

1 KEY FEATURES

Benin is a small country in West Africa bordered by Togo and Nigeria. The country has a GDP of aspects of the geography, demographics and social/economic status, regional economic community membership and any special challenges.

2 CONNECTIVITY INDICATORS

General narrative description of internet uptake in the country - 10 lines plus table below:

	Year	Total	Penetration (as a % of population)
Population			
Mobile Subscriptions (SIM cards)			
Internet Users			
Broadband Subscriptions, mobile			
Broadband Subscriptions, fixed			
International capacity in use		(Gbps)	(Kbps/capita)
AS Numbers			
IP addresses (v4/v6)			
ccTLD Domain Names registered			

Sources:

3 NATIONAL ICT POLICY & REGULATORY FRAMEWORKS

3.1 AUTHORITIES

ICT Policy Agency	Ministry of Communications	
National Regulatory Authority	Transitory Authority for the Regulation of Posts and Telecommunications	
Universal Service Agency	USA Name (or operated by regulator)	Comments
ccTLD registry	Name	Comments

ICT Statistics agency(ies)	Name(s)	ICT Statistics gathered
Radio Spectrum Management Agency	Name	Comments

3.2 POLICIES AND REGULATIONS

National ICT Policy and Broadband Plan	Names and Links to documents, (date)	Comments, plans
Basic Telecom Law (Legislation and regulations on market entry/licensing and competition)	Names and Links to documents, (date)	Comments, plans
Infrastructure sharing regulations	Names and Links to documents, (date)	Comments, plans
Interconnection regulations	Names and Links to documents, (date)	Comments, plans
Cybersecurity/e-commerce/privacy	Names and Links to documents, (date)	Comments, plans
Intermediary liability legislation	Names and Links to documents, (date)	Comments, plans
Universal Service legislation	Names and Links to documents, (date)	Comments, plans
Radio spectrum regulations and assignments	Names and Links to documents, (date)	Comments, plans
Policies to reduce gender imbalance and increase the role of women	Names and Links to documents, (date)	Comments, plans

4 NETWORK INFRASTRUCTURE

4.1 INTERNATIONAL CONNECTIVITY

Submarine cable infrastructure, satellite services in use, capacity available, ownership, reliability, access for competitors

International infrastructure

Africa: Fibre Backbone Planned Along Railway Connecting Côte d'Ivoire, Burkina Faso, Niger, Benin And Togo. During July 2016, it was reported by BFM TV that a subsidiary of Vivendi is deploying a fibre optic backbone along a new railway line under construction in West Africa. Once completed the 2,700-km Blue Line West African rail loop is planned to run through Côte d'Ivoire, Burkina Faso, Niger, Benin and Togo, connecting the capital cities of Abidjan, Ouagadougou, Niamey, Cotonou and Lomé. According to Blue Solutions Benin, construction work began in April 2014, involving the

renovation and rehabilitation of some 1,000-km of existing railway network in Côte d'Ivoire, Burkina Faso and Benin (Abidjan - Ougadougou - Kaya, and Cotonou - Parakou), and the construction of 1,700-km new railway tracks in Burkina Faso, Niger, Benin and Togo (Kaya - Dori - Niamey - Parakou, and Cotonou - Lomé).

According to the document, construction and operation of the Cotonou-Niamey railway will be entrusted to a multinational company. It will have share capital of 70 billion CFA francs, split as follows: State of Benin: 10%; State of Niger: 10%; Beninese private sector: 20%; Nigerien private sector: 20%; strategic partner (in this instance, the Bolloré Group): 40%. The latter will also be responsible for raising the finance needed to carry out the work; the projected overall investment cost is nearly 1,000 billion CFA francs. The Group set the tone by investing capital in completely restoring the Benin-Niger Railway (OCBN) central station in Cotonou.

On 7 November 2013 in Cotonou, the governments of Benin and Niger and the Bolloré Group signed a memorandum of understanding on this construction project.

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<http://www.benin2025.org/business-and-transportation/a-promising-benin-niger-section-of-the-rail-l-ooop/>

4.2 PUBLIC NETWORK OPERATORS

National fibre and microwave networks, Links to neighbours, local access (fixed and mobile broadband)

Network expansion/upgrade Plans

[Benin Telecoms](#) (OPT Benin, Libercom)

[Espace Informatique Benin](#) (EIT)

[Isocel Telecom](#)

[Moov](#)

[Bell Benin](#)

[Main Government Web Site](#)

4.3 GOVERNMENT NETWORKS

Government operated networks, PPPs

Association for Progressive Communications (APC) <http://access.apc.org>

In 2013 licenses were awarded to MTN and Etisalat's Moov. The licences are technology neutral, enabling the operators to offer services based on 3G, LTE and mobile WiMAX technologies.

