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PAPER

Avaya Unified Communications Can Reduce Cell Phone Expenses

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A large, light grey graphic element consisting of a thick diagonal line that starts from the bottom left and extends towards the top right. This line is interrupted by a horizontal bar that extends from the right edge of the page towards the diagonal line, creating a shape reminiscent of a stylized 'A' or a large arrow pointing upwards and to the right.

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Introduction

Avaya defines Unified Communications as orchestrated communication and collaboration across locations, time, and medium to accelerate business results. It is achieved through the convergence of real-time, near-real-time, and non-real-time business communication applications including: calling, conferencing, messaging, contacts, calendaring, collaboration, and rich presence with voice, video, text, and visual elements. Users can access these capabilities using multiple modalities including voice, data, and speech access, through telephones, PCs, and mobile devices. These communications services are increasingly designed to be embedded into structured and unstructured business processes. This takes Unified Communications to the next level in terms of IP voice and video telephony; audio, web and video conferencing; unified messaging of voicemail, email, and fax; instant messaging and more.

Among the many benefits, one of the most compelling is the potential to reduce cell phone expenses. Here's how:

- 1) Reduce inbound minutes
- 2) Reduce outbound minutes
- 3) Take greater advantage of free minutes
- 4) Reduce long distance expense
- 5) Reduce roaming charges
- 6) Reduce voice mail charges

Section 1: Reduce Inbound Minutes

Research suggests that 40%-60% of cellular phone usage takes place while in the office. Even though people are available at a land line, they still receive inbound calls on their mobile devices from contacts that have learned that they can reliably reach the person by calling the mobile phone. There are also times when a person is at home or in a hotel room where a cell phone is used, even though there are alternatives present. Unified Communications helps change behavior from “calling a device to get to a person” to “calling a person and letting the network find the right device”. By introducing the use of single-number access, contacts will quickly discover that the user will answer a call from wherever they are if they are available, able, and willing.

Single-number is accomplished by using a combination of services and capabilities. First, when a user is at an alternate location and away from his business phone, he can use his PC, mobile device, or schedule to tell the network where he is and where to route his calls or where he can be found. Second, simultaneous ringing allows the network to ring multiple devices at once, where the user can simply answer the call using the optimum device. Third, wireless options allow a user to manage his calls when he is at the business location but away from his Deskphone. Fourth, 'find me' services answer incoming calls with an automated personal assistant, which will place a call on hold while the system searches for the user at designated locations according to rules defined by the user.

Together, these capabilities result in the following when a single-number is used:

- **When users are in the office**, they can answer the call on the business phone.
- **When users are at the business location but away from their desks:**
 - They can log into an available phone and have that phone take on their identity.
 - If users have PC access (e.g. in a meeting room), they have the option to answer calls on the PC or an available desk phone.
 - Users can use a dual-mode device (i.e. Cellular + WiFi) and answer calls for free using the WiFi network while in the business facility. Likewise, if users are on a cell phone call while approaching the business location, it will automatically switch to the free WiFi network when the device gets within range.

- Users can use a wireless phone that has his identity. This can be run over in-building WiFi or IP DECT networks.
- Users with WiFi enabled Windows Mobile PDAs, can manage calls and talk through the PDA over the WiFi network.
- Users can answer calls on their cell phones, and when they return to their desks they can shift calls to their desk phones without interrupting the discussion.
- **In hotel rooms**, users can answer calls and talk through a PC using Voice over IP (VoIP) via the IP PBX.
- **Users at home can:**
 - Answer calls on a PC and talk through the PC or a home phone without giving out the home phone number.
 - Have the home phone ring simultaneously with the business phone and mobile phone and choose to answer the call on the home phone.
 - Answer calls on a business-class deskphone connected back to the office using a VPN connection.
 - Have a 'find me' service answer calls, and then call him at home and provide the recorded name or number so he can decide if the call should be answered.
- **The user can log into a web portal** to make and receive calls anywhere there is a PC (personal, shared or public) and an Internet connection.
- **Remote users** can have their mobile phones ring simultaneously with their business line.

