

Presentation

Challenges of Telecommunications Market Liberalization to Incumbent Operators

Dubai
January 22, 2002

The purpose of this presentation is to outline the challenges, and opportunities, to incumbent operators amidst market liberalization

- ▶ The liberalization of telecommunications is inevitable, even in well developed markets with still a dominant monopolistic sector
 - Monopolistic operators, mostly Government-owned, use their economies of scale argument to maintain their status
 - The strategy works well when the pace of technological changes is low, using Government public resources for capital investments
 - These operators are ill prepared, however, to confront rapid rates of technological change and to meet market expectations
 - Governments are therefore forced to return the telecommunications sector to the private sector, and liberalize the market
- ▶ As markets are liberalized, incumbent operators are often written-off as "has been's" and the public opinion elects to predict their demise
 - Incumbent operators, however, have unsurpassed resources and competencies they can leverage to develop a competitive posture in the emerging market place...
 - ... while adequately serving the liberalization agenda

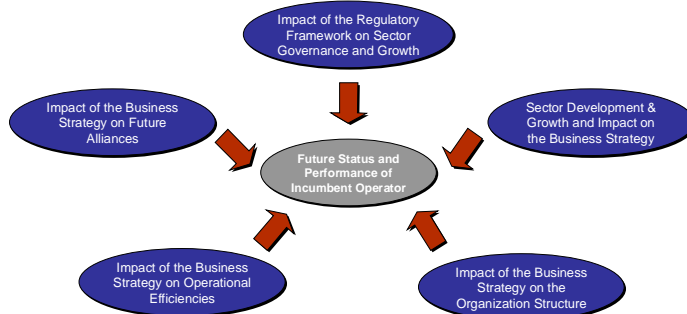
The regional telecommunications landscape dominantly exhibits monopolistic market conditions

Country	Main Operator	Local Voice	DLD Voice	ILD Voice	Cellular Digital	Data	Internet	Notes
Bahrain	Batelco	M	M	M	M	M	M	<ul style="list-style-type: none">▶ 41% owned by private sector in Bahrain▶ 39% owned by the Government of Bahrain▶ 20% owned by Cable & Wireless
Kuwait	Ministry of Communication	M	M	C	D	C	D	<ul style="list-style-type: none">▶ Incumbent operator fully state-owned▶ Two private Mobile operators, MTC and NMTC
Oman	Oman Tel	M	M	M	M	M	M	<ul style="list-style-type: none">▶ Incumbent operator fully state-owned▶ Recent efforts have focused on restructuring and strategic partnering
Qatar	Qatar Telecom (Q-Tel)	M	M	M	M	M	M	<ul style="list-style-type: none">▶ 45% owned by the private sector in Qatar▶ 55% owned by the Government of Qatar
Saudi Arabia	Saudi Telecom Co.	M	M	M	M	C ⁽²⁾	C	<ul style="list-style-type: none">▶ 100% owned by the Government of the KSA▶ Priority is to fast-track re-structuring and execute local IPO
UAE	Etsalat	M	M	M	M	M	M	<ul style="list-style-type: none">▶ 40% owned by private sector▶ 60% owned by the Government of the UAE

Note: (1) M = Monopoly; D = Duopoly; C = Competition; (2) Includes VSAT market
Source: BAH Analysis

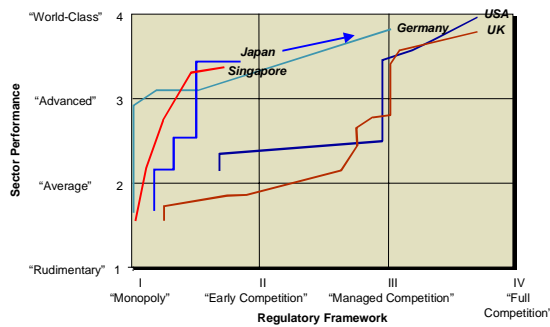
International learnings suggest that the advent of liberalization is likely to raise a number of challenges to incumbent operators

Selected Challenges Facing Incumbent Telecom Operators



As liberalization is introduced, adequate dialogue is required to identify the optimal path to "world class" sector performance

Sector Performance vs. Regulatory Framework



Source: BAH Analysis

Early liberalization experiences in the region have been inconclusive, in the absence of adequate regulation

