



**T E C H N O L O G Y**  
**P A R T N E R S**

## **Company Profile**

**ICT Infrastructure, Smart Grid, eGovernment, Security  
and Digital Oil Field Solutions for the MENA Region**

June 2012

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## INTRODUCTION

**Technology Partners FZ, LLC** is an Information Communication Technology (ICT) infrastructure and services integration company. The company is a trusted integrator to the **Telecommunications, Utility, Government, Defence** and **Oil and Gas** sectors with the regional and domain experience to deliver technically innovative and complex projects. Technology Partners focuses on very large scale telecommunications and network infrastructure, applications and services which are designed, deployed and supported by our highly skilled technical and management team. These solutions are created from best-of-breed, industry-standard components, acquired through international partnerships with the world's leading technology vendors.



As a trusted partner to government and enterprise across the region, the Company's portfolio of next generation ICT capabilities includes the delivery of ERP and OSS/BSS software solutions from SAP, Microsoft, Oracle and Ericsson, Cisco network infrastructure, and computer hardware systems from HP, SUN, IBM and DELL. TP routinely delivers sophisticated satellite communications, fibre backbone and fibre-to-the-premises (FTTP) data systems, large-scale voice and data converged networks, metro-scale wireless networks and other network infrastructure components for the telecommunications, oil and gas, utility, defence and public sectors.



A full range of services including software and hardware design, application development, maintenance and our ongoing support services completes our solutions.



Using these technologies and services, Technology Partners delivers and integrates complete, metro-scale solutions such as **Telecommunications Infrastructure, ERP and Operations Support Systems/Business Support Systems (OSS/BSS), Utility Smart Grid Applications** such as Automated Meter Reading (AMR/AMI), **Smart City Applications** including public safety communications, parking systems, and intelligent traffic control systems (ITS).



A complete range of **Digital Oil Field** solutions for the Oil and Gas industry includes real time SCADA communications covering wellhead and downstream process control, and field camp life support and security. Our Government and Defence solutions cover all types of **eGovernment, Electronic Content Management (ECM) systems**, telecommunications infrastructure for **Spectrum Management**, and **Security Solutions** ranging from integrated perimeter security (ground radar, sensors, thermal imaging and video surveillance) to access control and video analytics.

An additional, unique TP capability is **Technology Partners Iraq**. Since 2003, TP has taken an active role in ICT construction projects for Iraq Government entities such as the Prime Minister's Office, the Ministries of Oil, Electricity and Communications, and ITPC. Today, Technology Partners Iraq operates from offices in Baghdad, Erbil, and Basra.

A key enabler for our Iraqi business has been our logistics and engineering facility in the Jebel Ali Free Trade Zone in the U.A.E. This facility allows us the flexibility to procure, import, assemble and pre-commission key components prior to shipping and final in-country system integration.

With over 45 full-time employees permanently in Iraq, we have been able to establish a unique centre of technology excellence in-country. In 2008, TP became the country's first Microsoft Gold Partner and was awarded Iraq's first certified Cisco Silver Partnership in 2009. Established partnerships with SAP, DELL, Oracle, and other world-class vendors complete the portfolio. We are able to offer both in-country and out-of-country accreditation training for many of these companies.

Our Iraqi employee base consists entirely of Iraqi nationals who are all able to operate throughout the country. This unique capability is illustrated by the breadth and scope of our list of reference projects.

**Technology Partners Federal Systems** is a wholly owned TP subsidiary based in McLean, Virginia in the United States. TP Federal Systems is an ITAR Certified company that supports our ICT integration business with US Federal Government agencies in the MENA region.

## CORPORATE INFORMATION

Technology Partners' currently employs over 90 information technology and telecommunications professionals across the Middle East and North Africa region. Due to Technology Partners ongoing success it has continued to be a profitable company with an annual turnover exceeding US \$25 Million for the 2010 financial year.

**The Corporate Head Office** of Technology Partners FZ LLC is in Dubai, United Arab Emirates. They operate from offices in the Dubai Media City Free Zone, a warehouse in the Jebel Ali Free Zone, and branch offices in Baghdad, Erbil, and Basra in Iraq, and the TP Federal Systems office in McLean, VA in the USA.

