

## **Corporate Presentation** 2022



## Agenda

#### • About Us

- Solutions
- Services
- Products
- References



## **About Fotech**



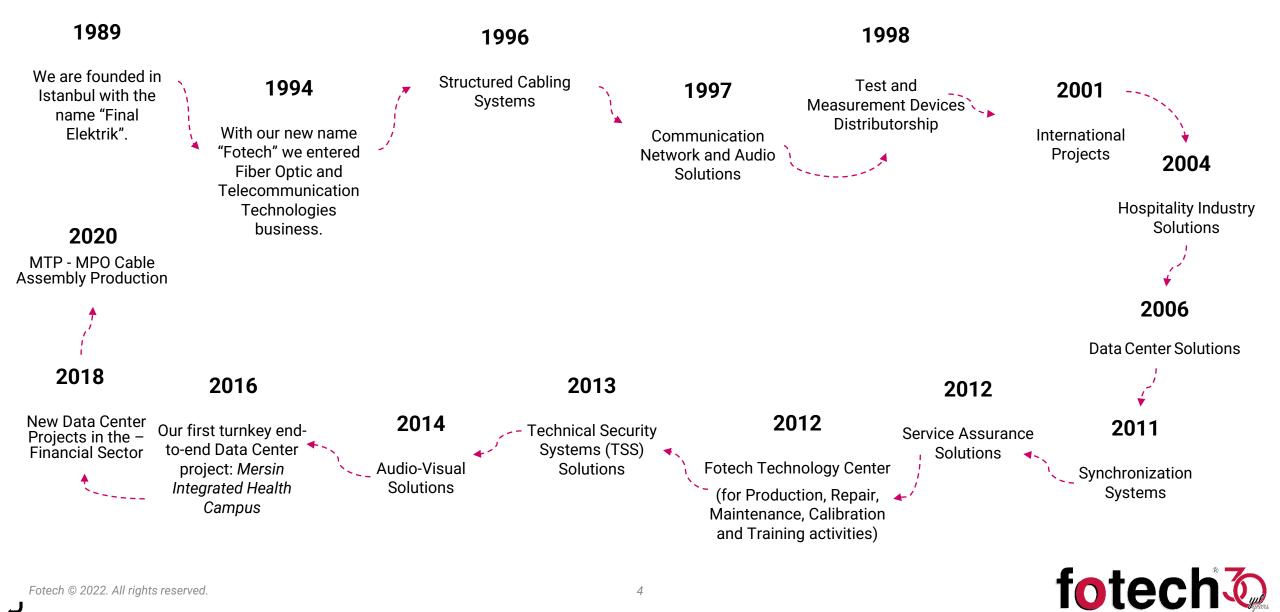
Fotech offers end-to-end solutions in information and communication technologies, telecommunication, and ULV systems.

Its employees possess product/system **competency certificates** of its global vendors and internationally-accepted corporations such as BICSI, PMI, and Uptime Institute.

Its processes are certified by ISO 9001 quality standards, and Health & Safety audits are done periodically.



# **Our History**



# **Core Industries We Offer Services**



**TELECOM** 



CONSTRUCTION



FINANCE



TRANSPORTATION



HOSPITALITY



**EDUCATION** 



HEALTH



DEFENCE



# **Our Competencies**

#### SOME OF COMPANY CERTIFICATES

EXFO   Platinum Certified Service Center	EXFO Platinum Level Certified Service Center (We are 1 of the 20 centers around the world!)
EXFO Be-an-Expert Training Program	EXFO Certified Training Partner
	SUMITOMO Distributor & Service Cereter
<b>Міскоснір</b>	MICROSEMI Business Partner
FLUKE . networks	FLUKE NETWORKS Distributor
COMMSCOPE	COMMSCOPE Platin Partner
Ruckus	RUCKUS Business Partner
CORNING	CORNING NPI (Network of Preferred Installers)
cisco.	CISCO Premier Certified Partner
HUAWEI	HUAWEI Registered Partner
Dell	DELL Registered Partner
a Hewlett Packard Enterprise company	HPE Business Partner
<b>ekahau</b> WIRELESS DESIGN	EKAHAU Turkey Reseller
	IDEAL NETWORKS Business Partner

#### SOME OF EMPLOYEE CERTIFICATES

Project Management Institute	Project Management Professional (PMP, by Project Management Institute)
	Accredited Tier Designer for Data Centres (ATD)
biamp.	TesiraFORTÉ Cetification Training, Audia Training for Technicians For Sound Masking Integrators
<b>infoComm</b>	CTS (Certified Technology Specialist) CTS-I (Certified Technology Specialist – Installer)
CDCD	Certified Data Centre Designer (CDCD)
COMMSCOPE	SYSTIMAX Design and Engineering SYSTIMAX Data Center Design and Engineering SYSTIMAX Installation and Maintenance COMMSCOPE Enterprise Fiber Solutions, NETCONNECT ACT I, ACT II
cisco.	Certificate of Implementing CISCO IP Routing (ROUTE) Certificate of Implementing CISCO Data Centre Unified Fabric (DCUFI) CISCO Certified Network Associate Routing and Switching (CCNA)
a Hewlett Packard Enterprise company	Aruba Products and Solution – Selling the HPE Portfolio Enterprise Networking - Network Infrastructure Master Accredited Systems Engineer - Network Infrastructure
Ruckus	RUCKUS Sales – Pre Sales – Wireless – ICX Wired Portfolio Certificate
CRESTRON.	Digital Media Certified Engineer, Designer 4K Systems Technician, Foundations of Crestron ProgrammingSmart Graphics
🕄 Extron.	AV Associate Certificate, Control Specialist Certificate
SOUTHWEST MICROWAVE	Microwave Certificate, INTREPID Certificate
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## **Fotech Offers**



**NETWORK SYSTEMS AND INTEGRATION** 



DATA CENTER



ULV SYSTEMS



SYNCHRONIZATION



SERVICE ASSURANCE



#### TEST AND MEASUREMENT

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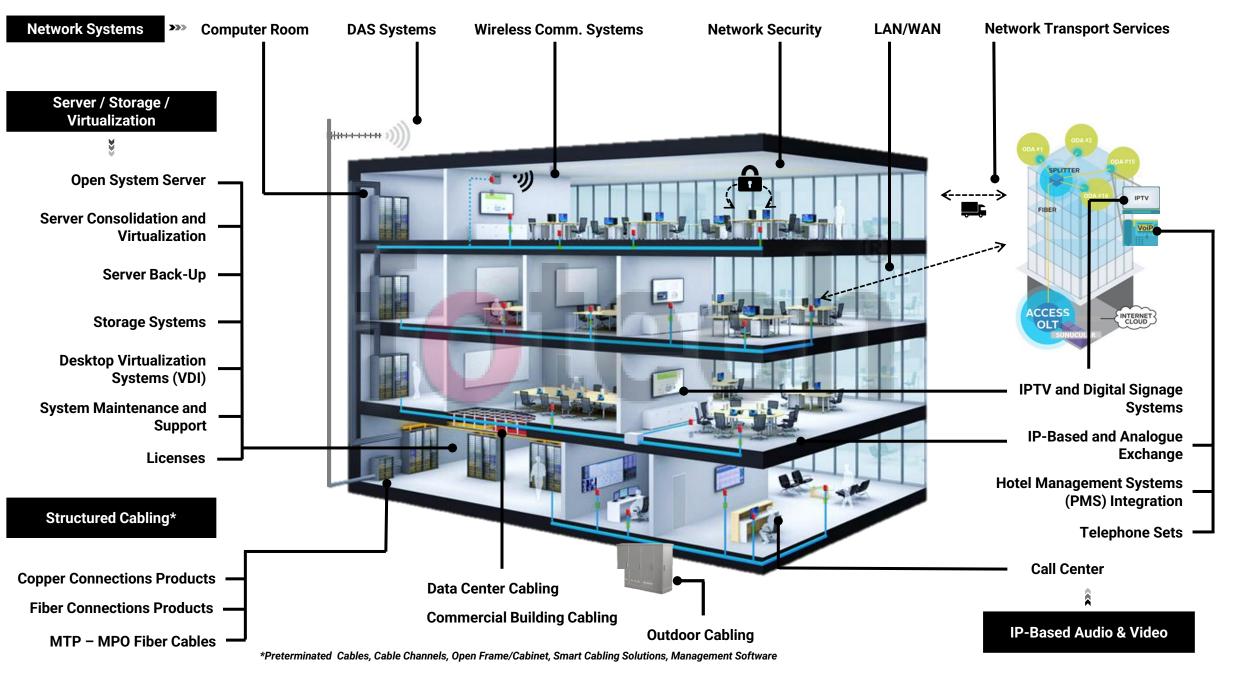
# **Network Systems and Integration**

- **Structured Cabling Systems**
- **Network Systems**
- Server / Storage / Virtualization
- IP-Based Audio and Video Solutions
- **PC & Notebook Printer Products**





