



DAFF gears up for bandwidth demands

Australia's Department of Agriculture, Fisheries and Forestry (DAFF) has national responsibilities ranging from resource economics to quarantine and inspection services. Like any major government department, its efficient operation is vital to the national interest, and disruption of services by technology issues is unacceptable. So, for its new 36,000 m² headquarters in Canberra, DAFF specified a high-performance network infrastructure emphasising efficient management of the physical layer.

To ensure it can meet any likely bandwidth demands in the present and future, DAFF chose 10 Gbps cabling to connect the 7800 outlets throughout the 16 floors of the headquarters' two buildings. In addition, there are also 2000 10 Gbps connections in the site's data centre, which also serves as the national data centre for DAFF.

Like those in the office areas, connections to data centre outlets are managed by the innovative Systemax VisiPatch 360 integrated cable management solution. This uses a '360-degree' approach to design that looks at performance and customer requirements from every angle. With the VisiPatch 360 solution, this design philosophy has created a crossconnect solution optimised for simple, fast, error-free management of the physical layer. This minimises disruption during moves, adds and changes, and makes troubleshooting easier.



"DAFF required a cabling infrastructure solution that would deliver to our performance requirements and one that was cost effective and flexible over the longer term. CommScope offered a solution where we could be confident that these requirements would be met," said Steve Monahan, manager, IT Contract Management Unit, DAFF.

The VisiPatch 360 solution connects 10 Gbps Systemax GigaSPEED X10D copper cabling now installed throughout the new facilities. With 10 Gbps performance, the two adjacent buildings now have the connectivity they need to take advantage of the most bandwidth-intensive applications.

As well as reliability and performance, flexibility was a key near- and long-term requirement for cabling in the new headquarters and its data centre. The Department did not want new or existing services to be limited by lack of network throughput or high costs for moves, adds and changes.

The VisiPatch 360 solution delivers the required flexibility and its reverse connector design has proved itself to be valuable in cutting costs. By avoiding patch cord clutter and making it easy to see connector labels, it is helping DAFF save on resources required to manage their network and keep their system accurate.

DAFF's VisiPatch 360 installation is currently the largest in Australia and is a model system, demonstrating the solution's flexibility and expandability. VisiPatch panels provide crossconnect facilities in the data centre, and in telecommunications rooms on each of the 15 floors. They are also used in the work area consolidation points that make it quick and easy to redeploy people and IT resources.

DAFF included cabling consolidation points in work areas because of issues it had on a previous site, where changes to network infrastructure were very labour intensive. This approach quickly paid off as DAFF found it needed to add outlets when still moving into the new site. The ability to cable from a nearby consolidation point allowed this work to be completed quickly without going into the main computer room.

Cables are routed via cable trays in the ceiling to consolidation points with drop downs to the workstations. For resilience, there are separate networks for voice and data, diverse riser paths leading into the main computer room, and all key equipment has redundant links.

Applications now running on the GigaSpeed X10D cabling and managed via the VisiPatch 360 solution include both voice and data. Longer distance audio visual and security links between the two buildings run over 10 Gbps Systemax LazrSpeed multimode fibre. In the near future, DAFF also plans to run video conferencing in the buildings and its system is fully capable of running any other IP applications as required.

Within its data centre, DAFF runs applications/services including ISDN, ADSL, frame relay and PVPN. Currently, the data centre has 1 Gbps links to all servers; however, as GigaSpeed X10D cabling is 10G ready, it is well prepared for an upgrade to 10G when this is needed.

Competition to win the DAFF business was strong. Due to its large scale, the project drew the attention of all the key players in the industry, including both network infrastructure vendors and installers. The CommScope bid won because it provided the best overall solution both technically and financially.

To deliver the project, CommScope worked with its prestige business partner, Intra-vision, and distributor, Anixter Australia. The team worked with DAFF's outsource IT service provider Volante on the innovative infrastructure design, based on the DAFF technical requirement.

Systems are also backed up by a secondary off-site location, in case of failures. This site is also equipped with VisiPatch 360 patching hardware and GigaSpeed X10D cabling.

During the installation, every cable run was tested and certified for performance. The Department was then given a full report of all tests, which gave it confidence that its IT systems would work properly over the network when it relocated to the new buildings.

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