

Business Communications – Top Applications 2010, Emerging Trends

T3i Group TelecomTactics January 15, 2011 - A look back at the business telephony market over 2010 provides insights into 2011 and reveals a heavy focus on end user experiences that improve worker productivity and make collaboration simpler and more efficient. Smartphones and tablet devices have taken center stage as these consumer devices continue to make their way into the business environment, becoming the devices of choice for today's dispersed and mobile workers who require access to their communications at all times and from any location. Read more below and visit www.telecomtactics.com for more on the business telephony industry.

Takeaways 2010, Insights 2011:

- Top Applications - Mobility and Video
- Emerging Trends – Tablet Devices and the Personal Workspace, Voice Virtualization
- SIP telephones - Affordable Phones with Advanced Features
- New Business Telephony Platforms Target SMBs Again

Leading telecommunications manufacturers introduced a host of new products and applications in 2010, including new VoIP desktop telephones and softphones and new applications related to contact center, conferencing, messaging, mobility, presence and video. Some new trends emerged such as voice virtualization, a stepping stone toward cloud-based services, and new user “experiences” or so-called personal workspaces that utilize tablet devices. And, about 10 new telephony platforms for small and mid-sized businesses (SMBs) entered the market, including some new competition from **HP**, **IBM**, **Microsoft** and **snom**, though HP and IBM have recently revealed some redirection of their offers.



Major highlights of 2010 are outlined below and provide insights into 2011, but most significant is the focus on end user devices that improve worker productivity and make collaboration simpler and more efficient. There are new desktop telephones and softphones and new user ‘experiences’ that combine voice, video, messaging, applications and social media on a single endpoint.

Smartphones have taken center stage as these consumer devices continue to make their way into the business environment, becoming the device of choice for today's dispersed and mobile workers who increasingly require access to their communications from any device and from any location. Many of us are frequently away from our offices, so using a smartphone as both our personal phone and our business telephone means never missing an important call and being able to collaborate with colleagues and customers quickly and efficiently – an obvious advantage for any business.

Nearly every business telephony manufacturer on our watch¹ announced new client software or enhanced client software for **Apple**, **Google**, **RIM** and/or **Microsoft** Windows Mobile devices. IP communications provider **ShoreTel** rightly refers to the smartphone as a “game changer” in 2010, pointing out that smartphones have caused a major

¹ TelecomTactics tracks business telephony products from leading manufacturers, including Aastra, Alcatel-Lucent, Avaya, AVST, Cisco, Counterpath, Digium, eOn, Epygi, ESI, Esnatech, Grandstream, HP, Interactive Intelligence, Iwatsu, LG-Ericsson, Mitel, NEC, Microsoft, Polycom, Samsung, Panasonic, Siemens, snom, ShoreTel, Teltronics, Tadiran, Vertical, Toshiba and Zultys.

shift in mobile communications since it is simple for employees to use the device as their business telephone both inside and outside the corporate network (ShoreTel acquired **Agito** Networks and its Fixed Mobile Convergence technology in October 2010). **Mitel** introduced its Freedom Architecture in late 2010, stressing freedom of choice for businesses that may not want to “lock into” a single vendor for their communications needs, but want the freedom to choose best-in-class solutions, including mobile devices that will adapt to ongoing and changing needs.

Top Applications– Mobility and Video

Mobility

Telecom manufacturers recognize that the smartphone is the device of choice for most users. Finding ways to incorporate these devices into the workplace has become a priority. By simply installing client software, a smartphone can function as both a personal phone, but also as a business telephone to make calls and to access corporate PBX calling features such as extension dialing, call hold, transfer, forwarding or ad-hoc conferencing. Some clients support more advanced presence and location functionality or least cost routing that transmits cellular calls via the cheapest path inside and outside the enterprise.



The benefits are clear. Regardless of the network that the call is using (cellular or corporate WiFi), the Caller ID name and number of the user’s office extension will be displayed, giving employees a single phone number and single voicemail wherever they are. Businesses will benefit from lower communications costs when the corporate WiFi network is used for voice calls instead of more expensive cellular minutes.

