



M-CLOUD INITIATIVE: PROVIDING IT SERVICES FOR SOCIETY

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- Our Government Agenda
- Government e-Transformation Objectives
- E-Transformation Implementation Team
- Current Situation – The Baseline
- E-Services
- Modernized Government IT Platform Key Principles
- Adoption of Cloud Computing
- Applying best practices
- Iterative Development
- ICT Standards and Policies
- Building IT Capacity in Public Sector





Vladimir FILAT,
Prime-Minister

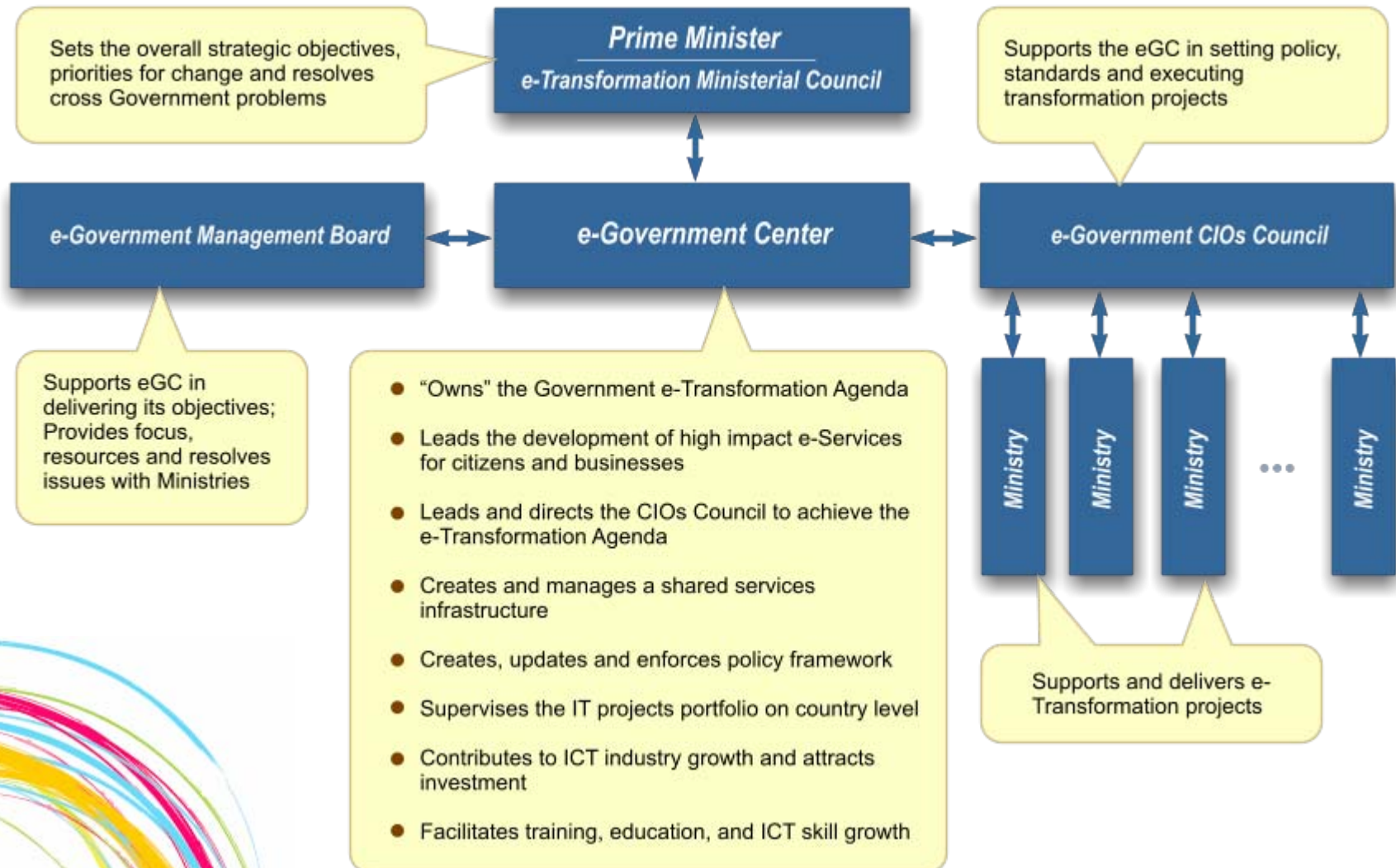
“The fundamental word to describe my mandate as a Prime Minister is responsibility, and my key priority is care for the people. We are in need of a new relationship between state and citizen. The role of the state is to serve the citizen, and not vice versa. We must start from this idea in order for citizens to trust public institutions.

