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ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

Western Asia Preparatory Conference for the World
Summit on the Information Society (WSIS)
Beirut, 4-6 February 2003



infoDev



UNESCO



UN ICT Task Force



ITU

Ahmad El Oteify
Vice President, Business Development
National Telecommunications Corporation
Egypt

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Western Asia Preparatory Conference for WSIS Partnership Initiatives for Regional Integration

Ahmed El Oteify
Vice President, Business Development
National Telecommunications Corporation

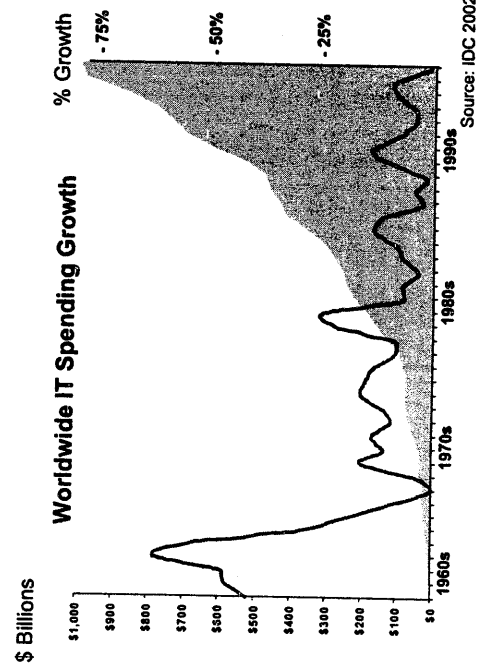
Riyadh, Feb 2003

Agenda

- Review of Current World Market Trends
- ICT Status in The Arab World
- Current Challenges
- New Model for Partnership
- Roles of Different Stake Holders
- Status of Partnership, Successful Examples
- Proposed Initiatives
 - Content, Connectivity & Consolidation

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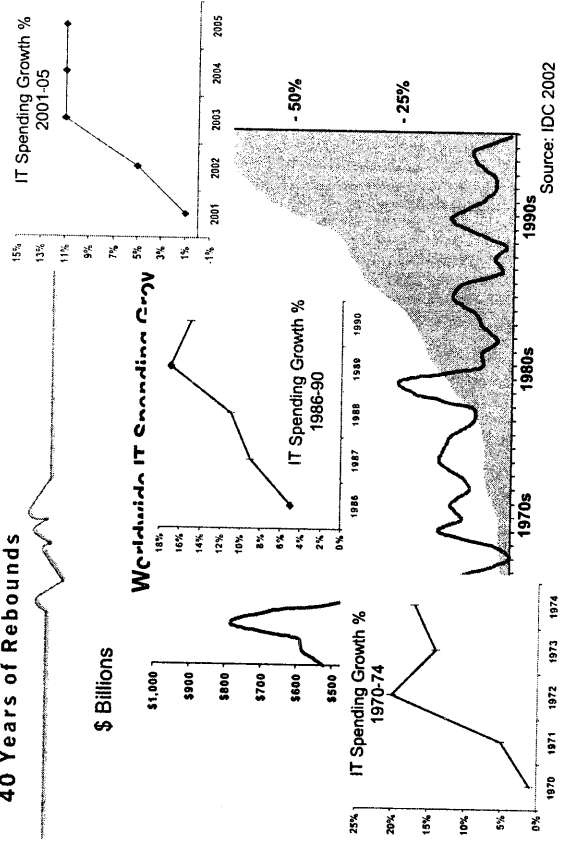
40 Years of Rebounds



Source: IDC 2002

Partnership Initiatives for Regional Integration

40 Years of Rebounds



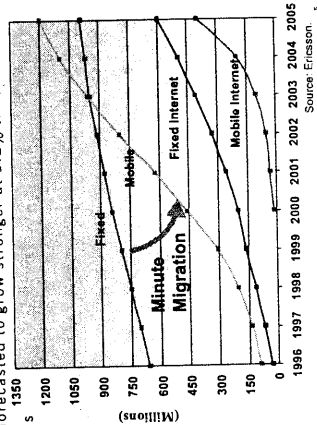
Source: IDC 2002

Partnership Initiatives for Regional Integration

Worldwide ICT Market Trends

Worldwide Telecommunications Growth

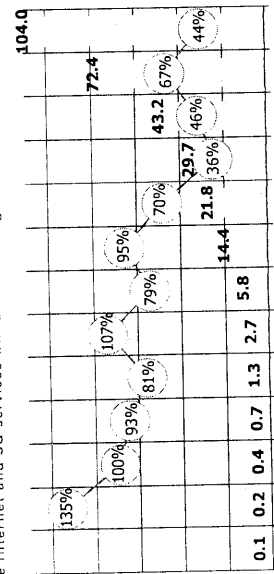
- The market exploded from 1999 - 2001 fuelled by the need to upgrade the current infrastructure to manage the exploding data traffic and Mobile growth.
- Effectuated by the over valued 3G licenses, and over investment in datacom networks, the market is currently facing a severe down turn.
- The market is going through a consolidation and restructuring phase.
- Despite that telecom services market is forecasted to grow stronger at 9.2% till 2006
- Recovery is expected after 14-18 months



Worldwide ICT Market Trends

Internet Explosion will Continue to be a Major Driver for Growth

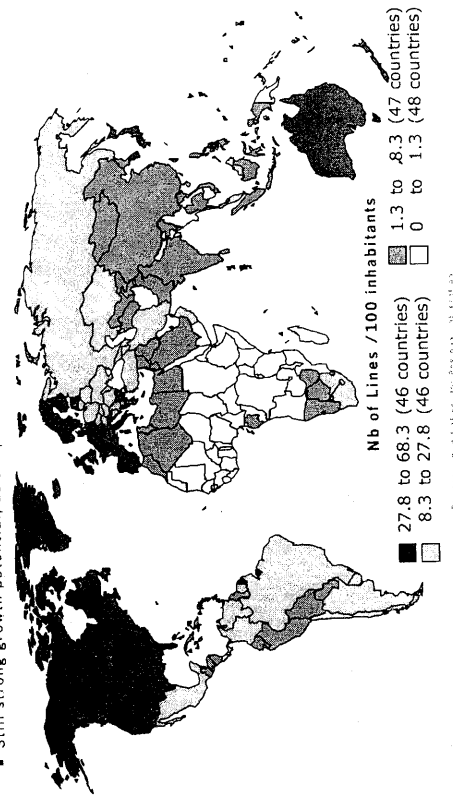
- The internet is experiencing a phenomenal growth.
- We are evolving into a web centric world.
- Internet is becoming the major exchange media/forum
- Mobile Internet and 3G services will drive future growth



