# Vanuatu Telecoms Market

## NGN & A Regulatory Overview

**NGN & Future Telecoms Forum, Nadi, Fiji**

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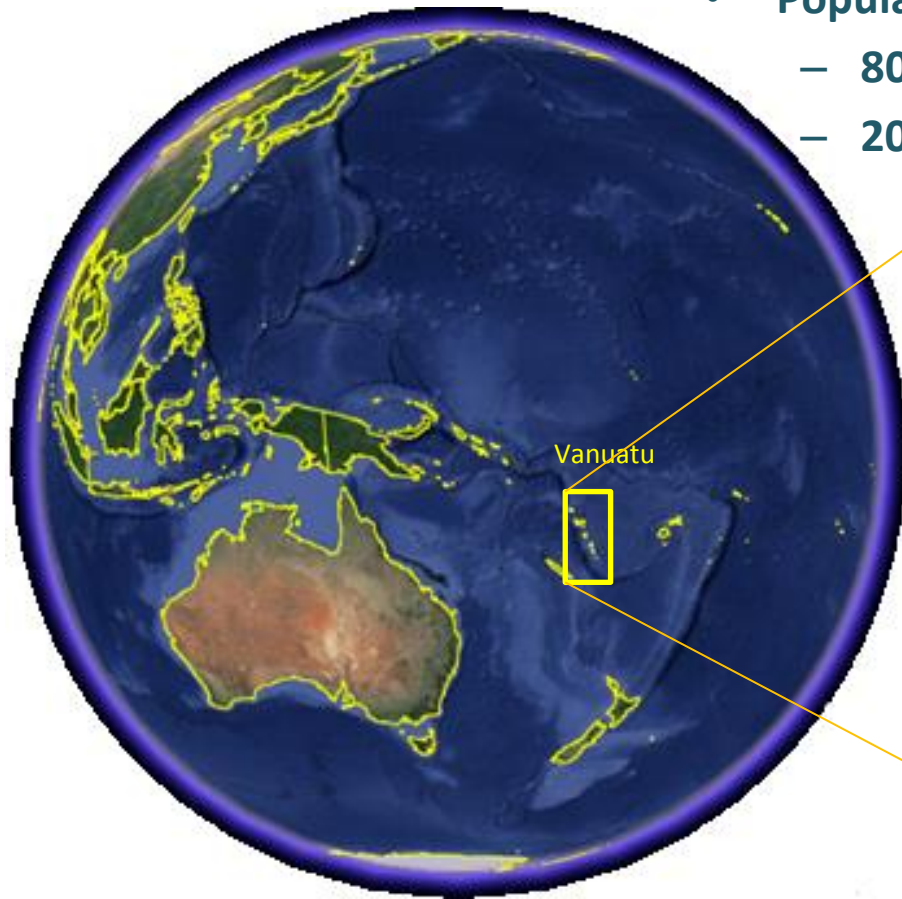Radiocommunication
Regulator

# Objective

- **Background of Vanuatu**

- **Government of Vanuatu (GoV) PAA, Telecom Reform & ICT Related Policies**

- **Telecoms Market**

- **Towards NGN or Already There?**
  - **ICT/Telecom Developments**

- **Regulatory Challenges/Considerations - Overview**

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# Vanuatu

- **83 Islands, 850 Km N-S**
- **Sea area 12,000 Sq. Km**
- **Total land area 5,000 Sq. Km**
- **Population: est. 240,000**
  - **80% rural**
  - **20% urban**



Vanuatu

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Port Vila ★

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# Government PAA & Telecom Reform

## 2006 to 2015 Priority Action Agenda (PAA)

- GoV's commitment to <u>maximise the contribution, efficiency and effectiveness of information and communication technologies (ICTs)</u> in achieving the National Vision of *"A Just, Educated, Healthy and Wealthy Vanuatu"* thereby <u>empowering and benefiting every citizen and resident of Vanuatu.</u>
- A tool for an effective coordination of efforts of all of the various stakeholders towards achieving this commitment.