When someone places an outbound call, they transmit the calling line ID of the device they are using. Unified Communications ensures that only the corporate identity is transmitted to the user's contacts regardless of the user's location or device. Hence, whether placing the call from the office, home, hotel, or mobile device, the call will always go through Avaya Communication Manager and transmit the calling line ID and name associated with the business extension of the user. This is important because maintaining a single outbound identity preserves the single-number concept. When callers experience a consistent and responsive experience when they always and only call the enterprise number, they will quickly alter their behavior and stop trying to reach someone at a series of numbers, which includes the dependency of trying to reach someone directly on their mobile number. This will directly translate into fewer inbound minutes taken on the mobile device.

Section 2: Reduce Outbound Minutes

When a user is away from his business phone, he may choose to use the mobile device to place a call even if an alternative exists. He may be in his home, but he does not want the calling line ID of his home to be passed to a business associate or he may be visiting somewhere and does not want to incur long distance charges on behalf of his host. He may be in a hotel room, and wants to avoid paying premium telephone charges.

Avaya Unified Communication solutions offer a number of alternatives for placing outbound calls. In all cases, the identity of the call is kept to that of the business extension, and the call is placed through Avaya Communication Manager where any long distance will be tracked and charged. The options include:

- **Using the PC to initiate a call and talk through the PC** using Voice over IP (VoIP) through Avaya Communication Manager.
- **Using the PC to initiate a call, but have the Avaya Communication Manager** first place a call to a user designated number (e.g. home phone, visiting phone, etc.), and then place the outbound portion of the call.
- **Using Avaya one-X® Mobile** to utilize the data channel of the mobile device to have Avaya Communication Manager first place a call to a user designated number and then place the outbound portion of the call.
- **Using any telephone to first call into Avaya one-X® Speech**, and then using speech recognition to place the outbound call or calls.
- **Using a VPN remote phone** in the home, remote, or temporary office.

Sometimes a user will initiate a call on a mobile phone because contact information is stored on the device and it is convenient. Unified Communications makes it possible for both personal and corporate directories to be available from any device. Thus, other tools become just as convenient as the cell phone to find a number and dial it.

A user may have taken his cell phone with him when he has stepped away from his desk. Needing to place an outbound call, the user logically initiates the call on the cell phone. However, upon returning to his desk, Avaya Extension to Cellular makes it possible to shift the call from his mobile device to his Deskphone without interrupting the call, and thus reducing the cellular minutes associated with the call.

Section 3: Take Greater Advantage of Free Minutes

Some pricing plans offered by the wireless carriers allow for an unlimited number of calls or minutes to a designated number.

- **Users can set their designated number to the Avaya one-X® Speech personal assistant.** Once connected, users can make an unlimited number of calls.

Some plans allow for free inbound minutes.

- **Users with scheduled calls at specific times can have Avaya one-X® Speech call him automatically at the designated time.** At any time if the user knows he is going to be using his assistant or will be on the phone for a while, he can make a brief call to one-X Speech and request that it call him back. In all these cases, once connected to one-X Speech the user can make an unlimited number of calls with an unlimited number of minutes. (Supported with configurations using Microsoft Exchange)
- **Avaya one-X® Mobile allows users to initiate calls by using software on the mobile device that utilizes the data channel to instruct Avaya Communication Manager to first call the mobile device (or any designated phone), and then place the outbound portion of the call.** Note that this benefit requires that users have a data plan associated with their cell phones.

Some plans allow for free mobile to mobile calling.

- **A mobile gateway can be connected to Avaya Communication Manager** whereby users call the gateway which is viewed as a mobile-to-mobile call, which then allows him to make calls through the PBX.

Section 4: Reduce Long Distance Expense

Depending on the cell phone plan, domestic long distance charges may apply, and international long distance charges probably apply. As noted above, a PC using a UC client or web portal, the mobile device using a UC client, or any phone using a speech interface can be used to place outbound calls via Avaya Communication Manager. Additionally, long distance charges when applicable will shift from the individual mobile user to the corporate land line service. Further, long distance calls via Avaya Communication Manager may be free if they are to other business locations across the corporate network, and certainly less expensive than when placed over the public cellular network. For instance, a user in the United States could call a customer in the United Kingdom across the corporate network. Instead of calling the customer directly, and incurring international long distance charges, the user would call through his local PBX where least call routing would send the call over the private network to the office in the UK where it then jumps to the local Public Switched Telephone Network.

