECC routes the interaction to the agent with the highest skill ranking for the requested service. (When multiple interactions are waiting, available agents are selected on the basis of "best match" of the interaction – telephony, e-mail, or chat to skill set.)

In the ECC, skills are defined by two different parameters to deliver enhanced routing options. Skills based routing is defined by both the actual skill level of the agent as well as a supervisor's preference for the agent to use the specific skill. The combination is used to route to the appropriate agent thus ensuring that supervisors have flexibility in routing calls.

The screenshot displays the ShoreTel Contact Center Director web interface in a Mozilla Firefox browser. The interface shows a list of agents and a detailed view for a specific agent, Chen Yuan.

Agents : Agents

Agent Name	Agent Number	Assigned to Group(s)	COS	Auto Answer	Caller ID
Chen Yuan	1009	1	Very Limited	<input type="checkbox"/>	
David Dollar	1000	4	Very Limited	<input type="checkbox"/>	
Ducky Drake	1010	3	Very Limited	<input type="checkbox"/>	
Mani Mark	1005	4	Very Limited	<input type="checkbox"/>	
Melanie West	1007	3	Very Limited	<input type="checkbox"/>	
Peter Pound	1003	9	Unlimited	<input type="checkbox"/>	
Scott Schilling	1002	5	Unlimited	<input type="checkbox"/>	

Agent: Chen Yuan

General Queue Handling Agent Queue Overrides Email Agent Queue Overrides Groups Skills

Ability: 90
Preference: 75

Available Skills

Skill
MS
Sales
Sched
Spanish
Support

Selected Skills

Skill	Ability	Preference	Score
iOS	90	75	67.5
Linux	50	25	12.5
OS X	35	50	17.5

-Does your system provide agent proficiency setup?

Response: Yes

-Are all contacts "queued" in the same fashion regardless of media type?

Response: Call routing and queue handling for all media types can be programmed to that they are similar, or you can have totally different call handling and queueing based on media type.

-Are routing priorities available with your solution and if so, how are they assigned to different media contacts?

Response: Identity routing lets contact center extend premium services to the most valued customers. When a call arrives, ECC identifies the customer (by caller ID, DNIS, or data from a CRM database) and assigns the caller a priority level. Callers identified as high priority are immediately moved to the front of the queue to await delivery to the first available agent. Also, each contact type (email versus web chat, for example) can be given its own priority. Priority is set on a scale of 1 to 100.

-How is the IVR functionality reflected in the reporting? Does it cause double pegging?

Response: IVR capabilities are completely integrated into the single ECC solution, so IVR interactions do not create "double pegging." Note that if for some reason you did desire to create separate reporting flows for IVR interactions, the routing can be designed to support that.

-Does your software provide reports for all agents across all locations?

Response: Yes

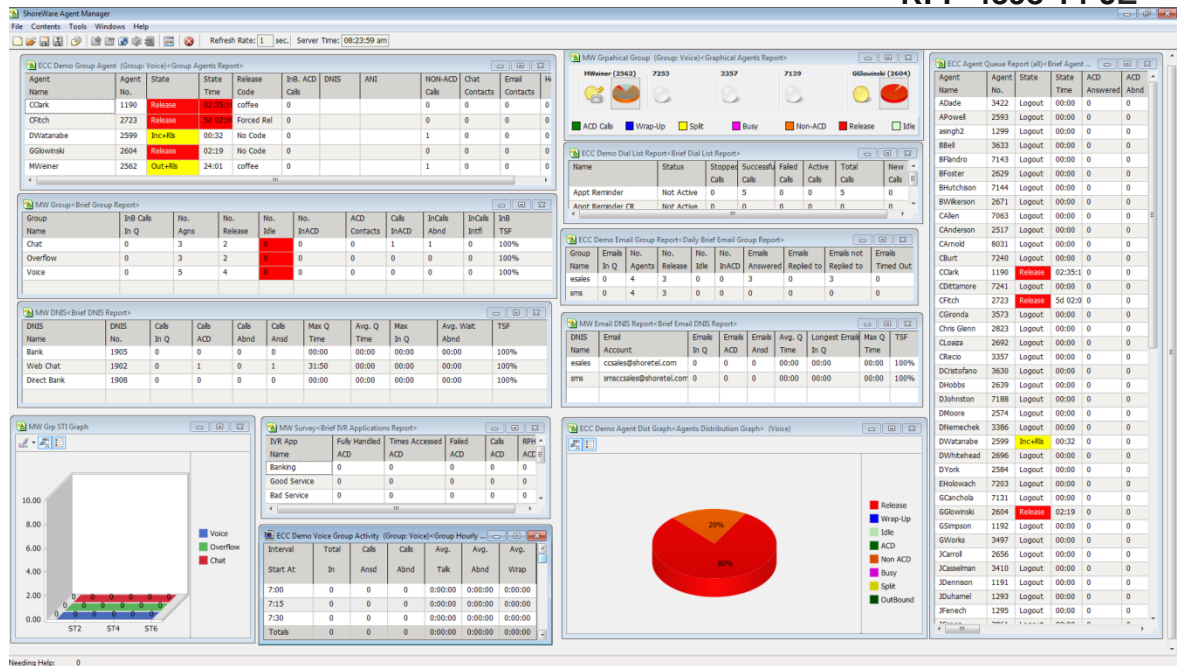
-Does your software collect information through the entire life of the complete customer interaction and provide not only real time, but also historical reporting? Please provide detailed descriptions of all reporting capability.

Response: Yes. The Agent Manager Software allows managers and supervisors to obtain statistical information concerning contact center activities. The information can be displayed in tables, forms, and graphic formats, providing a clear picture of what is going on in the contact center. The interface is color coded with thresholds that can be set for each service to make it easy for supervisors to track their agents.

The Agent Manager Software also allows supervisors to adjust their resources by adding or removing agents from groups. The Agent Manager Software displays real-time statistical and graphical data about contact center activity. Because this information is presented in real time, it allows a supervisor to manage his or her agents and react to changing situations.

The data is continually updated based on two configurable settings: a display interval and a refresh rate. The display interval displays accumulated data for a specified interval, such as total calls answered in the last 15 minutes. By default, the application updates once a second, creating a sliding display interval, so that the time period changes each second. The refresh rate is the frequency of updates to displayed data. The refresh rate automatically adjusts to compensate for network latency.

Real-time status of the contact center is presented via reports configured to watch a specified group, agent, or other entity, as required by the supervisor. Supervisors may customize their own workspaces to include any of the various reports about agents, groups, super groups, etc., according to their needs and defined privileges. Each supervisor can save his or her selected reports and screen layouts as a default workspace. Once saved, the supervisor will be returned to the same setting automatically each time he or she logs in:



Supervisor Capabilities:

Advanced Real Time Dashboard: Supervisors get a real time dashboard of the call center and can react to conditions in the call center by bringing more agents or taking out agents from groups. For example:

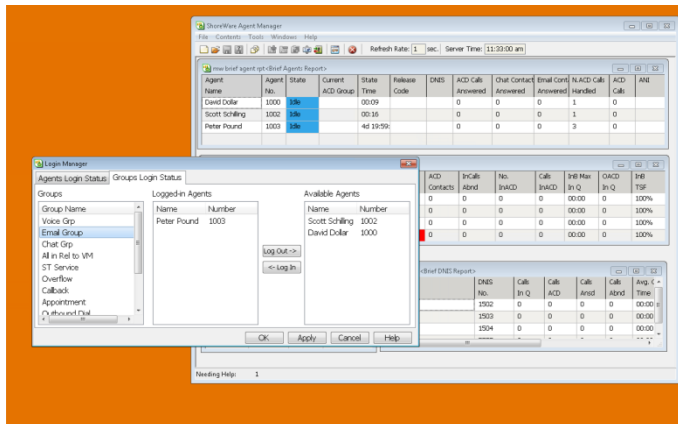
- Read the pulse of your call center by getting visual and audible threshold alerts on critical conditions.
- React to higher call abandons or lower traffic by bringing agents in or taking them out of queues with simple clicks.
- Monitor whether agents are in a no-work mode (release) and see the code along with the duration of that state allowing them to closely monitor agent activity per interaction even as they handle multiple interactions.
- Supervise agents in training closely by monitoring specific extensions visually and also by using silent monitor, barge in, and coach features.
- Track all media types: voice, email, chat, outbound campaigns, through a single reporting interface
- Compare real-time information with historical information to understand trends better and schedule agent availability accordingly.
- Comprehensive historical reports: Get advanced statistics of all the activity in your call center without requiring database programmers or third-party reporting applications. This gives you the power to understand your customers, interaction traffic, agent activities and queue performance.
- Get flexible reports by date or by interval.
- Enjoy the convenience of reports being delivered to the person and media of choice.
- Schedule reports to be generated automatically to be saved in various formats (csv, xls, pdf, htm etc) and also be automatically emailed.
- Monitor how your queue or group is performing using typical KPIs.
- See detailed agent activity for billing purposes or for performance evaluations.
- Analyze the reasons for your customer calls by doing reports on post-call activity or wrap codes.

- Measure the effectiveness of outbound campaign by getting call-by-call details on each outbound call made by the system.

ii) Describe the management of ACD groups and agents

Login Status Window

The Login Status Window allows you to monitor the agents and groups that are logged into the system. There you can transfer agents into or remove them from groups as needed to adjust resources. Note that you cannot log in an agent in from this window. The Login Status Window can display either agents and their respective groups, or groups and their respective agents. The left arrow button is used to move an agent or group from an available state to a logged-in state. The right arrow button is used to move an agent or group from a logged-in state to an available state. A Quick Search text box is available for each section of the window. Simply type one or more characters in the text box and the first closest match is highlighted in the window.



iii) Describe how a supervisor can manage groups and agents. After the changes are made, does the agent need to logout and back in?

