What Do Customers Care About in Terms of a Unified Communications Solution?

- Controlling costs, protecting investment in existing equipment, and lowering total cost of ownership (TCO)
- Reliability and redundancy of branch or small office
- Enabling more effective, efficient communication and collaboration
- Security
- Ease of administration, effective use of limited staff resources
- Scalability and growth

What Are the Strengths of Cisco Unified Communications?

Cisco® Unified Communications offers a new way to communicate. This comprehensive IP communications system of voice, video, data, and mobility products and applications enables more effective, more secure, and more personal communications that directly affect both sales and profitability. It is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

Cisco Unified Communications helps businesses improve efficiency, strengthen security, enhance customer relationships, control costs, maintain profitability, and respond to a rapidly changing business environment. Cisco Unified Communications is a critical component of the Cisco Smart Business Roadmap, which is specifically designed to provide small and medium-sized businesses (SMBs) with a structured, planned evolution path to help them take advantage of today's business opportunities and maximize the long-term potential of their technology investments.

Cisco Unified Communications can scale to support up to 240 Cisco Unified IP, SIP, or Wireless IP Phones. It allows migration from a distributed call-processing model to centralized call processing with Cisco Unified Communications Manager at the headquarters and Cisco Unified Survivable Remote Site Telephony (SRST) at the branch office. Businesses can convert Cisco Unified Communications Manager Express licenses to SRST licenses at no extra charge. IP phones, branch office routers, and switches can be reused in a centralized deployment.

Because Cisco Unified Communications Manager Express builds on Cisco IOS® Software, a wide range of Cisco IOS Software features can be used, including security services, quality of service (QoS), and robust routing protocols.

Cisco Unified IP, SIP, and Wireless IP Phones obtain voice VLAN information directly from Cisco Catalyst® Express 500 Series switches or switching modules integrated into Cisco integrated services routers. Administrative overhead is reduced, and moves, adds, and changes become less cumbersome.

Alcatel Traps and Cisco Rebuttal Strategies

Cisco Question: What are the benefits of running the Cisco Business Communications Solution on top of a Cisco data infrastructure?

Response: There are several, including the availability of Cisco Discovery Protocol for IP phone power management, automatic discovery of VLAN configuration, location information for emergency responders, and CiscoWorks monitoring capabilities; AutoQoS, which automatically configures QoS parameters for voice over IP (VoIP); AutoSecure for simplified security policy administration; and SmartPorts, which runs macros on switch ports and configures them for voice or other applications.

Cisco Question: A Cisco Unified Communications Manager cluster can scale up to 30,000 IP phones. How many IP phones can the Alcatel OmniPCX Enterprise node support?

Response: An OmniPCX release 6.0 call server can support up to 4000 IP phones; if more phones are needed, multiple PCX call servers are required, along with associated media gateways to manage the registration and keepalive activities. Up to 32 nodes can be added to a single crystal network, but each node needs to be managed.

Alcatel Claim: Alcatel's signaling backup facility allows a remote site to maintain a 100 percent feature set in case the IP WAN fails, providing a much more comprehensive facility than Cisco Unified SRST.

Response: In reality, the Alcatel signaling link backup facility is not comparable to SRST. In Alcatel's solution, the remote media gateway reboots when it loses contact with the call server, and the phones lose all connectivity. The remote media gateway then waits for a call across the public switched telephone network (PSTN) from the local media gateway, across which the call server attempts to re-establish communication. If the call cannot traverse the PSTN, the remote media gateway cannot resume service, and there is no telephony service at the remote site. Because PSTN calls and modes are required, each media gateway at the local site can back up only a single remote media gateway. This requires either a backup of media gateways at the central site or deployment of a call server at each remote site.

Alcatel Claim: Alcatel's approach of "evolution, not revolution" provides solid investment protection for previous purchases of Alcatel equipment.

Response: Although Alcatel indicates that you can IP-enable a PCX system with the addition of INT-IP cards, building a reliable system requires the deployment of external call servers. Deploying the new 4645 voicemail

requires an external call server or dedicated CPU. The signaling link backup feature requires the new common media gateways. To make use of the soft phone or any other new features, dedicated servers must be deployed. These examples illustrate the shortcoming of Alcatel's statement that the original equipment can be retained when providing new services.

Top Questions to Ask a Technical Decision Maker Considering the OmniPCX Enterprise

Q. What is the management interface to the OmniPCX Enterprise? Is it consistent across all the platforms and servers that are deployed in a system?

A. The OmniPCX Enterprise system is managed by a proprietary management station, the OmniVista 4760. This station runs on a Windows 2000 server and communicates with the OmniPCX nodes through a Common Management Information Protocol (CMIP)-based interface. Clients can then access the server to carry out provisioning and maintenance on the OmniPCX nodes. Any application servers are managed using their own application screens or, in some cases, by an HTTP interface. The voicemail interface is separate from the 4760 and requires learning another interface.

Q. What degree of Layer 2 integration exists in Alcatel IP phones? Do they receive their VLAN information from the LAN switches, or do they need to be provisioned manually?

A. Alcatel IP phones do not have any direct interaction with Layer 2 switches for VLAN or any 802.1p/Q tagging. The IP phones derive power from an 802.3af switch but need to make contact with an Alcatel Dynamic Host Control Protocol (DHCP) server in order to receive any 802.1p/Q tagging information. This requires the LAN switches to pass through any initial Alcatel traffic across the whole network.

Q. Now that Alcatel has released the new range of IP Touch phones, will these provide all the same features that the original Reflex and eReflex phones provided?

