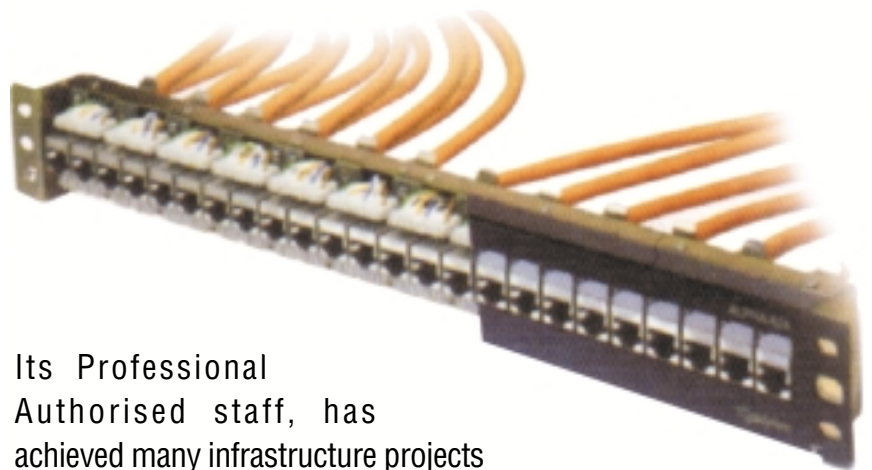




Structured Wiring

Competitive environments, force system integrators to respond pacing customer needs very quickly. These companies must support the expected structures that would produce the most effective solutions. However, networks that are build upon multifunctional structures, can hardly meet these expectations.

A well designed and installed structured wiring should answer the mid and long term capacity increases. Since it's established MCG / Datel has always been the applicant of recent technologies.



Its Professional Authorised staff, has achieved many infrastructure projects either in Turkey or in all around the world, always implementing the international standards. MCG / Datel offers many advantages like providing 15 years, 25 years and Life Time warranties by working with the industry leaders.

Well designed and implemented Structured Wiring System;

- Networks, that require high bandwidth (10/100/1000 Mbps) for multimedia applications, VoIP, IP Telephony, data, voice and image transfer applications requirement can be met.
- Besides data networks, Telephone, CCTV (Closed Circuit Television Systems) and security systems can be provided over the same wiring structure.
- Provide a flexible structure for future re-construction and extension of the networks .
- Offices will look modern and decorative which will increase the performance
- Return on investment time can be reduced because of shared software and hardware.
- Efficiency of the personel would increase and companies would be more profitable because of the synergy that comes from simple system management



- Network design
- Fiber to Desk Applications
- Indoor Vertical and Horizontal Data Cabling
- Telephone Cabling
- Campus Applications and Fiber Optic Solutions
- Testing and Certification
- Network Optimization and Cabinet Ordering
- Network Maintenance Services
- Rack Cabinet and IT Rooms
- Supply and Sales of Network Equipment