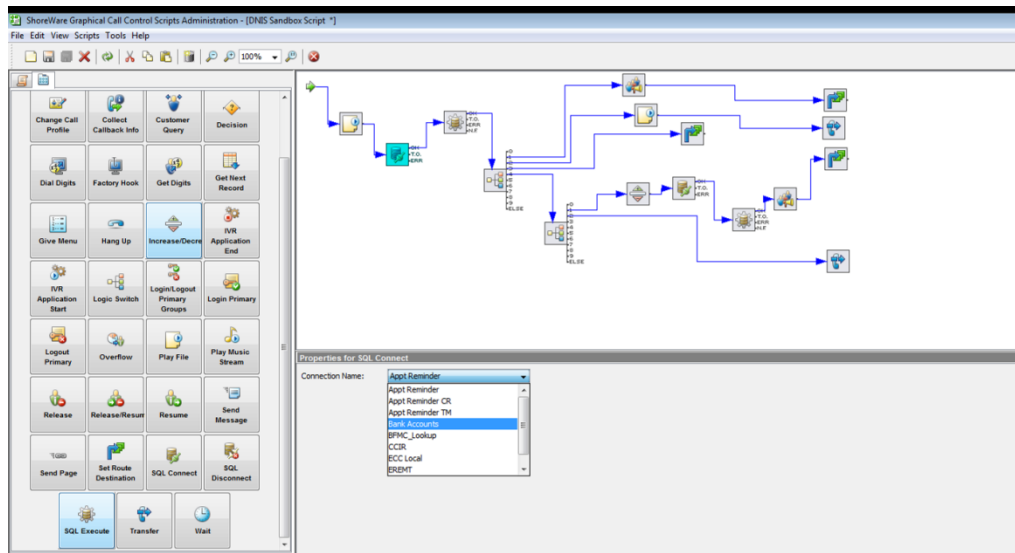
The Supervisor can make temporary changes using the Agent Manager Log In/Out abilities as shown above. These are temporary changes that do not require any “cycling” of the agent. These being temporary they are maintained during Release activities but are reset to the Discovery based organization of Agents, Groups etc within ECC Director. This changes made in Director are permanent but do not require any “cycling” of the agent in that case either.

iv) Describe the following capabilities of the proposed system:

a) Specialized services

ECC offers the ability to move callers to exactly the right treatment on a schedule you build. Specialized Services are provided by tools to treat each caller appropriately, as well as make sure agents handle the calls they are most capable of handling. Examples of Specialized service will reflect the need to identify and treat different people differently based on data: this could be dialed number identification service, menu selection, automatic number identification, customer/company ID, time of day, calendar, service level, priority and skills-based routing request. We have no limits to the data we can collect or respond to even in a multiple level decision making process. What follows is a script example showing multiple logic points and depending upon what’s returned,

different routing would occur. In this case we first hit a DB, compare some data and take one of 4 paths. On the bottom path we look different data to facilitate even further refinement of the routing requirements.



b) Routing Options

1. Interflow and Overflow options

ECC Provides intelligent options to handling situations where callers are waiting too long by automatically applying additional resources to answering calls or by diverting callers to alternative service options. Enterprise Contact Center offers Predictive Interflow which is a routing parameter, initiated by a timer, which transfers a call either to another queue or to a destination, such as a voice mail box, external to the contact center. Predictive interflow estimates the wait time of an incoming call, and if the wait time exceeds the interflow timer sends the call to the interflow destination immediately:

Name	Music Source	Chat Enabled	Abandoned Callbacks Enabled	Wrap-Up Time	Forced Release Timeout	Outbound Calls Overflow	Predictive Interflow	Used in Script
Abandon	Script - Music (JAZZ)	<input type="checkbox"/>	<input type="checkbox"/>	30	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appt Reminder	Script - Music (Jazz)	<input type="checkbox"/>	<input type="checkbox"/>	20	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banking	Script - Music (JAZZ)	<input type="checkbox"/>	<input type="checkbox"/>	15	15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dial List	Script - Music (JAZZ)	<input type="checkbox"/>	<input type="checkbox"/>	20	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Callback	Script - Music (JAZZ)	<input type="checkbox"/>	<input type="checkbox"/>	20	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Chat	Silence	<input type="checkbox"/>	<input type="checkbox"/>	20	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Service: Banking modified

General Announcements Destination Overflow Interflow No Agent Destination Scheduled Callbacks Abandoned Callbacks

Predictive Interflow ☒ Timeout 15 seconds

Default Destination

Service (Not Defined)

Service (Not Defined)

Service (Not Defined)

Script (Not Defined)

Agent Queue (Not Defined)

Shifts

Destination (Not Defined)

Service (Not Defined)

Device (Not Defined)

Agent Login (Not Defined)

Agent Queue (Not Defined)

Available

Name	Time	Day Type
Saturday	00:00	Weekend
Xmas	00:00	Christmas

Selected

Name	Time	Day Type	Destination
7 am to 8 pm	07:00	Weekday	(Not Defined)
Up to midnight	20:00	Weekday	(Not Defined)
Sunday	07:00	Weekend	(Not Defined)

ECC Interflow expands the traditional definition and allows the calls to be routed back through ECC to facilitate reporting on Interflowed calls by going back to a new IRN/Service if desired. Interflow can also be scheduled as seen in the bottom of the image by any defined shift (day part) or day type.

Realtime data on Interflow:

Number Of Calls Interflowed From Group
Percentage Of Calls Interflowed From Group out of all incoming ACD calls
Average Wait Time Of Calls Interflowed From Group (sec)
Longest Wait Time Of Calls Interflowed From Group (sec)
Number Of Calls Interflowed To Group
Percentage Of Calls Interflowed To Group out of all incoming ACD calls

In most contact center environments, Supervisors require advanced tools that deliver real-time reporting information necessary for maintaining certain required or designed service levels. This real time reporting information is provided to supervisors by the ECC's Agent Manager Application.

The Agent Manager application is a real time graphical and statistical application that provides managers and supervisors a unique and comprehensive view of contact center activities. Supervisors can display this information in tabular (statistical) form, or graphic format to provide a clear view of what is going on in the contact center. Agent Manager provides real-time status with performance views that deliver:

Group status and performance over specified intervals.

Agent status and performance over specified intervals.

Queue status and the results for interactions that arrived over the previously specified interval.

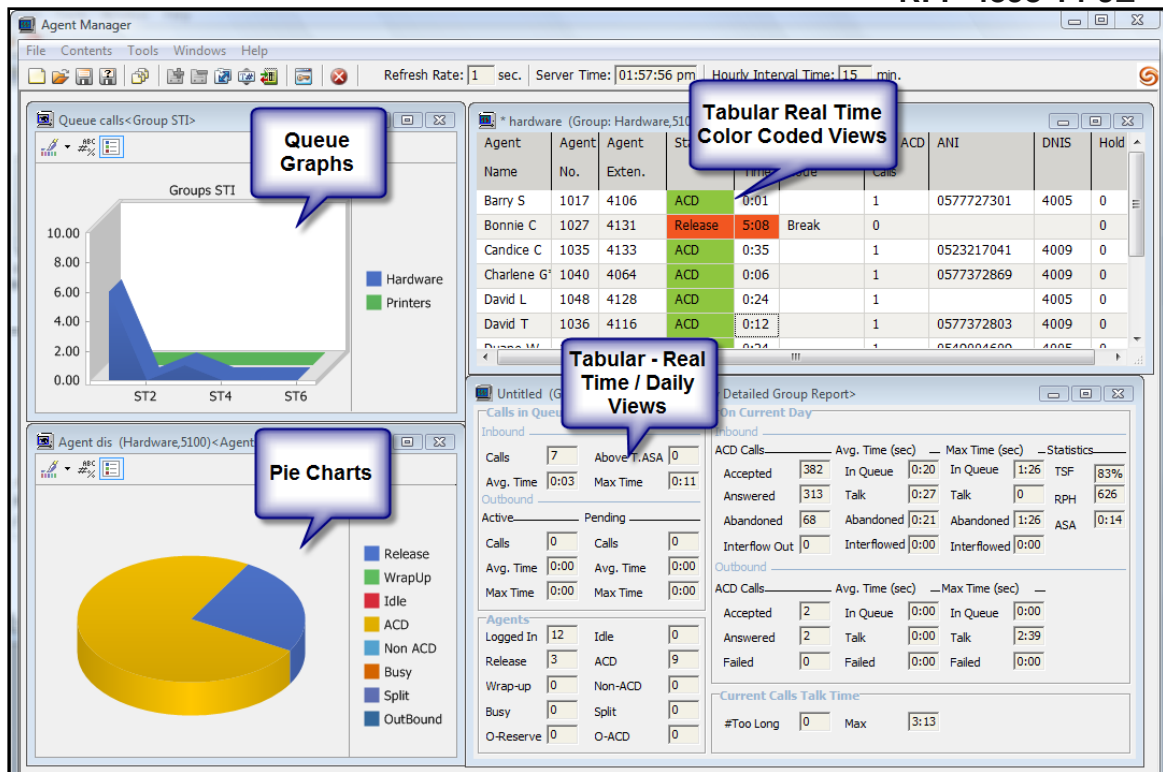
IVR status and the results for IVR calls for a specified interval.

Staffing results based on the targeted staffing levels.

Agent Manager also gives managers resource management tools they can use to monitor and adjust for service levels or ShoreTel Target Service Factor (TSF). By adding or removing agents from selected groups, a supervisor can effectively manage the callers and service level in real time, moving agents into queues that have excess interactions that can be worked off before the service level or TSF is affected.

The supervisor can drag and drop agents into groups or remove agents from groups to optimize the performance of the call center. Agents can also be put in resume/release modes by the Supervisor using Agent manager with the click of a button (to tune their call center based on real time needs).

Supervisors can also use the Barge In and Monitor features to enhance the customer experience. Whether done on an ad-hoc basis, or in response to an agent's request for help, a supervisor can instantly (and privately) connect to an agent's current call. Neither agent nor caller receives notification that monitoring has begun. If intervention is required, the supervisor can "barge in" on the call—with the choice of continuing with agent participation, or allowing the agent to return to the queue.



The contact center data presented to the supervisor using Agent manager is continually updated based on two configurable settings: a display interval and a refresh rate. The display interval displays accumulated data for a specified interval, such as total calls answered in the last 15 minutes. By default, the application updates once a second, creating a sliding display interval so that the time period changes each second. The refresh rate is the frequency of updates to displayed data and can be set manually or. refresh rate can automatically adjust to compensate for network latency.

In the Agent Manager application, real time information is presented via a set of "real time reports". The real-time reports are defined using a set of predefined report templates. These templates or default reports are displayed in a format that best presents the data. Templates include tabular reports with flexible column widths (with a few exceptions), moveable columns, columns that can be added and/or removed, graphical reports showing activities on configurable 2D and 3D graphs, and statistical reports showing more in-depth information than the other reports. Most reports are customizable, allowing you to select which statistics are to be displayed (based on the type of report it is, example; group, agent, dnis, etc, and colors, graph style, column order and more.

