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ICT Standardization in Bhutan

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- Introduction to Bhutan
- Gross National Happiness & ICT
- Current status of ICT in Bhutan
- Bodies & Regulators
- Existing Legal Framework
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- eGif : Architect
- eGif: Portal

Bhutan

- Government – Constitutional Monarchy
- Land area – 38,000 Sqkm;
- Religion: Buddhism
- Population – 672,000 (2005), Language - dzongkha, sharchop & others
- Location - Himalayas ~ North : China & South : India
- Climate - Four seasons tropical south, temperate north & central
- Economy - Hydropower, Tourism & Agriculture

The King

The PM

Map of Asia

RUSSIA
Yakutsk
Magadan
Anadyr'
Perm'
Yekaterinburg
Chelyabinsk
Ufa
Omsk
Novosibirsk
Barnaul
Krasnoyarsk
Lake Baikal
Irkutsk
Sea of Okhotsk
Sakhalin
Petropavl
Astana
Qaraghandy (Karaganda)
KAZAKHSTAN
Atyraŭ (Atyrau)
Lake Balkhash
Aral Sea
Caspian Sea
Baku
Ulaanbaatar
MONGOLIA
Khabarovsk
KURIL ISLANDS
Harbin
Changchun
Vladivostok
Sapporo
Shenyang
Urümqi
Almaty
Bishkek
KYRGYZSTAN
UZBEKISTAN
TURKMENISTAN
Ashgabat
Tashkent
Dushanbe
TAJIKISTAN
Kashi
Baotou
Beijing
Tianjin
Taiyuan
NORTH KOREA
Pyongyang
Sea of Japan
Seoul
SOUTH KOREA
Busan
JAPAN
Tokyo
Nagoya
Osaka
Yokohama
Fukuoka
Lanzhou
Jinan
Qingdao
Yellow Sea
Zhengzhou
Xi'an
CHINA
Tehran
Mashhad
Eşfahān
IRAN
Kabul
AFGHANISTAN
Kandahār
Islamabad
Lahore
Quetta
1972 Line of Control
Indian claim
Line of Actual Control
Nanjing
Shanghai
Chengdu
Wuhan
Hangzhou
Chongqing
Changsha
Nanchang
East China Sea
Okinawa
RYUKYU ISLANDS (JAPAN)
NAMPŌ-SHOTŌ (JAPAN)
KUWAIT
Kuwait
Shīrāz
Persian Gulf
BAHRAIN
Manama
Doha
QATAR
Abu Dhabi
UNITED ARAB EMIRATES
OMAN
Muscat
Karāchi
PAKISTAN
New Delhi
Jaipur
Lucknow
Kānpur
NEPAL
Kathmandu
BHUTAN
Thimphu
Lhasa
Guiyang
Kunming
Taipei
Taiwan
Guangzhou
Nanning
Hong Kong S.A.R.
Macau S.A.R.
Luzon Strait
Philippine Sea
BANGLADESH
Dhaka
Kolkata (Calcutta)
Ahmadābād
Nāgpur
INDIA
Mumbai (Bombay)
Pune
Hyderābād
Mandalay
BURMA
Pyinmana
Hanoi
LAOS
Vientiane
Gulf of Tonkin
Hainan Dao
PARACEL ISLANDS
Chiang Mai
Rangoon
Bay of Bengal
THAILAND
Bangkok
VIETNAM
Hue
South China Sea
Manila
PHILIPPINES
Cebu
Davao
Koror
PALAU
YEMEN
Arabian Sea
Gulf of Aden
Socotra (YEMEN)
Bangalore
Chennai (Madras)
LAKSHADWEEP (INDIA)
ANDAMAN ISLANDS (INDIA)
Andaman Sea
CAMBODIA
Phnom Penh
Ho Chi Minh City
Gulf of Thailand
SPRATLY ISLANDS
Laccadive Sea
Colombo
SRI LANKA
NICOBAR ISLANDS (INDIA)
Male
Kuala
Bandar Seri Begawan
BRUNEI
SOMALIA

Bhutan contd..

