

Gabonese Republic Ministry of Digital Economy, Communication & Post

Telecom Policy and Regulation for Next Generation Networks

GABON STRATEGY

Libreville, 30th August 2012

Armand C. Lichambany Managing Director Digital Economy Department (ICT) Ministry of Digital Economy of Gabon

Content

- I. Gabon in brief: socio-economic, Telecom & ICT indicators
- **II. Institutional framework**
- **III. Legal and Regulatory frameworks**
- **IV. Licensing framework**
- V. Gabon Digital Plan: the country roadmap for the development of the ICT sector
- VI. National strategy for the development of NGN and Broadband Services
- VI.1. Cybercity of Mandji Island VI.2. IT Park
- **VII. Challenges for Telecom Policy & Regulation for NGN**

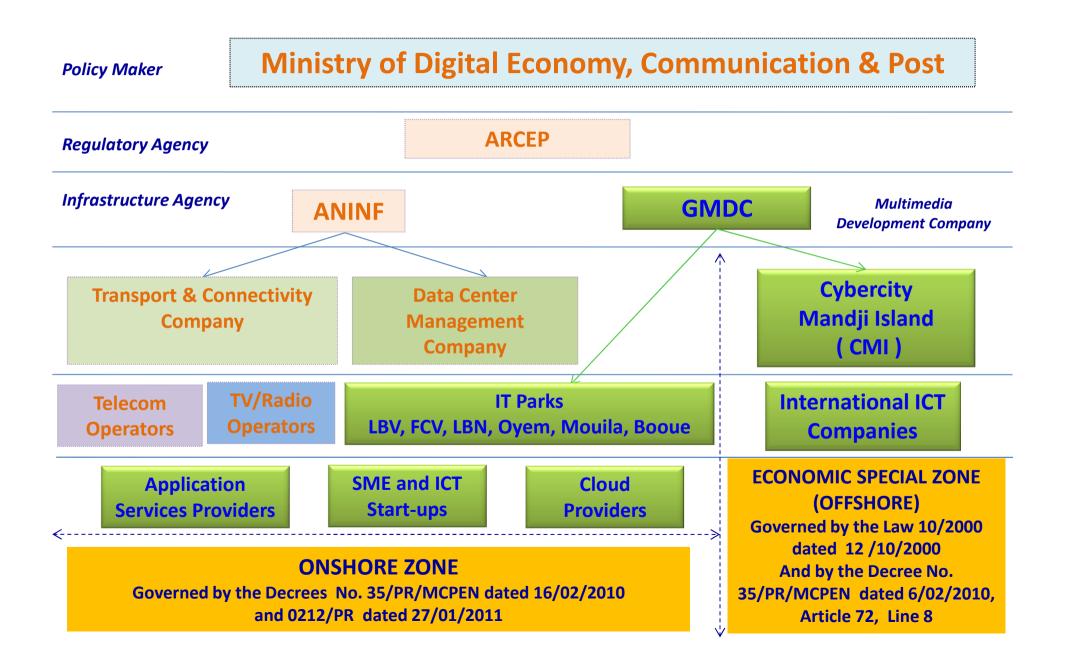
I. Socio-economic Indicators: Gabonese Republic

Capital	LIBREVILLE	CAMEROON Bitam Bitam CAMEROON Bitam Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron Cameron Company Cameron
Area	267,667 Km2	
Currency	Franc CFA (XAF)	
Population	1.5 million	
Official language	French	
Calling code	241	
GDP (PPP)	2010 estimate (US\$ \$24,571 billion)	- mays
		Gamba Tchibanga REP. OF
Source: http://en.wikipedia.org/wiki/Gabon		Lucina Terminal Wayumba THE CONGO

Telecom & ICT indicators (2011)