1. Describe available built in reports

The report templates are available in three report types, including Hourly Summary, Daily Summary, and Real-Time report templates. The list of available templates is noted below:

Daily Summary Templates

The following daily summary templates are available for generating real-time reports:

- Daily Brief Agent Queue Report
- Daily Brief Email Group Report
- Daily Brief Group Report
- Daily Detailed Email Group Report
- Daily Detailed Group Report

Hourly Summary Template

Contact Center provides the following hourly summary template for generating real-time reports:

- Group Hourly Report

Real-Time Templates

Use one of the following real-time templates to generate a report on the recent time interval:

- Agents Distribution Graph
- Agents Needing Help
- Brief Agents Report
- Brief Agent Queue Report
- Brief Dial List Report
- Brief DNIS Report
- Brief Email DNIS Report
- Brief Email Group Report
- Brief Group Report
- Brief IVR Applications Report
- Calls Distribution Graph
- Detailed Email Group Report
- Detailed Group Report
- Detailed IVR Applications Report
- Email Contacts Distribution Graph
- Email Group Overflow\Interflow Report
- Email Group Queue Contacts Graph
- Email Group STI Graph
- Graphical Agents Report
- Group Agents Report (1)
- Group Agents Report (2)
- Group OACD STI Graph
- Group Overflow\Interflow Report
- Group Queued Calls Graph
- Group Queued OACD Calls Graph
- Group STI Graph
- IVR Applications ACD Distribution Graph
- IVR Applications Active ACD Graph
- IVR Applications Active OACD Graph
- IVR Applications OACD Distribution Graph
- IVR Group IVR Ports Report
- IVR Ports Distribution Graph
- IVR Ports Report
- Staffing Graph
- Staffing Percent Graph
- Staffing Percent Report
- Staffing Report

Supervisors can save their Agent Manager display based on their preferences and restore their saved screen (if another supervisor changes the screen).

2. Do you rely on external tools for reporting?

No, none are required or needed.

3. Can you customize reports?

Yes. Real Time reports can be customized to include data relevant to the entity. Groups, DNIS, Agent Queue all will have specific information which can be shown or not with simple “left/right” controls. Agent Real Time Report Fields and UI example:

The screenshot shows the ShoreWare Agent Manager interface. The main window displays the 'Brief Agents Report' with the following data:

Agent Name	Agent No.	State	Current ACD Group	State Time	Release Code	DNIS	ACD Calls Answered	Chat Contact Answered	Email Cont Answered	N.ACD Calls Handled	ACD Calls	ANI
David Dollar	1000	Idle		1d 02:30:			0	0	0	2	0	
Scott Schilling	1002	Idle		1d 02:30:			0	0	0	1	0	
Peter Pound	1003	Idle		5d 22:29:			0	0	0	3	0	

Below the report, the 'Add/Remove Columns' dialog is open, showing the following columns:

Visible Columns	Available Columns
Agent No. Current ACD Group State Time Release Code DNIS ACD Calls Answered Chat Contacts Answered Email Contacts Answered N.ACD Calls Handled ACD Calls ANI	O.ACD Calls Chat Contacts Email Contacts O.ACD Calls Answered Agent Exten.

The dialog includes buttons for '<- Add', 'Remove ->', 'OK', 'Cancel', and 'Help'.

DNIS Example:

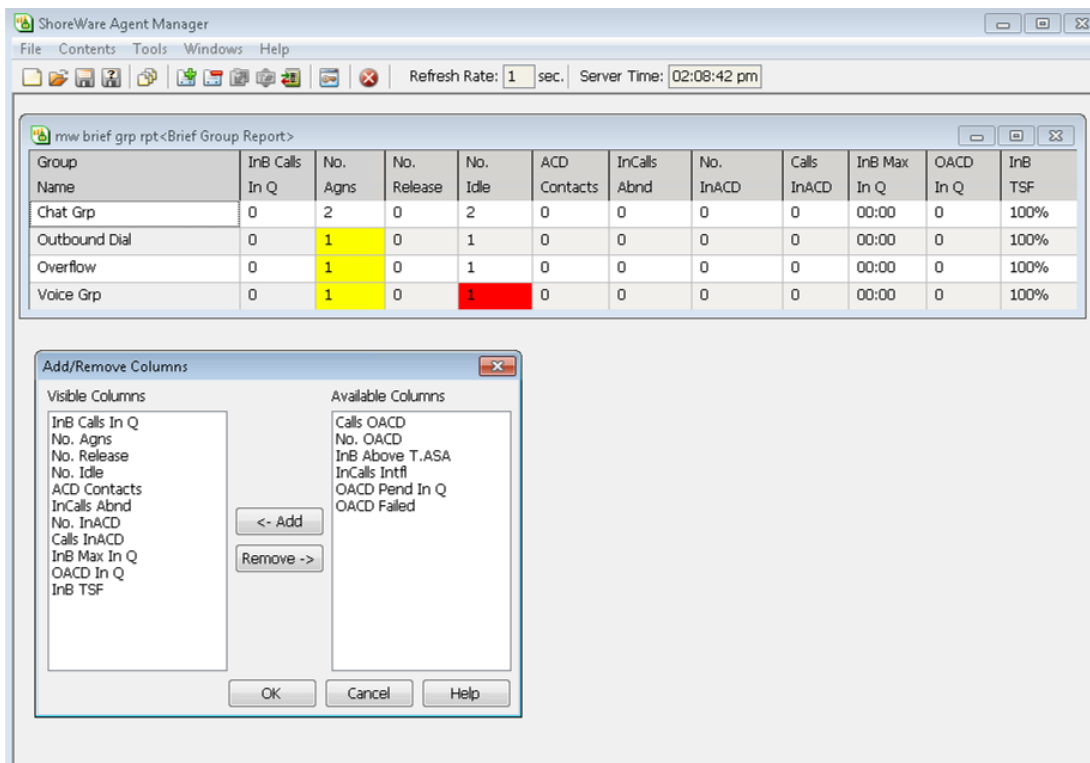
The screenshot shows the ShoreWare Agent Manager interface. The main window displays the 'Brief DNIS Report' with the following data:

DNIS Name	DNIS No.	Calls In Q	Calls ACD	Calls Ansd	Calls Abnd	Avg. Q Time	Max In Q	Max Q Time	Avg. Wait Abnd	Max Wait Abnd	TSF
ShoreTel	1502	0	0	0	0	00:00	00:00	00:00	00:00	00:00	100%
Bank	1503	0	0	0	0	00:00	00:00	00:00	00:00	00:00	100%
Call Back	1504	0	0	0	0	00:00	00:00	00:00	00:00	00:00	100%
Web Chat	5555	0	0	0	0	00:00	00:00	00:00	00:00	00:00	100%

Below the report, the 'Add/Remove Columns' dialog is open, showing the following columns:

Visible Columns	Available Columns
DNIS Name Calls In Q Calls ACD Calls Ansd Calls Abnd Avg. Q Time Max In Q Max Q Time Avg. Wait Abnd Max Wait Abnd TSF	Terminated By System Above T.ASA

The dialog includes buttons for '<- Add', 'Remove ->', 'OK', 'Cancel', and 'Help'.



List the Report types available

Real Time, Hourly and Daily (Roll over at midnight)

1. Frequency of delivered Reports

Any report can be delivered as often as every 15 minutes.

2. Any limitations (time of day)?

No.

3. Can third party reporting tools be used?

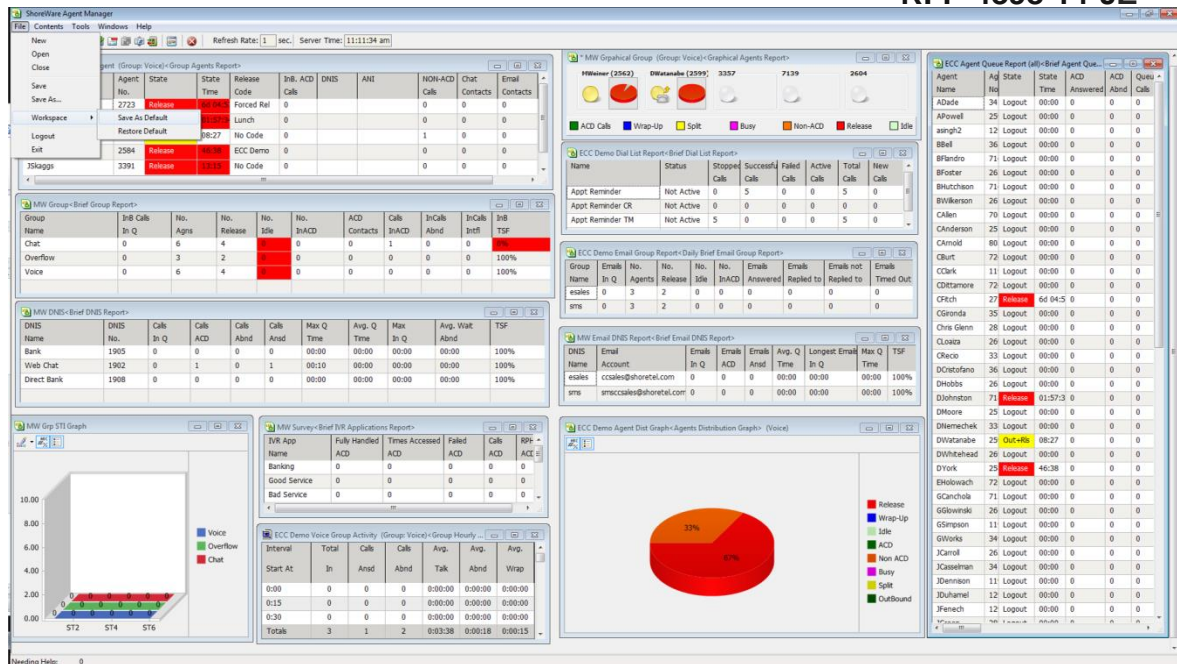
No. None are required.

4. Describe the delivery options of reports

Real Time reports can be delivered every second to a Supervisor with proper permissions. They can be collected in to a unique view that would represent the default view for that user. This can be changed and adjusted at will. This part of the application is Server/Client application.

