M-CLOUD:
E-GOVERNANCE TECHNOLOGY PLATFORM

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

GOVERNMENT OF THE REPUBLIC OF MOLDOVA

STRATEGIC PROGRAM
FOR GOVERNANCE
TECHNOLOGICAL MODERNIZATION
(E-TRANSFORMATION)

Approved
through Government Decision
Nr. 710
on 20th September, 2011

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

Digital Moldova 2020

This strategy document was developed based on the "Digital Agenda for Europe 2020", as well as other successful international practices in this field.

The strategy is focused on four primary objective groups:

- Infrastructure and access,

- Content and services,

- Knowledge and abilities,

- Competitiveness based on ICT.

The representatives of State Chancellery, ministries, development partners, Academy of Science of Moldova and private sector have been invited to participate in public debates regarding this draft.

- Complex Reform of 587 public services (CPA)

- Quality Standards , evaluation indicators and citizens report cards

- Methodology for public services' tariffs

- Registry of public services, AND

- E-Government to cut bureaucracy, administrative costs, inefficiency and low level of productivity

e-Transformation Obiective for public services

By 2020 all public services will be digitized and accessible for citizens and businesses from Public Services Portal.
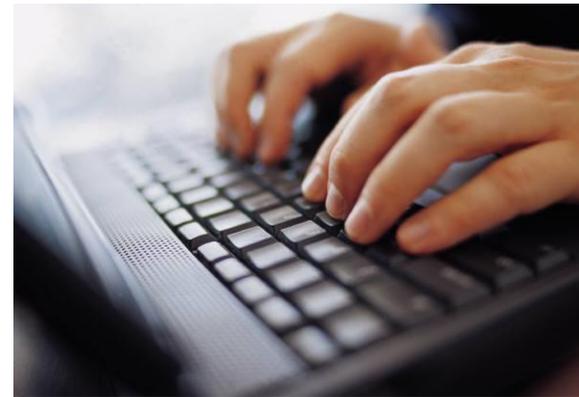
Digital by Default: e-Services Delivery Model

Principles

- Security by Design;

- Mobile by default Policy;

- Web to Mobile – Content portability;

- Publish APIs;

- Open Data by Default;

- Cloud First Policy;

- Shared by Default.

What about the platform?

Do we have
the **adequate technology platform**
in place?

Modernized Government IT Platform Key Principles

- *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

Our answer to these challenges is ***M-Cloud -*** Moldova's e-governance technology platform based on cloud computing.

Namely it is:

- – Government private cloud (G-Cloud), delivering all common services at IaaS, PaaS and SaaS levels;

- – First choice for public e-services hosting and delivery platform.
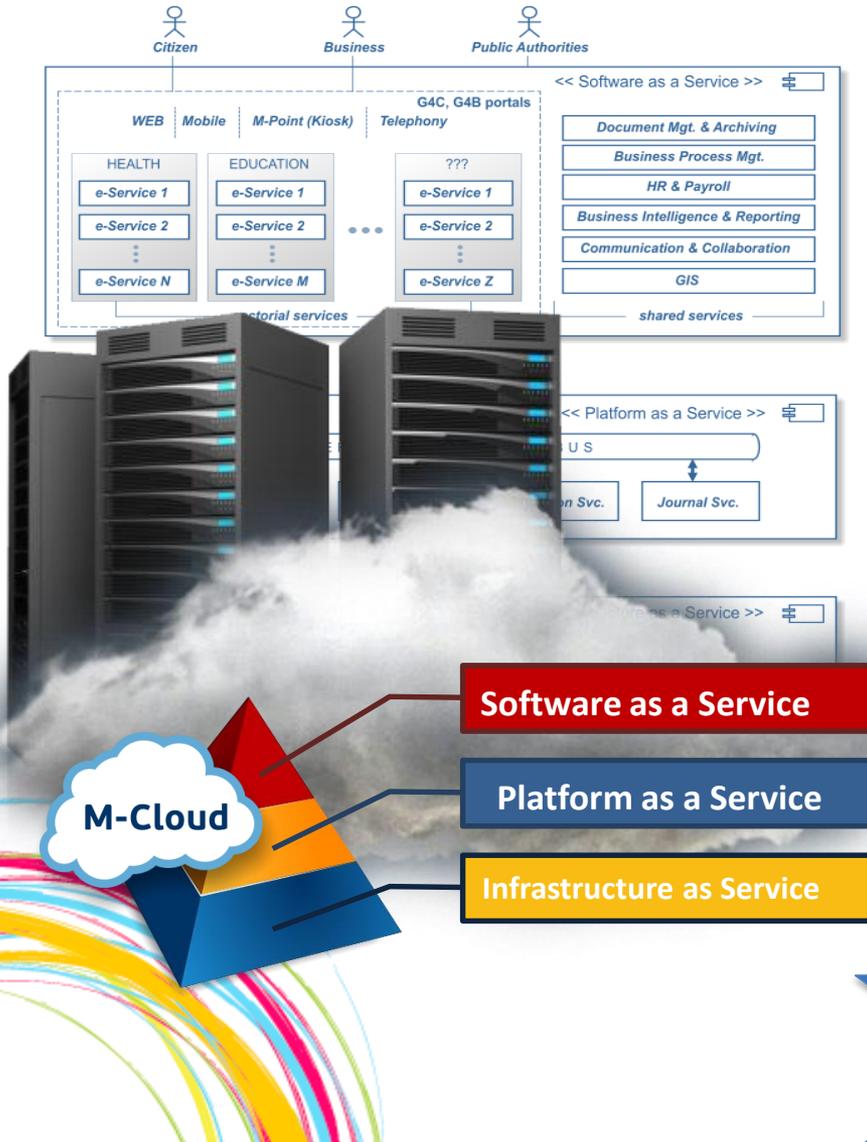
- Electronic public services provided by ministries and Agencies will be hosted and operated from M-Cloud