Worldwide ICT Market Trends

Worldwide Fixed Telephone Density

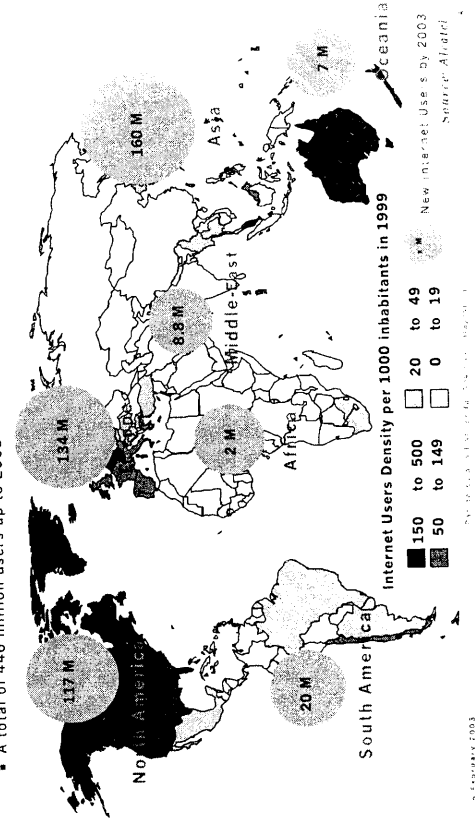
- Still strong growth potential, as telephones is becoming the new information access point



Worldwide ICT Market Trends

Still Far More Growth Ahead

- A total of 446 million users up to 2003

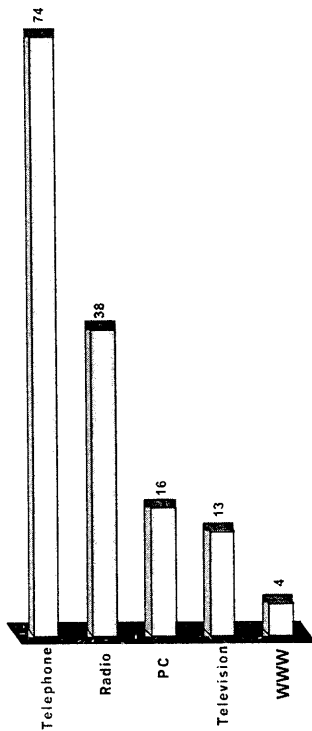


Worldwide ICT Market Trends

With an Unprecedented Rate of Diffusion

- The internet is experiencing a phenomenal growth of 150+%.

Years it took to reach 50 million users



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Source: Strategy Analytics, July 2001

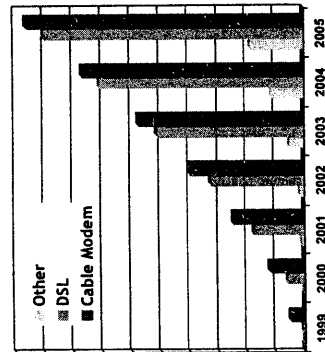
11

Worldwide ICT Market Trends

Internet is Migrating to Broadband

Total Broadband Installations

- DSL
- Cable Modem
- Fiber to the Home
- 2 way Direct Broadcast Satellite
- Fixed Wireless
- Power Line Telecommunications



Source: Strategy Analytics, July 2001

A total of 102 million households in US and Europe will have Broadband access by 2005

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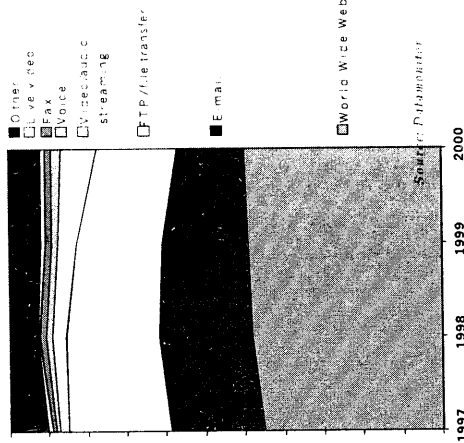
Source: Strategy Analytics, July 2001

11

Worldwide ICT Market Trends

World-wide Internet Traffic by Application

- Web and Video increased tremendously from 1997-2000



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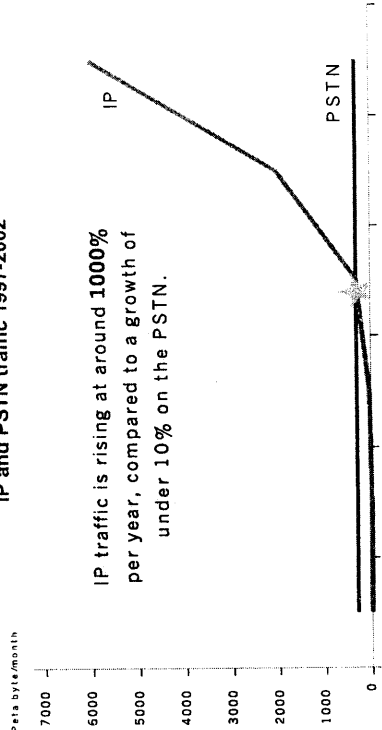
Source: Datacenter

Worldwide ICT Market Trends

IP/@ driving forces: IP Protocol

- Cross Atlantic Traffic: IP exceeded PSTN beginning 99

IP and PSTN traffic 1997-2002



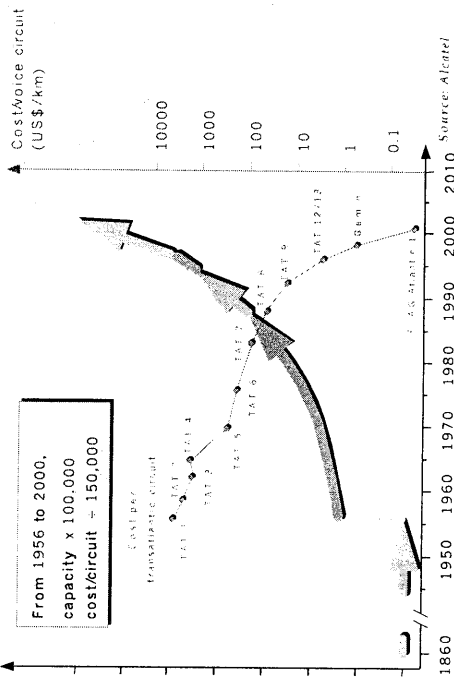
IP traffic is rising at around 1000% per year, compared to a growth of under 10% on the PSTN.

