Case Study

Royal Australian Navy

KAZ technology powers 'extreme business' for the RAN's Fleet Information Systems.

Building on a 15 year partnership, KAZ and The Royal Australian Navy (RAN) have developed a unique architecture for real time communication that stands up to any operating conditions anywhere in the world.

The Royal Australian Navy operates in an 'extreme business' environment. Its business units - 50 naval vessels - rely on information systems being available 24x7 regardless of their location or operating environment. KAZ has partnered with the RAN to provide systems supporting secure, reliable collaboration and information exchanges between ships at sea and land-based RAN personnel.

The Challenge

For the Royal Australian Navy, success depends heavily on placing the right ships in the right place at the right time with the right information - and the ability to respond to revised plans at a moment's notice. With a narrow scope for error, it is business at its most extreme.

RAN naval vessels also face conditions such as vibrating platforms and severe weather, wreaking havoc with information systems. Further challenges arise with the need for high level security, including via military grade cryptography and restricted use of military satellites to minimise exposure to risk.

The specific challenge to KAZ was clear: to develop systems that would reliably work within this environment and would provide land-based military personnel and commanders at sea with the ability to co-strategise, exchange information and conduct wide area virtual meetings in real time.

It's a challenge that KAZ was well placed to answer, having built up detailed knowledge of the RAN's IT architecture over 15 years as a

strategic IT partner. This includes as prime systems integrator and strategic partner in the RAN'S Fleet Information Systems Support Organisation (FISSO), which has administrative and technical responsibilities for the RAN fleet.

Extreme Architecture

KAZ's solution, which combines best-of-breed commercial and classified military applications, provides an instant collaboration system that gives senior personnel the ability to communicate within the ship, between international coalition units and with land-based organisations both on and off-line.

The collaboration capability enables large groups to engage in 'virtual meetings'. These meetings are conducted via text based Chat in real time with voice, video conferencing and application sharing. White boarding and web cam facilities are also available.

Behind these capabilities, KAZ high security architecture integrates Lotus Notes R5, Domino, SameTime (including server to server federated architecture), LAN/WANs, MS Windows NT Servers, MS Windows Terminal Servers, Citrix Mataframe Xpe 1.0, Ultra Thin Clients, HP-UX and Hummingbird Exceed.

The architecture also draws on TCP/IP, ISDN and modems to connect the Fleet to services across Defence intranets, with the addition of cryptographic black boxes outside each of the on-board servers to maintain military level security.

KAZ also integrated SameTime technology to extend the Navy's collaborative capabilities to a Coalition Wide Area Network (COWAN), involving naval systems belonging to Allies such as the United States and United Kingdom.

Instant Collaboration

The upgraded architecture gained its first 'real life' trials during operations in the campaign against terror and in the Gulf with the United States, commencing late in 2001. So successful were initial trials that plans began almost immediately to provide fleet-wide access. "The instant collaboration system improves the ability for high level decisions to be made, you can call up and ask immediately for advice and it allows planning to be conducted between different ships," explains the Director of FIS-N, Commander Steve Gadzio.

Looking to the Horizon

Beyond integrating the systems, KAZ plays a strategic role in keeping the RAN's IT afloat. KAZ technicians, for instance, have undergone special security clearance in order to access military systems. Works - such as maintenance and upgrades - are scheduled within narrow windows of the ship's availability in port. KAZ technicians have even put their own fears aside to be helicoptered out to sea to carry out required work!

Looking to the future, KAZ is working with the RAN to map its IT development strategy. KAZ and the RAN have, for instance, recently demonstrated a highly secure portal framework that intelligently routes data. This portal - designed to help the RAN turn information into knowledge - has helped position the RAN and KAZ at the forefront of military IT innovation.

In the words of CAPT/ SUPT Simon Cullen, RAN, "KAZ has delivered a system that has exceeded our expectations in functionality and ease of use. KAZ has demonstrated the ability to deliver a quality product within a short time frame. They will be considered for any future project for tender."

Background: KAZ and the RAN

- Building on a 15 year relationship, KAZ and the RAN have developed an advanced collaboration system for naval vessels at sea.
- The new architecture supports communication within and between ships, as well as with land-based organisations.
- Secure collaboration capabilities enable large groups of personnel, regardless of their location, to engage in 'virtual meetings' in real time with application sharing and whiteboarding.
- The new architecture demonstrates KAZ ‘s ability to deliver large, complex, secure systems using specialist and best-of-breed commercial technologies.

More information: www.kaz-group.com
Ph.1300 665 722