Below are some of the smartphone integrations introduced in 2010.

- **Aastra** updated the *Aastra Mobile Client (AMC)* feature set with support for *Mobile Least Cost Routing*, enabling mobile users to better control long distance and roaming charges. AMC and AMC+ software enables parallel ringing of office desktop extension and mobile device, access to PBX features and supports seamless hand-off of calls between WiFi and cellular networks (*Fixed Mobile Convergence*). AMC currently runs on Symbian S60 third and fifth editions, RIM Blackberry, Google Android and Apple iPhone devices.
- **Avaya** introduced the *Avaya Flare Experience*, a technology developed on the Android operating system that consolidates communications (voice, video and text) into one user interface. The first devices to deliver Flare are the new *Avaya Desktop Video Device* and the *Avaya 9600 Series* desktop phones, but Avaya plans to make the Flare technology available later for PCs, laptops, tablet PCs and smartphones.
- **Cisco** *Quad* is a new enterprise collaboration platform that pulls together voice, video and social networking into one workspace. Users can access contacts, social communities and applications from a single screen and easily post, edit, distribute and search across all content. Cisco Quad is supported on the Apple iPad or iPhone or Cisco’s own *Cius* business computing tablet based on the Android operating system.
- **Digium** addressed the dynamic workplace and the demands of mobile workers with new mobile applications called *Switchvox Mobile* designed for customers who have deployed the *Switchvox SMB IP PBX* system. Users can download the free application and place calls from an Apple iPhone or RIM BlackBerry mobile smartphone so that calls appear to an outside party as the user’s office extension.

- **CounterPath** expanded the mobile options for customers of its Bria multimedia softphone, developing the Bria Android Edition based on the Google Android operating system. This latest mobile application joins the earlier Bria iPhone Edition for Apple iPhone and iPod Touch users (versions for Symbian and RIM are planned).
- **Esna Technologies Inc. (Esnatech)** announced a version of its Mobile UC Client software for the Microsoft Windows Mobile Device which can be accessed from the Windows Marketplace for Mobile online store. Mobile UC Client is also available for Apple, RIM BlackBerry and Google devices. Esna has integrations with popular PBXs, whether IP or TDM, including those from **Aastra, Avaya, Cisco, Digium, eOn, Iwatsu, Mitel, Panasonic, Teltronics, Toshiba** and others.
- **Mitel's** UC Advanced Web and Mobile portal enables remote access to the company's UC Advanced features via an Internet-connected PC or a mobile smartphone device; users can view contacts, presence information, call history and voice mail (view and play). Several mobile devices are already supported, including RIM BlackBerry and devices with Windows Mobile or Symbian operating systems. Now, Mitel is designing the UC Advanced Mobile client for Google Android (due out in the first half of 2011) which will have an added capability for location-based presence via GPS or Bluetooth. Clients for the Apple iPad and BlackBerry PlayBook tablets will follow.
- **NEC's** partnered with Varaha for a Fixed Mobile Convergence (FMC) solution to help UNIVERGE SV8000 customers manage cellular wireless expenses, while providing single number reach for mobile employees and seamless handoff between cellular and corporate WiFi networks. NEC supports Apple iPhone, Nokia (Symbian) and Windows Mobile smartphone devices with the FMC solution.
- **ShoreTel** acquired Agito Networks and its Fixed Mobile Convergence (FMC) technology and RoamAnywhere product (a transaction that completed on October 19, 2010). With RoamAnywhere, ShoreTel will support popular smartphones and tablets, including RIM BlackBerry, Apple iPhone and iPad, Nokia and Windows Mobile with a consistent user interface for all devices (Google Android will be supported later). ShoreTel also offers the ShoreTel Communicator with Mobile Access client for selected BlackBerry, Nokia, Motorola, Windows Mobile and Apple iPhone devices; support for the Google smartphone is on the roadmap.
- **Toshiba** added support for Google Android or RIM BlackBerry smartphones in conjunction with the Toshiba Strata CIX IP PBX system and Varaha System's Fixed Mobile Convergence (FMC) solution called uMobility. The client software is also available for most devices running Windows Mobile or Symbian operating systems (such as those from Nokia, Samsung or HTC) and for the Apple iPhone.