Source: Datacenter

Worldwide ICT Market Trends

IP/@ driving forces: Technology

- Rapidly decreasing circuit cost
- Number of voice circuits



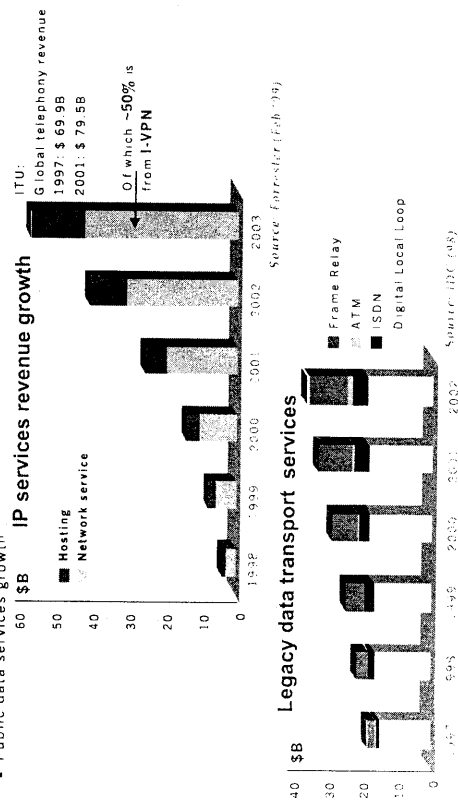
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13

Worldwide ICT Market Trends

IP/@ driving forces: Applications

- Public data services growth



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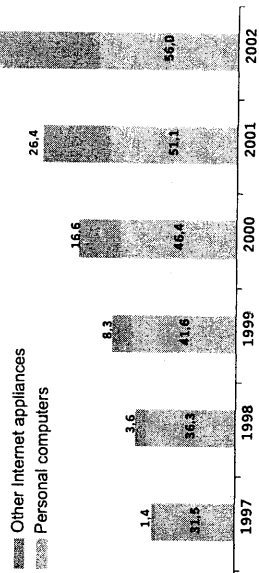
14

Worldwide ICT Market Trends

IP/@ driving forces: Terminals

- A New Market for Internet applications supported by New Terminals other than PC's
- @ application services and PC's
- New UMTS access devices with on line video

Figures in Million Units (US Market)



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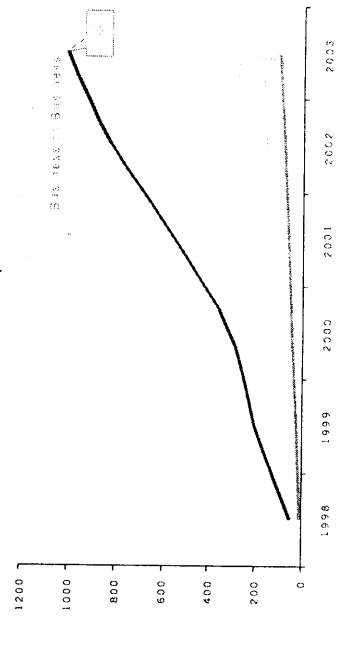
14

Worldwide ICT Market Trends

IP/@ driving forces: Business Networks

- Ecommerce the killer application

E-Commerce Market Perspective Worldwide



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15

But the Future is Still Ahead

Infrastructure was the world focus today

Content in the Next Big Challenge !

Growth is still there

Projected Annual Growth Rates by Region (1999-2006)

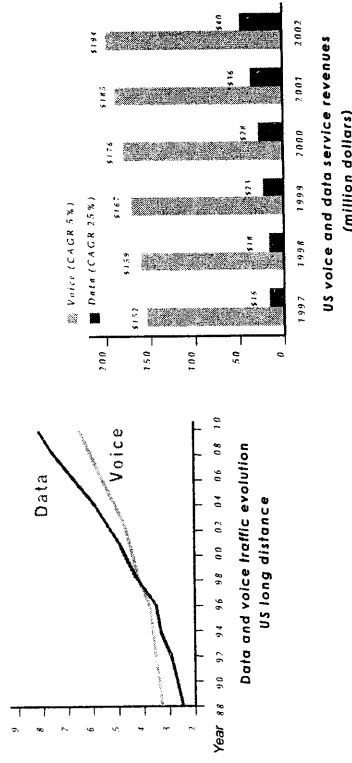
Asia/Pacific	9.5%
Central/Eastern Europe	9.4%
Latin America	11.2%
Middle East/Africa	12.7%
North America	9.3%
Western Europe	6.8%
Average	9.2%

Source: Gartner, Inc.

Voice is Still Leading the Economic Model

- Data traffic explodes and drives bandwidth demand, but...

Today's operator revenues are coming from voice



Conclusion

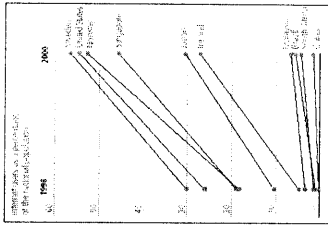
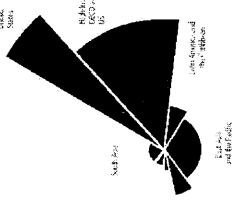
- Fall of CLECs and Return to Good Old Operators
- Emergence of Global Players (Vodafone)
- 3G Licenses Left Major Operators Heavily Debted
- Major operators are going into a consolidation phase
- Recovery is expected in 14-18 months
- World ICT Recession Could be an Opportunity for Developing Countries

The Window of Opportunity Will Not Last Forever !

