

SIEMENS

Getting Started with IMS/SIP



Getting Started with IMS/SIP Application Development

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Introduction

This document is a brief introduction on developing IMS-based SIP applications. It is meant to give you a rough guideline through the software development cycle.

The Siemens IMS/SIP Developer Program offers support for developing applications that harness the services of a 3G/IMS network and use the Session Initiation Protocol. By using these technologies, you can create a new breed of rich integrated applications with combined functions such as Presence, Location and Instant Messaging.

Analysis and Design

The first task in the development process will be to familiarize yourself with the Session Initiation Protocol (SIP), the 3GPP IMS standards and the architecture of a 3rd generation network. This will help you understand the different network elements involved and the communication on the client and server side. Links to in-depth documentation on these standards and technologies can be found on the Developer Portal web site in the Resources, Documentation section.

Following this phase you should look at the available APIs on client and server side and the APIs which can be used to access the IMS services. At the Developer Portal web site you can access whitepapers and other documentation that explain these APIs and which types of applications can be created with them.

Implementation

When your design phase is finished and you have a clear view of your software's architecture and the required components, you can start to implement your application code. This process is supported by the Software Development Kits (SDKs) for the client side and the application server provided by Siemens. You are encouraged to take a look at the demo application and its documentation which contains source code examples that help with many common tasks.

Tests and Validation

The architecture of your application defines how it needs to be tested. Peer-to-peer applications can be tested with an IMS emulator, while client-server applications also require a runtime version of the SIP application server. At the Communications Group Developer Program we are trying to make all the necessary testing tools available to you.

Eventually you will have the possibility to test your application in our IMS testing environment. In this environment we also offer a validation program that tests and certifies that the application works properly within IMS network.