Vitaly

National Health care portal

A project that shows the influence and importance of patient care

The need for a
greater efficiency of public health

The project was performed as part of a broader eHealth project in the Plan of Development Programs that is partially funded by the European Union through the European Social Fund. The main goal of the project was to provide a modern level of health services with a single entry point, through which it would be possible to access all electronic health services on a local and national level.

The national eHealth project introduces the use of electronic means of communication in health care, ensuring safe, high quality, an above all effective provision of health services.

The users are always expecting a higher level of health services. By setting up a portal we provided an adequate basis for dealing with the challenges, which are currently prevailing in the health care system. Establishing a national portal with the initial set of services allows to:

- Enhance eBusiness as a standard way of working in health-care;

- Increase the speed and reliability of communication among providers and between providers and users;

- Mobilize adequate resources in the field of information tech-nology and improve the overall quality of healthcare;

- Raise the level of accessibility of health services.

2,000,000
USERS

Who are the users of the portal?

The everyday users of the portal are the citizens who can be listed in the following groups of users:

- Patients and their guardians;

- Medical staff at primary and secondary level;

- Administrative staff;

- Operators of the health system.

A common entry point for all eHealth services

We established a single entry point through which it is possible to ac-cess all electronic health services on a local and national level. As such, the national portal serves as a starting point to search for information. It combines different sources of business information of the organiza-tion, such as databases and other structured data sources, document management systems, as well as other unstructured data sources, including computer programs and external data related to health.

A simple solution to complex requirements

BENEFITS

- **Maximum flexibility**

- **Optimal user experience**

- **Modern responsive design**

- **User engagement**

- **Customization support**

- **Usability and portability**

- **Stimulates patient's self-management**

The solution consists of the open pages which serve as a landing page from where the users can enter the portal. Apart from the login window, the landing page is designed as a set of articles with images that include basic information of the portal, a link to registration guidelines, contact details of the portal owner, search window to navigate through the general topics of the open pages, links to descriptions of other portal services and other static content.

User authentication with a digital certificate

The entry point to the portal serves primarily for identification and authentication of the users and provides links to appropriate services and information. By logging into the portal users have a complete overview of the content related to their roles and permissions. The entry point allows a login with the following authentication options, depending on the security level of the application:

- Username and password,

- Username and OTP (one time password) via a mobile phone,

- Digital certificate,

- Digital certificate stored on a smart card.

The portal features

At its very basis the portal is designed to present a set of basic assets such as: search engine, online suveys, forums and some other useful functionalities:

- Single Sign On, authentication, authorization and user management;

- Support for electronic signatures;

- Integration of the following solutions: ePrescription, eAppointment and electronic health record;

- Adjustments for people with disabilities;

- Personal calendar;

- Portal user support;

Soluton characteristics

- **Certified medical device class I**

- **Modular architecture**

- **Secure access to clinical data**

- **Standard exchange of medical data**

- **Authentication, authorization and user management**

- **Accessibility**

- Appearance management and personalization of the user interface;

- Module for reporting (for different services and groups of users);

- Statistics of the portal usage and results of user engagement;

- Data access records;

- Multilingual support etc.


One platform, many solutions

The project brings not only advanced technology solutions, but represents also a new approach in the health system, oriented towards the citizens. The Vitaly portal is integrated with:

- **eAppointment** - enables electronic referrals and ordering patients to health services on a secondary and tertiary health care level, taking account of the real-time updates on the actual waiting times. Patients can choose a provider with the shortest waiting time from anywhere in Slovenia. This service introduces a single appointment list and controlled waiting times at the national level, which means greater accessibility to the medical services, an overview of all providers in the country and the option to choose the best available date.

- **ePrescription** – the service enables formulation of electronic prescriptions that a doctor enters into the system, from where the pharmacy receives it at the request of the patients to issue their medicines. The application provides greater patient safety, as the doctor and the pharmacist can check the interaction between the drugs that the patient is already taking, and of course – no paperwork.

A strong social component

The social features represent some of the main characteristics of the portal:

- Online forum - part of the Liferay Collaboration Suite services. It includes full support for organizing and managing a web forum.

