



IMS-VOLTE MEDIATION

LAUNCH NEW IMS SERVICES FASTER
AND SCALE COST-EFFECTIVELY
ACROSS MULTI-VENDOR NETWORKS



TOGETHER, YOU WIN.

Communication service providers (CSPs) are racing to deploy IMS networks to launch new digital services based on IMS, like VoLTE and HD Voice, in response to over the top voice and messaging platforms like WhatsApp and Skype, and to streamline the network architecture for the future.

CSPs also want to drive cost out of the business with IMS, in terms of network, IT and operational efficiencies. CSG Intermediate enables CSPs to directly mediate IMS offline charging usage for services like VoLTE, so they can launch and fine-tune IMS services more quickly. By using Intermediate, CSPs eliminate the need to configure and operate network vendor-supplied VoLTE/IMS collectors, avoiding unnecessary cost overheads and improve the time to market for services.

MONETIZING NEW IMS SERVICES

With CSPs focused on launching VoLTE as fast as possible, proven integration with IMS networks is essential for mediation so that services can be billed for in trials and ultimately enable fast commercial launch. Mediation is critical to the successful launch of IMS services because it is technically different to the mediation of GSM, 3G, 4G and 5G voice and data services. The mediation interface to IMS network

functions is real-time, not batch or file based, and every real-time stream needs correlation, placing heavy and often expensive demands on legacy mediation platforms.

QUICKLY SUPPORT MULTI-VENDOR IMS NETWORKS

Intermediate is proven in industry-standard architectures for offline charging and IMS mediation for services such as VoLTE, VoWiFi/WiFi Calling, RCS and SIP Trunking. Intermediate's real-time Diameter Input Portals have been deployed to support the complete range of IMS network functions, including MMTel servers, SCC-AS, CSCFs and others.

Intermediate's user configurable Diameter Input Portals and support for different vendor AVPs allow quick deployment in IMS networks where network functions are implemented by different vendors.

MEDIATION IS CRITICAL TO THE SUCCESSFUL LAUNCH OF IMS SERVICES BECAUSE IT IS TECHNICALLY DIFFERENT TO MEDIATION OF GSM, 3G, 4G AND 5G VOICE AND DATA SERVICES.



SCALABLE SESSION CORRELATION

IMS network functions produce huge volumes of information which need to be correlated to give a complete record of how a service is delivered. Each call session is made up of START, INTERIM, STOP and possibly EVENT records. These need to be aggregated to give a complete understanding of a session. Intermediate's Correlation Manager is unique in providing high-performance distributed correlation which does not require any expensive third party products or databases, and the correlation engine workload can be distributed over multiple nodes in a cluster to ensure a scalable solution.

High performance, distributed correlation ensures cost effective scalability for growing IMS input volumes, which are at least three times as large as CDR volumes for today's voice services.

SESSION AGGREGATION

An IMS platform is made up of several sub-systems, such as MMTel, SCC-AS and CSCF. Each network function holds information pertinent to its own operation but not necessarily a complete picture of an individual subscriber's session, such as a VoLTE call.

As well as session correlation, Intermediate can be used for session aggregation in order to gather information unique to each system into a single record. This gives a more complete picture of a call or IMS service, and is often required for business functions such as lawful compliance. For example, in some network configurations the MMTel application server does not have access to the subscriber IMSI, which is stored in the CSCF. So to get a full view of a subscriber and service, the correlated session from the MMTel must be aggregated with the session from the CSCF.

Session aggregation uses the same real-time Intermediate correlation engine as session correlation, so offers the same benefits and leverages the same data and in turn making auditing and revenue assurance simpler.

