





The Scientific and Technological Progress has resulted in new economic systems based on digital technology platforms. Entire sectors of the economy have been transformed, modifying the way consumers and manufacturers interact, and leading to a significant economic growth. Digital technology platforms dramatically improve the quality of services (and goods), significantly save time for consumers (and manufacturers), and greatly reduce cost of services and goods.



Key principles of digital technology platforms

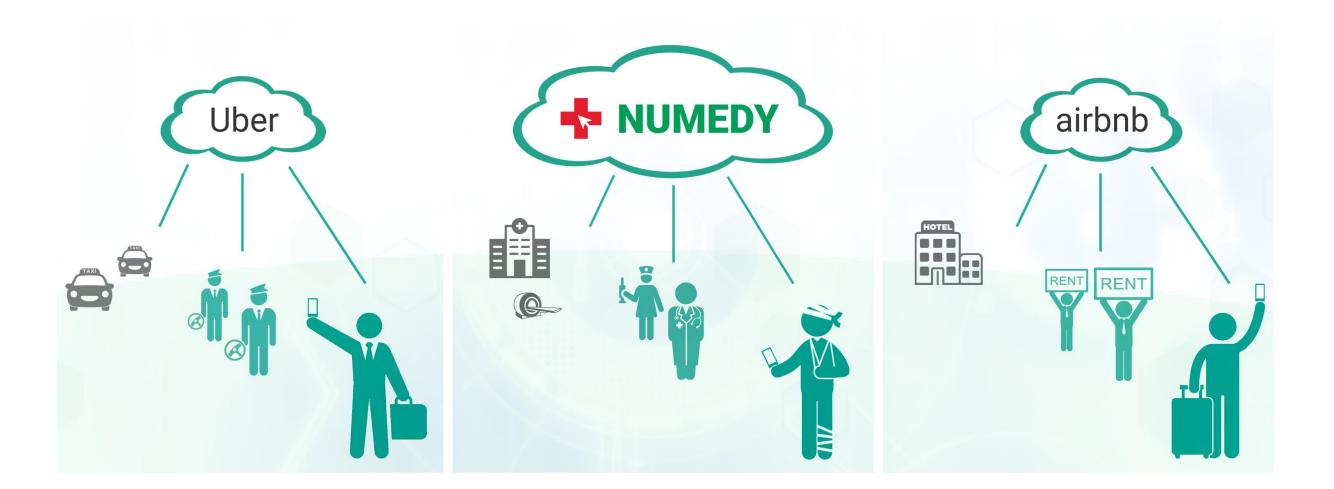


Multiple participants in a single unified consumeroriented environment **Common information space**

Real-time monitoring and feedback

If at least one of the principles is not followed, then the system cannot be considered to be a digital technology platform and therefore is not able to provide economic expediency.

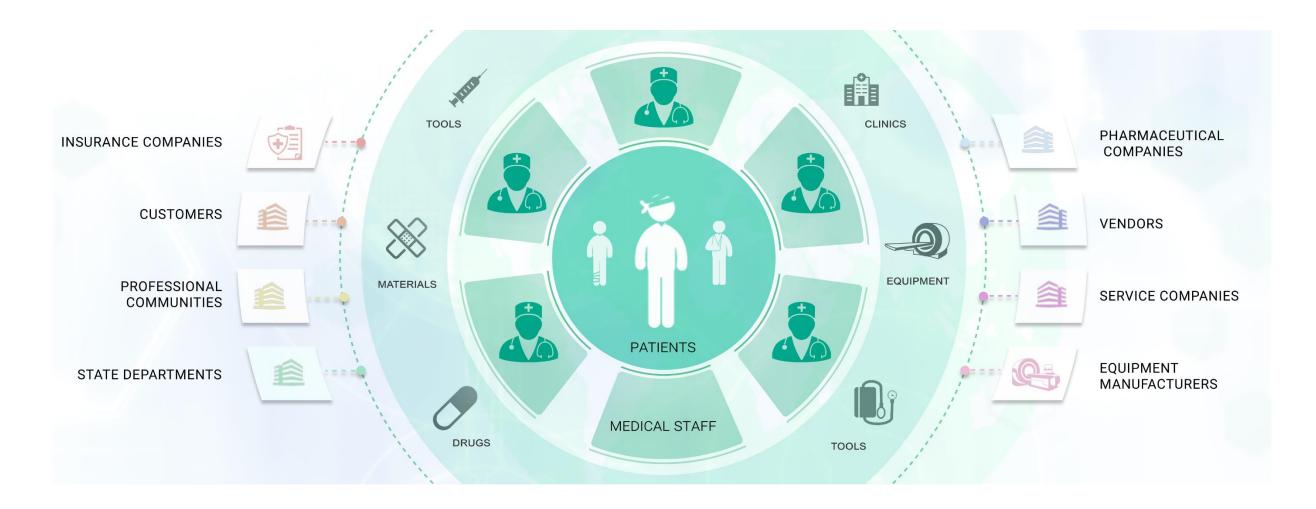




The exceeding number of mobile devices and internet usage, as well as high demand in improving patient services, availability and sufficient cost of healthcare have determined the inevitable digital medical platforms progress.



Multiple participants in a single unified patient-oriented environment



In digital medical platforms, the main participants of the processes are patients, medical personnel, and means of production (equipment & tools, special materials, pharmaceuticals, and clinics). Business partners, state entities, insurance and pharmaceutical companies are all users or contractors, but not participants. The main focus here is on the patient.