Selected Cases of Liberalization

ISP Sector in Saudi Arabia

- ▶ KACST was given authority to prepare regulations and policies to govern the use of Internet in KSA in cooperation with other Government agencies. It also had the responsibility to qualify and license ISPs
- ▶ 33 ISP licenses were awarded with no plans to expand their number. 28 ISPs are operational as of November 2001
- ▶ KACST buys international bandwidth from the Saudi Telecom Co. and resells to ISPs at a mark-up
- ▶ Content censorship is managed by KACST

Issues

- ▶ Regulatory intervention is adding cost to the sector
- ▶ Some service providers, as a result, are under-buying bandwidth capacity while increasing their customer base, leading to deteriorating service level

Mobile Sector in Lebanon

- ▶ Two operators were awarded the right to deploy and operate mobile networks and provision customers
- ▶ The contractual arrangement was defined under a BOT approach, without comprehensive sector regulation
- ▶ The customer base size was capped for both operators
- ▶ A revenue sharing mechanism with the Government was agreed and implemented over the years
- ▶ The Government acted as regulator while receiving significant revenues from the operators

Issues

- ▶ Recent Government intervention focused on sector revenue and sharing expectations
- ▶ Sector lacks explicit and independent framework to review and arbitrate, if necessary, pending issues

Incumbent operators can contribute at the outset to the regulatory roadmap and enhance the sector development

Key Regulatory Actions	Level of Contribution
▶ Setting sector policy and regulation	2
▶ Setting technical standards	3
▶ Defining pricing regulation	2
▶ Formulating licenses	2
▶ Defining and managing universal service obligations	3
▶ Defining and managing interconnection principles	3
▶ Defining resolution and dispute processes	2

Low 0 → High 4

The outlining of the liberalization path provides incumbent operators with valuable insights to optimize their business strategies

Selected Sequence of Liberalization – Benchmarks

Examples	Transition Period (Years)	Sequence of Liberalization
Singapore	5	1. VANS (*) 2. Mobile 3. Other Sectors
Mexico	8	1. Data/Mobile 2. Fixed Line
Germany	9	1. Data 2. Mobile 3. Fixed Line
UK	1	1. Duopoly (all services) 2. Open competition
Canada	13	1. Data 2. Mobile 3. Fixed Line
Hong Kong	14	1. Mobile 2. Local Loop 3. Other services

Note: (*) VANS = Value Added Network Services

Case in point is the need to maximize market penetration in the Mobile segment to yield adequate market share in the liberalized era

Outlook of the Mobile Sector in the GCC (2001)

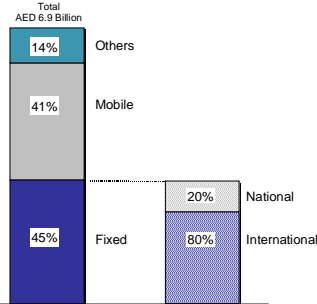
Market	Mobile Penetration
Saudi Arabia	11%
UAE	59%
Kuwait	47%
Oman	8%
Bahrain	43%
Qatar	20%

Business Development Imperatives
▶ Achieving rapid market penetration, in sync with confirmed potential and structure <ul style="list-style-type: none"> - Network deployment - Tariffs management - Customers awareness
▶ Improving quality <ul style="list-style-type: none"> - Service - Servicing
▶ Raising customers' expectations

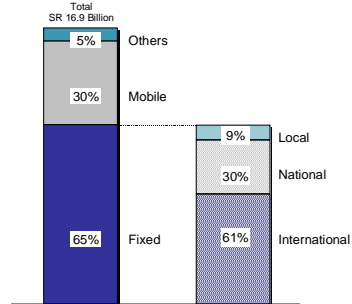
Note: Population based on World Bank 1998 data with estimated yearly increase of 2%
Source: Operators Data, World Bank 1998, BAH Analysis

Incumbent operators must also reduce their strong dependence on international communications ...

