**Request for Proposal for Telephone System**

Submitted by

Name of contact(s) submitting this RFP

Date

March 28, 2013

**Inquiries Should Be Directed To: Proposals Should Be Directed To:**

Name Name

Title Title

Company Company

Street Street

City, State, Zip City, State, Zip

Phone: Phone number Phone: Phone number

Fax: Fax number Fax: Fax number

Email: Email address Email: Email address

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# GENERAL INFORMATION

## Enter the name of your company here Information

**Mission**

Enter your company’s mission here.

**Company Background**

Enter your company’s background here.

 **Faculty and Staff**

Describe your company’s faculty and staff (how many employees, what type of employees, etc.).

## Purpose

Explain, here, what your company is looking for from the vendors it is requestion proposals from (i.e., are you upgrading an old system? Purchasing a new system? Purchasing new parts for an old system?). The selected Vendor will be our primary source for the following:

* Business telephone system hardware, software and voice mail equipment
* Installation and configuration services for this equipment
* Training of users and administrators
* Maintenance of purchased and installed equipment and software
* Upgrades to the installed systems as necessary

## Instructions on Proposal Submission

1. **Written Questions and Inquiries**

Provide the contact information for the person(s) to whom all inquiries regarding this request for proposal should be directed.

1. **Closing Submission Date**

Proposals must be submitted and received no later than instert deadline (date and time by which you would like to receive the responding proposals).

1. **Condition of Proposal**

All costs incurred in the preparation of a proposal responding to this RFP will be the responsibility of the Vendor. During the evaluation process, company name reserves the right to request additional information or clarification from the Vendor to allow for correction of errors and omissions.

1. **Instruction to Prospective Contractors**
2. **Proposal Instructions**

Submit number of copies of each proposal you wish to receive copies of the response. Each prepared response shall be submitted in a sealed envelope. The envelope must be addressed to the following and must include the label as indicated below.

 Name: Name of contact to which proposals should be sent/addressed

 Title

 Company name

 Street

 City, State, Zip

It is important that the Vendor’s proposal be submitted and clearly marked in the lower left-hand corner with the following information:

Company name - Proposal

For phone system

Due: date proposal is due

It is the responsibility of the Vendor to ensure that the proposal is received by the date and time specified above. Late proposals will not be considered.

A copy can be sent electronically to Any email address to which you wish the proposal(s) be sent electronically with the subject line of “Proposal – for phone system”.

1. **Contract Overview**

The proposal should include a contract for all proposed equipment and services. If the Vendor does not wish to submit an actual contract with the proposal, due to different alternatives proposed and pending choices from those alternatives, a sample contract should be submitted with the proposal.

1. **Contract Term and Cost of Ownership**

All equipment, software, licensing and maintenance pricing and negotiations or variations must be clearly stated. All pricing and negotiations must include both a five (5) and seven (7) year analysis of the Total Cost of Ownership.

1. **Right to Reject**

Company name reserves the right to reject any and all proposals received in response to the RFP. A contract for the accepted proposal will be based upon the factors described in this RFP.

## Evaluation Criteria

All responses to this RFP will be evaluated based on, but not limited to, the following factors:

* + Cost
	+ Functionality of standard equipment and features to meet our specific needs
	+ Availability of additional capabilities to add as needed
	+ System growth and expansion
	+ Ability to save communications costs by using Internet Technologies
	+ Ease of use
	+ Product quality, reliability, and warranty plan
	+ Vendor qualifications
	+ Overall reputation in the industry
	+ Experience and expertise with the product being offered
	+ Service and support resources, including training by vendor for the installation and maintenance
	+ Certified vendor relationship with product manufacturer
	+ References where similar systems have been installed

## Proposal Content

Proposals should include the following information:

* Vendor Overview
* Vendor Qualifications
* Vendor Partners for the solution proposed
* Vendor Experience in implementing similar proposed systems
* Vendor References (include a minimum of 3)
* Overview of Vendor IT staff, qualifications and certifications
* Software and Hardware:
* Clearly specify each piece of hardware (server, switches, proprietary hardware) with model numbers and software with version numbers
* Planned/warranted lifespan (based on the manufacturer or creator’s intention to support) of hardware
* All quantities of equipment (hardware, software, licenses)
* Licenses
* Implementation plan
* Risk assessment
* Failover option or plan
* Maintenance or support contracts, etc.
* Maintenance requirements and size of windows to perform maintenance
* Migration path of upgrades or updates and their respective impact to operations
* Skill sets recommended to support proposed hardware and software
* Readiness Statement as to the state of ACC’s data network
* Assumed infrastructure needed based on the manufacturer or creator’s recommendations

## System Requirements and Implementation

Company name staff and the Vendor will work toward implementing a VOIP solution system under the following:

* Company name will consider all Vendor hardware proposals, but purchase of equipment for future replacement of phones must not be limited to a single vendor resource.
* All equipment will include all necessary power cords and cables that may be needed.
* Company name, at its own discretion, has the right to accept or reject any proposal that does not meet the requirements of this RFP.

# SCOPE AND SPECIFICATIONS

## Scope of Future Telephone System

The purpose of the RFP is to obtain the installation and maintenance of a unified communications system. Explain here what specifically you are looking to purchase from a vendor (e.g., IP telephones that will replace all current digital and analog telephones, etc.) and anything you hope will be explained (by the vendor) in the proposal you receive in response to this RFP.

If you have any requirements involving the servicing of remote locations with the same features and functionality as the main office in your business, please be sure to state them here.

IP Office Multi-Site Option provides cost-effective and seamless communications. Growth is easily accommodated as up to 1000 users across up to 32 IP Office sites can be efficiently networked together in a variety of industry-standard ways as best suited to your environment. Best of all, resources are shared within the network, using a single voice mail system, a single receptionist to answer calls for all sites (or shared across multiple sites), and a single system management interface for all locations.

Built in to the IP Office multi-site system environment is resiliency based upon a mesh design, eliminating any single point of failure as if one location experiences a disruption, it automatically failovers to another. Furthermore, users with IP phones and voice messaging (IP Office Preferred Edition) can register to another IP Office that was configured as its back up, retaining full communications capabilities.

## Description of Current Telephone System

Describe the customer’s current telephone system.

## Description of Network

Explain the customer’s current network infrastructure.

# VENDOR BACKGROUND

## Company Information

1. List your company’s legal name, address, and telephone number.

Click here to enter text.