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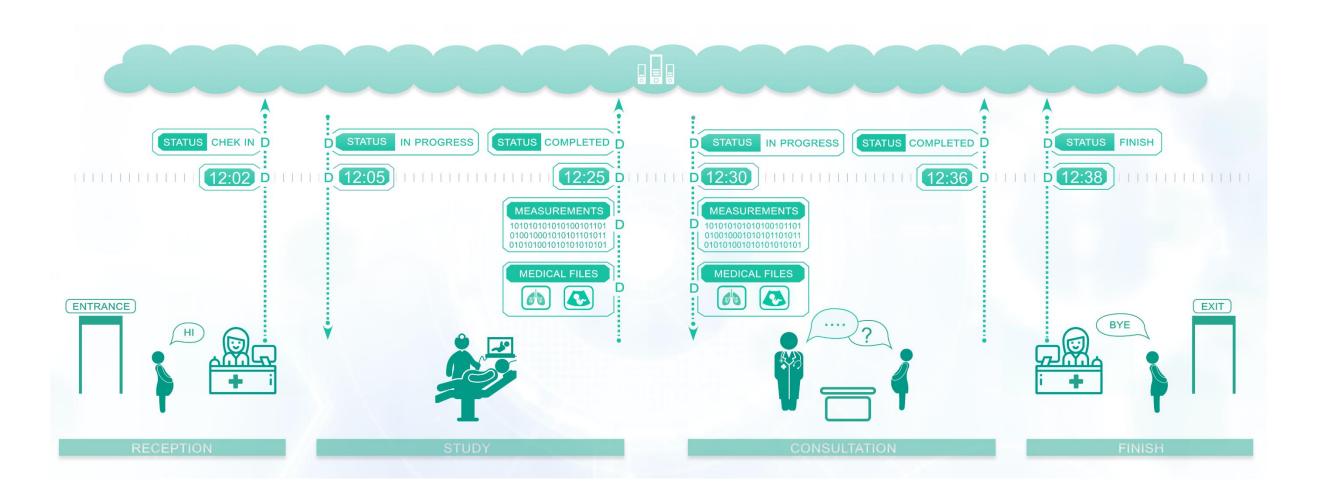


In digital medical platforms, directories (master base for patients, staff, services, medical measurements, nomenclature, and file links) and their complex relationships and interdependencies are the basis of the common information environment, where information gaps, duplication, or incorrect connections could not exist. Thus, digital twins of clinics and patients are created.

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Real-time monitoring and feedback



Healthcare is nearly the only industry where the patient is both a consumer and an object of a medical service. Therefore, in order to perform monitoring and receive feedback in real time, as in any workflow, it is important to fully digitize every step of the service delivery



Challenges of digital medical platforms creation



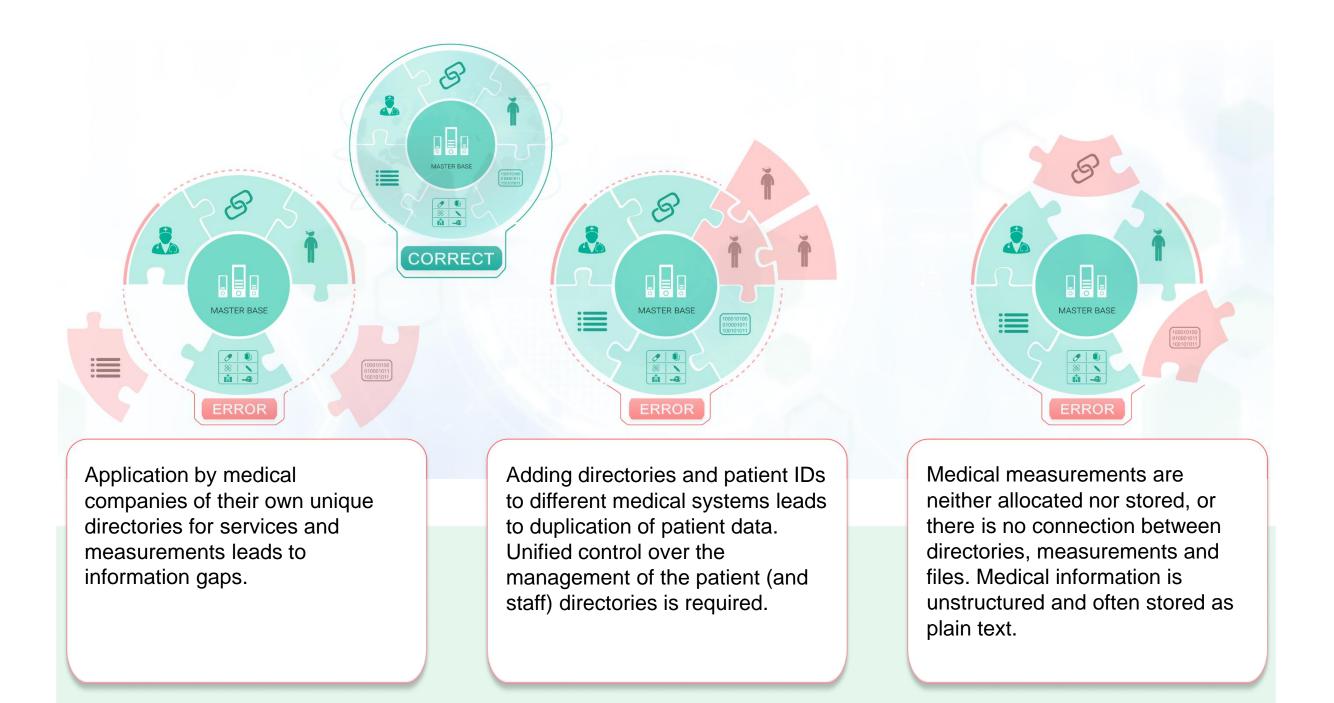
Medical information systems are localized, medical personneloriented solutions, with a purpose of replacing traditional, errorprone, approach to medical documentation management.