**Formed** in 1997, Technology Partners has been focused on delivering the MENA region's most complex telecommunications and Smart Grid infrastructure and services projects. The company started as a professional consultancy offering international start-ups a foothold in the Middle East. In 2003, the company expanded to take an active role in the reconstruction of critical IT and telecommunications infrastructure in the country of Iraq to help facilitate its progression into a new era of economic and social freedom.

Using our extensive international experience, we have developed **partnerships** with best-of-breed technology vendors, allowing us to deliver true world-class solutions from commercial off-the-shelf (COTS) components with unprecedented price/performance. Technology Partners delivers complete, next generation solutions by integrating these products with the best technical, deployment, support and maintenance expertise.

**Our Mission** is to deliver a distinctive competitive advantage to our customers by combining technology and industry leadership with a complete focus on satisfying customer's short and long term requirements. Our aim is to continuously meet the expectations of our customers, employees and stakeholders by providing quality, timely and cost effective value-added solutions from world-class vendors, through excellent service delivered by highly trained and motivated people.

**Our Success** is measured by our ability to create a portfolio of unique and high value-add solutions that appeal to a broad, regional market; complete solutions capable of changing established business models. Technology Partners must continue to implement these solutions reliably with high levels of expertise and professionalism, and our focus on customer satisfaction delivers a competency based trust that turns customers into long term, referencable accounts.



**Our Culture.** Technology Partners strongly believes in management by “tacit interaction”: fostering organizational effectiveness through learning, collaboration, innovation and increasing the effectiveness of our interactions with our customers, suppliers, vendors and our business environment. Technology Partners’ team is highly empowered to differentiate themselves by increasing their productivity through a complex mixture of team innovation, problem solving and information exchange.

**Our Values.** Flexibility, integrity, teamwork and innovation.

**Our People.** At Technology Partners, we take enormous pride in the depth of experience within our team in a wide range of subject matters. Our team includes Telecom and IT professionals, Electronics, Electrical and Mechanical Engineers, Professional Accountants and MBA’s with extensive international commercial experience. Currently we employ over 95 personnel across our UAE, Iraq and US operations.

**Quality.** TP stands by the quality of its projects, and works to internationally approved procedures, health and safety and quality standards. We are ISO and OHSAS certified.



#### EXECUTIVE TEAM:

Chief Executive Officer	Omar Barzanji
Finance Director	Tony Aherne
VP Marketing	Roy Hodges
VP Engineering	Nadim Shaikli
VP Software Services	Christo Esterhuizen
VP Business Solutions	Marwan Mousfi
Director Professional Services	Walid Moussa
SAP Practice Director	Frank Endrikat
Commercial Manager	Hayder Atrakchi
HR Manager	Melanie Rowlands

## TECHNOLOGY PARTNERS SOLUTIONS

TP's primary activities are centred on industry-focused business units: *Utility Smart Grid Solutions*, local and federal *Government* software, security and digital city solutions, the *Oil and Gas* industry, with a specific focus on the Iraq Oil and Gas sector, and *Telecommunications* infrastructure and software solutions for regional GSM operators, telecommunications and service providers. TP represents SAP in the Region and also delivers ERP solutions across these target industries.

**Utility Smart Grid.** The demand for energy is forecast to grow by over 70% across the Middle East by 2020. All utilities in the region are looking at ways to improve efficiency to support and ease the inevitable production increase required - even the region's major oil producers would rather sell oil and gas than burn it. Smart Grid technology delivers proven efficiency enhancements by matching hourly demand cycles with appropriate real time response across the entire electricity supply chain. As the integrator of one of the world's largest Smart Grid project in the region, Technology Partners is taking the lead in bringing these innovative solutions to a part of the world where they can have the greatest impact.