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#### **Data Center**

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**Efficiency Solutions** 

- **Power Systems**
- **Network Systems**

**Climatization Systems** 

**Security Systems** 

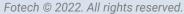
Infrastructure Systems

**Uptime TIER Certification** 



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**Related Products** 







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#### **ULV Systems**

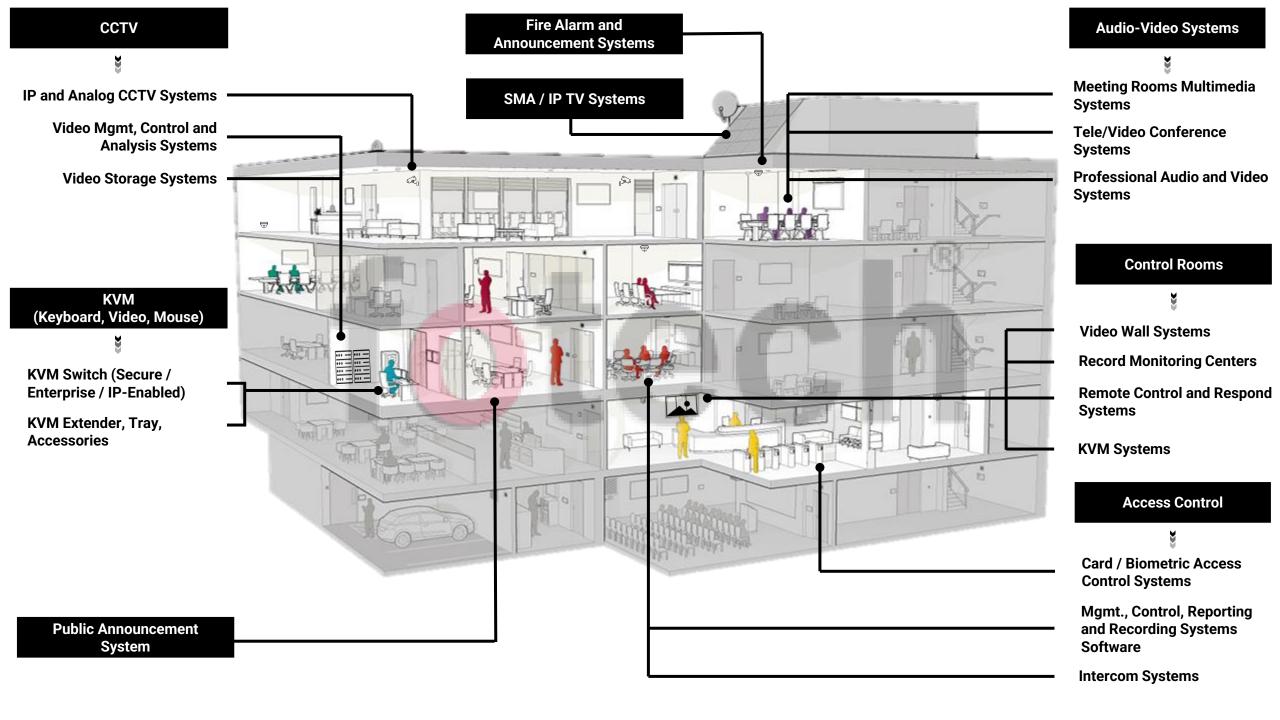
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- **Fire Detection & Announcement**
- Public Announcement System
- **CCTV Systems**
- Access Control Systems
- Audio-Video Systems
- KVM (Keyboard, Video, Mouse)
- **Control Rooms (Video Wall)**
- SMATV Systems



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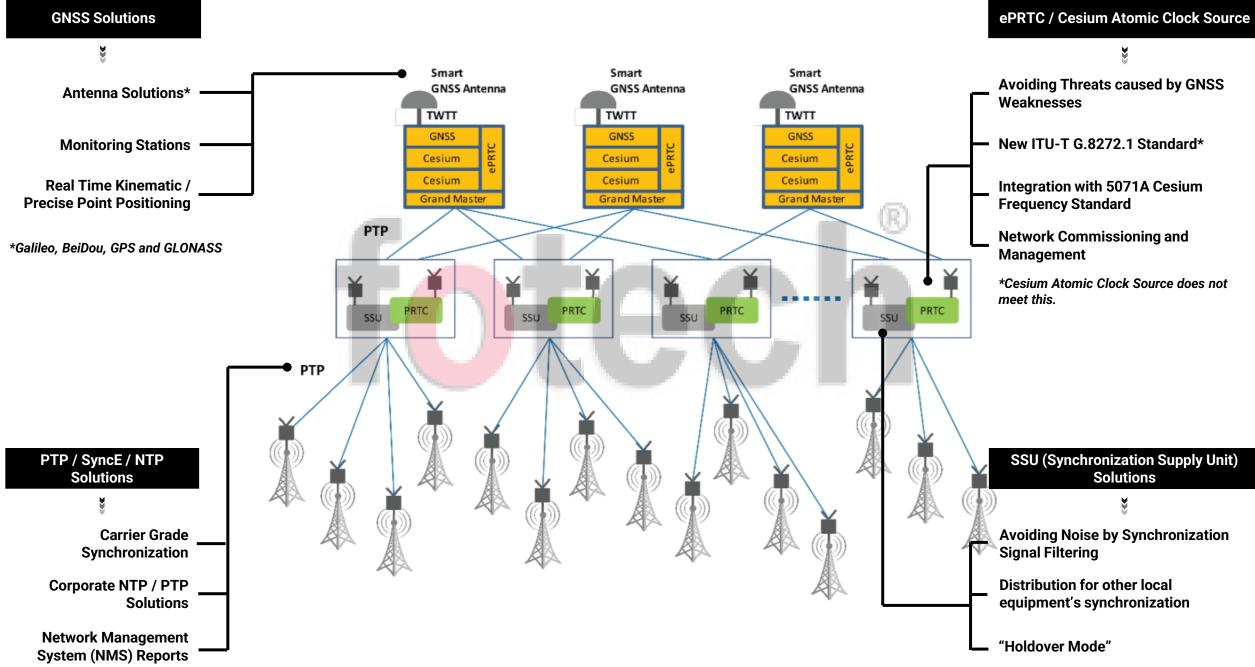
# Synchronization

- Primary Reference Sources
- **GNSS Solutions**
- PTP / SyncE / NTP Solutions
- SSU / SDU Solutions



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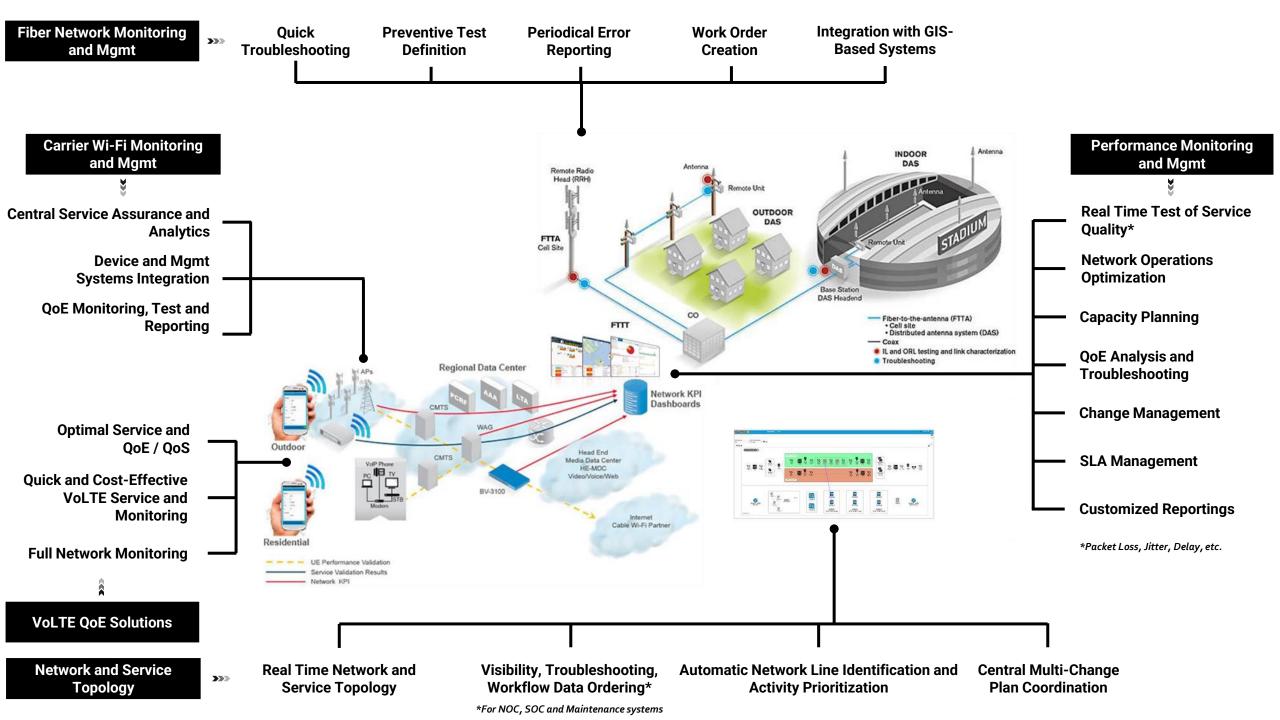




# **Service Assurance**

- Fiber Network Monitoring and Mgmt
- Carrier Wi-Fi Monitoring and Mgmt
- VoLTE QoE Solutions
- Performance Monitoring and Mgmt
- Network and Service Topology





# **Test and Measurement**

- Fiber Optic and Copper Cable Test / Certification Devices
- Wireless & Network Test Devices
- **RF Test Devices**
- Transport and Datacom Test Devices
- Virtual Network Test Solutions
- **Fusion Splicers**

**Device Renting and Measurement Services** 



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# **Test and Measurement Specific Services**

**Repair / Maintenance** 

**Real Calibration** 

Training (BICSI Credits)

- All types of functional tests and latest software updates on industry's test and measurement devices by our trained and certified trainers
- All kinds of **improvement and service updates** on the devices distributed by Fotech, and specifically for Exfo, Sumitomo and Ideal Networks devices, the following services: Maintenance, Fault Diagnosis, Repair, Part Replacement, SW Update, Test Patch Cord Change
- In our Technology Center, we do Real Calibration -reseting to factory settings- and **Verification** operations, using the same equipment and procedures with vendors, by our specialists trained and certified by them, on the following devices: OTDR, OPM, PPM, FVA, Datacom, Transport, DSL, Copper.

