

Case Study



CORPORATE SPORT

Emirates Team New Zealand America's Cup Challenge

Critical to the success of any America's Cup Challenge is the technology behind the team, and one of the primary reasons Emirates Team New Zealand's 2007 Challenge chose D-Link to support the team as a Team Supplier. D-Link's provision of networking equipment, supported and installed by Infinity Solutions based in Auckland, will keep the team moving and well on the way to winning.



performance Gigabit for their CAD data and boat design; SQL Database; Wireless uplinks from the boats back to the base servers; Secure VPN; Easy and secure access for external users.

Emirates Team New Zealand's Managing Director Grant Dalton said "reliability and security of data transfer are critical aspects of the team's 2007 America's Cup programme.

With D-Link technology installed and operating efficiently we are free to focus on the challenge."

Network stability, security and speed of the network were the top three requirements. This all boiled down to 4 required features from the networking equipment to be installed:

Emirates Team New Zealand's decision to work and train in New Zealand for as long as possible, so as to maintain local support, a familiar environment and family connections, has meant that a strong presence has been maintained at the Auckland base, and within New Zealand itself.

- *Speed for the power users and a high performance cluster.*
- *Security with the VPN.*
- *Stability of the core switches.*
- *Firewall throughput within a multi site.*

The Team's strong performance in pre-cup races has been testament to this strategic decision. The main network situated at the Auckland base, will be uplifted and taken to Valencia in March 2006, leaving a small crew and network in New Zealand.

"D-Link has met all of these requirements, and Emirates Team New Zealand are extremely pleased with the implementation and performance." said Nick Holroyd, Emirates Team New Zealand Technical Manager.

This requirement has meant that a high performance, stable network and ease of installation were key factors in the network design that supports the Team's efforts.

Nick went on to say that he ". . . had previous experience with D-Link wireless networking equipment and rated the Emirates Team New Zealand network as a 8 to 9 out of 10".

The network required a dozen power users to have high

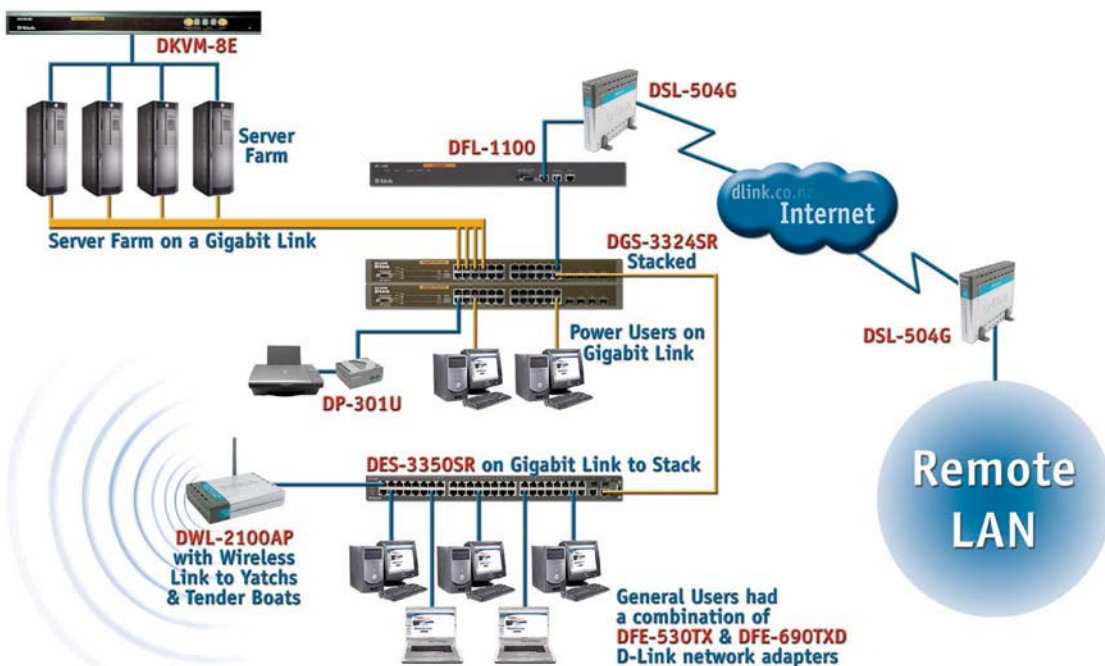
D-Link's high-end VPN server (the DFL-1100) deployment was relatively smooth and effortless, thanks to its user-friendly interface.

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3G network, as external consultants who worked off site needed secure access via the DFL-1100 to the CAD programs.

- Two **DCS-3220G** IP Security Cameras were being added as additional security measure for the yachts.
- Two **DSL-504G** ADSL Modem/Router was used at both ends of the broadband connection to route the ADSL signal through to the DFL-1100.
- Two **DUB-H7** 7-port USB hubs were connected to Panasonic Toughbooks on the yachts to provide peripheral expansion capability.
- A single **DP-301U** was used in the office to share printers.

Products Installed and Solution Outline:

- Two **DGS-3324SR** xStack™ 24-port Gigabit Layer 3 Managed Switches were used to allow power users high speed access to resource hungry graphics design and CAD software for the boat's designs, and also connect the server farms to the network.
- A single **DES-3350SR** 48-port Layer 3 Managed Switch was also added to provide "future proofing" of the network, and to also supply a reliable data stream for other users.
- Four **DFE-690TXD** PCMCIA Ethernet Adapters were used to connect notebook computers to the DES-3350SR.
- Three **DFE-530TX** PCI Network Adapters were used for shore and tender computer telemetry.
- Five **DWL-2100AP** High Speed Wireless Access Points were installed on the boats and at the dock to provide a means to wirelessly upload all of the race and technical data onto the SQL Server back at base for later in-depth analysis.
- A single **ANT24-1400** 14dBi directional Wi-Fi antenna for the base to assist in the upload of race data.
- A single **DFL-1100** VPN Firewall Server and 20 copies of **DS-601** VPN Client software is complimented with a Vodafone

- Three **DUB-E100** USB to Ethernet Adapters for the yachts and spare telemetry network interface cards.
- Four **DES-1008D** 8-port Desktop Switches on the yachts and tender boats had Ethernet cameras and radio modems connected.
- Two **DKVM-8E** and one **DKVM-4K** 8-port and 4-port keyboard-video-mouse switches were used to assist in the administration of the server farm.

In general, Emirates Team New Zealand's network prior to the D-Link solution was not optimized at all. With all the old hubs and slow switches, it was not suitable for bandwidth intensive applications that Emirates Team New Zealand required, such as live race data, VPN access traffic and video conferencing.

The D-Link xStack™ series switches offered the best solution for their network, and not only from the view of short term network performance.

In addition, the new network can now be relied on to take care of Emirates Team New Zealand's network expansion needs for the balance of the Emirates Team New Zealand 2007 America's Cup Challenge.