- Fixed-telephone: 22,500 subscribers
- Penetration rate (fixed –telephone): 1%
- Mobile cellular: 2,370,227 subscribers
- Penetration rate (Mobile-cellular): 97%
- Fixed (wired)-broadband: 0,29
- Mobile Broadband: 0
- Internet (mobile): 256 729 subscribers
- Internet (fixed): 23,657 subscribers
- Penetration rate (fixed-Internet): 1%
- Penetration rate (mobile-Internet): 16%
- Households with computers: 7,64
- Households with Internet: 6,02

II. Institutional Framework



- In 1999, the Telecommunications market has been opened to competition in mobile telephony by awarding three (3) GSM licenses to three operators: Libertis, Celtel (Airtel) Telecel (Moov).
- In 2001, the Telecommunications sector and postal services have been deeply restructured and 3 Law have been adopted by the Parliament:
- ✓ the Law No. 0004/2001 of 27 June 2001 reorganizing the Posts and Telecommunications sector in the Gabonese Republic. This results on the creation of Gabon Telecom and Gabon Poste;
- ✓ the Law No. 0005/2001 of 27 June 2001 establishing the regulation of the Telecommunications sector in the Gabonese Republic. This results on the creation of the Telecommunications Regulatory Agency (ARTEL);
- ✓ the Law No. 0006/2001 of 27 June 2001 establishing the regulation of Posts sector in the Gabonese Republic. This results on the creation of the Posts Regulatory Agency (ARP).

- Subsequently, these laws were supplemented by the implantation of the legislation under the form of Orders, Decrees and Decisions.
- In February 2007, Gabon Telecom and its mobile subsidiary have been privatized. The new shareholders are Telecom Morocco (51%) and the Government of Gabon (49%).
- In November 2009, a 4th Mobile License has been attributed to USAN which operates a GSM Network under the trade mark AZUR Gabon.
- The Decree No.000540/PR/MPT of 15th July 2005 establishing the modalities of Interconnection, the infrastructures sharing and the tariff principles.
- The Decree No.000544/PR/MPT of 15th July 2005 establishing the Universal Service and access obligations.

- The Decree No. 035/PR/MCPEN of 16 February 2010 reorganizing the Ministry of Communication, Post & Digital Economy.
 Article 72, Line 8: the Promotion of Digital Economy Department establishes the Technology Parks for promoting the ICT sector;
- The Decree No. 0212/PR of 27 January 2011 establishing a National Agency for Digital Infrastructures and Frequencies (ANINF) attached to the Presidency of the Republic, and under the technical supervision of the Minister in Charge of Communication, Post & Digital Economy, which is responsible for the development and implementation of digital infrastructure projects and the management of the Spectrum;
- The **Decree No. 726/PR/MCPEN 26 June 2011** establishing the Gabonese Broadcasting Company and specifying the procedures for design, installation and operation of transmission equipment and broadcast programs of radio and television;

- The Order No. 004/MCPEN of 15 February 2010 on the establishment and composition of the Commission for managing the Transition from Analog TV to Digital TV in the Gabonese Republic;
- The Order No. 0018/MCPEN of March 4, 2011 on the modernization of terrestrial broadcasting in Band III, IV and V in the Gabonese Republic.
- Since the 13th February 2012, the Posts Regulatory Agency (ARP) and the Telecommunications Regulatory Agency (ARTEL) have been combined by Ordinance No. 0000008/PR/2012 into one agency called " Post & Electronic Communications Regulatory Agency" (ARCEP)

IV. Licensing Framework

There are 3 main operating regimes of Telecommunications governed by the NRA in Gabon are the following:

- **Public Service Delegation (PSD)**, for basic Telecommunications services (fix network);
- License for operators of Telecommunications networks using radio frequencies such mobile operators and the "restricted area " telephone operators ;
- Authorization or Declaration for the Value Added Services Providers and for the private Telecommunication Network Operators.