- Government private cloud (G-Cloud), delivering all common services at IaaS, PaaS and SaaS levels

- Cloud First Policy: First choice for public e-services and back-office information systems hosting and delivery platform

"Best Cloud project in Central & Eastern Europe"

Awarded by Hitachi

M-Cloud Platform Architecture
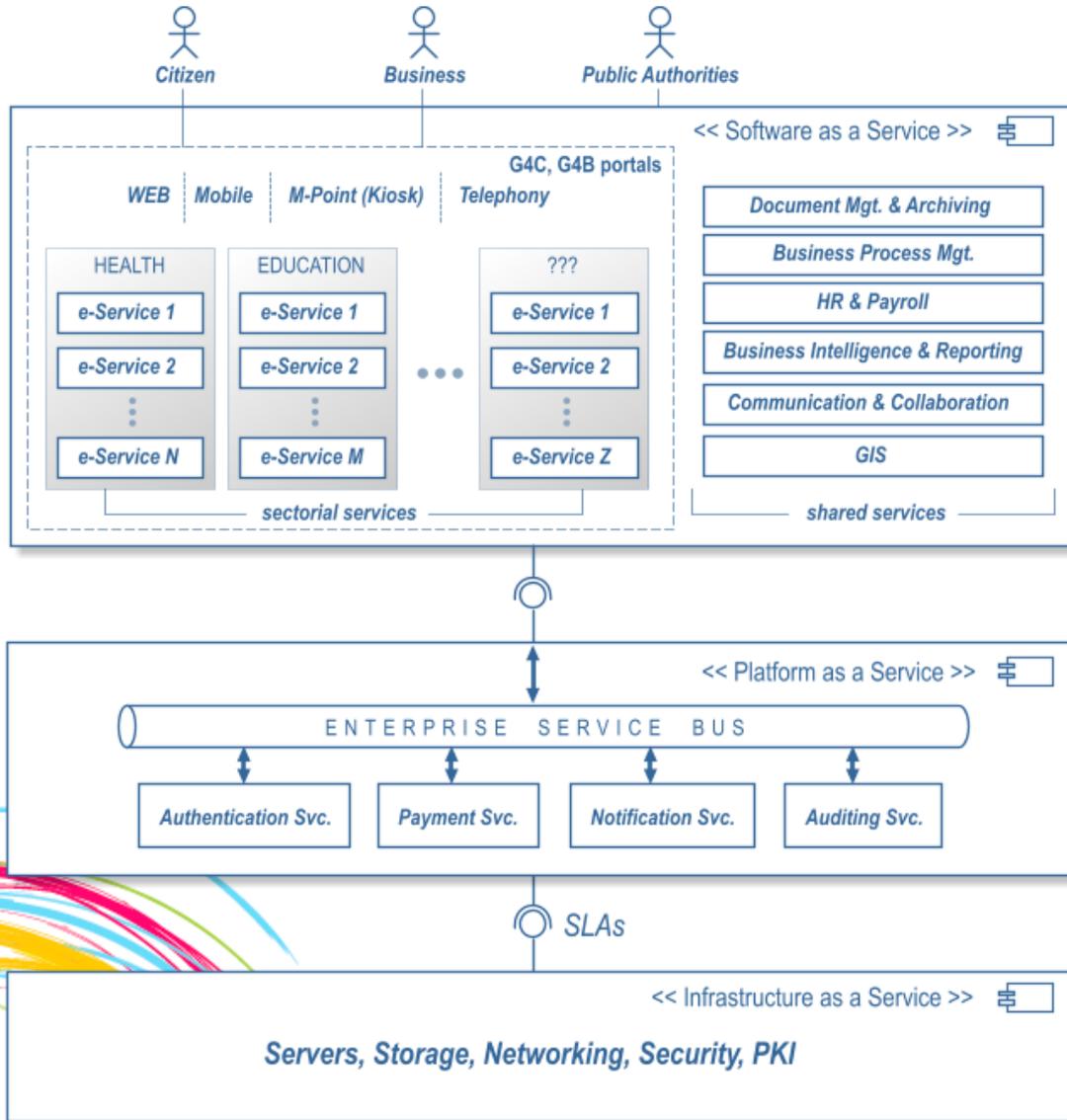
- **Cloud Computing** based Service Oriented Architecture (SOA)