Also see slide 89
<http://atu-uat.org/wp-content/uploads/2016/06/day-3-session-2-presentation-by-georges-yayi-benin.pdf>

Public Network Operators

4G/LTE (1/5 Opérateur de réseaux mobile et BTS l'opérateur de réseaux fixe)

□WiFi (10 Fournisseur d'Accès à Internet)

Operators:

MTN, Moov (Telecel), Libercom, BBCom (Bell Benin), Glo Mobile (Globacom), be.Telecoms (Benin Telecoms, formerly OPT), Kanakoo (BeninNet), Isocel, EIT, FirstNet, Arts Bobo, Sobiex Informatique, Global Trading Agency, Afripa Telecom, Thuraya, Nitel, Suburban Telecom, CEB.

The complete list of Internet service providers in Benin:

- Benin Telecom SA
- Computer Space
- ISOCEL Telecom
- MARLANS Telecom
- OMNIUM telecommunications and the Internet
- UNIVERCELL SA

• Complete list of postal operators in Benin:

- AMERICAN FURNITURE

- DHL
- GETMA Benin
- Post Benin
- MTA
- SDV
- SIMTRAM
- TOP CHRONO

• **The complete list of networks and telephony operators in Benin:**

- Bell Benin Communication
- Benin Telecom
- ETISALAT-Benin
- GLO MOBILE BENIN
- LIBERCOM
- SPACETEL BENIN (MTN)

Reference: Georges YAYI Directeur des. Radiocommunications ARCEP ygeorges@arcep.bj

4.4 PRIVATE NETWORKS

Corporate networks

Association for Progressive Communications (APC) <http://access.apc.org>

4.5 CIVIL SOCIETY/NGO NETWORKS

Non profit/relief/UN networks

4.6 INTERCONNECTION AND HOSTING

4.6.1 Data centers

4.6.2 IXPs

4.6.3 Caching and other shared services

4.7 CAPACITY BUILDING INFRASTRUCTURE

ICT training, research and education networks, innovation hubs, user groups and public access facilities

4.8 POWER SUPPLY INFRASTRUCTURE

Electricity networks, footprint, cost & reliability

4.9 GOVERNMENT ICT PROGRAMMES AND PROJECTS

4.9.1 E-Government

E-Benin project:

<http://e-benin.bj/projet/fileadmin/Presentation/1-CONTEXTE%20STRATEGIQUE...>

Govt ICT Programmes and projects

The strategy with the **universal service fund** is to stimulate competition in underserved areas.
Slide 89 /90

Broadband Targets:

In line with the Vision 2015 strategy, the Ministry of ICTs has fixed its broadband threshold at 512kbps, but this threshold will evolve over time;

The objectives of broadband penetration set at

(2017) a ccès pour 3% de la population au haut débit fixe et 21% au haut débit mobile.

And 9% and 29% respectively for fixed and mobile by 2022;

With a spending target in ICT by users in Benin is 5% of income per capita;

An interdepartmental commission will be responsible for ensuring the implementation and monitoring of the broadband strategy; with a cost estimate of connectivity of users and international connectivity was estimated at 1 billion euros;

Highlighted the mechanisms to promote private investment in ICT both on the supply and the demand side, including the PPP model;

Government projects

- présenté les principaux éléments du projet de stratégie large bande du Bénin, en précisant que ce projet est mené par le ministère chargé des TIC en droite ligne avec la Vision 2015 du Bénin ;
- présenté la vision, la mission et le mandat de l'ARCEP ;
- donné un aperçu de l'infrastructure dorsale des TIC, y compris les deux câbles sous-marins en fibre optique et les opérateurs TIC du Bénin ;
- précisé les bandes de fréquences des réseaux d'accès utilisées par les opérateurs de téléphonie mobile au Bénin ainsi que celles des réseaux de transmission ;
- présenté l'évolution des abonnés TIC du Bénin tant pour les réseaux fixes que mobiles ;
- rappelé que la stratégie du Bénin repose sur quatre piliers, à savoir :
 - l'impact du large bande sur la croissance économique ;
 - les cinq principaux objectifs du projet "Connecter l'Afrique" ;
 - les quatre objectifs de la Commission large bande ;
 - la Vision nationale "*Faire du Bénin le quartier numérique de l'Afrique*".

