

**Convergence of ICT and
Broadcasting Industry**
Regional Perspectives and Opportunities

Organized by the Ministry of Communications and
Information Technology

Sharm El Sheikh – 19 May 2006

Conference Proceedings

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Key Note Speaker

- H.E.Dr. Ahmed Nazif, Prime Minister of Egypt

Chairpersons

- H.E.Dr. Tarek Kamel, Minister of Communications and Information Technology
- Dr. Osman Lotfy, Professor – Communication & Electronic Department – Faculty of Engineering – Cairo University
- Ms. Hala Hashish, President of Nile News Channel
- Dr. Hussein Amin, Chairman of Journalism & Mass Media Department, A.U.C.

Panelists*

- Ambassador David A. Gross, Bureau of Economic and Business Affairs, U.S.A
- Mr. Declan J. Ganley, Ganley Group
- Mr. Khaled Bichara, Head of Fixed and Portal Business Unit of WIND Telecomunicazioni S.P.A
- Ambassador Nasser Kamel, President of State of Information Services
- Mr. Saud Bin Majid Al-Doweish, President, Saudi Telecom Co.

Speakers*

- Mr. Ali Faramawy, VP EMEA, Microsoft
- Dr. Amr Badawi, Executive President of National Telecommunications Regulatory, Egypt
- Mr. Ghazy Atalla, VP Service Provider, Emerging Markets Cisco
- Mr. Hans Bakker, Project Team Leader, NATP-II
- Mr. Harold Teunissen, IMS specialist, Lucent Technologies
- Mr. Ian Wilkonson, Technical Director MEA. Motorola
- Mr. Laurence Mailaender, Member of Technical Staff, Bell Labs, Lucent Technologies
- Mr. Mohamed Gawdat, Communication Sector Regional Director for Emerging Markets, Microsoft
- Mr. Mohamed Nawawy, CEO, TE Data
- Mr. Salah Hamza, Head of Engineering, NileSat
- Mr. Saud Bin Majid Al-Doweish, President, Saudi Telecom Co.
- Mr. Stephen Temple, Director of Strategic Products, Vodafone
- Mr. Steve Hope, Technology Center Director, Alcatel
- Mr. Tamer Abdel Aal, Technology Advisor, Rotana
- Dr. Tarek Saadawy, CTO, Infocom Technology Inc.

*Panelists and Speakers are arranged alphabetically

Acknowledgements

I would like to extend deep appreciation to each member of the working group for the extensive effort that has been made throughout the preparation for the Convergence of ICT and Broadcasting Industries Conference Regional Perspectives and Opportunities.

The working group included prominent figures from ICT industry; Mr. Karim Ramadan, Country Manager Microsoft Egypt, Mr. Sayed El Gharabawy, Country Manager Motorola Egypt, Mr. Akram Farag, Chairman and Managing Director Digital Systems Middle East (DSME), Mr. Sherif Nazif, Account Manager Cisco, Mr. Hassan Mourad, Regional Sales Manager Fixed Communications Middle East Alcatel, Mr. Ashraf Youstos Regional Sales Director Fixed CAT Middle East. It is due to these efforts that have made it a successful event.

I would like to express special appreciation to Ministry of Information, Mrs. Susan Hassan Chief Executive Officer of Egyptian Television for her efforts to support the conference.

The enthusiasm and support shown in the contribution of Ms. Hala Hashish Director, Nile News International is highly recognized from the all participants of the conference.

I would like also to thank our distinguished speakers and panelists for their precious participation and their useful presentations and speeches in the conference. I also thank our esteemed moderators who managed to lead the conference sessions smoothly and effectively.

The conference wouldn't have made such success without the participation of distinguished guests who attended the sessions and contributed positively

Zeinab Zaki
Minister Advisor for Business Development
Ministry of Communications and Information Technology

Preface

Media convergence is the provision of video programming, interactive entertainment and voice and data services over the same broadband wireless or wireline infrastructure. An example of media convergence is the integration of video, internet and mobile telephone services.

Egypt has got a number of opportunities for convergence in the areas of infrastructure, technology, or services provision. However, the success of those ventures would depend on the availability of a number of critical success factors in the environment where those ventures will be established.

Recognizing the Egyptian potential and being sure that Egypt has the ability to be a competitive player in this market, The Egyptian Ministry of Communications and Information Technology has decided to organize a series of conferences concerning Convergence of ICT and Broadcasting Industry. The first conference was held in Savoy Hotel, Sharm El-Sheikh on May 19th 2006, prior to the WEF meetings in Sharm El-Sheikh, Egypt in the days 20th to 22nd May 2006.

Planning and preparation to the conference took over six months of continuous hard work from the esteemed work group that included many important figures in both industries; ICT and Broadcasting, in addition to the high level representatives from the Ministry of Communications and Information Technology and Ministry of Information.

The conference included three main sessions other than the opening and the closing ones. Each session was planned to tackle an important element on which Convergence of ICT and Broadcasting Industry is based. The first session tackled the ICT and Broadcasting infrastructure and technology and whether Egypt and the MENA region are moving steadily forward. The second session was about the Media Content and the services that can be delivered. The third session tackled the regulatory systems and how they can support and regulate the Convergence Industry on parallel axis.

