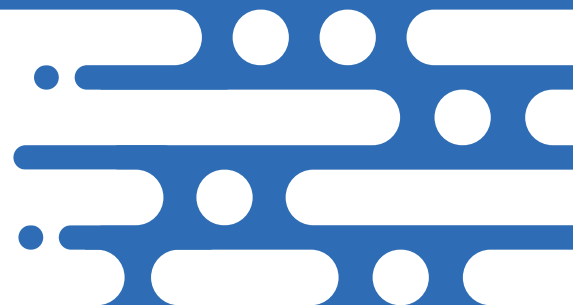The data exchage system
of state electronic
information resources

trembita

What is Trembita?

The data exchange system of state electronic information resources Trembita (hereinafter – the Trembita system) is a modern organizational and technological solution that enables a secure internet-based exchange of information between state authorities and local self-government bodies through exchange of electronic messages between their information systems. The Trembita system is one of the key infrastructural elements for the provision of e-services to citizens and businesses, ensuring convenient, unified access to government registries and databases. The Trembita system is based on the Estonian X-ROAD data exchange platform, which works as the backbone of the Estonian digital society.

Trembita

Participants

Participants in the Trembita system include state authorities and local self-government bodies that can use it under the terms of:

- The Regulation on Electronic Interaction of State Electronic Information Resources (approved by the Cabinet of Ministers of Ukraine on September 8, 2016 No. 606 "Some Issues of Electronic Interaction of State Electronic Information Resources").

- The Procedure for the Arrangement of Electronic Information Interaction of State Electronic Information Resources (approved by the Cabinet of Ministers of Ukraine on 10 May 2018 No. 357 "Some Issues for the Arrangement of Electronic Interaction of State Electronic Information Resources").

- As of 1 September 2019, 33 executive bodies have signed agreements for connections to the Trembita system, 7 of which are already connected to the system. Data exchange is being carried out between two executive bodies – the State Drugs and Medications Control Service and the National Health Service of Ukraine.
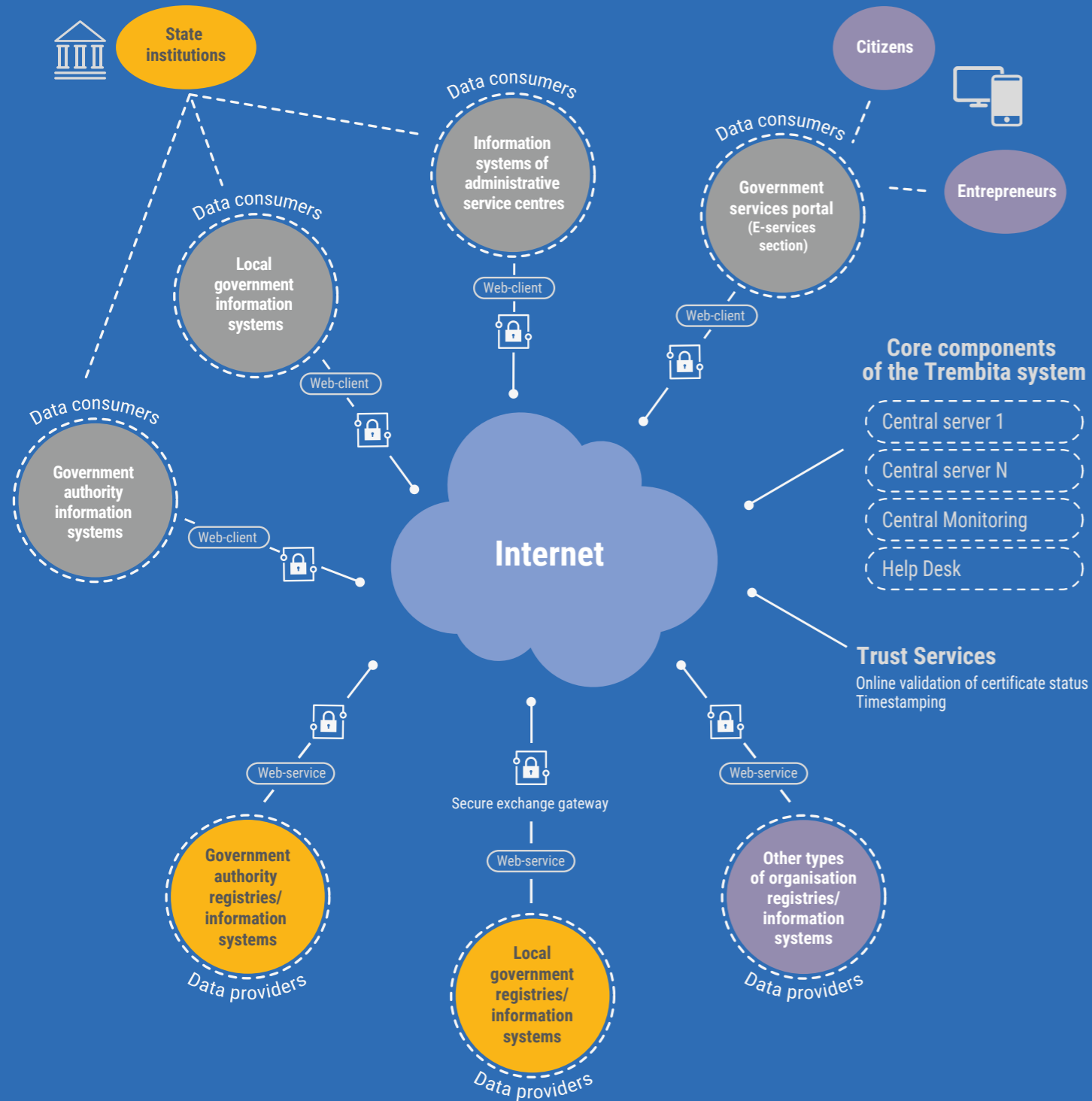
Features of the Trembita system

- **Decentralised:** Trembita is a completely distributed, resilient system. The Trembita system does not centralise data and does not change the ownership of the data.