## PAA 7 Strategic Priorities

- Private Sector Development and Employment Creation
- Macroeconomic Stability and Equitable Growth
- Good Governance and Public Sector Reform
- Primary Sector Development (natural resources and the environment)
- Provision of Better Basic Services; especially in rural areas
- Education and Human Resource Development
- Economic Infrastructure and Support Services.

## Liberalisation (2008)

- Establishment of TRR (regulation & policy implementation), then OGCIO (policy) – both organizations report to the Minister of ICT (Prime Minister)
- Telecoms and Radiocommunications Regulation Act 2009 (TRR Act)

- **Objectives:**
  - *Facilitate the development of the telecommunications sector*
  - *Manage radio-frequency spectrum* in order to promote national social and economic development

**Note:** Telecommunications & Radiocommunications Regulator **(TRR);** Office of the Government Chief Information Officer **(OGCIO).**

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# GoV ICT Related Policies (8/10/13 endorsed for COM)

| ICT | Cybersecurity | Universal Access |
|---|---|---|
| **Goals:** | **Goals:** | **Goals:** |
| **1)** Access to ICTs in Education | **1)** Develop the necessary organizational structures | **1)** Required Level of Access to Telecoms Services |
| **2)** Access to ICT Infrastructure & Devices | **2)** Standardization and Services | **2)** Prices of Telecoms Services Covered by UAP |
| **3)** E-Government | **3)** Strengthening the legal framework | **3)** Implementation of UAP |
| **4)** Integration of ICTs into Sectoral Policies | **4)** Capacity building | |
| **5)** Building Trust (Mitigating Risks & Threats related to the ICT Dev.) | **5)** International Cooperation | |
| **6)** Locally Relevant Content | | |
| **7)** Capacity Building | | |
| **8)** Platform for Multi-Stakeholder & Multi-Sector Co-ord. & Collaboration | | **Note:** Council of Ministers **(COM).** |

