Content Development

Role of E-Government in Regional Interconnection

Session Objective

To highlight the importance of e-government services in supporting the growth of regional Interconnection and IXPs. Topics Covered:

1. Helping to build the local Internet ecosystem through local hosting of government services

2. Reliability and security in government networks

3. Cross border e-Government services

e-Government - Trends and Issues

- Governments are becoming more cost-oriented, transparent and service-oriented, taking advantage of technology in making transformations in administrative procedures, functions, and mechanisms

- Governments are becoming more economically and socially integrated with their neighbours in Regional Economic Communities, and need to support the free flow of people, goods, capital and services across Member States

- Governments are confronted with many challenges in their IT-based development and are confronted with many "digital divides" and "information silos" in e-Government development

- Governments want to ensure that e-Government is reliable, secure and convenient (I.e pervasive – I.e accessible nationwide, if not region-wide)

Local African Content is not hosted locally, including Government data

DAILY NATION — UK

allAfrica — USA

Government of Uganda
http://www.gov.ug/ — USA

NBC National Bank of Commerce — Conveniently Everywhere. — USA

Kenya Airways The Pride of Africa — USA

NCC NIGERIAN COMMUNICATIONS COMMISSION — USA

supersport.com — South Africa (via UK)

NITDA — USA

An e-Government local services strategy can help 'repatriate' both public and private foreign hosted local service

By being a 'model citizen' government can show leadership by hosting content locally

Encouraging local services to be hosted locally not only reduces connectivity costs and improves performance, but also improves their legal accountability

Government as an anchor tenant to help support growth of local content & networks

Government can be among the largest, customer of local networks, of local hosting services, and in use of local application developers

Aside from the other advantages such as better performance and potentially lower costs, this can help to ensure the growth and sustainability of the local Internet industry, leading to further economies of scale and sophistication of local services.

Governments should consider how to keep more local data local and work with the technical community to host more local content locally

Recent revelations of mass surveillance should be balanced with national infrastructure objectives, protection of privacy, and the need to build a strong local knowledge that encourages more local investment.

By avoiding tromboning or hair pinning of data through other countries, they can minimise the amount of sensitive information that is hosted outside the country

Many countries and regions are already taking action to ensure local data stays local to reduce threat of mass surveillance

- Brazil – debating a law that would require Internet companies such as Google and Facebook to physically store data about Brazilians in Brazil

- European Union - the EU executive is drafting new Europe-wide data protection rules

- Canada – increased interest in building local IXPs

- Data hosting companies, including Microsoft, are responding by allowing their customers to choose where to host their data

- Related to this is effective security systems and CERTs

Scope of national e-Government services (1)

- Internal communications: email, voice/video calling, instant messaging, web meetings, and social networking
- Geographic information systems (GIS)
- Business registration
- Pension payments and social assistance administration
- Tax returns
- Citizen identity verification, identity documents, immigration procedures

Scope of National e-Government Services (2)

- Civil service payroll, budget and asset management
- Public safety and emergency response
- Land ownership registry
- Intelligent public transportation and traffic management solutions
- Public health service management
- Tourism and export promotion
- Education system management
- Elections management
- E-Procurement and shared purchasing

Use of local networks and hosting for e-Government services can increase reliability if connectivity environment is good

A network that supports the interconnection of e-Government services at central, provincial and municipal level needs high reliability (five 9s – 99.999% uptime), and reliable access for citizens connected via private ISPs

Interconnection of government via a well connected IXP and use of multiple physically separated networks can help to achieve this

Member States in Regional Economic Communities need to be fully connected

- Regional e-Government services need to be equally available all member states
- Services need to have equal performance across Member States