Video

Video collaboration has become a massive market opportunity, and communications manufacturers are rapidly rolling out new video solutions, recognizing that businesses have different video conferencing needs according to the business' size, budget, space requirements and required applications. In 2010, a host of new video products emerged to suit small to large businesses and low-cost or advanced requirements, as well as individual or network deployments and premises-based or hosted environments.

Below are some of the video solutions introduced in 2010.

- Smaller businesses continue to benefit from new video calling and conferencing solutions, including some new 2010 offers: the **Avaya** IP Office Video Softphone for IP Office, the **Panasonic** KX-NT400 IP phone

with 5.7-inch color touch screen that displays live video feeds and the **Samsung** OfficeServ Communicator PC-based call control application with support for video calling and recording.

- **Avaya** debuted the Flare Experience, as well as several new Avaya Video Conferencing Solutions: Avaya one-X Communicator Desktop Video Soft Client, Avaya 1010, and 1020 video systems for workgroups (2-3 people), Avaya 1030, 1040 and 1050 dual-screen video systems for mid- to large-size rooms or multiple sites, Avaya Videoconferencing Manager 6.0 tools and Avaya Professional and Managed Services for Video. Avaya also offers the Avaya web.alive software-as-a-service, a virtual meeting space for corporate networking and collaboration with life-like visuals and audio (a result of the Nortel acquisition).
- **Cisco** finalized the acquisition of Tandberg and expanded its video and telepresence portfolio with some new video endpoints, including Cisco IP Video Phone E20 (originally from Tandberg and acquired by Cisco in 2009), Cisco TelePresence EX60 desktop system (based on the EX90 from Tandberg) and a more affordable Cisco TelePresence System 500 pedestal-based endpoint with a smaller form factor than the earlier version. Cisco also announced the Cisco Prosumer Video management solution, new video features for Cisco WebEx Meeting Center, the Cisco TelePresence Exchange System cloud-based (hosted) service and a new video channel program that combines Cisco and Tandberg partners.
- **Polycom** introduced the Open Telepresence Experience (OTX) 300, an immersive telepresence solution with high-definition (HD) video that uses up to 50 percent less bandwidth compared to competing solutions because of Polycom's new H.264 High Profile standards-based video compression technology. In 2010, Polycom also announced partner solutions with **Apple, Avaya, BT, BroadSoft, HP, IBM, Microsoft, Samsung** and **Siemens**.
- **Siemens** acquired German provider **FastViewer** to further its offer in the Web and video conferencing space, adding a multi-party Web conferencing and desktop video solution that can run in conjunction with the Siemens OpenScope UC Application for more functionality such as viewing the presence of colleagues, launching conferences to contacts and sending Microsoft Outlook invitations. A mobile client is available for smartphone or tablet devices such as the Apple iPhone, iPad or iPod Touch.



Emerging trends – Tablet Devices and the Personal Workspace, Voice Virtualization

Tablet Devices and the Personal Workspace

New “user experiences” are emerging in the form of a personal workspace that bring together voice, video and text into one central interface. Users can access voice and video, social media, presence and instant messaging, audio/video/web conferencing, directories, contact history and other applications as these are consolidated and available for access using a tablet or other device.

Avaya introduced the **Avaya Flare Experience**, a technology developed on the Android operating system that consolidates communications (voice, video and text) into one user interface. The first devices to deliver Flare are the Avaya Desktop Video Device (pictured) and the Avaya 9600 Series desktop phones, but Avaya plans to make the Flare technology available later for PCs, laptops, tablet PCs and smartphones.

Cisco Quad is a new enterprise collaboration platform that pulls together voice, video and social networking into one workspace. Users can access contacts, social



communities and applications from a single screen and easily post, edit, distribute and search across all content. Cisco Quad can also be accessed from an Apple iPad or iPhone and from Cisco Cius, a portable business computing tablet based on the Android operating system.