These conference proceedings include lists of the Chairpersons, speakers and Panellists who took part in the conference. It also includes summaries and conclusions for the presentations and the speeches that were presented in the conference. The conference summary is divided into five parts according to the conference sessions and is concluded in the recommendations of the conference.

SESSIONS SUMMARY

Opening Session:

Keynote:

Dr. Ahmed Nazif, Prime Minister of Egypt

Panelists:

Dr. Tarek Kamel, Minister of Communications & Information Technology, Egypt

Mr. Declan J. Ganley, Ganley Group

Mr. Saud Bin Majid Al-Doweish, President, Saudi Telecom Co.

Ambassador Nasser Kamel, President of State of Information Services - on behalf of

H.E. Mr. Anas El Fiky Minister of Information

Speaker:

Mr. Ali Faramawy, VP EMEA, Microsoft

Summary:

H.E. Dr. Tarek Kamel

Minister of Communications & Information Technology, Egypt

Dr. Tarek Kamel, the Minister of CIT welcomed the conference participations and highlighted the opportunities behind the convergence between ICT and broadcasting industries that led to organizing this event in cooperation with Ministry of Information.

Dr. Kamel has also given a briefing about the environment of investment in Egypt in the ICT generally and Media Convergence especially. Dr. Kamel also has mentioned that Egypt has got the strongest and most effective media content in the region. Finally, he has wished the event to succeed and to be as beneficial to the attendees as they have expected.

Mr. Ali Faramawy

DIGITAL LIFE STYLE

Mr. Faramawy presentation entitled "Digital Life Style" tackled Convergence of ICT and Broadcasting Industries as a customer demand derived industry.

It enables the customer to control what he needs to get from media and also where and when to get it. Moreover, the customer has the ability to choose the means through which he can get this media content. Such a demand urges the Software and Hardware developers to apply new business models that meet the customer's needs.

He also encouraged the organization of events and conferences that enable those who are interested in the topic of Convergence of ICT and Broadcasting Industries to meet and discuss for the best interest of the industry.

Mr. Declan J. Ganley

Mr. Ganley has given a speech about the role of Media Convergence for TV service providers.

He also emphasized how convergence can be effective economic solution as well as a win win relation between providers and subscribers. For instance, in Eastern Europe, due to the upwards social change, the number of subscribers for Cable TVs has surpassed the infrastructure capability of the providers that convergence could be the appropriate solution. The governments should help and cooperate with the Cable TV providers by providing the infrastructure needed for the Convergence.

Applying the same concept to Egyptian market is applicable to Egypt as it to the investor who wants to start such business. He has said that during the last few years Egypt has witnessed great growth in its Technology infrastructure that enables technology industries to take place in it.

Mr. Saud Bin Majid Al-Doweish

Mr. Al-Doweish has said both Egypt and Saudi Arabia are ready to embrace Convergence ICT and Broadcasting Industries.

Convergence ICT and Broadcasting Industries could be classified to four branches:

- *Convergence of Users*, they have to get used to dealing with telecommunications and multi media.
- *Convergence of Devices*, new devices appear in order to introduce the common, well-known content but in a new form.
- *Convergence of Immediate Environment*, this happens by taking our office activities back home with us, so we can do the same activities we do at office anywhere else. There is the unstoppable
- *Convergence of IT Infrastructure* that enables infinite applications and services for the end user.

Convergence allows us to do four things; to know, to go, to do and to be. He also has stated three conditions for Convergence to take place in the region; First, regulatory system for Telecommunications and Media, an adequate deregulation for the Media content and finally, the Internet Broadband must spread everywhere, whether wireless or wired internet.

Ambassador Nasser Kamel

President of State of Information Services - on behalf of H.E. Mr. Anas El Fiky
Minister of Information

On behalf of H.E. the Egyptian Minister of Information, Mr. Anas Al-Feqqy, Ambassador Kamel has given a speech in which he declared that the Egyptian media content is the most demanded in the region in all categories.

Egypt has got plenty of the skillful calibers that build this content. Egypt has invested in building a generation in Media Industry which is capable of developing the media content and introduces new directions in it.

The private sector is playing an important role in adding powerful media content in both Radio and TV. Egypt has the intention of establishing an audio-visual regulatory authority. There will also be an ability of establishing private ground TV stations. Media Convergence is a must in order to insure that the media content reaches the target audience.

One of the benefits of convergence for Media Content which is archiving. Egypt has one of the world's greatest archive for media content; this needs a huge electronic portal in order to enable easier navigation through such material. The private sector investment in such field will be a win win relationship.

Egypt also has a legislative system that protects Intellectual Property, which enables the digitization of media content. Ambassador Kamel has mentioned the ratio between the cost of media access to the end-user which shows that the cost of computers and mobile phones, and accessing the internet is much cheaper and more accessible than having a receiver, a dish and a TV. At the end, Ambassador Kamel said that the Egyptian Ministry of Information has applied a successful model for using IT in the different media applications.

