

Custom SBC features on demand with Session Plug-in Language (SPL)

Knowing that unique functional requirements exist in many of today's IP communications services and applications, Oracle has extended its ability to rapidly integrate new product capabilities with Session Plug-in Language (SPL) technology: an event-based programming tool supported by the Oracle Communications Session Border Controller (SBC) Operating System.

Overview

To normalize signalling and resolve interoperability issues in multi-vendor environments, Oracle products provide extensive programmability. One such feature set is SPL: a rules-based engine that gives SBCs a practically unlimited ability to inspect and manipulate SIP messages and payloads. Based on the popular "Lua" scripting language, SPL offers a way to expediently develop customized feature extensions—known as plug-ins—that supplement the active system configuration in order to provide additional flexibility and controls to real-time communications sessions.

Oracle Communications Consulting (OCC) helps both service providers and enterprises benefit from SPL through the rapid introduction of unique functionality without the disruptions, extended timelines, or operational impacts normally associated with major software upgrades. OCC works directly with Oracle customers to develop functional requirements and a comprehensive Statement of Work (SOW) that ensures the new feature, or feature extension, is designed, developed, tested, documented, delivered and supported in a timely and complete manner.

SPL solves critical operational challenges

The Oracle Communications Consulting team has developed dozens of SPL solutions for SBC customers. The following selection of plug-ins illustrates the types of problems that SPL can solve:

- Our **Random Tag Generation SPL plug-in** generates randomized To: and From: tag parameters for SIP requests and responses, and maintains those randomized tags the lifetime of that session. This measure protects calls from hackers.
- Our **Number Encrypt SPL plug-in** provides the ability for an Oracle SBC to encrypt the username in a configurable list of headers containing a URI, and decrypt them on return.
- Our http **Call Info SPL plug-in** provides the ability for an Oracle SBC to report geolocation info. In this case, the SPL issues an http REST post



“Our SPL is working and doing everything that we expected it to do! We haven't found any limitations with the plug-in. This has been a huge relief to our organization.”

- Senior Manager of Service Engineering for a Tier 1 European service provider

Key features of SPL:

- Rapid integration of customer-specific enhancements
- Complete and detailed functional description
- Extensive plug-in testing

request to retrieve geolocation information, embeds that information into the INVITE, and then forwards the INVITE to its next hop.

With complex technical requirements such as these, it is easy to understand the value that SPL brings to Oracle customers: our plug-ins address extremely challenging issues without the need for SBC feature development cycles.

SPL unlocks powerful new Stateful HMR capabilities

Much beloved by Oracle customers, Header Manipulation Rules (HMR) is a mission critical feature set available exclusively on Oracle SBCs and related products. HMR provides customers the ability to alter SIP messages in real-time through programmable rulesets encoded directly within the SBC configuration itself. On a near daily basis, network operators count on HMR to solve interoperability issues and overcome vendor defects.

However, HMR out of the box it is purely a transactional capability: it can take action on a SIP message as it traverses the SBC, but once that message is gone, its contents and any changes are forgotten by the SBC.

OCC has developed a ground-breaking SPL that extends HMR, making it “stateful”. When an HMR is run within this SPL container, information from SIP messages can be stored away and retrieved for subsequent messages within that SIP dialog. This capability is particularly significant when processing HMRs on call flows that feature re-INVITE sequences and multiple SDP exchanges. Best of all, our Stateful HMR SPL is available off the shelf: once activated, operators can use standard rulesets to dramatically augment the power of their HMRs.



Key benefits of SPL:

- Enhancement availability that is independent of software release schedules
- Confidence and assurance that the delivered SPL plug-in meets the agreed-upon requirements
- Prior functional verification and assurance of overall system functionality for rapid introduction into live network

Trust the experts

SPL helps Oracle customers address unique requirements without a need to wait for mainline software releases, or a need to invest in alternate software and hardware solutions. OCC has developed dozens of SPL solutions that have helped Oracle customers overcome unique requirements and challenging interoperability issues. Service providers and enterprises worldwide trust Oracle to secure their voice networks; you can depend on OCC to deliver SPL solutions that address the complex demands placed upon your network. Oracle Communications makes networks work – and we keep them working.

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