e-Government: What’s Next?
Transformation into Smart Government

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Old Model (1980-2000): Informatization
High Costs – Limited Results

Computerizing the “Brick and Mortar” (industrial age) government

- Duplicative, wasteful IT investments
- Technology/supply/vendor-driven
- Ignoring or reinforcing organizational silos
- Limited back-end integration and sharing of data, infrastructure and services
- Focus on interoperability rather than sharing
- Limited process re-engineering that does not leverage the full power of ICT
- Limited change management
- Limited participation of the citizens and private sector
- Government-centric
Recent Example from Africa: Silos Don’t Work

- Project to develop Budget and Public Expenditure Management System in a West African country
- Funded by the World Bank, implemented by the Government -- US$30 million
- Incorporated 32 Ministries in 10 Regions and across 140 Districts
- However, not integrated with the rest of the government and now being scrapped
- A new IFMIS system is now being implemented at a cost of US$54 million.
Second-generation model of ICT-enabled govt transformation into a more citizen-centric and integrated government. Focus on sharing and integration and more recently on transformation and openness.

Key trends:

- Whole-of-government perspective
- Sharing infrastructure and services
- e-Inclusion-for-all
- Multi-channel delivery of services, especially via mobile phones
- Change management and e-leadership
- Process re-engineering/admin reform
- Secure identification
WHAT'S NEXT?
Emerging Model (2013+): Smart Government

Third generation model of ICT-enabled public sector transformation into a **Smart** Government

**Simple Definition: What is Smart?**

- **Doing more** (more focus on effectiveness, results)
- **With less** (more focus on efficiency, cost savings)
- **For more** (more focus on social inclusion)
- **More openly** (more focus on transparency)
- **More sustainably** (more focus on social, political, environmental and financial sustainability)
S.M.A.R.T Government: Key Trends

- **Social**: Not only highly personalized and citizen-friendly service delivery, but also allowing citizens and civil society to co-create with Government, especially via social media and crowdsourcing tools.

- **Mobile**: Using the latest mobile technologies to deliver information and services, and get contributions from citizens, wherever and whenever they want – by Apps, SMS, Social Media, and Web-on-the-move – using mobile networks and cloud computing at the back-end.

- **Analytics**: Using big data Analytics and context-aware services to drive policy action and to individualize communications and transactions.

- **Radical-openness**: “Open by Default” and “Open by Design” transforms Accountability and Transparency and engages citizens in co-creation, as well as enable businesses to use data for innovative new services.

- **Trust**: Effective Cybersecurity so that services are resilient, available and protection of privacy.
Social
SMART Government is developed through co-creation process.
• ICT to improve education service delivery in the Philippines.
• Collaboration between government, private sector and civil society; key partners include DoE Manila; Affiliated Networks of Social Accountability.
• Teachers, parents, students can send SMS or go to checkmyschool.org to report issues about quality of education service.
• Facebook, email, and Twitter are additional channels for reporting to local school monitors, who in turn submit reports using their mobile devices.
• Launched in early 2011, Check My School has over 8,500 of the country’s 44,000 public schools in its database.
• Network of more than 350 volunteer information intermediaries (“infomediaries”), who help engage the community with this tool.

Social: Mapping the Kibera slum in Nairobi
ICT for Urban Development

Mapping the Kibera slum in Nairobi

With Google Maps

With OpenStreetMaps

Image source: OpenStreetMaps, GoogleMaps
Mobile
Bey2ollak is a cross-platform mobile app allowing users to share real-time information about Cairo and Alexandria traffic.

- Blackberry version launched in October 2010, received 5,000 users on the very first day.

- On the day Bey2ollak launched, Vodafone Egypt approached the founders with an offer to sponsor the app.

- Including iPhone, Android, Blackberry, and web, the services has more than 46,000 daily users.
Mobile: Africa
M-payments go viral

- Kenya: by December 2011, 17 million users have M-Pesa account.
- Zimbabwe: 2 million people use EcoCash to do business in just one year after the service was launched. EcoCash transfers millions of dollars from urban to rural areas daily.
- Mozambique: mKesh launched by the state owned mobile operator offers financial services without a bank account.
- Nigeria: Easywallet, a SIM-based interface, provides customers access to mobile money and bank accounts.
Analytics
Smart City generates a lot of data. It's a Big Data case.

Submitted by mgarrigan on Tue, 2012-04-17 20:59
Several European cities do a new management approach: it's called "Smart City".

At the end of 2009 more people lived in cities than in rural areas for the first time, and the trend is for the urban population to keep growing.

So, we need to manage cities more and better, we need creativity, innovation, ideas to break the mould of urban management today.

A Smart City is a new way to manage cities.

There are a lot of Smart City definitions, Wikipedia explains (http://en.wikipedia.org/wiki/Smart_city): "A city can be defined as 'smart' when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory governance."
Radically Open
Public Data

Types of Data
- Geodata
- Culture
- Science
- Financial
- Statistics
- Weather
- Environment
- Transport
Discoverable
Machine readable
Legally re-usable

Use
Re-use
Re-distribute

... that is Open
The Three Laws of Open Government Data

- Providing open government data is a matter of accessibility, format and license:
  
  [1] If it can’t be spidered or indexed, it doesn’t exist;

  [2] If it isn’t available in open and machine readable format, it can’t engage;

  [3] If a legal framework doesn’t allow it to be repurposed, it doesn’t empower.