Equipment manufacturers shift the focus from the patient to themselves, and develop or apply highly specific information standards.

Insurance and pharmaceutical companies develop directories and tariffication systems that are focused on finances and do not correspond to the actual processes of medical services.

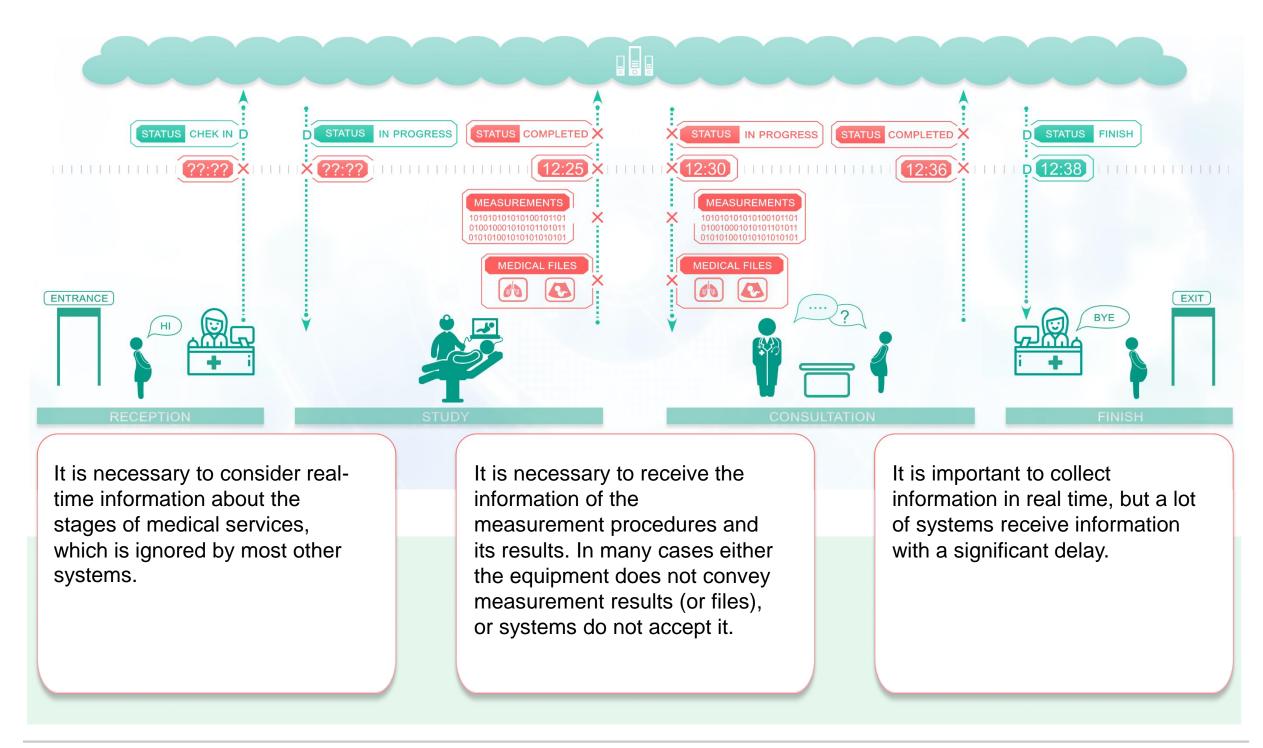


Challenges of digital medical platforms creation



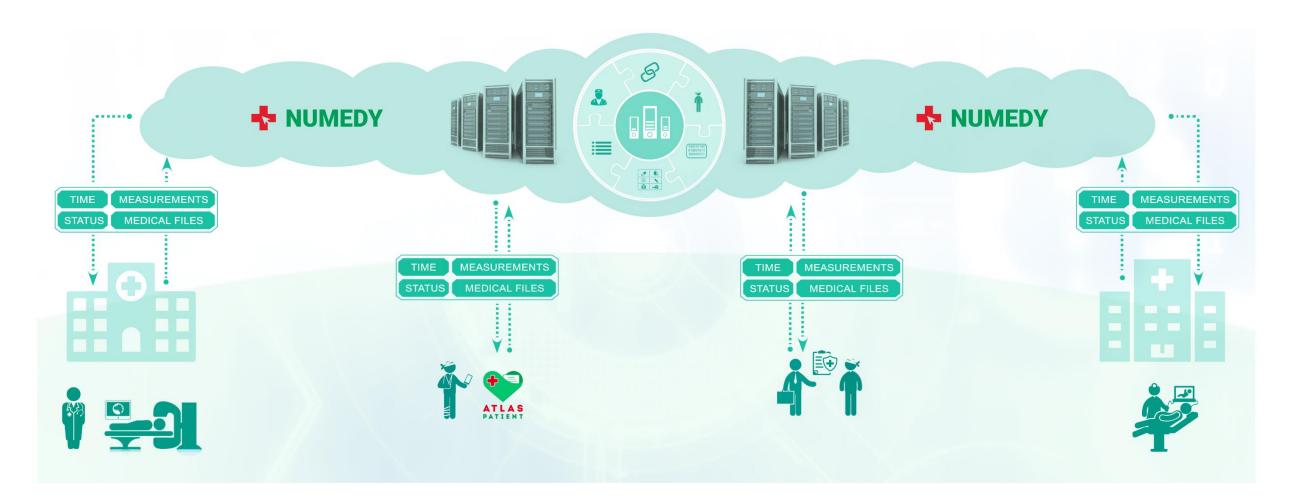


Challenges of digital medical platforms creation





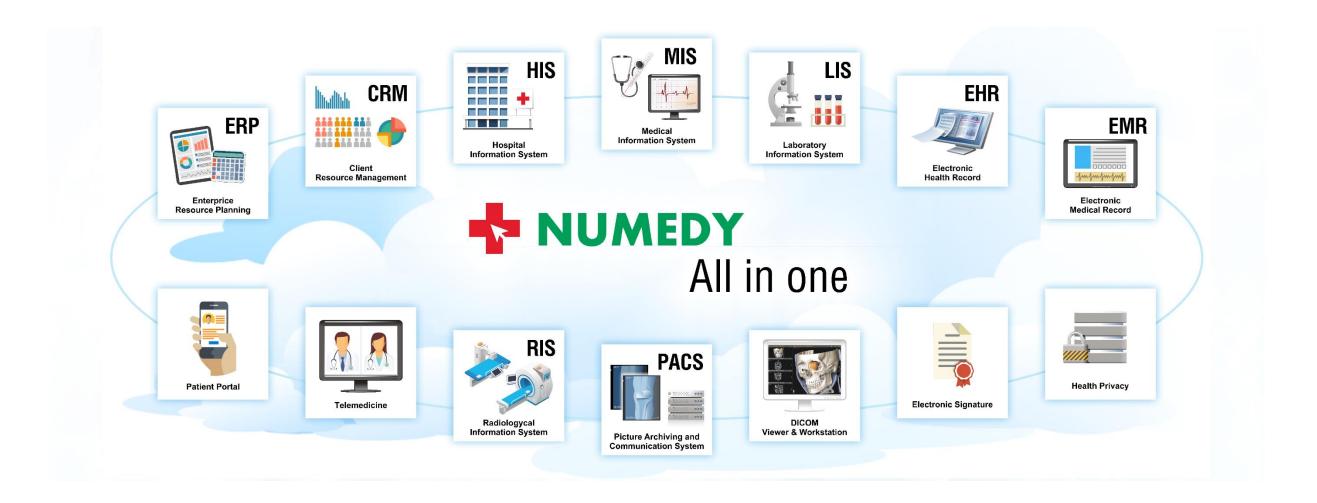
Numedy is a digital medical platform