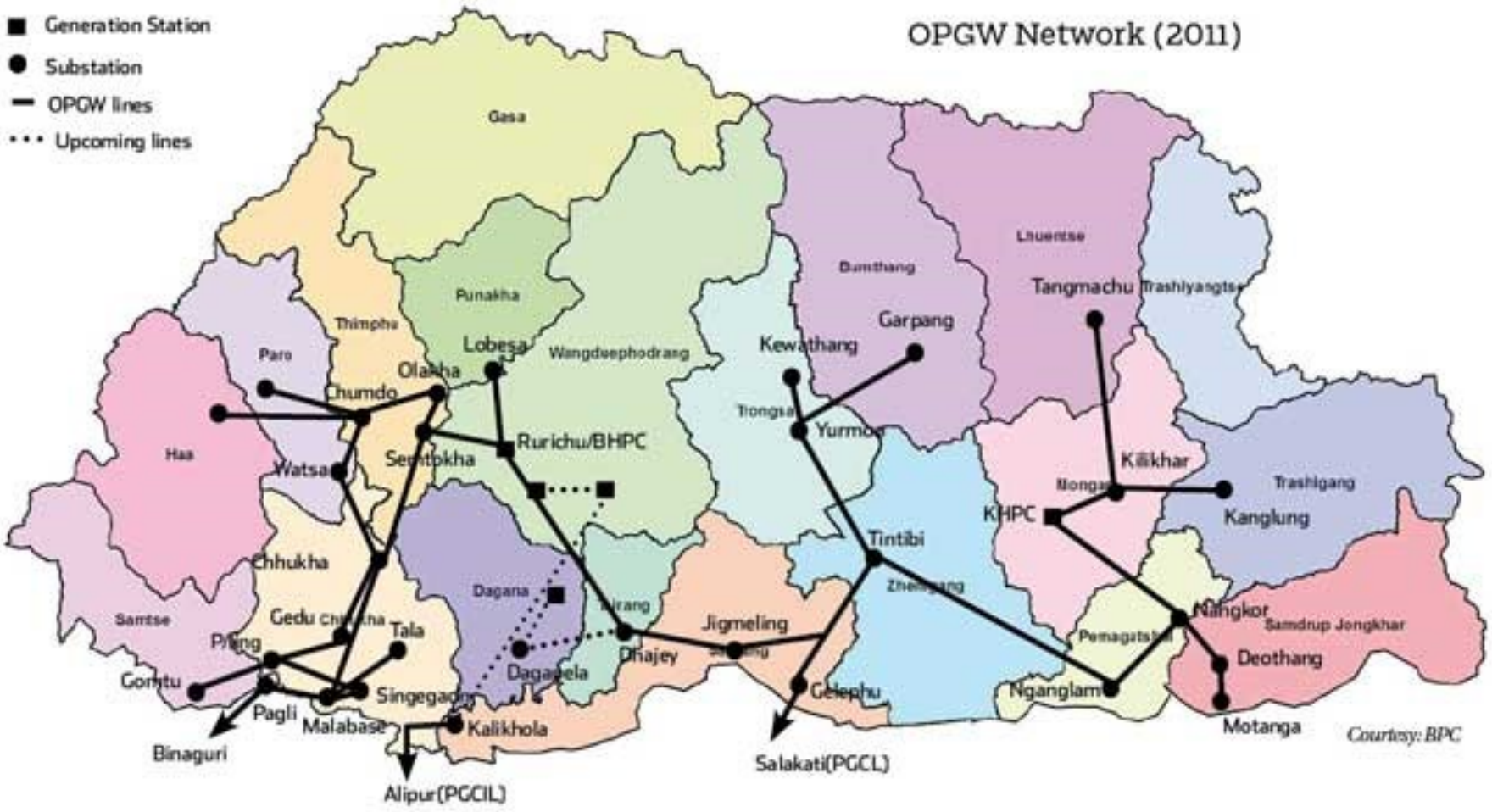
- Location - Himalayas
- North of India & South of China
- Climate - Four seasons
- Tropical South, Temperate North & Central
- Economy - Hydropower, Tourism & Agriculture

Gross National Happiness & ICT

GROSS NATIONAL HAPPINESS

- Balanced & Socio Economics Development
- Good Governance
- Conservation of Natural Environment
- Preservation & Promotion of Cultural Values

