AEC –
A Story of Technology Innovation through Localization
www.aecl.com
About AEC

Activities:
1) Design, manufacture, upgrade and support of Electronic Products & Systems
2) ICT Solutions Provider
   For military, civil and industrial customers.

Established: Sept. 1988
Location: Industrial Park, King Khalid International Airport, Riyadh, Saudi Arabia
AEC Staff

- Total AEC’s Employees 1,075
  - 797 at AEC Facility
  - 278 at customer’s premises (Telecom & Other projects)
- Customer focused
- Highly skilled, well trained professionals.
- Work to highest quality standards.
- More than 73% employees are Saudi nationals
- About 77% of AEC engineers and technicians are Saudis

Employees percentage:
- Saudi 73%
- Non-Saudi 27%

Profile of Saudi employees:
- Engineers 31%
- Technicians 28%
- Support 22%
- Professional 19%
AEC Business Evolution

- **Military Programs** (1990)
- **Telecom Programs** (1995)
- **Industrial Programs** (2002)
- **ICT Programs** (2005)
AEC Core Competencies

Core Competencies

Engineering & Development
Strong Engineering design & development capabilities include:
- SW & HW
- Systems
- Support

MANUFACTURING
A world-class factory fully-equipped to manufacture all types of electronic products and systems

REPAIRS
A stand alone facility specialized in testing, trouble shooting and repairing wide range of electronic equipment

TOTAL SOLUTION : SYSTEMS INTEGRATION
AEC Business Structure

Quality Systems
Information Technology
Manufacturing
Repair
Logistics
Engineering & Development
Systems Engineering

Military Systems Business Unit

Industrial Systems Business Unit

Telecom Systems Business Unit
Quality Recognition

- CMMI Level 3 Certified
- Certified ISO 9001: 2000
- AS9100B Aerospace Quality Management System
- AS9110 Aerospace Quality Assurance requirements for maintenance organizations
- King Abdulaziz Quality Award 2008 – 1st Position, Industrial sector
- Obtained highest quality rating from leading international companies, examples:
  - Cisco: Gold Partner
  - Boeing: “Gold” Supplier
  - Lucent Technologies: Grade “A” Supplier
  - Lockheed Martin: “Star” Supplier
  - Sikorsky: “World Class”
  - Thales: “Target Supplier”
  - EADS: “QSF-B”
Solutions Framework

Engineering & Development – Operations-Field Services

- Telecom
- ICT
- Security
- Command & Control
- O&M Managed Services

Total Program Management
Telecom Offerings

- Manufacturing
- Systems Design (LLD, HLD, etc)
- Systems Integration & Test (staging activities)
- System Deployment
- Technical Services and O&M
- Managed Service
ICT Capabilities

- Infrastructure Solutions
- Security Solutions
- Business & Integration Software Solutions
- ICT Services
Infrastructure Solutions

- Enterprise Networks
- Unified Communications
- Data Center Solutions
- Systems & Storage
- Virtualization and Cloud Computing
- Infrastructure Management
- Security & Optimization
Information Security

Security Consulting
- Audits
- Penetration Testing and Verification
- Training
- Systems & Network Components Hardening
- Cyber Forensics
- Security Management & Monitoring

Security Solutions
- Firewalls
- Network Intrusion Detection/Prevention (IDS/IPS)
- Host Intrusion Detection/Prevention (HIPS)
- Anti-Spam and Anti-Virus Solutions
- Content Management Solutions
- Patch Management Solutions
- Encryption Solutions
- VPN and SSL
- Access Control
- Vulnerability Assessment
- Identity Management
- Systems and Network Components Hardening
- Security Management and Monitoring Solutions
Business & Integration Software Solutions

- Asset Management
- Service Management
- Business Process Management
- Service Oriented Architecture
- Business Intelligence & Data Warehousing
- Enterprise Content Management
- Enterprise Information Portals
- Enterprise Resource Planning
- Customer Relationship Management
- Hospital Information Systems
- Picture Archiving & Communication System
- Enterprise Application Integration
- Data Integration
Consultancy Services