1. How long has your company been in business?

Click here to enter text.

How long has your company or division been providing business telephone systems and related equipment?

Click here to enter text.

1. Indicate whether your company is the manufacturer or the distributor of the proposed equipment. If you are a distributor, describe the terms of your agreement with the manufacturer, the manufacturer’s level of support, and what contingencies they have in place should your company fail to continue to support the product or service for any reason.

Click here to enter text.

1. Do you install the product or use business partners?

Click here to enter text.

1. Do you maintain the product or use business partners?

Click here to enter text.

1. How many employees do you have?

Click here to enter text.

1. How many technicians are certified on the proposed equipment?

Click here to enter text.

1. If this is a hosted off-premise system, describe your sites and alternate site locations used for redundancy.

Click here to enter text.

1. Provide a financial statement for your organization.

Click here to enter text.

1. Describe your plans for future product development and support.

Click here to enter text.

1. Explain why your solution is a best fit for our company.

Click here to enter text.

## Vendor References

Provide a minimum of three (3) references for customers with operations similar to ours that use the equipment being proposed. Include contact names, telephone numbers, and addresses.

1. Reference 1
2. Reference 2
3. Reference 3

# BUSINESS TELEPHONE SYSTEM PRODUCT REQUIREMENTS

## General Requirements

1. Please provide product descriptions and brochures for the proposed business telephone system, voice mail system, telephone sets, attendant consoles, and other related equipment.

See attached proposal.

## System Requirements

1. System Capacities **–** The hybrid-IP telephone system must be scalable via different versions that are applicable to different business needs. Describe the scalable capacities available on the proposed hybrid-IP telephone system.

IP Office can run on the IP500 platform or on a Linux Server. The IP500 platform supports Basic Edition, Essential Edition, Preferred Edition, and Advanced Edition licenses. It allows you to scale from 2 to 384 users on a single system, or up to 1,000 users across as many as 32 site locations. When run on the Linux Server, IP Office can support the Server Edition license and up to 1,000 users at a single site location.

When run on IP500, IP Office offers four editions that build upon each other so that additional capabilities can be added as businesses grow.

* The IP Office Basic Edition provides a foundation for small businesses with only the most necessary telephony capabilities: caller ID, dial-by-name, automated attendants, conferencing, and voicemail.
* The IP Office Essential Edition builds upon the Basic Edition’s capabilities by adding IP PBX functionality, mobility, and up to four remote phones/systems.
* IP Office Preferred Edition enhances all the capabilities of Essential Edition and adds additional functionality such as intelligent call routing, sophisticated messaging, Meet-Me Conferencing, and call handling and application integration. It is designed for businesses who want to deliver optimal responsiveness and professionalism to their clients. With the addition of a user license, enhanced mobility features can be added.
* IP Office Advanced Edition builds on the IP Office Preferred Edition. It enables growing businesses to take advantage of Avaya’s industry-leading contact center expertise with the tools to effectively handle call volumes and to gather and report valuable customer intelligence to help increase sales and agent productivity. The Contact Store provides a library of all recorded calls with an easy-to-use interface that allows supervisors to search through and replay recordings.

When run on the Linux Server, IP Office offers the Server Edition license, which includes the Essential Edition, Preferred Edition, and Multi-site Option licenses.

* IP Office Server Edition enables businesses to quickly and easily add users to an existing office or even connect a remote office, all from the central HQ. A Linux server is the heart of Server Edition, running IP Office software, Voice Messaging and Unified Communications (Avaya one-X® Portal for IP Office) – it is the Linux server that allows a business to scale up to 1,000 users and 100 voice messaging ports at a single (or across multiple) locations. Server Edition delivers true Centralized Management and Licensing for all users, across all locations, in one, intuitive, Graphical User Interface.
1. Station Configuration Flexibility – Confirm the proposed hybrid-IP telephone system’s support for all of the following types of telephones: IP, digital, analog, wireless, and SIP endpoints.

IP Office supports multiple telephone solutions, giving businesses maximum flexibility to choose according to current and future needs. All of the required phone types are supported.

* IP Telephones – IP Office supports Avaya 1600 series IP telephones, selected Avaya 9600 series IP telephones, Avaya 3600 series wireless VoIP telephones, and IP Office video softphone.
* Digital Telephones – Digital station cards, combination cards, and expansion modules can be used to support the Avaya 1400 and 9500 series of digital phones and Avaya T3 series digital telephones.
* Analog Phones – IP Office 500 supports any industry standard analog headsets.
* Wireless Phones – IP Office 500 supports 802.11 wireless 3600 sets, DECT 3700 and D100 SIP DECT sets.
* Third-Party SIP Endpoints – IP Office supports third-party SIP endpoints, including desktop telephones, softphones, and conferencing speakerphones.
* Mobile Phones – IP Office one-X Mobile provides an intuitive interface that allows for full call control from an iPhone or Android powered smartphone. Access the corporate directory, make and receive phone calls and instant messages, host and attend audio conferences, see employee availability via presence, and use Geo-tracking to determine the location of your colleagues in the field
* iPad Tablet Devices – The Avaya Flare® Experience brings advanced communications to your iPad (or Windows PC). Handle voice and video calls, instant messages, presence, access the corporate directory and launch e-mail – all from a single interface for improved productivity and customer experience.
1. Trunk Flexibility – The proposed hybrid-IP telephone system must provide support for SIP trunking.

Avaya IP Office supports a variety of network trunk interfaces, including E1, T1, PRI, ISDN, SIP, analog loop start and analog ground start for comprehensive network connectivity.

1. Hearing Aid Compatible – All proposed station equipment must comply with rules adopted by the Federal Communications Commission that specify all telephones in workplaces of 20 employees or more must be hearing aid compatible. Describe the attributes of the proposed system and telephone sets as it relates to this.

All Avaya telephone handsets are hearing aid compatible. All Avaya phones allow users to adjust the volume by a very wide range. Special-purpose amplified Avaya handsets are available for individuals whose amplification needs exceed the maximum volumes of standard sets.

## System Architecture

1. Infrastructure Review

It will be the responsibility of the Vendor to assure that they have performed adequate network performance reviews, assessments, or a site visit, in order to make assurances that the proposed hybrid-IP telephone system will function at optimal performance under the current network structure.

It is expected that the Vendor “Shall Provide” a readiness statement as to the capabilities of the current data network readiness to provide the support necessary for the proposed system.