The term 'Digital Medical Platform' applies to Numedy because of the following three key principles that Numedy has implemented: Multiple participants in a single unified consumer-oriented environment, Common information space, Real-time monitoring and feedback.



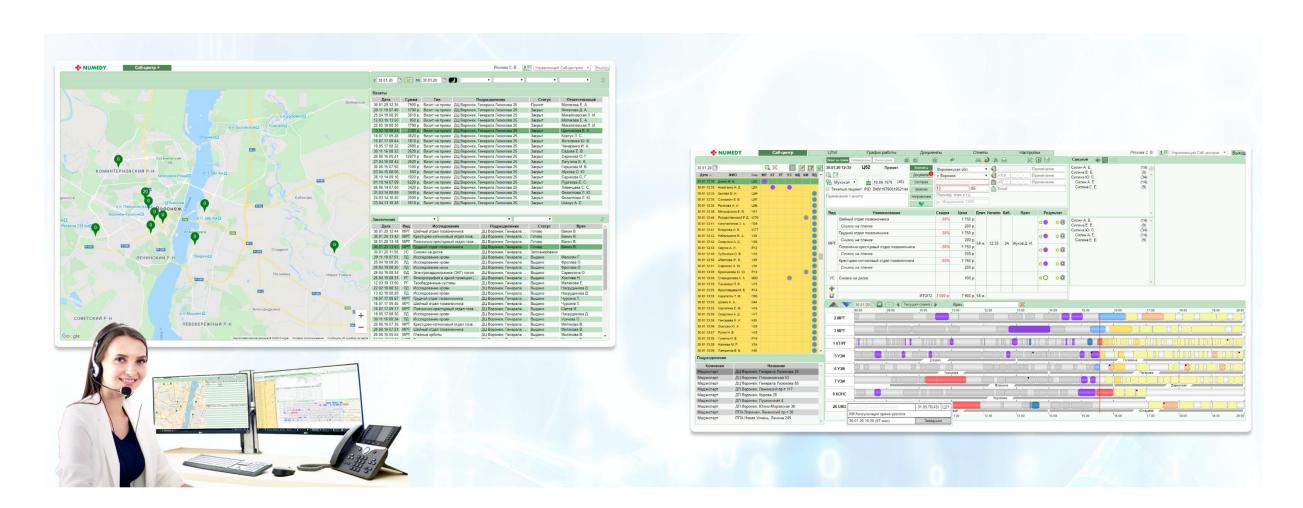
All in one



Numedy platform includes all possible software and services used in healthcare systems. Programs and services are installed at the data center and function as a part of the Cloud system, interacting with one another as a whole.