We speak often about the European future of the Republic of Moldova, but we cannot build this future without insuring optimal development for our youth. We will encourage the hiring of well prepared young people into central and local public administration, will improve the educational process through technology upgrades and promote electronic education services.”



- Promotion of ICT for a better governance, research and education, public healthcare, e-commerce, social protection and national security.
- Acceleration of e-transformation process in order to sustain the EU integration agenda.
- Extending the communication infrastructure, thus increasing national economy competitiveness and facilitating access to information society services for *all* citizens.
- Development of high quality sectorial and cross sectorial e-services.
- Implementation of public private partnerships for e-transformation and stimulating investments in ICT
- Encouraging of partnerships between research and educational institutions and private ICT sector.
- Development and promotion of effective and efficient ICT regulatory framework – one of the key success factors for development of e-businesses, e-commerce, delivery services and integration with similar European and global networks.
- Etc.

e-Transformation Implementation Team





- Good Networking Infrastructure
- Good mobile communication infrastructure
- Medium level of computer literacy
- Good ICT regulatory framework
- Strong support for ICT from the Government
- Strong support from Moldova's strategic partners
- Low number of e-services available for citizens
- Segregation level of services is quite high
- Heterogeneous information systems
- Low effectiveness of the ICT regulatory framework
- Increasing demand for high-quality e-services from the citizens
- Increasing demand from the Government to lower the operational costs



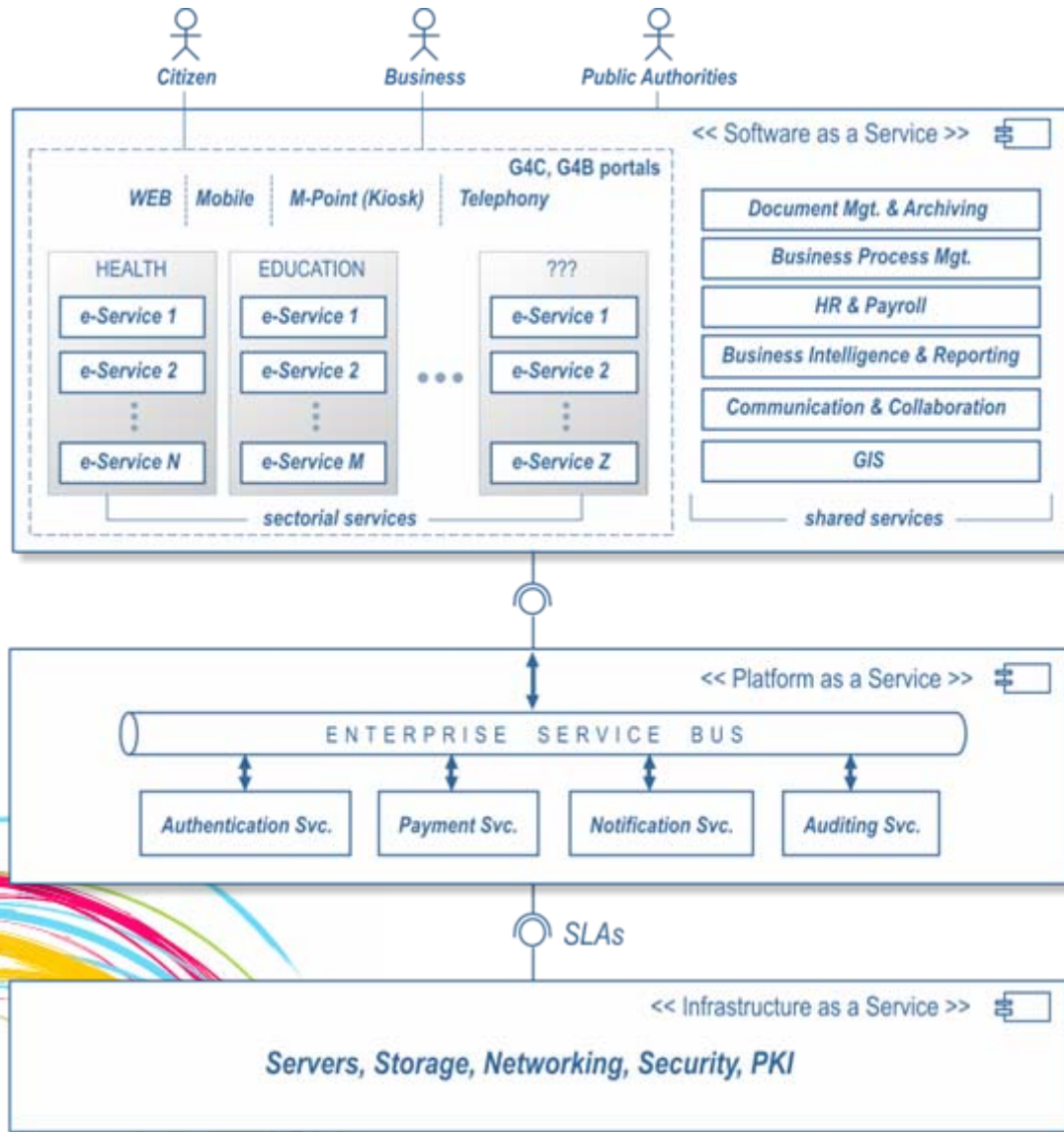
- A high quality e-service is a mature and fully automated service made available online. There are several types of e-services - informational, interactional, transactional.
- Most e-services will include business process reengineering.
- Each sector will extend the set of e-services by implementing more demanded ones first.
- A clearly defined set of criteria for e-services prioritization has been developed.





