Liferay Communication Infrastructure

Search in conversation
Your friend sent a nice quote but you don’t remember how exactly did it look like? Don’t worry! You can search the whole conversation thanks to the search box.

Message timestamp
Each message has a timestamp thus you can easily see when it was delivered to you.

The main focus of this project is to create a modern instant messaging communication system in the environment of a Liferay portal (LIMS).

The project also provides a platform which visualizes connections between participants and thus shows interesting social patterns that can be used for a variety of different purposes such as Social Network Analysis.

LIMS is a part of the emerging Czech Technical University Information System. It is also a part of the Liferay marketplace and thus distributed among a large group of Liferay portal instances.

The project won a runner-up price in the Liferay marketplace app contest.

Liferay Portal
Liferay is an independent market leader in the portal industry. Portal might be described as a single web-based environment from which all of a user’s applications can run. Liferay is thus a container for small applications called portlets that encapsulate functionality. These applications are integrated together in a consistent and systematic way. Liferay possess their own marketplace with portlets similar to Google Play and the Apple App Store.

Instant Messaging System
As a part of this project a portlet for Instant Messaging was created (the figure above). Given portlet serves as a client to the Jabber server which stores all data such as conversations and information about users.

Social Network Analysis
Social network analysis is defined as a “tool that can be used to analyze the structure of interpersonal relationships within a group of individuals. These relationships, taken collectively, constitute a network. SNA treats individuals as nodes and the relationship between individuals as linkages.” The project includes a platform which provides data for SNA in a standardized Gexf format. Given data can be then easily visualized (the figure on the right).

University IS Integration
LIMS is integrated to the emerging Czech Technical University Information System. It aims to be a frequently used channel that will connect multiple groups like students, teachers, employees and alumni.