AVNET SILICA

Get the right Connectivity Solution

REMOTE SIM/ESIM PROVISIONING SOLUTION

Remote SIM/eSIM provisioning solution

Connected objects require optimized global connectivity so that they can simplify production and logistics for Original Equipment Manufacturers (OEMs). When designing connected objects and choosing a cellular connectivity solution, companies need to consider logistical, industrial and technical challenges.

Avnet Silica and IDEMIA are introducing a turnkey plug-and play solution for flexible cellular connectivity to empower your connected objects. This solution is a combination of a product and services:

- An eUICC (Embedded Universal Integrated Circuit Card manufactured by IDEMIA
- An initial pre-paid cellular connectivity allowance offered by Vodafone or Arkessa
- Remote management of connectivity services

Machine 1

THE eUICC IN A NUTSHELL

- Enables cellular connectivity just like a classic SIM
- Remotely reprogrammable, enabling management of your connectivity subscription
- Able to host several subscriptions

BENEFITS

Connectivity as a service
Throughout the life of a device, the owner might need to change connectivity providers based on economic reasons, quality of service criteria or geographic considerations.
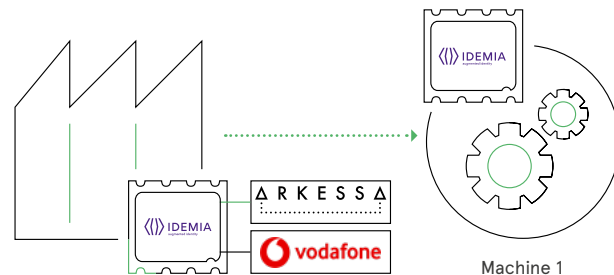
Until now
Switching operators means changing SIM cards manually and one by one for all the connected objects deployed in the field. The costs for this are too high in comparison to the potential savings in connectivity fees. As a result, a lot of devices are locked for life with the operator initially providing the SIM card.

Going forward
The eUICC allows flexible connectivity
This new generation of SIM cards makes it possible to change the mobile network subscription over the air thanks to a service platform compliant with the latest GSMA standards. The service platform manages eUICC subscriptions of the fleet of devices in an SaaS (Software as a Service) mode. A secure database, linked to the platform, delivers status information in real-time about all connected devices deployed in the field, such as which profile is loaded or if the status is active or not.

Avnet eUICC has been named a

Silver Winner

in the

Best IoT Network Solution – Commercial & Industrial
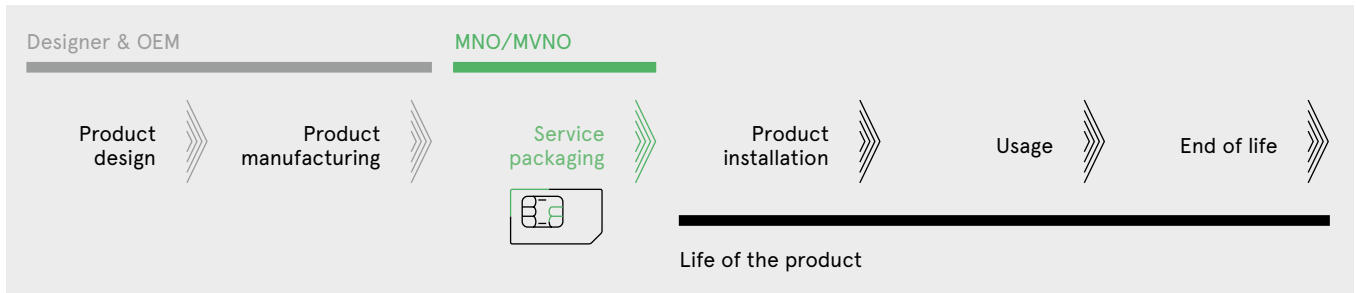for the
'2018 IoT Innovator Awards' program
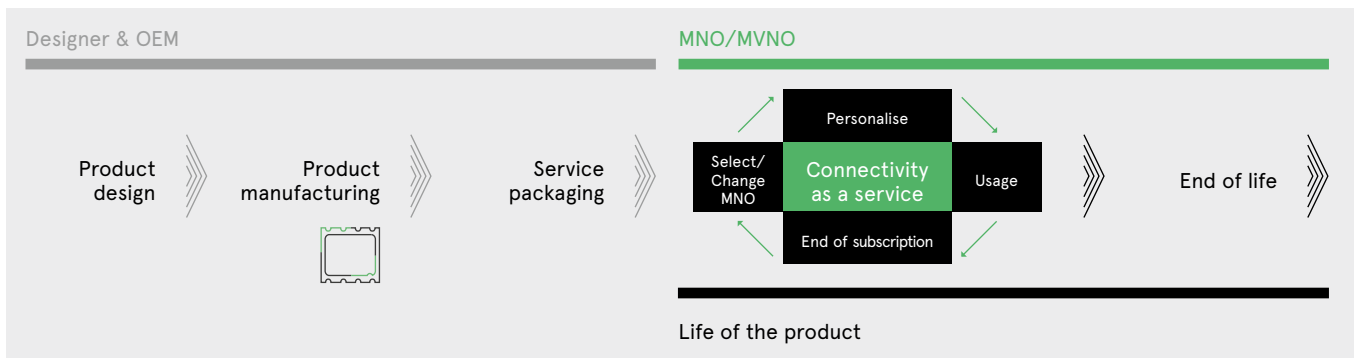
Remote SIM/eSIM provisioning solution