V. Gabon Digital Plan: the country roadmap for the development of the ICT sector

- Within the framework of the **Emerging Gabon** development strategy, the Gabonese State has developed a special three-year plan called "**Digital Gabon**".
- Significant investment will be made in the development of a digital economy in Gabon, and in particular broadband infrastructure, including the development of high-speed services such as e-Learning, e-Health, m-Health, Video-conferencing, Telemedicine, Tele-education, e-Government an m-Government services.
- The **Digital Gabon Plan** is the main support of the Pillar "Services Gabon" of the politic " Emerging Gabon " which aims to turn Gabon onto an emerging country at the horizon 2025.

The main projects :

- to connect the country to the international broadband submarine cable ACE which interconnects the West Coast of Africa to Europe;
- to setup a national Backbone based on optical fibber from Libreville to Franceville, crossing several provincial capitals and following the railway;
- to build a WiMax Network in all the 9 provincial capitals in order to connect the whole Administration;
- to develop the FTTH and FTTB networks in the main cities
- to equip all the schools in Gabon with multimedia rooms with Internet connections in order to develop the E-Education, M-Education and Tele-Education;

V. Gabon Digital Plan: the country roadmap for the development of the ICT sector

The main projects (cont.)

- to develop Telemedicine and M-Health;
- to implement a digital Administration (E-Government, M-Government);
- to manage the Digital TV migration before the dead line of 17 June 2015;
- to develop the Mobile Broadband based on the LTE technology;
- to build the largest Central African Technology Park of Digital Economy in the Economic Special Zone of Port Gentil (Cybercity of Mandji Island);
- to build small and medium IT Parks in all the cities which host the universities for the incubation of the Cloud Providers.

WHICH TYPE OF INFRASTRUCTURE FOR THE EMERGING GABON?

Gabon is connected to main Broadband Networks (SAT 3, ACE and CAB2)



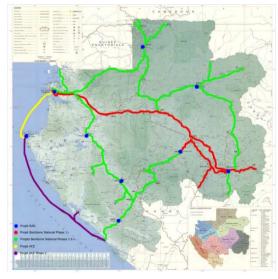
• The main national and sub-regional Broadband Network projets (RAG and CAB2)

Connection of Port gentil to the Broadband Network

National Broadband Network map

National Digital TV Network





ZONES DE COUVERTURE DE S EMETTEUR S

These Broadband Networks will support the development of ICT services



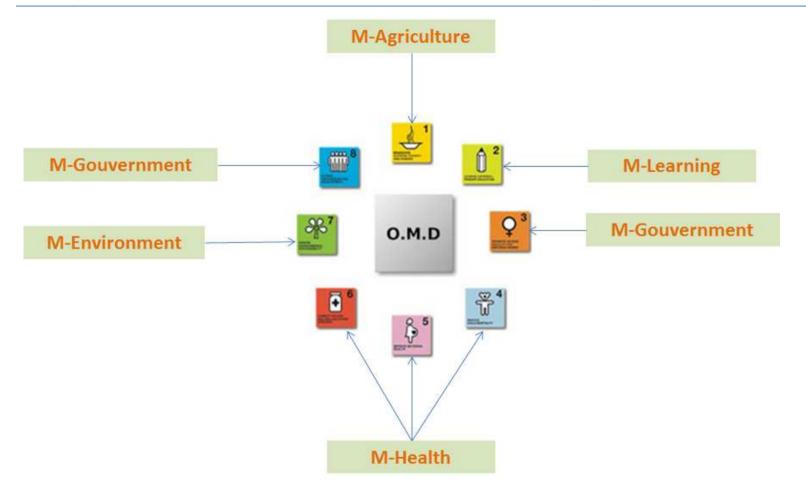
LTE AS THE MOBILE BROADBAND NETWORK FOR THE RURAL ZONES

- LTE network will enable the Broadband « mobile Services » in the rural zones
- LTE will enable the migration (Analog TV toward Digital TV) in the rural zones

Evolved Multimedia Broadcast Multicast Services (E-MBMS)