- 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) operated by **CTS**

e-Government Center

M-Cloud Platform High Level Architecture
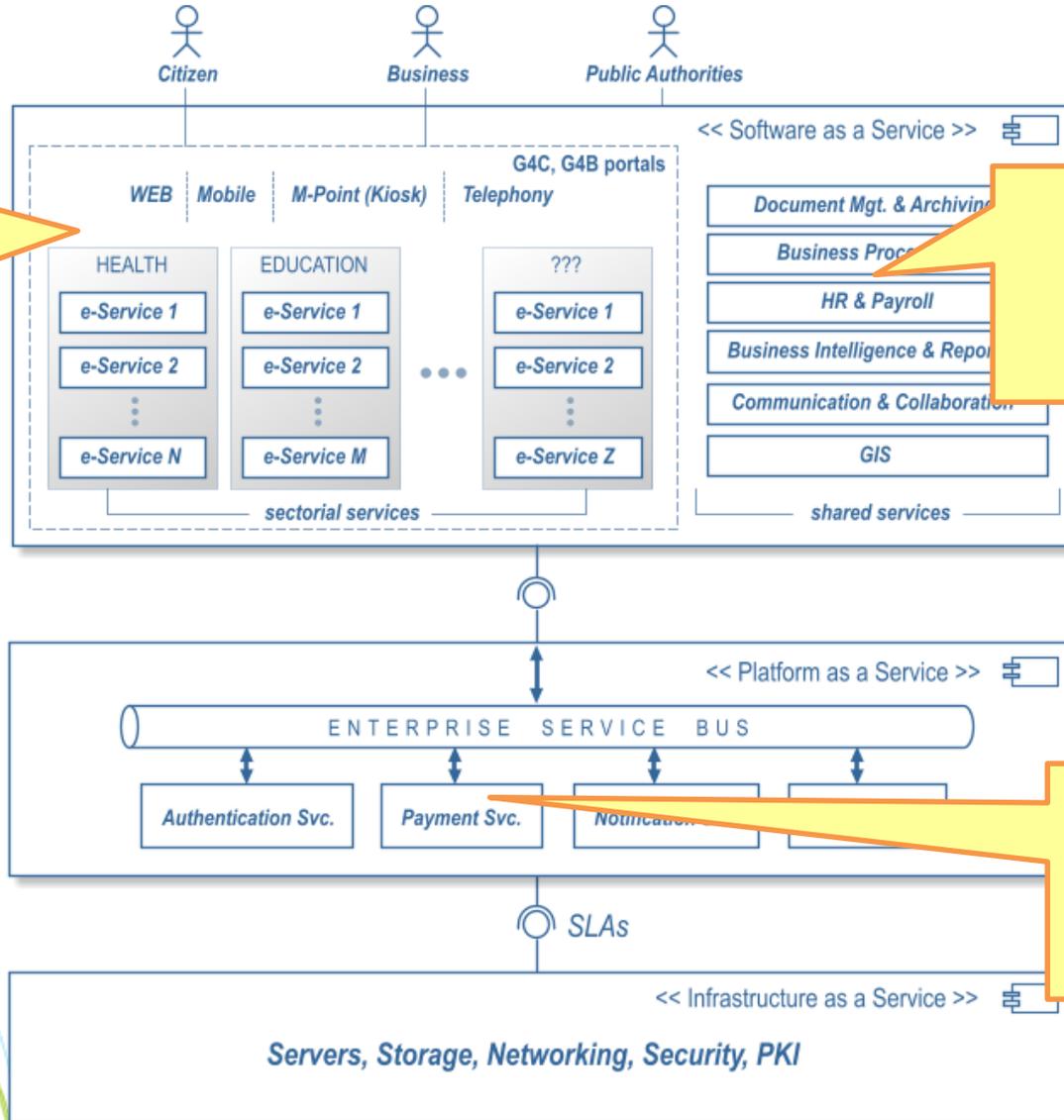
M-Cloud Incremental Development