\*The essential modules of the equipment are being calibrated by the vendors once a year at their sites, and the monitoring of our calibration activities is done by them.

Exfo-trained and certified trainers: Fiber Optic Bv our Fundamentals, OTDR, OSA, CD / PMD, CPRI, Copper Certification, SONET / SDH, OTN and G.709, Ethernet and Fiber Channel, VoIP, IMS, 2G, 3G and LTE, Data Center **Technologies and Tests** 

Fotech is 1 of the 20 "Exfo Certified Service Centers" around the world! With the "Platinum" –highest- level! Our technical team is being trained by Exfo periodically and provides the highest level standards of Exfo.



We are the distributor and authorized service / calibration center in Turkey for:

- Exfo test and measurement devices,
- Sumitomo Electric fusion splicers and accessories,
- Ideal Networks F/O and Copper Certifiers,
- Microsemi synchronization devices



Fotech is 1 of the only 3 "Exfo Certified Training Partners" around the world!

We provide free BICSI "CEC" credits along with our training certificates!



Bicsi

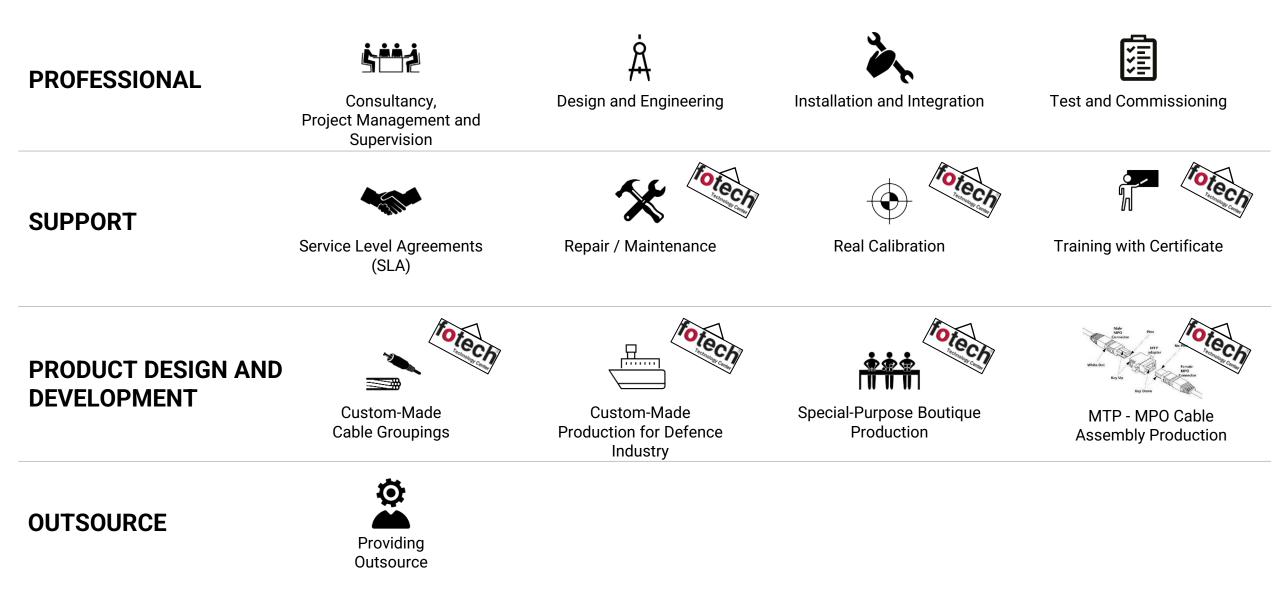
All these services are provided in 630 sqm technology center of ours, called **totec** 

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- References



#### **Services**



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REAL,

# CERTIFIED FIBER OPTIC DEVICE CALIBRATION





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# **Fotech Technology Center**











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# CERTIFIED, **TRAININGS!** WITH **Bicsi** CREDITS in fotech<sup>®</sup> **Technology Center**

Fiber Optic Fundamentals, OTDR, OSA, CD / PMD, CPRI, Copper Certification, SONET / SDH, OTN and G.709, Ethernet and Fiber Channel, VoIP, IMS, 2G, 3G and LTE, Data Center Technologies and Tests

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#### **Our Partners**

Fotech's main objective with having these partners is to support the solutions it offers to its customers with value-added, customizable products, and help their customers to have simpler processes by being the only contact after sales.



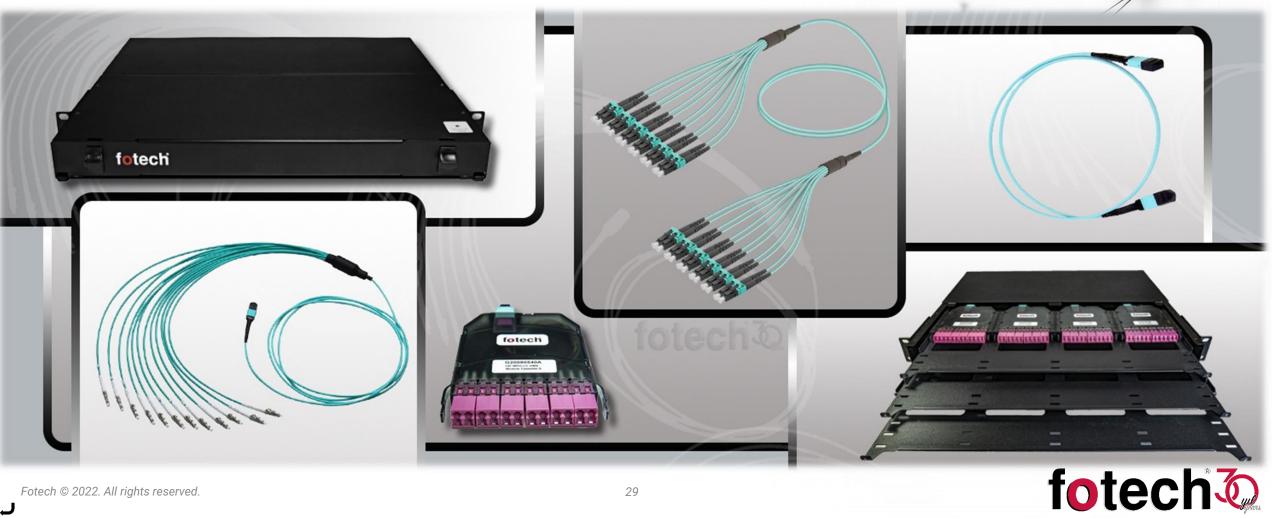
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\*You may be directed to the website of the partner by clicking the logo.

\*\*To access the catalogues of all the partners please click here

# **Fotech Structured Cabling**

Fotech - produced MTP/MPO fanout cables and cassettes ensure that spine cabling can be installed both quickly and in a small space in Data Center and Telecommunication structures, keeping costs to a minimum.



