TELECOM PROFILE

PUTTING YOU IN REACH WHEREVER YOU ARE

ALKAN
C.I.T
A WORD FROM THE CHAIRMAN

With economic globalization, the Middle East and Africa region is experiencing unprecedented growth in the communication and Information technology sector.

To nurture this growth and support this development, Alkan CIT brings together and leads a group of companies with complementary expertise, and local presence in most of MEA countries, that provide state of the art communication and information technology solutions.

We work together, with all stakeholders, to cater for the region’s development. In so doing, the group is seeking to contribute to this sector’s pivotal role in improving the quality of life in our region.

Alkan CIT will continue its contribution to this development, while remaining true to the values that have set it apart since the group was founded: quality, integrity and commitment.

Mohamed Nasseir
**Alkan CIT** is a leading telecommunication solution provider that offers a variety of turnkey solutions for telecom operators in the Middle East and Africa. With local presence in most countries of the MEA region, we fully support the operators’ business from the planning phase to full operation.

Our Services include GSM/CDMA network planning & rollout, Installation & commissioning, operation & maintenance, Quality of service monitoring, Revenue assurance & Fraud management, network security, value added services (VAS), GIS applications and help desk.

As leaders in our industry, we have structured our business units to enable us focus on each service that we provide in order to present world class solutions that exceed our customers’ expectations.

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As an international firm with strong local presence in most of the African and Middle East countries, our expertise-driven approach helps us to deliver tailored solutions through our local offices and enables us to draw upon company-wide resources and expertise whenever needed.

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**Alkan CIT** is a staff is its foremost important asset; with diversified fields of expertise, specializations, multi disciplinary and cultural backgrounds of more than 2000 team members. **Alkan CIT** became the leading Telecommunication solution provider in the MEA region. We value the success of our business to our team members’ contributions and innovations.

As we thrive for challenging projects, our long-term clients know the value that we add to their business. We have been working with leading Telecom operators in the MEA for the past decade where we successfully helped them in various capacities to grow and maintain their services to their customers.

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[Logos of various companies]
Case Study: Celtel, Niger

Challenge
In 2004, Celtel Niger assigned to Alkan CIT the rollout of several new sites. The challenge was to overcome the lack of essential materials, poor infrastructure and limited transportation networks required for construction and site rollout.

Solution
Technical teams were mobilized in the allocated sites, and global deals were signed with suppliers from neighboring countries (Togo & Nigeria) to provide unavailable construction materials.

Outcome
- Successfully accomplishing the project within the specified time frame
- Increasing network coverage from 30% to 70% since 2005
- Expanding Coverage in west African zone (500 new sites)
- Standardizing Celtel’s site construction specifications
- Replicating the same model in Ghana, over 2008

References
- Successfully rolled out over 4000 GSM in more than 15 countries
- Rolled out sites for most of the leading Telecom Groups
  - Vodafone (Egypt)
  - Zain & Celtel (Saudi, Sudan, Chad, Niger, Burkina, Sierra Leone, Ghana, ...)
  - Etisalat (Egypt, Saudi, Tanzania)
ALKAN TOWERS FACTORY (ATF)

Alkan Towers Factory (ATF) was established in 2007 to support the growth of our international network rollout services in different countries. ATF designs and fabricates self supporting towers (up to 64m), Guyed towers (up to 45m) and other antenna support structures. ATF also design and supply all tower accessories and provides full technical support and consultant services.

**Products Portfolio**

ATF produces a wide range of triangular and square towers in addition to other antennas support structures for worldwide cellular and microwave markets.

- **ATF Family (A)**: family of square towers with heights ranging from 24m up to 50m
- **ATF Family (B)**: family of square towers with heights over 60m and up to 80m (planned 2009)
- **ATF Family (C)**: family of triangular towers with heights ranging from 8m up to 18m
- **ATF Family (D)**: family of triangular towers with heights ranging from 18m up to 21m

**Production Capacity**

Currently, ATF produces 1000 ton per month of Masts, Stub towers, Self supporting towers and Guyed towers of different heights and specifications plus fences. Expansion is currently on the way to increase our capacity as well as adding shelters and Fuel tanks.