**Government and Defence.** Technology Partners has been taking an active role in the regional development of eGovernment, and offers an extensive portfolio of government solutions, ranging from municipal and public safety mobile solutions on the latest hand held devices, to "Digital City" applications such as next generation digital video surveillance and automated parking meter reading. These solutions have been created by the emergence of IP appliances, such as IP video cameras, parking meters, and traffic control devices, and converged municipal-scale fibre and wireless networking technology. Digital City applications can now be implemented on a truly metro scale, and are becoming increasingly important components of the rapidly expanding Middle East infrastructure. Our security solutions extend from municipal video surveillance to sophisticated perimeter protection of sensitive areas utilizing integrated ground radar, activity-triggered sensors, thermal imagers and video analytics, provided, if required, through its US ITAR-registered subsidiary, TP Federal Systems.

The **Iraq Oil and Gas** sector is currently going through very rapid expansion, as recently-formed Joint Ventures with the Iraq Regional Oil Companies are expanding operations to meet Iraq's aggressive oil production targets (from the current 2.1 million barrels per day, to a targeted 8-12 million bpd by 2017). Technology Partners is assisting in this growth by providing a broad range of critical communications and security infrastructure:

- *Core green field communications infrastructure* across the oil field sites is required to deliver everything from field camp life support systems, to "Digital Oil Field" real time process control, and state-of-the-art security systems. This infrastructure invariably requires a multi-layered, multi-technology converged network approach that encompasses fibre and copper cabling, WiFi, WiMAX and microwave wireless technologies, and high capacity VSAT and fibre backhaul.
- *Security systems* are mission critical to Iraq oil field operations. TP is able to leverage the convergence of communications technology with the latest security applications and products to deliver integrated solutions as diverse as video surveillance and access control, ground radar, thermal imaging, PA/GA systems, and ground and air data and voice communications. Our ITAR-registered subsidiary, **TP Federal Systems**, facilitates the procurement of some of the latest US security technology.

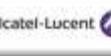
The **IT and Telecommunications** industry continues to grow at a rapid rate in the Middle East. Deregulation in the telecommunications market, where second and third GSM licenses are being awarded, is providing many business opportunities for Technology Partners. More Telecommunication IPO's and increased liquidity in the region drive the operators for expansion and more spending on their infrastructure as well as their Operational Support and Business Support Systems.

**INDUSTRY PARTNERS**

Experience has proven that the way to ensure success in a project is to create strong partnerships, not only with the customer but also with the vendors. Technology Partners is proud of the partnership portfolio which allows flexibility in design and fast turnarounds. Partners are selected along the following principle guidelines:

- **Technology:** Solutions comprise of many elements and technologies. The overall solution is a sum of these elements and the ability for these components to work together
- **Support:** Customers rely on support throughout the lifespan of their project. The support offering Technology Partners receives from its partners dictates the level of support they can offer their customers
- **Commercial viability:** Partner products must offer leading edge technology but not be cost prohibitive
- **Strategic alignment:** The entire product portfolio and product roadmap must appeal from a strategic perspective on where a partner believes the industry is heading and strategic path they are taking to get there.

**Communications Infrastructure**

 Network Infrastructure	 Microwave Networks
 Mesh Wireless	 Networks
 Satellite Services	 FSO Networks
 Wireless CPEs	 Wireless Networks
 Structured Cabling	 Satellite Comms
 Optical Infrastructure	 Networks
 Wireless Networks	 Networks
 Network Security	 Network Planning

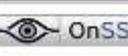
**Computing Platforms**

 Servers & PCs
 Storage
 Software Platforms
 Servers & PCs
 Software Platforms
 Servers & PCs
 Printing Solutions
 Servers

**Applications**

 ERP Solutions
 MDM Software
 ECM Solutions
 ECM Solutions
 Reporting Solutions
 Systems and Software
 Intelligent Traffic Systems
 Comms

**Security & Defence**

 Personal Security Services	 Thermal Imagers
 NVM Software	 Access Control
 Surveillance Cameras	 Access Control
 Surveillance Cameras	

## TECHNOLOGY PARTNERS SAMPLE PROJECTS

Below are brief descriptions of a sample of Technology Partners' projects. Most have been successfully delivered, others are nearing completion:

### WEATHERFORD CAMP – RUMAILA OIL FIELD

Technology Partners is currently implementing the entire IT infrastructure for a Weatherford camp that will house over 700 people in the Rumaila Oil field near Basra. The scope of work includes structured cabling, wireless networking, switching, security and telephony.