Digital Divide

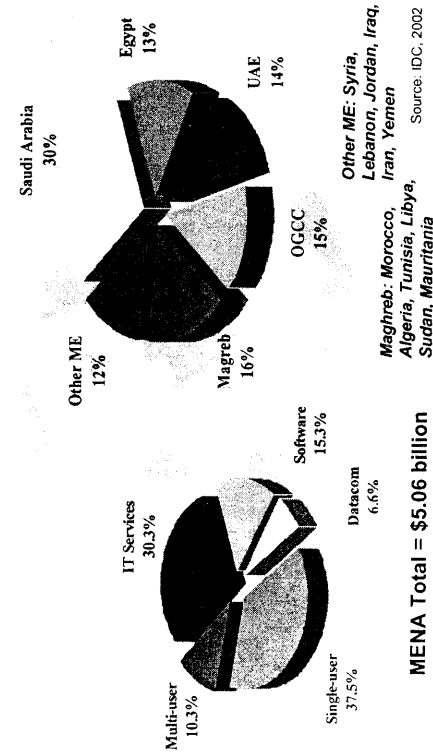
UNEVEN DIFFUSION OF TECHNOLOGY—OLD AND NEW
INTERNET USERS—STILL A GLOBAL ENCLAVE

Developed countries, particularly North America, Europe, and Japan, have high rates of Internet use. The Middle East remains low.



ICT Status in the Arab Middle East

Arab States: Country Market Comparison of IT Spending MENA, 2001



ICT Status in the Arab Middle East

Arab States: Telecommunications Status

- 22 million Fixed Lines
- Mobile Subscribers Estimated at 15.7 million in 2001
- 3 million Internet Users
- 1 million Paid Internet Account
- 4.5 million PC
- Telecom Equipment Market reached \$ 4.1 billion in 2001
- Broadband introduced in 6 countries

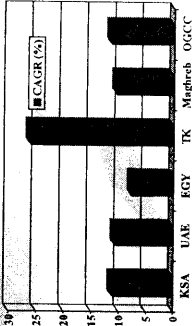
	PSTN	GSM	Internet Accounts
Algeria	25%	43%	3.84%
Bahrain	10%	6%	0.18%
Egypt	13%	16%	0.96%
Iraq	42%	21%	7.59%
Jordan	22%	20%	3.19%
Lebanon	5%	16%	0.15%
Libya	9%	13%	1.28%
Morocco	27%	29%	2.2%
Oman	15%	12%	2%
Palestine	11%	1%	0.17%
Saudi Arabia	32%	58%	7.6%
Sudan	9%	0.6%	0.3%
Syria	11%	0.6%	0.3%
Tunisia	32%	58%	7.6%
U.A.E.	32%	58%	7.6%
Yemen	32%	58%	7.6%
Average	4.2%		

*Figures by end of 2001
Source: Arab Advisors Group

ICT Status in the Arab Middle East

Arab States: IT Spending Growth Trends in MENA, 2000-2002

- Despite Q4 2001 Slowdown IT Demand in Gulf Countries Remains Strong. Pick-up in Q1 2002
- Egypt Only Market to Contract in Size in 2001 - Economic Problems
- Spending in Maghreb also Slows After Strong 2000
- Demand in Rest of ME Reflects Stability of Region - Anticipate Significant Growth in the Long Term



IT Spending Forecast CAGR in Select MENA Countries & Turkey, 2001-2006

ICT Status in the Arab Middle East

Arab States: Internet Growth

- The region is embarking on real efforts to realise networked societies
- Internet users are expected to reach at least 15.8 million in 2005

	1986	1987	1988	1989	1990	2000	2001	2002	2003	2004	2005	%CAGR 2000-05
Algeria	5	14	53	82	158	246	355	474	587			50.01
Bahrain	21	33	44	66	78	98	108	140	239			30.87
Egypt	30	55	120	250	450	617	838	1510	2683	3942		55.50
Iraq					13	17	21	62	206	660		141.48
Jordan	25	61	100	127	140	187	268	384	515	632		32.90
Kuwait	4	50	67	89	115	203	327	477	632			48.04
Lebanon	5	57	89	140	187	262	384	515	632			35.45
Libya				8	20	34	49	63	77			62.98
Morocco	10.8	20.3	45.0	267	393	578	741.5	906.7	1,029.2			31.67
Oman	1	59	64	70	84	110	139	207	280			32.30
Qatar	0	10	32	43	58	76	133	215	314			48.72
Saudi Arabia	28	374	555	1,366	2,242	3,039	3,668	4,124	5,579			55.79
Sudan				28	35	50	68	97	123			34.66
Syria	2	5	3	27	30	56	85	130	163			45.58
Tunisia	2.5	18	40	100	167	222	393	578	841	1060		45.72
U.A.E.	2	237	304	414	506	702	971	1,406	1,318			26.47
Yemen				14	30	50	68	97	123			57.28
Total	149	735	1,526	2,560	4,056	6,145	8,886	12,190	15,820			44.31

Source: Our estimates based on ITU, Country governments, Arab Advisors Group, Pyramid Research

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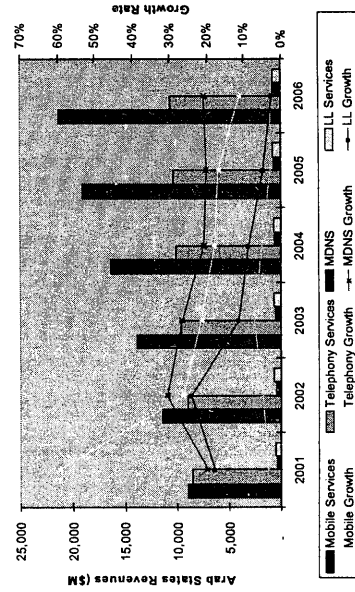
Expenditure on ICTs for Regional Integration

25

ICT Status in the Arab Middle East

Arab States: Service Projections

Performance Varies



Note: Telephony Services include PSTN & ISDN end-user revenues; mobile services include 1G to 3G services; MDNS include X.25, FRATM, IP VPN, & other managed data services; LL includes analog & digital end-user revenues.