**References**

ATF is an approved tower supplier for most of the Telecom Groups as well as leading Telecom switching vendors:

- Zain & Celtel
- Etisalat
- Motorola

OPERATIONS & MAINTENANCE (O&M)

With their geographically dispersed sites, Telecom operators are constantly challenged to provide ongoing operation & maintenance services that ensure continuous operation and minimize the downtime. Our O&M highly qualified maintenance teams, equipped with onsite problem solving skills and tools, meet the operators SLA’s for fixing unexpected sites downtime.

**Scope of Services**

We provide preventive and Corrective maintenance around the clock for all remote sites elements including civil, Telecom and Electromechanical services.

**Civil & Environmental**

- Site Modification (relocation, redesign..., etc)
- Maintenance of Towers and Steel Supporting Structures
- O&M of Mobile Sites “Cells On Wheel”

**Telecom**

- Installation and Alignment of MWG & RDU
- Installation and Maintenance of Antenna line system
- GSM Sites’ Systems’ Enhancement
- Modernization (2G/ 3G upgrading)

**Electromechanical**

- Maintenance for A/C systems, fire alarm and fire fighting systems
- O&M, fueling and rental of Generator sets
- Overhaul and major repairs for generator sets
- Installation and O&M of Solar Systems

**Facilities Management**

- Property Security and Maintenance
- Property Operation
- Vital Operating Environments Management

**References**

- O&M for more than 2000 sites spread out in one million sq. km²
- Overhauling and major repairs for more than 500 generators
- Facility management for various leading operators
CONNECTIVITY / TRANSMISSION SERVICES

With traditional copper infrastructure problems, whether being saturated, outdated or simply out of reach, Telecom operators are challenged to eliminate any external factors that may impact the overall system performance by maximizing their network independence and minimizing points of failure. We provide solutions for transmission including, Microwave, Pre-Wimax, VSAT, VSAT Backhauling.

Scope of Services

Installation & commissioning
- Installation for BTS / BSC equipment
- Installation MW dishes, cables & accessories
- Commissioning works by certified engineer

Microwave, Pre-Wimax & Wimax
- Supply and implement Wireless Networks (PTP & PMP)
- Install Microwave equipment.
- Supply and implement WIFI networks for Enterprise.

VSAT Backhauling
- Provide voice & data services to very remote communities.
- Enable very fast deployment with very high reliability.

Case study: While in Egypt Stay Connected (WIESC), Sharm El Sheikh

Challenge
The “While in Egypt Stay Connected”, was designed to expand connectivity in the Egyptian tourism sector. The project was the first in Egypt to deploy WiMAX technology for commercial usage. Alcan CIT mission was to design, implement & operate a cutting edge WiMAX network within a limited time frame of only one month.

Solution
Designing and deploying an integrated wireless network, consisting of WiFi hotspots in the tourist area of Naama Bay for access, while using WiMAX technology for ISP’s NOC backhauling. Compatibility was guaranteed between various network components by building the correct network infrastructure with the proper configurations and VLANs to support this integrated system, using NLOS/LOS features and allow real IP addressing for remote access and maintenance.

Key Benefits
- Flexibility for future network expansions with minimal costs
- Expanding internet connectivity coverage area
- Providing high speed internet for a main touristic attraction in Egypt

References
- Installed and commissioned more than 4,500 sites in Africa and ME
- Designed and installed a Wimax Network in Sharm El Sheikh
- Certified Engineers (Ericsson, Huawei, Alcatel and NSN,...)
OPERATIONS SUPPORT SYSTEMS (OSS)

Realizing the complexity of a Telecom operator’s environment, we have developed an extensive portfolio of OSS solutions for telecom operators in the region. We have developed experiences over the years based on the network monitoring for signaling networks for all the technologies like GSM, GPRS, UMTS, SIGTRAN, and VoIP in addition to active testing solution to ensure that new services and voice/content delivery are to the subscriber satisfaction.