### SMART GRID NETWORK FOR A MAJOR GULF UTILITY

Technology Partners is currently completing the implementation of a broadband wireless network to cover the entire service of a major Gulf utility company. The main application for this network is real time Automated Meter Reading (AMR) for electricity and water meters.

This solution is utilising several thousand Tropos wireless mesh routers to provide ubiquitous WiFi connectivity for hundreds of thousands of utility meters and data collection devices. The mesh network is supported by a redundant, multi-gigabit fiber infrastructure.

Like the hundreds of other Tropos deployments around the world, the WiFi infrastructure is inherently multi-use, and has enough capacity to support a variety of additional utility and municipal-scale applications. These include SCADA control for electrical sub-stations and water plants, mobile workforce automation, and Internet access for residents and businesses.

When completed, this wireless deployment will provide over 4,000 sq. Km of wireless coverage and will be the largest Smart Grid network in the MENA Region (and one of the largest in the world). Negotiations are also underway with one of the Region's major telecommunications providers for it to become the world's largest WiFi hotspot.

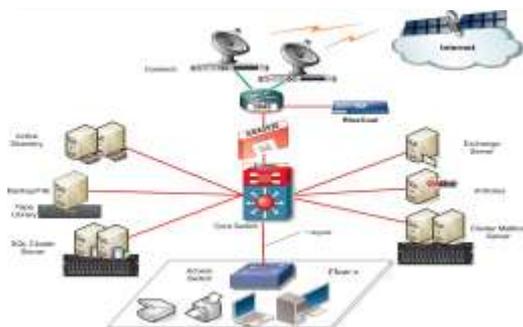


### INTERNET DATA CENTRE: IRAQ PRIME MINISTER'S OFFICE

In 2008, TP completed the successful deployment of a Data Centre to deliver secure and reliable Internet connectivity for the Iraq Prime Minister's Office. The system consists of a complete Cisco security solution, with load balancing and caching, and VSAT backhaul.

Components included:

- Dell servers and storage
- Microsoft OS, DB and applications
- Cisco Catalyst 4500 core switch
- Cisco 3845
- Cisco ASA5520 Firewall
- Bluecoat SG510-25
- Comtech modems for VSAT connectivity



EMAAR PROPERTIES & MARCONI COMMUNICATIONS

This was the first Ethernet fibre to the home project in the Middle East. The project involved design and implementation of a fibre network infrastructure serving up to 100,000 homes in Dubai, UAE. The network is operational today and delivering 55 TV channels, 2 VoIP connections and 2-10MB Internet access to each home.



BASRA FIBRE INFRASTRUCTURE

Completed by Technology Partners in 2010 was a major communications infrastructure project for Iraq Telecommunications and Postal Company (ITPC).



The project required the deployment of some 270Km of redundant fiber infrastructure to connect the Basra International Airport area to ITPC's Southern SDH Network. This project is a critical component of Iraq's Regional Core NGN Infrastructure upgrade to develop nationwide fibre communications.

INTELSAT 4.8M VERTEXRSI DISH IN RAS AL-KHAIMA (UAE)

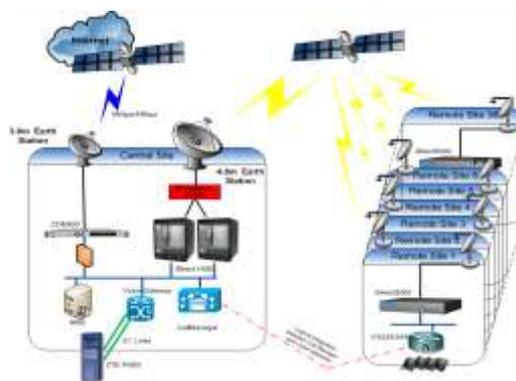
As a VertexRSI partner, Technology Partners was contracted to install a 4.8m antenna for Intelsat on an Etisalat (UAE) site in Ras Al-Khaima. The contract included conducting a site survey, install the concrete foundation, assemble the antenna parts, test and help commissioning the service. This project lasted 1 month and was completed in February 2006.