Estimated Etisalat Revenue Breakdown (2000)



Estimated Saudi Telecom Co. Revenue Breakdown (2000)



Source: Etisalat Annual Report, Saudi Telecom Co. Data, BAH Analysis

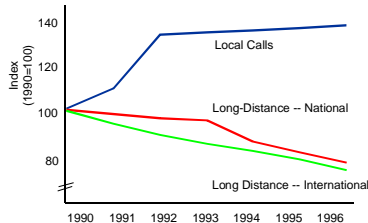
... where competition is likely to be considerable

Rank*	Country	Number of Authorized International Carriers					
		July 2000	July 1999	July 1998	July 1997	July 1996	July 1995
1	United States	1,100	679	393	175	115	65
2	United Kingdom	306	215	144	100	65	35
3	Hong Kong	150	80	4	1	1	1
4	Japan	115	50	13	3	3	3
5	Germany	90	40	32	1	1	1
6	France	89	50	29	1	1	1
7	Canada	75	49	21	21	19	18
8	Netherlands	60	30	23	3	1	1
9	Italy	52	15	9	1	1	1
10	Switzerland	50	40	21	1	1	1
11	Denmark	45	18	11	9	7	1
12	Australia	40	28	14	10	8	8
13	Austria	40	17	13	1	1	1
14	Ireland	40	25	5	3	3	1
15	Korea, Rep.	40	24	3	2	2	2
16	Singapore	40	1	1	1	1	1
33	Malaysia	5	5	5	5	5	4

*Note: Rank based on number of authorized international carriers for July 2000
Source: Telegeography 2001

Incumbent operators must, therefore, initiate tariff re-balancing on fixed voice services

The International Trend of Tariff Re-balancing ...



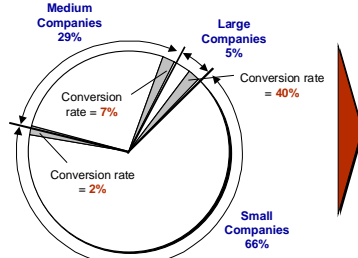
Note: ILD range of rate change in percent is based on non-weighted basket of most dialed destinations (GCC, Egypt, India, Pakistan, US, UK)
Source: ITU, Tariffica 1998-2001, Operators data

... Is Not Yet Fully in Place in the Gulf Region

	1998-2001 (%) Change in ILD Call Rate	Charge Applied to Local Call
Saudi Arabia	(20%)-(66%)	Yes
UAE	(26%)-(54%)	No
Kuwait	NA	No
Oman	(10%)-(33%)	Yes
Bahrain	(11%)-(35%)	Yes
Qatar	(14%)-(33%)	No

In the Data sector, incumbent operators must adequately gauge the near and medium term business potentials ...

Estimated Adoption of Access Data Services in Selected GCC Markets (2000)



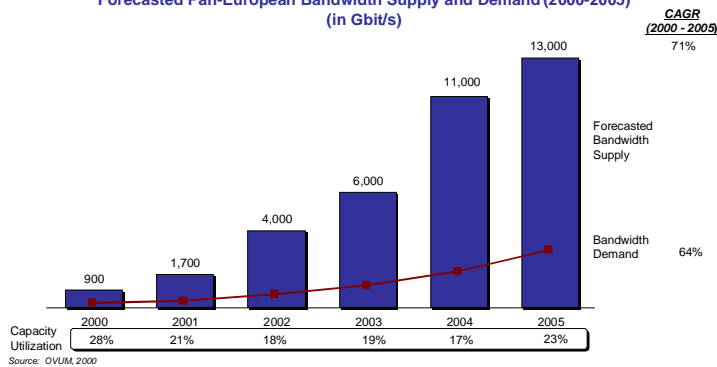
Source: BAH Survey and Analysis

Data Sector Development Levers

- ▶ Increased emphasis on private sector growth
 - Domestic reforms trend
 - Alignment of national economies to internationalization
 - Pursuit of foreign investments
- ▶ Increased emphasis on efficiency improvement, and the related emerging role of ICT
- ▶ Dominant role of Government in national economies, as shareholders and/or operators
 - "Lead by example" imperative
- ▶ Increased emphasis on "Technology" as a development imperative in education and employment

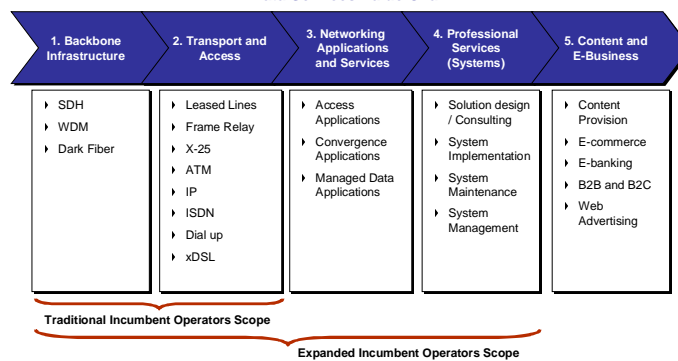
... and must optimally manage their capacity build-up to mitigate an over-capacity scenario