Provide readiness statement here.

1. System Architecture and Design

Describe the proposed hybrid-IP telephone system design and space required.

IP Office 500 Communications Server:

* 4 universal slots supporting variety of Base Cards and Daughter Cards
* 2U provides ability for unit to be racked mounted into standard 19inch rack
* Built-in Power Supply; Power Leads (power cords) are country specific
* System Secure Digital Card holds system software, firmware, licensing for applications, and Essential Edition functionality
* Optional SD Card provides back up functionality
* External Relay Control enable device connectivity – door phones
* External MOH port is standard audio input
* Both LAN and WAN ports are Layer 3
* There are 8 ports to support Expansion Modules – which are also rack mountable
* CTI interface for integration of third party applications

What is the maximum user capacity of the proposed IP communications system?

IP Office supports up to 1,000 users on a single site, and up to 32 sites in a networked environment.

## System Administration

1. Administration – Provide a detailed description of the configuration and management tools available on the proposed hybrid-IP telephone system.

There are multiple configuration and management applications common to all IP Office platforms. These include IP Office Manager, IP Office System Status Application, IP Office Monitor, and SNMP. Following are detailed descriptions of each.

**IP Office Manager**

IP Office Manager is the main configuration tool. Using a Microsoft Windows graphical user interface, Manager provides an intuitive interface for installation, configuration, and subsequent moves and changes. Access to each IP Office is protected by passwords and definable user rights. This allows Manager to operate according to the individual administrator’s level of expertise.

This software application connects to the IP Office system using TCP/IP, which means it can be on the same LAN, remote on the WAN, or connected via the Remote Access Server with a telephone adaptor, router, or the optional internal modem. With the SSL/VPN solution that supports Network Address and Port Translation (NAPT), the IP address and port translation for the SSL/VPN tunnel is done by using NAPT rules which are configured for each SSL/VPN tunnel using the IP Office Manager. The SSL/VPN tunnel configured to the IP Office system can be used to remotely manage devices such as the IP Office Unified Communications Module (UCM), the IP Office external applications server running Preferred or Advanced Edition, and other LAN devices.

As with all IP Office applications, Manager is multilingual, and coupled with the ability to use the application both locally and remotely, it is possible for administrators to manage IP Office systems from any country using their local language preferences. These systems can be at various release levels because the current release of IP Office is backwards compatible to allow a single management application.

IP Office Manager operates on a local copy of the IP Office configuration file. Configurations are prepared and reviewed offline before committing to the IP Office. This has the benefit of having a backup copy of the system configuration always available for disaster recovery.

 

IP Office has a built-in audit trail that tracks changes to the system configuration, and who has made them. Manager can display this information to assist with problem resolution. The audit trail records the last 15 changes in the configuration and records elements, providing audit details about items such as configuration changes, reboots, upgrades, and cold and warm starts.

Manager is also used for maintenance functions such as:

• Upgrades (includes validating the software over an IP network link before committing to the upgrade).

• User templates for rapid programming and user rights for setting up user access levels.

• Importing and exporting configuration information in ACSII-CSV files.

**IP Office System Status Application**

The System Status Application is a diagnostic tool for administrators to monitor and check the status of IP Office systems locally or remotely via an IP connection or modem. It shows both the current state of an IP Office system and details if any problems have occurred. The information reported is a combination of realtime events, historical events, status, and configuration data to assist in fault finding and diagnosis. It also provides realtime status, historic utilization, and alarm information for ports, modules, and expansion cards on the system.

The System Status Application can be launched independently or from within IP Office Manager. Two System Status Applications may be connected to an IP Office unit at one time.

Specifically, the System Status Application provides information on the following elements:

• Alarms – The last 50 alarms recorded within IP Office are displayed for each device in error. The number, date, and time of the occurrence is recorded.

• Call Details – Information on incoming and outgoing calls, including call length, caller ID, and routing information.

• Extensions – Includes the device type and port location on the IP Office system. Information on the current status of a device is also displayed.

• Trunks – IP Office trunks and connections (VoIP, analog, and digital) and their current status are displayed. For VoIP trunks, QoS information is also displayed, including round trip delay, jitter, and packet loss.

• System Resources – IP Office includes central resources that are utilized to perform various functions. Diagnosing these resources is often critical to the successful operation of the system.

• QoS Monitoring – QoS parameters from connected calls, such as jitter and roundtrip delay, are monitored.

**IP Office Monitor**

The IP Office Monitor application is a real-time maintenance utility to assist with IP Office troubleshooting. As the application connects to the IP Office over an IP connection, it can be used from both local (LAN) and remote (WAN) locations.

A simple graphical user interface is used to select which protocols and interfaces are to be monitored and decoded. The trace can either be captured directly to screen or as a log file for later analysis. Traces from different protocols can be color-coded to improve the clarity of large log files. In addition, the application captures system alarms and will display an activity log of the last 20 alarms that have occurred.

**SNMP**

SNMP is an industry standard designed to allow the management of data equipment from different vendors using a single Network Manager application. The Network Manager periodically polls the equipment to solicit a response; and in its absence, an alarm is raised in IP Office.

In addition to responding to polls from the Network Manager, IP Office continuously monitors the state of its extensions, trunk cards, expansion modules, and media cards so that if an error is detected, it immediately notifies the Network Manager.

IP Office allows two separate Network Managers to be configured so that both a customer’s and a maintainer’s Network Manager can be notified of the same alarm condition. The core software also notifies SNMP events from both VoiceMail Pro and Embedded Voicemail to warn of approaching storage capacity limits.

IP Office has been tested against CastleRock's SNMPc-EE™ and HP's Network Node Manager (part of the OpenView application suite).

For customer sites where SNMP management is not available, IP Office can still email events to three email addresses, each containing a different set of alarm information. Since IP Office sends email notifications directly to the email server, no additional PC client is needed.

1. Remote Monitoring – The proposed hybrid-IP telephone system must be capable of remote monitoring.

The System Status Application is a diagnostic tool used by administrators to monitor and check the status of IP Office systems both locally and remotely. The Remote Access Server functionality allows external users to dial in to the local area network for modems, telephone adaptors, and routers.

Centralized Management, included with Server Edition, provides the System Administrator with one view of all users on a single site or across up to 32 locations. Using system status can, at a glance, let the Administrator know of any potential issues that could affect system performance such as over utilized trunk lines, voice ports, and bandwidth utilization.