IRAQ MINISTRY OF OIL (SCOP) NATIONWIDE VSAT WAN INFRASTRUCTURE

Completed in 2010 was a major telecommunications infrastructure project for the Iraq Ministry of Oil.

35 remote sites from all over the country have been connected through a central MoO site using a VSAT Wide Area Network. Ministry applications supported include a centralised, redundant Internet service, and Ministry-wide IP telephony with unified communications. This system has also been designed to support backbone communications for the multi-site ERP applications which are the subject of this proposal.

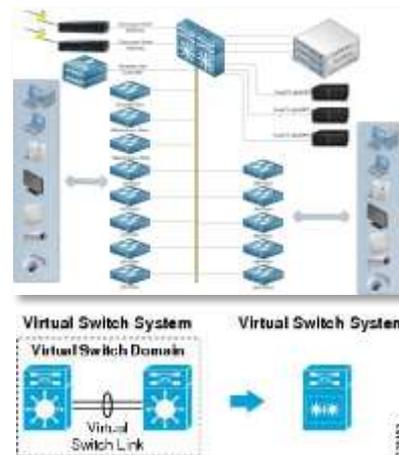


## MANSOUR MELIA HOTEL

Mansour Melia Hotel in Baghdad required a complete communications, media and security network infrastructure before launching the hotel.

Technology Partners was selected to design, procure, install and configure the entire system which comprised of, network infrastructure, VOIP system, internal IP CCTV and guest IPTV.

The network infrastructure and VoIP system comprises Cisco access and core switches, Unified Communications Manager (UCM) software and IBM server, voice gateway, unity voicemail, over 40 wireless Access Points & Controllers, 350 Cisco telephones and a firewall along with a structured cabling solution from Siemon.



The IP CCTV system covers over 80 Axis cameras and an ONSSI video surveillance server utilizing 2 Dell servers. An 80 channel IPTV solution, complete with 350 set top boxes, makes use of a state of the art SnapTV system.

Following design and procurement, Technology Partners is currently proceeding with the installation and configuration phase of the system.

## NEWROZ INTERNET SERVICE PROVISIONING

Technology Partners implemented a major project for Newroz, the Internet Service Provider licensed to deliver ISP services in Erbil, Kurdistan. The system supports dialup, DSL, and CDMA wireless connections as well as an MPLS VPN service.

The IP/MPLS core network utilises a Cisco 12000 series GSR router and a Cisco 7606 router at each remote POP. The project also involved implementation of Microsoft Active Directory, Microsoft Exchange Server and Microsoft SQL Server at the Data Center to host the billing database and user authentication, authorisation and accounting (AAA) system.



## ITPC ARABSAT SATELLITE EARTH STATION

Technology Partners, together with General Dynamics and Commtech, designed and implemented the ArabSat Standard B Earth Station project for the Iraq Telecommunications and Post Company. The earth station was damaged during the war and was part of the Iraq Reconstruction Program.

The ArabSat consortium provides voice communications between all member states. The project, based around an 11 meter Standard B earth station, provided ITPC with 40 E1 (2.048 Mbps, G.703) trunk circuits with at least one E1 circuit for each of the 14 member states.

The system utilizes compression techniques to convert the forty trunk circuits to ten bearer circuits. The bearer circuits are then connected to a microwave system for transmission from the customer demarcation location to the earth station. This project was completed in August 2005.

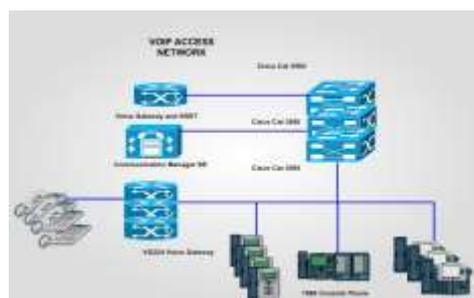


## BASRA AIRPORT DWDM AND VOIP

This recently completed Technology Partners project provides a new IP infrastructure based on a DWDM/SDH core between the Basra Airport and the Andalus ITPC PSTN network in Basra.