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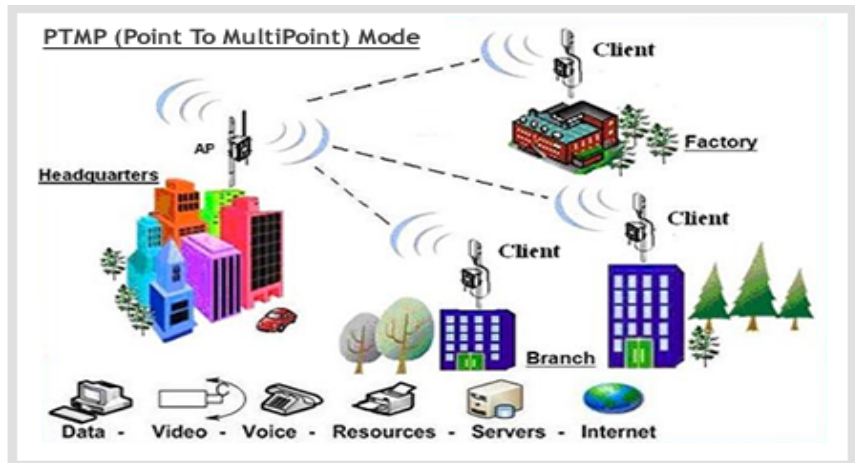
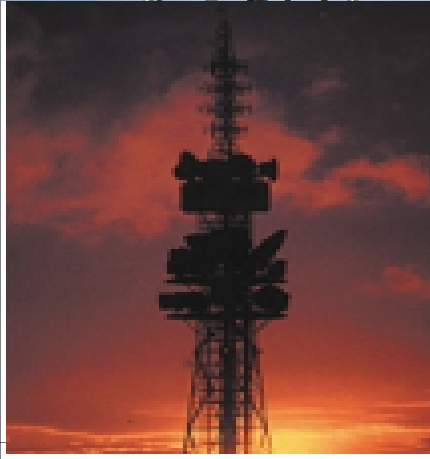
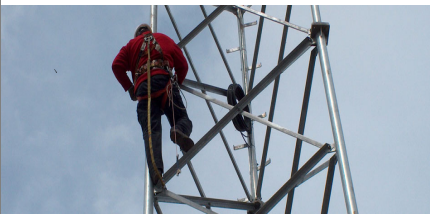
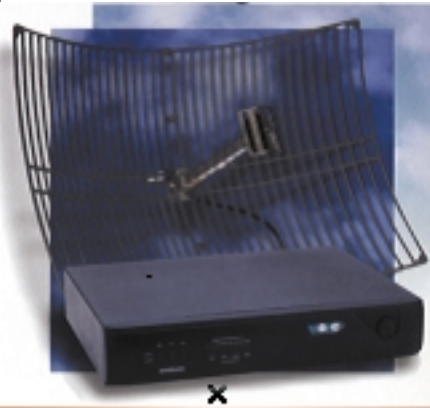
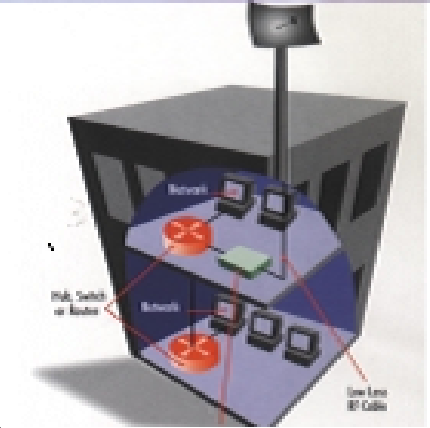
since 1992



Wireless Networking

In Today Networks, developing technologies caused radical changes in LAN design; and mobility became crucial in all aspects of networking. Mobile business life forces people to log into their central networks from any location they want. However, physical media (cable) has been used to reach the required performance, Wireless Networks become more active than before.

Now, state of the art "Wireless Communication" possibilities are transforming our lives and we become more mobilized. We're already involved in the wireless communication in different aspects like cellular phones and wireless phone sets in our homes. But, never forget that all these equipment operate in a wireless network. Since 1994, MCG / Datel accomplished to install countless wireless network projects in Turkey and led the industry by installing networks in either 2.4 GHz ISM Band Radio Frequency, LMDS, and Laser Wireless-Virtual Fiber or Infrared Wireless technologies.



MCG / Datel also establishes infrastructures for GSM networks and has introduced wireless communication possibilities to data networks. In millenium, by defining its vision as "#1 Wireless Network Solution", Datel claimed a mission to keep up with the developing technologies as the #1 follower.

Unlimited Communication... With the Advantages of MCG / DATEL

MCG / Datel offers you the most appropriate technology with the best price/performance ratio for either point to point or point to multipoint wireless networks. Within a range of applications from indoor wireless solutions in limited number of end-users up to campus installations with more than hundreds of ends; Datel serves Turkish leading companies with 2 Mbps, 10 Mbps, 100 Mbps, 155 Mbps and also E1/T1 solutions in wireless

Wireless Systems Offered by MCG / DATEL

- **Radio Frequency (RF) Systems:** Wireless systems based on IEEE 802.11 protocol which offers a bandwidth of 3.2 Mbps – 11 Mbps, became a very promising alternative for traditional wired systems. Datel provides wireless solutions which operate in license free 2.4 GHz – 5.0 GHz frequency range and E1/T1 bandwidth and upper frequencies application which needs a licence.