 Digital Radio Broadcast
 Digital Video Broadcast

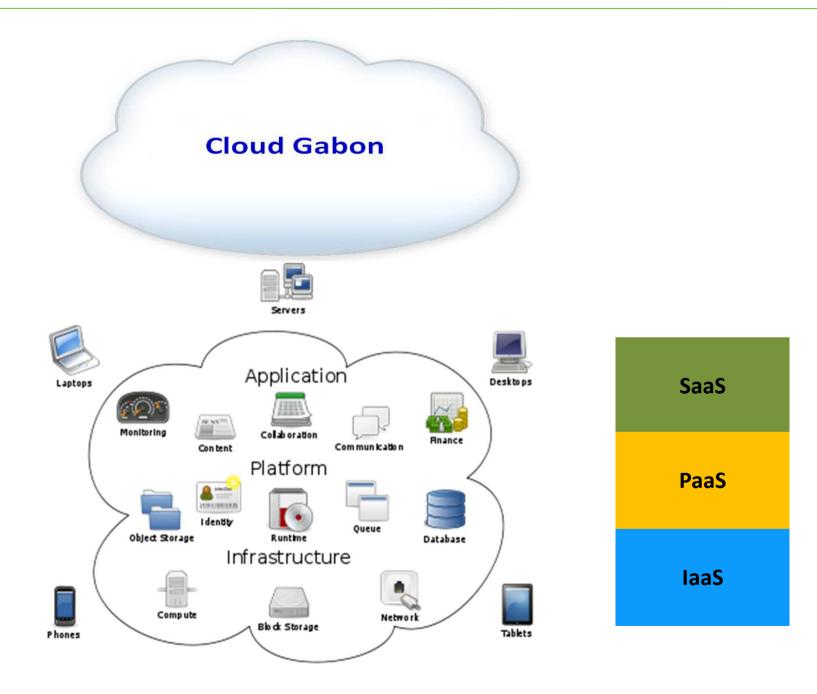
Objective: to achieve the MDGs in the rural zones using the m-Services



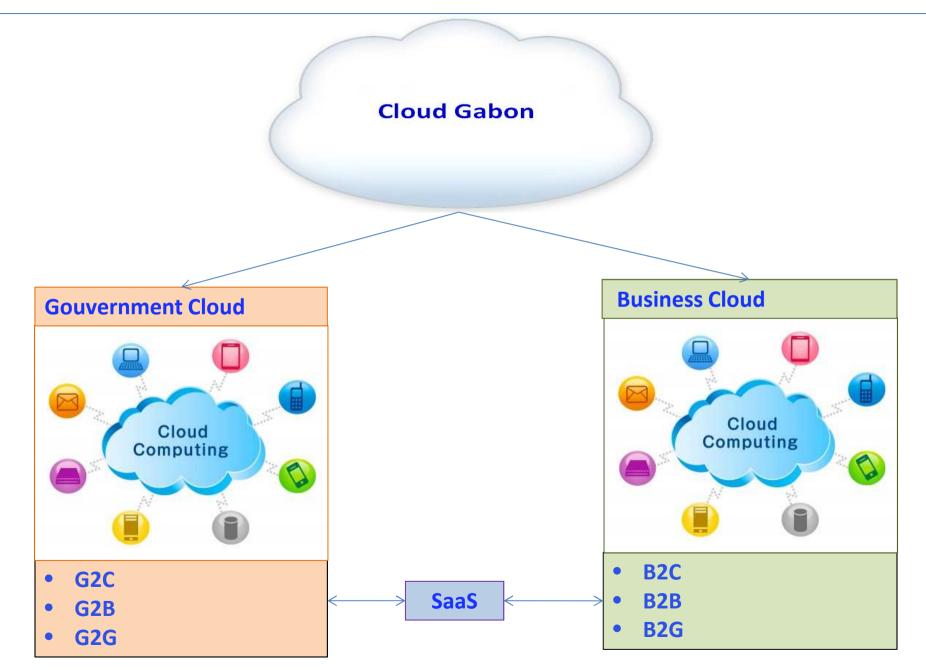
- 1. Eradicating extreme poverty and hunger,
- 2. Achieving universal primary education,
- 3. Promoting gender equality and empowering women
- 4. Reducing child mortality rates,
- 5. Improving maternal health,
- 6. Combating <u>HIV/AIDS</u>, <u>malaria</u>, and other diseases,
- 7. Ensuring environmental sustainability, and
- 8. Developing a global partnership for development

WHICH ICT SERVICES FOR THE EMERGING GABON?