The link delivers E1 voice channels for the Cisco Communication Manager server. The project also includes a microwave redundant link in addition to the fiber network.

Basra Airport is now equipped with the latest IP platform to support a full range of triple play services.



## AWCC (AFGHANISTAN)

AWCC was the first GSM cellular provider to launch in Afghanistan in 2000. In 2006 they upgraded their core IN platform to Siemens IN along with LHS BSCSiX billing, again supplied by Siemens but sourced from LHS. Siemens undertook an evaluation of LHS system integrators in the market place and selected Technology Partners.



The scope of work included billing and customer care integration, subscriber migration as well as custom functionality related to interfacing with the Siemens IN platform.

## IRAQ MINISTRY OF ELECTRICITY

The Iraq Consolidated Fiber Network (CFN) is a national voice and data communications network that supports the service requirements of the Iraqi Ministries of Electricity (ME), Transportation, Telecom, and Communications using a common fiber optic backbone. The scope of work included design and installation of voice and data network in sixty sites located throughout Iraq.

Technology Partners, as the main subcontractor to Bechtel, delivered the design, procurement, installation, testing, and commissioning services for this project on a complete turnkey basis. The design included deploying a fiber optic core with Cisco switches and routers to more than 40 sites. The project was completed in 2006.



## MTN (SYRIA)

MTN is an established GSM provider in Syria. They had been using LHS BSCSv7 for the previous 3 years and required an upgrade to BSCSiX. After evaluation of the available system integrators in the market MTN selected Technology Partners as their preferred choice.



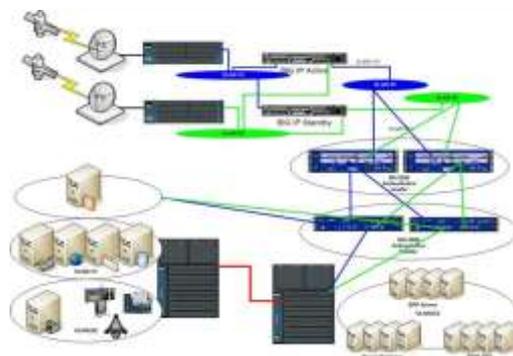
## IRAQ COMMUNICATIONS AND MEDIA COMMISSION

In 2007, Technology Partners completed a state-of-the-art infrastructure network for the Iraq Communications and Media Commission in Baghdad.

This network included:

- 24 application servers,
- 1 cluster storage system,
- 200 desktops, 50 laptops,
- 2xCisco 4507 layer-3 switches,
- 14x3560 switches
- 3x7206 routers
- Cisco Call Manager servers, with 200 Cisco IP phones
- 2VSAT connections for the Baghdad site with load balancing and fail over

The network serves the internal users of the commission as well as external users applying for RF licenses and web domain registration for DOT IQ.

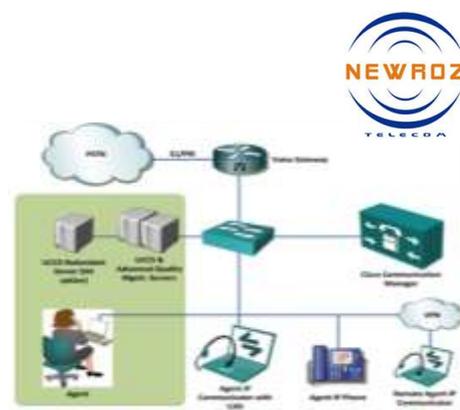


## CALL CENTRE PROJECT- NEWROZ

Newroz Telecom in Kurdistan needed to improve its customer contact centre experience as well as improve operations. After careful consultation they chose a Cisco Unified Contact Centre Express (Version 7) solution alongside Cisco Agent Desktop (CAD) and Advanced Quality Management (AQM). The solution has helped them to improve customer interaction by measuring agent performance, customer experience and Interactive Voice Response (IVR) performance. In addition, by distributing the workload evenly throughout the call centre, according to agents' skills and availability, the company is able to ensure much increased levels of customer satisfaction.