While Avaya and Cisco are introducing their own tablet-based devices, they also join a number of IP communications leaders announcing compatibility of their applications with Apple or RIM tablet devices. **Cisco** WebEx Meeting Center with new high quality video features is available now for the Apple iPad. **Counterpath** introduced a Bria version (Bria iPhone) for the Apple iPhone, iPad or iPod Touch. **Mitel** is designing the UC Advanced Mobile client for Google Android (due out in the first half of 2011), and clients for the Apple iPad and BlackBerry PlayBook tablets will follow. **ShoreTel's** Agent Dashboard Web-based application can run on the Apple iPad to display real-time agent and queue statistics. **Siemens** OpenScape Web Collaboration multi-party Web conferencing and desktop video solution acquired from German provider FastViewer comes in a mobile client version available for smartphone or tablet devices such as the Apple iPhone, iPad or iPod Touch. The list goes on.

Voice Virtualization

The virtualization trend is well-known in the IT space, but for voice communications, it is just taking off. In 2010, several leading telecom manufacturers announced virtualized telephony solutions for larger businesses that allow their enterprise-level call control software to run with their own voice applications on a single virtualized platform for capital, operational and energy savings. Fewer manufacturers (so far) have begun to take this to the next level, running their voice software alongside data applications for *true* consolidation and convergence in either a data center environment or in a cloud computing scenario.

Aastra, Avaya, Cisco, Mitel, ShoreTel and Siemens were among those addressing voice virtualization in 2010. Below are a few of the new offers.

- **Aastra** announced that its enterprise Call Manager software for the Aastra 5000, Clearspan and MX-ONE IP-PBX systems supports VMware virtualization technology. Now, larger Aastra customers can choose the traditional IP PBX deployment or take advantage of a virtualized model that allows multiple applications to run on a single server for hardware reduction and associated savings, but also to improve availability and business continuity.
- The **Avaya** Aura System Platform is a single server solution for mid-size enterprises that utilizes open standards-based virtualization technology from Xen (Xen Hypervisor) which enables a single hardware platform to run multiple Avaya applications at the same time. Avaya is actively evaluating other virtualization technology to increase the options available to its customers.
- **Cisco** has a virtualized offer that consolidates Cisco call control software and multiple Cisco applications on a single virtualized platform using VMware server virtualization technology. The solution combines Cisco Unified Communications Manager 8.0 or later and associated Cisco applications on the Cisco Unified Computing System (UCS) C210 General-Purpose Rack-Mount Server or C200 High-Density Rack-Mount Server.
- **Mitel** was an early leader in the voice virtualization market, announcing the general availability of the Virtual Mitel Communications Director (Virtual MCD), a real-time call control application designed for the VMware vSphere 4 platform. Mitel and VMware certified and tested Mitel's MCD real-time call control application to run side-by-side with non-voice (data) business applications on the VMware vSphere 4 platform for true

integration in the data center. Common IT management tools, such as VMware's VMotion, can be used to manage Mitel applications in the data center environment.

- **Siemens'** OpenScope UC Server 2010 portfolio is now available on the virtualized VMware vSphere 4 server platform. Siemens has designed its solution to be hardware-agnostic, calling it a "Virtual Appliance" model (i.e. a specific hardware vendor or specific server is not mandated as long as the server meets the specifications and supports the Intel Nehalem chip set). Siemens is also planning to support other virtualization platforms going forward and is evaluating both KVM and Xen, depending on customer demand and performance.

SIP telephones - Affordable Phones with Advanced Features

Session Initiation Protocol (SIP) telephones continue to gain ground since these have a wide market reach and can interoperate with any SIP-based platform such as those from **Aastra**, **Digium**, **Epygi**, **Fonality**, **NEC Sphere**, **Vertical** and **Zultys**, to name only a few, as well as service provider hosted systems from **BroadSoft**, **MetaSwitch** and others.