H.E.Dr. Ahmed Nazif
Prime Minister of Egypt

Dr. Nazif has defined Convergence as a symbol of change. Both ICT and Media Industries have been through great development in the last 20 years. Dr. Nazif said that Egypt has both the media content and the distinguished ICT infrastructure, but the challenge lies in the need to react with the demands of the development, not to react with the technology as users.

Convergence should be viewed as delivering the right content to the right people which is a Two-Ways Challenge;

The first challenge is delivery mechanisms, they are available, but are they affordable?

The second is the type of the content and how to present it, it must suit the new means through which it is introduced. For instance, TV content must be different from what we get through the Internet; what we get through the internet must be more interactive. In addition to that the means and the programming of media must be in a suitable format.

The future is one of the main issues that we have to think of ; where we will be ten years ahead.

Finally he also emphasized that Egypt is witnessing media deregulation that should positively affect the convergence ICT and Broadcasting industries.

Session 1

Technology and the Enforcement of a Speedy Convergence.

Are we responding with the right pace?

Moderator:

Dr. Osman Lotfy, Professor – Communication & Electronic Department – Faculty of Engineering – Cairo University

Speakers:

Dr. Tarek Saadawy, CTO, Infocom Technology Inc.

Mr. Salah Hamza, Head of Engineering, NileSat

Mr. Ghazy Atalla, VP Service Provider, Emerging Markets Cisco

Mr. Steve Hope, Technology Center Director, Alcatel

Mr. Laurence Mailaender, Member of Technical Staff, Bell Labs, Lucent Technologies

Mr. Ian Wilkonson, Technical Director MEA. Motorola

Summary:

Dr. Tarek Saadawy

BROADBAND FUTURE IN EGYPT

- Dr. Saadawy has defined Convergence as a process between communication networks and services are being transformed such that **Different network platforms** carry a similar range of services, **Different Consumer appliances** receive a similar range of services, and finally, **new services** are being created.
- Convergence of ICT and Broadcasting only is an enabling catalyst in technological development, like **Moving from Analog to Digital systems, Improvement in Network Speed, Compression Techniques and Storage Capacity, and Growing Range of Wireless Applications.**
- Advantages of Convergence of ICT and Broadcasting according to Dr. Saadawy:
 - Increased competition across delivery networks and between services.*
 - Reduce access bottlenecks.*
 - Create new services and stimulate innovations.*
- Convergence of ICT and Broadcasting raises the urgency of studying **The importance of efficient management of spectrum, including reassessment of the current uses of the spectrum.**
- Dr. Saadawy has introduced a map displaying **Nationwide Fiber Transmission Network of Egypt**. He also went through Major Components of Egypt Telecom Infrastructure. He mentioned here Access Network (*Free Internet Initiative, ADSL initiative and Wireless Local Loop Deployment*). He also mentioned Core/Edge Networks (*IP-based core infrastructure, IP/ATM edge network, Expansion on Optical-Ethernet capabilities, and Deploy IP-soft switch and implement IP-Centrex for business applications*)
- Dr. Saadawy has also shown how vast and tremendous is the growth in the number of DSL users in Egypt. In two years it has grown 150 times to be 30,000 users in 2006 after being only 2,000 in 2004. He also stated the different types of DSL networks and how efficient they are.

- Mentioning the Egyptian telecommunication infrastructure, Dr. Saadawy has tackled the International Bandwidth that contributes about 30% (about 50 LE) of a basic DSL line cost (150 L.E.). It is also expected, through working with the Ministry of Information, that NILESAT would help by providing a large international pipe in order to fulfill ISPs continuous need to enlarge their capacities.
- Dr. Saadawy said that one of the reasons the conference was being held for is the lack of Arabic Content on the Internet. **Ministry of Information** has a vast amount of media contents that can provide many new services, new applications, and new opportunities. **MCIT/MAD** are playing critical role through working with the Government agencies to create on-line applications, educate government workers on how to use the Internet and establish PC initiatives.
- Dr. Saadawy mentioned also more Broadband Technology means that Egypt is implementing or planning to implement (*WiMAX – WiFi, CATV, FTTH, 3G – 2.5G Mobile networks and WLL*).
- In Some areas, FTTH is a better choice than ADSL2+; new communities, rural areas and Multi dwelling units.
- **IP Multimedia Subsystems (IMS)**, It allows building an intelligent core that's flexible, cost effective and capable of offering next generation services.
- Some Triple Play issues were tackled by the end of the presentation; The VoIP components of Triple Play should be subject to new VoIP regulations, The service provider shouldn't impose any restrictions on the content provider and visa-versa, Packaging of contents may be done by various entities; The studios, TV broadcast stations, specialized private companies, etc. and finally, the "Decency Law" should be extended to the contents offered by DSL.

Conclusion:

- IMS Architecture will be the standard platform that operators will be deploying over the next few years.
- A strategy position should be drafted to indicate the intent to promote an IMS infrastructure in Egypt in order to open interfaces between operators and to stimulate new IMS-enabled applications.
- The use of IMS for Call Control of VoIP should be considered as the preferred method over the traditional Soft-switch architecture. Such a strategy will put the eventual VoIP operators on the right track to deploy the rest of the IMS infrastructure and offer new innovative services.