FOTECH CABLE SYSTEMS

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#### **Network Systems and Integration, Data Center and ULV Products**



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# **Synchronization Products**

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- Primary Reference Sources
- GNSS Antennas
- PTP / SyncE / NTP Products
- SSU Products





TERON

Industrial and Utilities

products

industries specific NTP



Tallysman

**RF and Global Navigation** 

Satellite Systems (GNSS)

components



Synchronization Test
 Equipment





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## **Service Assurance Products**

#### **EXFO**

- Fiber Network Monitoring and Management
- Carrier Wi-Fi Monitoring and Management
- VoLTE QoE Solutions
- Performance Monitoring and Management
- Network and Service Topology





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# **Test and Measurement Products (1/3)**

#### EXFO \*

- Power Meter
- OTDR
- OLTS
- CD/PMD Testers
- 0SA
- Fiber Verifiers and Certifiers
- Fiber Inspection Probes
- Ethernet Testers
- DSn/PDH and Legacy SONET/SDH Testers
- Fiber Channel Testers
- Virtual Network Testers
- IPTV Testers
- VoLTE Devices
- Optical RF Devices





- Fusion Splicers and accessories
- Passive Optical Products (e.g. Optic Splitters)







- Versiv<sup>™</sup> Cable Certification Test Family
- TS® 54 TDR Test Set
- LinkWare<sup>™</sup> Live
- CertiFiber Pro Encircled Flux Test
- FI-7000 FiberInspector<sup>™</sup> Pro
- OptiFiber<sup>™</sup> Pro with SmartLoop<sup>™</sup>



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\* Fotech is 1 of the only 20 "EXFO Certified Service Centers" around the world and has the Platinum (highest) level, and Fotech is 1 of the only 3 "EXFO Certified Training Partners" around the world. By this means, we can offer repair, maintenance and real calibration services by our trainers trained by Exfo.
 \*\* Fotech can offer repair/maintenance/calibration services for Sumitomo Electric, Ideal Networks and Microsemi products.



# Test and Measurement Products (2/3)



- LTE/5G Testers
- Simulator Analyzers
- eNB Load Testers



- Electro Rent E U R O P E An Electro Rent Global Company
- Renting of various Test and Measurement Devices





- "Polarization Dependent Loss Meter", "Tunable Laser Source" for testing CWDM and PON components
- Modular platforms supporting Cable
   Assembly Test System
- Optic Attenuators, Benchtop and Rack-Mount Switches
- Inspection Devices





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# Test and Measurement Products (3/3)



• Products measuring and managing light parameters containing phase, polarization, PDL and PMD effects





- Broadband/ Cable TV Solutions
- Fibre Optic Solutions
- Wireless Solutions
- ✓ 5G Portable Spectrum Analyzer
- ✓ RF Analyzer( Cable & Spectrum Analyzer )
- ✓ Signal Profiler



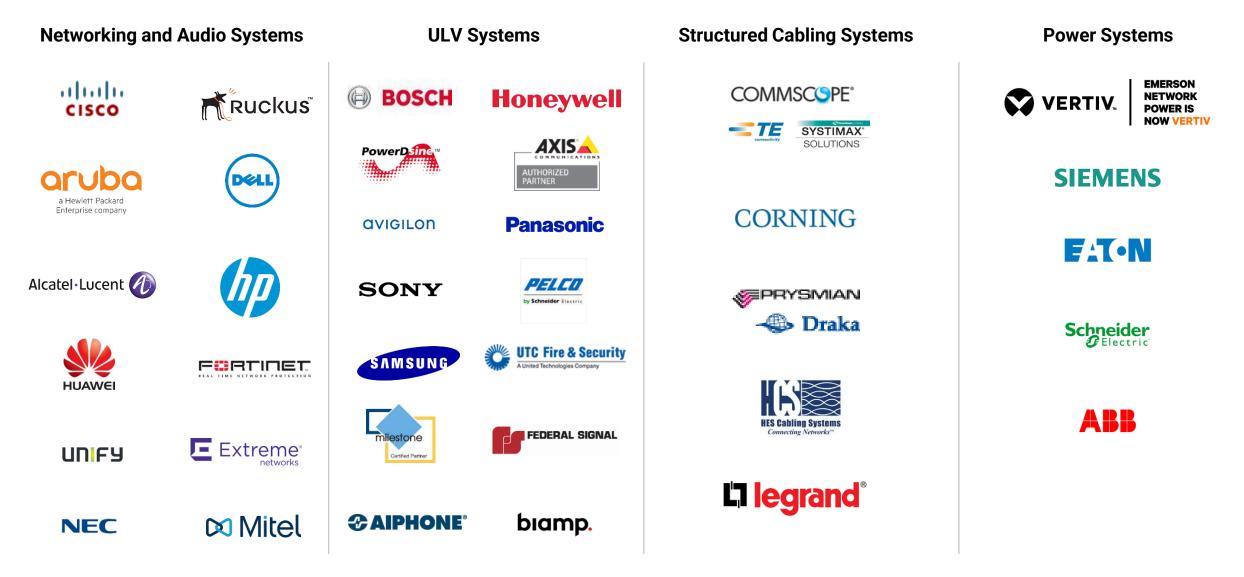






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# **Other Brand We Cooperate With**



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#### References

Data Center Solutions Network Systems and Integration – ULV Solutions Synchronization Solutions Service Assurance Solutions Test and Measurement Solutions Production Solutions

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**Data Center Solutions** 



Main Customer: NGN Bilgi Teknolojileri Veri Merkezi Hizmetleri ve Danışmanlık A.Ş

Project Description:
DEUTSCHE BANK DATA CENTER Project
Customer: Deutsche Bank
Project Date: 2022-Ongoing
Project Scope: <u>50m<sup>2</sup></u> Data Center White Space Infrastructure
Cabinets
PDU s

- Fiber Runner
- Cable trays
- CCTV
- Access Control





**Data Center Solutions** 



Main Customer: VISA Turkey

Project Description: VISA Veri Merkezi Customer: VISA Turkey Project Date: 2020-Ongoing Project Scope: <u>100m<sup>2</sup></u> Data Center White Space Infrastructure Cabling

- Data Cabling
- Labelling





**Data Center Solutions** 

# AKBANK

#### Main Customer: Akbank

**Project Description:** 

Akbank New Data Center

Customer: Akbank

Project Date: 2017.-2020

Project Scope: <u>2350m<sup>2</sup></u> Data Center White Space Infrastructure

cabling

- Structured Cabling System
- Cabinets , cabinet locking system , cold aisle containtment ,PDUs
- KVM Switch
- Video Wall



**Data Center Solutions** 



Main Customer: Denizbank

Project Description: Denizbank Data Center Customer: Denizbank Project Date: 2019-2020 Project Scope: <u>780m<sup>2</sup></u> Data Center White Space Renovation

Structured Cabling System



**Finance** 

## **References** Data Center Solutions



## Main Customer: Türk Telekom





**Project Description:** Bilkent Integrated Health Campus (BESK), Ankara, Turkey

Customer: innov/

Project Date: October 2017 - 2018

Project Scope: Turnkey data center project of 800m<sup>2</sup>

- Raised floor, suspended ceiling, fire-resistant door and paint, wall and other construction works
- Power-related works, electrical switch boards, UPS and lighting
- Data cabling, tagging
- Cabinets, lockings, cold aisle application and PDUs
- KVM Switch
- Biometric access control, CCTV systems, 2 videowalls
- Environmental monitoring system
- Precision fire detection and extinction system
- Climatization
- Uptime certification



## **Data Center Solutions**







#### **Project Description:**

Mersin Integrated Health Campus DC (MESK), Turkey

Customer: innol/A

Project Date: April 2016 - May 2016

Project Scope: Turnkey DC works of <u>400m<sup>2</sup></u>

- Raised floor, suspended ceiling, fire-resistant door and paint, wall and other construction works
- Power-related works, electrical switch boards, UPS and lighting
- Data cabling, tagging
- Cabinets, lockings, cold aisle application and PDUs
- Biometric access control, CCTV systems, 2 videowalls
- Environmental monitoring system
- Precision fire detection and extinction system
- Climatization
- Uptime certification



Health

**Data Center Solutions** 



Main Customer: Türk Telekom

**Project Description:** 

Türk Telekom, Esenyurt DC (IDC-6), Istanbul, Turkey **Customer: W** HUAWEI Project Date: December 2017 - Ongoing Project Scope: In an area of <u>2000m<sup>2</sup></u> of 4 rooms

Structured cabling system



Telecom

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## **Data Center Solutions**





#### **Project Description:**

Turkcell Data Center, Ankara (Söğütözü), Turkey **(2017)** Turkcell Frame Agreement, **(2006 – Present)** 

- Istanbul (Kartal-Maltepe-Davutpaşa)
- Diyarbakır
- Erzurum

#### Customer: 🄗 TURKCELL

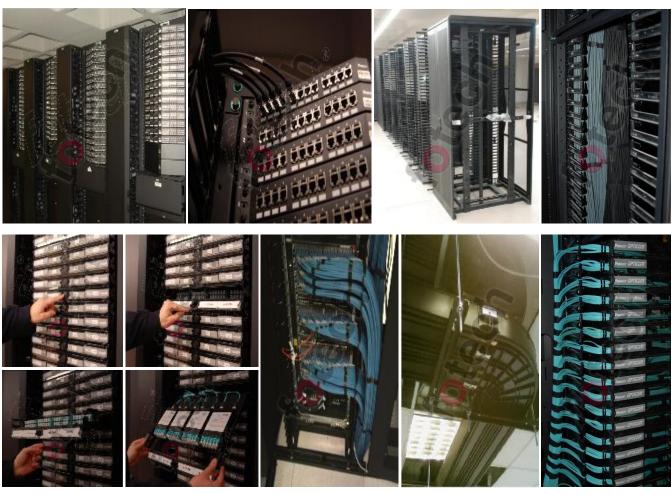
**Project Scope:** Infrastructure regarding Data Networks, SAN and Transmission Networks in all above mentioned DCs of 924/500/600/500 sqm, and IP infrastructure of Turkcell Operation Center office building