CONNECTED OBJECT LIFECYCLE & CONNECTIVITY AS A SERVICE

UNTIL NOW

Designer & OEM | MNO/MVNO

Product design ≫ Product manufacturing ≫ Service packaging ≫ Product installation ≫ Usage ≫ End of life ≫

Life of the product

GOING FORWARD

Designer & OEM | MNO/MVNO

Product design ≫ Product manufacturing ≫ Service packaging ≫ Personalise / Select/Change MNO / Connectivity as a service / Usage / End of subscription ≫ End of life ≫

Life of the product

A future-proof bundle and business model

Our bundle offering includes initial connectivity, provided either by Vodafone or by Arkessa, making it possible to perform production test procedures (eUICC administration, factory test and data-link test between each device and the cloud server).

Modem compatibility

The eUICC has exactly the same electrical interfaces to a modem (2G/3G/4G) as a classically slotted SIM card (2FF, 3FF).

GSMA compliance

IDEMIA's eUICC and remote SIM provisioning are GSMA 3.2-compliant and therefore fully interoperable, yielding a truly open and future-proof solution.

Form factor

2FF

MFF2 (VQFN8)
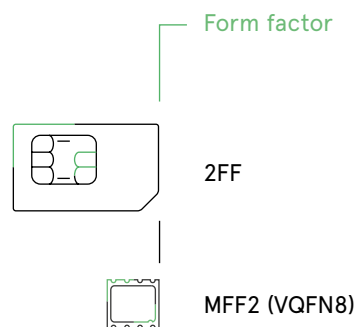
AVNET SILICA KEY BENEFITS

LATE PRODUCT PERSONALIZATION TO MAXIMIZE FLEXIBILITY

The supply chain is streamlined thanks to the drastic reduction of the required number of SIM product variants.

- **Until now**

  When an OEM produces connected objects for several customers or geographies, production has to be manually differentiated in the factory, with the SIM cards corresponding to the final destination. This increases the number of product references, builds up stock and makes logistics more expensive.

- **Going forward**

  The eUICC allows lower logistics costs

  Since connectivity is decoupled from the physical component, it is possible to implement a single eUICC at production. The final operating connectivity is loaded on it later in the field "as a service," simplifying logistics and greatly reducing manufacturing costs.

AN OPEN GSMA 3.1 STANDARD SERVICE (3.2 COMING SOON)

Since our service is GSMA 3.1 compliant (3.2 coming soon), it is fully interoperable with competitive alternatives, and our customers are free to transfer their operations away from Avnet Silica at any time without penalties.

OPTIMIZING CONNECTIVITY COSTS

Enabling OEMs and their customers to swap operator anytime, anywhere and on any device in the field gives them more power when negotiating with cellular carriers.