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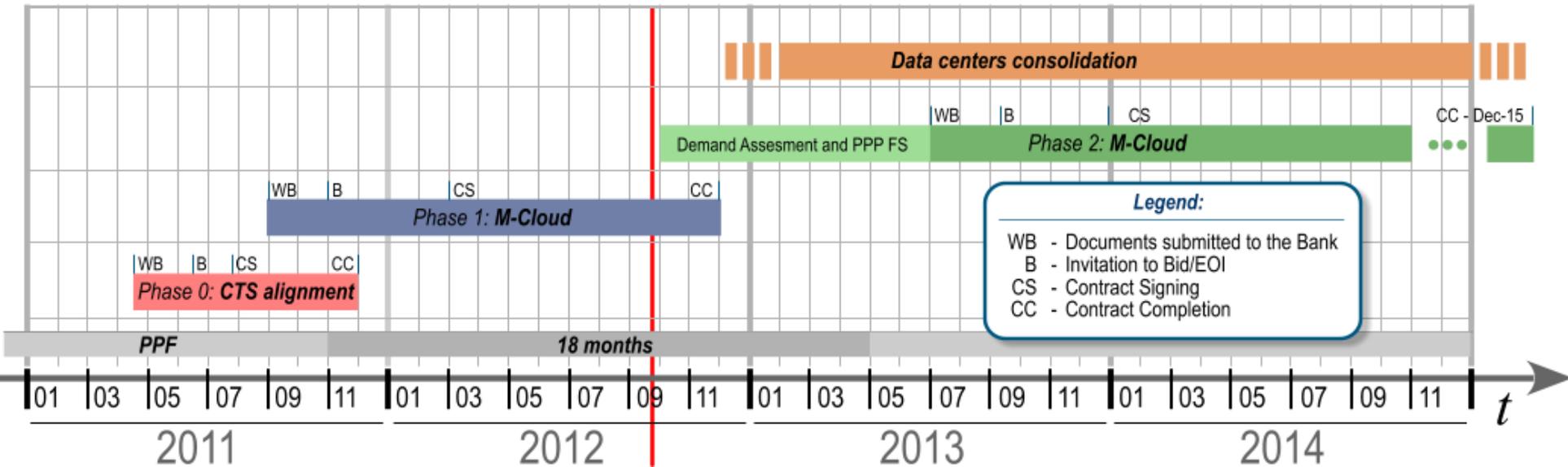
- **Phased approach** facilitates:
  - faster time-to-market;
  - reducing implementation risks;
  - early adoption of technologies and services;
  - learning from feedback on previous phase.