With the SSL/VPN solution that supports Network Address and Port Translation (NAPT), the SSL/VPN tunnel configured to the IP Office system can be used to remotely manage devices such as the IP Office Unified Communications Module (UCM), the IP Office external applications server running Preferred or Advanced Edition, and other LAN devices.

1. Centralized Licensing – The proposed hybrid-IP telephone system should include the ability to assign certain user solutions to certain users within the network.

IP Office’s Server Edition holds all common licenses centrally, making it cost effective to purchase discounted license packs and easy for a System Administrator to assign user solutions to employees anywhere within the network.

1. Long Distance Tracing and Reporting – The proposed hybrid-IP telephone system must allow assigning authorization codes to individuals, projects, and customers in order to charge expenses directly to the appropriate departments and to control access to long-distance facilities beyond normal class of service restrictions. Can the proposed telephone system track long distance calls and provide reporting for individual extensions?

The Forced Account Code operation can be used to require individual users to enter a valid account code before making external calls, whether at their own or another user’s extension. By using IP Office Short Codes, it’s possible to identify certain numbers or call types as requiring a valid account code before permitting the call to proceed, including long distance and international numbers. Analog phone users can only enter account codes before making a call or in response to an audible system prompt to enter a code when making the call. All entered codes are logged in the reports

For detailed reporting and ease of reporting auxiliary equipment could be incorporated.

1. Security – How is security provided to prevent unauthorized access to the administration application? Can some administrators be defined with “view-only” permissions?

The administration application has a security mode that is stored and managed separately from the system’s configuration settings. This mode allows an administrator to set up various levels of access to the system configuration and software management. These settings allow the administrator to granularly set the access for various users to the system. Users can be set to have view-only permissions and a user can even be setup to only allow change of voicemail passwords.

## Voice over Internet Protocol (VoIP) Features

1. Voice Communication Features – Provide an overview list of voice communication features available on the proposed hybrid-IP telephone system. The list should include at a minimum PBX functionality, number of extensions supported, types of telephones supported, conferencing capacities, call routing, support for H.323 and SIP, trunk interfaces, and networking.

IP Office offers a comprehensive list of voice communication capabilities and benefits for small to medium-sized businesses. These include:

* PBX functionality that includes caller ID, call forwarding, conference calling, and voice messaging.
* Support for 2 to 384 extensions to easily add new employees as the business grows.
* A variety of telephones, including analog, digital, and IP hard and soft phones (wired and wireless) that provide the appropriate desktop or device phone for every need.
* Two 64-port conference bridges in the base system, providing a conference capacity of 128
* Customizable advanced call routing so that incoming calls are directed to the best available person or messaging service.
* Alternate call routing provides reliable handling of calls by selecting from analog, digital, SIP, or VoIP trunks.
* Integrated H.323 and SIP Gatekeeper and Gateway for high quality converged communications.
* SIP trunking to Internet telephony service providers so that users with non-SIP phones can make and receive SIP calls
* A variety of network trunk interfaces are available, as applicable. These include E1, T1, PRI, ISDN-BRI, SIP, analog loop start, and analog ground start for comprehensive network connectivity.
* QSIG networking provides standards-based multisite networking to interoperate with other PBXs.
1. Data Communication Features – Provide an overview list of data communication features available on the proposed hybrid-IP telephone system. The list should include at a minimum firewall capabilities, routing and addressing protocols, remote access, Ethernet ports, and LDAP support.

IP Office offers a comprehensive list of data communication capabilities and benefits for small to medium-sized businesses. These include:

* Firewall-protected leased line or dial-up Internet connectivity via PRI, T1 or WAN port for high-speed dialed access, direct leased line connections for high usage and Web site hosting, integral security, and efficient access to information and a larger business presence via the Web.
* Network Address Translation and a built-in firewall to protect your internal network. IPSec support allows secure VPN data transmission across public IP Networks using 3DES encryption.
* Integral Static or Dynamic (RIP I/II) routing for both Internet and Branch-to-Branch solutions.
* DHCP to provide automatic IP address allocation for local and remotely attached PCs and other devices, including IP phones.
* Remote access to local LAN servers via an optional two-channel V90 modem or digital trunks provides individual firewall security, access control per user, and standards-based security enabled remote workers.
* Two switched Layer 3 Ethernet ports.
* LDAP client support for standards-based directory synchronization with Avaya one-X® Portal for IP Office and IP Office Phone Manager.
1. Virtual Private Network (VPN) – Is a VPN required to support remote IP telephone communication via the private IP network or the Internet? What is gained/lost by using a VPN?

VPN Phone is a full-featured IP Telephony solution that provides secure communication over public ISP networks to an IP Office system at the company headquarters.

VPN functionality is also supported on specific 9600 IP telephones, not requiring a separate software load. VPN telephones offer the full IP Office telephony features that are available on IP Office IP telephones at the user’s desktop in a remote location like a home-office.

1. IP Protocols Supported - Which IP protocols does the proposed system use with its IP telephones (MEGACO, MGCP, H.323, SIP, SCCP, etc.)? What are the advantages/disadvantages?

Because of the many protocols supported Avaya is able to support many more types of phones and is not proprietary as other systems.

IP Office supports the following protocols and standards:

· H.323 V2 (1998), Packet-based multimedia communications systems.

· Q.931, ISDN user-network interface layer 3 specification for basic call control.

· H.225.0 (1998), Call signaling protocols and media stream packetization for packet-

 based multimedia communication systems.

· H.245 (1998), Control protocol for multimedia communication.

· Session Initiation Protocol.

· Audio CODECs:

· G.711 A-law/U-law (64K).

· G.723.1 MP-MLQ (6.3K).

· G.729 Annex A, Annex B, Annex AB – CS-ACELP.

· Silence Suppression.

· Fax Relay (IP Office to IP Office Fax Transport over IP).

· T.38 Fax support (SIP trunks and SIP endpoints).

· Local End Echo Cancellation 25ms.

· Out of band DTMF.

· Jitter buffer, 5 frames of jitter buffer.

· Internet Standards/Specification (in addition to TCP/UDP/IP).

· RFC 1889 – RTP/RTCP, Real Time and Real Time Control Protocol.

· RFC 2507, 2508, 2509 – Header Compression.

· RFC 2474 – DiffServ, Type of Service field configurable.

· RFC 1990 - PPP Fragmentation.

