

## ClinData for data stewardship

### WHAT IS CLINDATA

ClinData is software solution for collecting of clinical and laboratory data on patients included in various research projects and clinical studies. ClinData software features exceptional flexibility in design of research and clinical projects, ability to store data from several different, unrelated projects in parallel and secure access in multicenter studies. The data is stored in a parameterized format and ready for further statistical analysis or visualization and processing. More information about ClinData is available at webpage: <https://confluence.imtm.cz/x/NAFp>

### ARCHITECTURE

ClinData software has web-based client/server architecture, the application runs on the server, the user is connected through a web browser from computer, tablet or smart phone. All communication between the client and the server is secured by SSL encryption, which is currently industry standard.

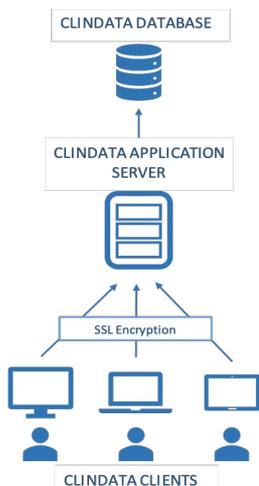


Figure 1. Basic schema of client/server architecture.

### OPERATIONAL DATA

ClinData software is successfully used in more than 40 registries or clinical studies maintained by IMTM. It contains data from more than 50000 patients. Data covers selected clinical diagnosis, laboratory data, therapy or genomic data and are stored in parametric way suitable for further statistic analysis. There is about 700 active users from clinical stuff.

### TECHNOLOGY

The Java 8 programming language is used for the server part of the application. It allows sustainability and long-term development. The client interface uses open-source technologies HTML, Java Script, jQuery, Angular, Bootstrap.

### CLINDATA WORKFLOW

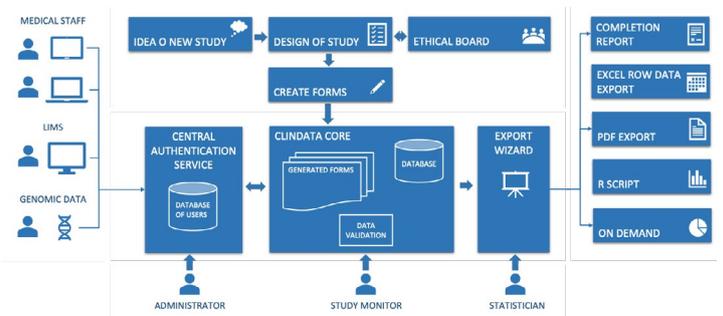


Figure 2. ClinData workflow can cover needs from simple scientific databases to multi-centric clinical studies.

### SAFE ENVIRONMENT FOR STORING OF BIG DATA

ClinData software is connected to IMTM Object storage which allows storing of big scientific data (genomic, proteomics) in safe way. Capacity of the object storage more than is 2.5PB. Objects can be directly linked to ClinData forms to allow accessing all data from one place.

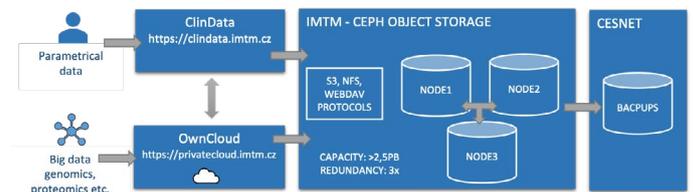
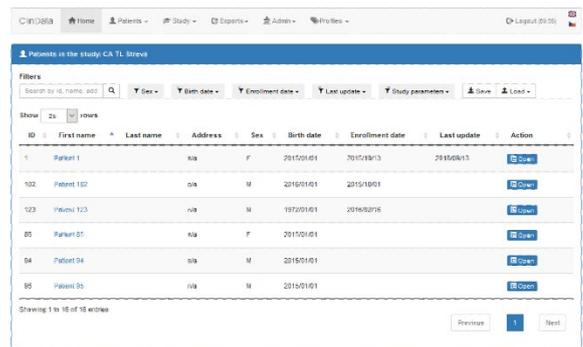


Figure 3. Basic schema of connection between ClinData and IMTM Object storage

### CLINDATA USER INTERFACE

ClinData software is connected to IMTM Object storage which allows storing of big scientific data (genomic, proteomics) in safe way. Capacity of the object storage more than is 2.5PB. Objects can be directly linked to ClinData forms to allow accessing all data from one place.