M-Cloud Phase I
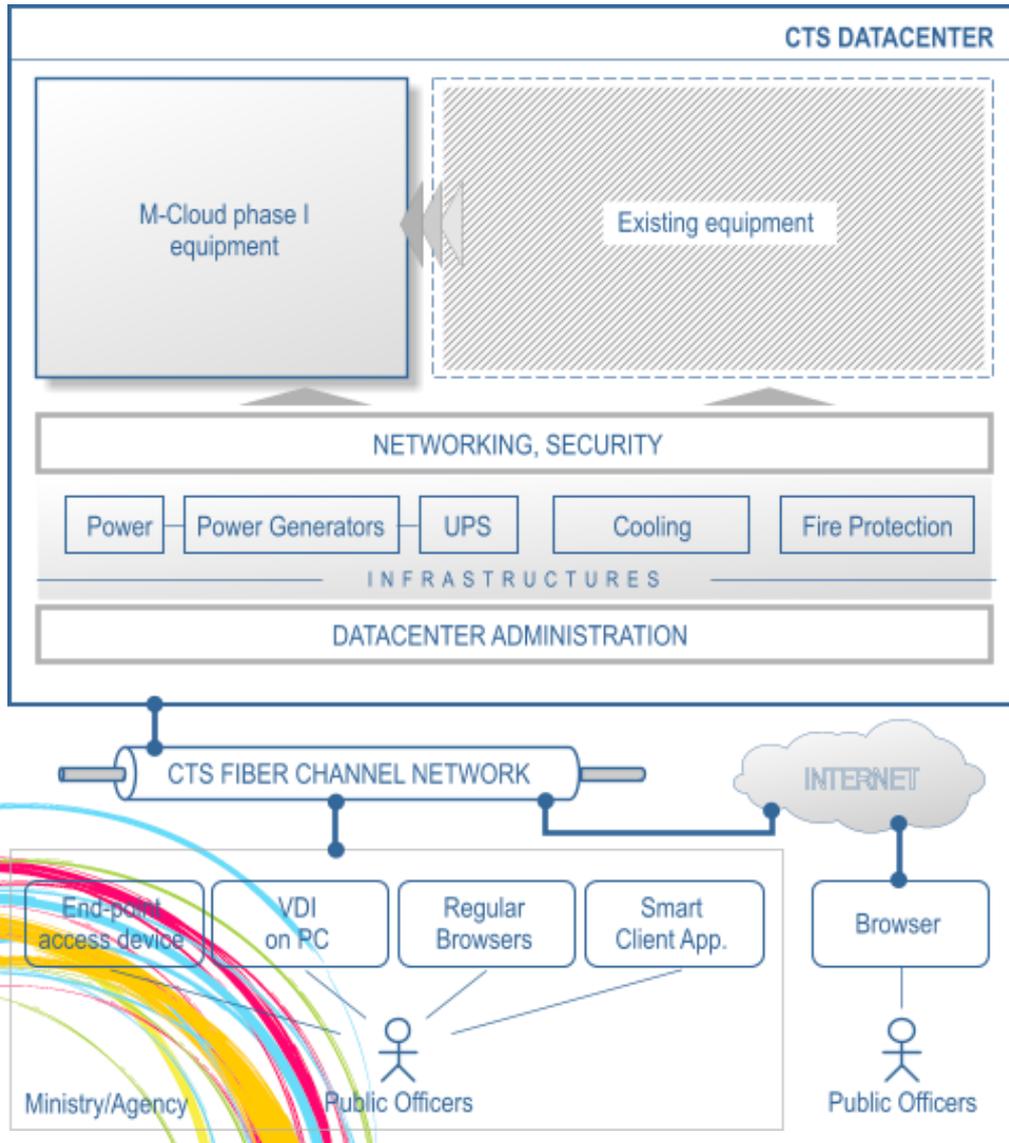
- Is deployed at CTS and reuse its DC infrastructure;
- Is prototyping all main initiatives of M-Cloud, including:
  - Cloud specific features such as self-service provision, metering and billing etc. at IaaS, PaaS and SaaS levels;
  - Disaster Recovery ;
  - Scalability by adding new servers, storage;
  - VDI;
  - Development and testing sandboxes for development teams;
  - Data center consolidation;

M-Cloud Phase II

- M-Cloud phase II will consist of extending M-Cloud capacity by:
    - Building a new tier 3 datacenter using PPP;
    - Reusing M-Cloud phase I datacenter as a DR site;
    - Migrating *all* existing services to M-Cloud;
    - Adopting cloud-optimized architecture;
    - Adding more servers;
    - Adding more storage;
    - Consolidating datacenters according to DCC plan.

Data Center Consolidation

- With M-Cloud in place Moldova's Government will start data center consolidation process.

- Existing more than a hundred data centers will be reduced to 7-10 high performance datacenters.

- Existing IT assets will be re-used wherever possible.

Collaboration for providing services

- Research & educational community,
- Electronic libraries and other big data repositories (scientific, educational content, software collections…),
- Medical informational systems requiring special data processing facilities,
- Security,
- Disaster Recovery & business continuity,
- etc.

These specialized segments are part of integrated national cloud infrastructure.

