

tXServer – Your central mainframe gateway



„Your online connection UNIX/mainframe“

In the framework of a project ets has developed the so called tXServer (**T**ransaction **eX**change **S**erver) in cooperation with a customer. The tXServer variably connects UNIX environments to mainframes.

The tXServer

The tXServer is a middle-ware component, which allows using services at the mainframe within UNIX applications. So it is an important module for service oriented architectures – so called SOA. It enables us to reuse services, one time defined at the mainframe, for different applications at the UNIX environment.

In the present case it had concerned a construction financing, which had required the services of the bank's CoreBanking system. It was valid to implement both, reading services (for example account information) and writing services (for example to open an account).

The UNIX application writes its request in an order database. This data base triggers the tXServer, which accepts the data and prepares them for the mainframe service. At this the tXServer takes care of among others:

- transaction security
- data conversion
- user authorisation
- request pooling
- error handling

Then the request will be processed by the corresponding service at the mainframe and the result will be send back via tXServer to the UNIX application.

As a matter of course the tXServer can be used also for each other UNIX/mainframe connection. By its high parameterability it is applicable for different tasks.

tXServer: UNIX mainframe connection for SOA

tXServer repository

An efficient repository enables a multiplex use of the tXServer. At this, one of the main subjects is the definition of the data structures. Both, information about the data structure (format: XML, plain data...) and the description of the fields, will be stored. The tXServer stores these descriptions in a repository database, from which the data description will be generated into XML format. At the same time both, the data definitions for the client and the data definitions for the mainframe, will be stored and concatenated (field A of the client is field B of the mainframe). Possible field conversions will also be stored there. By these parametrising new data structures or changes of existing data structures can be implemented more efficient, without having to implement large application changes.

**New or changed data structures –
no issue with tXServer repository**

Services of ets within the project

Within these project ets had rendered following services:

- authoring the basic concept
- authoring the detail concept
- authoring the data management concept
- project management
- developing the tXServer (incl. repository)
- initializing the repository
- testing the tXServer
- integration test with the client software
- integration test with the mainframe software
- planning the launch to production
- executing the launch to production (incl. the licensing procedure)
- maintaining the production versions

Technical environment

The technical environment of the project for the tXServer is constituted as follows:

- operating system: UNIX (HP UX)
- database system: Oracle
- connection mainframe/UNIX: TCP/IP native
- programming language: C++
- development environment: Linux

we can support you as follows:

- insetting the tXServers
- repository maintenance
- project management
- realising additional components (in the UNIX and mainframe environment)
- cross-platform integration test
- planning the launch to production
- user training
- and more

We have a long experience both at the mainframe and client/server sphere (UNIX/Linux/Windows) and can optimally support you with our know-how particularly within heterogeneous system architectures.

That is, what we are able to do for you

Should you have similar requirements for a project, for example:

- UNIX systems which need mainframe services

Our qualified employees are pleased with your challenges!

