

Open IMS Core and its practical application in research areas

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IMS – IP Multimedia Subsystem

- 3GPP designed architecture for 3G and further generation networks
- Oriented on the multimedia services as a key benefit
- Based on the open protocols (SIP, Diameter, MGCP...)

Intro

Features

Development

Research

Education

SUT

Open IMS Core project

- Open source implementation of core elements by Fraunhofer Institute (Berlin)
- Open IMS Core implementation is based on SIP Express Router and MySQL
- Compliant with 3GPP specifications

Intro

Features

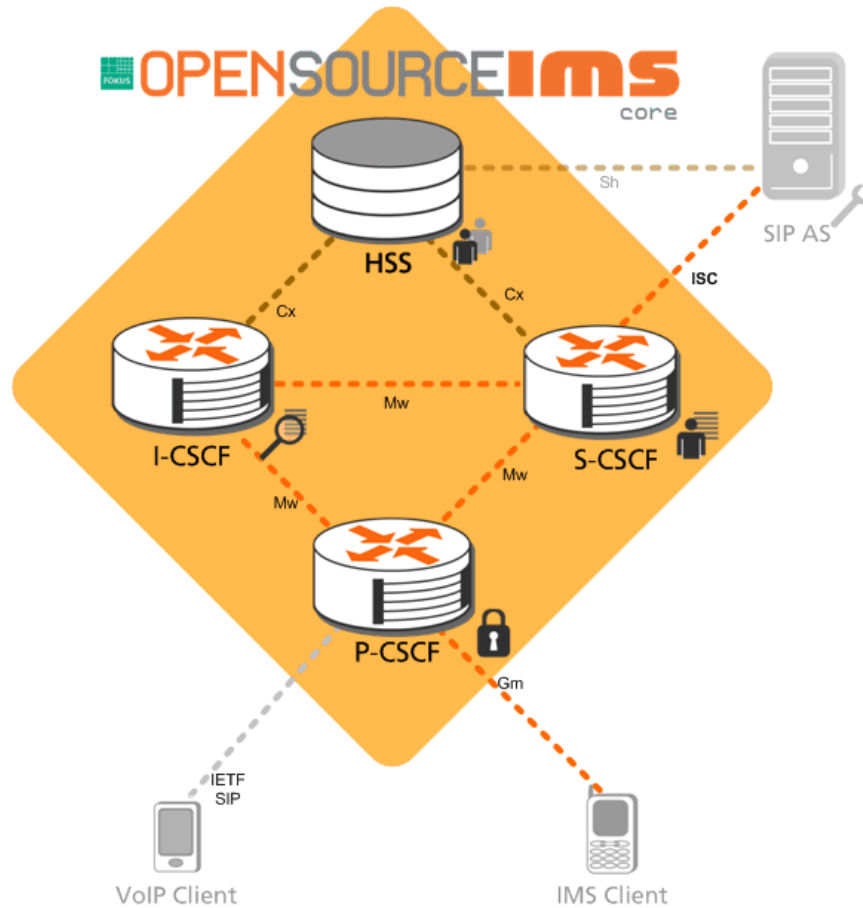
Development

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Open IMS Core Architecture



Call Session Control Functions:
process SIP signaling for
session establishment and
service routing

Home Subscriber Server:
User data storage

Intro

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Open IMS Core features

- Flexibility and robust performance
- ISC interface to connect the application server
- Charging data generation
- PSTN/PLMN interconnection module
- SMS-gateway capability module
- Emergency session establishment use case
- and more

Intro

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Open IMS Core for developers

- Service development
 - Excellent IMS playground
 - Telco and converged services
 - Wide range of application server solutions available (BEA Web Logic, Mobicents, Sailfin, etc.)
 - Mobile TV, Business apps, Internet Mashup, Mobile Gaming, Unified Communications and so on...

Intro

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Open IMS Core for developers

- User application development
 - Testing and debugging
 - Interoperability issues
 - Client-based IMS services development

Intro

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Open IMS Core for researchers

- Architecture issues
- Security issues
- Performance testing and querying model researches
- Business models analysis

Intro

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Open IMS Core for education

- Lab practice work
- Student projects
- Graduation thesis

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Open IMS Core application practices in the St. Petersburg Bonch-Bruевич State University of Telecommunications

- Graduate works: topics around the IMS
Testbed, SBC in the IMS, MRFC in the IMS
- Ph.D. Research: Querying model analysis for
the IMS
- Education: Lab practice course, student
projects

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Business

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Thank you

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