# ICT/Telecom
# Market Developments

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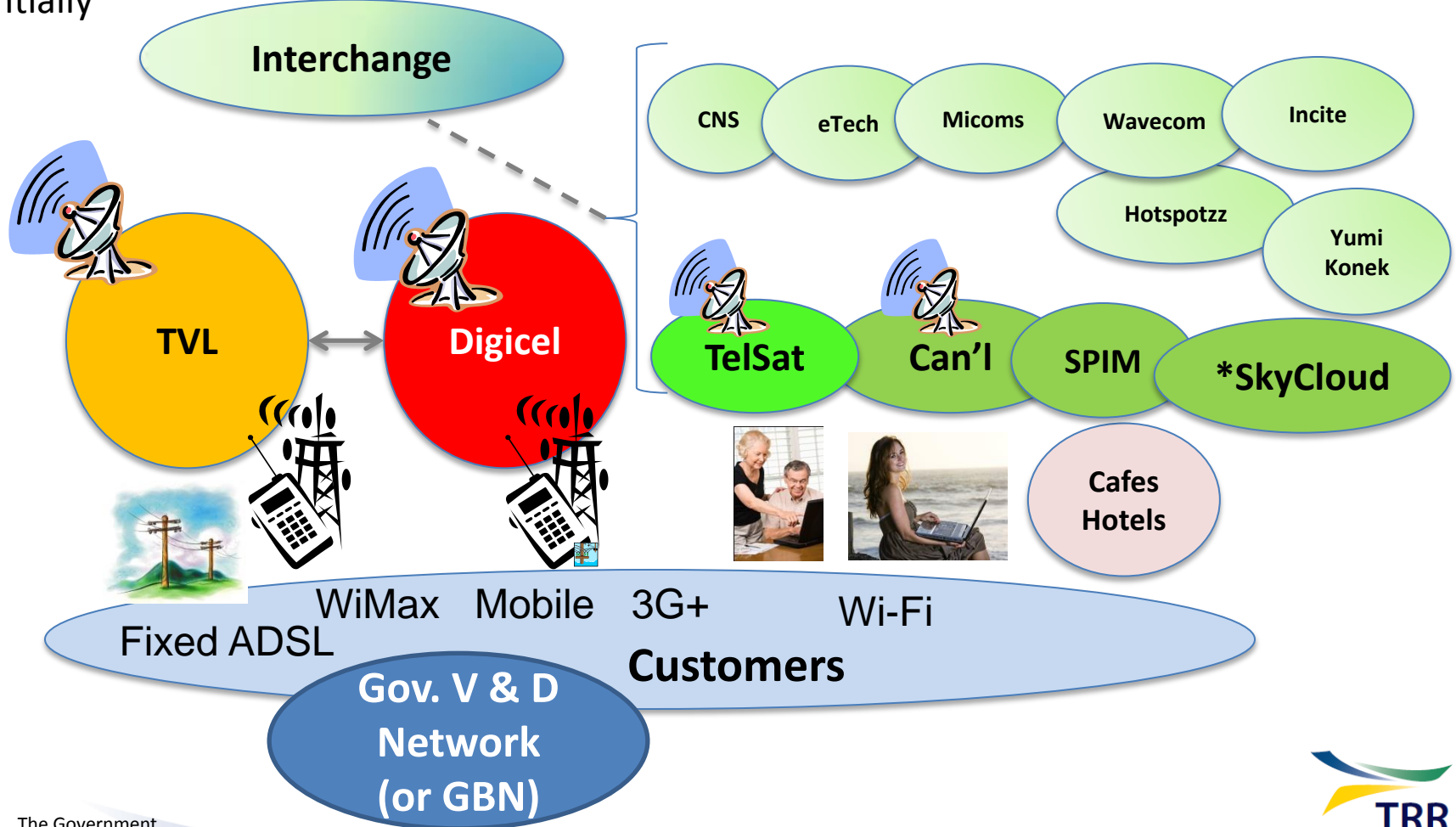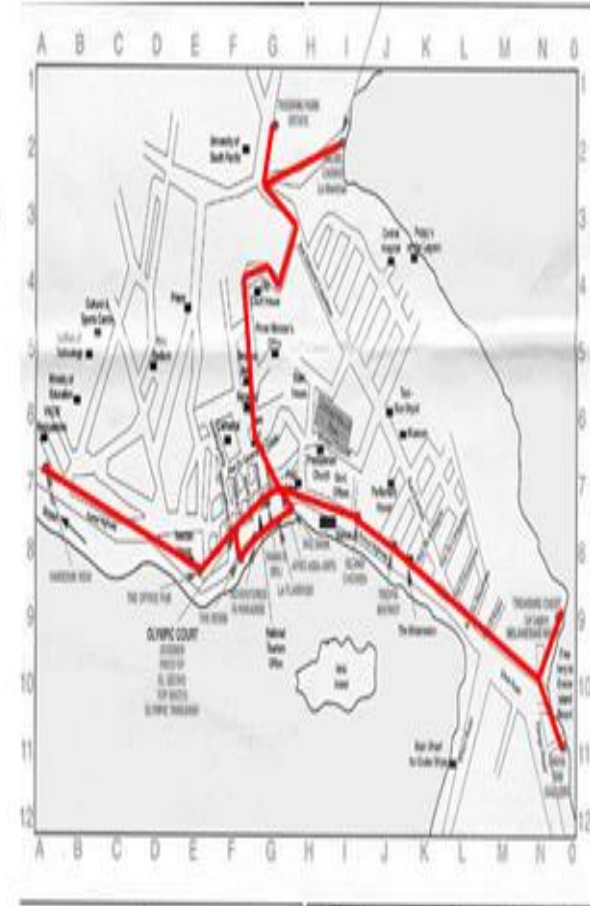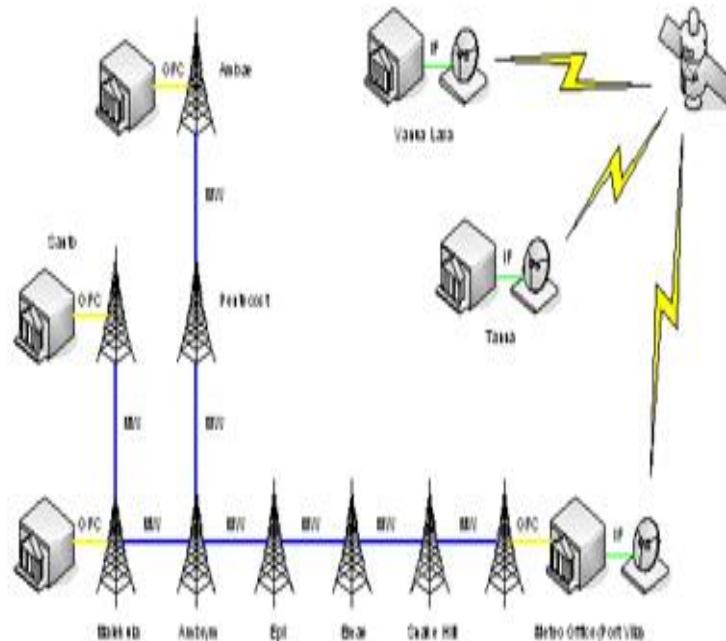
# Telecoms Market