We provide a wide range of innovative fully integrated OSS that includes solutions for Network performance & Troubleshooting, Quality Of Service (QoS) Management, Lawful Interception and Data Retention, Service Fulfillment, Mobile Number Portability, Network Infrastructure Management System and Network Management Systems.

Scope of Services

QoS Management
- Measures network performance
- Simulates subscriber experience in their networks
- Pinpoints problems proactively and quickly

Network / Service Assurance
- Provide KPIs and metrics of the network and all network elements
- Provides KPIs about the services such as Voice Quality, SMS, email, MMS, Video Calls, etc.

Lawful Interception and Data Retention Solutions
- Enables law enforcement and government agencies to effectively gather evidence of illegal activities in the multi-faceted world of IP communications.
- VoIP Detection
- Assists investigation and reconstruction of past events by analysing communications Records

Service Fulfillment Solution
- Enables rapid creation and cost-effectively delivering advanced network & application services
- Enables rapid introduction of new offerings such as multimedia applications ensuring customer retention and increasing average revenue per user

Mobile Number Portability Solution
- Enables customers to switch from one network operator to another retaining their mobile numbers
- Minimizes signaling hops to provide superior throughput and avoid link congestion and bottlenecks in the network

Network Infrastructure Management
- Operates, manages and enhances physical network
- Rollout and Asset Management System
- Incorporate new technologies and enable new services

Network Management System
- Helps bringing services to market faster
- Enables consolidating management systems
- Provides centralized control and a common view of network, services, and customers
BUSINESS SUPPORT SYSTEMS (BSS)

Under today’s tough competition, many operators are increasingly focusing on profitability and margin rather than absolute growth and revenues. With very thin margins any possible leakage of revenue or loss in returns will have a clear effect on the operators’ financial health. Revenue assurance and fraud management systems become one of the critical systems that the operator considers to secure its profitability.

Scope of Services

Revenue Assurance Solution
We have long-standing experience in applying revenue assurance modules and concepts to detect leakages in the operator revenue stream and interfacing with all the OSS/BSS systems such as the network switches, mediation, provisioning, billing, etc.
- Modular end to end revenue assurance solution
- Covers the whole revenue chain from “switch” to “invoice”
- Provide root-cause analysis for revenue leakage

Fraud Management Solution
We have built accumulative experience in fraud fighting through working over the years with operators either wired or wireless and have helped them identifying fraudulent activities in their network either internal or external
- Subscription / Roaming Fraud
- Cloning, Call-Sell Fraud, Premium Rate Services (PRS) Fraud
- PBX Hacking/Clip-on Fraud, Pre-paid Fraud, Internal Fraud

Billing and Customer Care Solution
Next-generation services such as VoIP, IPTV and mobile TV are creating new challenges when it comes to its integration within the OSS. We help the operators deploy an effective billing solution that can efficiently provide assured billing & strong customer relations.
- One billing system that supports all lines of business
- Fully support convergence
- Customer Relationship Management

BUSINESS SERVICE MANAGEMENT

Business Service Management (BSM) is the most effective approach for managing IT from the perspective of the business. BSM ensures that the actions IT is taking and the decisions that are being made are based on business priorities. According to Forrester Research published study in April of 2006 organizations could save up to 25% of their overall annual IT budget with BSM.

Scope of Services

Alkan CTF have teamed up with BMG, the global leader in BSM, to empower the Telecom operators with BSM services through highly qualified consultants that map the business requirements to underlying IT infrastructure and implement the appropriate solution.