- IP Communications
- Networking Assessment and Optimization
- Systems Consolidation
- Security Awareness Programs
- Security Policy Development Architecture
- Information Security Audit
- Business Continuity and Disaster Recovery Services
- Program Management
Managed Services

- Infrastructure Operations
- Datacenter Operations
- Remote Monitoring
- Managed Storage, Backup, Disaster Recovery
- Help Desks
- Patch Management
- Managed Security Services
- Software License Management
- NOC Services
- Mobile Device Management
- Warranty Management
- Hardware as a Service
- Managed Database Services
- Managed Print Services
- SLA Management and Compliance
- Vendor Management
- Spare Parts Management
Engineering & Development

• E&D Staff represents more than 17% of AEC direct staff

• E&D Development Areas:
  – Command & Control Systems
  – Telemetry Systems
  – Information Security
  – Industrial Automation
  – Smart Grid & Metering Solutions
E&D Capabilities

People

Process

Tools & Techniques
Example: Smart Grid & Metering Solutions

- AEC have developed a number of products and systems in this area that include:
  - Energy Smart Meters (ADDAD)
  - Automatic Meter Reading system (AMR)
  - Advanced Meter Infrastructures (AMI)
  - Smart Grid system components

- AEC covers the whole spectrum of activities:
  - software and hardware design,
  - manufacturing
  - implementation
  - Customer support
Smart Meters

ADDAD-002
CT/VT CL1 & 0.2
3P4W, 3P3W
Optical
RS485
PSTN Modem

ADDAD-5
CT/VT, Direct
CL1, 0.5 & 0.2
3P4W, 3P3W
Optical
RS485
RS232
PSTN Modem
GSM Modem
PLC
Ethernet
Automatic Meter Reading System

- RS485, RS232, telephone modem, power line modem, Ethernet, GSM, GPRS, satellite...
- Status monitoring of substations and meters
- Control meters parameter
- Display electrical network alarms and exceptions
- Diagnostic tools
- Reporting & analysis tools
- Billing
- Automatic bill sending (email, SMS, Fax, ...)
- Interface to external billing system
- Client-Server
AMR-Transmission

Network Diagram
Executive Dashboard
Network Administration

Up to 5 MP (31 RM)
AMR-Distribution

S/S (295)

Setup & Configuration

Servers Rack

DMC

DCU

GSM/ GPRS

RM

LAN

PLC
Dashboard (Energy Distribution)

- **Overall**
  - Generated: 1,055.12
  - Exported: 1,056.12
  - Purchased: 8.525
  - Consumed: 9.177
  - Sold: 7.736
  - Auxiliary: 8.994
  - Loss: 6.084

- **Regions**
  - **Eastern Region**
    - Purchased: 239.77
    - Consumed: 229.77
    - MWh: 1998, 1149, 1953
  - **Western Region**
    - Purchased: 245.94
    - Consumed: 241.94
    - MWh: 2468, 9337, 2244
  - **Central Region**
    - Purchased: 204.98
    - Consumed: 146.71
    - MWh: 23478, 17079, 273
  - **Southern Region**
    - Purchased: 86.4
    - Consumed: 4.75
    - MWh: 8554, 864, 475
AEC Customers
AEC Alliances
Why AEC?

• In depth experience with dynamics and structure of the Saudi Market
• Strong relationships with prominent international vendors
• Practical, Measurable and Sustainable Results
• Collaborative and Flexible Approach
• Passionate, Dedicated and Experienced
• Strategic local capabilities with world-class standard
MANAGED SERVICES EXECUTIVE OVERVIEW
Managed Services

What does Managed Services “MSP” mean to you?