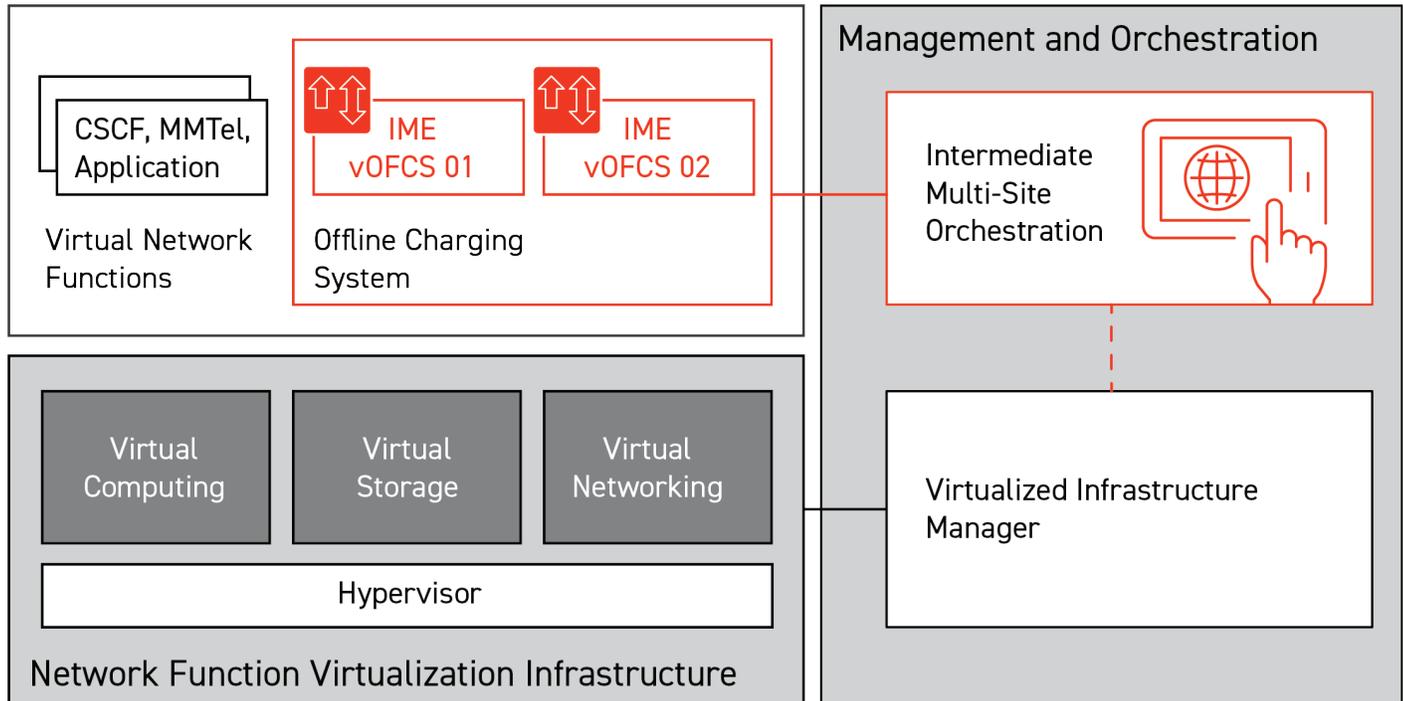
CARRIER-GRADE AVAILABILITY

To ensure high availability IMS network functions have the ability to failover or load share Diameter Accounting data on the Rf interface to a secondary Diameter server or receiver. In order to cater for this and to provide geographical redundancy, Intermediate uses a tiered architecture, separating the data collection and correlation functions onto separate nodes. Correlation functions can run either on an existing Intermediate cluster or a separate instance for additional scalability. Centralized correlation functions independent to collection functions ensure that no in-session data is lost on node outages.

This tiered architecture provides continuous high availability and protects CSPs from downtime on an existing cluster. For example, operations must manage failovers due to platform and hardware failures, perform any stops or restarts, and allows support for scheduled downtime for patches as well as upgrades.

DRIVE DIFFERENTIATION

Intermediate allows users to quickly change IMS business rules and innovate in the market, as they refine how best to compete for VoLTE and IMS customers, as they agree how to settle with interconnect partners, and as they enhance customer experience. In particular, users of Intermediate can examine correlated sessions and search for pertinent data in the client user interface to allow faster development of new services.



SUPPORT FOR NFV

Many IMS networks are being deployed with architecture based on network function virtualization (NFV). So in addition to supporting architectures which deliver continuous availability, Intermediate leverages virtualization to ensure the mediation function is always-on. It has been deployed to integrate with virtual network functions for IMS and collection nodes have been deployed under NFV infrastructure.

STREAMLINE OPERATIONS AND ADMINISTRATION

With geographical redundancy and mediation function virtualization of collection nodes for IMS, there is a trend towards deployments across multiple sites. Intermediate's Multi-site Orchestration, with a unique browser-based monitoring console for many instances, helps operators simplify operations and administration of complex mediation environments.

SUMMARY AND BENEFITS

IMS services are being quickly deployed as CSPs are transforming their businesses, to drive revenues and reduce costs. Mediation is a critical component to successful long term IMS implementations, but not all mediation systems are ready for these challenges.

Products like CSG Intermediate offer a proven, industry-standard architecture for offline charging and IMS mediation. With capabilities like Diameter Portals for multi-vendor IMS network functions, high-performance correlation and a unique Multi-site Orchestration console, CSG is helping operators around the world to quickly launch VoLTE and IMS services, and to scale cost-effectively with multi-vendor networks.

Talk to our experts and learn how you can innovate in the market with IMS-VoLTE Mediation. Visit csgi.com for more information.