5. Can reporting be automated?

Yes. Since the desktop is saved per user delivery of particular data sets across a variety of reports can be very personalized. Below is an example of a more comprehensive desktop with the "Workspace" options shown:



While monitoring applications deliver the real-time information a supervisor needs to manage day-to-day operations, the long-term success of the contact center depends on your ability to deliver consistent performance over time (historically). The ShoreTel ECC offers reporting features that help you track the performance of your operations over a period of hours, days, weeks, months, and/or even years. The ShoreTel Contact Center Reporting (SCCR) historical reporting tool presents historical data in report windows. The historical reports are generated from templates. Users can use the templates “as is”, or modify them to create the custom report that meets their specific needs. Modification of the reports includes; modifying column headings, text, font and color, moving columns around (arranging the order), and adding and removing columns based on the need of the contact center. The reports can be generated in tabular or graphical format. SCCR has assignable security levels for reports, allowing the user to have both private reports, your eyes only, and public reports that can be share with other administrators.

SCCR analytical tools including sorting by columns, filtering data, and defining non-continuous period reports allow a comprehensive and flexible environment for generating sophisticated reports with no prerequisite knowledge of database tables, SQL queries, or programming languages. An integrated scheduler allows automated reports to be printed at required times. Once a report is generated it can be printed or saved to a file in a variety of external formats including HTML, TXT, CSV, PDF and others. Reports can also be automatically emailed to one or more people. This advanced reporting gives the user a wide range of pre-defined reports that can be used “as is,” or modified to create a custom report that meets specific contact center needs. An extensive collection of report templates is available for generating data views of contact center performance that extend beyond basic call handling and queue metrics. In addition to an extensive number of report templates, SCCR provides up to 600 different statistics (group reports can have up to 600 statistics that can be added individually to a template) that can be added to any report (based on the type of report).

1. Describe available built in reports

Predefined Templates

The following predefined templates are available for generating historical reports:

- BP1.1 WFM- Blue Pumpkin Report
- RA1.1 Agent Performance Report by Interval
- RA1.2 Agent Performance Report by Date
- RA2.1 Group Agents Performance Report
- RA3.1 Agent Activity Log Report
- RG1.1 Group Performance Report by Interval
- RG1.2 Group Performance Report by Date
- RG2.1 Group Staffing Report by Interval
- RG2.2 Group Staffing Report by Date
- RG3.1 ACD Calls Distribution by Interval
- RG3.2 ACD Calls Distribution by Date
- RG4.1 Abandoned Calls Analysis by Interval
- RG4.2 Abandoned Calls Analysis by Date
- RG5.1 Detailed Group Wrap-Up Report by Interval
- RG5.2 Detailed Group Wrap-Up Report by Date
- RG6.1 Group Wrap-Up Code Report
- RG7.1 Abandoned Calls Log
- RQ1.1 Agent Queue Report by Interval
- RQ1.2 Agent Queue Report by Date
- RS2.1 ACD Calls Distribution by Interval
- RS2.2 ACD Calls Distribution by Date
- RS3.1 Abandoned Calls Analysis by Interval
- RS3.2 Abandoned Calls Analysis by Date

Blank Templates

Contact Center provides the following blank templates for generating historical reports:

- 1.1 Group by Interval
- 1.2 Group by Date
- 3.1 Agent by Interval
- 3.2 Agent by Date
- 3.3 Group Agent by Interval
- 3.4 Group Agent by Date
- 3.7 Agent Groups by Interval
- 3.8 Agent Groups by Date
- 3.9 Agent Calls Distribution by Agent
- 4.2 Group Agents by Date
- 6.1 Detailed Wrap-Up Code Report by Interval
- 6.2 Detailed Wrap-Up Code Report by Date
- 6.3 Wrap-Up Code Report By Interval
- 6.4 Wrap-Up Code Report By Date.
- 6.5 Group Wrap-Up Code Report By Interval.
- 6.6 Group Wrap-Up Code Report By Date.
- 6.7 Agent Wrap-Up Code Report By Interval.
- 6.8 Agent Wrap-Up Code Report By Date.
- 6.9 Agent Group Wrap-Up Code Report By Interval.
- 6.10 Agent Group Wrap-Up Code Report By Date.

- 6.11 Agent Queue Wrap-Up Code Report By Interval.
- 6.12 Agent Queue Wrap-Up Code Report By Date.
- 7.1 Wrap-Up
- 8.1 Agent Queue by Interval
- 8.2 Agent Queue by Date
- 12.1 DNIS by Interval
- 12.2 DNIS by Date
- 13.1 Group DNIS by Interval
- 13.2 Group DNIS by Date
- 13.3 DNIS Call Distribution by ACD Group
- 13.4 DNIS Call Distribution by DNIS
- 14.1 Agent DNIS by Interval
- 14.2 Agent DNIS by Date
- 16.2 ANI Distribution by Date
- 16.5 ANI Distribution by Period
- 17.1 IVR Applications Reports by Interval
- 17.2 IVR Applications Reports by Date
- 18.1 IVR Ports Groups Reports by Interval
- 18.2 IVR Ports Groups Reports by Date
- 19.2 Outbound Calls Report by Date
- 19.3 Dial List by Date
- 19.4 Dial List Calls by Date
- 19.6 Dial List Calls Status by Date
- 21.1 Release Codes by Interval
- 21.2 Release Codes by Date
- 21.3 Group Release Codes by Interval
- 21.4 Group Release Codes by Date
- 21.5 Agent Release Codes by Interval
- 21.6 Agent Release Codes by Date
- 21.7 Agent Group Release Codes by Interval
- 21.8 Agent Group Release Codes by Date
- 21.10 Agents Release Codes by Date

2. Do you rely on external tools for reporting?

No. None are needed.

3. Can you customize reports?

Contact Center Reports provides completely customizable templates. Each report has a comprehensive list of metrics which can be inserted into a report template. A group report, for instance, has nearly 500 distinct metrics from which to choose. Once a bespoke report has been created, it may be saved as a template, generated, set to auto generate on a pre-defined schedule, or a combination of these:

1.2 Group by Date

08/21/2009 Contact Center Reports 14:51

1.2 Group By Date Report

Date From :
Time From :
Group Name :
Requested By :

Date

Report Type
☒ Table Report
☐ Graphical Report

Add New Column

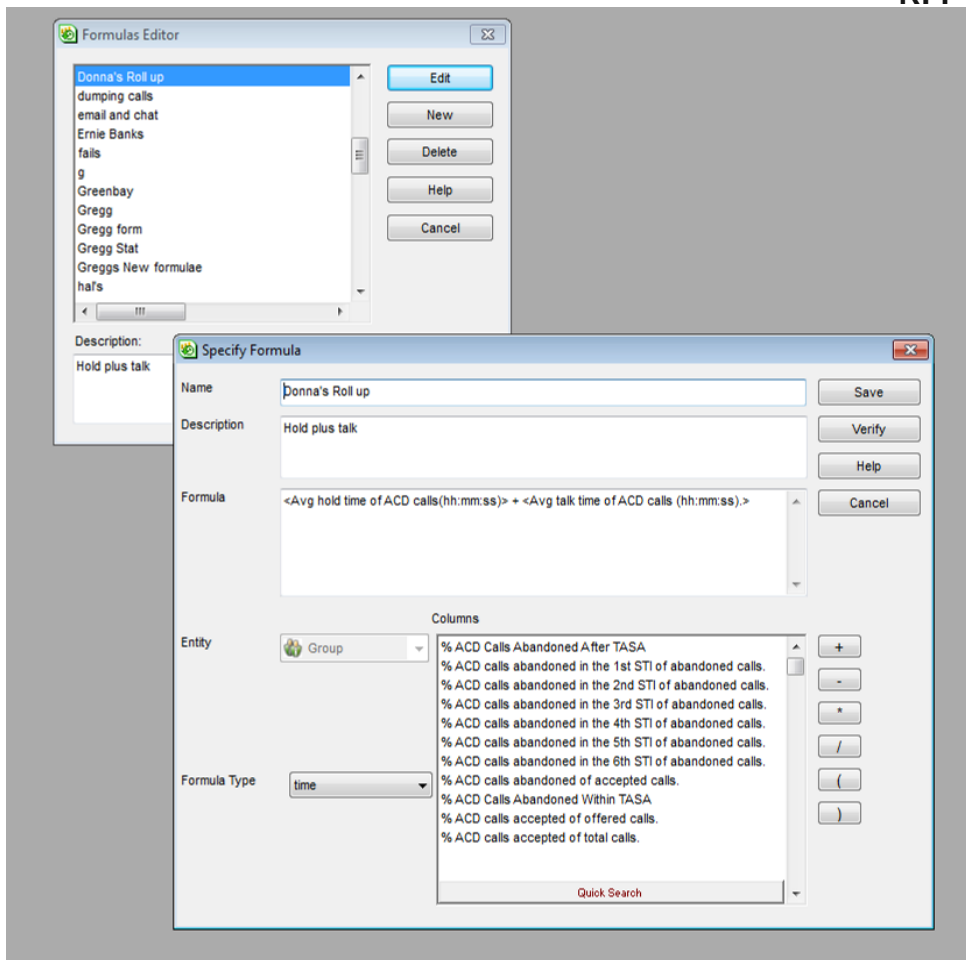
323 Cmltv wait time before answered of chat contacts (hh:mm:ss).
 324 Cmltv wait time before answered of mail contacts (hh:mm:ss).
 325 Cmltv wait time in queue of abandoned calls (hh:mm:ss).
 326 Cmltv wait time in queue of all calls (hh:mm:ss).
 327 Cmltv wait time in queue of calls requested callback (hh:mm:ss).
 328 Cmltv wait time in queue of outbound ACD calls (hh:mm:ss).
 329 Cmltv wait time of abandoned chat contacts (hh:mm:ss).
 330 Cmltv wait time of all chat contacts (hh:mm:ss).
 331 Cmltv wait time of all mail contacts (hh:mm:ss).
 332 Cmltv wait time of failed outbound ACD calls (hh:mm:ss).
 333 Cmltv wait time of pending outbound ACD calls (hh:mm:ss).
 334 Cmltv wait time of successful outbound ACD calls (hh:mm:ss).
 335 Cmltv wrap-up time of ACD calls (hh:mm:ss).
 336 Cmltv wrap-up time of chat contacts. (hh:mm:ss).
 337 Cmltv wrap-up time of mail contacts. (hh:mm:ss).

Quick Search

Description:
 Percentage of ACD calls abandoned in the first STI, out of abandoned calls.