M-Cloud and Interoperability
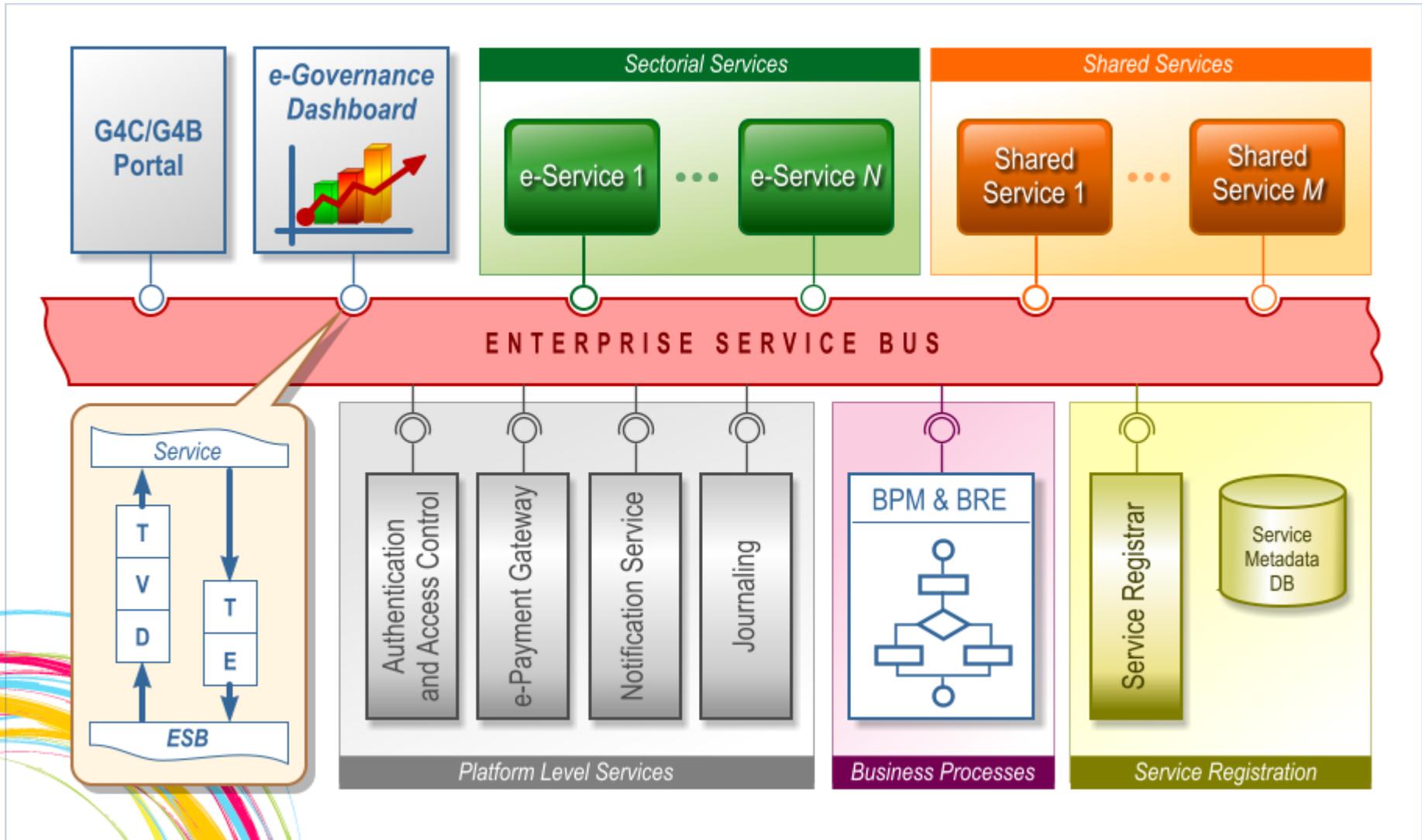
G2C and G2B Services Portal www.servicii.gov.md launched on May 10, 2012

317 public services
73 e-services

Online catalog of public services

Platform can host local public services

As of March 16, 2013:
93,744 visits to the Portal
62,376 unique visitors

MPass – Authentication and Access Control Service

Best m-Government Initiative Award

**Government of Moldova
wins the
Best m-Government Initiative Award.**

This award is for the government who has embraced mobile technologies as an opportunity to leverage the potential of mobile to improve government initiatives.

http://www.gsma.com/newsroom/gsma-announces-winners-of-the-2013-global-mobile-awards

Barcelona | 25 – 28 February 2013

About the GSMA
The GSMA represents the interests of mobile operators worldwide. Spanning more than 220 countries, the GSMA unites nearly 800 of the world's mobile operators with more than 230 companies in the broader mobile ecosystem , including handset makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. The GSMA also produces industry-leading events such as the Mobile World Congress and Mobile Asia Expo.