- Module for publishing and editing news, events and other similar contents.

- Module for the preparation and execution of different eTrainings and eLearning.

- Module for creating and publishing online questionnaires and other forms.

- Blog - for posting articles related to the contents and services of the national portal
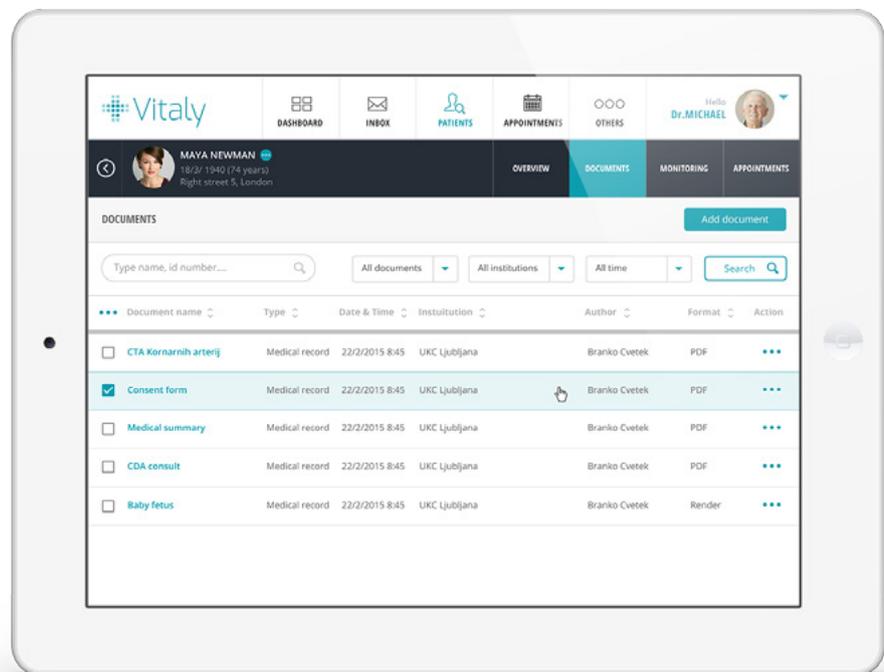
Documents module

The documents module is built on IHE XDS standard, which defines the exchange of medical documentation between different institutions and users. The system includes a connection with the Slovenian national interoperable backbone. A special integration interface that enables connection to the backbone was developed for this purpose. Vitaly is connected with the Slovenian national backbone in a non-standard way, through an IH adapter. The portal converts the data received from the IH adapter into the standard XDS.b IHE profile and thus enables users an overview of the documents.

- **Integration with: ePrescription, eAppointment and EHR**

- **Electronic signatures**

- **Single Sign On (SSO)**

- **Portal user support**

- **Module for reporting**

- **Personal Calendar**

- **News, Forum, Blog**

- **eTrainings and eLearning**

- **Data access records**

Support for people with disabilities

The portal supports also adjustments for people with disabilities in accordance with the guidelines given from the Ministry of Health (WCAG 2.0).

Service oriented architecture

The information architecture of the health portal is designed in a modular way that allows gradual addition of functionalities, following the principles of the service-oriented architecture.

Project implementation

As a basis for the project implementation, we used Vitaly health care portal on top of Liferay as a technology solution. We designed intuitive user interfaces adjusted for different devices (responsive design) and visually aligned with the institutional brand book. This was followed by a development of numerous portlets, which allowed us to provide or integrate the requested functionalities.

Parsek has been providing eBusiness solutions in Healthcare, Insurance and Telco domains for more than a decade. To satisfy the needs of our international customers we use a set of enterprise grade technologies and established online products that allow significant diversification from other important players on the market. Our value preposition is founded in the successful digital transformation process implementation with our customers and partners.

During the development of our own products we established a proactive relationship with technology partners who operate throughout the EMEA region, such as: Cisco Systems, Oracle, Liferay etc.

For more information about our company and references don't hesitate to contact us at

E: info@parsek.com
T:+386 (0)1 479 04 80
www.parsek.com

Let's design the platforms of the future together