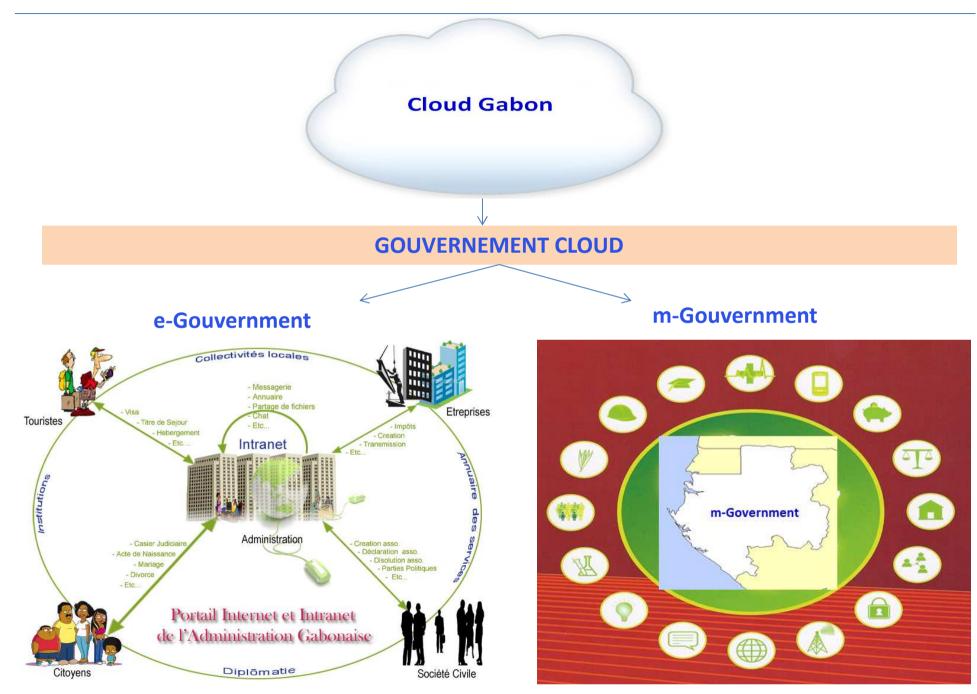
VI. National strategy for the development of NGN and Broadband Services



