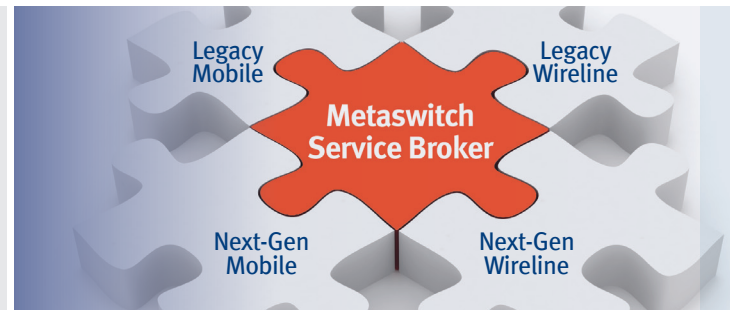


SERVICE BROKER:

EXTENDING EVERY SERVICE APPLICATION
TO EVERY SUBSCRIBER



SERVICE PROVIDERS HAVE BEEN SPENDING BILLIONS OVER THE LAST FEW YEARS TO BUILD OUT NEW NEXT GENERATION AND IMS NETWORKS TO BE THEIR REVENUE ENGINES OF THE FUTURE. GETTING SUBSCRIBERS TO TRANSITION TO THESE NEW NETWORKS IS A HIGH PRIORITY BUT HAS PROVEN TO BE A CHALLENGE AS MANY OF THEIR ADVANCED VOICE SERVICE OFFERINGS ARE STILL STRANDED ON OLDER INFLEXIBLE PROPRIETARY IN / TDM PLATFORMS WHICH CANNOT EASILY CONNECT TO THEIR NEW NEXT-GEN IP / IMS NETWORKS.

Replicating these service offerings with new IP platforms, once considered the answer, has proven to be unattractive either for cost or technical reasons. Consequently carriers have been slow to force large numbers of subscribers to migrate to their new networks until they can offer the same advanced voice services available on their legacy networks. They have also been reluctant to abandon these services for fear of alienating valuable subscribers, losing dependable revenue streams, or to potentially violate regulatory obligations. At the same time new applications designed specifically for next gen/IMS networks have been hampered by the lack of a significant subscriber base and thus lower utilization and revenues. In order to sustain a sound business case to encourage further network and application deployment within their NGN, Service Providers require a larger customer base and revenue generation from their IMS based applications.

As a result, Service Providers around the world are looking for new and innovative ways to solve the challenge of how to evolve their fixed and wireless networks to a more cost effective all IP infrastructure. They require a solution that protects existing investment and revenue streams which at the same time enables innovative new NGN based applications to reach out to customers residing within their legacy networks.

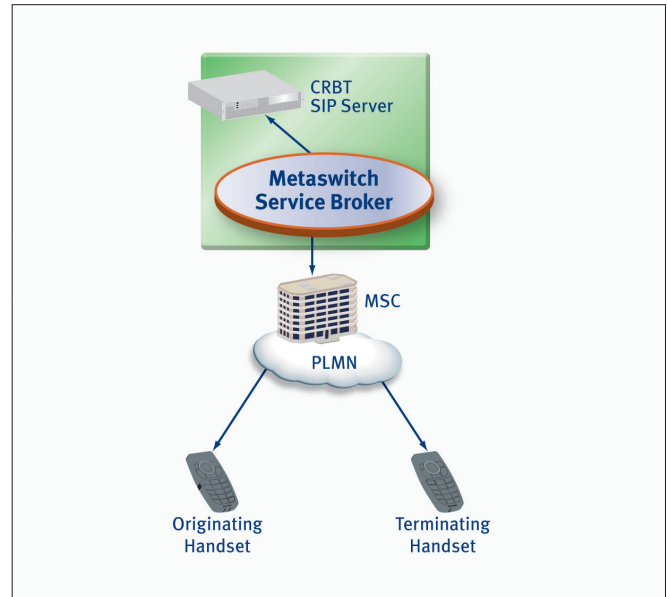
Metaswitch's Service Broker enables carriers to invest their scarce budgeted resources on a cost-effective, innovative next gen solution that protects existing revenue streams from becoming stranded and accelerates the growth of IP & IMS carrier networks. By utilizing a combination of innovative Service Broker IM-SSF and reverse IM-SSF capabilities the Service Broker provides a means to extend existing TDM-based applications onto new, next generation IP/IMS networks while at the same time enabling new, next generation applications to be exposed to the large incumbent base of subscribers on existing legacy networks. Additionally, the Service Broker enables service platform optimization by providing a scalable, cost effective, standardized platform for all future application connectivity and network interworking.