· RFC 1490 - Encapsulation for Frame Relay.

· RFC 2686 - Multiclass Extensions to Multilink PPP.

 · RFC 3261 - Session Initiation Protocol (SIP).

· RFC 3489 - STUN.

1. Softphone Capabilities – The proposed hybrid-IP telephone system should have the ability to provide softphone extensions that reside on our employees’ personal computers. These extensions should provide an equal or better level of functionality as the proposed hardware station equipment.

The IP Office Softphone application allows licensed users to make and receive phone calls from a personal computer It also supports high definition video calls to another Softphone or any other standards-based video device on the network. The Softphone can be used anywhere a user can connect a personal computer (Mac or PC) to a high speed network.

Dynamic features include:

* Call display and message waiting indicator
* Speakerphone and mute
* Redial, hold, and do not disturb
* Call history list of received, missed, and dialed calls
* Access to the IP Office directory
* Call forward
* Call transfer
* Integrated high definition video – up to six parties
1. Smartphone & Tablet Capabilities – The proposed hybrid-IP telephone system should have the ability to be used/accessed from a smartphone and/or a tablet device.

The IP Office one-X Mobile application provides full call control from an iPhone or Android powered smartphone. Make and receive phone calls and instant messages, host and attend audio conferences, see employee availability via presence, and use Geo-tracking to determine the location of your colleagues in the field. All of this is done using the corporate directory, so there are no personal cell phone numbers involved. Communications are routed through the IP Office system so you do not incur the additional costs of phone calls on mobile devices, and security is not jeopardized. When a new user is added to the system with one-X Mobile capabilities (i.e., if a new Power User or Mobile Worker is added), that user will automatically receive an email with details and quick links to install and configure the Avaya one-X Mobile Preferred mobility client.

Avaya Flare® Experience brings collaborations to Apple iPad and Microsoft Windows. Make and receive voice and video calls, instant messages, view presence, access the corporate directory and launch e-mail – all from a single interface for improved productivity and customer experience.

1. VOIP Network Readiness Assessment – Describe any network readiness assessment required or recommended to make sure our network will handle the addition of voice traffic over the IP data network. Do you provide this service?

Yes, this service is available.

## Session Initiated Protocol

1. Does the proposed hybrid-IP telephone system support SIP?

YES

1. Does the proposed hybrid-IP telephone system require SIP gateways?

YES

1. Does the proposed hybrid-IP telephone system support standard SIP-enabled hardware?

YES

## Call Handling

1. The proposed hybrid-IP telephone system must permit station users to forward incoming calls to another phone of their choice based on busy, no answer, and all calls conditions.

Calls can be forwarded in a number of ways and if the call is not answered at the forwarded destination, it will return to IP Office voicemail if enabled for the user and call supervision is available. There are three separate forward conditions; one for forwarding on busy, one for no answer, and one for all calls. Once the designated forwarding numbers have been entered, the user can toggle the forwarding to be active or not without having to re-enter them.

1. Any station in the proposed hybrid-IP telephone system must be able to park a call for retrieval at another station.

As an alternative to placing a call on hold, a call can be parked on the system to be picked up by another user. This capability is available through the user's telephone, Avaya one-X® Portal for IP Office, and Receptionist software. Calls are parked against a ‘park slot number’ that can be announced over a paging system for retrieval from any phone by entering that number. There is a system-configurable timeout that determines how long a call may remain parked before it is returned to the extension that originally parked it.

1. The proposed hybrid-IP telephone system must allow station users to answer calls intended for other stations within a common call pickup group.

The Call Pickup feature allows a user to answer a call presented to another extension. Types of call pickup include:

* Pick up any call ringing on another extension
* Pick up a hunt group call ringing on another extension, where the user must be a member of that hunt group
* Pick up a ringing call at a specified extension
* Pick up any call ringing on another extension that is a member of the hunt group specified

This feature is supported across the IP Office Small Community Network

1. Station users of the proposed hybrid-IP telephone system must be able to transfer a call in progress to an internal extension or external number without attendant intervention.

The Call Transfer feature allows users to transfer a call in progress to either an internal extension or an external number without requiring attendant intervention. Unless restricted by the administrator, IP Office makes no differentiation between internal or external call transfers. The caller is placed on hold while the transfer is performed.

If the phone is put down before the destination has answered, the original caller will be automatically transferred. This is called an Unsupervised or Blind Transfer. Alternatively, a user can wait for the destination to be answered and announce the transfer before hanging up to complete the transfer. This is called a Supervised Transfer.

1. Can queues be configured on demand while calls are in queue?

YES

1. Can the proposed hybrid-IP telephone system announce the estimated wait time?

YES

1. Can the proposed hybrid-IP telephone system announce the user’s position in the queue?

YES

1. Does the proposed hybrid-IP telephone system allow the users to leave a message rather than wait in the queue?

YES

1. Does the proposed hybrid-IP telephone system support real-time monitoring?

YES

1. Does the proposed hybrid-IP telephone system offer real-time graphs and statistics?

YES

## Integration and Customization

1. Does the proposed hybrid IP telephones system support integration with email?

Yes. Integration with email systems is provided by the Voicemail Pro Unified Messaging Service (UMS) which is delivered to eligible users as part of the Office Worker, Teleworker or Power User license. It enables Voicemail Pro to interact with email systems to provide a synchronization of voicemails and their status (new/unread, read, deleted, saved) between all user devices like desk telephones, mobile cell telephones, the UMS web interface, Avaya one-X™ Portal for IP Office, the email client and other devices that are synchronized with the user’s email account. This will work for email clients that use the IMAP4 protocol (like MS Outlook, Lotus Notes, Mozilla Thunderbird, and many others)

1. Does the proposed hybrid-IP telephone system support integration of the phone system with other business applications?

Yes. The IP Office Computer Telephony Integration (CTI) Link, a CTI middleware product and Software Developers Kit, bridges the gap between the telephone system and business applications. On IP Office, CTI is delivered through adherence to open standards. This gives businesses access to a wide range of third-party solutions, addressing vertical markets, and designed to meet their requirements. For developers, migrating their offering from other platforms to IP Office is quick and easy, and the advanced CTI features IP Office offers makes it easy to demonstrate full integration, and more business benefits. The Developer Connection Program ("DevConnect") is the Avaya developer partner program, and is designed for third-party companies who are creating a product made for use in conjunction with IP Office, providing additional features/functionality that do not come standard with IP Office.

