eSIM for IoT (or M2M) and Consumers Devices
Sales and Management Readiness

The IoT, Consumer Devices and Other Challenges for eSIM and Traditional SIMs

As eSIM technology gains ground to power both consumer devices like phones, tablets and watches as well as IoT devices like smart meters and those used in freight tracking and hundreds of other uses - the volume of devices that need to be managed and the need for multiple manufacturers and mobile service providers to allow interoperability and service continuation become significant challenges.

At its core, an eSIM device can have SIM profiles downloaded to it and the mechanism for creating, managing and distributing those SIM profiles, all without having to use a traditional SIM. Like the latter, it provides and identity to be used along with the relevant security keys and encryption routines to manage network access. These SIM profiles, in turn, must be managed and secured by a Subscription Manager. This seems quite simple except that there are multiple standards that Subscription Managers for IoT, companion devices like smart watches and fitness trackers, and consumer devices like tablets and MiFi's must conform to.

⊙ 172.80.123.246

Key Issues with eSIM Management:

✓ High cost of maintaining a **bootstrap profile** on the network for large volumes of IoT SIMs

✓ Requirement for a **Subscription Manager** (SM)

✓ Drop in SIM sales, ordering, distribution and management costs will lead to **sharp increase in device counts and management needs**

✓ A Subscriber Manager by all SIM manufactures, from mandatory requirements for interoperability and homogenization by the GSMA, will result in the **need for more competitive SM options** by MNOs and MVNOs to remain competitive

✓ Homogenized SM will drive need for better solutions for **number and resource management**, subscription sales, activation, provisioning, loyalty and, ultimately, customer lifetime value (CLV)

✓ **Upcoming regulation** to limit location or country of SM provider, support KYC requirements for IoT devices or expanded capabilities of eSIM devices e.g. multi-IMSI and longer MSISDNs

Evolving System Can Help...

Evolving Systems already provide value for IoT using traditional SIMs. We can now also help MNOs and MVNOs with an eSIM-ready subscription manager platform to support IoT device. The company can help operators avoid the expensive provisioning cost of large volumes of IoT SIMs that require bootstrap profiles on the network by using its Dynamic SIM Allocation™ (DSA™) technology. The solution supports eSIM profile downloads that meet the interoperability requirements of operators looking to support IoT equipment sales, distribution, number management and regulatory compliance while strengthening its brand and driving revenues from improved customer lifetime value (CLV) with Evolving's DSA, TNM and Digital Engagement solutions.

The SIM management solution supports standardized SIM card profile as well as support for eSIM with either SM-DP or SM-DP+ profiles and templates. It has an automated interface to the SIM manufacturer's system which reduces cumbersome processes starting with sending SIM orders and all the way through to delivery, tracking inventory and recycling.

Some of our Key eSIM Solution Benefits for IoT

Feature-benefits	
eSIM Management Efficiency	Minimizing costs will be a key enabler to accelerate IoT adoption. Historical costs have prevented forecasted levels from being reached.
Use DSA Technology to Activate IoT Device Only When Required	Avoid expensive HLR/HSS costs. IoT devices volumes make these network cost savings particularly significant.
Handle Longer MSISDNs	Avoid regulatory non-compliance. Traditional systems will not support long MSISDNs.
Handle longer MSISDNs	Avoid an expensive OSS/BSS system overhaul just to deal with longer numbers that can significantly stress the network.
Bulk Provision on Smaller, Cheaper and Simpler Analog ?? HLR/HSS	Automate the provisioning of millions of identical IoT profiles such as those used by gas meters on cheaper network equipment for time and resource savings.
Integrated Sales, Activation, Provisioning, Loyalty and Digital Engagement Platforms	A unified approach to loyalty and customer lifetime value (CLV) for MNOs and MVNOs.