- It provides **access to data** in state registers to various institutions, according to their given access rights, which in turn improves the quality of e-service provision to citizens and businesses.

- The system supports the easy and unified development of interactions between information systems thanks to the use of a single set of rules and formats.

- It ensures resistance to failures since the decentralised installation of components and data exchange between different organizations occurs without passing through intermediate nodes.

- The system guarantees a high level of security through the use of electronic signatures, data encryption, event logging, access control to e-services and "denial of service" protection mechanisms.

Structure of the Trembita system

State institutions

Data consumers
Information systems of administrative service centres

Data consumers
Local government information systems

Data consumers
Government authority information systems

Citizens

Data consumers
Government services portal (E-services section)

Entrepreneurs

Web-client

Web-client

Web-client

Web-client

Internet

Core components of the Trembita system
- Central server 1
- Central server N
- Central Monitoring
- Help Desk

Trust Services
Online validation of certificate status
Timestamping

Secure exchange gateway

Web-service

Web-service

Web-service

Government authority registries/ information systems
Data providers

Local government registries/ information systems
Data providers

Other types of organisation registries/ information systems
Data providers

The core components of the Trembita system allow the following:

- Management of participants and their current data by using a directory of participants;

- Distribution of up-to-date participant information between secure exchange gateways;

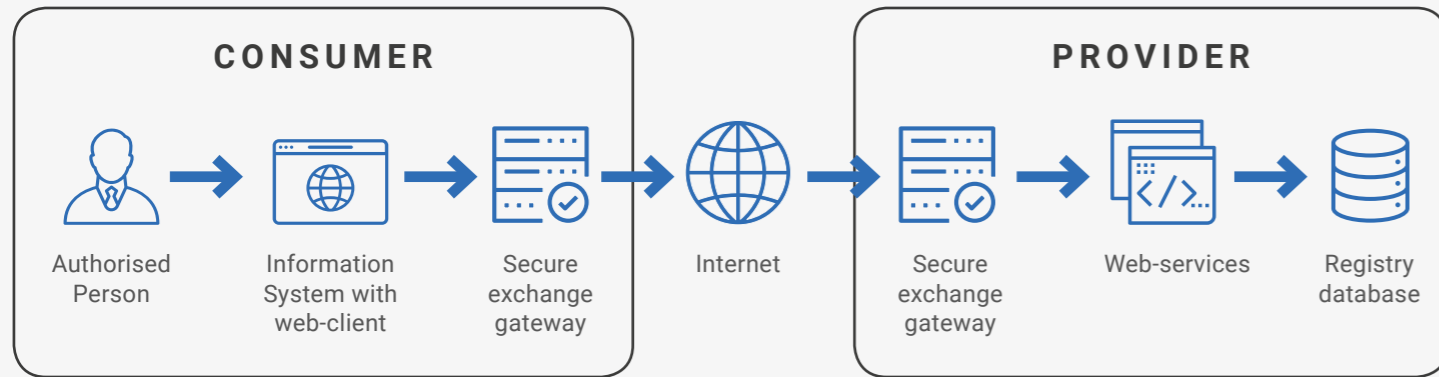- Archiving information about electronic messaging (Trembita statistics)

The components of the participants (state authorities and local self-government bodies) include:

- Secure exchange gateway(s) – the software that publishes web-services and controls access to them (SOAP and REST technology) ensures the integrity and confidentiality of the exchanged data through digital signatures and data encryption, and collects information about electronic messages;

- Data processing tools (web-services and web-clients integrated into departmental information systems, including electronic registries).

Legal notice is provided through the use of trust services from qualified certification authorities.

NOTE: Secure exchange gateways are provided to participants free of charge.

Trembita system data exchange process

CONSUMER

Authorised Person → Information System with web-client → Secure exchange gateway

Internet

PROVIDER

Secure exchange gateway → Web-services → Registry database

1. Through a departmental information system interface open on a computer, an authorised person generates a search request for information based on certain criteria in the provider's registry.

2. A search request for information through a web client integrated into the recipient's information system is then sent in form of electronic message to the consumer secure exchange gateway.

3. The consumer secure exchange gateway authomatically creates digital stamp for electronic message and sends it to the provider secure exchange gateway in an encrypted form.

4. The provider secure exchange gateway receives the electronic message and the recipients`s access rights to the information contained in the registry, and also forwards the message to the web-service.

5. The web-service, based on the content of the electronic message, searches for data in the registry and generates an response to the request in form of electronic message.

THE RESPONSE PROCESS IS IDENTICAL TO THE REQUEST PROCESS

Opportunities for ASCs

The Trembita system supports interaction with the Vulyk information system, which is planned to be launched in 600 administrative service centres throughout Ukraine. For ASCs, this will mean access to the central executive authorities' registries and a significant empowerment for the provision of public services.

However, the use of this opportunity depends on a number of factors. Initially, it depends on the connection of certain state registries to the Trembita system, and on the readiness of the executive authorities to exchange information. This is a step-by-step process that requires regulatory norms, as well as organisational and technical procedures.

More information about the Trembita system is available at:

TREMBITA.GOV.UA

European Union

співпраця з **німеччиною**
DEUTSCHE ZUSAMMENARBEIT

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Polish aid

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ESTONIA
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МІНІСТЕРСТВО РОЗВИТКУ
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