- Structured Cabling System
- Cabinets (network, SAN, server)
- Aisle and Containment
- Fiber and copper cable channels
- Earthing

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## **References** Data Center Solutions



#### Main Customer: Türk Telekom Mobil A.Ş

#### **Project Description:**

- Avea Frame Agreement, Turkey (2013 Present)
- Avea Data Center, Adana-Izmir, Turkey (2013-2014)
- Avea Data Center, Ümraniye Tech. Center, Turkey (2009) 800m<sup>2</sup>
   Customer: Türk Telekom Mobil A.Ş

**Project Scope: Infrastructure regarding** Data Networks, SAN ve Transmission Networks for all above mentioned DCs and office area within Avea Tech. Center with more than 1.000 users ( $>3.000m^2$  in total)

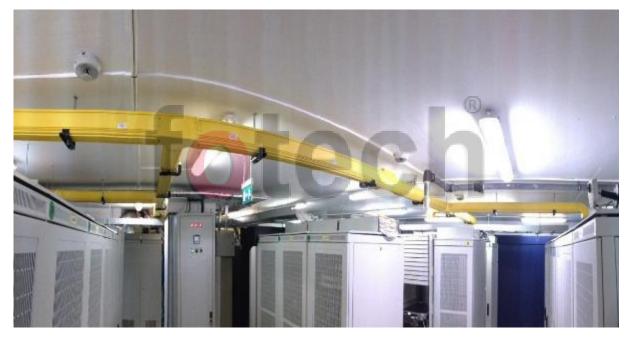
- Structured Cabling Systems
- Network/SAN/Server cabinets (>100 cabinets)
- Fiber and copper cable channels
- Fiber and copper cabling and mirroring
- Earthing infrastructure



Telecom



#### Data Center Solutions



Main Customer: 670 KocSistem

# Project Description: Koç Sistem Data Center, Istanbul, Turkey Customer: Roc Sistem Project Date: October 2013 – October 2013 (3 Weeks) Project Scope: Structured cabling infrastructure

- Structured Cabling System
- Fiber Cable Channels



Telecom

## **Data Center Solutions**







#### **Project Description:**

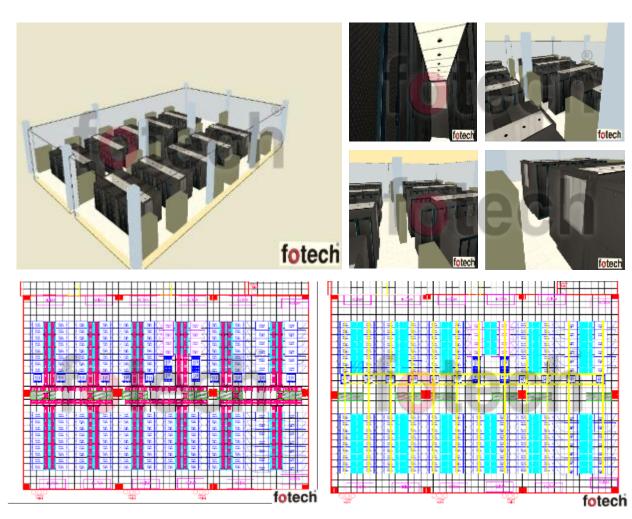
Anadolu Bilişim Hizmetleri Data Center, Istanbul, Turkey **Customer: 2011 Project Scope:** Below works in <u>1.000m<sup>2</sup></u> DC:

- Structured Cabling System
- Rack and Cabinets (open frame, network, server), qty: >20
- Fiber and copper cable channels
- Fiber and copper cabling infrastructure, >2.000 10G Copper Termination, >2.000 10G Fiber Termination
- Earthing



IT

## **Data Center Solutions**





#### **Project Description:**

Türk Telekom Ümitköy Data Center, Ankara, Turkey **Customer:** Türk Telekom **Project Date: 2010 Project Scope:** SAN infrastructure of <u>500m<sup>2</sup></u> and <u>60m<sup>2</sup></u> DCs

- Fiber and Copper Cable Channels
- Open Frame and Cabinets
- >4.000 10G Copper Termination
- >1.500 10G Fiber Termination
- Mirroring



## **Data Center Solutions**



#### Main Customer: **\***Finansbank

# Project Description: Finansbank Data Center, Istanbul, Turkey Customer: ¥FINANSBANK Project Date: 2009 Project Scope: Fiber and Copper infrastructure of <u>369m<sup>2</sup></u> data center and office building

- Smart structured cabling and patch panel system
- Rack and cabinets (network, SAN, server), qty: >50
- Fiber and copper cable channels
- >10.000 port 10G Copper Termination, >5.000 port 10G Fiber Termination
- Earthing



## Network Systems and Integration Solutions



Main Customer: Özkök Şişli Proje

Project Description: Şişli Wishmore Otel Customer: Özkök Şişli Proje İnş. San. ve Tic. A.Ş Project Date: 2021-2022 Project Scope:

• Data Passive Network (cabling and termination)



## **Network Systems and Integration Solutions**



#### Main Customer: Özyer Grup

Project Description: Sundia By Liberty Fethiye Hotel Customer: Orge Elektrik Project Date: 2020 Project Scope:

• Network (Switch and Access Point)



## **Network Systems and Integration Solutions**



Main Customer: Ege Ticari Yatırım ve Turizm İnş.

# Project Description: Sakarya Radisson Blu Hotel Customer: Sakarya Radisson Blu Hotel Project Date: 2019 Project Scope:

- Data Passive Network (cabling and termination)
- Network (switch and access point)

## Network Systems and Integration Solutions



Main Customer: Emin Grup

Project Description: Kurtköy Mövenpick Hotel Customer: N O V A T E K Project Date: 2019 – Ongoing Project Scope:

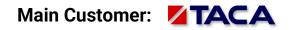
- Data Network Structural Cabling
- IP CCTV System

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## **Network Systems and Integration Solutions**





Project Description: TACA Fındıklı Hotel Project Customer: ATEKSIS Project Date: December 2017 – 2018 Project Scope:

- Data Passive Network (cabling and termination)
- Network (switch and access point)



## Network Systems and Integration Solutions



Main Customer: *M* TURION INVESTMENT GROUP

#### **Project Description:**

St. Regis Hotel and Residence, Astana, Kazakhstan **Customer:** NOVATEK **Project Date: 2016 - Present Project Scope:** In a <u>40.000m<sup>2</sup></u> area:

 Structured cabling system of Data Network, WLAN, IP Telephony, IPTV, Audio-Visual Systems



**Hospitality** 

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#### **Government**

#### **Network Systems and Integration Solutions**



#### Project Description: Ministry of Taxation Tower Customer: Anel Elektrik - Bakü Proje Tarihi: 2020 – Ongoing Project Scope:

- Data Passive Network (Copper & F/O cabling and termination)
- Data Network (Switch and Access Point)
- PBX



#### **Logistics and Transportation**

## **Network Systems and Integration Solutions**



#### **Project Description:**

International Türkmenbaşı Port Customer: GAP İnşaat Project Date: 2017-2018 Project Description:

- F/O Network Infrastructure : 20.500 core
- Copper Network Infrastructure : 9.000 point



## Network Systems and Integration – ULV Solutions



Main Customer: Absheron

#### **Project Description:**

Allium Villas Resort, Bodrum, Turkey Customer: Project Date: 2016 - 2017 Project Scope: In an area of <u>15.000 m<sup>2</sup></u>:

- Data, Network, Telephony
- CCTV
- Card Access Control
- Fire Detection and Alarm Systems
- Active Devices (Switch, Access Point, Firewall)
- IPTV
- Fiber and copper cabling (600 copper ports, 200 fiber ports)



## **Network Systems and Integration Solutions**



Main Customer: CIFTCILER HOLDING

#### **Project Description:**

Çiftçi Towers Residence/Office/Shopping Mall Project, Istanbul, TurkeyCustomer:SEGATECHProject Date:2015 - 2017Project Scope:In a building of 300.000m²

- Structured cabling system
- LAN infrastructure
- PABX infrastructure
- WiFi infrastructure
- PON infrastructure



## **Network Systems and Integration Solutions**





#### **Project Description:**

Euroasia Tunnel Project, Istanbul, Turkey Customer:

#### Project Date: August 2016 – December 2016

**Project Scope:** We have completed the fiber optic and copper cabling infrastructure's design, equipment supply, application and commissioning works of all the passive data transmission and network equipment in 5 months!

These services have been completed in the following systems:

- Main network
- HGS, OGS (Toll Collection System)
- SCADA
- ULV Systems
- Radio Frequency Systems
- Medium Voltage Cells' Communication
- Linear Fire Detection System



## **Network Systems and Integration Solutions**



Main Customer: Ethiopian Railway Corporation

**Project Description:** 

Awash-Kombolcha-Hara Gebaya Railway Project

Main Customer:



Project Date: August 2018 – Ongoing Project Scope: Fiber Optik Communication Infrastructure



## Network Systems and Integration – ULV Solutions



Main Customer: ClOUC

#### **Project Description:**

Cloud 7 Hotel, Istanbul, Turkey

Customer: ///..//

ELEKTRİK VE YAPI MERKEZİ SAN. ve TİC. LTD. ŞTİ.

