

Abstract

Java offers a number of advantages for software development. These advantages can be beneficiary also to non-generic platforms such as telecommunication switches. This paper examines a possible implementation of a Java execution system on the APZ 212 telecommunication switch central processing system. An overview of the Java Virtual Machine Specification and of the APZ 212 is given. The problems and possibilities of implementing a Java execution system based on the Way-Ahead of Time compiling (WAT) execution model is presented.

The study shows that it is possible to implement a Java execution system on the APZ 212, but that several problem areas exist. The main problems arise in the fields of negative number representation and data sharing between objects.