**Avaya IP Office Plug-in for Microsoft Outlook**

Microsoft Outlook is an application that many knowledge workers invoke in the morning and keep running all day. The IP Office Plug-in for Microsoft Outlook brings a subset of the Avaya one-X™ Portal for IP Office user experiences to Outlook. The plug-in allows the user to communicate with contacts without leaving the Outlook window and without needing to bring up separate client applications. This vastly improves user productivity.

Avaya IP Office Plug-in for Microsoft Outlook provides the following features:

* Initiate a voice call (to work, to home or other numbers)
* Get notifications for incoming calls with options to accept or reject
* Listen to voicemail
* View Call history
* Export Outlook contacts to Avaya one-X™ Portal for IP Office Server
* Show presence of users - Telephony presence, User presence of other system contacts, User presence published by contacts on other presence networks (e.g.: GoogleTalk), Calendar presence
* "Collapse" plug-in window to avoid capturing the entire screen. UC features will continue to be available to the Outlook user
* Click-to-Call options on context menu of a contact from Outlook Contacts directory or from Outlook Calendar (number should be in Location field)

The Avaya IP Office Plug-in for Microsoft Outlook can be downloaded from the Desktop Integration tab of the Avaya one-X™ Portal for IP Office. The plug-in is supported on the WinXP+SP3, Windows Vista and Windows7 operating system for Microsoft Outlook versions 2003, 2007 and 2010.

**Avaya IP Office Plug-in for Salesforce.com**

IP Office R8.0 enables integration with Salesforce.com for business users. This integration enables Salesforce. com customers that are using IP office for their telephony needs to control calls from within the Salesforce.com portal itself. This integration is enabled by the “Avaya IP Office Plug-in for Salesforce.com” which is a Windows application that runs in the system tray, and provides the following features from the Salesforce.com soft client available within the Salesforce.com portal:

* Call Control (Make, Receive, Hold/Unhold, Transfer, Mute a call)
* Inbound and outbound calls automatically added to Salesforce.com portal call history
* Click to dial from any contact or phone number within Salesforce.com portal
* Screen pops of customer information (contact, case etc.) on caller-id and name for inbound and outbound calls

The Avaya IP Office Plug-in for Salesforce.com can be downloaded from the Desktop Integration tab of the Avaya one-X™ Portal for IP Office. The plug-in is supported on the WinXP+SP3, Windows Vista and Windows7 operating systems.

**Avaya IP Office Integration with Microsoft Lync**

Avaya Microsoft Lync integration will enable IP Office customers to use their existing Lync clients to avail of telephony features offered by Avaya IP Office. The Lync Integration is a plug-in added into the Microsoft Lync client on an end-user’s desktop so that telephony capabilities can be provided directly from the Lync interface. This will allow customers to avoid paying for Microsoft voice licenses because the telephony features can be provided by IP Office.

The Avaya Lync Integration allows for the following telephony features to be accessed directly from the Microsoft Lync interface, when paired with a user’s desk-phone:

* Make call
* Answer call (toast pop-up on incoming call with option to answer/decline)
* Disconnect call
* Transfer call
* Conference
* Call forward
* Update Telephony Presence when user is on phone to Busy – In a Call
* Escalate from IM to Call
* Desk phone originated calls can be controlled via Lync conversation window
* Multiple calls (only one active at a time; other calls will be in held state)
1. Does the proposed hybrid-IP telephone system offer database options for IVR applications?

YES

1. Does the proposed hybrid-IP telephone system provide integration to emergency communication software?

YES

1. The proposed hybrid-IP telephone system must support voice paging via paging equipment. If management permits, station users may dial an access code for a connection to the paging equipment.

All Avaya digital and IP phones supported on IP Office that have loudspeakers can be used to receive broadcast audio messages without having to install a separate paging system. Paging can be to individual phones or groups of phones. Some Avaya digital and IP phones are able to answer a page by pressing a key during broadcast, which terminates the page and turns it into a normal call.

In addition, analog extension ports can be configured to connect to external overhead paging systems, usually through an adapter, such that a port can be included in a paging group to permit mixed phone and overhead paging.

**Avaya Notification Solution**

Avaya’s event notification system enables communications for responding to critical events like production disruptions, security threats, and disasters. When an event occurs, alerts are sent to predefined groups or individuals, who can respond rapidly with status and feedback. Messages are supported on virtually any type of phone or text messaging device, and via email.

To prepare for a significant event or threat, use the notification system to define processes and identify people to reach during the crisis. Notify multi-site employees, campus staff and students, even an entire community. Send information or start a conference about company situations, weather, health concerns, or criminal activities.

The Avaya Notification Solution runs on your on-site servers. Avaya consultants provide pre-installation support to ensure the solution suits your needs. Avaya provides project management, remote implementation, and handoff for ongoing administration.

## Messaging and Voice Mail Systems

1. Does your solution provide a single-user interface for email, voicemail and fax messages? Describe the solution or unified communication capabilities of the system.

Messaging enables users to manage all of their messages, in particular emails and voicemails, in one place. Since the main messaging platform is typically email, IP Office Preferred Edition enables voicemails to be managed via the email system in order to keep all messages synchronized through one user interface. Essential Edition also enables some basic messaging through the ability to forward voicemail messages to the user’s email inbox.

Voicemail in general provides a telephone answering machine with a personalized greeting on every employee's desk and allows callers to leave spoken messages when the user cannot answer a telephone call. Voicemail messages are retrieved either locally or remotely via any telephone (users are prompted for a PIN if they are using any telephone other than their allocated extension or a trusted location e.g. mobile telephone).

The voicemail server is multi-lingual and can offer different prompts depending on the user's preferred language, independently of the default system setup. Similarly, external callers can hear prompts in their own language depending on their incoming call route (e.g. based on caller ID).

1. Describe the architecture of the proposed voicemail solution, including how voicemail is accessed by users from their extension remotely, from their mobile devices and from their desktop computer.

Users may receive voicemail messages via their desk handset, or remotely by accessing the voicemail system and entering their extension and password. Users can also retrieve voicemail messages using a browser-based GUI application on the PC desktop or from mobile devices.

1. Can users have their phone calls forwarded to other numbers when they are not available?

YES

1. How are users notified of new voicemail messages or faxes?

Users receive visual notification that new voicemail messages have arrived when their Message Waiting Lamp is lit on the handset. They can also receive notification by email that they have received a voicemail message. This can be a simple notification with caller ID in the email subject line, or the voicemail message can also be attached to the email, enabling the user to listen to the message on their computer or cell phone (if email is received on the cell phone).

