



Session Initiation Protocol (SIP) Fundamentals

Session Initiation Protocol (SIP) Fundamentals is a signaling protocol for conferencing, telephony, presence, events notification and instant messaging.

Session Initiation Protocol (SIP) is an application signaling layer protocol for initiating, modifying, and terminating an interactive user session that involves multimedia elements such as video, voice, instant messaging, online games and virtual reality. A SIP session could be a simple two-way telephone call or it could be a collaborative multi-media conference session..

This SIP fundamentals course provides an overview of SIP, its components, and how it works. It covers the SIP signaling, proxy server, redirect servers, location servers, and registration servers.

SIP Overview

- Describe SIP
- Explain the Importance of SIP
- SIP vs. H.323
- SIP, H.323, MGCP and Megaco
- SIP Context and Architectures
- Session Description Protocol (SDP)
- HTTP, SMTP and SIP
- SIP Extended Features and Services
- Call Control Services, Mobility, Interoperability with existing Telephony Systems
- Supported Services
- Interoperability of Services and Features
- Interworking with PSTN
- Basic Call Features
- Quality of Service Issues
- Network Services
- Conferencing and Addressing
- Integrating SIP with PSTN
- SIP in PVv4 and IPv6
- SIP and 3G Wireless

SIP Components

- Components of SIP
- SIP Clients
- SIP as a Peer-to-Peer Protocol
- User Agent Client (UAC)
- User Agent Server (UAS)
- SIP Servers
- Using a Proxy Server
- Using a Proxy Server
- Using a Redirect Server
- Proxy Server
- Redirect Server
- Registrar
-

SIP Messages

- Message Types
- Requests & Responses
- Header Fields
- Bodies
- Status Code Definitions
- Informational 1xx
- Successful 2xx
- Redirection 3xx
- Request Failure 4xx
- Server Failure 5xx
- Global Failures 6xx