Platform feature: Reception Desk



The Reception Desk is for managing the patient traffic system, check-ins, appointments, and schedules of medical services.



Platform feature: Viewer



Viewer is a versatile tool for working with various file formats and data, adding comments, taking measurements, performing calculations and creating 3D models.



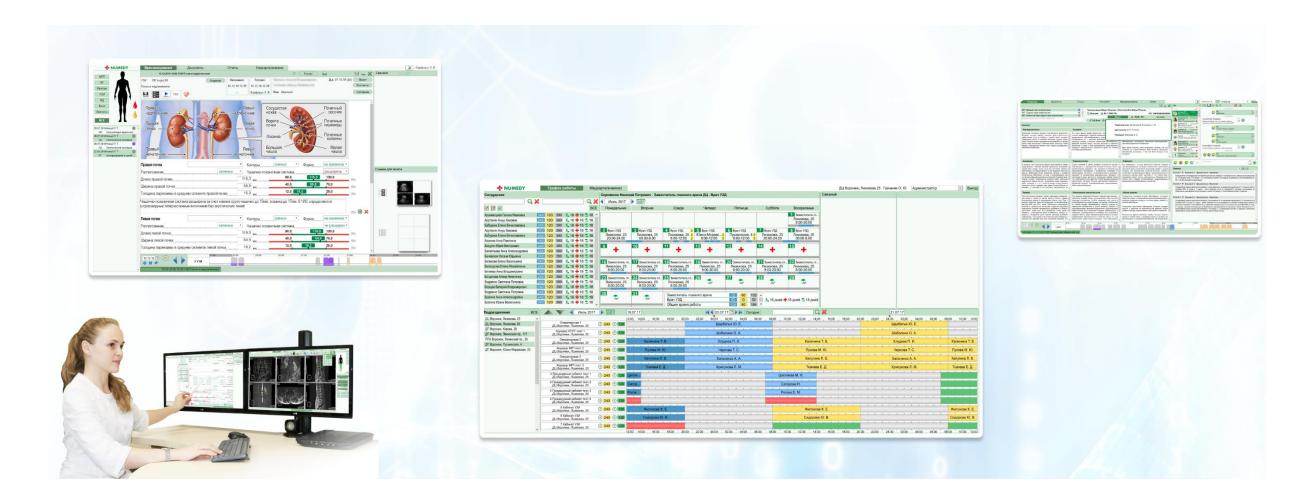
Platform feature: Virtual queue management system



The virtual queuing system is a part of the patient flow management system. The flow management system uses algorithms for calculating optimal patient logistics in the clinic, for regulating the duration and order of the medical procedures, workload schedule of offices, and provides updates on the status of medical services. All the information on the number and status of each office, duration time of the medical service, patients' number and its' order in a queue system is shown on the virtual queue monitor.



Platform feature: Workplaces



Workplace interface provides doctors with all necessary tools – creating and viewing medical protocols, office workload schedule, the Communicator module (managing phone calls, messages, video conferences).



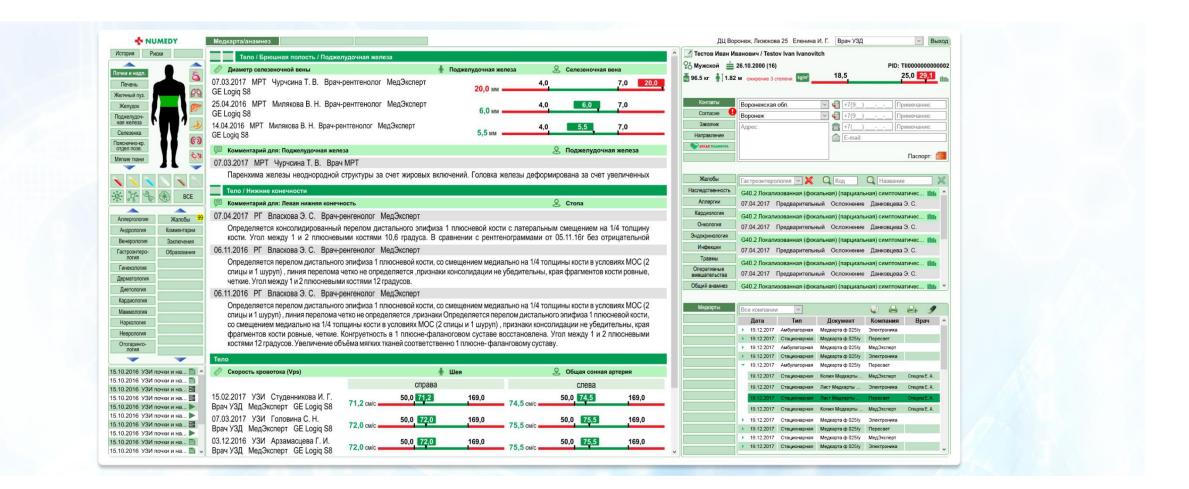
Platform feature: Medical protocols



Medical protocols allow to work with patients' accurate medical data, study results and files. It also includes the dynamics of medical measurements results.



Platform feature: Medical records



The Medical records feature allows to keep a record of the patient's health status and history, visualize dynamics in measurement results and comments, and manage data, including methods for calculating various health risks.