Add Column Help Close

ECC also gives the user the ability to create custom formulas. These can be percentage, time or activity based across all our 13 reporting entities (Agent, DNIS, Group etc). Included is a verification option to test formulas. Addition, subtraction, Multiplication, Division and parenth functions are all available. Forlulas created in this tool are written to the db and passed forward in upgrades as well.



1. What export types are supported?

ECC can export historical data to HTML, PDF, XLS, SQL, and CSV which lends it to extensive customization options. ECC can also create custom formulas for its reports, as well as, it also offers CCAD and CCIV applications:

Automatic Reports

Schedule **Destination**

Destination

☐ Printer ☒ File

File path

Base File Name

Full File Name

Format

Type

Available options ☐ Append Report Parameters ☐ Append Total Row ☐ Append SubTotals

File Name Manipulation

☐ Append Date / Time

☐ Suffix Keep previous generations

Email

☒ Email report ☐ Delete file after sending

To

From

Subject

☒ Append Date / Time Format

☒ Append Report Name

Resulting Subject text

1. Frequency of delivered reports?

The minimum interval for ECC Historical Reporting is 15 minutes. We can therefore deliver any of our reports as often as every 15 minutes.

2. Any limitations (time of day)?

No. You have the ability to control when reports are sent including the ability to “not send reports on “non-working days”:

Automatic Reports

Schedule **Destination**

Schedule Name
New schedule

☒ Synchronize with the source template (parameters, design)
(available only for templates saved by user)

Source Template
ECC Demo Group Weekly Report

Date

☐ Every Day

☒ Every Week Sunday

☐ Every Month 1

☐ Specific 05/23/2013

☒ Generate the report on working days only

Time

☐ Every Hour 00

☒ Specific 12 00 ☒ AM ☐ PM

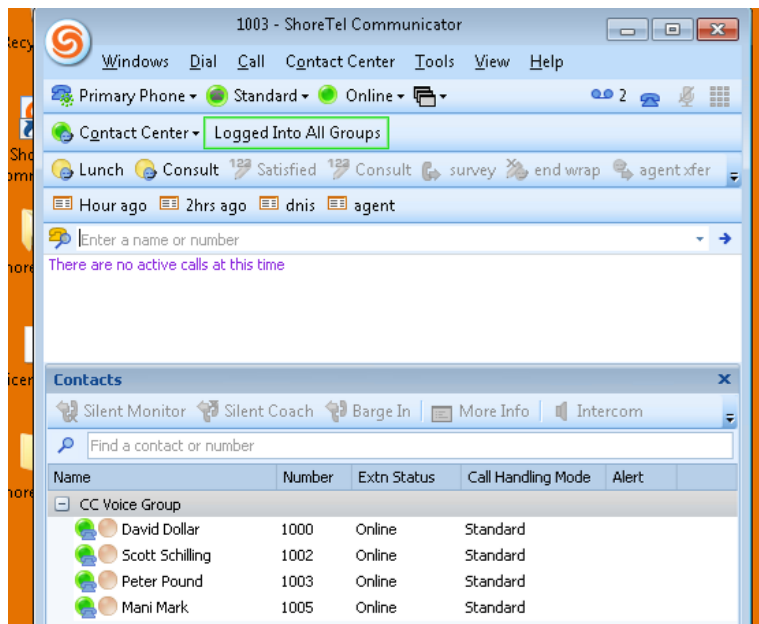
OK Cancel Help

1. Describe the delivery options of reports

Historical Report output can be scheduled by need and by user. Options for output of report data include the ability to print directly to a file; deliver report to an email; reports can be scheduled; reports can be PRIVATE or PUBLIC

2. Can reporting be automated?

Yes. We can automate delivery of reports to shares where they can be accessed by any number of applications including web servers and data mining applications. We can email with ease and also facilitate “rolling” reports to a share that a supervisor could utilize directly from a toolbar:



-Does your application support a web-view monitoring tool for read-only access to real time contact center performance reports and call routing scripts? Explain the features, functionality and reports that can be viewed through the web-view feature.

Response: Yes. Both the Agent Dashboard (real-time graphical display) and Intervention Viewer (historical cradle-to-grave reporting dashboard) are web-based.

ShoreTel Contact Center Agent Dashboard

Real-time communication of key customer service metrics to ShoreTel Contact Center agents, engaging and empowering them to self-manage and improve their performance:

Agent engagement and empowerment

Real-time performance summary

Color-coded, at-a-glance display

Contact Center Agent Dashboard (CCAD) reports

Group Agents Report: Multi-group Agent State details

Group Report: Performance metrics of ACD inbound calls & emails

Department Performance Report: Daily accumulative Success Rate

Daily Group Report: Daily accumulative Answer Rate

Daily Brief Group Report: Multi-group summary report

Centralized report design & publishing

Easy wide aspect ratio layouts

Web application with login control

ShoreTel Contact Center 6 & later

Supports Windows, Mac & iPad

ShoreTel Contact Center Interaction Viewer provides clear and custom views of end-to-end Contact Center multimedia (voice, chat and email) interactions anywhere. It provides deeper level of management insight for interaction-based management review and

operational analysis:

- Real-time multimedia interactions at a glance
- Highly flexible custom views
- Inbound and outbound interactions
- Layered data display for drilldown
- "Cradle-to-Grave" trunk-to-agent connections
- Comprehensive CDR and Connections data display
- Voice recordings playback
- Web application with login control
- Requires Contact Center Interactive Report (CCIR) Transform Service

-Does your system offer the ability for an agent to record a conversation with a customer (for instance if a customer was being abusive)? Please describe how this feature would be activated.

Response: Yes. Ad-hoc recording can be initiated from their the IP Phone or the desktop Communicator client.

Computer Telephony Integration (CTI)

-Do you have screen-pop integration capability?

Response: Yes. We support screen pops to CRM or trouble ticketing applications without advanced CTI requirements by simply using ActiveX or DDE triggers, and popping such things as URLs or local client software installed on the P

-Is CTI integration handled "out of the box," via toolkits, or integrated with CRM applications? Or does your system offer multiple options? If so, please describe.

Response: Yes, CTI features are available standard. We support a variety of standard APIs, and ECC supports built-in triggers as described in the previous response. We also have a full suite of Software Development Kits (SDKs) that are available at no cost, should you wish to perform your own integration with SHoreTel.

-Explain how your system can access database information for call routing decisions or screen pop data.

Response: Open SQL based ODBC compliant interfaces for database access into back end business systems; real time agent or queue information and screen pops allow customers to easily integrate with CRM, ticketing, Workforce management and adherence systems. This data can be used for routing and also presented to agents for screen pops or personalized treatment. Customers can also use interfaces provided to control agent actions through their custom interfaces. Software Development Kits available through ShoreTel Professional Services further enhances that capability through custom web services interfaces or adapters into standard CRM applications.

For example, callers with a past due water bill could be routed to the Payments department, while callers who are VIPs can be routed to the top of the queue or to the agent that is designated to handle their account.

-Explain how your system delivers third-party call control from a CTI-enabled desktop.

Response: We support TAPI and CAS, which would allow 3rd party applications (like Salesforce.com or Outlook, for example) to control the ShoreTel phone.

-Explain how your system delivers third-party agent state control from a CTI-enabled desktop.

Response: Since the application would be triggering the ShoreTel phone, ECC will know the agent's state (on a call, available, etc.)

Web Collaboration Functionality

The City Of Hollywood desires web collaboration functionality. Please describe your current web collaboration capabilities and include any plans for upgrades (if known).

Response: ShoreTel enables enterprises to conduct large audio conferences and provides collaboration tools for application sharing, desktop sharing, and instant messaging and end-user presence information, managed from the same easy to use, web based management interface as the PBX system.

Immersive Audio Conferencing

Whether it's a one-time conference or an always-on conference, users can invite their colleagues, partners or customers to dial into audio conference services in a single step. Eliminate the dead-time associated with waiting for parties to join a conference by simply dialing them in. ShoreTel Conferencing offers support for wide-band codecs, provides a new level of listening comfort and immerses everyone in the conversation, regardless of the location.

Brilliantly Simple Web Conferencing

Whether you use a PC or Mac, you can share your desktop to collaborate on documents with your team, conduct a sales presentation to prospective customers or simply use the interface to manage any audio conference. You can manage documents in your own personal library or through the public library. You can make your conference even more efficient by leveraging the pointer or whiteboarding session. At the end of your meeting, share your results by sending the resulting document to participants. On the attendee side, Web conferencing is as simple as clicking a website. Your attendees will see your desktop within seconds, with no download.

Secure, Standards based IM

The Service Appliance embeds an XMPP server that can be used with existing ShoreTel Communicator Instant Messaging features. The Contact List, with point-to-point and multi-point conversation, privacy and encryptions, introduces offline messaging that delivers a user's missed Instant Messages at login. Leveraging the new XMPP IM service, Mac users can communicate with both Mac and Window platforms via iChat software.

One Click Conference Scheduling for Outlook

Users can schedule or create spontaneous reservation-less conferences with no need for IT supervision, through an intuitive Web interface. Outlook users simply press the Conference button in the Outlook ribbon and a ShoreTel Conferencing access code will be automatically associated with the meeting, with all information required for the host and participants to join. During the conference, the system changes your availability to “Meeting” and will play a user-defined greeting.

Instant Recording

To keep an archive of the event, or to enable the distribution of the information to a broad audience, store a recording of the call along with the Web presentation

E-mail Response Management

-Please describe your current e-mail management capabilities. Include specific details on how your system interfaces with e-mail and with which systems it can interface.

Response: ShoreTel's ECC Solution is an application suite used for the purpose of running a voice or a multimedia (email/chat) contact center. A contact center is typically operated by a company to administer incoming customer support, sales, or information inquiries from consumers. In addition to incoming interactions, outgoing calls for telemarketing, clientele, etc. are also included in a typical contact center. The ShoreTel ECC solution has the capability to handle voice interactions (both inbound and outbound), web interactions, email interactions and fax (as email) interactions.

The email intelligent routing feature of ECC integrates to standard mail servers using IMAP (inbound) and SMTP (outbound) protocols. Mailboxes are defined on the enterprise mail server (e.g., Exchange Server, G-Mail, Hotmail, etc). Based on rules configured by the ECC administrator, ECC periodically downloads email messages to an equivalent store on the ECC server. These e-mail messages can be downloaded from one or many e-mail servers.

Fax Management

Please describe your current fax management capabilities. Include specific details on how your system interfaces with fax contacts and with which systems it can interface.