The Metaswitch Service Broker software is deployed within major Service Provider networks worldwide. Processing over 3.4 Billion calls per month, our Service Broker is enabling them to efficiently extend and leverage applications across their growing networks. Whether enabling existing wireless network based users to access new SIP based applications or leveraging stable, revenue producing IN services within a converged network environment the Metaswitch Service Broker is a cost effective, efficient solution.

ENABLING SIP APPLICATION ACCESS FROM THE PSTN

PROBLEM: A WIRELESS SERVICE PROVIDER WANTED TO ENABLE A CALL FROM WITHIN THEIR WIRELESS NETWORK (NORTEL EQUIPMENT) TO ACCESS A SIP-BASED 3RD PARTY COLOR RING BACK TONE (CRBT) APPLICATION.

FIX: A SIP-based CRBT application requires both INAP Trigger to SIP and ISUP to SIP protocol conversion. INAP Triggers are needed to perform a database dip to determine which CRBT a subscriber has selected. ISUP is used to set up the media session to the CRBT Media Server which stores the media files. The Service Broker is serving as both the ISUP and INAP gateway to the IP network. This allows for seamless integration of one or many legacy wireless networks, regardless of the wireless technology (GSM/GPRS/UMTS, CDMA/EVDO, etc.), to an existing CRBT Application Server/Media Server, without any modification to the application. The solution brings the simplicity and ubiquity of IP to the PSTN by providing an open services architecture with distributed intelligence that enables service revenue beyond traditional voice services.



REPURPOSING IN SERVICES FOR CONVERGED NETWORKS

PROBLEM: A SERVICE PROVIDER WANTED TO REPURPOSE AN IN SERVICE (PREMIUM RATE) IN THEIR VOIP NETWORK BUT THE VOIP NETWORK DID NOT PROVIDE THE REQUIRED CONNECTIVITY BACK TO THE CIRCUIT-SWITCHED VOICE NETWORK. THE VOIP NETWORK ELEMENTS ARE NOT FUNCTIONALLY EQUIVALENT (FROM AN IN PERSPECTIVE) TO THEIR CIRCUIT-SWITCHING COUNTERPARTS. THE SERVICE PROVIDER'S SOFTSWITCH WAS BUILT ON IP PROTOCOLS AND WAS NOT IN AWARE. IN SERVICES DEPEND ON TRIGGERS TO SUSPEND CALL PROCESSING AND QUERY THE SCP FOR FURTHER INSTRUCTIONS ON HOW TO PROCESS A CALL.

FIX: The Metaswitch Service Broker's reverse IM-SSF capability bridges legacy IN applications to NGN cores by appearing as an application server to a next generation core network while appearing as a legacy SSP to the IN application platform, or SCP. INAP or other IN protocol messages arriving at the Service Broker are routed to the Service Broker's application interface or API layer. Here, going well beyond simple protocol conversion, the IN messages are under stateful control allowing a one to many interworking to NGN core networks. The Service Broker translates a SIP Invite message into an InitialDP message and directs it towards the Premium Rate service residing on the SCP. If the SCP responds with a ReleaseCall message indicating that the call should not proceed the Service Broker translates

the response into a 403 Forbidden back into the NGN core network. Likewise, if the SCP indicated that the call should proceed by responding with a Connect message, the Service Broker would push the call back into the NGN core for re-routing by sending an Invite message. A toolkit is provided that allows third party tailoring of the stateful interworking including the ability to alter information element mapping and the ability to deal specifically with proprietary messages.