Source: IDC, 2002

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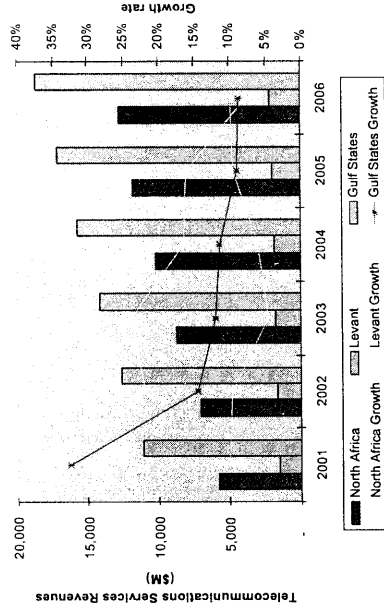
Expenditure on ICTs for Regional Integration

27

ICT Status in the Arab Middle East

Arab States: Telecoms Network Services

Sub-regional Performance



Note: Only end-user revenues & connections measured. These figures exclude Internet access & broadband access end-user revenues

Source: IDC, 2002

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Expenditure on ICTs for Regional Integration

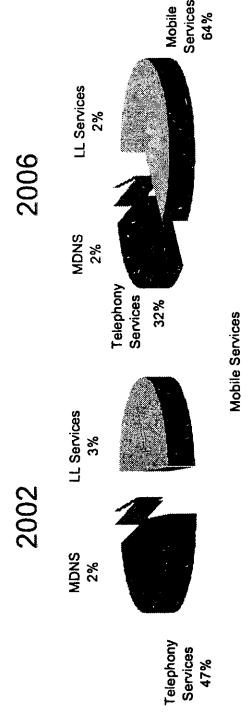
26

ICT Status in the Arab Middle East

Arab States: Evolution of Revenue Mix

Telephony Market share shrinking

- Mobile will become the leading revenue generator for the sector
- Traditional fixed line telephony becomes less significant



Source: IDC, 2002

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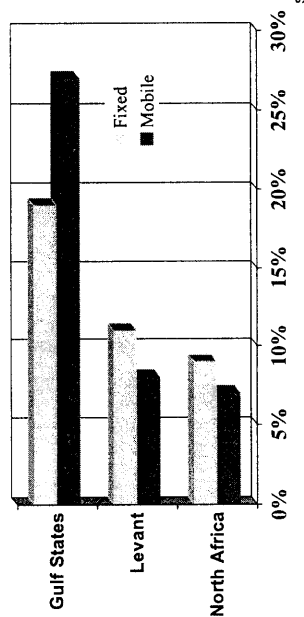
Expenditure on ICTs for Regional Integration

28

Arab States: Mobile versus Telephony Connections

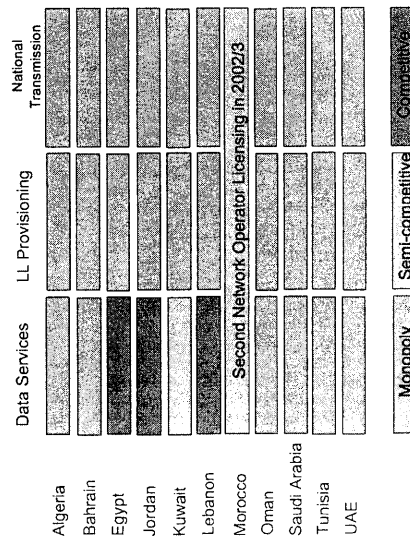
Mobile Substitution in full swing

Mobile versus Telephony Connections per Population end 2002 (Forecast)



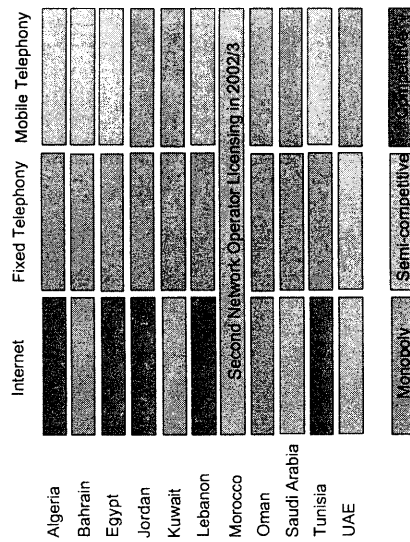
Source: IDC, 2002

Arab States: Data Services Competitive Landscape, 2002



Source: IDC, 2002

Arab States: Competitive Landscape, 2002



Source: IDC, 2002

Opportunities & Threats for Network Services Providers

Threats

- Mobile Substitution will rapidly erode traditional voice telephony revenues
- Settlement rate reform has forced incoming ILD revenues down
- Outgoing ILD Revenues have grown marginally in response to tariff reductions

Opportunities

- MDNS revenues are on the rise
- Internet call revenue is booming with increased Internet penetration
- An increasing demand for higher bandwidth LL indicates growing demand for datacoms & Internet access

Source: IDC, 2002

Conclusion

Large Growth Potential

- **Telecom Equipment** market increased from \$2.1 in 1997 to \$4.1 billion in 2001 and still growing
- **Telecom Service** Market more than doubled in the same period
- **Major Growth Areas:**

Broad Band Services		Interactive Entertainment		3G mobile services		Education	
Local Content		E-commerce					

- **IT market** is estimated at 5.06 billion in 2001 growing in some countries at GAGR of 35%
- **IT market** is growing at an average of 12% despite current world recession

	Hardware	Software	Services	Total
2001	1246	140	1300	3186
2002	2601	156	1443	3600
2003	3262	171	1552	3985

IT market in Arab Middle East except Maghrib

Source: HP, based on IDC research

33

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Conclusion

- **Small Fragmented Markets**
- **Delayed liberalization**
- **Weak Industry**
- **Lack of Harmonization:** Countries in Various Stages of Development
- **Growing Economies:** Moderate Penetration, High Potential
- **Saturated Economies:** High Penetration, Moderate Potential
- **Troubled Economies:** Low Penetration, High Potential
- **Less Developed Economies:** Low Penetration, Low Potential
- **Rise of Regional Operators, Orascom & Batelco**
- **Erosion of International Revenues and VOIP is Increasing Pressure on Incumbents**
- **High Demand for Internet Bandwidth**

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The Arab Middle East Region - 2003

34

Current Challenges

Need to evolve into a Networked Economy

- **Connectivity**
- **Utility creation**
- **Content development**
- **Business to business e-commerce**
- **Business to consumer e-commerce**
- **Multimedia applications**

What Are The Building Blocks ?