Response: ShoreTel supports direct connection of fax machines via analog station ports. We can also connect to 3-party fax server solutions such as RightFAX, Faxcore, and GFI Faxmaker via SIP, analog, or PRI, depending on the needs of the fax server.

IMPLEMENTATION

Project Management

Project Plan - Proposers are required to supply a complete description of the key activities required for the installation of the proposed system. [See the responsibility chart below](#)

Project Organization Chart - In the project plan, the Proposer will include a project organization chart with the reporting relationships of project team members and other key personnel. An escalation matrix should also be included. [Please refer to documentation in the installation maintenance tab](#)

Transparency - It is essential that the installation of the new system be as transparent as possible to the users. There should be no telephone service interruptions, no interim changes in dialing procedures, and no perceived degradation in the quality of service.

[Since the ShoreTel solution sits on your existing data network, it can be installed while your existing phone system is still operating. At the time of cutover, the phone service is merely added to the infrastructure that has already been installed. The only downtime, which will be minimal, will be for the porting of your CO trunk lines from the old system to the ShoreTel system.](#)

Responsibility Matrix and Project Schedule - A master project schedule must be included, along with a work responsibility matrix, identifying the tasks the vendor will perform and the tasks the City of Hollywood is expected to perform to successfully implement the new system.

Task	TeleSwitch	City of Hollywood
<i>Voice Communications System Analysis and Ordering</i>		
<i>ShoreTel Software & Hardware</i>		
Receipt of Purchase Order into Operations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule Delivery	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ship Hardware and Software (ShoreTel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Receive Hardware and Software	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Telephones (if separate from ShoreTel PO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Deliver Telephones (if separate from ShoreTel PO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Telco</i>		
Call Flow Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Task	TeleSwitch	City of Hollywood
Inventory and determine trunk requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Circuits	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental and Infrastructure Analysis and Upgrade		
<i>Power</i>		
Assess Power Requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Power and Grounding Upgrades (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Purchase UPS for ShoreWare Server	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Purchase UPS for ShoreGear switches	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Purchase UPS for PoE switch for IP Phones (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Racks</i>		
Assess the need for rack space for the ShoreGear Switches at each site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Racks (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Cabling</i>		
Assess cabling needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order cabling & equipment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Ventilation</i>		
Assess Ventilation requirements for the ShoreGear Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Ventilation upgrades (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>IP Network</i>		
Assess Local Area Network needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order LAN equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Assess Wide Area Network needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order WAN equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Miscellaneous</i>		
Assess Overhead Paging needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order Overhead Paging equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Assess Music on Hold needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Obtain royalty free music for MOH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>ShoreWare Server</i>		
Assess the need to purchase a Sever	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Task	TeleSwitch	City of Hollywood
Order ShoreWare Server	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>ShoreWare Clients</i>		
Assess the desktop PC's (do they meet Call Manager requirements?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Order desktop PC upgrades (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Resource Scheduling and Tracking		
<i>Power</i>		
UPS installed for server	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UPS installed for switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UPS installed for PoE switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power installation complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Racks</i>		
Install Racks (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Cabling</i>		
Install Patch Panels or cross connect blocks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Install Switch to MDF Patch Panel Cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Install Station Cable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Install ShoreGear Ethernet Cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schedule cable vender for station cutover	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Ventilation</i>		
Update Ventilation (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>IP Network</i>		
Install LAN equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Install WAN equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Miscellaneous</i>		
Install Overhead Paging equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Install Music on Hold equipment (if needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Install desktop PC upgrades (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Training</i>		
Schedule System Admin Training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule End User / Operator Training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Task	TeleSwitch	City of Hollywood
System Load and Configuration		
<i>IP Network</i>		
Assign IP Addresses for ShoreGear switches and ShoreWare server	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Telco</i>		
Circuits Delivered and Tested by Telco	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schedule Telco vender for Trunk cutover and support	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>ShoreWare Server</i>		
Configure server (Windows 2003 & Service Pack 2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Load ShoreTel software	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>ShoreWare Clients</i>		
Install desktop PC upgrades (if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Install Call Manager software on desktop PC's	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>ShoreTel Installation</i>		
Rack Mount ShoreGear Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Configure IP addresses to ShoreGear Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Install Telephones in Cubicles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Connect New Telco Circuits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Configure ShoreTel System</i>		
Define ShoreGear Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Configure Trunk Groups	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add Users	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Configure Auto-Attendants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Record and import Auto-Attendant greetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Configure Workgroups	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Review Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Training</i>		
Complete System Admin Training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule End User / Operator Training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Installation Readiness Review		
<i>Environment and Infrastructure</i>		

Task	TeleSwitch	City of Hollywood
Power	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Racks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cabling	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IP Network	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Miscellaneous	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Overhead Paging	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Music on Hold	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Voice Communications System</i>		
ShoreWare Server	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ShoreWare Clients	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Training</i>		
Complete End User / Operator training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Cut-Over</i>		
<i>System Cutover</i>		
Test Telco circuits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cutover Telco circuits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Test Call Flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Test Critical System Features (Workgroups, Menus, Intersite calls, Paging, MoH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cutover stations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Test Stations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>First Day Live</i>		
Monitor System to identify any configuration issues	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assist users & Operator with any questions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transition Administration and Support to Customer Help Desk	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide additional End User / Operator Training (if necessary)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Project Review</i>		
Documentation Delivery	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transition to Service / Maintenance Agreement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Installation Requirements

Responsibility - The selected vendor is solely responsible for the complete turn-key engineering of the new telecommunications system and all interconnecting facilities.

Initial Work- Vendor will perform station reviews, data base preparation, and original program initializations.

Telco Coordination - Vendor will coordinate the ordering of all long-distance and local communications facilities as deemed necessary by the City of Hollywood. Ensure that WAN circuits are in place as required.

TeleSwitch will be fully responsible for engineering a turn-key solution of the new telecommunications system and all interconnecting facilities.

TeleSwitch will be fully responsible for performing network assessment, station reviews, data base preparation, and original program initializations.

Facility Requirements

Proposers must furnish all space, power, and environmental requirements for the proposed telephone system and optional voice messaging equipment.

[See attached specification sheet](#)

Space – Provide the physical dimensions of the proposed equipment.

[See attached specification sheet. All system requirements UL approved.](#)

Power - All power requirements, including any special conditioning or grounding requirements.

[See attached specification sheet](#)

Heat - Vendor must provide heat dissipation for proposed switchroom and the recommended safe temperature operating range for the proposed system.

[See attached specification sheet](#)

Floor Loading -Vendor must provide complete floor loading requirements.

[See attached specification sheet](#)

[VENDORS: ADD A TABLE FOR ENVIRONMENTALS.]

Training

-Requirements - The successful Proposer is required to conduct end-user training on the City of Hollywood premises, tailored specifically to The City Of Hollywood's particular requirements (e.g., console operator, message center operator, secretary, and professional).

Training class sizes will not exceed thirty (30) station users at a time.

10 ACD data retrieval training.

15 users will require ACD agent training.

-Training Plan - Vendor will also provide a training program and training materials for designated the City of Hollywood personnel who will train future employees.

-Description - For each product application proposed, provide a detailed description of the training the vendor will provide. (The cost of training must be included as part of the Proposer's response to the RFP)

-Materials - Reference copies of the training materials should be included as part of the Proposer's response to this RFP.

-A comprehensive training module is desired for internal staff from the City of Hollywood to be able to perform MACS, software integration and implementation of necessary upgrades, as well as System Administration. Proposer must describe in detail any training modules that are offered.

In addition to end-user training, which TeleSwitch will also provide in a classroom environment training will also include System Administration training, which will allow City of Hollywood to manage the ShoreTel system.

The following is an overview of the training that will provide to personnel. In addition, can provide more detailed "Train-the-Trainer" instructor led classes to allow personnel to train future hires.

- ["Introduction to Communicator," provides all the information you need to get started using Communicator.](#)
- ["Making, Receiving, and Handling Calls," provides all the procedures you need to make, receive, and handle calls. Everything you need to use call handling modes is also provided.](#)

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- [“Integrating Outlook and Using the ShoreTel Viewers,” discusses everything you need to know to integrate the Outlook contacts and Inbox with the Communicator and voice mail messages. It also provides all the procedures you need to use the ShoreTel Directory Viewer and the ShoreTel History Viewer.](#)
- [“Using Voice Mail,” provides information about using the ShoreTel voice mail functions, the Office Anywhere feature, using distribution lists, using the QuickMailer, and managing speed dial entries.](#)
- [“Setting Options,” provides procedures for setting options in Communicator, such as changing the maximum number of incoming and outgoing calls, changing passwords, and configuring to automatically open Communicator when you use the phone.](#)
- [“Communicator Reference Guide,” provides information on the different areas of the main window and descriptions of menu commands, dialog boxes, toolbar buttons, and the status bar icons.](#)
- [“International Dialing,” provides information for callers who want to make international calls using Communicator.](#)
- [“Tips and Frequently Asked Questions”, provides tips to help you work more efficiently and effectively and answers to frequently asked questions.](#)

VENDOR SERVICE**Maintenance and Warranty**

-A complete maintenance and warranty agreement including software assurance, must be included as part of the Proposer's proposal. Please review [Please review the support document included in the RFP](#)

-Software upgrades must include major and minor support and must have full entitlement with no third party support or intervention. [Included for all 6 years of support](#)

-One Year Warranty - The telephone system and all associated equipment in the Proposer's proposal must be warranted by the Proposer and by the manufacturer to be free of defects in equipment, software, and workmanship for a period of at least one year following system cutover. [6 year Bronze level support is included, please see the document stating the various levels of support](#)

-Defective Parts - During the warranty period and any subsequent maintenance agreement, any defective components shall be repaired or replaced at no cost to The City Of Hollywood. [Comply](#)

-Maintenance Personnel - All system maintenance during the warranty period and under any maintenance agreements shall be performed by the successful bidding organizational support and at no additional cost to the City of Hollywood other than those charges stipulated to maintain the warranty. [Comply](#)

-Extended Support - As part of the response to this specification, the Proposer must guarantee to continue to provide full system maintenance and software assurance for a period of not less than five years following the expiration of the original warranty period.

Customers who purchase products from ShoreTel can do so with confidence that these products will have a long and useful lifecycle that will allow customers to adopt new features or technologies as they evolve. ShoreTel Software (SW) releases will support ShoreTel Hardware (HW) platforms and devices for at least 5 years from the date of HW purchase.