Real Choice
Falling Prices
Increased coverage
Increased economic activity
> 85% of population access to mobile

Potentially

**Interchange**

**CNS** **eTech** **Micoms** **Wavecom** **Incite**

**Hotspotzz**

**Yumi Konek**

**TVL**

**Digicel**

**TelSat** **Can'l** **SPIM** **\*SkyCloud**

**Cafes Hotels**

WiMax    Mobile    3G+    Wi-Fi
Fixed ADSL
**Customers**

**Gov. V & D Network (or GBN)**

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# Government Broadband Network



*Source: www.ogcio.gov.vu*

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# Internet Exchange Point (IXP) - Vanuatu

| Name | Rationale | Developments |
|---|---|---|
| **Official name: Vanuatu Internet Exchange or VIX for short.**<br><br>**(great example of Industry working together – MOU signed on 11th of Dec 2012, VIX is Operational).** | - Reduce costs associated with satellite connectivity<br>- Improve Internet experience for users<br>- Stimulate market entry. Encourage content creators/providers | - 5 members, 2 more ISPs about to join<br>- 2 X Google cache servers<br>- 1 X i-Root DNS server<br>- VIX's physical location - provided by GoV<br>- GoV is also VIX member<br>- Telecom Regulator is VIX Committee Secretariat |

VIX
Port Vila, VU

PCH
Packet Clearing House
http:// www.pch.net

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# Submarine Cable Project (In progress)



Potential Utility of Satellite C-Band?

