wirewerks
NETWORK INNOVATIONS

Case Study: MSO Broadband

MSO reveals secret for Fiber-to-the-Suite in skyscrapers:
Have a NAP every 4 floors!

Cabling Installation & Maintenance Platinum Innovators Awards

2018 DIAMOND TECHNOLOGY REVIEWS. BTR BROADBAND TECHNOLOGY REPORT

Rogers uses Wirewerks' NextSTEP™ fiber management and pre-term fiber to connect clients to Rogers' Network Access Points (NAPs) in Toronto's new EY Tower.

PROJECT OVERVIEW

Completed in 2017, the EY Tower at 100 Adelaide Street West in downtown Toronto is the city's newest skyscraper and prestige business address.

Rising 188m (617ft) and 40 stories above street level, the EY Tower adds more than 84,000m^2 (900,000ft^2) of AAA-rated premium commercial and retail floor space in the heart of city's exclusive financial district.

Not surprisingly, the new tower is already fully occupied by leading corporations including Google Canada; the TMX Group, owner of the Toronto Stock Exchange; pension fund manager OMERS, who own the tower through their subsidiary Oxford Properties; and Ernst & Young, the anchor tenant for whom the EY Tower is named.

In addition to a long list of headline features like location, access to public transit and platinum LEED-certification, the tower's developers were also committed to designing-in key features specifically intended to support tenants' operational and infrastructure requirements in critical areas such as information technology and telecommunications. Consistent with that strategy, the tower's design allocates pathways and spaces for several Telco's and MSOs to deploy their networks throughout the structure, providing tenants with the power of competition and choice when selecting their business telecom service provider.

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CUSTOMER'S CHALLENGES

This case study recounts the challenges Rogers Communications encountered in their role as an MSO competing to provide their business telecom services to clients throughout the EY Tower.

Rogers' key challenges included:

1. While the developers were committed to creating competition for telecom services throughout the tower, this had to be balanced by the fact that every square foot of space lost to a service provider's infrastructure meant lost revenue for the developer. As a result, Rogers was allotted one communications closet, **approximately 1ft x 2ft square**, every four floors in the tower. From these 10 allotted $2ft^2$ closets spaced at four-floor intervals, Rogers had to design and install a GPON network that could reach out to any client suite anywhere in the 40-story structure.
2. Each of the 10 tiny communications closets had to receive and manage the incoming fiber backbone cables, and then provide a fusion splice point and fiber management for fiber assemblies reaching out to client suites anywhere in the 4-floor sector served by that closet.
3. The fiber management system in each closet had to manage 48F initially, with additional capacity for fast, easy expansion up to 72F per enclosure.
4. Given that the fiber infrastructure provides the foundation for Rogers' business telecom services, the network had to offer carrier-class performance, availability, reliability and serviceability.
5. Just as the communication closets were small, so too was the installation window in the construction schedule for Telco/MSO infrastructure deployment. Rogers was allotted just one week, 7 consecutive days, of site access in which to supply, install, configure and test their complete network infrastructure across their 10 allotted communications closets.
6. Cost control was a major consideration for Rogers, in both initial material and labour costs, as well as ongoing support and maintenance costs.

THE WIREWERKS SOLUTION

Rogers invited Wirewerks to review these challenges and to propose a comprehensive solution for a high performance fiber infrastructure to serve Rogers' clients in the tower.

Wirewerks proposed a NextSTEP Technology™ system with Wirewerks multi-fiber cable assemblies connecting each closet (now called a Rogers Network Access Point or NAP) into a vertical backbone network. When clients contract for services, Rogers installs a NextSTEP 1U Patch Panel in their suite, connected back to the serving NAP through a Wirewerks pre-term fiber cable assembly. Wirewerks value-added services including product staging, testing, kitting, scheduled site deliveries and custom installer training helped Rogers to control costs while providing fast, problem-free installations.

1. The multiple challenges of the tiny closets were solved through use of **NextSTEP Wall Mount** Enclosures in each NAP. Each NextSTEP Wall Mount included 4 NextSTEP Patch Modules; each providing integrated fusion splice capabilities and 12 LC ports for a total of 48 fibers/NAP. The NextSTEP Wall Mount's key features - including compact footprint, shallow depth, high fiber/connector density, multiple fiber entry points, integrated fiber management, and bottom-hinged door - were particularly beneficial in the unusually small closet spaces. Capacity to add two additional slide-in Patch Modules addressed Rogers' requirement for future growth/ expansion to 72 fibers/NAP.
2. Rogers' requirements for carrier-class performance, reliability and serviceability were met through NextSTEP's precision engineering and quality manufacturing processes. Rogers' prior experiences with the products provided Rogers with complete confidence in the proposed solution.
3. To assist Rogers in meeting their one-week installation window, Wirewerks staged and tested the exact product configuration required for each NAP. Each kit was then palletized, shrink-wrapped and shipped to the site per Rogers' installation schedule. These value-added services helped Rogers to manage the rollout, produced problem-free installations, and controlled costs.
4. In addition to the staging/testing/kitting value-added services, Wirewerks also developed special training courses and manuals for Rogers' technicians, as well as custom product stickers hi-lighting proper servicing and MAC procedures.
5. Value-added services, special training, custom manuals and service stickers combined with NextSTEP's high quality and performance to provide Rogers with a reliable, cost-effective solution for their fiber infrastructure requirements in the EY Tower project.

Wirewerks Products in this Application Rogers Communications Fiber Network Infrastructure serving the new EY Tower		
Product in the NAP	**Part Number***	**Data Sheet***
Wirewerks NextSTEP™ Wall Mount Enclosure	NS-PP-WM6S-CF	PDS-0218
Wirewerks NextSTEP™ Patch Module (12-port, LC/APC)	NS-PM-WL6A	PDS-0192
Wirewerks Multi-Fiber Cable Assemblies	Application specific - Please call*	
Product in the Client's Suite (ER/TR)	**Part Number***	**Data Sheet***
Wirewerks NextSTEP™ 1U Rack Mount Patch Panel	NS-PP-W1U1	PDS-0189
Wirewerks NextSTEP™ Patch, Distribution Module(s)	Application specific - Please call*	
For an overview of the complete NextSTEP Technology system, please download the new **NextSTEP Solutions Brochure** at www.wirewerks.com or call for a print copy.		
*Please contact your Wirewerks Salesperson or Wirewerks Customer Service (1.888.993.4237 or customerservice@wirewerks.com) for assistance with Part Numbers, Data Sheets and other documentation.		

Cabling Installation & Maintenance 2018 Innovators Awards

2018 Diamond Technology Reviews BTR Broadband Technology Report

Wirewerks' innovations in structured cabling have been recognized multiple times in recent years by industry authorities **Cabling Installation & Maintenance magazine and Broadband Technology Review.**

At Wirewerks, we believe that innovation is a process – not an event

ABOUT WIREWERKS

Founded in 1991, Wirewerks is an industry-leading manufacturer of advanced optical fiber and copper structured cabling systems. Built on core values of quality, innovation, and integrity, Wirewerks is relentlessly customer-focused and entirely committed to complete customer satisfaction. From pre-sale project collaboration, documentation, technical support, and custom product development, Wirewerks works in partnership with an extensive network of distributors, consultants and authorized installers to provide end-users with the best networking solutions and the best value in the industry today.

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