In addition to this versatility and investment protection, SIP telephone manufacturers report that customers are increasingly attracted to the entry-level phone models which offer a full complement of features, but at a lower price point. For example, **Grandstream's** newest SIP telephone, the dual-line GXP1450, is priced under \$100, but offers a host of advanced features - HD audio and voice, XML screen customization, dual network ports with integrated Power over Ethernet support, a phone book and call log that support 2,000 entries and security protection, plus embedded Web applications (real-time local weather, stock, and RSS news initially).

Cisco's new SPA 300 Series includes two entry-level IP phones with Cisco HD Voice and dual protocol support (SIP and Cisco's Smart Phone Control Protocol or SPCP): the basic non-display 1-line SPA 301 (US\$83) and the pictured 3-line SPA 303 (US\$125) with more advanced features such as LDAP and Cisco XML corporate directories, call history and Cisco phone applications. Other cost effective and feature-rich SIP telephones from leading SIP telephone manufacturers include **Aastra** 6730i (\$99.99), **Polycom** SoundPoint IP 321 (\$139), **snom** 300 (\$129) and **Yealink** SIP-T20 (\$89).



Below is a sampling of new SIP-based telephones introduced in 2010.

- **Aastra** entry-level 6721ip and mid-range 6725ip telephones, optimized for Microsoft Lync
- **Alcatel-Lucent** OmniTouch 8082 My IC Phone with 7-inch multi-touch display screen
- **Cisco** entry-level SPA 300 Series with dual protocol support (SIP and SPCP)
- **Grandstream** single line GXP285 PoE phone, dual-line GXP1450 and GXP2100 Series with HD Audio and GXV3175 IP Multimedia Phone
- **Hewlett-Packard (HP)** 350x Series (3500B, 3500, 3501, 3502, 3503) with energy saving options
- **Polycom** CX Series HD phones, optimized for Microsoft Lync
- **snom** 821 desktop SIP phone with Gigabit Ethernet

New Business Telephony Platforms Target SMBs Again

Small and mid-sized businesses (SMBs) remain a key and growing segment within the enterprise communications market. Telephony system manufacturers did not release as many new telephony systems in 2010 as in previous years (about 10 new systems in 2010, comparable to 2009, but less than half the number of new systems introduced in 2008 and in prior years), but nearly all of the new systems target the SMB market.²

While the number of brand new entries has decreased compared to past years, most of the established telecom manufacturers have stabilized their telephony system portfolios with IP-based systems now successfully replacing earlier circuit-switched systems. So, instead of introducing new platforms, telecom manufacturers are focusing on new or enhanced productivity applications, mobility solutions and bundled offerings that attract new customers.

The Avaya-Nortel merger early in 2010 certainly changed the landscape of the enterprise communications market, combining two market leaders in IP communications, each with well-respected telephony portfolios that target small to large businesses. Market research indicates that Avaya now leads in global line shipments, but only slightly ahead of competitor Cisco³. Avaya was quick to make a roadmap announcement and fairly specific in defining timelines for product migrations and outlining dates for integrations and end-of-sale or end-of-support for the Nortel solutions. Avaya has promised product support for at least six years following any end-of-sale announcement. Visit www.telecomtactics.com for more details on the Avaya-Nortel roadmap.

Of high interest are some new competitors in the business telephony market, namely Hewlett-Packard (HP), IBM, Microsoft and snom technology AG. Read more below.

New Competitors

Hewlett-Packard (HP)

Following the acquisition of 3Com in April 2010, **HP** folded the 3Com VCX IP Telephony systems into its HP Networking unit, adding telephony to its portfolio of IT and data networking products. In a September 2010 announcement, HP revealed its "Just Right IT" portfolio geared toward small and mid-size businesses (SMBs), introducing new server, printer, PC and software products, a new 802.11n WiFi Access Point and a new version of the VCX IP Telephony system and a new series of IP telephones. HP discontinued the NBX platforms from 3Com in July 2010, but announced plans to move forward with VCX Connect for SMBs and the VCX V7000 Unified Communications Series for larger organizations. More recently, however, HP indicated it would not be expanding the VCX solution after all, but would continue to support and maintain the product for now.