Without affordable regional backbones providing multiple routes to each member state in the region, Governments will not be able to fulfil all their objectives for supporting regional socio-economic integration
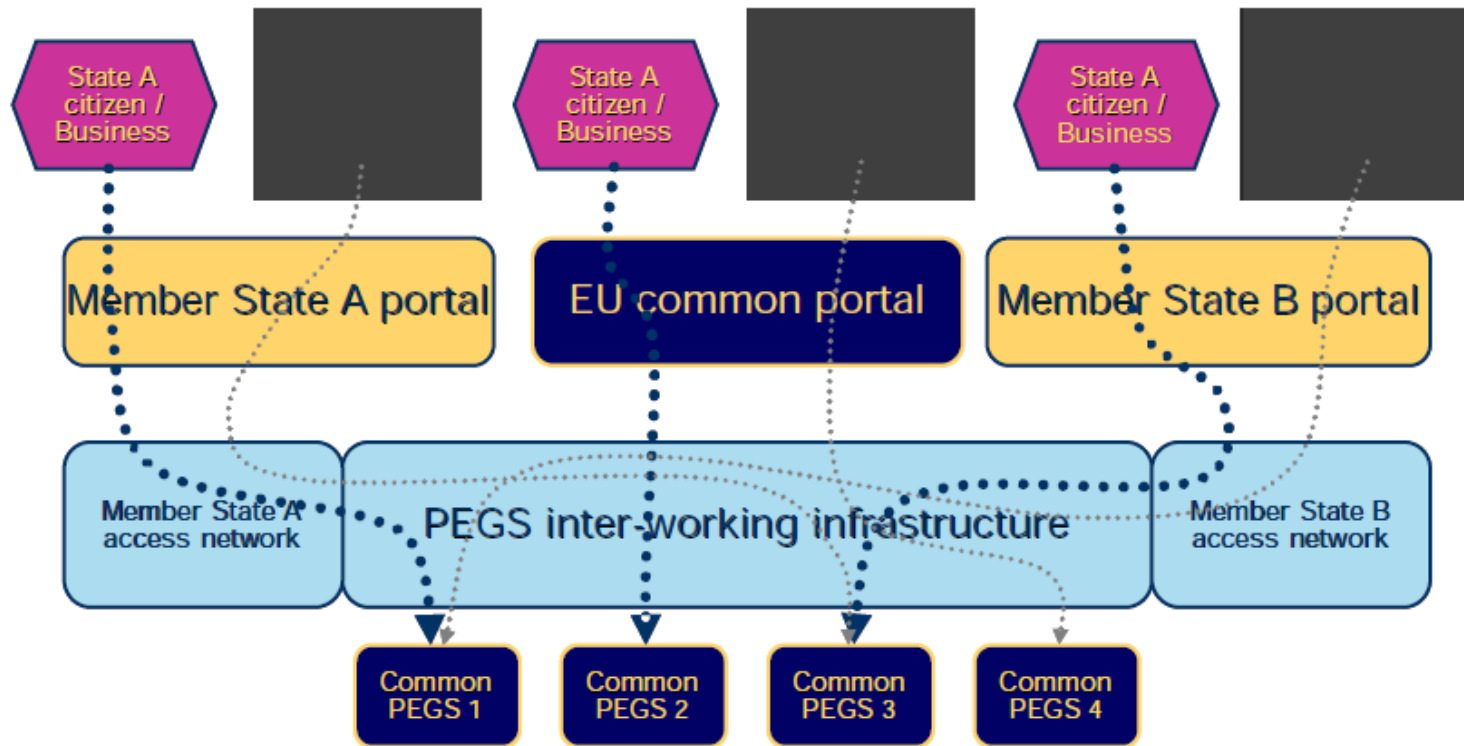
The European Example

European Member State (MS) strategy:

"Every MS must be connected to a common transport network, with sufficient bandwidth, either directly, by means specified by the operator of the common transport network, or indirectly by means of a national transport network that is connected to the common transport network"

"Any Member State Authority (MSA) should be capable to send data to other MSAs without a restriction on the volume of the data"

"Each MSA with critical performance requirements, must be connected by at least two independent access channels to the transport infrastructure, which have no resources in common"