IT Service Management
- Enables, improves, and maximizes the delivery of IT services that drive business
- Products include BMC’s leading service support solutions including BMC Remedy® Help Desk, Remedy Change Management, Remedy Service Level Management, Remedy Asset Management and Configuration Management

Service Impact Management
- Monitors and manages the performance and availability of business critical services
- Products include BMC’s Service Impact Manager®, BMC® Event Manager®

Application Management
- Delivers ROI on ERP, CRM, and other applications
- Products include PATROL® and MAINVIEW®, CONTROL-M®, CONTROL-D®, and Smart Recover®

IT Operations, Database and Infrastructure Management
- Ensures a solid foundation for a successful business
- Products include BMC’s Database Management, Security Management and Infrastructure Management solutions

References

BMC Remedy is deployed in most of the Telecom operators in MEA region including Mobile Telecommunication Company (MTC) Kuwait, Saudi Telecom Company, Vodafone, Mobily Saudi Arabia, Batelco, MTC Vodafone Bahrain, MobileCom, Jordan Telecommunication Company (JTC), Jordan, Vodafone, Mobinil Egypt, Q-Tel Qatar and many others.
GIS APPLICATIONS & DIGITAL MAPPING

In the telecom industry where changes are so rapid. Solving business problems require a good understanding of where network assets, facilities, and customers exist today and where they will be tomorrow, moreover the capability to find, manage, and analyze data quickly and effectively makes a strategic difference. GIS technology allows telecom operators progressively integrate, analyze, and display location-based data to serve network planning and operations, marketing and sales, customer care and data management. GIS enables telecom operators to coordinate business priorities, increase revenue, reduce costs, and reduce time to market for new products.

Scope of Services

Digital Maps Production
- Producing geo-rectified satellite imagery
- Producing digital elevation and city models
- Producing detailed geo-coded vector maps with landmarks.

Solution Development
Building Geospatial Infrastructure Suite that represents a spatial backbone for telecom operators and serves different departments such as:

Marketing and Sales
- Allows marketers to segment vital consumer and business statistics geographically
- Provides input to capacity planning applications and direct targeted marketing campaigns.
- Enables obtaining quick customer profiles via asking geographic questions with regards to customer location, products and services in use, etc...

Network Planning and Operations
- Fault Management
- Coverage (Radio Planning)
- Performance & Measurement
- Transmission

Customer Care
- Represents a crucial interface between a telecommunications carrier and its customers and prospects
- Gives call center operators an instant view of customer location, nearby facilities, requests for service and signal quality
- Dramatically reduces service request turnaround times by integrating historical network and customer data with a trouble ticketing system.
- Delivers fast, integrated Call Center information both for Marketing and Engineering staff.

Asset Management
- Represents geographic documentation of network element locations which are captured from the various underlying legacy systems of the operator
- Links the various elements (e.g., BTS/SITE) with the included equipment (e.g., Transceiver, Power Amplifier, Antenna...)

Case study: Enterprise GIS for a Leading GSM Operator

Challenge
The customer is one of the biggest GSM Service Providers in Egypt which requires an enterprise-wide GIS solution to help in coordinating all departments efforts in resolving network complaints and outage in different areas, as well as creating a control mechanism to measure efficiency on responding to network complaints correctly.

Solution
Development of a GIS Enterprise solution that enabled integration of maps and information to enable better decision making, from planning and maintaining network infrastructures to administering mobile telephone coverage, managing existing customers and targeting new ones by providing location-based data and keeping track of customer mobility & trends in the staggering bandwidth requirements driven by entertainment and Internet services. Viewing information on a map makes it quicker and more intuitive than relying on spreadsheets and other tabular data.

Outcome
A GIS based Enterprise solution with valuable benefits such as:
- Providing a seamless integration between GIS and other systems (CRM, ERP, Billing, etc...)
- Spatially enabling the call center
- Automating business processes
- Better decision making
- Faster network rollout
- Maximizing subscriber satisfaction
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