metaswitch

ADVANCE MESSAGING SERVICES WITH A CONVERGED NETWORK MESSAGE STORE

Introducing the Metaswitch CNMS

INTRODUCTION

In the highly competitive messaging market, traditional SMS and MMS services have been overtaken by popular applications like iMessage, Instagram, Facebook Messenger, Snapchat, and WhatsApp. But with the transition to cloud-native, software-centric, IP-based networks and the advent of network message stores, mobile operators have an opportunity to not only deliver the innovative messaging features that their customers crave but also unlock new revenue-generating services from their messaging platforms.

THE RISE OF MESSAGING APPS

Chat and messaging applications have radically transformed the mobile messaging services market. Once the domain of mobile network operators, traditional SMS and MMS services have been overshadowed by popular messaging apps like Apple's iMessage, Facebook Messenger, Snapchat, WeChat and WhatsApp, as well as social media platforms. Consumers have flocked to free or low-cost, feature-rich apps, leaving mobile network operators with declining SMS service revenues and decreasing platform relevance.

These trends will continue as usage of third-party messaging apps is expected to increase further over the next five years. Ovum* forecasts that total over-the-top (OTT) messaging traffic (including text, photo and video) will grow from 30.99 trillion messages in 2015 to 68.81 trillion messages in 2020. By that time, the research firm estimates that the volume of mobile OTT text traffic will be 12 times greater than SMS traffic.

OTT messaging apps have reshaped the market by raising the bar for service features, setting user expectations and undercutting pricing assumptions. The consumer appeal of chat apps is clear: they offer useful and fun features, are very low cost or even free, and provide an instant message (IM)-like experience for smartphones. When Apple's iMessage emerged, it became a unique way for iPhone users to avoid per-text SMS charges or using up monthly SMS allowances from their mobile service providers. The app also introduced

features such as presence information (notifications when messages are delivered, read and when the respondent is typing a response), as well as group texting, the ability to share videos and photos without size limits, while it also made messages available across different devices. When WhatsApp launched, it took free messaging to new heights by making its app available across a wide range of smartphones, not just Apple devices. In 2016, WhatsApp announced a milestone of achieving one billion users.

The drawbacks with messaging apps is that some are tied to specific devices, such as Apple's iMessage, and they require users to download an app, each of which needs a unique subscriber identity and adherence to its terms and conditions. The popularity of so many messaging apps has created fragmented usage scenarios for consumers, whereby people use various platforms to communicate with different groups of friends, family and colleagues. While network operator SMS and MMS used to be the only options for messaging, now there is no longer one simple platform that people can use to reach all their contacts.

OPERATORS GET THE MESSAGE

While third-party messaging app providers have seized the opportunity to run services over operators' IP-based networks, mobile operators are evolving their own services. Legacy circuit-switched voice services are shifting to IP Multimedia Subsystem (IMS)-based voice over LTE (VoLTE) that will offer high-definition (HD) call quality and video calling from the native dialler on the smartphone. Building on IMS investments, operators are also introducing advanced messaging features like file and group sharing, instant messaging, and the ability to receive messages on any device, much of which is enabled by Rich Communications Suite (RCS) specifications that are starting to be adopted.

At the same time, operators are in the process of a monumental transition to Network Functions Virtualization (NFV) - cloud native, software-centric networking that will fundamentally change the way they build networks and create services so that they can compete effectively with web-scale rivals. To achieve significant cost savings and maximum service agility, operators recognize the need to break away from traditional, vendor-specific appliances and embrace software-based network functions and open source software that can be deployed on commodity off-the-shelf hardware.

Now, with the advent of the Converged Network Message Store, operators can leverage their investments in IP and NFV to innovate in messaging again, re-establish subscriber engagement on their messaging platforms and create new revenue-generating services.

CONVERGED NETWORK MESSAGE STORE

It's all in the name: the Converged Network Message Store logs all messages running across an operator's network in the cloud. Through standard application programming interfaces (APIs), a cloud-based network message store can provide a plethora of next-generation services and features based on the mobile phone number as the single subscriber identity. For example, if a smartphone is lost or damaged, the customer can still retrieve his or her messages that have been saved in the message store. A network message store also enables customers to sync their messages across multiple devices from smartphones to smartwatches, much like iMessage works across different Apple products.

Previous versions of message stores were vendor-specific hardware appliances that were cumbersome, costly and inefficient. The hardware-based solutions stored messages, but lacked the openness and versatility to interface with other platforms and support the rapid development of new services. In addition, scaling these hardware products involved investing in expensive physical storage servers for additional capacity.

In contrast, a software-based network message store leverages the significant investments operators have already made in IP technology and network virtualization. Metaswitch's Converged Network Message Store is a standards-based software solution that has been designed from the ground up to operate in cloud environments on commodity hardware. It supports the Open Mobile Alliance (OMA) RESTful API for network message stores, enabling interfaces to other operator service platforms and third-party services and applications to foster the development of new services.

Metaswitch's cloud native software design is key to helping operators achieve the flexibility, agility and cost efficiency they need to compete with web-scale rivals in today's messaging market. Cloud native software is architected to run on commodity hardware in public, private or hybrid clouds. It scales elastically, self-heals, and provides cost-effective redundancy models. Most importantly, Metaswitch's cloud native software guarantees carrier-grade performance.

With the Metaswitch Converged Network Message Store, operators can differentiate their messaging services by offering experiences that are unique to their networks. With standard APIs, operators can serve up the most recent message, message history and status of subscribers to any device. For example, subscribers would be able to check and respond to messages via their smartphone, tablet, PC, smartwatch, or even a connected car application. The Converged Network Message Store can also be combined with a voicemail service, so that a subscriber's voice and data messages can be accessed from one place.

With the flexible Converged Network Message Store as a foundation, operators will be well-positioned to adapt to the rapidly developing messaging market and remain relevant to their customers. Operators will be able to extend unified communications and collaboration from fixed and enterprise environments to their mobile subscribers, while exploring the potential for new converged messaging services. Metaswitch's Converged Network Message Store will create an advanced communication platform for developing a variety of revenue-generating services.

Today, the lines are blurring between messaging and social media applications. Chatbots are being injected into messaging platforms that allow users to make purchases, check the weather, or receive news updates from their messaging app. The rise of Internet of Things (IoT) devices and smart home applications will leverage messaging functionality that can be synced with other devices. By adopting a cloud native, software-based approach to messaging platforms, operators will have a development environment where they can explore and create new services and applications. Metaswitch's Converged Network Message Store is a critical component that will put operators back in the driving seat for innovation in messaging services.

THE METASWITCH DIFFERENCE

As the leading cloud native communications software company, Metaswitch develops commercial and open-source software solutions that are constructively disrupting the way that service providers build, scale, innovate and account for communication services. Metaswitch is a proven and trusted partner for small and large network operators across the globe, thanks to its ability to support them on complex network and business transformation projects, while also remaining agile enough to react quickly to market changes and technology transitions. By working with Metaswitch, visionary service providers are realizing the full economic, operational and technology benefits of becoming cloud-based and software-centric.

To learn more, visit www.metaswitch.com

* https://ovum.informa.com/resources/product-content/2016/12/09/13/04/te0003-000954