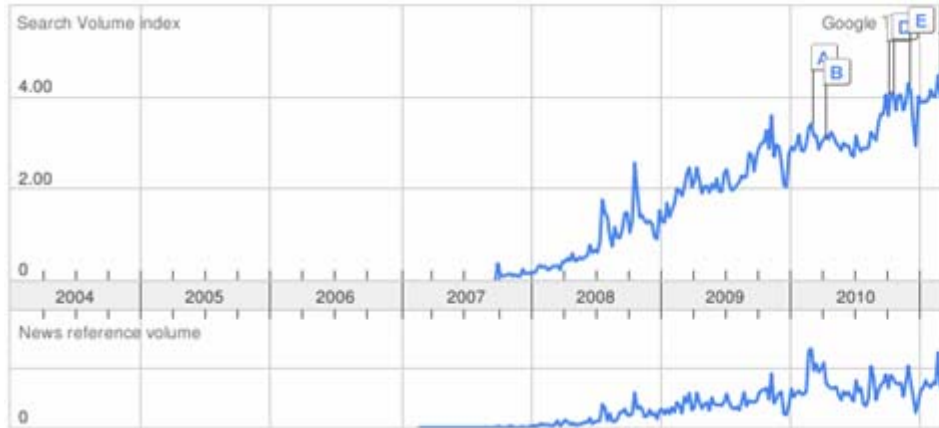
- **Modern** – the architecture should use modern, yet well proven technology stack
- **Cost efficiency** – the architecture should lead to optimal operational costs
- **Modular** – services should be organized as pluggable modules to facilitate flexibility, maintainability and scalability
- **Simple** – every module should follow “single responsibility” design principle, thus should be kept as simple as possible
- **Accessible** – the architecture should be built exclusively using open standards
- **Re-use** – the architecture should reuse existing information assets whenever is appropriate

M-Cloud Platform Architecture



- **Cloud Computing** based Service Oriented Architecture (SOA)
- Highly accessible e-services through **multiple delivery channels**
- Facilitates **communication between systems** and allows business process orchestration
- Introduces **shared services** across public administrations
- Infrastructure services (IaaS) provided by **CTS**