- précisé que pour l'instant, le Bénin a fixé son seuil de large bande à 512kbps, mais que ce seuil évoluera au fil du temps ;
- présenté les objectifs de pénétration du large bande fixés à 9% et à 29% respectivement pour le fixe et pour le mobile d'ici à 2022 ;
- précisé que l'objectif de dépense en TIC par les utilisateurs béninois s'élève à 5% du revenu par habitant ;
- mis en relief les mécanismes de promotion des investissements privés en TIC tant du côté de l'offre que du côté de la demande, notamment le modèle PPP ;

PartenariatPublicPrivé□Coopérativesd'utilisateurs

□Opérateursavecfinancementdel'Etat

- mis l'accent sur la question de l'accès universel comme étant le principal centre d'intérêt des autorités béninoises ;
- signalé que la commission interministérielle aura la charge d'assurer la mise en œuvre et le suivi de la stratégie large bande ;

Comité de Cordination dé nommé«ComitéHautDébit

- rappelé les conditions préalables à la promotion de la stratégie large bande, notamment le découplage des municipalités et souligné que le Bénin avait mis en place des dispositions réglementaires aux fins d'assurer la réussite et la viabilité de la stratégie large bande ;
- précisé que le coût de la dorsale, de la connectivité des utilisateurs et de la connectivité internationale était estimé à 1 milliard d'euros ;
- également relevé que le Bénin avait opté pour le principe de la neutralité technologique du spectre ;

- exhorté les Etats à œuvrer pour les avantages à long terme et la création de richesses dans le secteur des TIC, et à éviter la quête des revenus à court terme par une imposition et/ou des droits de licence de spectre trop lourds ; et
- rappelé que le Bénin est en train de racheter la bande 2.5GHz auprès de MMDS Systems.

http://atu-uat.org/wp-content/uploads/2016/06/report-of-atu-arcep-capacity-building-workshop_fr1.docx

References

Implémentation des résultats de la CMR-2015 (CMR-2015) et développement de la stratégie nationale large bande

http://atu-uat.org/wp-content/uploads/2016/06/report-of-atu-arcep-capacity-building-workshop_fr1.docx

<http://atu-uat.org/wp-content/uploads/2016/06/day-3-session-2-presentati...>

<http://www.absucep.bj/htdocs/projets/>

http://www.absucep.bj/images/projets/PROJET_ACCES_UNIVERSEL_HAUT_DEBIT.pdf

4.9.2 Education & health

4.9.3 Emergency Services

Association for Progressive Communications (APC) <http://access.apc.org>

4.9.4 Agriculture

4.10 BANKING AND E-PAYMENTS

4.11 MEDIA

5. INFRASTRUCTURE READINESS POLICY CHECKLIST

[Contribute to the Infrastructure Readiness Policy Checklist >](#)

6. COMMENTARY

Up to one page - highlights of the issues identified in the above profile.

7. COUNTRY CONTACTS AND ONLINE RESOURCES

Bullet list or table of names and urls

COMMENTS

[Comments](#) [Contribute to the ICT Infrastructure Readiness >](#) [Download this report in PDF](#)

Policy Component	Significance	Policy and Regulatory Status: (Absent / Partial or Full)	Comment (Level of Implementation, Transparency of Process, etc)
Openness of ICT Markets			

Open technology neutral license structure, with streamlined licensing process and no legal barriers to market entry, except minority local ownership requirement.	Allows competition that is not restricted by limiting market access to types of technology or services
Limited or no state ownership of retail service providers	Government ownership can cause a conflict of interest with other private operators and with the government wishing to maximise profitability of its shareholding vs the public needing more affordable services. Operators with a large proportion of the market may need special regulation to ensure their market dominance does not disadvantage smaller market entrants. Allows for increased customer choice and therefore improved competition and downward pressure on costs and improved service quality
Dominance of existing operators addressed	Countries with only one or two international fibre links can find prices charged for capacity are not competitively priced and may require price caps. Redundancy is vital to maintaining reliable connectivity and also to aid in competitively priced wholesale services to local operators. Reduces potential for market dominance, improves opportunities for using low cost VoIP services, allows for increased customer choice and therefore improved competition and downward pressure on costs and improved service quality.
Wholesale international capacity available at competitive prices or regulated capacity pricing	Keeps traffic local and therefore reduces costs to operators and improves network performance as well as improving local control/management of local content services.
Multiple international fibre connections	Improves availability of a vital resource for delivery of broadband services. Allows for the use of the latest, most efficient technologies, limits ability of incumbents to maintain franchises through technology.
Mandatory, transparent cost-based interconnection agreements, including availability of DID numbers	Allows for increased customer choice and therefore improved competition and downward pressure on costs and improved service quality
Local Internet Exchange Point(s) & Carrier Neutral Data Centre(s)	Provides greater diversity in access to information and improved consumer choice
Cost based, transparent, efficient radio spectrum licensing, including access to unlicensed spectrum bands, the digital dividend, and spectrum sharing/dynamic spectrum management	
Availability of number portability is mandatory and process is efficient	
Limitations on concentration of public and private media channels and content services	