Project Date: 2015 - 2016

**Project Scope:** 

- CCTV
- Fire Alarm
- Public Announcement
- Structured Cabling System
- LAN infrastructure
- PABX an its infrastructure



## **Network Systems and Integration Solutions**





#### Main Customer: POLAT POLAT

#### **Project Description:**

Renaissance Polat Hotel, Yeşilyurt, Turkey – *Renovation* (2015-2016)

Renaissance Polat Bosphorus Hotel, Balmumcu, Turkey (2011-2012 & 2019)

#### Customer: R RENAISSANCE\* ISTANBUL POLAT BOSPHORUS HOTEL

**Project Scope:** International hotel chain's IP communication infrastructure

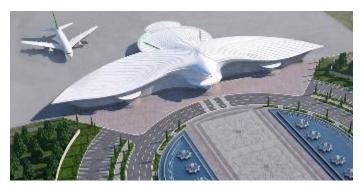
- Data, IP Telephony, Wireless, IPTV, IP-CCTV Network Systems
- Computer Room installation
- Structured Cabling Systems
- Fiber and copper cabling
- Fiber optic backbone (OM3, 10G), >3.000 ports copper infrastructure (10G)
- Wireless Renovation (2018)



**Hospitality** 

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## Network Systems and Integration Solutions





Main Customer: POLIMEKS

#### **Project Description:**

Ashkhabad International Airport, Turkmenistan

Customer: POLIMEKS

Project Date: 2013 - 2015

**Project Scope:** Complete IP network and ULV systems infrastructure in VIP terminal, temporary terminal and landside buildings of <u>100.000m<sup>2</sup></u>

- IP network, ULV- and special-systems' structured cabling systems
- Fiber Optic and Cat 6A cabling systems



#### **Network Systems and Integration Solutions**





Main Customer: 🚽 CEVAHİR HOLDİNG

#### **Project Description:**

Biz Cevahir Hotel Gayrettepe, Istanbul, Turkey (2014) Cevahir Hotel Asia, Maltepe, Istanbul, Turkey (2012 & 2018) Customer: CEVAHIR HOLDING Project Scope:

- LAN Network, Wireless infrastructure
- Active and passive equipment
- Fiber and copper cabling
- Server and system cabinets installation
- Wireless Renovation (2018)



## **Network Systems and Integration Solutions**



#### **Project Description:**

Azerbaijan Zaye Presedency Palace, Baku, Azerbaijan **Customer:** Project Date: 2013 - 2014 Project Scope: In an area of <u>15.000m<sup>2</sup></u>

- Structured Cabling Systems
- Data Network: LAN, Wireless, IP CCTV
- Server and server cabinets installation
- Fiber and copper cabling system (300 ports fiber, 1500 ports copper)



## **Network Systems and Integration Solutions**



Main Customer:

#### **Project Description:**

Adnan Menderes International Airport, Izmir, Turkey

Tepe Akfer

Customer: T A V

Project Date: 2013 - 2014

**Project Scope:** ULV Systems Fiber Optical Infrastructure of <u>130.000m<sup>2</sup></u>

- SCADA, BMS, PAS, GOS, FAS, CCTV, ACS systems
- 70 km fiber optic cabling in ULV systems
- More than 100 distribution points
- 4.000 fiber optic termination



**Transportation** 

## **Network Systems and Integration Solutions**





**Project Description:** 

Qalaalti Spa Hotel, Baku, Azerbaijan

Customer: *RÖNESANS*HOLDING

Project Date: 2013 - 2014

Project Scope: In an area of <u>38.000m<sup>2</sup></u>

- Data, IP Telephony, IP CCTV, Wireless infrastructure
- Fiber and copper cabling (400 ports fiber, 2000 ports copper)
- LAN devices installation
- PABX system
- · Server and server cabinets installation



## Network Systems and Integration Solutions







#### **Project Description:**

Kuveyt Türk Bank Şekerpınar, İstanbul, Turkey

Customer: 🍄 KuveytTürk

Project Date: 2013 - 2014

**Project Scope:** Structured Cabling System in an area of <u>80.000 m<sup>2</sup></u>

- 6.000 copper ports
- 800 fiber ports



**Finance** 



## Network Systems and Integration – ULV Solutions



Main Customer: **ExonMobil** 

#### **Project Description:**

Exxon Mobil Office and Residence, Baghdat, Iraq Customer: SEGATECH Project Date: 2013 - 2014 Project Scope: Security Access Control System

- Structured cabling infrastructure
- Security Access Control System software installation



Utilities

## Network Systems and Integration Solutions







#### **Project Description:**

Medine Prince Mohammad Bin Abdulaziz Airport, Saudi Arabia **Customer: berksan NOVATEK Project Date:** 2013 - 2014 **Project Scope:** For the 2 DCs of <u>130.000m<sup>2</sup></u> airport

- IP network and ULV system infrastructure
- Structured cabling systems
- Fiber optic backbone
- Cat 6A cabling



### Network Systems and Integration Solutions





#### **Project Description:**

Marmaray Bosphorus Railway Project, Istanbul, Turkey

#### Project Date: 2012 - 2014

**Project Scope:** Tunnel ventilation SCADA system fiber optic infrastructure (<u>40km</u>)

- · We have completed Fusion Splicing works 78m below the sea
  - 2st time in Turkey.
- 7 km tunnel cabling
- Structured cabling system
- Fiber backbone / infrastructure for SCADA systems (SM-OS2 and MM-OM4)
- End-to-end termination along the whole SCADA system
- Field-type connector usage for the areas where fusion splicing was found risky



**Transportation** 

### Network Systems and Integration Solutions





#### **Project Description:**

Hilton Garden Inn Istanbul Atatürk Airport, Istanbul, Turkey **Customer:** NOVATEK **Project Date: 2013 – 2014 Project Scope:** 

- Data Passive (Copper/Fiber Optic) Cabling System
- Cabinets
- Switch Access Point
- Switchboard
- Switchboard (Yearly SLA)



**Hospitality** 

#### **Network Systems and Integration Solutions**



Main Customer:

RIXOS

**Project Description:** 

Rixos Bademlik Hotel, Eskişehir, Turkey

Customer: POLIMEKS

Project Date: 2013 – 2014 Project Scope: In an area of <u>38.000 m<sup>2</sup></u>

- Structured cabling
- CISCO Network and Wireless Devices



#### <u>Hospitality</u>

### Network Systems and Integration Solutions





#### **Project Description:**

Ramada Encore Hotel Bayrampaşa, Istanbul, Turkey Customer: SEGATECH Project Date: 2013 Project Scope: In an area of <u>13.000m<sup>2</sup></u>

- LAN Network, Wireless infrastructure (Backbone and Edge Switch, Access Point and Controller)
- Fiber and copper cabling
- Server cabinet installation



**Hospitality** 

### **Network Systems and Integration Solutions**



#### **Project Description:**

Yacht Club, Awaza, Turkmenistan Customer: POLIMEKS Project Date: 2013 Project Scope:

- LAN Network, IP Telephony, IP CCTV, Wireless infrastructure
- Fiber and copper cabling
- LAN devices installation
- PABX system
- Server and server cabinets installation



**Hospitality** 

#### **Network Systems and Integration Solutions**





Project Description: MVD Police Academy, Turkmenistan Customer: RÖNESANSHOLDING Project Date: 2013 Project Scope: Network systems in an area of <u>110.000m<sup>2</sup></u>

- Fiber optic and copper cabling
- LAN Network, Wireless, IP Telephony, IP CCTV systems
- PABX systems
- Server and Server Cabinets



**Training** 

### **Network Systems and Integration Solutions**





#### **Project Description:**

Radisson Blu Asia Hotel Atasehir, Istanbul, Turkey Customer: ANT YAPI<sup>®</sup> Project Date: 2012

**Project Scope:** International hotel chain's communication infrastructure

- Data, Wireless infrastructure
- IPTV, IP CCTV Network systems infrastructure
- Fiber and copper cabling
- Fiber backbone OM3 (10G)
- CAT6 (1G), >2000 user ports



### **Network Systems and Integration Solutions**





#### **Project Description:**

Ashgabat Politechnical Institute, Turkmenistan **Customer: RÖNESANSHOLDING Project Date: 2011 - 2012 Project Scope:** IP communication infrastructure in <u>70.000m<sup>2</sup></u> university campus

- Data, Wireless, IP Telephony, IP CCTV system
- Fiber optic and copper cabling
- Fiber Backbone (OM3, 10G), >2.000 Users CAT6 (1G) Port
- LAN devices
- PABX system
- Server and server cabinets