Cloud Computing and the IT Community

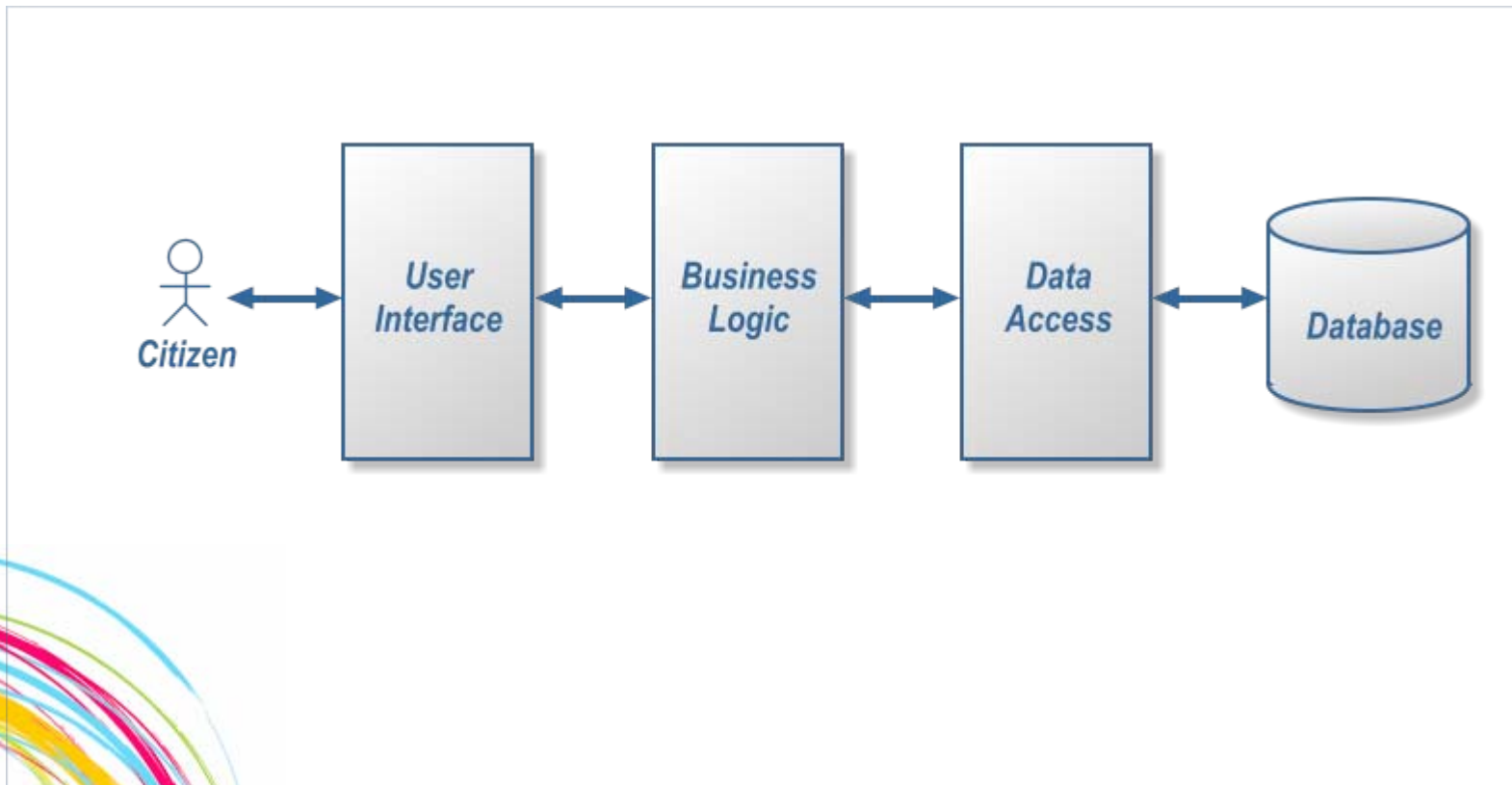


- A [Google looks to be 'cloud-computing' rainmaker for other online business services](#)
Winnipeg Free Press - Mar 10 2010
- B [Cloud computing and the economy](#)
CNET - Apr 13 2010
- C [Globalisation, cloud computing spark change in 'future of work'](#)
The Hindu - Oct 6 2010
- D [Microsoft's Top Software Architect, a Cloud Computing Advocate, Quits](#)
New York Times - Oct 19 2010
- E [Cloud computing 'could give EU 763bn-euro boost'](#)
BBC News - Dec 7 2010
- F [Technology expo in Germany harnesses 'cloud computing'](#)
BusinessWorld Online - Feb 28 2011

Source: trends.google.com

- **Reduced Cost** – Cloud technology is paid incrementally, saving taxpayers money.
- **Highly Automated** – No longer do IT personnel need to worry about keeping software up to date.
- **Flexibility** – Cloud computing offers much more flexibility than past computing methods.
- **More Mobility** – Employees can access information wherever they are, rather than having to remain at their desks.
- **Allows IT to Shift Focus** - No longer having to worry about constant server updates and other computing issues, government organizations will be free to concentrate on innovation.

