

VIVIDTECH

Met-Scan Canada and Wirewerks provide video solutions over tactical fiber optics for G20 public safety video monitoring.

Toronto Police Services had a need to deploy a number of portable video surveillance cameras in and around one of Canada's largest cities for the G8/G20 global conference in Toronto.

Issues such as temporary installations, rapid install and removal, the ability to reuse and redeploy the cameras and provide high security for the cameras in a public area, were only some of the concerns that the police video team had to deal with. To assist them, the police department engaged Met-Scan Canada to provide a solution, integration and project management for the project.

One of the key issues was how to transmit and network the video and camera controls back to the command centre with high speed, high reliability and without compromising the security of the transmitted video data. Wireless was ruled out due to bandwidth and security requirements. Copper cables were not used as distances were too far to be usable. Fiber was chosen as the medium of choice and single mode fiber was used as it had the best usable bandwidth and specifications for this particular application.

Other key issues in relation to the fiber network was the need for rapid deployment, ease of handling the fiber cables, protection of the fiber cables from the installation process and vandalism, reusing the cables after the event and most importantly, being able to provide consistent high performance on a repeated basis, use after use.

After some consideration, the final fiber design employed multiple count, single mode, military tactical, armored fiber cables. The cables required counts ranging from 4 to 24 fibers. The military tactical fiber construction provided peace of mind, with high impact and crush resistance, and the overall strength and jacket material allowed for minimal bend radius and flexibility for re-use. The solution also specified that the cables be pre-terminated, cut to various lengths and spooled to allow for rapid deployment.

Wirewerks Canada, was chosen to provide the cables used in this solution as they were able to source, prepare, connectorize test, spool and ship the cables in the times required by Met-Scan and the end user.

The cables were cut to various lengths by Wirewerks to allow for flexibility in reuse and spooled on reusable spools. Wirewerks then prepared the cables with 1 meter of pigtail and connectorized them with LC connectors to Met-Scans design specifications.

The cables were then received at Met-Scans' Toronto area lab, connected to the system on a temporary basis and retested before being sent out with the installation teams for initial deployment throughout the city.

The resilience of the cables and systems were put to the test early when a truck knocked over a pole carrying one of the fiber cables. There was no damage to the cables, the connectors, or the armour and when remounted worked as good as new!

Wirewerks provides clients across North America with end to end, Singlemode and Multimode Fiber Optic solutions for outside plant, FTTH, FTTN, Data Center and in-building solutions as well as cost effective Cat5e and Cat6 end to end copper solutions.

Met-Scan Canada specializes in public safety, broadcast quality, video monitoring solutions and design of Command and Control centers using Evertz video switching solutions as well as fiber optic network design and implementation.

For additional information on this project or for any information on Met-Scan Canada or Wirewerks Canada, please contact Roman Dabrowski RCDD at roman.dabrowski@vividtech.ca, 416-428-4641.



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