- Indoor 802.11 a/b/g and Bluetooth Solutions and Indoor Office Applications
- Outdoor Point to Point and Point to Multipoint Applications
- Outdoor Backbone Applications (Campus)
- Alternative Backbone Applications (E1,E3)

- **Wireless Laser Systems:** Laser systems, also known as Virtual Fiber, establish the communication by the laser rays. These systems operate in 1 Mbps – 155 Mbps bandwidth and can be used in E1, E2, E3, STM-1, STM-4 applications for up to 5 km range (licence free)



- **Wireless Infrared Systems:** Infrared Systems which work more effectively in negative weather conditions, operate like laser systems but with a lower range. These systems offer 2 Mbps, 10 Mbps, 100 Mbps, and E1/T1 solutions differentiating in Indoor and Outdoor structures and provide a very reliable and secure communication



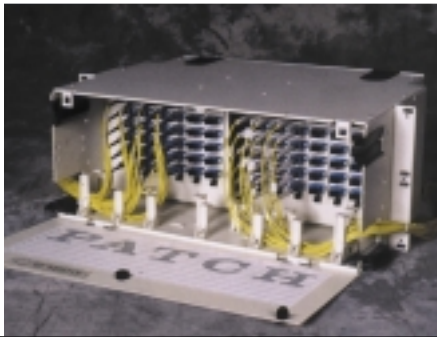
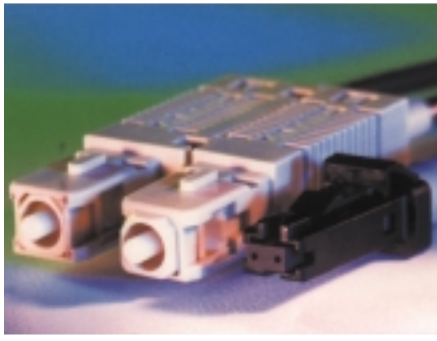
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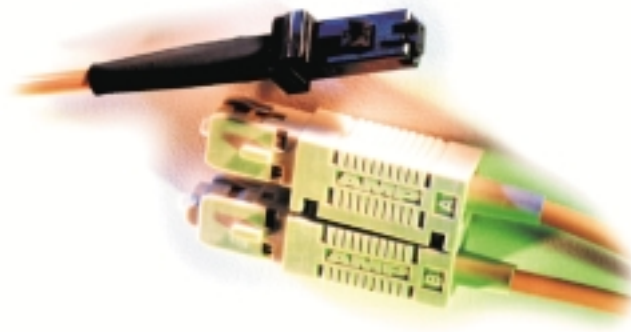
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Fiber Optic Solutions

Fiber Optic cables provide maximum bandwidth and security for data communication. Whether in constitution of Local Area Network Backbones, or Wide Area Network Connections, Fiber Optic is always in use.

MCG / Datel, offers a wide variety of active and passive fiber products including Cables, Media Converters, Multiplexers and Fiber Modems with the most experienced Fiber Optic installation group.



For Indoor applications Multimode, for Outdoor and Campus applications Armoured Single Mode and Multimode fiber cable is preferred. Necessary permissions to link WANs are obtained and existing systems are updated with cooperative work of Turkish Telecom.

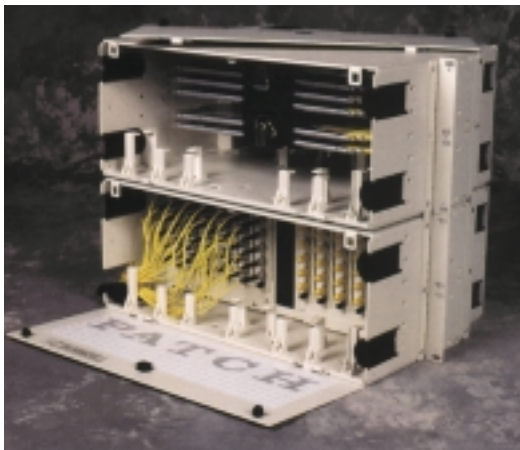
For Local Area Networks, Datel offers all fiber solutions and optimizes Networks. The new Technologies have been used as E-2000, MT-RJ, and VF-45 Fiber applications and these products supply the uninterrupted communication in a special design.

In Fiber Optic communication lines, according to customer needs, Fiber Optic Cable, Connectors, Cabinets, Patch Panels, SDH and DXX, Media Converters and Multiplexers are utilized all of which come from well-known brands.

Datel is the first Volition Partner of 3M and is the first to apply "Fiber to Desk" in its Local Area Network solutions in Turkey. MCG / Datel offers all products of 3M Volition Fiber Systems and has service of maintenance for all of its Fiber Local Area Networks.

Always forming its team with the most experienced, Datel supports Fiber Optic Termination, Testing and Documentation for all types of Multimode and Single mode applications for any brands.