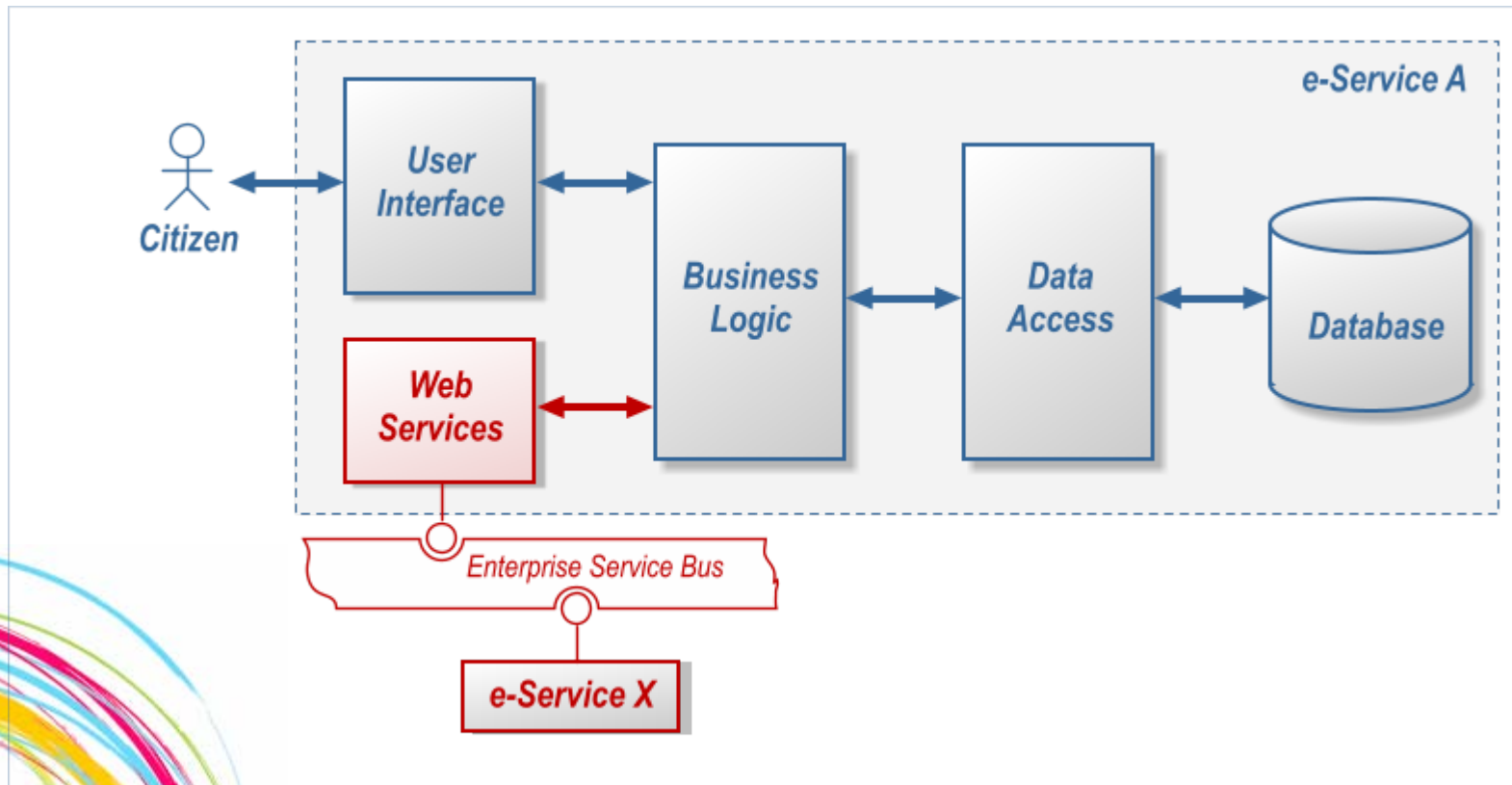
- As a minimum architectural requirement e-services should implement n-layer architectural pattern, thus facilitating moving to different DBMS or adapting to new user interfaces when needed.