A ShoreTel System 'Release' is the core code of the system, towards which all other system elements are made compatible. ShoreTel ensures that 'Releases' are able to provide a reasonable period of forward SW and HW release compatibility. All ShoreTel service programs will provide the latest level of system SW free to customers with current ShoreCare service agreements. Customer is responsible for upgrading all of its ShoreTel hardware and software within two versions of the current release level including: ShoreGear held as replacement parts.

ShoreTel provides software maintenance releases including bug fixes and patches for major releases for the General availability of the software release until 12 months beyond the general availability of the next major release. If a minor release is provided during the life of an

existing major release, the minor release will incorporate all maintenance fixes and will become the supported version for that release going forward.

When SW release compatibility of a ShoreTel HW product is to cease, ShoreTel will normally give 2 years notice of that event. At the end of this time the named HW product will cease to be maintained as part of a compatible ShoreTel 'release' product family.

When a ShoreTel HW platform is no longer supported with a coming release a customer may continue to use the leased SW if they are on a valid service agreement by electing to upgrade to the new supported HW platforms or devices. They may continue to use the ShoreTel SW and licenses on the new HW without having to re-purchase the latest SW. ShoreTel may revise its support lifecycle policies from time to time.

ShoreTel may revise its support lifecycle policies from time to time

The proposal is based on a TeleSwitch Bronze level SLA please see attached document on SLA's

Logistical Support

-Proposer should identify the address of the vendor's local service centers and the number of service personnel trained on the proposed system. [6 Engineers with various levels of training to support the proposed system.](#)

-Include in this section any other support levels in the local area available to the City of Hollywood for the maintenance of the proposed system. [Please refer to the TeleSwitch list of SLA's currently available](#)

Repair Response

-The successful Proposer will provide routine system monitoring to assure the continued operation of all system components.

[Comply](#)

-Repair Commitment - The Proposer must include a description of the Proposer's repair commitment from time of trouble discovery through the time the trouble is cleared. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Response Time – The City of Hollywood is guaranteed a response time of no more than 4 hours for all major system problems and a maximum of 8 hours response to other system problems. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-4 Hour Response – During the term of the lease, the Proposer must supply no more than a 4-hour response to major problems, 24 hours a day, 7 days a week. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Major/Minor Problems - Proposers must describe their definitions of major and minor problems. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Preventative Maintenance - Explain any services the vendor offers that would assist in disaster avoidance and recovery planning for the proposed system. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Spare Parts Availability - Describe the availability of spare parts maintained in the area for the critical hardware and software. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Replacement Time - Explain the amount of time required for full replacement of the central operating hardware/software of the system, assuming a suitable site exists for locating the replacement components. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Emergency Installation - How long does it take trained personnel to install and load operating system software and database software, if a major disaster destroys the call processing component of the system. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Plan - Explain the available services provided by the vendor to allow for a high level of recovery from disasters [e.g., within two (2) hours, four (4) hours]. [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Back-up Procedures- Describe standard database back-up procedures.
[Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

-Replacement Options - Describe the options available to the City of Hollywood if a system component is destroyed (e.g., replacement with the next machine on the assembly line, replacement systems available locally, customer spares on site, etc.). [Please review to the TeleSwitch maintenance agreement in the “Maintenance/Warranty tab”](#)

COST PROPOSAL

-Please provide a detailed cost proposal including price caps, tiered pricing or volume discounts offered the City of Hollywood. Please be certain that your pricing breakdown includes all aspects of the required services as identified (i.e. software, hardware, maintenance and support, training, professional services, and software upgrades and new releases. This must be for the life of the lease and included in lease financing). Please identify and price separately, those items that require customization and are not standard product offerings.

Included in the pricing tab of response. Support is included for a 72 month term

Component Itemization

-Proposer must itemize all charges for individually identifiable components of the proposed IP Communication system, including all associated installation, programming, and cabling. Proposer must include charges for all components required to connect all applications, all design charges, telco interface charges, and training charges.

-Damage Liability - The successful vendor is liable and responsible for any damage to the premises (e.g., floor, walls, etc.) caused by vendor personnel or equipment during installation and is responsible for the removal of all project-related debris.

-Permits - The vendor shall obtain and pay for any permits and licenses required for the performance of the work, post all notices required by law, and comply with all laws, ordinances and regulations bearing on the conduct of the work, as specified herein. On any work which requires an inspection certificate issued by local, State or any other governing body, such inspection certificate(s) shall be obtained by and paid for by the vendor. The chosen vendor shall procure all required certificates of acceptance or of completions issued by the state, municipal or other authorities and must deliver these to the City of Hollywood.

-Vendor Responsibility - Unless otherwise stipulated, vendor shall provide, and pay for, all materials, labor, tools, equipment, transportation, and other facilities necessary for the performance and completion of the work. Vendor shall verify conditions at the building, particularly door openings and passages. Any pieces too bulky for existing facilities shall be hoisted and otherwise handled with apparatus as required.

-Terms and Conditions -The vendor shall include a copy of standard terms

and conditions as part of the system proposal.

All components of the UC solution is included and itemized in the pricing section of the RFP. Pricing does not include data switches including PoE switches, patch panels, rack, patch cords and any station or feeder cabling. TeleSwitch will re-use all existing or customer provided materials with regard to the network infrastructure. Permits are not included based on the above statement. Pricing also includes re using existing PRI circuits and customer will provide all necessary information with regard to these circuits or provide TeleSwitch with the necessary carrier contact information in order to receive this information. Terms and conditions can be found in the attached Master Sales agreement and Maintenance agreement.

-RFP Responses - All materials submitted by the vendor in response to this RFP become the sole property of the City of Hollywood upon receipt of the proposal. The material contained in these responses will be appended to the final contract, further defining the contractual responsibilities of the vendor.

APPENDICES

Please feel free to attach other documents that may help explain or clarify your proposal. Examples of items to include are as follows:

- Product literature
- References
- Sample Reports
- Traffic Reports- Samples
- Drawings

NOTE: Please do not include marketing material.

PART II: PROPOSAL SUBMISSION REQUIREMENTS

A. SUBMISSION REQUIREMENTS

All Proposals shall be received by the City Clerk, City of Hollywood, City Hall, 2600 Hollywood Boulevard, Room 221, Hollywood, Florida 33020, and plainly marked on the outside of the envelope using the label available on page two of this document.

PROPOSAL ENVELOPES SHALL BE SEALED AND IDENTIFIED AS SPECIFIED BELOW:

RFP NO.	RFP-4398-14-JE
TO BE OPENED:	3:00P.M., MAY 29, 2014
AND ADDRESSED TO:	CITY OF HOLLYWOOD OFFICE OF THE CITY CLERK 2600 HOLLYWOOD BLVD., ROOM 221 HOLLYWOOD, FLORIDA 33020

AN ORIGINAL, CLEARLY IDENTIFIED, AND EIGHT (8) COPIES AND ONE (1) ELECTRONIC COPY (CD) OF YOUR PROPOSAL MUST BE SUBMITTED AT OR BEFORE TIME OF PROPOSAL OPENING.

It will be the sole responsibility of the Proposer to have his Proposal delivered to the Office of the City Clerk on or before the closing hour and date shown above for receipt of Proposals. If a Proposal is sent by mail, the Proposers shall be responsible for its delivery to the City Clerk's Office before the closing hour and date shown above for receipt of Proposals. Proposals thus delayed will not be considered and will be returned unopened after award.

SUBMISSION REQUIREMENTS (CONTINUED)

The Proposal shall be signed by a representative who is authorized to contractually bind the Proposer.

Each Proposal shall be prepared simply and economically, providing a straightforward, concise delineation of the Proposer's capabilities to satisfy the requirements of the RFP. The emphasis in each Proposal must be on completeness and clarity of content. In order to expedite the evaluation of Proposals, it is essential that Proposer follow the format and instructions contained herein. If the Proposer so wishes, the Proposal may be accompanied with brochures, promotional materials, or displays properly identified. However, Proposal Submission Requirements as listed herein must be followed. All Proposals must be submitted as specified on the Proposal pages which follow. Any attachments must be clearly identified.

The Proposal shall be considered an offer on the part of the Proposer, which offer shall be deemed accepted upon approval of the City Commission of the City of Hollywood, and in case of default the City of Hollywood reserves the right to accept or reject any or all Proposals, to waive irregularities and technicalities, and request new Proposals. The City also reserves the right to award any resulting agreement as it deems will best serve the interests of the City.

B. INSURANCE REQUIREMENTS

Contractor shall maintain, at its sole expense, during the term of this agreement the following insurances:

- A. Commercial General Liability **Insurance naming the City as an additional insured** with not less than the following limits:

General Aggregate	\$1,000,000
Products-Comp/Op Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage	\$ 50,000

Coverage shall include contractual liability assumed under this agreement, products and completed operations, personal injury, broad form property damage, and premises-operations.

- B. Commercial Automobile Liability Insurance naming the City as an additional insured with not less than the following limits:

Combined Single Limit	\$500,000
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Coverage shall include contractual liability assumed under this agreement, owned, hired and non-owned vehicles.

Worker's Compensation:

- C. Worker's compensation insurance covering the contractor and the contractor's employees with not less than the following limits:

Worker's Compensation	\$100,000/500,000/100,000 for coverage
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Please Note: The Certificate shall contain a provision that coverage afforded under the policy will not be cancelled until at least thirty (30) days prior written notice has been given to the City. Certificates of insurance, reflecting evidence of the required insurance, shall be provided to the City. In the event the Certificate of Insurance provided indicates that the insurance shall terminate and lapse during the period of this Agreement, the vendor shall furnish, at least thirty (30) days prior to the expiration of the date of such insurance, a renewed Certificate of Insurance as proof that equal and like coverage for the balance of the period of the Agreement or extension thereunder is in effect.

The insurance policy shall not contain any exceptions that would exclude coverage for risks that can be directly or reasonably related to the scope of goods or services in this bid/proposal. A violation of this requirement at any time during the term, or any extension thereof shall be grounds for the immediate termination of any contract entered in to pursuant to this bid/proposal. In order to show that this requirement has been met, along with an insurance declaration sheet demonstrating the existence of a valid policy of insurance meeting the requirements of this bid/proposal, the successful proposer must submit a signed statement from insurance agency of record that the full policy contains no such exception.

The City reserves the right to require additional insurance in order to meet the full value of the contract.

The City reserves the right to require any other insurance coverage it deems necessary depending upon the exposures.