Platform feature: Video-conferencing



Video-conferencing allows medical staff and their patients to make and receive video-calls from each other, to record, view and save video-calls. A patient can book a video-conference with a doctor online using the Patient Atlas.



Platform feature: Medical stations



Medical stations are workplaces with specialized equipment (digitization station, functional diagnostics station, specimen reception station, etc.) designed for an accurate identification of patients, adding data, documents and files. Medical stations provide data transfer from the various medical equipment (audiometer, ECG, Holter, etc.).



Platform feature: Digitization station



The Digitalization station allows uploading files and digital copies of documents. At the digitalization station you can scan paper documents, transfer files from USBs and CDs, and make digital copies of an X-ray film.



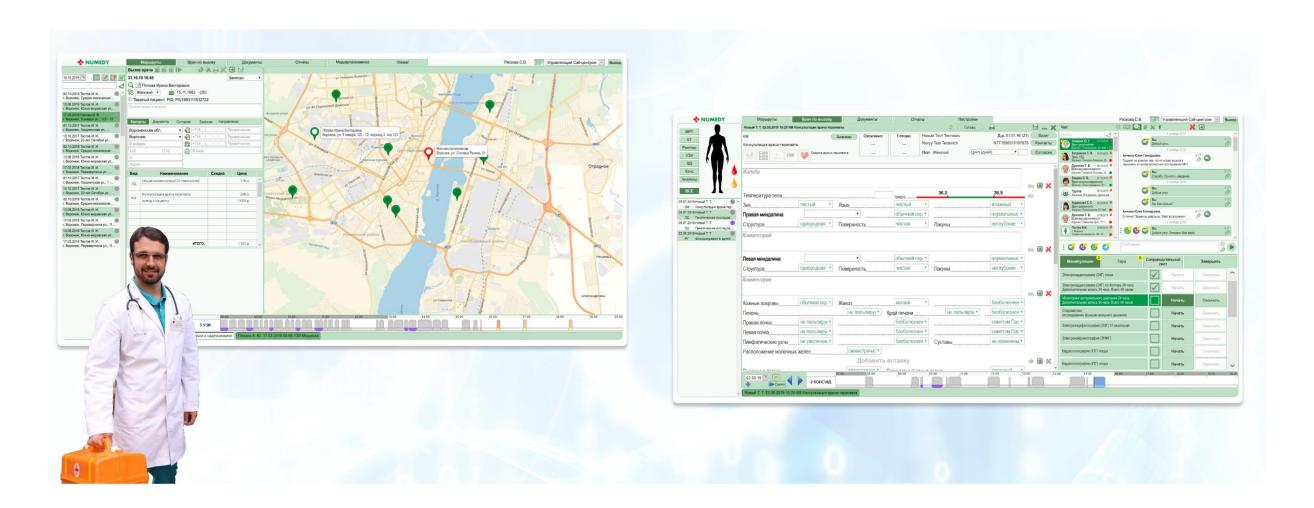
Platform feature: Photo and video capture service



Photo/video capture service allows to take pictures and record videos, as well as to broadcast video-calls to a monitor.



Platform feature: Doctor on call



The Doctor on call workplace interface contains all the necessary functions for fast, high-quality examinations outside the clinic. The Doctor on call service provides optimal logistics for at-home medical care.



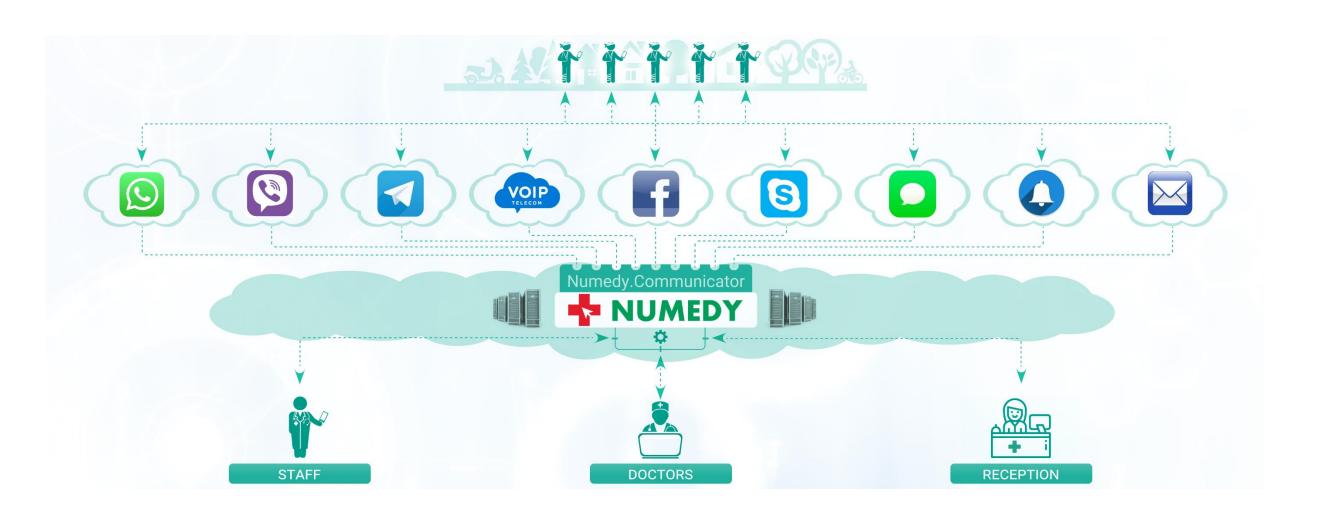
Platform feature: Patient Atlas



The Patient Atlas service gives patients access to their data, allowing to view medical protocols, the dynamics of medical measurements, images, videos, graphs, to upload files, to have video-consultations, to make online booking and to call a doctor.



