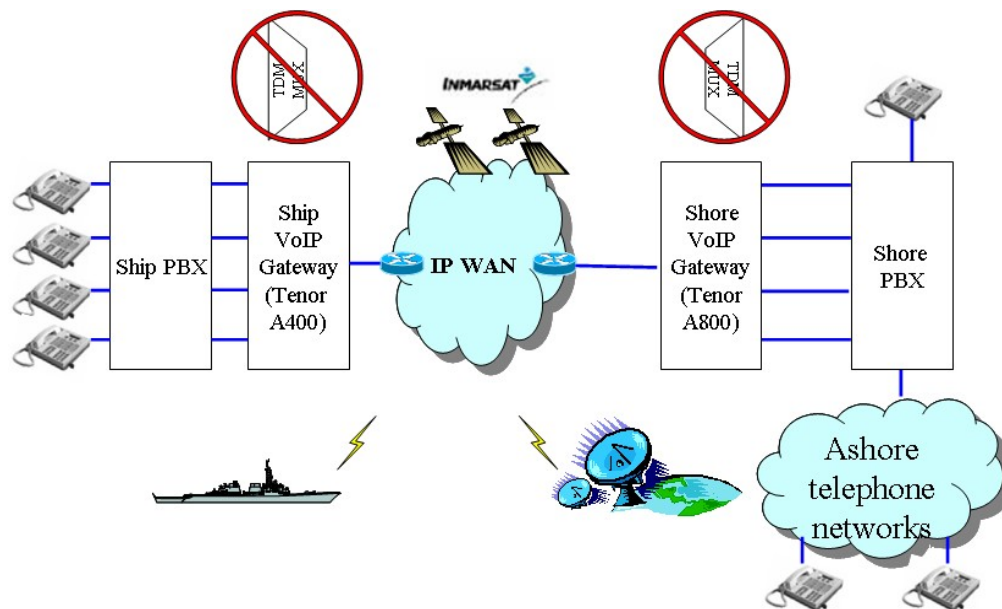


US Navy Operationally Demonstrates Quintum Tenor VoIP Switching Platform for Highly Efficient Secure Ship-to-Shore Communications

Pilot Project Demonstrates Ability to Eliminate Outmoded Voice over TDM in the Navy WAN Without Requiring Replacement of Existing Phones or PBXs

During the Navy's Trident Warrior '04 (TW04) exercise in October 2004, the Automated Digital Network System (ADNS) demonstrated the Navy's ability to use Quintum's Tenor VoIP switches to eliminate outmoded, inefficient time division multiplexing (TDM) voice network connections in favor of the converged transport of both voice and data communications over a more economical common IP-based satellite link. Thus, the Quintum Tenor VoIP MultiPath switching platform is an effective solution for implementing highly efficient secure ship-to-shore voice communications.

With the Tenor switching platform, unencrypted ship-to-shore VoIP calls required approximately 8.5 kbps of network bandwidth, versus 64 kbps per channel required under TDM. Use of a common network link for voice and data traffic also allowed the Navy to dynamically allocate additional available network bandwidth for data since voice utilization is typically less than 20%, so that data applications can benefit from increased bandwidth over 80% of the time. In addition, the Tenor-enabled VoIP connectivity can be used for secure telephone calls and fax transmission. Quintum provided the Navy with customized software to support its requirements for secure VoIP calls. The Tenor switches successfully supported encrypted STU-III calls over IP at 24 kbps gross bandwidth.



Ship-to-shore VoIP trunking across low-bandwidth satellite links

Other benefits of using the Tenor VoIP platform include the capability to use multiple paths for IP traffic, which improved service availability from 53% to 90%, and provided consistently high call quality.

Just as important, the implementation did not require the Navy to replace or modify any of its existing phones, PBXs or IP network infrastructure. Quintum Tenor VoIP MultiPath Switches have a unique MultiPath architecture and intelligent call routing capabilities which make them particularly well-suited for integration with existing telephony environments and for simplified implementation on existing IP data networks.

This pilot project validates VoIP as a transport for ship-to-shore voice and fax communications in general and the Quintum Tenor platform in particular. Quintum's robust technology and responsive technical support services enabled ADNS to demonstrate how SPAWAR's next-generation network architecture can create the more robust communication environment required to support increasingly complex military operations – while at the same time reducing infrastructure costs.

One of the primary objectives of ADNS is to move the Navy to a fully IP-based transport architecture with differentiated Quality of Service (QoS) for various applications. The demonstration of the Tenors during the TW04 exercises specifically focused on the use of VoIP on a small ship.

The Navy's testing of Quintum's Tenor solution during its TW04 exercises demonstrates once again the adaptability of Tenor's VoIP switching architecture in supporting a full range of communication environments and how easy it is for organizations of all types to reap the full potential benefits of VoIP. It is particularly rewarding to see Quintum's technology deployed in a way that could substantially benefit US military forces as they perform duties of such a vital nature to our nation and the world.