Other GUI and mobile applications are available for users to easily receive voicemail messages via their PC or cell phone.

Fax servers can be used with the phone system to enable reciept of fax messages via email messages

1. Does your solution offer a mobile access?

Yes. Avaya IP Office Essential Edition includes a cost-effective server-less mobility that is intended for mobile users that only need voice-based capabilities. It includes the one-X Mobile Essential for IP Office client along with mobile twinning with your office desk phone, which provides call control, via a graphical user interface, like you are at your desk.

One-X Mobile Preferred (for use with IP Office Preferred Edition) is an integrated server-based solution, providing rich functionality. View presence of coworkers, send instant messages, place and receive phone calls and conference calls at the click of a button – all on your Android or iOS Smartphone.

Avaya Flare® Experience brings collaborations to Apple iPad and Microsoft Windows. Make and receive voice and video calls, instant messages, view presence, access the corporate directory and launch e-mail – all from a single interface for improved productivity and customer experience.

1. How many users are supported by the proposed voice mail system?

Avaya IP Office offers voice mail support for as many users as there are on the system – up to 1,000 on a single site or at up to 32 site locations.

## Reporting

1. Does your solution provide basic call reporting for billing and accounting purposes?

IP Office provides Station Message Detail Reporting (SMDR), which can be used to interface with various call accounting applications.

1. Does your solution provide a more robust call reporting system?

Yes. Avaya IP Office Advanced Edition includes Customer Call Reporter (CCR) which offers:

* Real time Call Center activity monitoring and historical reporting
* Simplified installation and maintenance
* Supervisor dashboard which consists of a goal, statistics information ticker and a set of graph display panels
* Seven (7) reporting templates providing drag and drop and user defined filter functionality
* Three (3) customizable supervisor views and summarized Agent views
* Report scheduler
* Custom reports
* Customer map (to map geographical locations of customers calling in)
* Support for up to 30 Supervisors and 150 Agents

## Station Hardware

1. Describe the supported station IP phones for your system.

There are a range of IP telephones with slightly varying features and functionality, but all Avaya IP telephones support the IEEE 802.3af, standard for Power over the Ethernet (PoE).

All Avaya IP telephones offer the following features:

* Intuitive navigation cluster proves fast menu, sublist and call log scrolling, as well as one-touch dialing and quick access to system features
* Message waiting/visual ring indicator offers visual notification of incoming calls and messages
* Voice compression optimizes bandwidth and audio quality requirements
* Audio control center enables users to toggle quickly between the handset or headset and the speakerphone without audio interference
* Volume bar provides fingertip control of audio and ringer volume settings and LEDs clearly display handset/ headset/speakerphone/mute settings
* Local tone generation conserves valuable network bandwidth
* Dynamic IP addressing with a standard DHCP server offers a flexible, simplified solution for handling adds, moves and changes, reducing management costs
* User-friendly design supports the full range of potential users, including disabled users who require hearing aids
* Two-port internal switch,, enabling single cable to the desktop for phone and PC.
1. Specify the power requirements for each station IP phone and analog phone.

IP Phones require power over the Ethernet, and analog phones are just powered off the port interface.

1. Are headsets available?

Yes – both wireless and Bluetooth headsets are available and compatible with most telephones.

1. Does the proposed hybrid-IP telephone system support the use of phones other than IP (i.e., digital and/or analog)?

Yes. IP Office is a hybrid solution, enabling support of IP, digital and analog sets. This hybrid system also supports 802.11 wireless and IP DECT telephone sets.

## Functionality

1. Conference – The proposed hybrid-IP telephone system must provide the ability to initiate a conference call with a minimum of two additional parties. Please indicate the maximum number of simultaneous parties that may be included in a conference call with a minimum loss of audio call quality.

IP Office provides two integrated 64 port conferencing bridges. The 128 (total) ports can be used in any combination of conferences. This could consist of 2 conferences of 64 users, 3 conferences of 42 users, or any other combination up to a maximum of 64 participants per conference call with no loss of audio call quality

IP Office Preferred Edition with Voicemail Pro complements the built-in conference bridge facility on IP Office systems by allowing participants to enter conferences through dedicated numbers, adding guidance prompts as well as requesting PIN codes as participants enter the conference for security.

1. Stored Numbers – The proposed hybrid-IP telephone system must have the ability to store a list of frequently called numbers and make those available on a systemwide basis to station users.

The IP Office Personal Directory is a list of up to 100 numbers and associated names stored centrally in the system for a specific user. A directory entry can be used to label an incoming call on a caller display telephone or on a PC application. The directory also gives a system wide list of frequently used numbers for speed dialing via Avaya one-X™ Portal for IP Office, Phone Manager or a feature phone with a suitable display.

The IP Office Directory is a list of up to 5000 numbers and associated names stored centrally in the system. A directory entry can be used to label an incoming call on a caller display telephone or on a PC application. The Centralized System Directory also gives a system wide list of frequently used numbers for speed dialing via Avaya one-X™ Portal for IP Office, Phone Manager or a feature phone with a suitable display.

1. Call on Hold – Describe the proposed hybrid-IP telephone system’s ability to provide waiting callers music-on-hold.

Avaya IP Office can provide music-on-hold from up to four internally stored files or from an externally connected audio input. The four can be a combination of three .wav and one external or three analog ports and one external. Music-on-hold can be assigned by a particular system, hunt group, or incoming call route. The internal source uses a maximum ninety second .wav file. Since this file type is industry standard, changing the music played to callers on hold is simple. Alternatively, an external third-party music-on-hold source can be connected to the IP Office control unit via the 3.5mm AUDIO port on the back of the control unit.

1. Status/Availability Indication (presence) – Describe the proposed hybrid-IP telephone system’s status/availability feature.

There are several applications providing presence capabilities to users on the system, including one-X Portal, the Microsoft Outlook Plugin, Preferred Mobility, Receptionist. Presence is also available on mobile devices and iPads with Preferred Mobility.

1. Direct Dialing – The proposed hybrid-IP telephone system must support direct dialing to extensions from outside callers.

This functionality relies on the local telephone exchange passing all or part of the dialed number to the system. This number can then be used by IP Office call routing software to route the call to an individual phone, or groups of phones.