[Agreed & Acknowledged](#)

HOLD HARMLESS AND INDEMNITY CLAUSE:

(Company Name and Authorized Signature, Print Name),

the contractor shall indemnify, defend and hold harmless the City of Hollywood, its elected and appointed officials, employees and agents for any and all suits, actions, legal or administrative proceedings, claims, damage, liabilities, interest, attorney's fees, costs of any kind whether arising prior to the start of activities or following the completion or acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part by reason of any act, error or omission, fault or negligence whether active or passive by the contractor, or anyone acting under its direction, control, or on its behalf in connection with or incident to its performance of the contract.

(Company Name and Authorized Signature, Print Name),

further certifies that it will meet all insurance requirements of the City of Hollywood and agrees to produce valid, timely certificates of coverage.

Signed document is included in "Signed Document Tab"

C. GENERAL INFORMATION AND SCHEDULE

For information concerning procedure for responding to this Request for Proposal (RFP), contact the Procurement Services Division, Janice English, Sr. Procurement Specialist at (954) 921-3345, or Joel Wasserman, Director, Procurement Services at (954) 921-3290, or his designee. Such contact is to be for clarification purposes only. Material changes, if any, to the scope of services, or Proposal procedures will only be transmitted by written addendum.

It is preferred that all questions be submitted in writing. Questions should be directed to the City of Hollywood, P.O. Box 229045, Hollywood, Florida 33022-9045, Attention: Janice English, Sr. Procurement Specialist, Procurement Services Division, or to facilitate prompt receipt of questions, they may be sent via fax at (954) 921-3086, or via e-mail to jenglish@hollywoodfl.org or jwasserman@hollywoodfl.org or contact the Director of Procurement Services or his designee. **Questions must be received no later than Monday, May 12, 2014.**

RFP Schedule

REQUEST FOR PROPOSALS ISSUED	THURSDAY, MAY 1, 2014
PRE-PROPOSAL CONFERENCE:	THURSDAY, MAY 15, 2014
PROPOSAL DUE DATE-PRIOR TO 3:00P.M.,	THURSDAY, MAY 29, 2014

D. PRE-PROPOSAL CONFERENCE

Vendors are encouraged to attend a pre-proposal conference located at the City of Hollywood, City Hall, Room 215 at 9:30 A.M. on May 15, 2014. The purpose of this conference is to allow the City of Hollywood the opportunity to provide clarification and respond to questions from potential Proposers relative to any facet of this Request for Proposal.

To provide the City of Hollywood sufficient time to adequately prepare responses to vendor inquiries at the pre-proposal conference, it is desirable that all questions be submitted in writing to the City of Hollywood Procurement Services, PO Box 229045 Hollywood, Florida 33022-9045 no later than Monday, May 12, 2014. Written responses to all questions will be provided to each participant and discussed at the pre-bid conference. Written addendum will be issued, if required, as soon as possible after that conference.

Due to the importance of the Proposers having a clear understanding of the specifications/scope of work and requirements for this solicitation, attendance at this conference is strongly encouraged.

E. OTHER CONSIDERATIONS

1. The City reserves the right to approve substitutions for assigned personnel proposed for this engagement. Substitutions may be allowed for staff turnover, sickness or other emergency situations.
2. All contact for information regarding the Proposal must be addressed to the City of Hollywood's Procurement Services Division. Over the course of this RFP process, related contact with City Staff by a respondent or their agent, other than as part of the evaluation process or for clarification purposes, will be grounds for automatic disqualification of that vendor.

Each Proposer shall examine all Proposal Documents and judge for themselves all matters relating to the adequacy and accuracy of the documents. If the Proposer is of the opinion that any part(s) of the Proposal Document is incorrect or obscure, or that additional information is needed, he should request such information or clarification from the Procurement Services Division in order that appropriate addenda may be issued, if necessary, to all prospective Proposers.

3. No oral change or interpretation of the provisions contained in this Request for Proposal is valid whether issued at a pre-proposal conference or otherwise. Written addenda will be issued when changes, clarifications, or amendments to Proposal Documents are deemed necessary. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.
4. All materials submitted in response to the RFP become the property of the City of Hollywood and will be returned only at the option of the City. The City has the right to use any or all ideas presented in any response to the RFP whether amended or not and selection or rejection of the Proposal does not affect this right, provided

however, that any Proposal that has been submitted to the City Clerk's Office may be withdrawn prior to Proposal opening time stated herein, upon proper identification and signature releasing Proposal Documents back to Proposer.

5. After initial review of the Proposals, the City may invite consultants for an interview to discuss the Proposal and meet its representatives, particularly key personnel who would be assigned to the project. It is understood that the City shall incur no costs as a result of this interview, nor bear any obligation in further consideration of the Proposal.
6. Copies of Proposals submitted may not be viewed until thirty (30) days after RFP opening date.
7. The City reserves the right to determine, at its sole discretion, whether any aspect of a Proposal satisfies the criteria established in this Request for Proposals. The City further reserves the right to negotiate with any person or firm submitting Proposals and reserves the right to reject any or all Proposals with or without cause. The City also reserves the right to waive minor technical defects in a Proposal. In the event that this Request for Proposals is withdrawn by the City for any reason, the City shall have no liability to any applicant for any costs or expenses incurred in connection with this Request for Proposals or otherwise. All such expenses incurred in the preparation of a Proposal shall be borne by the Proposer.

Failure or refusal of the successful Proposer to execute a contract within thirty (30) days after award shall constitute a default. Any such Proposer shall not assign, transfer, convey or otherwise dispose of any or all of its rights, title or interest therein, or its power to execute such contract to any person or firm without prior written consent of the City.

F. EVALUATION CRITERIA

Proposals will be evaluated using the criteria listed below to ascertain which Proposal best meets the requirements of the City. The items to be considered during the evaluation and the associated point values are as follows:

- | | | |
|----|--|-------------|
| 1. | Experience in U.C. Industry | 0-10 points |
| 2. | Project Organization and Technical Qualifications of the Persons Assigned to the Project | 0-20 points |
| 3. | Project Understanding, Proposed Approach and Methodology | 0-30 points |
| 4. | References and Successfully Completed Similar Projects | 0-20 points |
| 5. | Cost of Equipment and Professional SeNices Fee | 0-20 points |

MAXIMUM TECHNICAL POINTS	100
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G. SELECTION PROCESS

Evaluation of the Proposals will be performed by a committee selected by the City. The committee will evaluate the firms according to their Proposal. The initial scores will be tallied and a short list will be developed consisting of the firms receiving the highest point ratings. The committee may conduct discussions with offerors on the short list for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements. In conducting discussions, there shall be no disclosure of any information derived from Proposals submitted by competing offerors. These firms may be invited to an oral inteNiew before the committee. A short list of finalists will be determined and presented to either the City Manager or her designee or to the City Commission, in accordance with the applicable City of Hollywood Code of Ordinance, and will make the final ranking for the purposes of negotiating a contract with the top ranked firm.

H. EQUAL EMPLOYMENT OPPORTUNITY

Proposer shall provide a written statement that it does not and will not discriminate against any person, employee, or applicant for employment, because of race, creed, color, religion, sex, national origin, ancestry, age or disability.

I. PROMPT PAYMENT: LATE PAYMENTS BY CONTRACTOR TO SUBCONTRACTOR AND MATERIAL SUPPLIERS; PENALTY:

When a contractor receives from the City of Hollywood any payment for contractual services, commodities, materials, supplies, or construction contracts, the contractor shall pay such moneys received to each Subcontractor and Material Supplier in proportion to the percentage of work completed by each Subcontractor and Material Supplier at the time of receipt. If the contractor receives less than full payment, then the contractor shall be required to disburse only the funds received on a pro rata basis with the Subcontractors and Material Suppliers, each receiving a prorated portion based on the amount due on the payment. If the contractor without reasonable cause fails to make payments required by this section to Subcontractors and Material Suppliers within fifteen (15) working days after the receipt by the contractor of full or partial payment, the contractor shall pay to the Subcontractors and Material Suppliers a penalty in the amount of one percent (1%) of the amount due, per month, from the expiration of the period allowed herein for payment. Such penalty shall be in addition to actual payments owed. Retainage is also subject to the prompt payment requirement and must be returned to the Subcontractor or Material Supplier whose work has been completed, even if the prime contract has not been completed. The Contractor shall include the above obligation in each subcontract it signs with a Subcontractor or Material Supplier.

J. ADA COMPLIANCE

Persons with disabilities who require reasonable accommodation to participate in City programs and/or services may call the Equal Opportunity Manager, Office of Human Resources and Risk Management at (954) 921-3218 (voice). If an individual is hearing or speech impaired, please call Florida Relay Service 1-800-955-8771.

K. PUBLIC ENTITY CRIMES

"A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

L. DECLARATION

The aforementioned, as Proposer (herein used in the masculine singular, irrespective of actual gender and number), declares, under oath that no other person has any interest in this Proposal or in any resulting agreement to which this Proposal pertains, that this Proposal is not made with connection or arrangement with any other persons, and that this Proposal is made without collusion or fraud.

The Proposer further declares that he has complied in every respect with all the instructions to Proposers, that he has read all addenda, if any, issued prior to the opening of Proposals, and that he has satisfied himself fully relative to all matters and conditions with respect to the general conditions of the agreement and all relevant information to which this proposal pertains.

Signed declaration included in “Signed Documents Tab”

M. DISCLOSURE OF CONFLICT OF INTEREST

Vendor shall disclose below, to the best of his or her knowledge, any City of Hollywood officer or employee, or any relative of any such officer or employee as defined in Section 112.3135, Florida Statutes, who is an officer, partner, director or proprietor of, or has a material interest in the vendor's business or its parent company, any subsidiary, or affiliated company, whether such City official or employee is in a position to influence this procurement or not.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City of Hollywood Purchasing Ordinance.

Name	Relationship
N/A	

In the event the vendor does not indicate any name, the City shall interpret this to mean that no such relationship exists.

Disclosure of Conflict of Interest document is included in the “Signed Documents Tab”

Siemens/Unify PBX loan (year 7.5 of 10)

TO Bank

Loan Balance as of March 2014	\$255,560.92
Monthly Payment	\$9,443.49

Siemens/Unify

Quarterly maintenance	\$20,631.68
or monthly	\$6,877.23

Total Monthly Payment	\$16,320.72
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Attachment B

City of Hollywood
Metropolitan Area Network