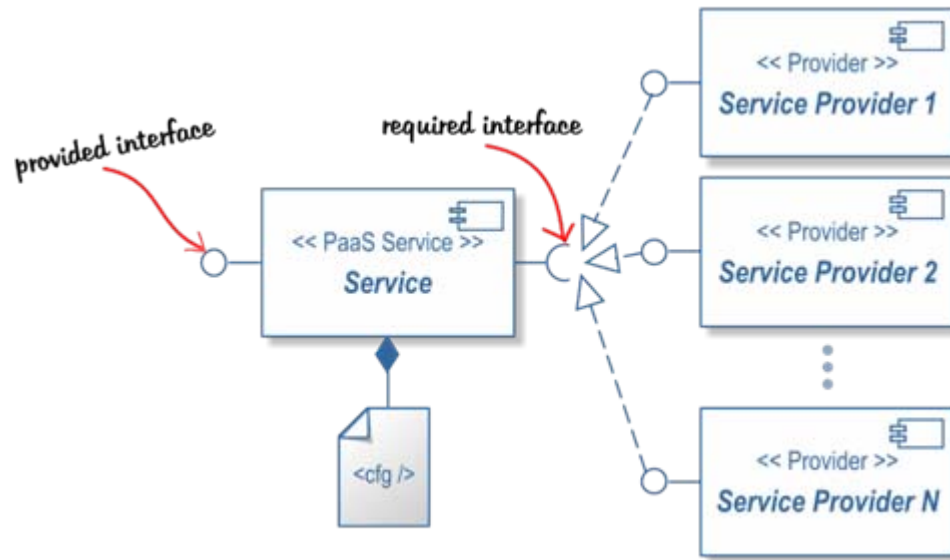


Cloud-ready e-Services



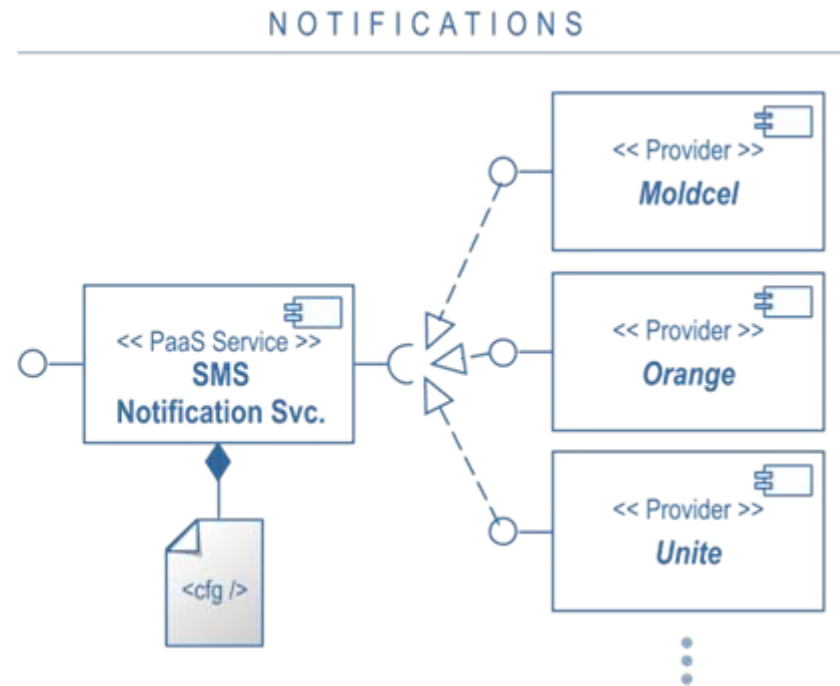
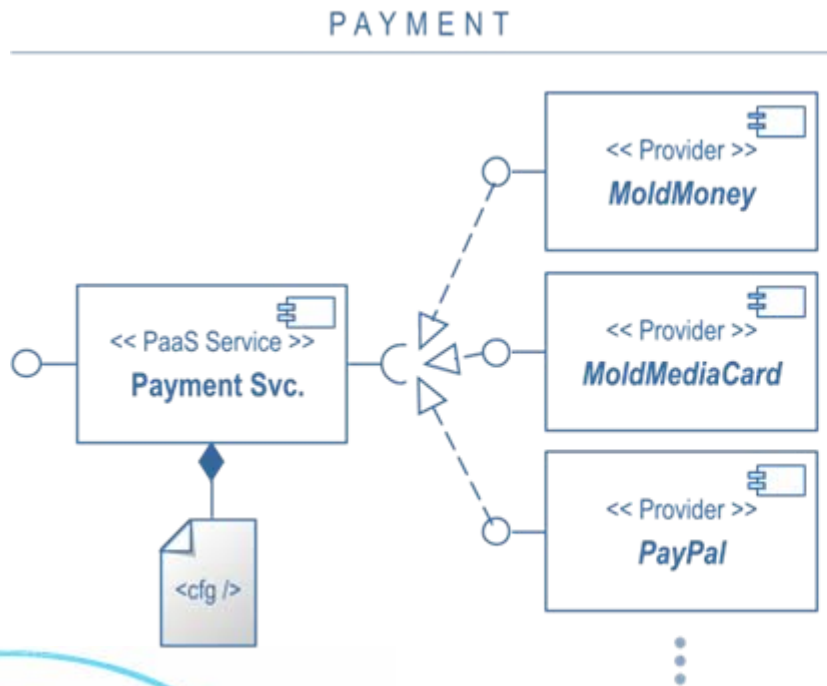
- Nowadays no information system is an island, therefore each newly developed service must provide facilities for inter-service communications. All required technical specifications and message contracts will be provided as part of national interoperability framework.
- Existing information systems will communicate through custom adapters.