- **Technical infrastructure**
- **Legal and financial infrastructure**
- **Business environment**
- **Social and cultural infrastructure**
- **Telecommunication Continuum**
- **Digitizing/Creating Content**
- **Enabling E-Payment/Transaction**
- **Empowering People**
- **Creating the Culture**
- **Leveraging Existing Regulations**

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The Arab Middle East Region - 2003

35

Current Challenges

What Are The Challenges ?

- **PC Penetration**
- **Familiarity Barriers**
- **Locally concentrated look**
- **Fragmentation of the market**
- **Language Barrier**
- **Penetration of Plastics cards**
- **Deregulating the telecom markets**

WTO Agreement is Due on 2005

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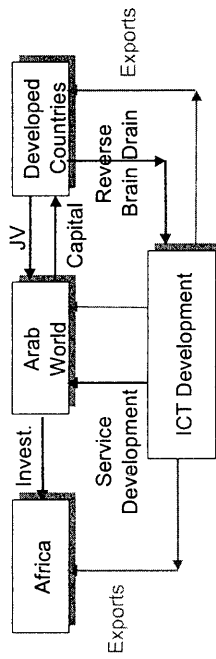
The Arab Middle East Region - 2003

36

A New Thinking and Approach is Required

- Globalisation – Specialisation, critical mass
- Pan Arab Multinationals
- Distribution of production
- Africa – Investment & Market
- West – buy your market

Developing a Regional Partnership Model



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Source: UNCTAD, World Development Report 2003

37

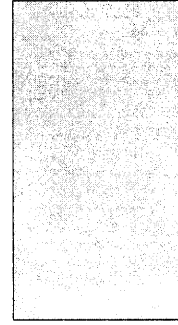
Roles of Different Stake Holders

Problem Definition

- Develop a deregulation and privatisation roadmap for the Telecommunication Sector
balancing the interest of different stake holders

Citizens

Government



Private Investors

International Investors

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Source: UNCTAD, World Development Report 2003

38

Private Public Partnership

- Private sector:
Capital + Mergers to create strong companies
- Incumbents
Open to new thinking
- Governments
Reduce Telecom Tariffs
Reduce Customs Barriers
Allow Free Flow of Funds
Develop Broadband and Services Initiatives
Liberisation of Services

Recommended Programs & Priorities

- Development of ICT policies
- Help in regulatory transformation
- Creation of universal funds
- Companies restructuring and integration
- Develop local capacities
- Promote regional integration

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Source: UNCTAD, World Development Report 2003

39

Roles of Different Stake Holders

What Government Wants ?

- Maximise revenue from licensing and privatisation process ⇒ Delay Deregulation
- Speed development process ⇒ Attract foreign investments
- Increase social welfare ⇒ Universal Service
- Increase exports ⇒ Develop competitive local industry

What Citizen Wants ?

- Better service quality ⇒ Increase Competition
- Lower cost services ⇒ Increase competition
- Increase wealth

What Private Investor Wants ?

- Maximise profits ⇒ High service prices
- Protect Markets

What International Investor Wants ?

- Speed deregulation process ⇒ Kill local industry
- Maximise profits ⇒ Increase service prices

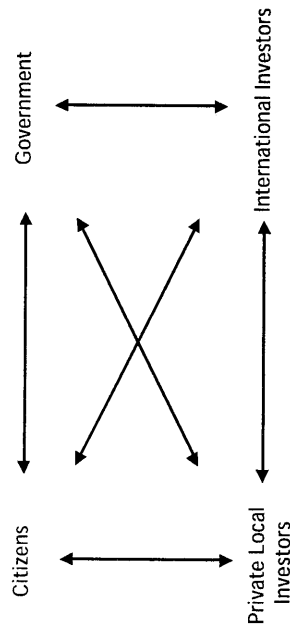
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Source: UNCTAD, World Development Report 2003

40

Roles of Different Stake Holders

Conflicting Interests



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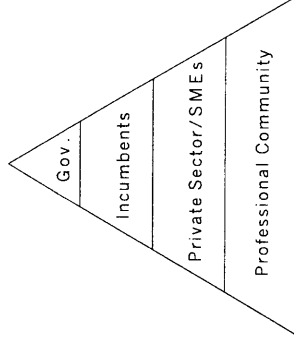
Dr. Mohamed Elmaghrabi, McKinsey & Co.

41

Roles of Different Stake Holders

Concerns

- Government
 - Migration to information Society
 - Creating of universal service
- Operators
 - Liberalisation
 - Restructuring and transformation
 - 3G Migration
- Common Concerns
 - Arabic Content
 - Connectivity
 - World Trade Agreement



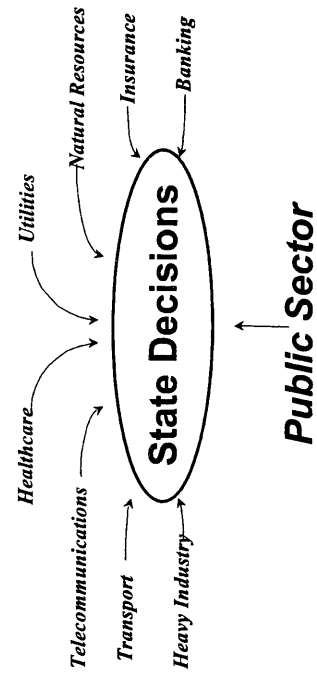
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42

Roles of Different Stake Holders

Key Role of the State in ICT Markets



Government Accounts for 25% to 60% of IT Spending in Most MENA Countries

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43

Status of Partnership, Successful Examples

Batelco

- Build a regional network of ISPs
- Operation in Egypt, Kuwait, Saudi Arabia & Jordan

Sakhr

- Successful model of utilising Human Resource Capacities of Egypt
- Major SW development center for Arabisation and SW applications
- Activities ranging from developing Arabic applications to research in linguistics, voice recognition, search engines, web development
- First Arabic web browser, Arabising of Palm Pilot OS, first automatic translator & Arabic character recognition software
- No. of developers and research teams 350 to grow to 500 in two years

Orascom

- Creating a regional Mobile Operator
- 3.5 million subscribers in 2002
- Expected to reach 7-10 million in 2003
- Successful cooperation example in Tunisia