Datel trusts in taking the extra steps, not only meet, but to exceed our customers requirements. That's how come Datel has the certification of ISO 9000 and TSE. (Turkish Standard Institute)



- Fiber Optic Backbone Applications
- Indoor Fiber Applications
- Fiber to Desk Applications
- CCTV via Fiber Optic Applications
- Outdoor Fiber Optic Applications
- Campus Backbone Applications
- SDH and DXX Applications
- Termination, Testing and Installation
- Fiber Optic Projects design
- Singlemode and Multimode Solutions
- Fiber Optic Patch Cord, Pig Tail, Splice, Enclosure and Media Converters

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Special Solutions



Science and technology plays an important role in today high-tech companies mission and their solutions. Technologies provide a gorgeous improvement in our life conditions.



MCG / Datel brings the customers a new point of view, and broadens their horizons by offering them one-to-one solutions and chasing the developing technologies. Datel has become the model in its field because of its best practices in each segment of data communications.



Superior technologies are implemented in lowest cost solutions, causing the most efficient use of the resources. Thus, various products and solutions are united in a common platform which leads to the most convenient special solutions for universities, hospitals, hotels, public associations and municipalities.

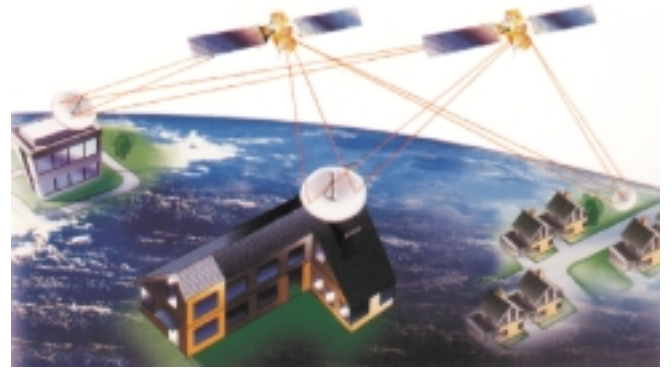


Beside copper and fiber cables, MCG / Datel implements Radio Wireless, Laser Wireless, VoIP (Voice over IP), VoFR (Voice over Frame Relay), ISDN and xDSL Technologies in surveillance projects for highways and cities, wireless video and CCTV (Closed Circuit Television) systems and Video Conference systems.

MCG / Datel was awarded the prize of “ Best Data Infrastructure of Turkey-1999 ” and “Best Telecommunication Project of Turkey-1999 ”. In addition, Datel achieved to install the first “Fiber to Desk” network in Turkey and transferred image over wireless networks for the first time.

MCG / Datel offers its clients turn-key project solutions and has services for Cabling, Electricity Projects, Data and Telecommunication Infrastructures, and IT Room solutions.

MCG / Datel believes that System Security is as vital as maintenance of the systems and offers Virus Protection and Security by contracting with industry leading companies.



Our Solutions and Services:

- LAN / WAN Applications
- Wireless Networks
- GSM Network Infrastructures
- Telecommunication Infrastructures
- SDH, xDSL Applications
- Frame Relay, VoIP, and VPN Applications
- Fiber Optic Solutions and App.
- CCTV, Video Conferance
- Video Surveillance Projects
- IT Room Solutions
- Rack Cabinets
- Periodical Maintenance Services
- Network Performance Testing and Optimization



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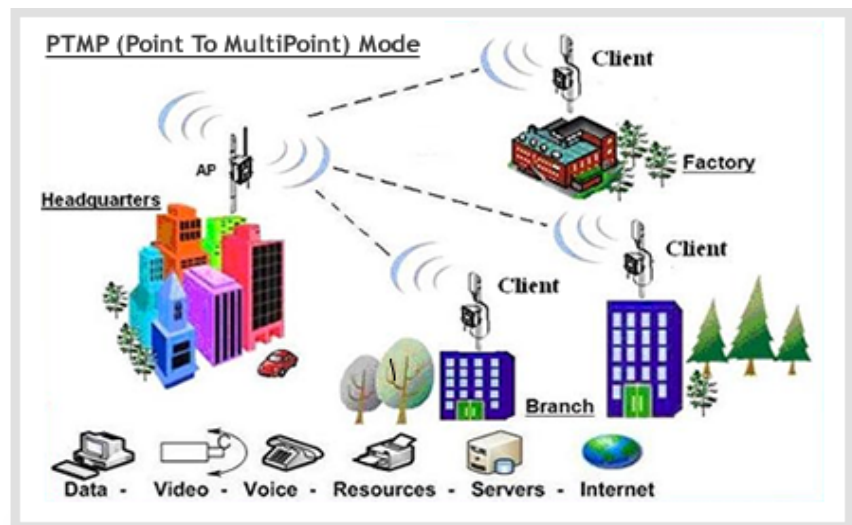
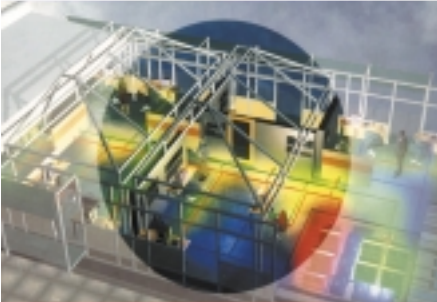