Forecasted Pan-European Bandwidth Supply and Demand (2000-2005) (in Gbit/s)



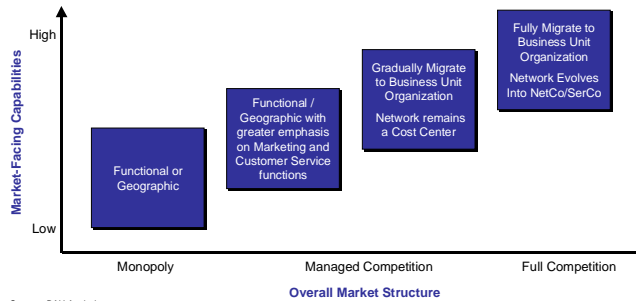
Incumbent operators must also consider expanding further their Data business model for the longer term

Data Services Value Chain



The evolution of business strategies must be matched by an adequate organizational model ...

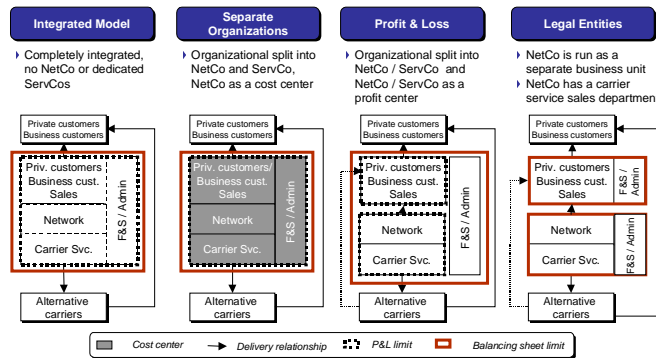
Common Organization Development Transition Path



Source: BAH Analysis

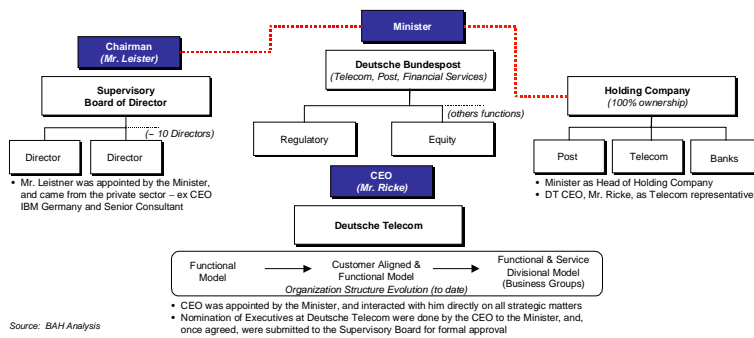
... including the definition of the future Network group ...

Illustrative NetCo / ServCo Split Alternatives Structures



... and the clear definition of the governance process

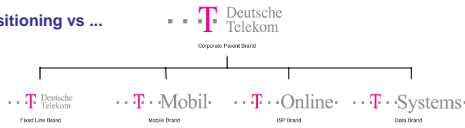
Organizational Linkages and Governance Deutsche Telecom Corporatization (1990-1995)



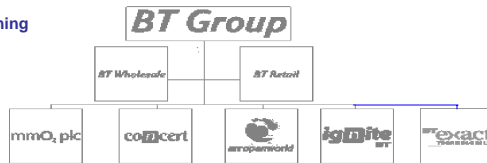
Source: BAH Analysis

The overall organizational model has direct impact on the positioning of the incumbent operator

Monolithic Brand Positioning vs ...