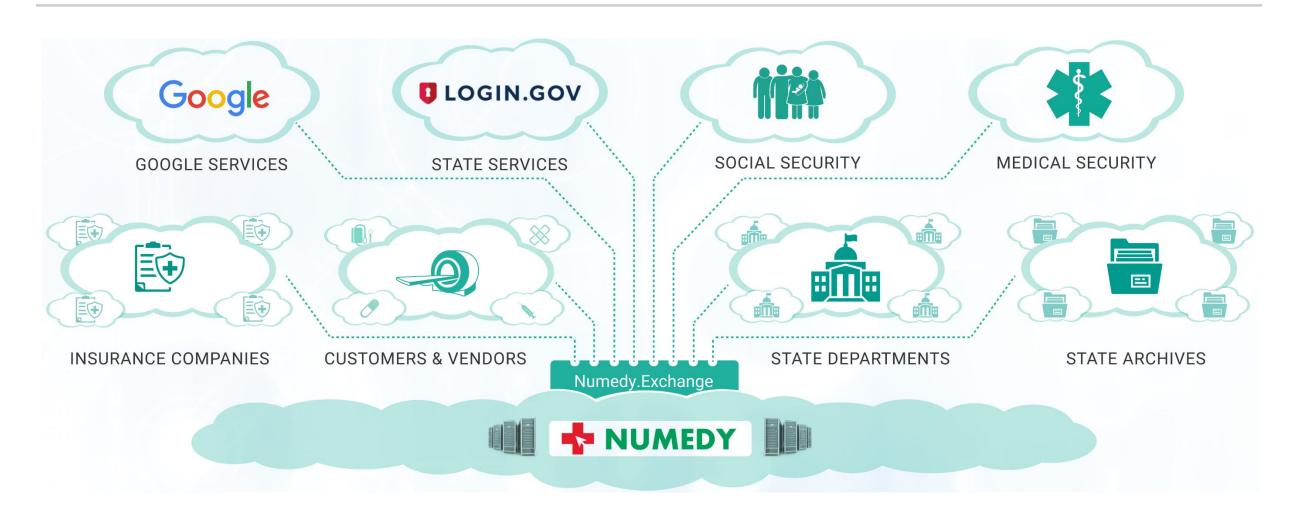
Communicator



Numedy Communicator service is a link between the platform and various messengers or communication systems.