Network Status



Bodies & Regulators

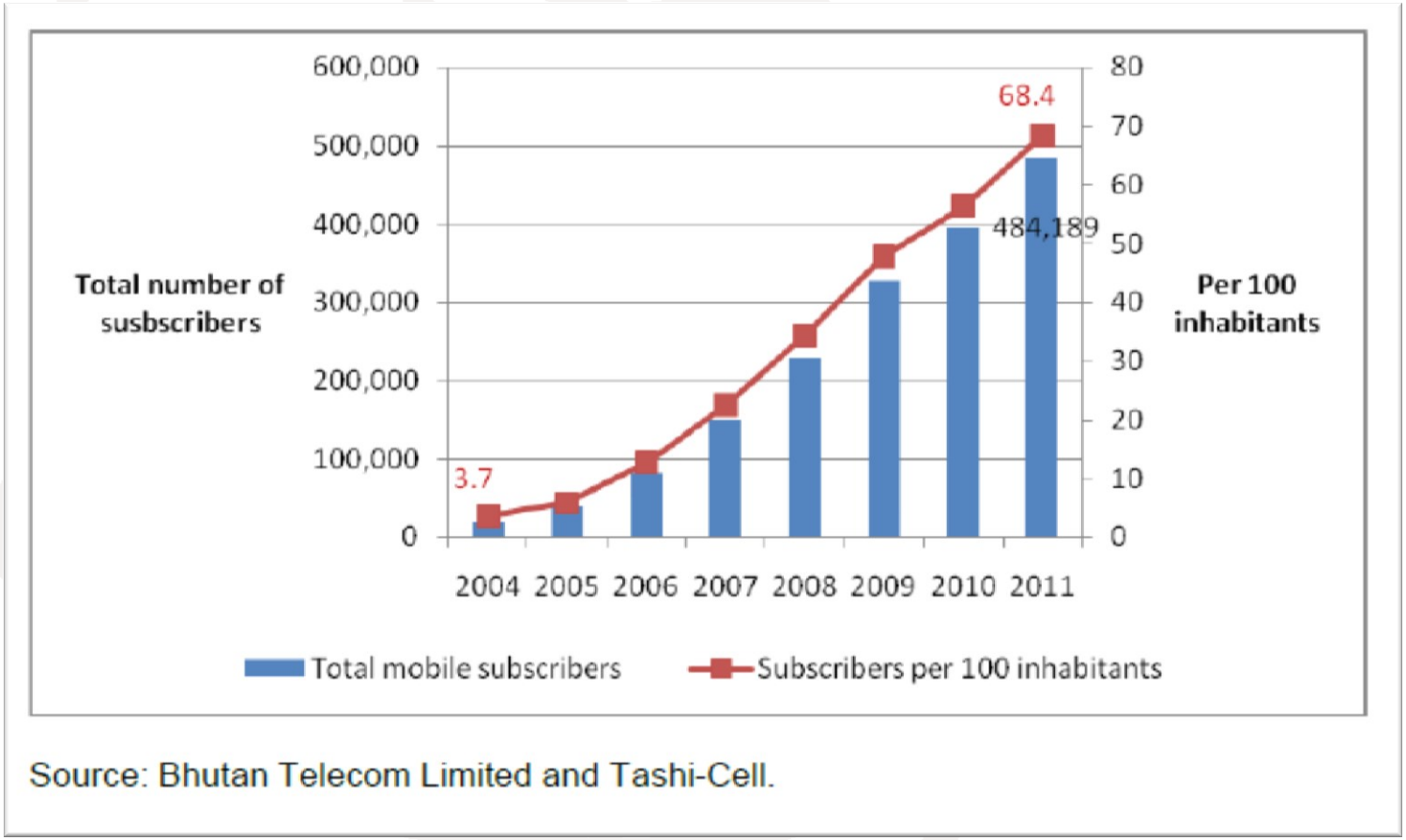
- Ministry of Information & Communications + Department of Information Technology & Telecommunications
- Bhutan Information, Communications and Media Authority
- Bhutan Standards Bureau

Existing Legal Framework

- Bhutan Telecommunications Act (2000)
- Bhutan Information Communications and Media Act (2006)
- Bhutan Standards Act (2010)
- Bhutan Telecommunication & Broadband Policy