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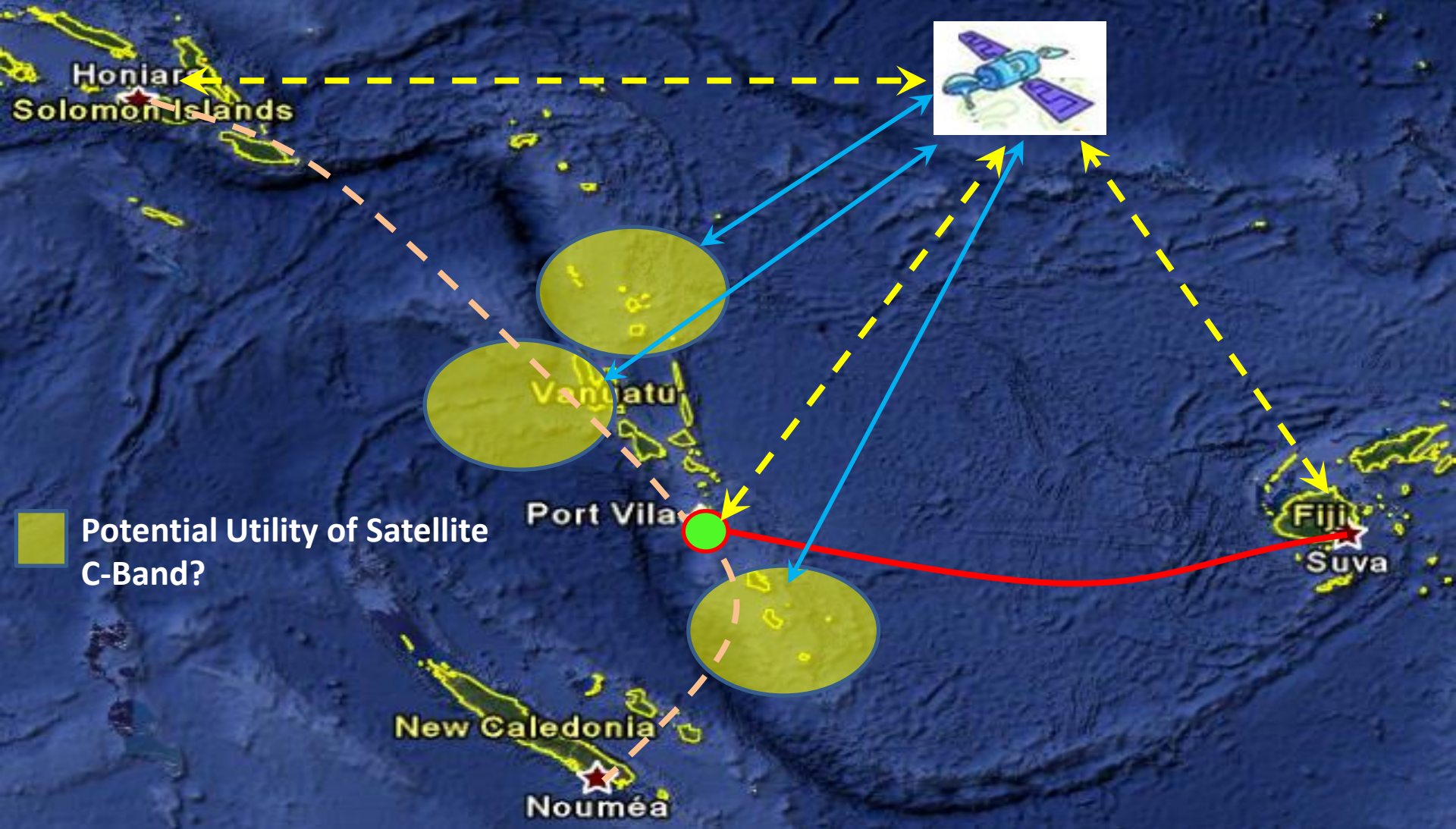
# Other Developments

| Name | Rationale | Developments |
|------|-----------|--------------|
| **Digital Terrestrial Television Broadcasting (DTTB)** | Digital TV broadcasting | - Developed a Draft Roadmap<br>- Not fully discussed or consulted on yet |
| **Universal Access funded Telecentre Project - Rensarie** | Provide broadband internet service to unserved or underserved areas, in this case to a School | - Broadband Internet for School<br>- New teaching resources, quality research<br>- About 55% increase in school pass rate - year 10/12. |

**Schools & connected**

**Development partners Support ICT**


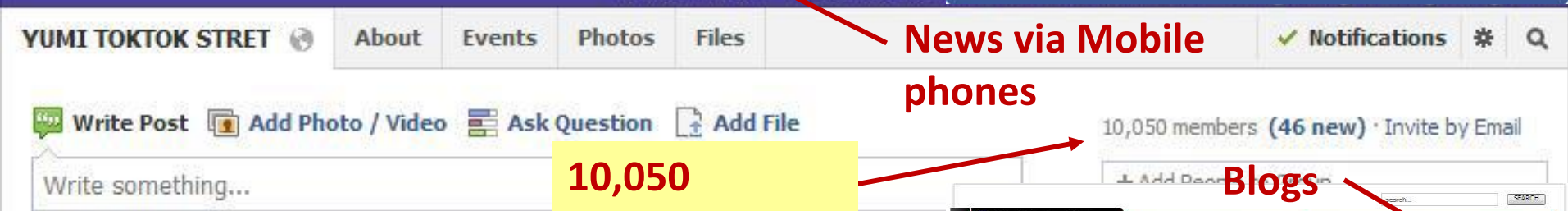
**UAP Telecentre Project**

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# Towards NGN or Already There?