ID	First name	Last name	Address	Sex	Birth date	Enrollment date	Last update	Action
1	Patient 1		via	F	2015/01/01	2015/10/13	2016/06/15	EDIT
102	Patient 102		via	M	2016/01/01	2015/10/01		EDIT
103	Patient 103		via	M	1972/01/01	2016/02/16		EDIT
05	Patient 05		via	F	2015/01/01			EDIT
04	Patient 04		via	M	2015/01/01			EDIT
06	Patient 06		via	M	2015/01/01			EDIT

Figure 4. List of patients allows filtering and sorting them according to any parameter of study.

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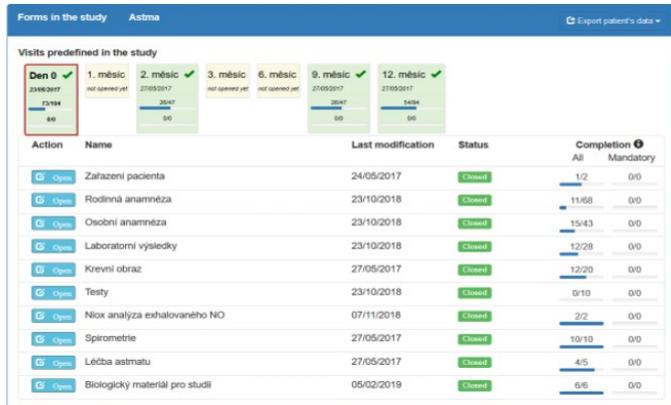


Figure V. Patient's details page displays information about forms (CRFs) and their statuses.

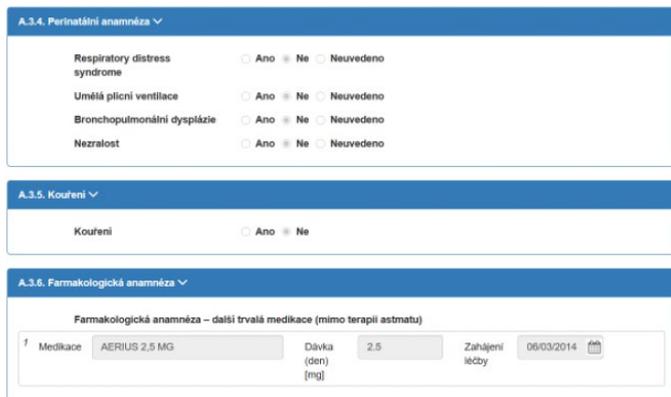


Figure VI. Generated form (CRF).

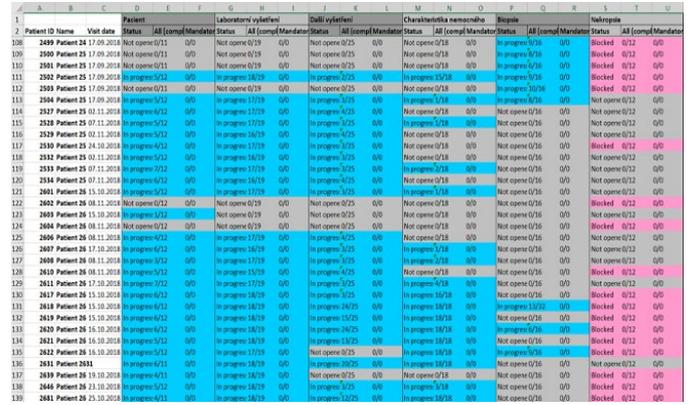


Figure VII. Completion report.

## CONTACT

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