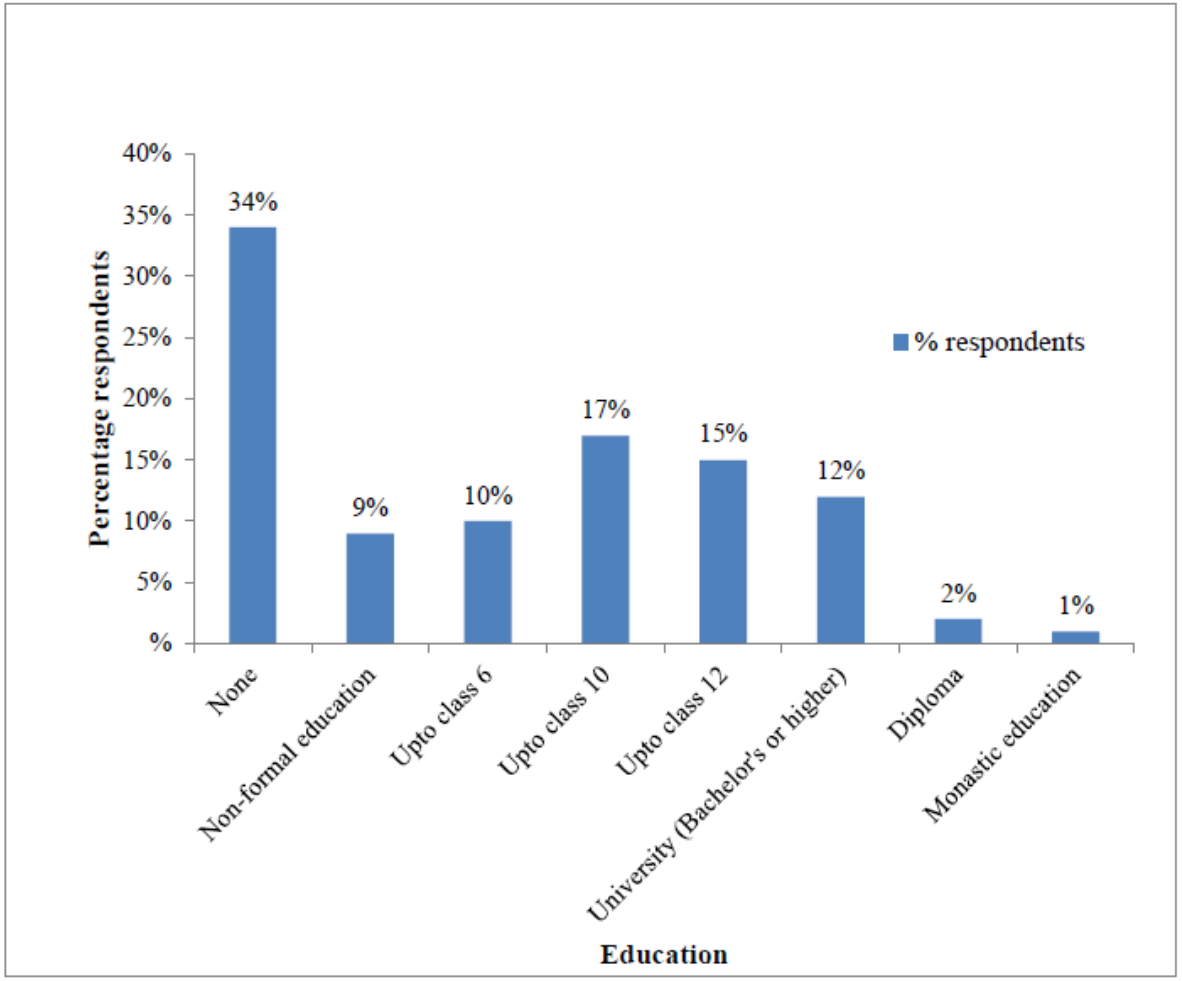
ISO

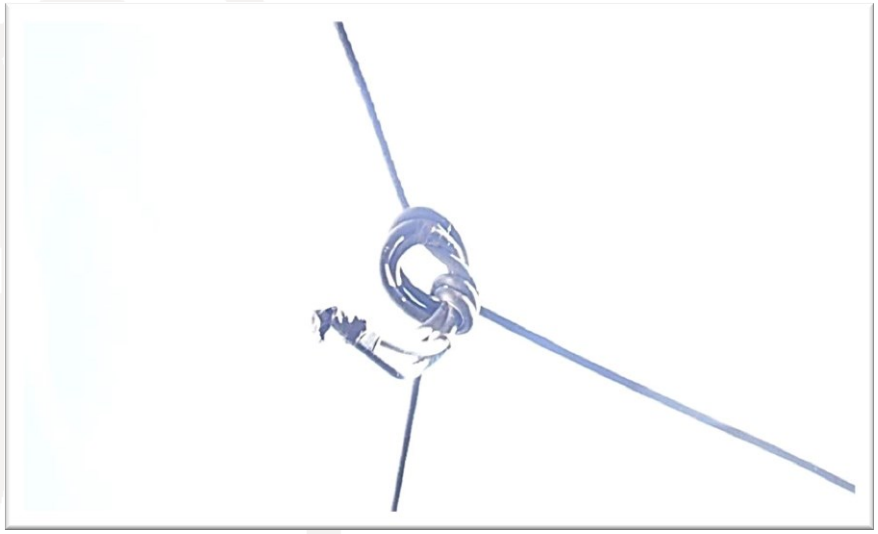
Issues & Challenges



Source: Bhutan Telecom Limited and Tashi-Cell.