*Next Generation Networks and Services are in an evolutionary phase, Vanuatu has not developed a specific regulatory framework for NGNs……………*

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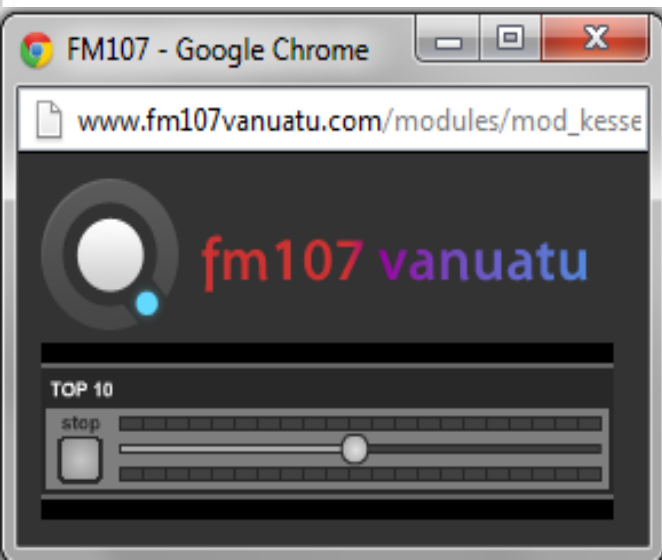Telecommunication &
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**Converged Technologies, Converged Markets (publishing, telecom, broadcasting, computer)**

**News via Mobile phones**

**10,050 members (& growing)**

**Blogs**

**FM over Internet**

# Regulatory Challenges/Considerations (Some that we envisage)

| Regulatory Considerations | Description |
|---|---|
| **Licensing** | Vanuatu has a unified licences/licensing regime - can cater for NGN or whatever technology. TRR encourages technology neutral and seamless integration of technology approach to regulation and policy setting. |
| **Numbering** | Ensure access to numbering resources, numbering, naming and/or addressing schemes encompass legacy, transitional and NGN services and associated directory services. |
| **Standards and Interoperability** | Mandating standards and interoperability between operators and new entrants to ensure no delays in the introduction of new services and providers in retail markets; coordinate standardization activity where no specific body has been established, can be considered if required. |

# Regulatory Challenges/Considerations

| Regulatory Considerations | Description |
|---|---|
| **Interconnection** | Include whether new interconnection models or arrangements may be required; consider impact of IP based networks and traffic on current interconnection arrangements; ensure no discriminatory access behaviour; define parameters of interconnection in a multi-service environment and whether there will still be a need for mandated wholesale interconnection regimes, as well as a revision of the charging principles. |
| **Spectrum** | Ensuring availability and equitable access to spectrum required by new NGN operators and services and ensuring that competition is not hampered through legacy spectrum assignments to incumbent operators for the provision of fixed, fixed-mobile and mobile services. |

# Regulatory Challenges/Considerations

| Regulatory Considerations | Description |
|---|---|
| **Universal Service** | Consider Affordability and Accessibility - key policy goals in a NGN environment. Ensure ongoing relevance to structure of UA/US obligations and (potential for) levies for NGN migration; not burdensome on operators to compromise innovation and infrastructure development. Regulatory questions include whether VoIP providers should contribute to a universal service fund; how to structure universal service contributions and to which technology or service these should attach. |
| **Consumer Protection** | **A must!** Issues that require attention include (but not limited to): quality of service; priority access to emergency services; provision of location information; rights and presence management; number portability, operators' liability; privacy and security. Embark on industry wide consultations of the consumer aspects of NGN migration to ensure that consumers are in no way adversely affected. |

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*Source: GSR*

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# Should Vanuatu View NGN as….