IBM

IBM announced plans for an all-in-one appliance that combines UC and collaboration functionality (IBM Sametime UC2) and telephony in a single box, announcing plans with Mitel, NEC and ShoreTel to integrate their telephony call

² New telephony platforms in 2010: Aastra MX-ONE Compact (50-1,000 IP users; introduced in 2010 in North America), eOn eConn (10 to 1,000 users), Epygi QuadroM8L (to 98 users), Epygi QuadroM26X (42-106 users), HP VCX Connect (to 500 users; formerly of 3Com), HP V7000 (to 20,000 users; formerly of 3Com), LG IPECS-MG (to 324 users), Microsoft Lync (5,000 users per Standard Edition single server), NEC's UNIVERGE Spherical for Lotus Foundations (5-500 users), ShoreTel for IBM Foundation (5-500 users), Siemens OpenScope Entry (to 800 users), snom ONE (to 150 users).

³ T3i Group's Global InfoTrack for Enterprise Communications Third Quarter 2010 report

control software with the IBM Lotus Foundations appliance. However, in October 2010, IBM withdrew the Foundations appliance from the market, so the direction of these solutions remains to be seen.

Microsoft

Microsoft made headlines in the business telephony market, announcing Lync, the next version of the company's Office Communications Server (OCS) unified communications software. Microsoft Lync is now generally available and ready to compete as a full enterprise telephony solution with added support for Enterprise Voice features, enhanced management tools, additional presence and conferencing features and new client functionality. The family brand is known as Microsoft Lync (branding that combines of the words "link" and "sync"), the server is branded as Microsoft Lync Server 2010 and the client as Microsoft Lync 2010.

A growing list of companies are announcing products and services that will interoperate with Lync, including IP phones from **Aastra** and **Polycom** and **snom**, solutions for branch office survivability (from **Audiocodes**, **Dialogic**, **Ferrari**, **HP** and **NET**) and E911 routing (from **Connexon** and **Intrado**), call accounting software (from **Quest** and **NICE**) and a number of SIP trunking vendors (**Verizon**, **Swisscom** and **Sprint** among others). Last November, **Interactive Intelligence** released a version of its Customer Interaction Center (CIC) software suite to work with Microsoft Lync Server 2010.

snom technology AG

German provider **snom** responded to its resellers and users looking for an easy-to-install telephony system that supports the full set of snom SIP telephone features by launching the snom ONE IP-PBX software solution. Though snom's SIP phones have the advantage of working with any SIP-based system, snom finds that many smaller companies prefer to purchase a PBX and phone package from one vendor. One of the unique attributes of the snom ONE software is that it runs on multiple operating systems (Windows, Linux or Mac operating system environments), allowing maximum reach into the market.

What's Ahead

Looking forward into 2011, we can expect continued uptake of smartphone and tablet devices in the business environment as these are fast becoming the devices of choice for today's mobile worker. Video collaboration will become more affordable, easier to manage and more available with high quality video features delivered via portable tablet devices.

Cloud-based or hosted telephony solutions will continue to gain popularity among businesses as a way to reduce equipment and maintenance costs and ensure reliability, redundancy and disaster recovery. The security of a fixed-rate (pay-as-you-go), quickly deployable hosted solution is appealing. Also, new technology and new innovations are emerging rapidly, so businesses that utilize a hosted service can take advantage of the latest solutions introduced by the hosted provider as soon as they are ready.

Virtualization technology is advancing rapidly, and the adoption rate will climb as businesses learn more about the economic and operational savings and the environmental benefits in terms of energy. The consolidation of hardware and the associated savings tied to running call control software and voice applications together are obvious, and even more so when both voice and data applications successfully co-reside on the same server. This *true* convergence, in which telephony and IT come together in either a data center environment or in a hosted or cloud computing scenario, is the future of communications.

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