

# Abstract

Title: Application Server NG  
Author: Marie Píčová  
Department: Department of Distributed and Dependable Systems  
Supervisor: Mgr. Pavel Ježek, Ph.D.  
Abstract: This thesis focuses on a proprietary solution of application server providing business process execution. An existing solution of such application server is analyzed with the focus on business process programmer experience. From the analysis is made a proposition of a new solution, which implementation is the major part of this thesis. The implementation uses technologies like: Microsoft .NET, WCF, Oracle, ODP.NET, PostgreSQL, Npgsql and PostSharp.  
Keywords: Application server, programming practices, asynchronous programming, aspect programming, distributed transactions, .NET, WCF, Oracle, PostgreSQL.