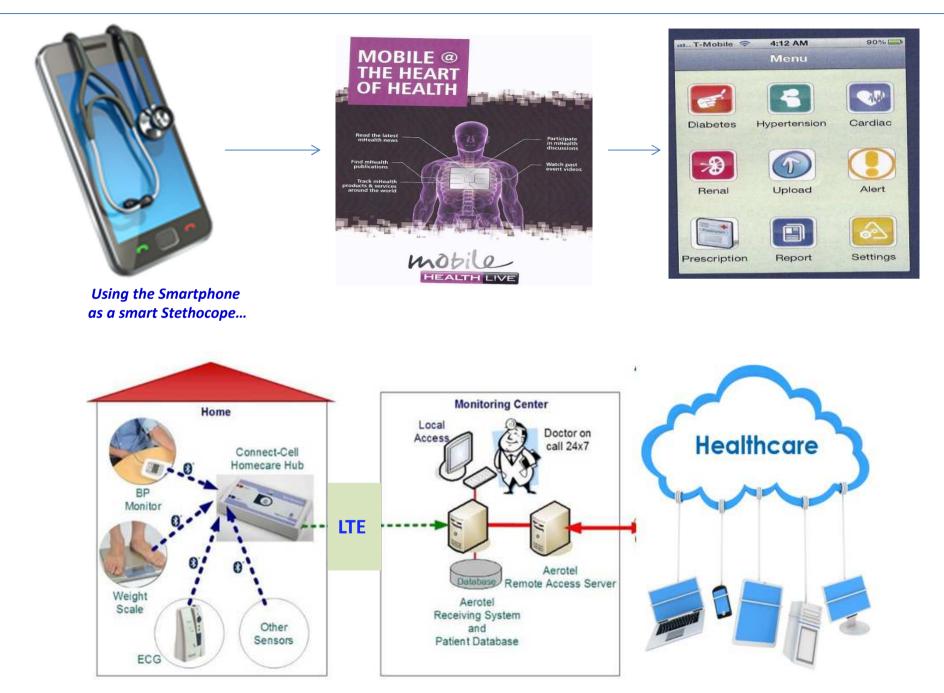
ORGANISATION OF CLOUD GABON

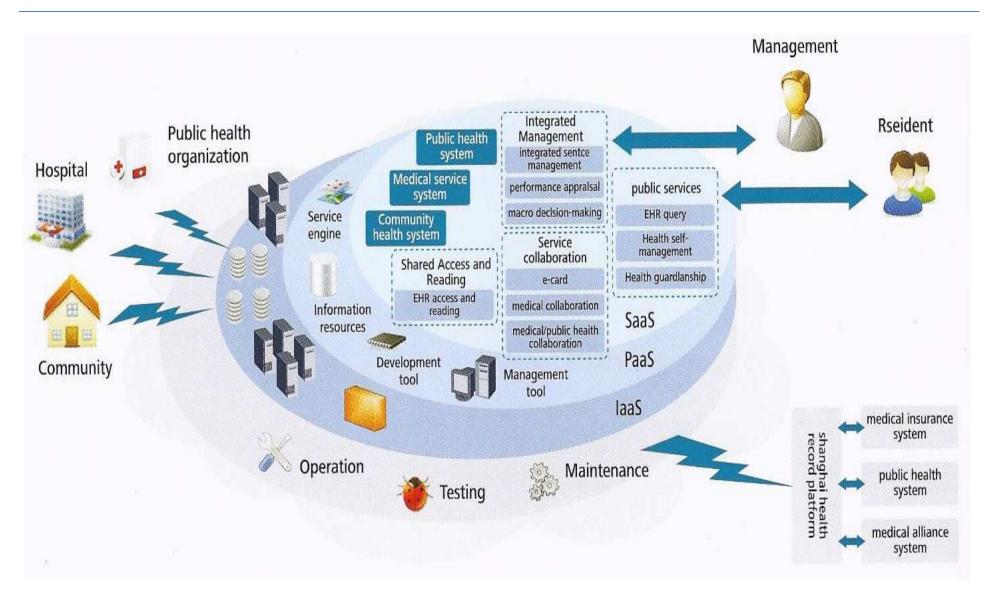


ORGANISATION OF THE GOUVERNMENT CLOUD

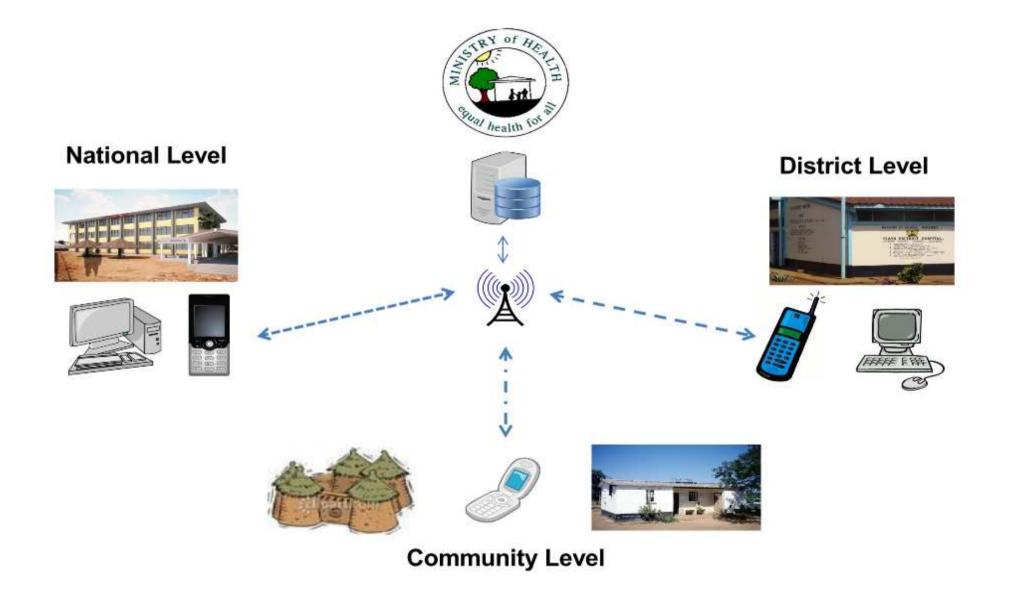


M-Health: main challenge to bring efficient Healthcare in the Rural Zones



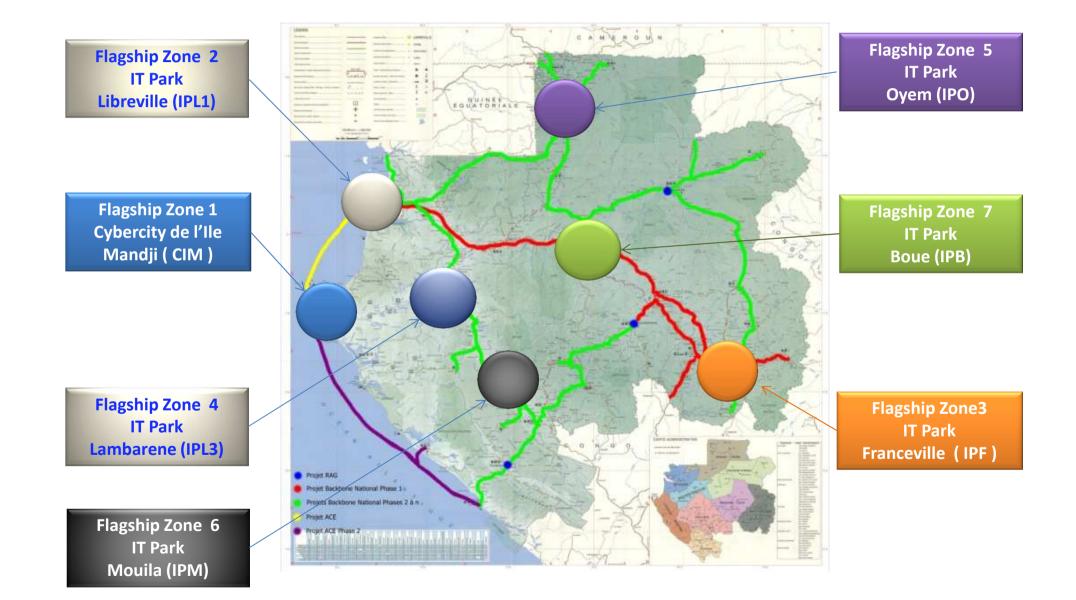


M-Health Cloud : the best way to enable Healthcare in the Rural Zones

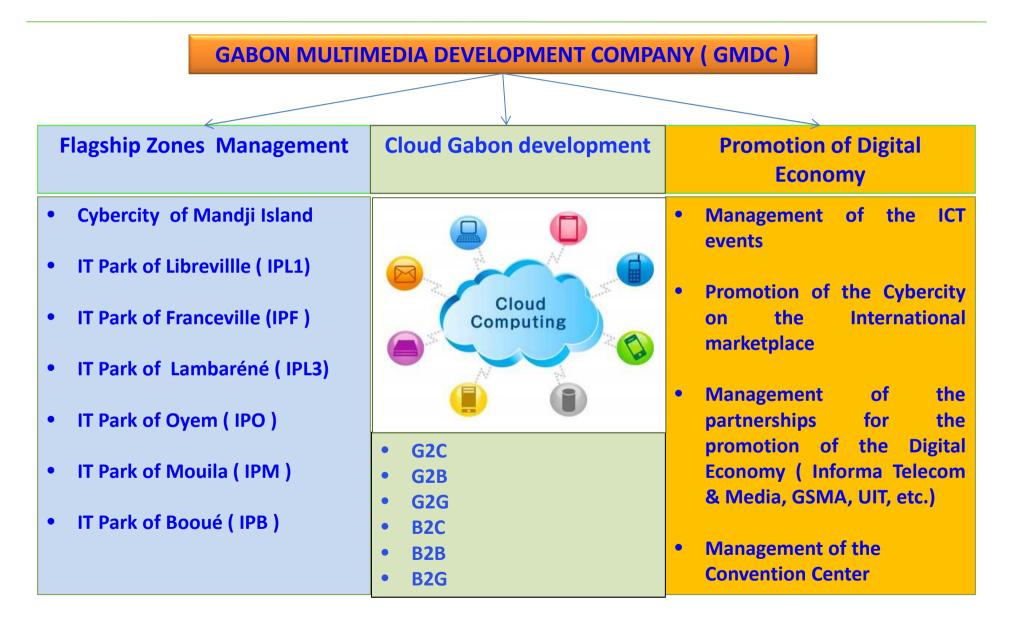


STRATEGY FOR THE DEVELOPMENT OF CLOUD GABON

The Flagship Zones for the development of Cloud Gabon



GMDC: main player for NGN and Broadband Services development



Flagship Zone1

CYBERCITY OF MANDJI ISLAND



Cybercity of Mandji Island : Objectives and advantages

- The Cybercity of Mandji Island will be the ultimate ecosystem for the development and promotion of the Digital Economy through the installation of offshore companies specialized in Information and Communication Technology (ICT).