Mr. Salah Hamza

SATELLITE GROWTH AND MEDIA ICT CONVERGENCE

- Mr. Hamza started his presentation examining the process of Media Industry; the different sources of Media Content and the means through which the content is broadcasted.
- Analog TV has been the only mean through which the Media Content was transferred for decades. Till in 1995 when the Digital Satellite DTH emerged resulting 9400 Satellite channel by 2005.

IPTV

- IPTV started to be effectively observed in 2005, reaching nearly 2 million subscribers worldwide now, IPTV is a new player in various markets.
- Mobile TV services are currently offered by GSM companies and it is foreseen that by 2007 IPTV is not a competitor with Digital Satellite TV, yet it's a new investment opportunity for the providers to pump much more investments as multinationals have plans for expansion.
- IPTV has also proved to be more cost-effective in Media Content delivery, as it reaches underserved areas, Satellites shall be a mechanism to deliver content to the IPTV head-end or gateway before distribution to the last mile.
- Satellite triple play S3p to rural areas can be offered via DTH and access satellite or via WiMAX to the end user.

Information about NileSAT

- It has launched two Direct-to-home satellites. It also has up-linking facilities all over the Middle East and Europe to serve clients anywhere in the region.
- Nilesat offers digital direct to home TV and radio channels on MPEG2/DVB platform enabled on one network.
- The number of TV channels on Nilesat is 306 TV channels and 107 radio channel.
- Nilesat carries exclusively two of the three pay TV operators for the Arab world. And also PPV service.
- The company revenue has almost doubled from USD 36 millions in year 2000 to USD 66.643 millions in year 2005.
- Nilesat has made the first step in Convergence of ICT and Broadcasting when it offered dual play platform for DTH TV and high speed internet.
- Nilesat with its wide coverage area can offer the future IPTV providers a transport mechanism for contents.
- Nilesat has leased a new capacity on Hotbird 4 that shall be commercialized as Nilesat 103.
- A new satellite is to be launched by the beginnings of 2009. This satellite shall target the following:
 - Providing new capacity to meet market needs of expansion and the transfer to HDTV.
 - Providing a replacement to Nilesat 101, whose end of life date is by 2013.

Conclusion:

- Egypt has the satellite infrastructure that enables it to be one of the leading destinations in Convergence of ICT and Broadcasting Industry.
- Egypt is witnessing a growth in the field of satellite and Digital TV.

Mr. Ghazy Atalla

THE DIGITAL HOME & NEXT GENERATION SERVICES

- Mr. Atalla's presentation "The Digital Household, and the Next Generation Services" indicated the prospective of unifying all the household services together, and provided by a single provider.
- The merge between large industries like: Telecom, Internet and Media will result in a number of business opportunities.
- Convergence can no longer be defined by Access Technology, yet, it should be dealt with as Convergence of Service Providers segments.
- Who will capture the value? The Value Chain. It included:
 - Content/Application Providers
 - Aggregators and Integrators
 - Network Based Operators
 - Virtual Network Operators
 - Device Services
- Content mobility is becoming an important component of consumers' entertainment experience.

Conclusion:

- Competition and consumer demands will drive tremendous change and opportunity.
- The need to deliver more value will soon drive the need for a more integrated, more connected experience.
- Expansion of content and greater integration will lead to new dimensions of both personalization and navigation.

Mr. Steve Hope

AN ARCHITECTURE FOR RELIABLE CONVERGED SERVICES

- Service transformation is moving away from internet and normal telephone system to something all about live, movies, and getting medical or educational information. High speed and high definition are essential component for convergence.
- For Convergence of ICT and Broadcasting it needs to change from Early and Present Day ATM-Based Broadband Aggregation to Next-Generation Ethernet and IP-Based Broadband Aggregation.
- The four challenges for building a successful Triple Play solution:
 - Triple Play Broadband and Network
 - Triple Play Consumer Environment
 - Triple Play Service Delivery Platform
 - Triple Play Service Integration

- The Challenges in Triple Play Service Delivery:
 - Providing service flexibility/versatility
 - Enabling “Always On” services
 - Optimizing the cost structure
 - Integrated management
- Quality of Service (QoS) is based on Access, Aggregation and Edge.

The cost of network, must be kept low, the management must be simple. If this is applied to telecom networks, then the Aggregation will be intelligent service switching and the Edge will be intelligent service routing. Finally, end-to-end quality can be guaranteed. This enables the operator to control the viewer rates and gives him the ability to control Bandwidth needed.

