

Like most SMBs, Brepols Publishers depends heavily on the productivity of its workforce to grow its business and keep customers happy. That's why the Turnhout, Belgium-based publisher of essential source-works from antiquity and the Middle Ages recently initiated a Unified Communications/Unified Messaging project. By providing staff at its headquarters and its four other locations in Europe and the U.S.—many of whom are mobile—with anywhere/anytime converged voice, email, and IM services, the company's IT team knew it would be able to make the company more efficient, responsive, and profitable.

While Microsoft Office Communications Server and associated products provided Brepols with a robust UM platform, however, the company faced a variety of challenges in transitioning from its conventional network and telecom infrastructure to a converged one. These challenges included:

- Interfacing its internal OCS environment with the outside world
- Supporting its existing fax machines, door phones, and other analog devices
- Implementing business-specific calling requirements—including Auto-Attendant functionality in French, English, and Dutch
- Supporting Wi-Fi clients

To meet these challenges, Brepols selected NET's VX 1200 gateway. The VX gateway provides flexible "any-to-any" connectivity, robust call routing functions, Active Directory integration, and the granular control of messaging parameters necessary to accommodate complex Microsoft OCS configurations. The VX also provides essential features such as SIP registration for WiFi clients, embedded QoS mechanisms, and simplified connectivity to both PSTN and external IP telephony service providers—which gives the company optimum flexibility for reducing its international toll charges.

Eliminating the PBX

Brepols started by installing the VX with its internal interface connected to its Mediation Server. This allowed internal communications functions to be tested first. Using the VX's operator interface, Brepols then tested inbound and outbound calls. Once this testing was complete, Brepols was able to disconnect its ISDN line from its PBX and use the VX gateway to communicate with the outside world.

Brepols had to make certain accommodations for the idiosyncrasies of Microsoft OCS and its ISDN service provider. For example, its ISDN connection presented calling and called numbers as non E.164 format. For example, a local call in Belgium local call would just be sent as 14723455—while a UK international call would be 442084568881. Microsoft OCS, on the other hand, normalizes numbers to E.164 (i.e. +3214723455 and +442084568881). Called numbers therefore had to simply be translated in the Call Route table of the VX. So +32 was pre-pended to all called numbers destined for OCS.

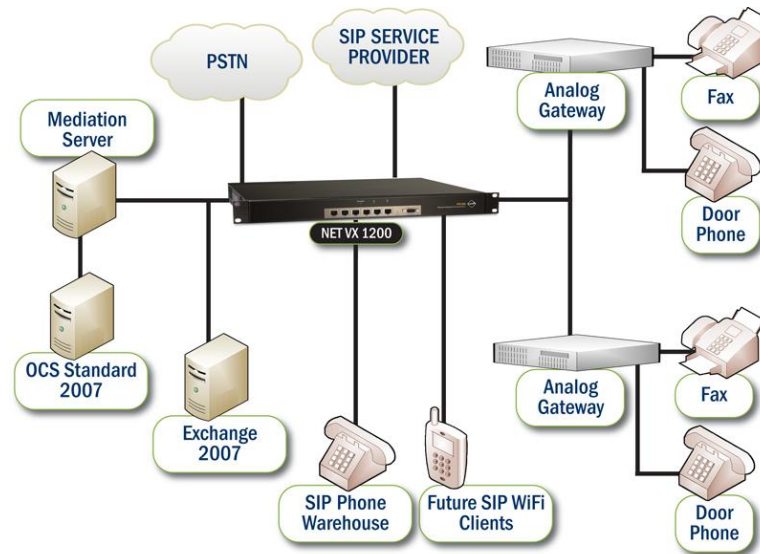
In the opposite direction, E.164-formatted numbers sent by the OCS server had to be manipulated to a format supported by the PSTN. This meant that in-country calls had to have the +32 stripped and a zero added before routing to the PSTN. International calls required the + to be stripped and a double-zero added before routing to the PSTN.

This adjustment of inbound numbers was very important for OCS, so that Microsoft OC clients could associate the caller ID number against their E.164-formatted address books.

Care had to also be taken to ensure that calls to emergency services could be recognized by the public agency receiving them. This was also accomplished by appropriately configuring the VX gateway.

Complete corporate telecom capabilities

Another advantage of the VX gateway was its ability to support Brepols' existing analog devices, which included fax machines and door phones. In addition to enabling the company's fax machines to connect over the PSTN to fax machines in the outside world, the VX gateway was also configured to allow the fax DID lines to connect with each other across the internal network so that Brepols employees could fax to each other. SIP interfaces were also provided for the analog door phones, so that they could communicate with Microsoft OC clients.



The VX gateway was also configured so that callers calling from each country would receive Auto Attendant service in the appropriate language—even though all calls come in to a single line. The VX gateway simply recognizes the caller's country from their phone number and routes it to one of three internal extensions accordingly.

In the future, Brepols will be using the VX gateway to make its OCS environment accessible to mobile users via their SIP-enabled Wi-Fi laptops. Each user will have his or her own DID extension. They will also be able to make and receive calls even in the event of an OCS server failure, thanks to the VX gateway's auto-reroute capability.

Other future plans for the use of the VX gateway include additional interfaces to low-cost IP international telecom service providers and the use of SIP phones in remote locations, such as the company's warehouse, to cost-effectively link users there into the OCS environment via a VPN.

Big business advantages for a global SMB

The combination of Microsoft OCS and the NET VX 1200 gateway provides Brepols with a Unified Communications/Unified Messaging environment that would be the envy of much larger firms. The company is now reaping all the benefits of Microsoft OCS—including integrated voicemail and email, presence awareness for internal communications, and point-and-click multimedia conferencing—while avoiding the disruptions that often occur when companies make the move to convergence. Brepols has

also been able to accomplish this move without burdening itself with the kind of high ongoing technology ownership burdens that are especially prohibitive for SMBs.

The resulting business advantages include:

- Higher staff productivity
- Improved collaboration across locations and time-zones
- More responsive service to customers worldwide
- Fewer errors in internal business processes
- Reduced telecom costs
- Elimination of PBX ownership costs
- Greater flexibility in future IT planning

These advantages are particularly valuable for Brepols because, as a specialty publisher, the growth of its business depends largely upon its ability to cost-effectively fulfil the needs of a market that is both finite and globally dispersed. The ability of its employees to quickly and effectively communicate with anyone anywhere at any time about any need is thus essential.

“As a market leader supplying premium publications to highly educated worldwide customer base, it is important for Brepols to possess world-class personal communications capabilities,” said Wim Borgers.

“With NET’s VX 1200 gateway solution providing the adaptive network infrastructure necessary to support our Microsoft OCS implementation, we have been able to gain those capabilities within the constraints of an SMB IT budget.”

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