LAN & WAN

It has become a necessity for organizations to be equipped with the convenient network structures, in order to respond quickly to its needs and to share the data. MCG / Datel provides turn-key solutions depending on the needs of the organizations, by high performance LAN (Local Area Network) and long-range WAN (Wide Area Network) applications, which reflect the long-term experience and know-how of MCG / Datel.



After determining what the organization needs, the network is designed by giving priority to packet traffic through the network. Its providing the best service quality to run multimedia applications with high performance. Price / performance ratio is always taken into consideration while the network is structured with future technologies consisting of Routers, Switches, and Servers with the features of Gigabit, IP Telephony, and Voice over IP, etc.



By forming Virtual Private Networks (VPN) and doing load balancing on LAN, it becomes available to isolate different work groups and to increase the efficiency and speed of the network. MCG / Datel offers all interfaces required to integrate Local Area Networks with Wide Area Networks, and optimizes networks to prevent unnecessary investments.

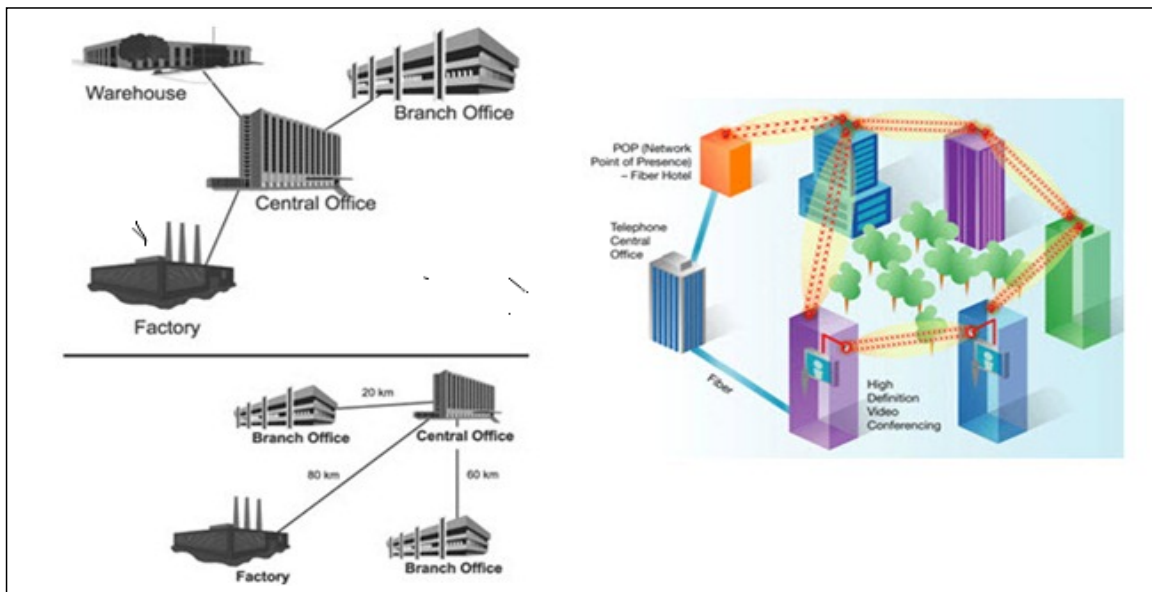


Switching and Routing technics provide maximum bandwidth, and WAN optimization based on the requirements. All digital and analog voice, fax, video, and data is transfered over a integrated WAN from different LANs of different locations.



MCG / Datel Provides;

- Analysis and Procurement of Existing Networks
- Implementation of corporate Intranet infrastructure
- Determination of short, mid and long term needs of the organization and solutions.
- Installation and maintenance of LAN and WAN projects.
- Turn-key Network solutions, including licence applications, and switching circuit installation
- Active and passive network equipment, maintenance and warranty services
- X25, Frame Relay, Leased Line, VPN, ATM, TDM, ISP projects and solutions; wireless network, router modems and HDSL installations



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