Conclusion:

Bandwidth scaling

- Cost-effectively scales bandwidth in Access, Aggregation, and Service Edge

Subscriber management and QoS

- Manages end-to-end service and subscriber flows to ensure high-quality user experience

Non-stop service delivery

- Millisecond service recovery for node/link/path failures for “Always On” service

Network security

- Prevents denial of service and theft of service; protects digital rights

Operational efficiency and simplicity

- Minimizes cost to operate and evolve the service delivery network

Mr. Laurence Mailaender

WIRELESS STANDARDS AND MOBILITY EVOLUTION: 2006

- **Wireless Standards and Mobility Evolution:** The three main streams; Global Cellular Market (focused on EMEA), Wireless Standards Evolution and Mobility Innovations.
- The Cellular Market has notably grown in the last few years in the Middle East .
- The Most Exciting Recent Innovations in Wireless Standards:
 - ✓ Turbo codes, adaptive modulation, and H-ARQ
 - ✓ Scheduling (time, frequency, space domains)
 - ✓ OFDM (maintain orthogonal user signal)
 - ✓ MIMO and SDMA
 - ✓ Inter-cell coordination (future)
- The existing technologies are unsuitable for rural deployment yet it might be profitably to connect rural villages using low cost broadband networking technology.

Conclusion:

- Middle East to play increasingly important role in wireless markets
- Wireless standards evolving for higher speeds, packet data, better voice capacity-- “convergence”.
 - ✓ Scheduling, H-ARQ, OFDM, MIMO/SDMA are key improvements

Mr. Ian Wilkonson

BROADBAND INFRASTRUCTURE AND APPLICATIONS

- Seamless Mobility is one of the future technologies to deliver the service regardless of the place, the device or the physical network.
- IPTV is breaking the concept of waiting for a program in front of your TV. It is to see whatever you wish wherever you wish. IPTV is real, deliverable and offers new and interesting possibilities for the consumers.
- True “on demand” services will change the way we use the Television and change the way advertisers approach the consumer.
- The full benefits of IPTV require bandwidth and GPON is a very practical and future proof way to deliver this.
- Combined with an IMS infrastructure, “Quad Play” becomes a reality – full convergence of fixed line and mobile Voice, Video and High Speed Data Services.

QUESTION & ANSWER FOR SESSION 1:

The questions in the Q & A session tackled the following issues:

- **Privacy and security of the converged services.**
- **E-content industry and how to implement it.**
- **The cost of High Definition Technology and how we can afford it.**
- **Social Impact of Convergence of ICT and Broadcasting industry.**

Session 2

Business of Content Development and Delivery *to Lead or to Follow*

Moderator:

Ms. Hala Hashish, President of Nile News Channel

Speakers:

Mr. Saud Bin Majid Al-Doweish, President, Saudi Telecom Co.

Mr. Tamer Abdel Aal, Technology Advisor, Rotana

Mr. Mohamed Gawdat, Communication Sector Regional Director for Emerging Markets, Microsoft

Mr. Harold Teunissen, IMS specialist, Lucent Technologies

Panelist:

Mr. Khaled Bichara, Head of Fixed and Portal Business Unit of WIND Telecomunicazioni S.P.A

Summary:

Mr. Saud Bin Majid Al-Doweish

- The economic development MENA region is growing vastly in the last five years.
- success factors for the Convergence of ICT and Broadcasting Industry in the region; due to competition among telecom service providers, the revenues are decreasing, and this leads to the search for new investment opportunities that enable them to increase their revenues as well as the value added. As for the Media operators, they are looking for new distribution channels for their products in order also to increase their revenue.
- In addition to the availability of enabling technologies like EDGE, UMTS and DVBH.
- Establishing win-win relationships with content/media partners is a successful way for an operator succeed in mobile data. This depends on Flexible Business Models, High-Quality Products and Service Branding.

Conclusion:

- MENA region is ready for being a productive center for Convergence of ICT and Broadcasting Industry.
- The market in the MENA region is capable to receive these new investments.

Mr. Khalid Bichara

- Convergence; is to put the customer in the center of power, which means that the customer has to choose the content and the services he receives, on the platform he likes. This is how a customer will feel satisfied.
- The Convergence is not only to have the TV program on DSL, but the value added to this TV program.
- We have to consider successful convergence stories. Mr. Bichara gave an example of Online Music; Apple sells the music which is sold by many other providers, they have also manufactured the affordable hardware and software needed for this music to be played.
- VoIP allows people to communicate much cheaper with minimum impact on fixed telephones business. On the other hand, it has developed it partially.
- Content is a very important factor in the industry yet the question is how to deliver this content in a way that attracts customer.
- IPTV has enabled simple people to use the PCs at home in broadcasting their own simple Media Content so that others can share.

Conclusion:

- Convergence of ICT and Broadcasting Industry should be built upon the customers' needs not upon the Media Content Providers or Telecom Operators' taste.

Mr. Tamer Abd Al-Aal

BRINGING THE ENTERTAINMENT RIGHT TO YOU...

- Media Content challenge is to optimize the ROI of the unique and expanding media content that need to
- Phase 1:
 - ✓ Restoring and digitizing existing films.
 - ✓ Providing sufficient space in digital archive.
- Phase 2:
 - ✓ Enriching the digital assets in terms of adding more index/cataloguing information (Metadata) by utilizing a powerful MAM solution.
 - ✓ Consolidate the digital archives
 - ✓ Initiate Traditional DVB Broadcast simultaneously.
- Phase 3:
 - ✓ Implementing connectivity layers to support "Media Bank" (IPTV, 3G, QUAD PLAY, Triple Play.....etc)
- Digital Right Management (DRM) is very important to be considered. As the Telecoms do care for the service they deliver, Media Content providers also have to preserve their rights concerning the Digital Media Content.