**Training** 

### **Network Systems and Integration Solutions**



#### **Project Description:**

Seherce Military Academy, Ashgabat, Turkmenistan

Customer: POLIMEKS

Project Date: 2011 – 2012

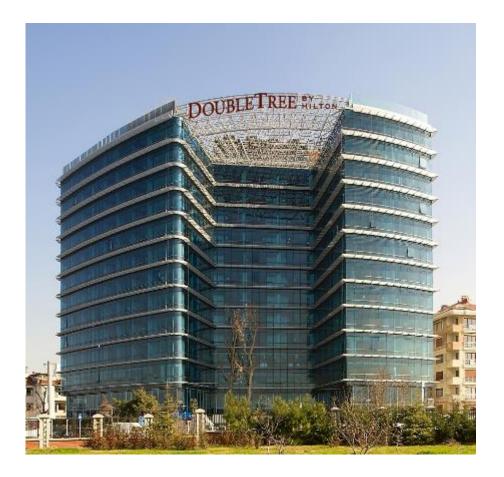
**Project Scope:** IP network infrastructure of <u>100.000m<sup>2</sup></u>

- Data, Telephony, Wireless, IP-CCTV, IPTV Systems
- Structured Cabling Systems, Fiber Backbone (OM3, 10G), >6.000 Users CAT6 (1G)
- Network and Wireless devices
- PABX Systems
- LAN Devices
- Fiber Optic Backbone



#### **Government**

### Network Systems and Integration Solutions



Main Customer:

**Project Description:** 

Double Tree by Hilton Hotel, Istanbul, Turkey



Project Date: 2011

Project Scope: IP network infrastructure

- Data, Wireless Network, PABX, IPTV, IPCCTV Systems
- Structured Cabling Systems
- S/O & Environmental Monitoring
- F/O Backbone OM3 (10G)
- CAT6 (1G) for > 2400 users
- Service Level Agreement (SLA)



**Hospitality** 

### References Network Systems and Integration – ULV Solutions

Other hotel projects Fotech has completed with the following scopes: ICT infrastructure (structured cabling), network solutions, wireless solutions, telephony systems, IPTV and CCTV solutions, server / storage / computer room solutions

Others

**Hospitality** 

CARESSE ALIXUEY COLLECTON RESOLT & SPA Referen	Caressa Hotel, Bodrum, Turkey	2013 - 2015		Double Tree by Hilton, Moda, Istanbul, Turkey	2011
	Alavya Otel, Izmir, Turkey	2014	Holiday Inn	Holiday Inn Moscow, Russia	2008
	Soyak Crystal Tower Business Center, Levent, Istanbul, Turkey	2014	Lilton	Hilton Istanbul (Harbiye)–Izmir–Adana–Mersin–Konya–Kayseri, Turkey	2008
	Rixos Eskişehir, Turkey	2013 - 2014	📣 🔉 🗛 🗛 🗛	Marriott Hotel Asia, Atasehir, Istanbul, Turkey	2008
<u>R I XO S</u> HOTELS	Rixos President Hotel, Astana, Kazakhstan Rixos Belek, Antalya, Turkey	2008 2006	Kempinski HOTELS & RENORTS	Kempinski Bodrum, Turkey	2004
Hilton Hotels & resorts	Hilton Garden Inn, Beylikdüzü, Istanbul, Turkey	2013	Les Ottomans	Les Ottomans, Istanbul, Turkey	2004
CROWNE PLAZA HOTELS & RESORTS	Crowne Plaza Bursa – Istanbul (Harbiye), Turkey	2011	MÖVENPICK Hotels & Resorts	Mövenpick Hotel Istanbul, Turkey	2003
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#### **Network Systems and Integration Solutions**

Fotech has completed the following works in below hospitals: Structured cabling, LAN active device

TREE TOP INVESTMENTS	Tree Top Hospital, Maldives	2016 – 2017
MEDICALPARK	Medical Park Hospital Gaziosmanpasa, Istanbul, Turkey	2013 – 2015
<b>ÄILEKONAK</b>	Aile Konak Hospital, Izmit, Turkey	2012 – 2014
MEDICANA	Medicana Hospital Beylikdüzü, Istanbul, Turkey	2011
med/ <i>ine</i>	Antalya BSK Medline Hospital, Antalya, Turkey	2011
	Fatsa Çınar Hospital, Ordu, Turkey	2011
Servey HASTANESI	Özel Ordu Sevgi Hospital, Ordu, Turkey	2010
A C I B A D E M	Acıbadem Fulya, Istanbul, Turkey	2010
MEMORIAL	Memorial Hospital Atasehir, ıstanbul, Turkey	2009 – 2010
×MƏRKƏZİ KLİNİKA	Merkezi Klinika, Azerbaijan	2009 – 2010
ch © 2022. All rights reserved.	84	fotech

**Health** 

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#### **Test and Measurement Solutions**



Main Customer: UNCON bilim ve můkemmeliyet

Ulusal Nanoteknoloji Araştırma Merkezi

Customer: Unam Lilim ve mikemmelyet

Project Date: December 2020-2021 Project Scope:

• EXFO FTBx-5235 OSA Optical Spectrum Analyzer



**Education** 

### Synchronization Solutions



Customer: EMERSON Project Date: 2020-2021 Project Scope:



Microchip S650 NTP Server



**Energy** 

#### **Test and Measurement Solutions**





Main Customer: **NETAS** 



Project Date: 2020-2021 Project Scope:

- EXFO FTBx-5245 Optical Spectrum Analyzer
- EXFO FTB-2 PRO- 88260-100GE Ethernet Tester



Telecom

#### Network Systems and Integration – ULV Solutions





Main Customer: DHMI

Customer: Leonardo Turkey Project Date: 2020 Project Scope: Videowall Control Project

- KVM Switch
- Connection Accessories

#### **Transportation**



#### Network Systems and Integration – ULV Solutions





Main Customer: aselsan

Customer: aselsan

Project Date: 2020 Project Scope: REHIS Project

• 10G SFP module



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### Network Systems and Integration – ULV Solutions



	_	-			
\\ Міскоснір	2018,12,22 Ref=0165	04:48:00 UTC NTP Stratum 1	SINC O NETWORK O ALKRY O		

Main Customer: ZİRAAT TEKNOLOJİ

Customer: ZIRAAT TEKNOLOJI Project Date: 2020 Project Scope: Data Center Synchronization

MICROCHIP Synchronization Device



J

Finance

### Network Systems and Integration – ULV Solutions



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Main Customer: CREDIT REGISTRATION OFFICE

Customer: CREDIT REGISTRATION OFFICE Project Date: 2019 Project Scope: Data Center Synchronization

MICROCHIP Synchronization Device



fotech

Finance

#### **Test and Measurement Solutions**



#### **Transportation**

Main Customer: IGA HAVALİMANI İŞLETMESİ A.Ş

Customer: IGA HAVALİMANI İŞLETMESİ A.Ş Project Date: 2019 Project Scope: Fiber and Copper Measuring Device

- EXFO OLTS Device
- Lantek Copper Test Device



#### Network Systems and Integration – ULV Solutions





Main Customer: aselsan

Customer: aselsan

Project Date: 2017 Project Scope: Security Camera System

• LP J001A-T PoE Gigabit Injector





#### Network Systems and Integration – ULV Solutions





**Customer:** Various Customers

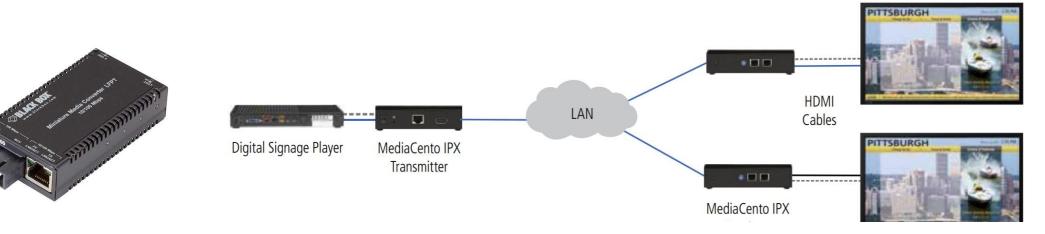
Project Date: 2015 - 2017

Project Scope: Below BLACK BOX products in various projects:

**Various** 

Industries

- KVM Tray with 8-Port KVM Switch, VGA, USB, PS/2
- Media Convertor, 10/100 MBPS TX/SX MM 1300NM 2KM SC
- CatX Octet Server Access Module for VGA and PS/2 Targets
- MediaCento<sup>™</sup> IPX AV-over-IP Extension 4K HDMI video and audio over LAN



### Synchronization Solutions









Main Customer: Türk Telekom Mobil A.Ş

#### **Project Description:**

Avea Mobile Cell Synchronization Systems, Istanbul, Turkey **Customer: Türk Telekom Mobil A.Ş Project Date: 2012 - Present Project Scope:** Enabling synchronization between cell tower - that are the end units of mobile cells, preparation for synchronization

during 4.5G transition

- Microsemi time servers: Installation and Commissioning of TP1000 Legacy 2Mbit/s, TP5000 PTP (IEEE 1588-2008 PTP Grandmaster Clock), TS3X00 Legacy 2Mbit/s, SSU2000 and relates software
- Enabling 24/7 uptime with SLAs



### Synchronization Solutions











#### **Project Description:**

Turkcell Mobile Cell Synchronization Systems, Istanbul, Turkey

Customer: 浴 TURKCELL

#### Project Date: 2011 - Present

**Project Scope:** 2G, 3G, 4.5G whole mobile network synchronization infrastructure (between cell towers that are mobile cells' end units), Synchronization preparation during 4.5G transition

- Microsemi time servers: Installation and commissioning of SSU2000, TP1000, TP2700 (Edge Grandmaster Clock) and TP5000 (IEEE 1588-2008 PTP Grandmaster Clock) and related software
- Enabling 24/7 uptime with SLAs



### Synchronization Solutions







Project Date: 2017

**Project Scope:** Istanbul Metro Infrastructure within LTE access services



MICROSEMI TP5000 PTP Grandmaster Device



# Synchronization Solutions Tallysman



Main Customer: roketsan

Project Date: 2017

Project Scope: GPS Antenna System Amplifier

Tallysman product:

• TW 127





### Synchronization Solutions





TP5000





#### **Project Description:**

Istanbul Stock Exchange Synchronization System, Istanbul, Turkey
Customer:
BORSA
BORSA
Project Date: 2016

**Project Scope:** Fully redundant time server system has been designed and installed successfully for Istanbul Stock Exchange's internal use and corporations working with Istanbul Stock Exchange.