- Located in the Free Trade Zone of Mandji Island and connected to a Broadband submarine fibber optic network, the CMI will be the largest "ICT Hub" of the Central Africa Region.
- The ICT companies operating in the CMI will be exempted from taxes during the first 10 years. From the 11th year of operation, they will be subjected to income tax at 10%.
- easy and fast Registration of ICT companies via a One Stop Shop;
- no restriction on funds transfer;
- Strong legal and regulatory framework on Internet Governance (personal data protection, protection of Intellectual Property, Fight against Cybercrime, etc.).
- ICT companies eligible in the CMI will stimulate the employment of Gabonese Citizen and ensure the transfer of competencies to them in order to allow these future "Technopreneurs" to create their own Start-Ups in the regional IT Parks.
- The potential candidates eligible in the CMI are the Outsourcing Companies, Cloud Computing Providers, Call Centers, Software Publishers, Web Agencies, Hosting companies, Media production companies, etc.

WWW.CYBERCITY-ILEMANDJI.COM/2012



Cybercity of Mandji Island: master plan



IT Park Model



Future IT Park of Libreville (Nkok)

VII. Challenges for Telecom Policy & Regulation for NGN

- 4 Laws on the Information Society are currently under implementing:
- ✓ Law on the Personal Datas ;
 ✓ Law on the Electronic Transactions;
 ✓ Law on the Cybercrime;
 ✓ Law on the Cryptology.
- Implementing Telecom Policy and Regulation for New Generation Networks is the country main challenge for establishing a confident and competitive ICT environment in order to attract international investors for the development of the Cloud Gabon through the Private-Public Partnership scheme.

Contact

Armand C. Lichambany Managing Director Department of Digital Economy (ICT) Ministry of Digital Economy, Communication & Post PO Box 2280 Libreville, Gabon Tel: +241 76 34 35 Fax: +241 44 48 14 Cell: +241 07 94 67 15 Email: info@cybercity-ilemandji.com http://www.cybercity-ilemandji.com/2012