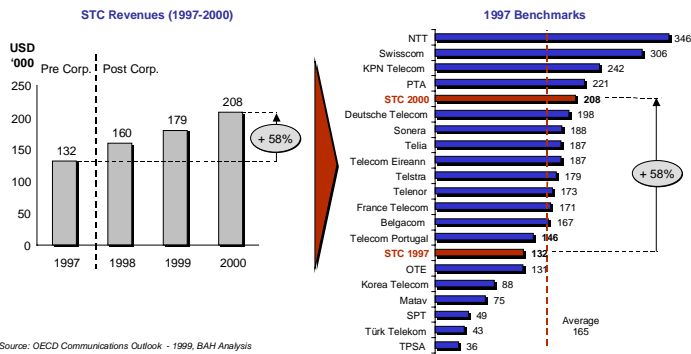


... Multi-Brand Positioning



Operating efficiency becomes a key priority ...

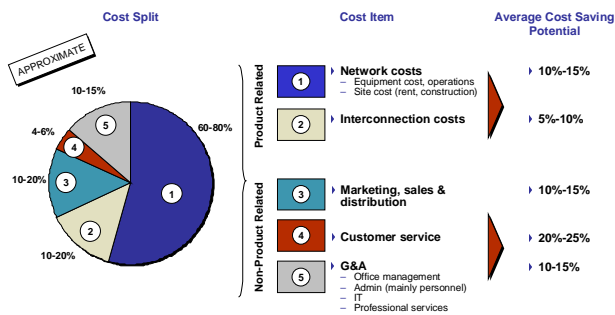
Revenue Per Employee -- Case of Saudi Telecom Co. vs. Selected Incumbent Operators



Source: OECD Communications Outlook - 1999, BAH Analysis

... and drives the resource efficiency agenda of incumbent operators across most operational elements

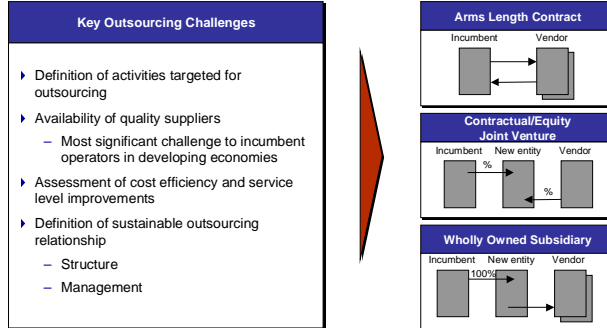
Cost Reduction Approaches -- Fixed Network Operator



Source: BAH Analysis based on Europe and Middle East benchmarks

Efficiency improvements may entail significant outsourcing as well as the development of new relationships with the private sector

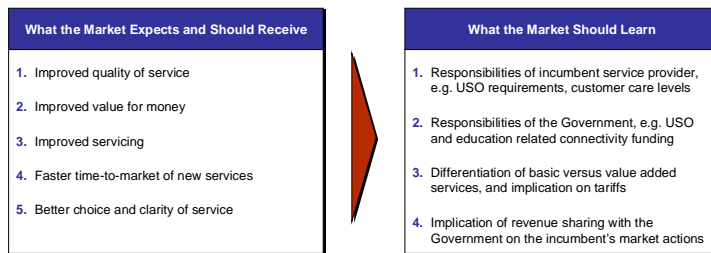
Outsourcing Dynamics and Operations Options



Source: BAH Analysis

Throughout the readying process, incumbent operators must also seek to meet and manage market expectations

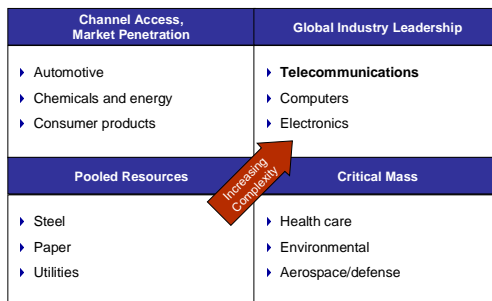
Illustrative Market Expectations in Liberalizing Markets



Source: BAH Interview and Analysis

Strategic alliances must also be investigated with the globalization of markets and search for capabilities amidst technology progress

Alliance Drivers by Industry



Source: BAH Analysis

In summary, incumbent operators can proactively manage the passage to the market liberalization era, and benefit from it

Market Liberalization Imperatives to Incumbent Operators

- ▶ Proactively input into the definition of regulatory policies and frameworks
- ▶ Re-assess in a dynamic fashion business assumptions, objectives, and strategies in light of market and regulatory developments
- ▶ Re-align the organization and operations to meet regulatory requirements and prosper in the future market place
- ▶ Develop rewarding and flexible strategic alliances