Arab Sat

- Cooperation among incumbents in the Arab Middle East

Tijary

- Trying to build a Pan Arab Market Place

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44

Proposed Initiatives - Consolidation

Achieving Regional Integration

Mergers and Acquisition is an option

Drivers

- WTO and Deregulation
- Creating economies of scale
- Building regional operators
- Attack instead of react
- Cost reduction and synergies synchronisation

Hypothetical Example

Telecom Egypt & Etisalat

Promotion Mechanisms

- Pre ⇒ Professional & Business Associations (ABIFCT)
- During ⇒ Arab Fund for Integration and Development
- After ⇒ Feasibility, integration studies, joint projects, employee exchange
Organisation and employee training

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Page 12 of 12

45

Proposed Initiatives - Consolidation

Etisalat Profile

	1994	1995	1996	1997	1998	1999	2000	2001	CAGR
Revenues MU\$	789	875	1000	1125	1380	1686	2040		
Profits				505	548	537	613		
%				44.8	39.7	31	30		
Main Lines in Service K	615	672	738	835	915	976	1020		
Local Exchange Capacity	726	775	838	900	1055	1120			
Teledensity	28.5	29.1	32.7	35.1	39	42.7			
Mobile subscribers K	92	129	194	314	493	830	1428		
Public Payphones K	7.5	12.1	16.8	21.9	26	30			
Pager Subscribers K	182	216	247	262	255	250			
ISDN Subscribers K	0.87	1.4	1.8	5	18.6	30			
ISDN Channels K	0.44	0.7	0.91	2.5	9.3	15			
Personal Computers K	96	115	160	200	250	300			
Internet Subscribers K	10	27	66	177	299				

- World class operator
- Saturated market
- External Investments not very successful (Sudatel & Zinzibar)
- Competition pressures from DIC
- Shortage of Human resources
- Sophisticated management.

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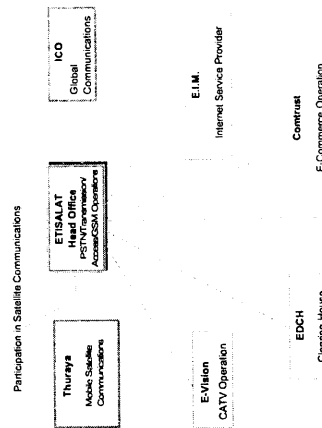
Page 13 of 12

47

Proposed Initiatives - Consolidation

Etisalat Profile

Established in 1976



- The UAE Government holds a majority of 60%
- Prominent UAE nationals hold 40%
- Etisalat shares are traded on the UAE stock market
- Market value of US\$ 8.27 bn
- Etisalat is ranked No. 2 in 1999 (No.1 in 1998) among the Gulf's leading listed companies.

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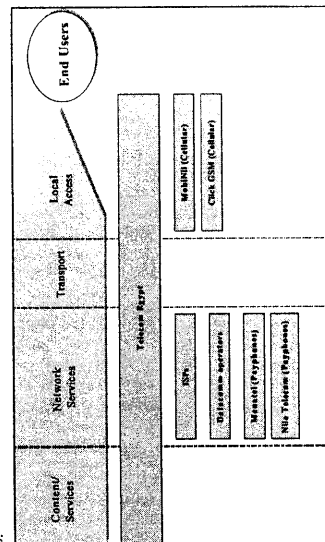
Page 14 of 12

46

Proposed Initiatives - Consolidation

Telecom Egypt Profile

- 100 % ownership by the Egyptian Government
- Partially Deregulated Market
- Largest Operator in the Arab Middle East (8.2 million lines)
- High Growth Potential (market forecast to reach \$3.5 billion in 2005)
- Market valuation of US\$ 4-8 bn
- Ubundant Human Resources.



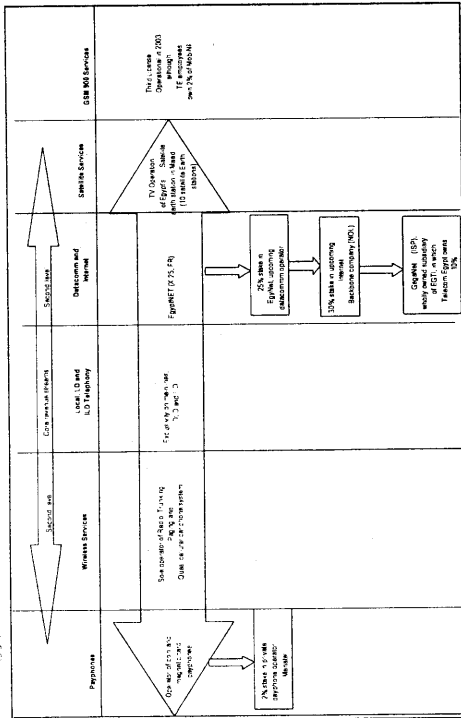
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Page 15 of 12

48

Proposed Initiatives - Consolidation

Telecom Egypt : Domain of Activities



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50

Proposed Initiatives - Consolidation

Telecom Egypt : Challenges

- Privatisation ⇒ Need to change management and restructuring
- Increase revenues/line ⇒ Sell more value added services, tariff adjustment
- Enhance quality of service ⇒ Subcontracting of operations & maintenance
- Continue to decrease international service tariffs ⇒ Risk of reduced revenues
- Increased data traffic ⇒ Network upgrade requires investments
- Develop an open business model to benefit from other operators experiences
 - ⇒ Management Contracts Move to BOT
- Increased competition from various new operators (Egynet, Nile on Line, Mobile)
- The market for basic voice services will be deregulated in 3 years (VOIP)
 - ⇒ Residential tariff adjustment put pressure on Revenue

Constraints

- Responsibility for the universal service provisioning
- Will remain the major provider for basic voice services
- Unbundling of services to allow competition for access providers
- Major role in access provisioning for Internet & High Speed Data
- Strategic Partner for 3rd mobile license

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51

Proposed Initiatives - Consolidation

Telecom Egypt : Strategic Objectives

- Maintain Dominant Market Position in Voice Telephony
- Build out and Modernise the Fixed Line Network
 - Build IP Based Data Network
- Enter the Mobile Market as a Third Operator in 2002
- Retain and Capitalise on Major Corporate Customer Base
- Introduce New Products and Value Added Services
 - Sustain Revenue and Earning Growth
- Expand and Improve Sales and Marketing Effort
- Improve Productivity and Operational Efficiency