1. User Mobility – Does the proposed hybrid-IP telephone system have the ability to allow users to log in as their designated extension from any telephone?

Yes – “Remote Hot Desking”

**Feature**

* The ability for a user to Hot Desk to other locations within the Small Community Network.
* Available on Digital, Analog and IP telephones.

**Benefit**

* A user can make and receive calls from any office as if using the phone on their own desk.
* Single number, improved mobility and easy access to familiar features.
* The user has access to the centralized system and personal directory as well as their call log (1400, 1600, 9600 Series and T3 telephones only).
* Great for consultants, managers, lawyers working on different offices on different days.
1. Single Number Reach – Does your solution have the ability to simultaneously ring a user’s IP desk phone, mobile phone, and other user-defined devices? Describe the capability.

Yes – calls made to a user’s office phone number ring simultaneously at both a desk phone and any other designated phone (mobile, home, etc.).

## System Reliability

1. How does the system provide reliability for voice services? Explain how it avoids any single point of failure (single site as well as multi site).

The IP Office Resilience and Backup functionalities are supported by Voicemail Pro. A Voicemail Pro server, connected to a Primary IP Office, can automatically re-connect to a Backup IP Office if the connection between the two IP Office systems gets lost. This covers the failure of an IP Office or the connection between them. A Preferred Edition license is required on the backup IP Office system for this scenario. Backup Voicemail Pro server offers additional comprehensive functionalities to keep the business communication up and running. A Backup Voicemail Pro server can be added to an IP Office / Voicemail Pro system to take over the voicemail functions in the case of a failure at the primary Voicemail Pro system.

The Backup Voicemail Pro server can act in different scenarios:

* One IP Office, one Primary Voicemail Pro server, and one Backup Voicemail Pro server, where the backup is either at the same location as the IP Office / Voicemail Pro (for those with a single site) or at an external site
* A Primary IP Office with a Primary Voicemail Pro server and a Backup IP Office with a Backup Voicemail Pro server at a second location
* A Multi Site Network with a Centralized Voicemail Pro server connected to an IP Office at one site and a networked IP Office with a Backup Voicemail Pro server. There might also be additional IP Office and Distributed VoiceMail systems within that Multi Site Network.

The most common type of voice connectivity used by SMEs is analog trunking – sometimes referred to as POTS (Plain Old Telephone Service). Analog trunks are powered by the central office, so in the event of power loss, there is still a dial tone when the telephone handset is lifted off the hook. One caveat exists: connecting an analog trunk to a device that requires electrical power (such as a cordless telephone or communications switch) injects a point of failure into the network, so that when power is lost to the switch, connected telephones no longer receive a dial tone. Avaya IP Office can automatically connect a phone to an analog trunk, even if power to the system fails. Remember, analog trunks are powered from the central office, which has extensive backup capabilities and, in any case, may not be affected by the local power outage; so transferring the power received from the central office directly to the phone connected to the communications switch is all that is necessary to maintain emergency phone service. This approach ensures that calls can still be made and received, which is extremely important during disasters, when emergency calls may be necessary. Once power is restored, the communications switch and connected phones continue to work as before.

Although not a common occurrence, failure of office equipment — particularly the communications system itself — is another disruption that SMEs need to consider. To avoid this scenario, an SME with only a single site location can choose to purchase extra equipment as insurance to prevent a prolonged loss of communications. This is known as *redundancy* — duplicating the critical components in a network for the purpose of business continuity. By having a duplicate communications switch, the small business has a backup should the primary switch go offline.

SMEs with multiple site locations can eliminate the need for idle or redundant hardware by maintaining communications in compromised circumstances on only the equipment and/or software that is necessary for operation under normal circumstances. This approach is known as *resiliency*. By deploying a resilient infrastructure, an SME is ensured business continuity without investing in equipment that it may never use, thus preserving much-needed capital. This is extremely advantageous for SMEs with multiple locations or satellite offices. Avaya IP Office enables resiliency by networking systems across multiple business locations using a feature called Small Community Networking (SCN). Using IP links, an SME can operate a network of branch offices with extension dialing and full feature transparency. There is a consistent set of communications and services across all locations, which affords the efficiencies of universal functions and end-user familiarity. The SME can centralize services (such as an operator or a voicemail server) and administration of the system to reduce costs. Even better, there is no additional hardware required, and this capability comes standard with IP Office software.

1. For redundancy purposes, where are copies of the firmware and configurations stored on the proposed hybrid-IP telephone system?

The IP Office server has two Secure Digital slots. The System Secure Digital Card holds copies of the IP Office firmware, configurations, country settings, phone firmware, and music on hold. It’s also used for the control unit’s non-volatile memory. The Optional Secure Digital Card can be used for various maintenance actions, providing additional storage for voicemail recordings, system logs, and redundant backup capability.

The IP Office Manager operates on a copy of the configuration held either locally or on a network drive. Configurations are prepared and reviewed offline before committing to the IP Office. This has the benefit of ensuring a backup copy of the system configuration is always available for disaster recovery.

## E911 Services

1. Is the proposed system in compliance? Does it provide E911 reporting capabilities?

IP Office enables the configuration of an external to a zone, which might be a floor of the building or other subset such as a department. This can be used to direct emergency services to the proper location within the address of the IP Office.

The system also works in conjunction with partner solutions to provide more detailed and specific PSAP information to emergency services.

# INSTALLATION SERVICE AND MAINTENANCE

## Installation Service

1. Explain in detail the installation plan.

Explain installation plan here.

## Warranty Service

1. Maintenance and Warranty: A complete maintenance and warranty agreement, as well as quote, must be included as part of the bidder’s proposal.

Discuss maintenance and warranty here.

1. Defective Parts
2. Service Calls – What are your response times for:
* Complete system failure. Please define system failure.

Click here to enter text.

* Major service malfunction. Please define a major failure.

Click here to enter text.

* Minor service malfunction. Please define a minor malfunction.

Click here to enter text.

* Station outages. Please define a station outage.

Click here to enter text.

Signature:

Date …………………………………………………………………………………………………………………………………

Signature of Vendor’s Representative ……………………………………………………………………………….

Printed Name and Title ………………………………………………………………………………………………………

Vendor Firm Name …………………………………………………………………………………………

Vendor Mailing Address …………………………………………………………………………………………

Vendor City/State/Zip …………………………………………………………………………………………

Vendor Telephone …………………………………………………………………………………………