Data Hosting and Storage

Staff Augmentation & Related Services
- Contact Center, Help Desk, Service Desk

Cloud Services
- SaaS, PaaS, IaaS, BPaaS
CIO Roundabout

- Cost control
  - Increased business demand
  - Market disruptors
  - Heightened Customer Demands
  - Economic impacts
  - Aid with Business problem solving

- Governance regulatory and security
  - Advances in technology e.g. Cloud..
  - Optimize IT
  - Manage Technology disruptions
  - IT performance and responses
  - Talent Management
PPT Strategy

- Right Mix of technical skills and soft skills.
- Standards and Process that work for you.
- Best Use of newest technology as Delivery mechanism and business enabler.
2013 for Datacenter Systems

2013 Datacenter Systems Spending is $147 Billion with 4.4% Growth

- Datacenter forecast for 2013 reduced from 5.2% growth to 4.4%.
- EMEA forecast reduced from 3.9% to 2.4%.
- Storage forecast saw largest revision – down from 8.5% to 7% in 2013.
- Storage still the strongest segment in raw growth terms, forecast of 8.8% for 2012-16.

Better Business Bureau

Top Ten Industry Complaints

1. Computers Software & Services
2. Auto Dealers – New Cars
3. Pet Supplies & Foods – Retail
4. Plumbing Contractors
5. Internet Shopping Services
6. Auto Repair & Services
7. Furniture – Retail
8. Roofing Contractors
9. Painting Contractors
10. Contractors - General

Top Concerns by CIO

1. Manage Operational Cost (41%)
2. Focus on core business issues (27%)
3. Reduce the time to market for new technology (16%)
4. Access to new professional expertise (16%)

Source: www.cio.com
Top Services Consumed

Reference: MSP final global report 2012
MSP - SMB

- SMB managed services market will grow from $7 billion in 2011 to $12 billion in 2015. By then, at least 40 percent of small companies’ support and maintenance will be delivered via managed services.

- Focus on core business tasks essentially realism in start-ups and smaller operations – yet leveraging sophisticated technology and expertise and a fraction of the cost.

- Realistic IT bottom line - Lower CAPEX and FAT free OPEX – more focus on top line
Managed Service Offering

Monitoring & Management

- Network Management
- SIEM
- Flexible timing
- Professional Services
- Per Device or User
- SLA
IT ENABLERS

Quickly Implement New Technology
- Re-inventing the Wheel
- Capitalize on years of proven experience
- Save time and money

Core Business
- Human Capital Constraint's
- Distracted By complex IT decisions
- Stay Focused

Risk
- Markets, competition, government regulations, financial conditions, and technologies

Compliance and Security
- Up-to-date
- Regulatory industry
- Auditing
- Best Practice methodology
Control IT Costs
- fixed IT costs into variable cost
- Only pay for what you get

Reduce Labor Costs
- Training & Hiring
- Existing staff – Dead Wood
- Focus on areas to grow the business core

Qualified Vs. Experience
- Lesser unknowns in IT sphere
- Certificates doesn’t mean experience balance

Increase Efficiency and Competitiveness
- Higher Research Costs
- Development
- Implementation time
Client

Business Strategy
- Replace Legacy Technology
- Upgrade to their BPR, re-alignment to best practice

Transformation
- End-End transformation
- Cisco technology Underpinning Infrastructure
- Best of Bread Applications with standards for interfacing SOAP/WSDL
- ROI Budget
- Cloud Enabled

Post Implementation Support
- OEM Level 4
- Day-Day operational L3
- Strategic Planning and Framework
Value Add Roadmap

Assessment and Planning

Transition legacy system and processes to partner management

Manage and operate

Optimize

Transform

Manage Operate Transformed Environment

Ongoing Optimization

Well defined performance measurements and combined service levels

End-End governance model

Operate best practice

Single focal point and accountability

Current state systems and process

Transformed Systems and process
Business Benefits

**VALUE**
- Pay less for a higher quality of service
- Better control and efficiencies of scale
- Shared service delivery platform within business units and industry

**EDGE**
- Gain access to best of breed tools & best practices
- Speedy knowledge transition and reduce dependency on individuals

**COMMITMENT**
- 99% - 100% of SLA maintenance
- Peace of mind
Discussions

SUCCESS

FAILURE

[Image of a person looking frustrated with crumpled paper and a key symbolizing success and failure]