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50

Proposed Initiatives - Consolidation

Telecom Egypt : Profile

	1996	1997	1998	1999	2000	H2000	2001	CAGR
Revenues MUS\$	1302	1389	1456	1305	1668	883	1428	
Profits Before Tax	365	421	420	446	461	267	409	
%	28	30.1	28.8	34	27	30.2	28.6	
Mobile Lines in Service K	2,966	2,870	3,238	3,706	4,700	5,700	6,650	8.00
Teledensity	4.47	4.65	5.34	5.95	7.45	8.45	9.45	10.1
Mobile Subscribers K	27	83	177	868	1,676	2,870	4,282	
Mobile Penetration %	0.9	2.9	5.5	23.2	35.7	48.2	64.3	
Pager Subscribers	21,25	28,27	33,59	38,59	28,80	28,75	28,27	26.82
ISDN Subscribers	1,350	2,000	2,000	2,000	2,000	2,000	2,000	3500
Personal Computers K	280	350	440	572	700	850	946	1240
Internet Subscribers K	0.69	0.86	0.90	0.92	0.92	0.92	0.92	105

- High potential market (\$3.5 Billion in 2005)
- Ample Human resources
- Concentration on local market
- Decrease of profitability (estimated at LE 350-400 million in 2002)
- Limited investment capacity due to shortage of foreign resources
- Increased competition (legal and illegal)
- Inability to attract strategic investor with reasonable terms
- International recovery is expected from 14 -18 months
- Restructuring program is very slow

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51

Proposed Initiatives - Consolidation

Telecom Egypt : Proposed Action Plan

- Limited local IPO (10-20% trench in local market in 2003)
- Only to Egyptians (insures distribution of wealth)
- Considering regional merger or equity swapping with a leading regional operator
- 3rd license should be a 2.5 or 3G license
- WLL project worth reviving (requires major breakthrough)

Regulatory

- Licensing of second operator is an option worth considering
- Revenue sharing model for 3G (no up-front license fee)
- Building the Universal Fund

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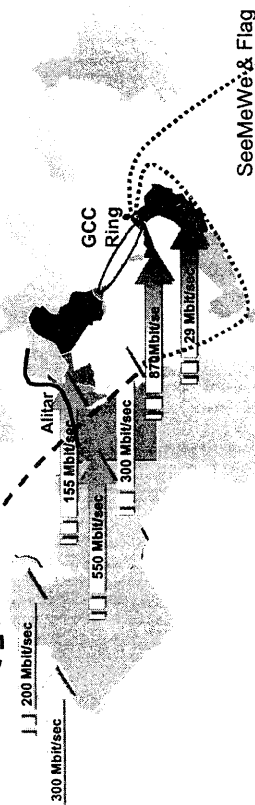
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Proposed Initiatives - Connectivity

International Internet Bandwidth and Connectivity

- International Internet Bandwidth Capacity Doubles Every Year
- From 870 Mb/s in 2000 to 1.7 Gb/s in 2001
- Estimated at 3 Gb/s in 2002



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Proposed Initiatives - Consolidation

Building a Regional Operator

Synergies Between The Two Companies

- Strategic Fit
- Complementing Service Offering
- Etisalat can give management know and product know how
- TE can compensate for shortage of human resources
- Etisalat could act as the Strategic Partner for 3rd mobile license

Common Threats

- Local Competition and WTO liberalisation of services
- Need to expand

Benefit to Both Sides

- Increased market valuation
- React to regional opportunities

Proposed Scenarios

- Strategic Alliance
- Form Joint Investment Company
- Equity Swap
- Full Merge

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Proposed Initiatives - Connectivity

Large Bandwidth Demand

Drivers

- Increased Internet Penetration
- Increased Broadband Penetration
- Migration to rich content portals
- Need for real time streaming and Applications

Limitations

- Capacity Shortage
- Sea Mee Wee 3
- Flag

High Cost

- Cross Atlantic STM1
- New projects STM1

Year	Users (000)	Bandwidth User Kbit/sec NB	Broadband % BB	Total Bandwidth Mbit/sec
2000	2,560	0.04		870
2001	4,056	0.05		1,700
2002	6,145	0.06		3,100
2003	8,886	3	384	16,028
2004	12,190	4	384	51,198
2005	15,820	5	384	131,504

8 x 2.5 = 20 Gbit/sec

10 Gbit/sec

Upgrade 40 Gbit/sec

less than \$3000/month
\$ 6000-8000/month

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Communication Over Electrical Power Grid

Why ?

- Electrical Power Grid Extending from Egypt to Turkey
- North Africa Grid soon to be finished (cross over Libya)
- Under water power cable project from Morocco to Spain
- 4-12 Pairs Single Mode Fiber Optical Cables are in place in most countries for Command and control (550kv & 220 kv grid)
- Minimal investments (add drop multiplexers and switching layers)
- Demand Driven Growth
- Central command and control center agreed on in Egypt
- Already connected to Europe
 - Can use other tapings from Egypt and Tunisia
- Offers a bridge to Africa (Comtel)
- Can have multiple redundancy tapings (Turkey, Egypt, Tunisia, Morocco)
- Will help create cheap media for internet traffic in the Arab Middle East

How ?

- Funding for initial feasibility study
- Proposal to the Telecommunication Council of the Arab League
- Joint committee with the Council of Ministers of Electricity

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57

Arabic Content Development Center

Drivers

- Convergence of media and internet
- Cultural and identity preservation
- Content drives internet demand
- Dot com business models failure
- ISP revenues weak to support such activity
- Lots of government effort for preservation need commercialisation
- Content is not and Operators Business
- Digital Rights and Management Issues are not Clear
- Help Small and Medium Enterprises Survive

Recommended

- Arab Operators would finance the center (2% of International Bandwidth Cost)
- Arab Broadband Forum is taking the initiative
- Need Cooperation form Operators
- Provide equity finance and grants for content providers and developers

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58

Conclusion

Need To build Regional Communication and Service Industries

Drivers

- Market Fragmentation
- Deregulation and Competition
- National Security
- Cultural Identity
- Buy back assets

Inhibitors

- Immature thinking
- Slow decision making
- Natural Resistance to change
- Mistrust
- Reactive culture

Limited Window of Opportunity

- International Operators will be back 18 - 24 months
- WTO and Deregulation Count Down
- Markets slow down

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59

