

Call Session Control Function

Provides core signaling and control within the IMS network.

Overview

With more than 200 fixed and mobile IP multimedia subsystem (IMS) trials in progress it is clear that the move to a fully converged telecommunications network is underway. Providers are looking to the technology to create new revenue streams and provide unified services across their disparate access networks. As operators make the IMS transition, it is critical that they create a core control layer that supports interoperability and access-independent, end-to-end service.

The benefit of IMS is its flexibility, but there is a downside - that same flexibility creates management complexities. Operators must interwork not only a myriad of technologies but also resources to move applications seamlessly across networks. There are a multitude of vendors, each with its own IMS implementation, from which to choose. The key challenge for operators is to avoid the pitfall of creating IMS islands of vertical applications that result from deploying non-standard, proprietary IMS or session initiation protocol (SIP) solutions.

To fully realize the benefits of IMS, operators must create a core session layer with the flexibility and scalability to reuse common components and interwork a variety of technologies. History shows that the signaling and session control layer is critically important to any large-scale network architecture. The 3rd Generation Partnership Project (3GPP) recognizes this fact in the modular IMS architecture it proposes. By disaggregating transport, control and application layers, the approach enables carriers to reuse common components such as presence and location and run a wide range of converged services across any access network.

Product Description

The 3GPP IMS standard defines the call session control function (CSCF) as the most important control component of the IMS architecture. The CSCF is responsible for all of the signaling between the transport, control and application planes. Because of its critical function, a purpose-built, standards-compliant CSCF is essential to the long-term success of IMS networks.

Tekelec's EAGLE XG CSCF application, which is fully compliant with 3GPP standards, is purpose built to provide core signaling and control within the IMS network. This standards-based approach prevents the costly "islands of IMS" pitfall, enabling service parity, regardless of network technologies, while improving the uniformity and success rate of IMS

services.

Benefits

- **Migrate networks seamlessly.** The CSCF application enables operators to migrate from circuit-switched technology to next-gen network (NGN) and IMS networks at their own pace - without major network overhauls. Operators can deploy IMS services and build the foundation for a multimedia network without interrupting revenue streams from existing services and applications. Integration with the EAGLE 5 platform provides seamless interworking across network domains to deliver existing as well as new IMS services and applications

- **Flexibly blend and coordinate services.** Feature interaction across multiple services is provided by The EAGLE XG's Service Broker application in conjunction with Tekelec's Service Mediation application, which reside on the same platform. This interaction and blending is performed using filtering, session context, configured policy and presence. Criteria used in making these determinations include network load, time-of-day and a set of precedence rules, which are based on current subscriber activity

- **Reduce equipment,** maintenance and back office integration costs. The solution's high-density ATCA platform supports multiple applications on a single platform, which simplifies operation, administration and maintenance

- **Deliver advanced IMS services.** Tekelec utilizes an advanced telecommunications computing architecture (ATCA) shelf, equipped with server blades, to facilitate high availability and provide a dense, highly scalable solution. Clustering technology strategically places the most common IMS functions in close proximity to reduce latency times. The result is a high-performance, low-latency core IMS routing platform that provides a solid foundation for delivering advanced IMS applications

- **Reduce startup costs.** The optional onboard subscriber database and breakout gateway control function (BGCF) reduce the costs of initial IMS deployments. Operators can manage subscriber data and interwork with the circuit-switched networks locally without deploying additional network nodes as they begin to roll out new IMS services