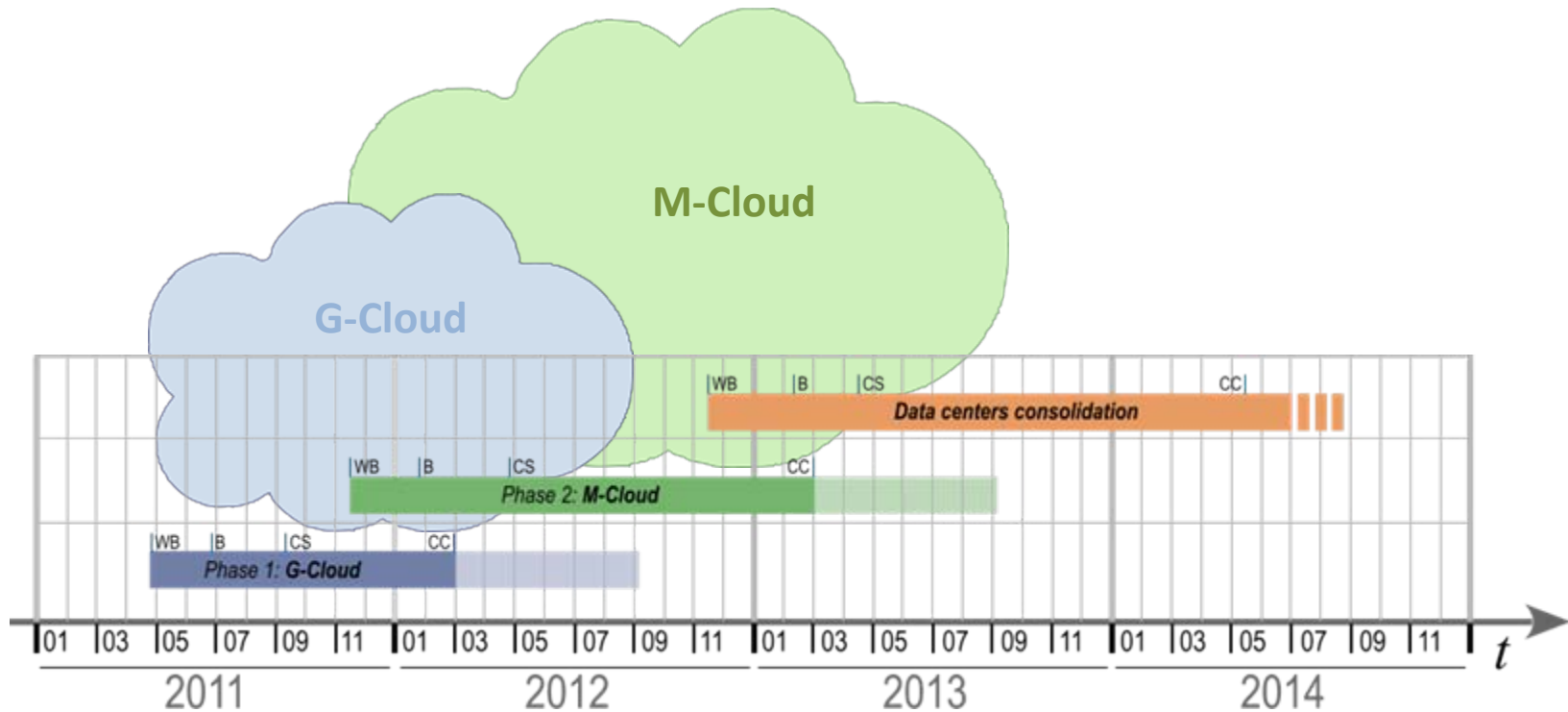


- **Flexibility** – adaptability to different use cases
- **Neutrality** – offer equal possibility for various providers to come into play
- **Cost efficiency** – allow providers to compete on quality of service and on prices
- **Maintainability** – working parameters are configurable
- **Fast reaction to change** – parameters could be change at runtime

