



Advanced Systems.  
Proven Solutions.

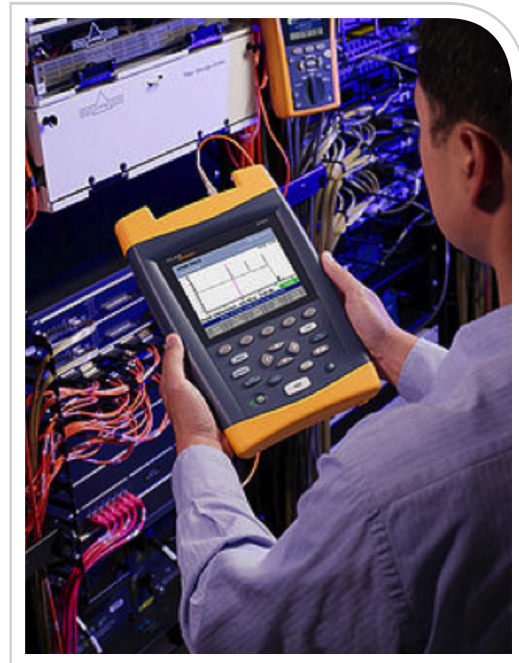
## Fibers Optics Design, Installation, Termination and Testing

Many modern water and wastewater treatment plants rely on a fiber optic network to function as the communication backbone for the treatment facility. These networks simultaneously carry many different types of critical data communications including SCADA, Video Surveillance, Access Control Systems, VOIP Telephone, Internet, and Municipal Intranet. Due to the criticality of these systems, it is imperative to insure that they are properly designed, installed and maintained.

### Service at the Speed of Light

Whether you require the integration of a few components or need a complete network designed from scratch, MR Systems can provide you with a cost-effective solution, which incorporates your immediate need and long-term objectives. There's no need to toss everything out. There's no need to develop yet another stand-alone system. We focus on how to best leverage what you already have and only suggest the new solutions necessary to efficiently meet your goals. MR Systems provides the following Fiber Optic and Network services:

- Network Design – Copper, Fiber Optic, Wireless
- Cable Installation
- Cabling Certification – Copper and Fiber Optic
- Network Operating Systems Installation
- Integration of New Hardware and Software
- Server Backup and Emergency Recovery Strategies
- Network Migration
- Router/Switch and Hub Installations
- Firewall Installation and Configuration
- Network Maintenance and Support
- Network Security



We also offer annual and monthly Service Plans and Remote Monitoring and Administration of your servers and workstations.



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## Key Stages of Achieving a Successful Fiber Optic System

- Selection of communications transceivers or switches that fits the data format you plan to transmit with consideration for future expansion.
- Select fiber optic products that are specified to work over the range of your application.
- Select fiber optic cable types that are appropriate for the application.
- Plan ahead for any splicing requirements or service loops.
- Choose connectors of a style and termination type appropriately for the application.
- Perform a cable plant link loss budget analysis to determine if the design will work properly.
- Deliver and site test the cable with OTDR before installation to verify integrity
- Install the cable.
- Test the cable for end-to-end optical loss and/or OTDR.
- Install the communications products and test their operation.
- Document the fiber optic network.



### Registered, Certified and Qualified. Fiber Integration Experience You Can Trust.

MR Systems is certified as one of Corning's Network of Preferred Installers. If your fiber optic network is supplied, terminated and tested by MR Systems, and uses all Corning certified components, your treatment plant will receive a Corning Cable Systems LANscape® 25 Year Solutions Warranty. This will ensure reliable lightning fast communication for decades to come.

