

# CASE STUDY EDUCATION

Corning Cable Systems



Fiber Cabling Solutions for Premises Networks

## INTRODUCTION

Georgetown University, located in our nation's capital, is the country's oldest Catholic, Jesuit university. Since its founding in 1789, Georgetown has grown from a small college into a major international university that includes four undergraduate schools, respected graduate programs, a law school, and a medical school. The University, whose programs are consistently among U.S. News & World Report's most highly ranked, includes students from all 50 states and more than 50 foreign countries.

The University's main campus is populated by approximately 15,000 students, faculty, and staff members. It contains 35 buildings, including student residences, classrooms, offices, libraries, laboratories, and conference facilities.

While Georgetown may be known for its rigorous liberal arts programs, in recent years, the University has made information technology a top priority, as evidenced in part by its participation in the Internet2 initiative. According to the project's description, the Internet2 project brings together universities, federal agencies, and many leading telecommunications and computer companies to develop "a new family of [internet-based] advanced applications to meet emerging academic requirements in research, teaching, and learning."

## NETWORK GOALS

Georgetown's information technology goals are three-fold:

1. To provide state-of-the-art technology to support teaching, research, and administration;
2. To support a wide range of networked applications (Internet, Intranet, Internet2, and others); and
3. To provide ubiquitous network access for students, faculty, and staff.

## Georgetown University



*Georgetown University*

## WHY FIBER?

Georgetown decided to install an all-fiber network for several reasons. First, fiber enables Georgetown to meet its current network requirements. In the short term, Georgetown wants to establish a 622 Mbps (OC-12) ATM backbone with switched 10 Mbps Ethernet to dorms and desktops, and switched 100 Mbps Fast Ethernet for servers and advanced applications. Equally important was fiber's ability to handle future applications. In the near future, Georgetown wants to create a 2.4 Gbps (OC-48) ATM backbone with switched 100 Mbps Ethernet to dorms and desktops with switched Gigabit Ethernet for servers and advanced applications.

Distance limitations with copper were also a consideration. Georgetown's network engineers realized that to reduce floor space and simplify maintenance, management and troubleshooting, as well as increase flexibility, they would need to homerun all cable back to a single building data facility. Since fiber is not constrained by the same distance limitations as copper, this task was easily accomplished with fiber optic cable.



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### THE MT-RJ SOLUTION

Georgetown's network managers believed that to truly make the University's network state-of-the-art, they would have to run fiber to every desktop, dorm-room, office, and classroom. Given the University's funding constraints, network administrators were eager to come up with a highly cost-effective solution. Corning Cable Systems' MT-RJ Connector is that solution.

The decision to install Corning Cable Systems MT-RJ Connector Solution was not one that Georgetown took lightly. After network managers



Corning Cable Systems MT-RJ 2-Fiber Connector

researched standards activities, visited beta installation sites, investigated support, adoption and migration paths looking for compatible electronics, and interviewed many manufacturers of these SFF connectors.

They saw the attention that the various small form factor (SFF) fiber optic connectors were receiving in the marketplace and heard that fiber-to-the-desktop could be affordable, they investigated. They researched standards

Network managers at Georgetown discovered that the MT-RJ connector offered the highest port densities of all the new SFF connectors. The increased port densities lower the cost of electronics as well as the entire passive system cost. The ability to field terminate two fibers in less than two minutes with the Corning Cable Systems MT-RJ UniCam® Connector reduces installation time and installation costs. In addition, MT-RJ technology offers the strongest foundation because it was developed by a team comprised of industry technology leaders. So there are multiple sources for MT-RJ connectivity and transceiver products. And the MT-RJ connector has received the most support from the electronics manufacturers – virtually all of the major LAN electronics manufacturers have developed products that incorporate the MT-RJ connector, not to mention the fact that the MT-RJ connector provides proven single-mode and multimode performance.

### CONCLUSION

Georgetown students, faculty, and staff will have access to a high-tech network infrastructure capable of delivering Gigabit speed to the desktop. Corning Cable Systems' MT-RJ UniCam Connector is making Georgetown University's network vision a reality . . . today.



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