Section 5: Reduce Roaming Charges

Depending on the cell phone plan, domestic roaming charges may apply, and international roaming charges probably apply. When users are remote — whether working in hotel rooms, or client offices — they can answer their inbound calls on a PC using a UC client or web portal. Users have the ability for a mobile device to ring

simultaneously with a business line, thus able to receive their calls via a single-number. However, if near the PC it is not necessary to answer the call on the mobile device thereby saving the associated roaming charges.

International roaming and data charges can be extremely expensive. Frequent travelers, who have a mobile device capable of using alternate SIM cards, can establish an in-country account with a local carrier, and swap the SIM card in their device as they move from country to country. This has the potential to complicate the issue of multiple numbers, and hence makes single number access, single identity, single voice mail, and single presence that much more important. Avaya one-X® Mobile empowers the user to change the routing of their calls to remain consistent with the changes in their SIM card, and he can direct an incoming call to ring at up to four of the international mobile numbers simultaneously. Alternatively, the user can modify their Avaya one-X® Speech Reach Me service simply by saying "Follow Me" to have it forward callers to their temporary international number.

Section 6: Reduce Voice Mail Charges

Using the single-number concept noted above, the user can eliminate the need to have a separate mailbox for his mobile device. That is, since all calls go through the enterprise number, if a call goes unanswered the message will be left in the corporate voice mail system. Thus the monthly charge associated with the mobile voice mail box can be eliminated. In addition, single-number will increase the probability of a caller establishing a connection, and hence reduce the number of messages.

Eliminating the mobile voice mail box brings additional productivity benefits. The user now has a single mailbox to check. Further, the message has more utility since the user can forward the message to others in the organization for action or information, he can respond using reply or call sender, and he can archive the message.

A user who is using their mobile device to retrieve his voice messages is consuming minutes. This can be reduced in a number of ways.

- **Through unified messaging**, all messages can be retrieved using the PC.
- **As noted above, it may be possible to have calls to the Avaya one-X® Speech personal assistant to be free.** Users can retrieve their voice messages from the personal assistant. Since the need for a mobile voice mail box has been eliminated, one-X Speech can provide access to all voice messages.
- **Avaya one-X® Mobile provides visual voice mail for messages in Modular Messaging.** Voice messages will be pushed to the mobile device much like email messages are with a BlackBerry® or Good™ service. This allows a user to view the list of voice messages waiting for him, identify which ones are of immediate interest, and play them directly on the device without the need to place a call.

Conclusion

Avaya Unified Communications solutions make single number practical by creating a solution where the user has a single inbound number and a single outbound identity. Cell phone minutes can be reduced by offering the user alternatives to the mobile phone. Overall cell phone charges can be reduced by taking advantage of "free" minutes offered by the wireless carrier. Long distance charges can be reduced by driving calls through the PBX and over the PBX network. Roaming charges can be reduced by making oneself reachable by means other than the mobile device, or by utilizing a local cell phone plan. Finally, actual and opportunity costs associated with cell phone voice mail can be reduced first by reducing the number of messages, making messages more versatile, and by eliminating the need for a separate voice mail box. Some service providers offer "unlimited" plans which removes the need to focus on the consumption of minutes. However, by using many of the techniques mentioned in this paper, it may be possible to use less expensive base-level plans and still be as connected as necessary.

About Avaya

Avaya delivers Intelligent Communications solutions that help companies transform their businesses to achieve market-place advantage. More than 1 million businesses worldwide, including more than 90 percent of the FORTUNE 500®, use Avaya solutions for IP Telephony,

Unified Communications, Contact Centers and Communications Enabled Business Processes. Avaya Global Services provides comprehensive service and support for companies, small to large. For more information visit the Avaya Web site: <http://www.avaya.com>.



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