The installed system can both support NTP and PTP.

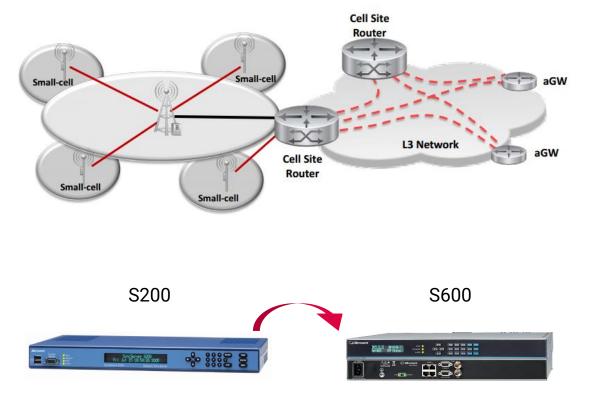
Industry-leading Microsemi's TP5000 (IEEE 1588-2008 PTP Grandmaster Clock) devices have been used.





### Synchronization Solutions





**Main Customer:** Trakya Electricity Distribution A.Ş. (TREDAŞ) TREDAŞ

#### **Project Description:**

General Electric (GE), Trakya Electricity Distribution A.Ş. (TREDAŞ) Project

**Customer**:



#### Project Date: 2016

**Project Scope:** General Electric preferred to have Microsemi S200 (Enterprise Class GPS Network Time Server) as the central synchronization equipment in TREDAŞ.

TREDAŞ distributes electricity to 1M people in Trakya region.

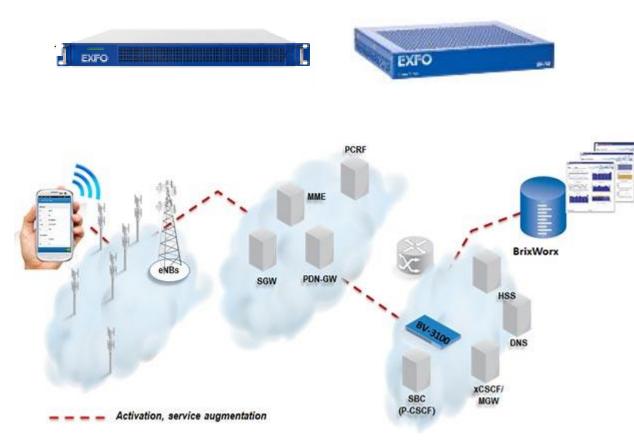
\*Note: S200, S250, S300 and S350 products are discontinued. S600 and S650 (High Performance Enhanced Security Network Time Server) products are suggested instead.



Utilities

#### Service Assurance Solutions

**EXFO** 





#### **Project Description:**

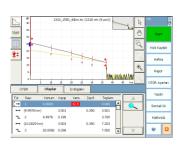
Turkcell Superonline Performance Monitoring **Customer:**  $\swarrow$  **TURKCELL Project Date:** 2012 - Present **Project Scope:** 

Carrier Class Performance Management System is enabled by Exfo's BrixWorx solution for Turkcell Superonline's infrastructure, to monitor Active Probes and Oracle-based database, and it is enabled to monitor IP/MPLS backbone and Midi/Mini PoPs in Corporations, Enterprises and Consumer networks.

### **Test and Measurement Solutions**

**EXFO** 











Exfo products:

- OTDR
- PMD, Distributed-PMD Analyzer
- Fiber Inspection Probe, VFL
- Optical Light Source, Power Meter
- Optical Variable Attenuator
- Optical Spectrum Analyzer (OSA)





### **Test and Measurement Solutions**

**EXFO** 









Project Date: 2012 - Ongoing Project Scope:

Exfo Products:

- Visual Fault Locator
- Optical Light Source
- Power Meter

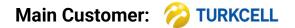


<u>Telecom</u>

### **Test and Measurement Solutions**

**EXFO** 





Customer: 🄗 TURKCELL

Project Date: 2012 - Present

**Project Scope:** 

Exfo products:

- PON-OTDR
- PON Power Meter
- Fiber Inspection Probe
- Fast Reporter Software

Sumitomo products:

• T-71C







**Telecom** 

### **Test and Measurement Solutions**

**EXFO** 





**Project Scope:** Fiber Optic Cable Suitability Measurement and Inspection Project

Exfo product:

OTDR MAX 720C





#### **Test and Measurement Solutions**











Project Date: 2017 Project Scope: T.C.D.D. İZBAN Line Measurement and Termination Project

EXFO OTDR and SUMITOMO Fiber Optic Cable Fusion Splicer





### **Test and Measurement Solutions**

**EXFO** 



Main Customer: HAVELSAN

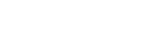


Project Date: 2017 Project Scope:

Exfo products:

- FBK-51 Lan Kits
- FiberBasix Power Meter
- FiberBasix Light Source





Defence

#### **Test and Measurement Solutions**

**EXFO** 





Main Customer: aselsan

Customer: **aselsan** Project Date: 2017 Project Scope: Exfo products

- FBK-52 Outsite Plant
- FiberBasix Power Meter
- FiberBasix Light Source



### **Test and Measurement Solutions**

**EXFO** 









Main Customer: Customer: Project Date: 2017 Project Scope:

Exfo products:

• EXFO MAX 720C OTDR

Sumitomo products:

SUMITOMO T-55 Fusion Splicer

Various Accessories



Defence

#### **Test and Measurement Solutions**





• SUMITOMO T71C+ Fusion Splicer



**Training** 

## Test and Measurement Solutions

**EXFO** 





Main Customer: is elkom



Project Date: 2016

**Project Scope:** Fiber Optic Infrastructure Measurements

Exfo products:

- EXFO FTB-1v2 PRO-730Gv2
- EXFO FPM-602X Powermeter

Sumitomo products:

• SUMITOMO T-55 Fusion Splicer



**Telecom** 





#### **Test and Measurement Solutions**







#### Main Customer: aselsan

Project Description: 4th Generation (4G/LTE) Communication
Technologies (ULAK) Project, Ankara, Turkey
Customer: aselsan
Project Date: 2015
Project Scope: 4th Generation (4G/LTE) Communication
Technologies (ULAK) Project eNB Test Systems

Test systems for testing the functional and load of LTE eNB devices were provided, within the scope of ULAK project in cooperation of Aselsan, Netaş and Argela.

The installed system's trainings were given by Fotech, to train on the usage of Artiza Networks - the leader in mobile test systems.



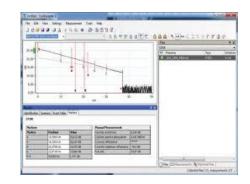
Defence

### **Test and Measurement Solutions**

**EXFO** 









Main Customer: **(6) vodafone** 

Project Description: Vodafone, İstanbul, Türkiye

Customer: **()** vodafone

Project Date: 2010-2015

**Project Scope:** Installation, training, service, and consultancy for the below Exfo products:

- STM-64 SDH / 10G Ethernet Analyzer
- Optical Spectrum Analyzer
- Live Fiber Detector
- OTDR
- Fast Reporter Software



### **Test and Measurement Solutions**

**EXFO** 





Main Customer: TÜRKSAT

Customer: TÜRKSAT

Project Date: 2014

**Project Scope:** Installation, training, service, and consultancy for the below Exfo products:

- OTDR
- Optical Power Meter



**Telecom** 

#### **Test and Measurement Solutions**

**Customers – Products:** 

aselsan

CORNING







OTDR, Fiber Optic Fusion Splicer, Optic Cleaning Kit

OTDR

CD / PMD Device

CD / PMD Device, OTDR

PMD Device, OTDR

PMD Device, OTDR

OTDR

Brands:











Others

### References **Production Solutions**

#### **Defence & Education**







Project Date: 2014 - Ongoing

**Project Scope:** Special Type Fiber Optic Cable Termination Projects







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