Issues & Challenges





Issues & Challenges

Science makes good Slave but a bad master

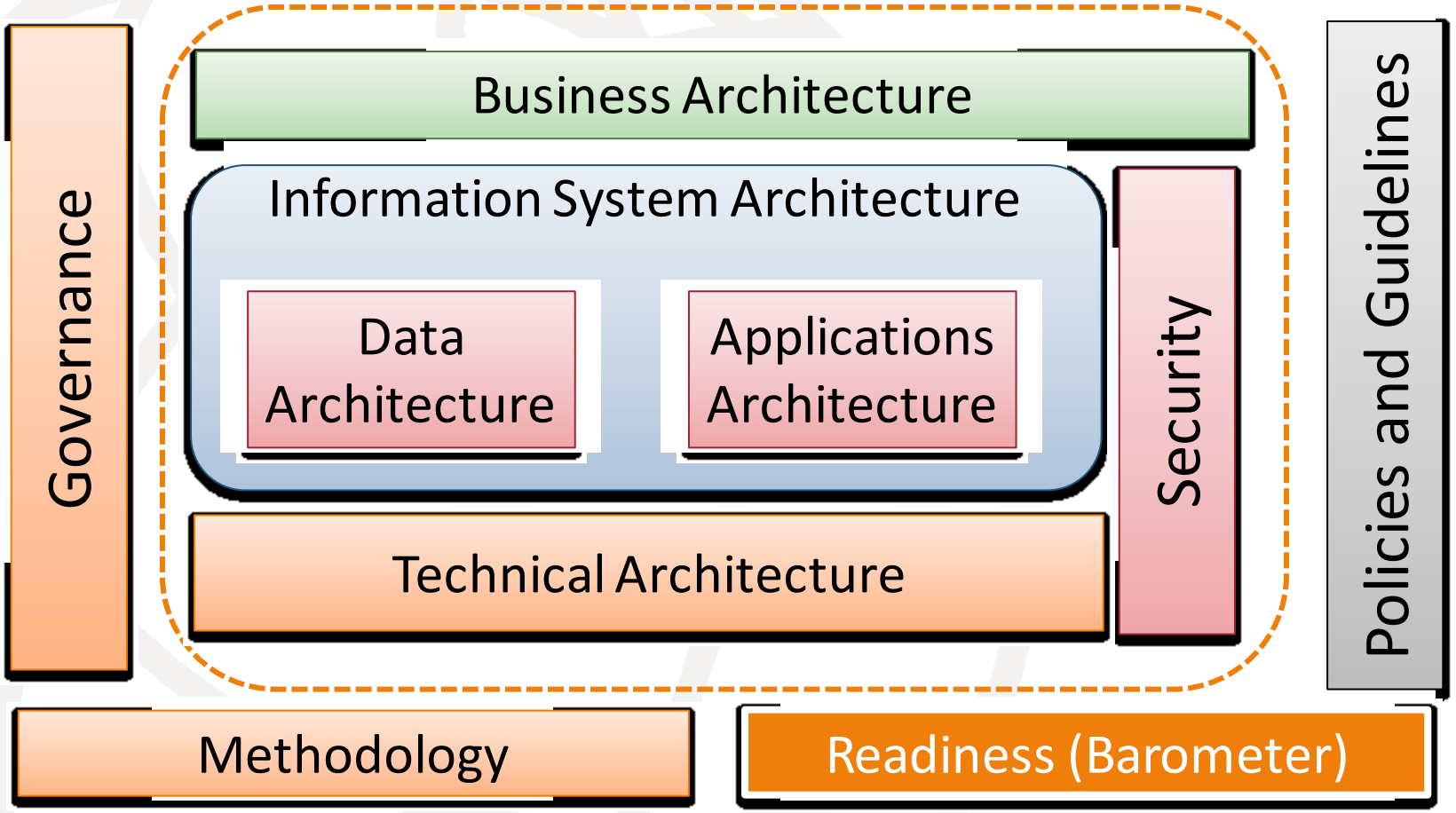
- Bandwidth
- Speed
- Support
- Quality
- Implementation

eGIF : A Case Study

"Electronic Government Interoperability Framework"

Framework (mechanism) to help define standards for government agencies to integrate and interoperate.

eGif Architecture



E-GIF Portal

- List of Lines of Business, Government functions and Services of the government;
- List of existing Applications and Components across the government;
- List of Identified common data (People data, Business data), recommended data standards, code tables and naming conventions among others; and
- List of Technology(Network, servers, development platforms) with status, Common services and Best practices

Thank you,
Any Qs..