A. No. Even though the new IP Touch phones offer XML support, color screens, and even Bluetooth, these phones cannot be used as automatic call distributor (ACD) stations, they cannot be attendant stations, and they cannot be used in hotel application scenarios. They can be used only as basic IP replacement phones at this time.

Q. What range of protocols do the new IP Touch phones support?

A. Currently, the phones support only the Alcatel UA protocol, which is similar in function to H.323. No support for H.323, Session Initiation Protocol (SIP), or Media Gateway Control Protocol (MGCP) is available. If the customer wants to deploy SIP in the future, either a replacement IP phone will be required, or the customer can hope that Alcatel will release alternative signaling protocols for its IP Touch phones.

Q. What is Alcatel's current SIP strategy?

A. Alcatel provides a basic SIP proxy and registrar on the OmniPCX Enterprise. This allows up to 1000 SIP endpoints to register with the OmniPCX and make basic calls. However, Alcatel does not offer a SIP endpoint. Instead, Alcatel suggests that customers deploy a low-cost SIP endpoint from a third-party vendor such as Pingtel or Thompson.

Q. What security features are available in an OmniPCX Enterprise system? Are any encryption devices or secure phone loads available?

A. OmniPCX Enterprise release 6.1 will introduce hardware security devices that will sit in front of the media gateways and the call agent to provide media and call-signaling encryption. These devices will integrate with firmware encryption in the IP Touch phones, but no form of backup or alternative routing will be offered if an encryption device fails.

Q. Are any extra servers required in order to deploy IP soft phones, or will they integrate directly with the OmniPCX Enterprise?

A. The Alcatel MyPhone soft phone requires the use of open telephony servers (OTSs) in order to integrate with the OmniPCX. Either the MyPhone endpoints can communicate with the OTS server through an Advanced Technology Attachment Packet Interface (ATAPI), or they can communicate through HTTP to a Web server, which will in turn communicate with the OTS. There is no direct interface between the MyPhone soft phone and the OmniPCX Enterprise server.

Q. Dual subnet spatial redundancy is available on the OmniPCX Enterprise call servers. Will this spatial redundancy support all my existing applications and eReflex phones?

A. The dual subnet spatial redundancy is supported only by the IP Touch phones, media gateways, 4760e, and basic services. The eReflex phones, OmniTouch UC, CCivr, and Genesys applications do not support dual-subnet spatial redundancy.

Q. Can Alcatel offer any large-scale reference sites or deployments that are using the current OmniPCX Enterprise system and IP Touch phones?

A. The largest reference site currently on offer uses the traditional Alcatel ACT14 crystal chassis, not the common media gateway. The same site is using the older IP-enabled eReflex handsets, not the newer IP Touch handsets.

What Will Alcatel Suggest for IP Communications Deployments?

Existing OmniPCX ACT14 Chassis at Customer Site

- Alcatel promotes the idea of investment protection and an "evolution, not revolution" approach. Alcatel will suggest IP-enabling an existing OmniPCX deployment, which will typically involve adding INT-IP cards to an existing ACT14 crystal.

- The existing CPU embedded in the chassis runs the same Linux operating system and call-server software as an external IBM eSeries call server. However, the embedded CPU has limited processing power and does not offer the spatial redundancy and database redundancy options that standalone servers can offer, so a migration to standalone call servers would be encouraged.

- If remote sites need to be supported, Alcatel will suggest the common media gateway. The particular chassis Alcatel will recommend depends on the number of endpoints needed at any given site. Each of these common media gateways can contain a call server CPU, or they can be registered to a central call server CPU. In either case, each call server operates as a node in the crystal network on a peer-to-peer basis. Feature transparency is provided through the use of ABC-F links, which are similar to QSIG.

IP Handsets

- Initially, Alcatel will suggest IP-enabling existing Reflex handsets, turning them into eReflex handsets. These modules will reach their end of life soon. Alcatel will try to upsell to the new IP Touch series of phones, which are comparable to most other IP phones but do not offer the same feature set as the eReflex phones, so some feature adaptation may be required.

Remote Site Support

- If a deployment requires remote site support, Alcatel will recommend that the customer deploy common media gateways at each site. Alcatel will then have to point out that no remote survivable feature is available in the media gateways and that the customer must implement the backup signaling link feature. However, this requires that each remote media gateway contact the central call server using the PSTN. This is not practical, so Alcatel will always suggest deploying a call server at each site and linking the nodes together into a fully meshed crystal. Alcatel will discount heavily in order to offset the cost of multiple call servers, but this does not compensate for the management overhead of provisioning and maintaining multiple call servers.

Existing LAN Infrastructure

- Alcatel does not offer a viable LAN switch for IP communications and so will not attempt to sell OmniSwitches. Alcatel's implementation of 802.1p/Q tagging does not provide for any direct integration with a Layer 2 switch. It depends on communication with the Alcatel call server, so Alcatel will claim that its IP telephony deployment will work on any network.

Greenfield Opportunities

- For any new deployment, Alcatel will not attempt to use the ACT14 chassis or eReflex phones. Alcatel will suggest common media gateways throughout and either standalone pairs of call servers with embedded CPU call servers in each remote media gateway or embedded call servers in all media gateways.

- Alcatel will suggest IP Touch phones and integrating them with the new IP communications applications that are emerging such as MyPhone, MyAssistant, and My Messaging.

- With the acquisition of eDial, Alcatel will likely suggest greater integration with unified communications and collaboration tools. However, much of this is SIP based and requires external servers. Alcatel does not offer a SIP endpoint; instead, the company suggests that customers deploy an inexpensive third-party SIP device.