"NGN combines the characteristics of the traditional telecommunications model, and of the internet model towards a harmonized approach, gradually bringing to full convergence fixed and mobile networks, voice and data services as well as broadcasting services."

*Source: PURC*

IP?

ATM/IP?

Audio?

Soft switch or IMS?

Video?

ADSL?

Voice telephony?
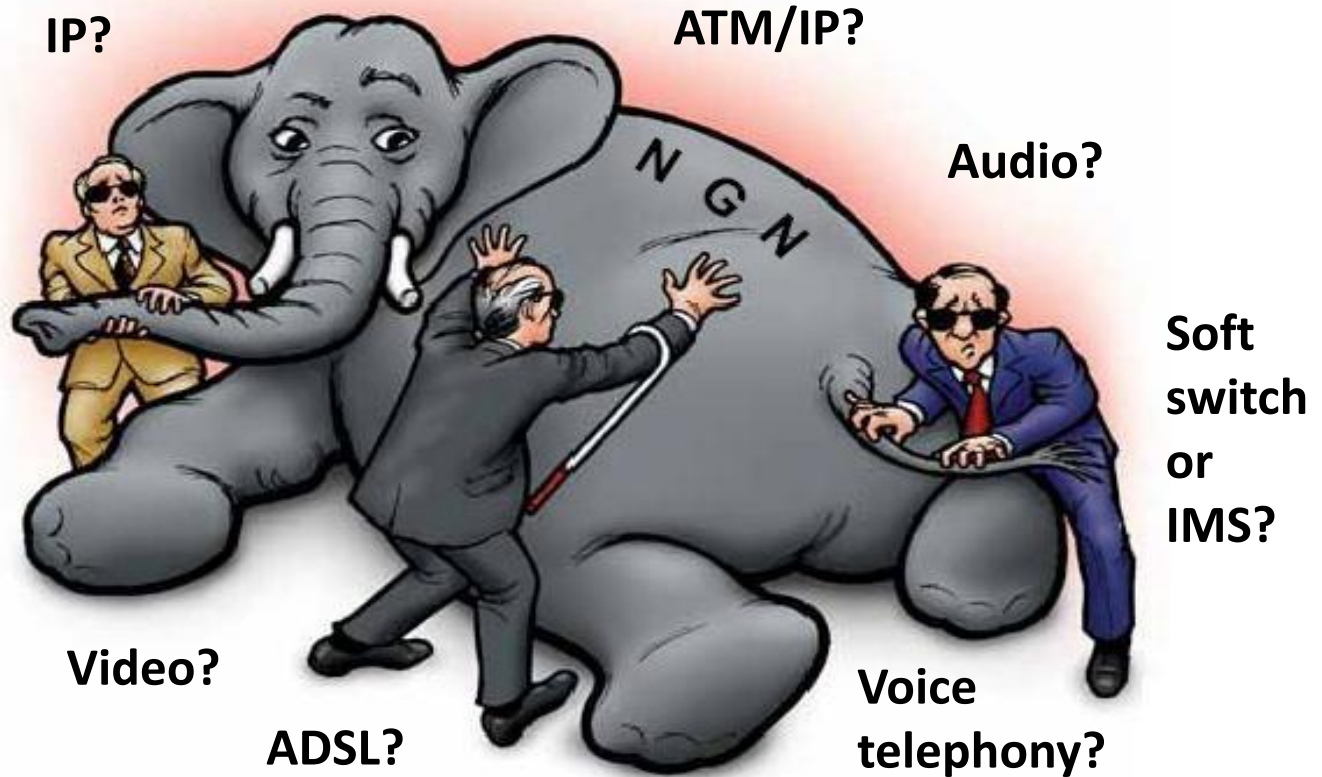
**Its not just Voice, Video or Data
It is the combination of all!**

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# Thank you

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