

Email was nothing short of a revolution in terms of how organisations communicate with their customers, partners and suppliers. Its proliferation gave businesses an instant and cost-effective alternative to telephone calls and face-to-face meetings.

Like email, the concept of unified communications (UC) has promised its own radical shift in how businesses communicate, but its adoption has also brought with it challenges.

Broadly speaking, UC takes real-time methods of IP communication, such as IP telephony and video, and integrates them seamlessly with non-real-time communications, like email and instant messaging.

The possibilities created by doing so, proponents say, are near endless. Trouble getting through to someone on their direct line? No problem. The call is automatically rerouted to their GSM. No answer there? Leave a voicemail message in their inbox for them to download later.

"[The] difference between unified and traditional communications is that UC is user-centric and not device centric, meaning that you contact a user and not his phone, his PC or his mobile, and UC takes care of the optimal route," explains Dr Roger Hage, VP of marketing and business development, Middle East and North Africa, at UC provider Aastra.

UC is proving to be popular in the Middle East: statistics published by global market research firm Frost & Sullivan last year showed that spending on UC in the region would hit \$235 million by 2014. The study also revealed that more than 50% of enterprises in the Middle East planned to deploy some form of UC solution during this time period.

Telecommunications and networking vendor Avaya is another major provider of UC solutions in the Middle East.

"What we do is converge the real-time and non-real time business applications; for example, messaging and conferencing. Users can take these capabilities and use them over different means like phones, or mobile devices, or PCs," says Mohammed Areff, managing director of the Gulf region.

"You get more speed and you get more efficiency, and this [results in] a productivity improvement between partners, employees and the way you talk to customers. All of these communications get

enhanced - they're faster, more efficient and the quality is better," explains Areff.

Lindsey McDonald, a telecoms consultant at Frost & Sullivan's Middle East office, believes that the premise of a multifunctional UC system is tantalising, but that deployments in the region are still relatively nascent for now.

"[Deployments] are happening, but they are happening in pockets. In this region it tends to be multinational companies that are driving this. For instance, they are used to their headquarters in, say Europe, having this kind of multi-functionality, and so they need it here as well," she says.

One obstacle to adoption, specifically in the UAE, has been the legal status of VoIP services, which are a prerequisite to any comprehensive UC system.

Previously, a legal framework by the country's Telecoms Regulatory Authority (TRA) had allowed operators Etisalat and Du to offer IP telephony services based only on calls starting and ending within the UAE.

However, in 2010 the TRA updated its regulations so that both telcos could offer VoIP subscriptions that also permit international calls. "With the issuing of VoIP licenses, that means there is now a framework in place to offer [UC] services," Frost's McDonald observes.

In terms of UC vendors in the Middle East, she believes there is a significant market opportunity for providers of hosted UC services, which could make the job of network managers somewhat simpler when it comes to integration and application maintenance.

Vendors that provide 'UC-as-a-service' host the UC communications infrastructure within their own data centre, and effectively lease it to customers on a pay-per-use basis. The advantages of this model are that it requires no capital investment on new network infrastructure, and allows businesses to ramp up their UC capabilities on a seat-by-seat basis whenever demand dictates.

Whether on-premise or hosted, businesses should be selective when choosing a UC provider, says Shaheen Haque, territory manager, Middle East & Turkey, at Interactive Intelligence. "The network manager must understand various vendor approaches to delivering the communication



The advertisement features a photograph of a man in a suit talking on a mobile phone in an office setting. To the right of the photo is the Astra logo, which consists of the word "ASTRA" in a bold, white, sans-serif font with a stylized 'A' that incorporates a triangle. Below the photo and logo, the text "Aastra Mobile Client for Fixed-mobile Convergence" is written in a bold, black font, followed by the website "www.aastra.com" in a smaller, black font.



Avaya's Mohammed Areff believes unified communications can improve employee productivity.

"All of your communications get enhanced - they're faster, more efficient and the quality is better," says Mohammed Areff, Avaya Gulf MD.

solutions, be it on-premise or hosted, manage the bandwidth requirements and integration points of business applications for communications and collaboration functions in order to take full advantage of the potential offered by UC."