MSign – Digital Signature Service

Government e-Payment Gateway - MPay

- The Government e-Payment Gateway – MPay makes it possible to pay for any public service using all available payment methods, including:
  – Visa și MasterCard;
  – internet banking systems;
  – mobile banking solutions;
  – Cash-in machins;
  – Cash;
  – etc.

- 1 mln bank cards issud so far;
- Volume of cards transactions amount cca. 16.5 bln MDL;
- Less than 5% of cashless transactions.

  - *National Bank of Moldova*

Government Electronic Payment Platform - May 2013

Government of Moldova goes Paperless/Digital on <u>January 1, 2014</u>
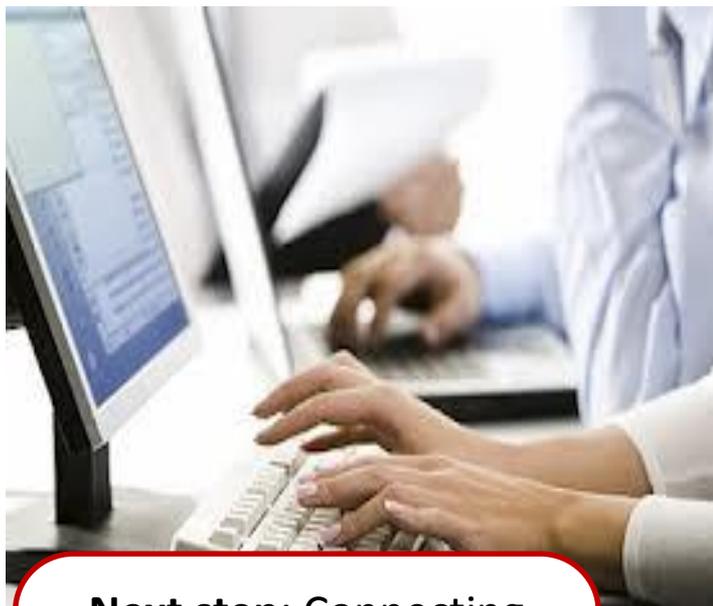
Next step: Connecting local governments to electronic documents and records management system
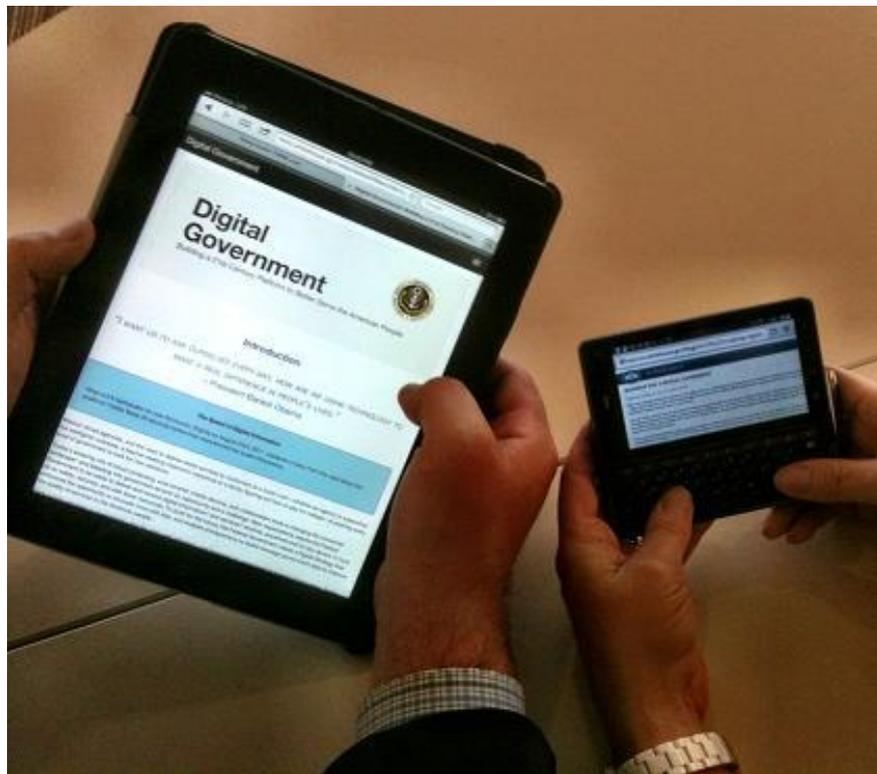
The Enterprise Content Management Platform (ECMP)

ECMP is a platform for easy (no-code) creating of Information Systems (IS) mainly for:

- Authorizations;
- E- Registers;
- E-Appointments.