Conclusion:

- Telecommunication and Media Content providers and producers should work together in the same direction regarding digitization and archiving and delivering a new converged service to the customer.

Mr. Mohammed Gawdat

PLAY PLAY PLAY

- The existing telecommunication and internet technologies, not all used, already swallowed huge investments while being developed, but the reason most of these technologies are not used anymore or have never been used is that newer and cheaper technologies have appeared.
- **"PLAY PLAY PLAY" presentation examines** why Convergence of ICT and Broadcasting Industry is important and the areas of power that should be considered if we're looking for establishing strong industry.
- Mr. Gawdat disagreed with the present definition for triple play ; voice, data and video as it is incomplete it's only Single Play that we must look for the best interest of the user
- Convergence of ICT and Broadcasting means that the consumer should be the one in control of everything; content, time, place and device.
- Four factors for successful Digital Content Delivery:
 - ✓ The Buy-In.
 - ✓ The Infrastructure.
 - ✓ The Business Model.
 - ✓ The Technology.

Mr. Harold Teunissen

KEY DRIVERS FOR IP MULTIMEDIA SUBSYSTEM (IMS)

- Key driver of Convergence of ICT and Broadcasting is the IP Multimedia Subsystems (IMS).
- IMS creates a new *user-centric* paradigm. Users will define their own experiences, when they are reachable, and by whom. They will have ubiquitous access to all their services – independent of devices and different network types. They will also have more control upon their own different user personas, profiles and to personalize information. The network will become more intelligent.
- IMS enhances and speeds up the service delivery model. It leverages flexible / programmable service delivery, data consolidation, and QOS across platforms to deliver unique, personalized, blended services. It also allows operators to build and launch services faster, efficiently adapting to market changes.
- The Global Market Trends are moving from the primary stage of having a call on the phone and a program to watch on TV, to a new *Ubiquitous Lifestyle Communication Experience*. In this experience, new networks and technologies emerge. These new technologies give the user more subjectivity and put him in control of what to watch or receive.

Conclusion:

- Personalization and Convergence will drive new services.
- Bring the Network and Applications to the User.
 - ✓ Enterprise, Consumer – Voice, Data, Video/Image.
 - ✓ Personalization & Customization – “Always-On”.
 - ✓ Seamless Mobility & Presence – Inside & Outside Premises
IMS Architecture key to new services.
 - ✓ Network Independent.

QUESTION & ANSWER FOR SESSION 2:

The questions in the Q & A session tackled the following issues:

- The effect of IP technology on the majority of Egyptian people who may not be able to afford it.
- Creating work opportunities for youth of MENA region in the Content Development Industry on entrepreneurial basis.

Session 3

Policies and Regulations

An Enabling Catalyst

Moderator:

Dr. Hussein Amin, Chairman of Journalism & Mass Media Department, A.U.C

Speakers:

Dr. Amr Badawi, Executive President of National Telecommunications Regulatory,
Egypt

Mr. Mohamed Nawawi, CEO, TE Data

Mr. Stephen Temple, Director of Strategic Products, Vodafone

Mr. Hans Bakker, Project Team Leader, NATP-II

Summary:

Dr. Amr Badawi

BROADBAND FUTURE IN EGYPT

- The ‘Converged’ Telecom Scene: Infrastructure, competition and innovation are a global shift to using P3 technologies.
- Convergence of ICT and Broadcasting urges regulators to adjust their systems and adapt them to the new emerging technologies and services.
- Convergence Challenges: political and legal level, business level, social level, economic level and technical level (infrastructure).
- Convergence is raising a wide array of regulatory and legislative issues that should be addressed by both policy makers and regulators. encourage investment, lowering market entry barriers and the need to avoid regulatory arbitrage and gamesmanship.
- New policies should ensure competitive markets, encourage the provision of better and cheaper services and should be responsive to market changes; updated upon need.
- By the end, Dr. Badawi raised 5 questions:
 - ✓ Is the trend of institutional convergence (the example of Ofcom) really the best way to address Convergence?
 - ✓ Are current telecom or ICT regulators competent to regulate “content”?
 - ✓ Can content regulation be avoided?
 - ✓ What is the most effective role for national telecom regulators?
 - ✓ Everything over IP – Is it possible to control?

Mr. Mohammed El-Nawawy
CONVERGENCE – REGULATION
Challenges

The history of telecom regulations in the USA.

