Global SIMs Come to the Forefront

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This IDC Flash discusses the role of global SIMs in the Internet of Things (IoT) market. It details the recent news of AT&T's launch of the company's Enhanced Global SIM. This Flash discusses the market environment in which AT&T's Enhanced Global SIM competes and the broader embedded global SIM value proposition.

SITUATION OVERVIEW

Global reach is a major success criterion for a mobile operator in the worldwide Internet of Things market. The impetus to this IDC Flash is AT&T's announcement at CTIA's Super Mobility Week, held in early September 2014 in Las Vegas, where AT&T chose to announce further progress in its global strategy for the Internet of Things market. The operator announced that its Enhanced Global SIM has been enhanced with remote provisioning capabilities in accordance with GSMA specifications for M2M and connected device manufacturers. The GSMA has been working on the protocols with a team of operators and other major vendors in the Internet of Things ecosystem. The standard protocol was made available in 2013. Other operators that worked with the GSMA on the protocol include Telefónica, China Mobile, Telenor, China Unicom, Vodafone, T-Mobile, Orange Business Services, NTT DOCOMO, and Telecom Italia. Vendors involved in the GSMA protocol working group include Gemalto, Oberthur, Giesecke & Devrient, and Safran-Morpho.

While the remote provisioning standards drove AT&T's latest announcement, AT&T has been developing its global SIM connected car solution and ecosystem for quite some time. AT&T's global SIM enables M2M connectivity in more than 200 countries worldwide. The SIM solution is being used in conjunction with the AT&T Control Center powered by Jasper, a service management platform, as well as with AT&T's specific connected car platform, AT&T Drive. AT&T's global service management platform facilitates "smart process automation, machine monitoring, and alert/response capabilities," according to AT&T. Bifurcated billing, of particular relevance in connected car scenarios, is also part of AT&T's Enhanced Global SIM solution. It enables billing of services associated with one SIM to be split between multiple automotive use cases (i.e., connectivity for telematics, diagnostics, or infotainment).

The availability of global SIMs has intensified the pace of partnerships between mobile operators around the world and automobile manufacturers. AT&T has announced multiple alliances with automobile and other equipment manufacturers, including most recently its expanded relationship with Audi. In September 2014, AT&T announced that its Enhanced Global SIM will be powering the connected experience in the 2015 Audi Q3, adding to the Audi A3 and Audi S3 models that AT&T has already helped connect in the United States. In addition, General Motors (GM) announced that it will
bring OnStar service to select countries in Europe using AT&T's Enhanced Global SIM in the second half of 2015. These recent announcements add to other announcements that AT&T has made with other manufacturers over the past year including Chevrolet, Tesla, and Volvo as well as with GE to embed connectivity in industrial products and machinery in October 2013.

While the impetus for this IDC Flash is AT&T's latest announcement of the company's upgraded global SIM to include remote provisioning capabilities, the increased presence overall of global connectivity solutions for IoT is worthy of discussion. The available global SIM solutions vary in terms of the number of countries negotiated as part of the rate coverage as well as the functionality that the service management platforms contain (i.e., split billing options, remote provisioning). AT&T's Enhanced Global SIM is faced, to some degree, with competition, including:

- **Orange Business Services (OBS)** offers an embedded SIM for M2M that is remotely updatable via its management portal. OBS has negotiated rates with 400+ carriers and is working with GM, Audi, and BMW on connected car services, such as 4G WiFi hotspots in the car for a consumer data services fee. Orange Business Services announced on September 18, 2014, that its services management platform now provides location tracking on its global SIMs.

- **Telefónica's** embedded M2M global SIM is remotely provisionable. It was announced in December 2013 and framed as the M2M World Alliance's "first multi-operator global solution." Essentially, it is a single SIM card solution that relies on Jasper for the over-the-air updating. Earlier this year, Telefónica announced that Tesla has chosen its global SIM solution, providing Telefónica's O2 connectivity services for the Tesla Model S in Germany and the United Kingdom, Movistar services in Spain, and KPN services in the Netherlands.

- **T-Mobile** offers its eSIM, which can be managed through its M2M Hub portal and comes in a variety of forms, including embedded and ruggedized. T-Mobile's eSIM is only available in Canada and the United States currently.

- **Verizon** offers a global SIM for M2M uses and is in the process of expanding its negotiations with operators in other countries for local rates for M2M devices. The operator announced its alliance with Hyundai to power a variety of the connected car experiences, including telematics, diagnostics, and infotainment in cars beginning in 2014.

- **Vodafone** offers a global SIM with platform management using its Global Data Services Platform (GDSP) that includes functionality that reports the location of the SIM and provides event-based alerts. Vodafone is providing 4G connectivity services for Volkswagen and specific Audi models in Europe – beginning, in the case of Audi, with the 2015 Audi S3 model. Vodafone has also recently announced a deal with BMW to provide connectivity services in most of the 2015 BMW cars in the New Zealand market.

**FUTURE OUTLOOK**

For operators to grow their share in the IoT market worldwide, their connectivity services for M2M/IoT devices have to be available at local rates. Global SIMs with an expanse of countries in which local connectivity rates are offered are increasingly being offered and incorporated into connected solutions. In the connected car market, there is particular evidence of the value of global SIMs. Other connected IoT solutions are expected to take advantage of embedded global SIMs, including industrial machinery, smart home devices, and consumer goods. The benefits of global SIM solutions to IoT ecosystem parties are described as follows:
- **Automotive/equipment manufacturers.** The benefits of global SIM solutions to the manufacturer are in speed to market and efficiency in provisioning new services revenue streams. The automobile, industrial equipment, or consumer goods manufacturer no longer has to establish a relationship with mobile operators in every country it is shipping to. The manufacturer's supply chain is simplified and streamlined, while the global SIM provider does the heavy lifting of negotiating local rates country by country.

- **Service providers.** With global SIMs, mobile operators increase their reach globally where they do not own network assets. This improves their value proposition and competitiveness to manufacturers of connected devices, thus helping expand the operator's share in the worldwide IoT market. Global SIM solutions that have bifurcated billing capabilities also help the operator monetize several different services in the connected vehicle market (i.e., telematics, diagnostics, and infotainment).

Compelling service enablement on a global scale at competitive local rates is in fact what we believe is driving AT&T and other select global mobile operators to win major connected car and other IoT device agreements. Global SIMs are a requirement for service providers in the IoT market – a market that is growing increasingly competitive.
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