Architecture for pan-European eGovernment Service (PEGS) V 1.0

European Regional e-Government

A wide range and large number of potential regional e-Government services

To support regional socio-economic integration a number of priority e-Government services are envisaged

- These range from citizen services to inter-governmental administration

- Typically, the citizen or business or civil servant would have the choice of accessing this type of service either via their local national portal, a different national portal or via a region-wide portal

- Single implementation across each Member State creates economies of scale in ICT implementations both within the administrations and for business and citizen having to interact with these administrations. But this needs to be

White Pages

Citizens, businesses and authorities with access rights to regional e-Government services for which authentication is required will need to be registered in a communal (distributed) directory, or in a national, sub national or sectoral directory that is linked across the region

Common Customs Areas

Single customs territories administration requires every national customs unit and border post to be interconnected

This was one of the first govt areas to go digital in Africa - COMESA/Asycuda. Plans for:

- East African Community Customs Union
- Southern African Customs Union (SACU)
- Customs and Economic Union of Central Africa (UDEAC)
- Economic Community of West African States (ECOWAS)
- Arab Customs Union (ACU)

Border Control - Customs & Immigration Services

- One Stop Border Posts (OSBPs) require neighbouring country networks to interconnect to smooth the flow of freight and people across borders by cutting waiting times and red tape

- Most RECs have introduced plans for one stop/joint border posts – COMESA, SADC, EAC and ECOWAS have committed to enhance trade facilitation by simplifying and harmonising cross-border procedures

- In the East, Southern and Western African subregion, some OSBPs have already been established and EAC and six countries in ECOWAS are already using one passport for the region and are allowed to travel in any country of the region without a visa

- Regional databases on Vehicle registration is needed to reduce crime and improve vehicle trade

Regional Portals

- With the diversity of regional and national e-Government services available it is necessary to establish single points of access to these services to make it easier for citizens and civil servants to find the service they need

- A portal service provides the possibility to combine information from different Member State Administrations and Regional Institutions on a single desktop

Integration of Geographic Information Systems (GIS)

- Many natural resources, transport systems/corridors, energy systems, telecommunication networks and population groups share a common border

- It should be possible to produce and access geographic maps with information of areas/regions across borders between Member States

Help Desks and Call Centres

- Shared help desks, and support centres can reduce the cost of running these services

- Coupling of call centres - when services are provided cross border there may be a need to interlink call centres of different Member States.

Exchange of Administrative Records

There is expected to be increasing exchange of administrative data among Member States in Regional Economic Communities. E.g:

- Public Government Documents
- Court decisions
- Records of temporary committees, commissions, and boards
- International trade information

Central Bank Communications

Regional Economic Communities need to ensure their Member State Central Banks are able to communicate reliably with each other, especially for balance of payments and where there is a common currency

At a continental level the establishment of the pan-African African Central Bank (ACB) is advancing, and will benefit from improved continent-wide interconnection.

Import/Export Trade Management

- Decision-making for increasing economic development and integration requires accurate information to be shared between countries on the level of cross-border imports and exports

- This complements border control and customs networks for freight

Region-wide Business Licensing

- Economic development and integration can be increased through one-stop shops for rapid registration of new businesses planning to be active across a region

- Needs to be complemented by sharing of data between Revenue services (taxation)

Shared Weather Forecasting

- Accurate weather forecasts and prediction of weather related emergencies are particularly important for agriculture, business and social security

- Information from weather stations can be integrated in a common regional network and forecast modelling can be a shared facility accessible to all member states

Regional Health & Emergency Networks

- Disease outbreaks and natural disasters often cross borders

- Rapid trans-boundary sharing of information among health workers and disaster response teams requires effective regional networks

Conclusions:

- There are a large number of potential regional e-Government services and these will depend on good regional interconnection
- Deploying regional e-Government services will also help build the market for regional interconnection
- Regional guidelines for e-Govt service development, and shared content development, standards and templates are important
- Commitment needed for Open Data strategy in government

Thank You

Any Questions?

END