The main difference of this platform from other classical development tools is that the development process is substituted with the domain modeling and configuration of pre-built platform's components.
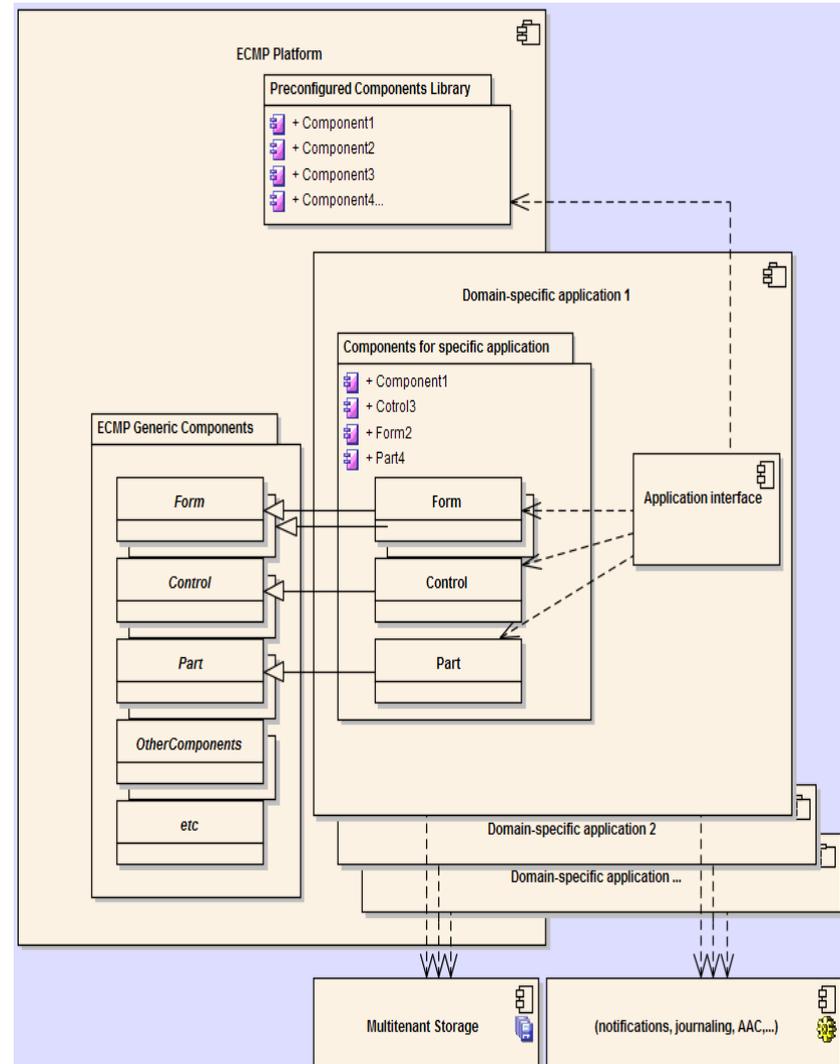
Reuse of Government Public Data
For Informed Decision Making and Qualitative Public Services

Launched on: **April 15, 2011**

Number of datasets: **608**

Publishing institutions: **38**

Number of unique visitors: **~ 3,500/month**

Number of downloads: **~ 5,500/month**

Developing Open Government Data Catalogue

**Public
Consultations**

3 Grand Challenges

Increasing Public Integrity	Better Managing Public Resources	Improving Public Services

Award for
contributing to OGP

Awarded by
Transparency
International Ukraine

Open Government Partnership

On March 15th, the Government of Moldova was awarded by Open Government Partnership in Eastern Partnership Countries and Russia, Transparency International Ukraine and British Embassy in Kyiv In recognition of the Government of Moldova contribution to the implementation of the Open Government Partnership

What's next…

- It is crucial to keep this momentum in development of sectorial services;

- Good coordination and reuse is crucial!

- Development of sustainable e-governance models;

- Development of Intelligent IT Investment Framework;

- Improving National IT Security Framework;

Main Partners in e-Transformation

Thank you for your attention!

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