- The story of the monopoly of Bell System to telephony industry in the end of 19th century. They had the exclusive right to provide telephony services for 18 years (1876-1894) in what was called "The Patent".
- The second stage was called "Interaction & Acquisitions". This was in the beginnings of the 20th century (1913-1934). In that period, the CLECs had the right to interconnect with Bell System's long distance systems. These CLECs had the disability to compete as Bell still had the right to impose regulations and tariffs.
- The third stage started at 1996. The passage of the Telecommunications Act of 1996, there has been an explosion in the number of CLECs. They have been given the privilege to use the ILECs' networks. All CLECs and ILECs have the same network that transparently avails the prices and the tariffs of the ILECs, so the CLECs can reach their customers and develop their business.
- The Federal Communications Commission (FCC) is the one who announces the prices for the different services that should be delivered by CLECs and ILECs.
- In 2005, the court overturned a **federal court decision** that would have forced cable companies to open up their networks to Internet service providers. By this decision, Mr. El-Nawawy asked a question; why do regulations differ in the fields of Media and Telecommunications?
- In such atmosphere where innovation is guaranteed for media while telecom sector is burdened with regulations, it seems hard to establish a balanced Convergence of ICT and Broadcasting Industry.
- Mr. El-Nawawy has mentioned four possibilities for facility innovation:
 - ✓ ILEC continues and further empowers CLEC.
 - ✓ ILEC runs two adjacent facilities; one with CLEC requirements and one with ILEC own innovation.
 - ✓ Policing CLEC innovation by FCC.
 - ✓ Facility innovation is delayed at ILEC and CLEC levels.

Conclusion:

- Convergence of ICT and Broadcasting requires a unified system of regulation between Media and Telecommunications; if one of them undergoes a liberated regulatory system while the other does not, this means that there will be a gap in what is presented.

Mr. Stephen Temple

'CONVERGENCE IN COMMUNICATIONS' - THE PRESPECTIVE FROM THE WORLD'S LEADING MOBILE OPERATOR

- Four elements forming Convergence of ICT and Broadcasting Industry; Mobile, Fixed, Internet and Broadcasting.
- Mr. Temple stated that many service providers are now dealing with the end-users, and houses include different kinds of connections (wire, satellite, cable, DAB....etc.)
- Society is likely to divide into three discernable patterns of communications over the next 5 years based on Internet usage.

- ✓ 30% Heavy-medium users of the broadband Internet; it will be very DSL centric.
- ✓ 30% Light users of the broadband Internet; it will be Contested by Mobile, satellite will be used. It needs massive disk storage.
- ✓ 40% of population not connected to the broadband Internet; it will be owned by Mobile.
- Technology and market convergence over the next decade is likely to challenge a basic tenet that a common “network platform” can effectively service both business and consumer mobile needs.
- Threat from specialist networks serving adjacent markets will be a major competitive force driving stretched 3G technology.
- Today’s priority is to roll out 3G technologies and tomorrow's will be to stretch the 3G technology towards *adjacent market* needs. Other networks (largely urban) will fill the spaces left.
- This approach will see the arrival of new platform technologies without the older ones getting phased out; No mobile operator is ever going to *entirely replace* GSM or 3G with a technology offering only a fraction of the coverage.
- Distinctive market segments are open for mobile industries (computing, media games and fashion).
- Mobile TV is considered a booming subsidiary and a promising business for Convergence of ICT and Broadcasting.
- Mobile radio and wireless local loop are quite different ways of exploiting wireless technology, In that perspective Mr. Temple held a comparison between HSDPA and WiMax.
 - ✓ WiMax brings long overdue “standardisation” of broadband wireless local loop
 - ✓ Looks promising for extending fixed broadband service range beyond fibre end points
 - ✓ HSDPA has largely seized the performance space that a “mobile” WiMax might have filled and the use of 3.4 GHz for WiMax in many countries further limits its value as a mobile technology
- Wireless technologies will be the main engine of opportunity to drive the benefits of convergence in markets with low PC penetration.
- The mainstream mobile radio technologies (GSM, 3G and WiFi) will have an important unifying role and the countries in the region are well positioned to exploit the benefits.
- Regulatory Implication Key Points from the emerging “convergence” picture:
 - ✓ There is a paradox that “Convergence of technologies, industries and markets” is likely to drive greater “Divergence of outcomes” - each country has to optimise its own approach based upon where it is starting from
 - ✓ Mobile technologies will be the key to making a success of convergence in markets with low PC penetration over the next 5 years and the ingredients of success will be a stable framework of light regulation
 - ✓ “Convergence” demands much more regulatory flexibility in terms of technology evolution (but total technology neutrality may not be optimal for emerging markets)
 - ✓ “Universal service” is unlikely to be economic for all new emerging technologies