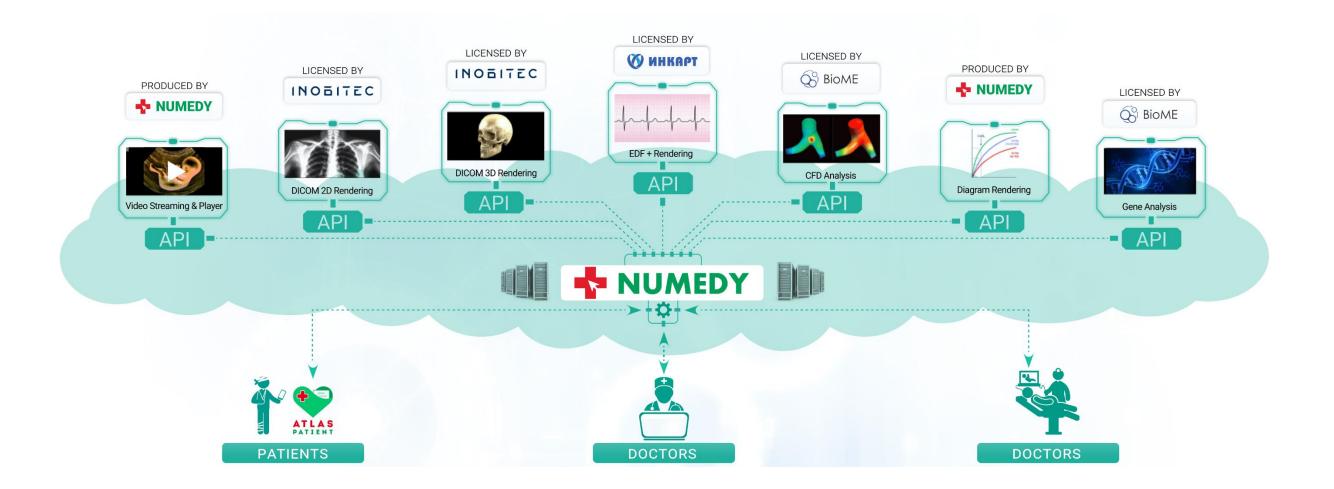


External Resources



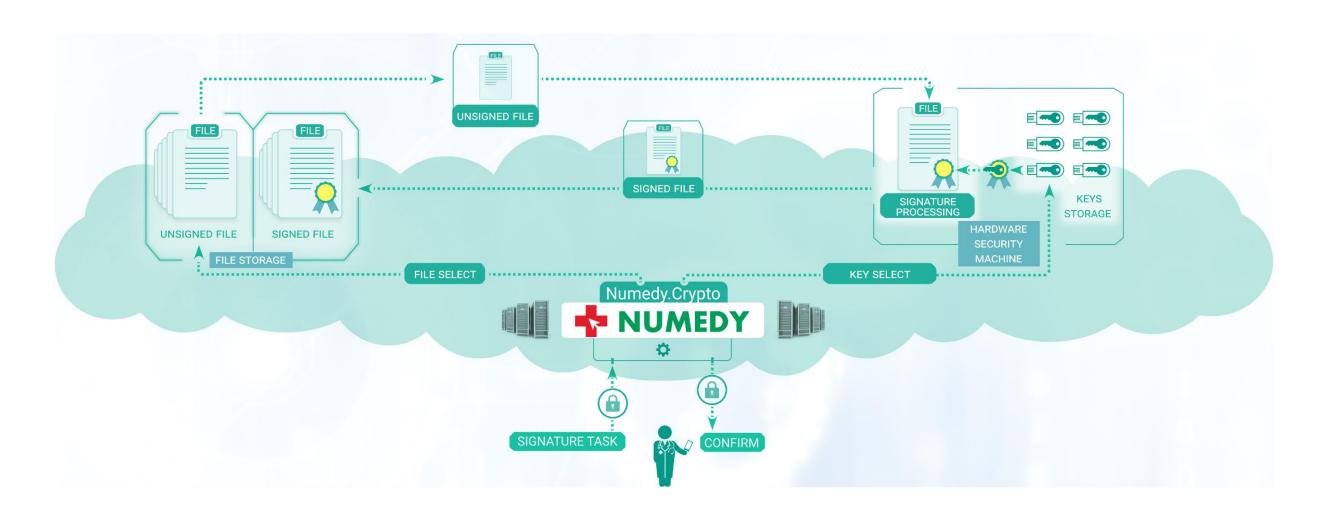
External resources (government systems, Google maps, authorization systems etc.) are linked via Numedy. Exchange service.





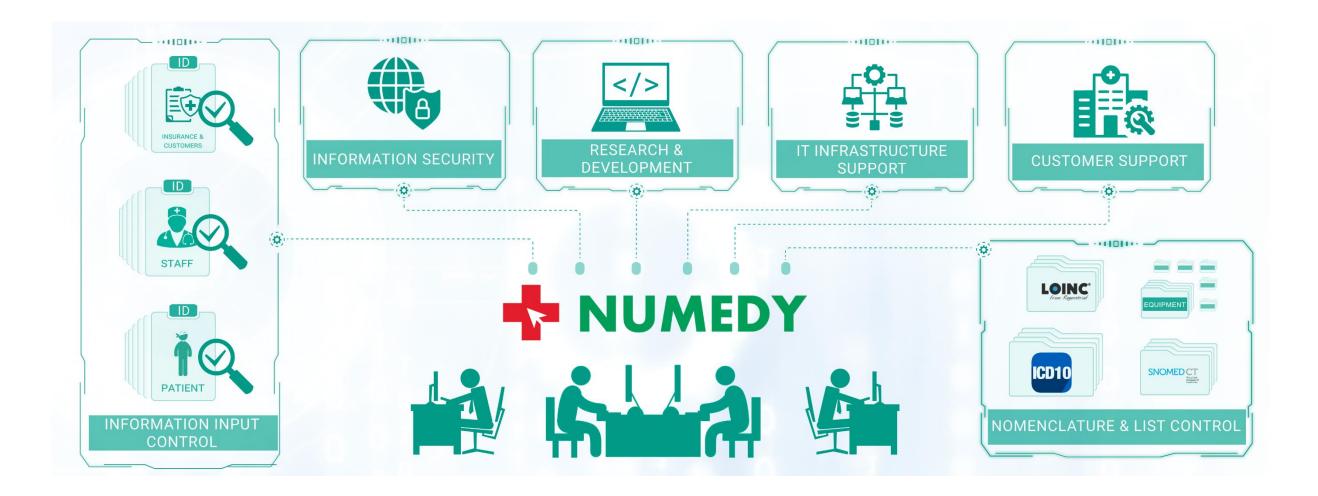
A variety of image rendering and data analysis software can be connected to enable quick and easy user access. This creates a separate market for developers of such software.





The Electronic signature is issued and utilized in a cloud environment, with private and public electronic signature keys and the information to be signed not being transferred to users' devices. Simultaneously, the necessary legal confirmation of medical documents is being done.



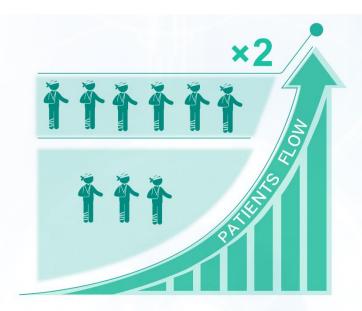


To support the functionality of the platform and the data being processed, the team of the medical data provider performs all the necessary functions, including monitoring the entry of patient and the staff directories and correcting medical information.

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Advantages of using the platform



The number of served patients has almost doubled over a fixed period of time.

The flow of patients more than doubled with the same number of senior medical staff and medical offices, after installing Numedy.



Reducing the probability of medical errors to zero.

Medical decision audit in clinics showed that the proportion of medical errors decreased from 4% to 0,01% after installing the Numedy platform.



Significant reduction in costs and expenses.

Assisting and junior medical staff numbers reduced, and consumption of materials decreased approximately by 50% after installing the Numedy platform in clinics.



Contacts