Newroz's management are also able to get a better view of the call centre operations through a more transparent system that enables them to pull off historical and real time reports as well as call recordings. An additional bonus was the integration of an outbound dialer, enabling the company to facilitate marketing campaigns. In addition, Newroz was able to leverage its existing assets by integrating them with the new products, enabling the company to make significant resource savings.

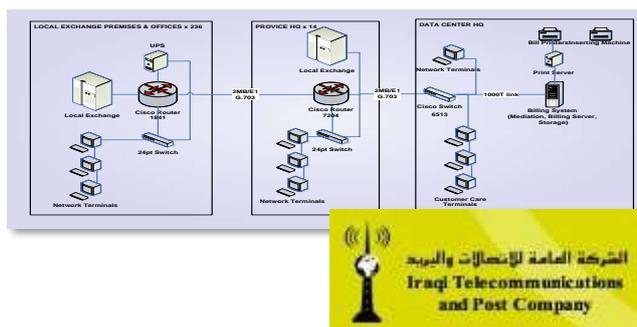
Technology Partners was contracted to procure all the hardware including IBM servers, Cisco telephones, Plantronics headsets, Dell PCs and the Cisco Unified Contact Center Express V7 software. Technology Partners also undertook the complete integration of the system and conducted user training for all Contact Centre staff.



### IRAQ TELECOMMUNICATIONS AND POSTAL COMPANY

Iraq Telecommunication and Postal Company (ITPC) is the incumbent wireline service provider in Iraq. In 2005 Technology Partners was awarded the project to completely overhaul ITPC’s antiquated billing system.

The scope of work included an LHS billing and customer care system running on the latest Sun platform, with interfaces to more than 200 remote exchanges.



TP was also responsible for the supply and installation of Xerox and Pitney Bowes production printing and enveloping machines. The project included furnishing a 200 square meter data centre. This state-of-the-art deployment included under floor air conditioning, card access security system, automatic fire system, generators, and 8 hour UPS.

The entire hardware deployment (servers, network components, printers, enveloper) was staged at TP’s Jebel Ali logistics facility before shipping to the client. The network components included 2x Cisco 6509E core switches, 250 x Cisco 1841 routers for remote sites and 14 x 7204 for provincial operations. The initial project was completed in 18 months.

### PALTEL (PALESTINE)

Paltel is the incumbent wireline service provider in Palestine. During 2006 Paltel selected LHS BSCSiX for the replacement of its existing in-house billing solution. Paltel utilized its own in-house IT system integrator, Hulul to implement the project who in turn selected Technology Partners to lead the project and guide them.



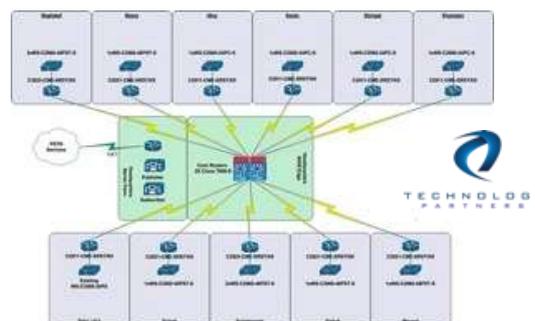
Following the migration of the wireline customer base to BSCSiX it is expected that the GSM service will migrate to BSCS as well as a Siebel migration.

### KOREK TELECOM IT WAN

During 2010, Technology Partners delivered a complete IT Wide Area Network (WAN) to connect eleven remote Korek Telecom offices with the headquarters in Permam.

The network provides VOIP and data services over an E1 interface, enabling streamlined operations for the service provider. The project consisted of:

- Unified Communications Infrastructure
  - Centralized MCS 7835 CUCM Cluster
  - 2 x C7606 Core Routers
  - 9 x 2921 ISR, 2 x 3925 ISR, 11 x 2960
  - 160 x Cisco 7941 & 7911 Phones
- Implementation across Iraq
  - Erbil, Sulaimaniyah, Duhok, Baghdad, Kirkuk, Mosel, Basra, Shingal, Akry, Soran and Khanaqin



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