Bandwidth capacity is a serious

consideration when adopting a UC strategy. The multitude of data streams, such as voice and video services, that UC occupies can quickly clog the enterprise's network infrastructure if not managed correctly.

Venkat Raghavan, general manager of AI-Futtaim

Technologies, says that businesses may need to consider bandwidth upgrades before adopting UC.

"If UC needs to work across WAN (Wide Area Network), one needs to consider bandwidth upgrades from the service provider. Further investments really depend on how fast and how much of UC you want. For instance, if you want to include video in collaboration, the

bandwidth needs to significantly go up," he remarks.

However, bandwidth upgrades can be an expensive business, and there are other remedies to this problem organisations may want to explore, says Aastra's Dr Roger Hage.

"There are several ways to deal with the increased need for bandwidth: the choice of codecs (static or dynamic), the efficient use of Call Admission Control

How UC improves enterprise communications

Harry Benckhuijsen, head of EEMEA, Orange Business Services, outlines the improvements UC makes to business communications:

- **Mobile integration:** This can be accomplished a number of ways, such as employing an IP telephony feature which directs calls to both the desk phone and mobile phone simultaneously. This allows you to publish a single number – the office phone number. It makes sure your employees to be easily reached and never miss an important call.
- **Real-time identification:** This involves presence, which provides a status indicator showing the ability and willingness of an employee to communicate. Presence information is usually managed through a real-time communications server, such as is found in Microsoft Office Communications Server or IBM Sametime. It saves a tremendous amount of time by enabling people to locate a resource quickly and establish the best way to communicate.
- **Messaging:** Unified messaging presents all messages through a single user interface, such as an email client like Microsoft Outlook or IBM Lotus Notes. Messages can be retrieved across a number of different devices, desk phone, mobile phone, or email client. The advantage of unified messaging is that voicemail messages appear as an audio attachment to an email, which can be played, stored or forward to anyone with an email address.



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Adoption of unified communications could be driven by the Middle East's younger professional generation.

(CAC), which limits the maximum number of simultaneous calls over low speed links or network segments or zones, the use of video IP multicast, instead of Multi-point Control Units (MCU), and last but not least, enforcing Quality of Service on the LAN, traffic shaping, and WAN (Wide Area Network) optimisation," he explains.

Swapnendu Mazumdar, network infrastructure manager, eHosting DataFort, says that out of these solutions, WAN optimisation will in many cases be the most effective: "The foremost solution to save bandwidth between offices has been to use WAN accelerators. WAN accelerators provide ability to compress and cache network traffic thereby saving bandwidth," he observes.

It is not just network performance that IT managers must consider when implementing UC, but also network security and integrity, he explains.

Mazumdar believes that the infancy of UC products means that this question of security is one that still has not been properly addressed. "Many of these solutions are new to the market and the security element is still not mature," he observes.

"As all communication

UC promises to boost employee collaboration and productivity.

components in the network are connected, the security risk of malware exploiting the system via one of the components and then bridging to another, is a possibility. The result of such risks can be catastrophic, starting from information loss and leakage, to a complete enterprise communication failure."

Haque, of Interactive Intelligence, believes that technologies like UC are symbolic of the changing role of the network manager. With adoption of UC, it can become the network manager's responsibility to ensure the smooth running and constant availability of all of the business's critical communications systems.

"The days when the network was just for data and sharing of computer/application



files are long gone. Now, the responsibility of the operation and ultimately the survival of organisations lie on their network's capability to manage effective communication, both internal and external, where customers are empowered to communicate at many different levels within the various departments and processes

within the organisation."

Despite the challenges UC can present to network managers, Frost & Sullivan's Lindsey McDonald still believes that the Middle East is increasingly eager to embrace cutting-edge technologies like UC. Much of the demand for UC and new collaboration tools, she believes, is being driven by the younger generations of professionals.

"In the Middle East we have a young, worldly population, and they're used to technology and the internet, so that's a major driver that's pushing the adoption of UC. They're used to sending an instant message to a friend rather than phoning or faxing them. It's the people that have been brought up in that way who are really pushing UC," she argues. ■



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