Strength of Policy and Regulatory Institutions

Independence from other governmental entities, broadcasters and telecom providers – strong advocacy for consumer/public interests	Decision making is objective and is not influenced by politics or vested interests
Sufficient and predictable funding streams	Helps ensure independence and that regulator has human and financial capacity to go up against large private or public vested interests
Track record of regulatory certainty with clear, transparent development of policies and regulations, with evidence-based policymaking and regulatory procedures that include public participation	Helps ensure the most appropriate policies and regulations are adopted and minimises investor sense of risk and improves ability of private sector to make long term investments.
Authority, jurisdiction, accountability to enforce regulations, including effective regulation of anti-competitive behavior	Improves independence and effectiveness but may also need supportive competition / anti-trust authority

Regular (quarterly) data collection and publication of key market indicators disaggregated according to vulnerable groups (incl gender) and including pricing, speed, adoption rates to identify gaps and opportunities.

Provides the basis for informed decision-making and evidence-based policy development to identify gaps and opportunities

Enabling Strategies and Incentives

Presence of a national utility infrastructure database/GIS containing routes and features of telecom/transport/energy grids/ water/ waste pipelines) augmented by data on location of populations and public service outlets (schools, clinics, municipal authorities)

Improves planning process, reduces cost of network deployment and improves reliability of networks by helping to minimise accidental fibre cuts

Efficient permitting process for infrastructure deployment and regulations which encourage sharing of passive infrastructure - one stop shop for access to rights of way/wayleaves, ducts, poles, masts, govt land/buildings. Includes rapid cross-border permitting, tariff caps for lease fees & submarine landing station fees, and transparent dispute resolution procedure.

Helps to minimise network deployment time and provides major cost savings.

Mandatory dig once utility works requirement - first to dig/lay must share conduit, co-ordinated infrastructure deployment (all new roads/electricity grids/pipelines/rail lines must have ducts and fibre included). OPGW to be installed on all new overhead high tension pylons. Local authorities have effective mechanisms to promote transparency and share best practices.

Minimises disruption and creates huge savings in costs of telecom network deployment

Long term soft finance/other incentives for rural infrastructure investment, such as an efficient Universal Service Fund (USF) which subsidizes infrastructure in non-market attractive areas and available to all players on a nondiscriminatory basis. The operation of the USF is based on: 1) Non-discrimination (fair collection and distribution of funds, including non-carriers) 2) Using transparent and consultative processes, incorporating stakeholder inputs and priorities 3) Setting clear target goals and monitoring of effectiveness and impact of USF programs and projects 4) Prioritizing one-time infrastructure and other expenditures to enable access

Improves opportunities for private sector to invest in network deployment in areas with marginal profit potential

Low taxation and import tariffs on broadband goods and services

Reduces network deployment & maintenance costs as well as minimising customer equipment acquisition and service costs

Investment in e-govt applications and connectivity for government service outlets - municipalities, libraries, schools, clinics, community centres, including support for academic and research networks and those with disabilities

Improves potential for universal access and thus improves overall demand for broadband services and therefore attractiveness of further e-govt and private applications and services investment

Content Distribution Networks (CDNs) present, local web services hosting and simple, fast and low-cost Domain Name registration

Improves ability for international and local web services to gain traction

Content blocking/disabling not permitted, except due to human rights violations (no web sites blocked or broadcast license applications refused due to content without public legal process)

Underlies adherence to democratic freedom of expression and access to information values

Network neutrality adherence and protection against intermediary liability legislation

Improves ability for international and local web services to gain traction

Legal framework for cybersecurity and data protection, use of e-health records

Ensures abuses of the internet and associated risks for the public are minimised

Presence of tech hubs, incubators, science parks and other shared workspace environments

Supports innovation, skills development and business development

Presence of open mobile and electronic payments platforms	Basis for broad-based adoption of e-commerce
Clear and transparent IPR legal framework and Open Data Strategy for government and private information	Creates incentives for business investment and allows re-use and value addition from existing information.
Integration of the development of the above in a coherent and broadbased national broadband plan, which includes a government online strategy, time-based targets and a multistakeholder guidance process	Improves co-ordination, economies of scale, accountability and cross-sectoral synergies while reducing duplication.
Favorable context for investment (through tax incentives, and/or no constraints on foreign ownership and employment)	Attracts capital and expertise to build local infrastructure
Number of 'Absent'	