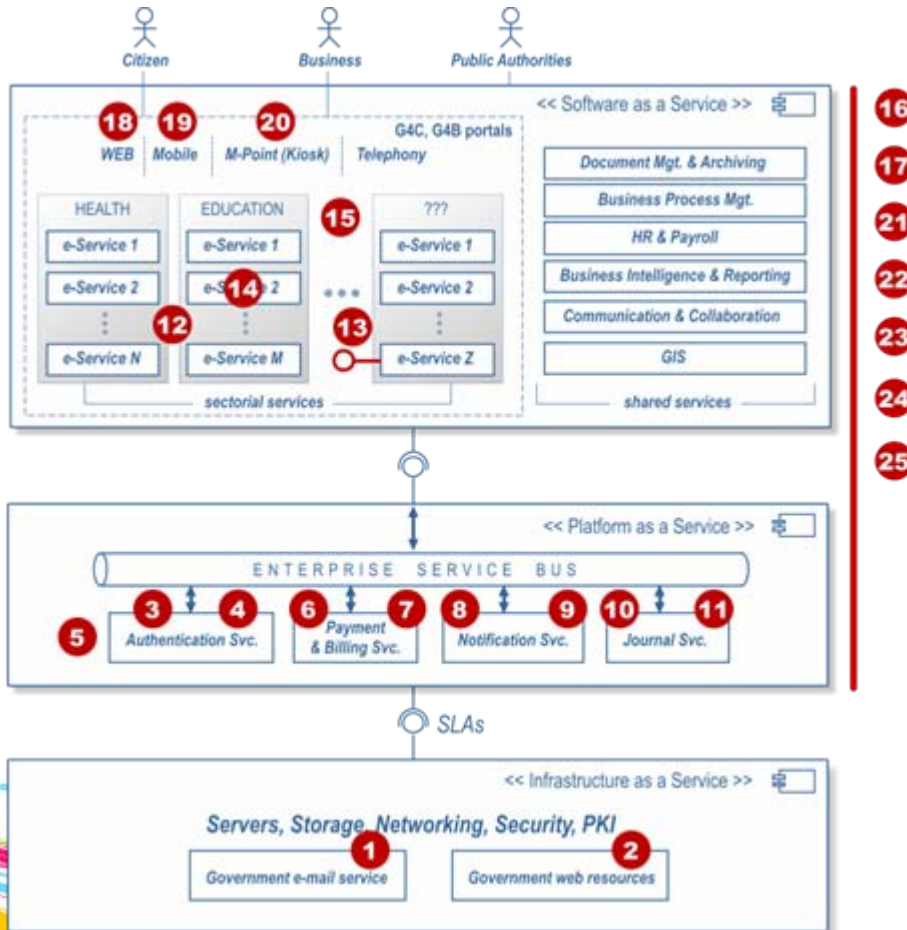
Provider pattern applied



M-Cloud Iterative Development



- **Phased approach** facilitates:
 - faster time-to-market;
 - reducing implementation risks;
 - early adoption of technologies and services;
 - learning from feedback on previous phase.



- Our objective is to modernize our ICT regulatory framework, to align it to EU standards and to support M-Cloud platform.
- The policies are grouped in a series of specific sections:
 - Infrastructure
 - Application
 - Information
 - Information Assurance
 - Integration
 - Service Management
 - Channels



- Trainings on Project Management Topics
 - Project Planning & Tracking
 - Risk Management
 - Change Management
 - Etc.
- Study visits for public sector IT managers to our partner countries
 - Estonia
 - United States of America
 - Singapore
 - Austria
 - Malta
 - Etc..
- Assistance from our partners



- Our citizens deserve high quality e-services operated by a modern, reliable and cost efficient platform.
- e-Services and M-Cloud is the response to our people and Government demands.
- M-Cloud architecture is based on leading edge Cloud Computing technology and SOA.
- Modernized ICT regulatory framework may speed up Moldova's integration into EU.
- Implementation of e-Transformation Agenda is our national priority.



Thank you for your attention!



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