

This thesis deals with the design of a framework that allows distributed processing of intradepartmental batch business processes. The framework should speed up the processing of business processes and enable their monitoring and management.

The author of the thesis decided to use an enterprise service bus in order to create a powerful distributed framework which will be easy to use by application programmers. Business processes are divided into parts – services that are deployed on individual nodes of the enterprise service bus in order to achieve distributed processing. Services may be deployed on individual nodes in many instances in order to achieve parallel processing as well. Services are coordinated by a process manager according to the plan. This means that the application programmer cares only about creating the business logic of individual services.

The motivation was to accelerate the real business process which handles a large amount of data. Acceleration was achieved by applying database optimizations and subsequent incorporation of several computers via the enterprise service bus.

The framework is based on the enterprise service bus JBossESB, process manager jBPM and distributed transactions coordinated by the WS-Transaction family protocol.