[Source: David Eaves, 2009]
World of Open Data

- Over 280 country, state and city Open Data initiatives
- No “standard” solution – each has national context
- World Bank has a lot of knowledge about what works and what does not – and has done it itself!
## Open Data Around The World

<table>
<thead>
<tr>
<th>Sort</th>
<th>National Map</th>
<th>Government Budget</th>
<th>Election Results</th>
<th>Company Register</th>
<th>Government Spending</th>
<th>Legislation</th>
<th>National Statistics</th>
<th>Postcode/ZIP database</th>
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Source: [http://okfnlabs.org/opendatacensus/](http://okfnlabs.org/opendatacensus/)
• Releasing Global Positioning System data from 1994 now has $122bn/yr benefits to US economy alone with 5.8m jobs in GPS-intensive industries
• UK National Mapping Agency data supports £100bn/yr of GDP activity
• Open Weather Data in US has created 400 companies employing 4000 people
• Releasing addressing data as Open Data in Denmark gave $21m/yr benefits and 2200% ROI
• Publishing the UK’s 240 cardiac surgeons’ individual clinical outcomes reduced deaths by 1000 a year
• 1000s of apps delivering public transport information in the United States – 68 in New York alone
• UK released data on location of 300,000 bus-stops; OpenStreetMap corrected 18,000 of them, improving official data accuracy.
Trust
The cyber raiders hitting Estonia

As Estonia appeals to its Nato and EU partners for help against cyber-attacks it links to Russia, the BBC News website’s Patrick Jackson investigates who may be responsible.

Estonia, one of the most internet-savvy states in the European Union, has been under sustained attack from hackers since the ethnic Russian riots sparked in late April by its removal of a Soviet war memorial from Tallinn city centre.

Websites of the tiny Baltic state’s government, political parties, media and business community have had to shut down temporarily after being hit by denial-of-service attacks, which swamp them with external requests.
How NatWest's IT meltdown developed

Guardian's investigations suggest bank's problems began on Tuesday night when it updated key piece of software called CA-7

In June 2012, RBS Group’s retail banking systems failed for over 3 days. 10 million customers’ accounts were affected. It took weeks to sort out.

NatWest computer failure forced man to spend weekend in a jail cell after bail payment was delayed

Lib Dem peer calls on RBS boss Stephen Hester to forfeit his annual bonus

By Richard Hartley-Parkinson

Published: 20 June 2012 | Updated: 12:41, 20 June 2012

RBS has 40 years’ experience running these systems and banks as a stricken ball like this. Photograph: Frank Baron for the Guardian
Putting it all together: Smart Government Ecosystem

Smart Government

Priorities

- Smart Cities
- Smart Villages
- Smart Jobs and Investments
- Smart Education
- Smart Healthcare
- Smart Infrastructure

Enablers

- Shared ICT Services and Infrastructure
- Innovation Infrastructure
- ICT Capacity and Skills
- Policy, Standards, Institutional and Legal Framework
SMART Enablers

1. Shared ICT Services and Infrastructure
   – e.g. e-Procurement, HR, Office suite tools;
   – Cloud, Mobile, Broadband, Security, Open/Big Data

2. Innovation Infrastructure
   – e.g. innovation hubs, funding mechanisms, PPP...

3. ICT Capacity and Skills
   – e.g. capacity building and IT skills.

4. Policy, Standards, Institutional, Legal & Regulatory Framework
   – e.g. institutions & policies.
Think Big, Start Small & Scale Fast

Success model scaled to Cities and Countries
We need SMART Solutions & SMART Enablers

For Villages.

For Cities.

For Countries

For the World
Example: Moldova’s Strategic Program for Governance Technological Modernization

1. Promoting the principles of open government
2. Public service digitization
3. Reengineering of public services and operational processes
4. Providing modern channels of access to public services
5. Shared government technology platform
6. Data center consolidation
7. Implementation of enterprise architecture
8. Implementation of interoperability framework
9. Ensuring information security
10. Application of innovative technologies
11. IT capacity building in public sector
12. Intelligent IT investments in the public sector
13. Enabling a favorable regulatory, policy and standards framework
Example: Smart Rwanda Program for Economic and Social Transformation
World Bank Group’s Engagement in ICT and e-Government

- Sector reforms in > 100 countries
- US$7 billion ICT/e-Gov Portfolio
- Outcomes:
  - Large impact on economic growth

- US$ 3.2 billion for 203 projects
  (US$1.8 billion in 32 IDA countries)
- Mobilized another US$ 1 billion
- 225 million new mobile subscribers

- Recognized tools for telecom regulators and policy makers in other sectors eg ICT in Education
- Global network of business incubators innovative SMEs and job creation

- 38 Guarantees ~ US$ 1.3 billion for 21 projects (12 in Africa)
- Contributed to ~ US$6 billion FDI
Thank you!

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