Mr. Hans Bakker

CONVERGENCE POLICY AND REGULATION: PAVE THE WAY FOR A FUNDAMENTAL SHIFT OF CONTROL

- The regulators of the Middle East region should work on the benefits of Convergence of ICT and Broadcasting Industry, and benefit from should be through the European experience.
- Network intelligence moves from network core to perimeter, role of network reduced to transport only and price of transport capacity (regardless of distance) tends to zero enabling any end user to provide what used to be monopoly services.
- Fundamental change to markets and to control of services - Consumers can become providers.
- Convergence of ICT and Broadcasting is not something that will happen in the future, yet it is already taking place in Europe on different levels.
 - ✓ Telecom-media convergence has fully arrived to some and will inevitably arrive to all countries.
 - ✓ It should be welcomed: huge new opportunities for social and economic development (E-Business, E-Learning, E-Health, Outsourcing E-services over long distances and information accessibility).
- The steps that should be taken by regulators and public policy makers in order to see the benefits of the industry.
 1. **To fill the potholes.** Fundamental change can cause anxiety and uncertainty. Anxiety and uncertainty lead to resistance and struggle. Investment climate thrives on predictability. Challenge to public policy makers is to address this and pave the way for successful Convergence of ICT and Broadcasting Industry.
 - *Promote a forward looking (and not defensive) strategy in operator(s).*
 - *Increase awareness and prepare for necessary system changes in licensing and regulation.*
 - *Identify contradictions and prepare for consistent and technology neutral framework.*
 - *Review institutional arrangements. EU trend is to shift powers to integrated media-telecoms regulatory authorities, with the exception of content regulation.*
 2. **To open up market for broadband competition.** Converged services depend on broadband development and take-up. European experience shows: broadband penetration grows fastest where markets are effectively open to competition. (Mr. Bakker here displayed an indicator showing Broadband penetration in the European Union countries showing that the countries with more penetration are the countries where competition is taking place).
 - *Competition requires regulatory action;* Open market access for infrastructure and service providers, including availability of spectrum and Mandatory wholesale broadband access to incumbent network including unbundling of the local loop.
 - *Don't avoid service based competition;* Evidence shows that wholesale broadband access does not undermine investment and platform-based competition. Variety of access services facilitates various business cases for roll-out of infrastructure: the "ladder of investment". (Mr. Bakker here displayed an indicator showing the French experience; the

more services are presented by infrastructure providers, the more revenue they get, and the more balanced the revenue outcomes are distributed among Resellers and Service Providers).

- *Some key factors for good regulation:*
 - ❖ Comprehensive access regulation including unbundling of the local loop in its various forms
 - ❖ Rebalancing: no distortive cross-subsidies from call charges to access charges
 - ❖ New types of consumer protection: internet viruses, Spam, on-line payment frauds etc.
 - ❖ Control of the time game: sanctions, disputes, appeals
- 3 ***Ubiquitous and affordable access.*** Extra challenge to developing economies; provide connectivity and accessibility, also in rural areas and to low income groups.
- *EU-system secures non-distortive Universal Service system:*
 - ❖ Designation of provider by open auction
 - ❖ Transparent funding mechanism

Conclusion:

- Fundamental changes in the control of services
- Public policy makers should reduce uncertainty and prevent unnecessary delay
- Broadband take-up is strongly driven by competition
- Regulatory framework should enhance competition, including wholesale access for services competition as a step in the ladder of investment
- Universal Service schemes for accessibility and affordability in a non-distortive way.

QUESTION & ANSWER FOR SESSION 3:

The questions in the Q & A session tackled the following issues:

- Consumer preferences and innovation in the end-user devices.
- How far the regulation on Media Content should be imposed.
- The reliability of the Egyptian Regulatory system concerning introducing smooth services to the service providers while having much bureaucracy.

Closing Session:

Keynote:

H.E.Dr. Tarek Kamel, Minister of Communications & Information Technology, Egypt

Panelists:

Ambassador David A. Gross, Bureau of Economic and Business Affairs, U.S.A

Summary:

Ambassador David A. Gross

- Egypt's is following the international trends by focusing on Convergence of ICT and Broadcasting Industry as one of the most important and promising industries that is being developed allover the world. This also has an effect on the MENA region as per the Egyptian leadership in the region.
- Technology is not the only motivator for us to speak about Convergence, yet it's the consumer demand allover the world. People want to get the latest information and communication services everyday. That's why we should always tackle what people really need.
- Ambassador Gross said that FCC is trying its best to solve the problems that face the investors and in the same time to fulfill the people's desires and aims. That's why governments should be aware and updated about their people's needs.
- Change should take place in a manner that helps the investors increase their revenues. This means that there should be an environment that enables competition and innovation. FDI is welcomed allover the world even in USA in order to push forward the wheel of economy.
- Having such an open dialogue among the government, industry, and civil organizations in Egypt is a positive sign of the Egyptian political reform and development, and that should be followed by many other countries allover the world.

Dr. Tarek Kamel

- Dr. Kamel expressed his pleasure for the success of the conference and said it was only the first step in the dialogue that will take place between the two great communities; ICT and Media.
- Both sides have to collaborate in order to create a strong Convergence Industry and solve their problems together and do their best to remove any barriers that may appear.
- Egypt has many privileges that enable it to be a leading country in this promising industry, but we still have many things to do regarding the human resources and technological development.

Recommendations

1. Restructuring of CIT industry through modifying the existing business models and regulations is one of the main necessities for the integration of the different niches and new business opportunities
2. Technology is imposing quick change specially in Media distribution and delivery mechanisms
3. Business opportunities in Convergence of ICT and Broadcasting industries are now opening new doors for investors
4. Egypt can play a leading role in the development of Convergence of ICT and Broadcasting industries in the Middle East region.