- **Until now**

  When OEMs and service providers subscribe to data plans with carriers, they have to manually fit a SIM card into their connected devices. Once deployed, these devices are expensive to service manually, which locks the initial cellular carriers for life into the devices, regardless of how good or bad the carrier-customer relationship evolves commercially in time.

- **Going forward**

  The eUICC allows remote cellular carrier swap and provisioning

  Since connectivity is decoupled from the physical component, Avnet Silica offers the service to remotely download new carriers into already deployed devices. Not only will customers be able to negotiate cellular tariffs and services for the devices they are deploying, but also leveraging the fleets of already deployed products which will be serviced all the same. Avnet Silica being fully independent from the cellular operators, and not being a cellular carrier itself, is fully legitimate to operate such a service.

SOLUTION

AVEUICC3100XXX PRODUCT LINE

- An AVNET/IDEMIA eUICC chip
  - 2FF: Plastic format
  - MFF2: Chip format
  - MOQ: Boxes of 50 & 500, reels of 3K (MFF2 only)
- Pre-installed profile (bootstrap) of partner carrier
- Pre-paid communication with this production carrier
  - To be used for the production factory test

- **First carrier change offered if first user does not want to use bootstrap carrier**
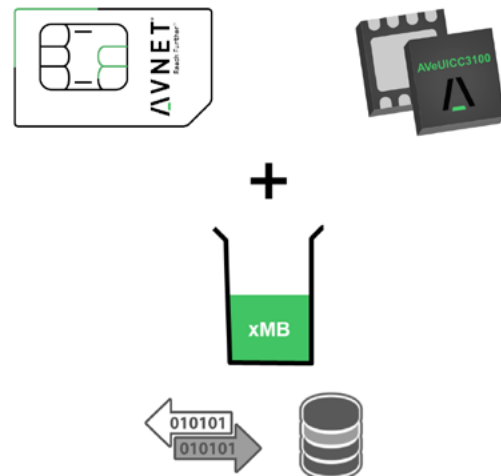
Part Number	UICC/eUICC	Bootstrap Size	Bootstrap Carrier	Network	Area
AVeUICC3100ARK	2FF and/or MFF2	700kB pre-paid*	ARKESSA	2G/3G	WW
AVeUICC3100VOD	2FF and/or MFF2	100kB pre-paid*	vodafone	2G/3G/4G	EMEA-APAC*

* WW Vodafone Bootstrap possible on request

Remote SIM/eSIM provisioning solution

APPLICATION MARKETS

Smart City
- Smart Parking System
- Digital Signage
- Environmental sensing
- Street Lighting

Smart Utilities
- Water / Gas Meter
- Gateway/Grid/MicroGrid
- WaterWaste System

Agriculture/Smart Farming
- Predictive maintenance
- Cattel Tracker
- Sensor Monitoring
- Water Management System

Smart Retails
- Vending machine
- Ticket/payment machine
- Predictive maintenance
- Asset inventory Management

Smart Healthcare
- Remote maintenance/control
- Predictive maintenance
- Remote Medical Equipment
- Personal tracker/ wearable

Smart Industry
- PdM Predictive maintenance
- Industrial Control & Monitoring
- UAV, Robot

Smart Home
- Security System/Alarm
- Personal Tracker
- Pet Tracker
- Wearable

Transportation
- Vehicle Tracking
- Container & Ship Tracking
- Fleet Management
- OBD, DVR, Insurance Box

Smart Building
- Elevator monitoring & Control
- Remote & Predictive maintenance
- Alarm systems

TEST THE SOLUTION

AVNET EUICC TEST-PACK

Features:
- 4x eUICC in 2FF format preloaded each with a Vodafone and an Arkessa profile and 2x50MB of connectivity for Europe 28
- 2x eUICC in MFF2 format preloaded each with a Vodafone and an Arkessa profile and 2x50MB of connectivity for Europe 28
- Free test accounts with Arkessa and Vodafone
- Free swap services by Avnet

avnet-silica.com/eUICC-testpack

Please contact your nearest Avnet Silica representative or email eUICC@avnet.eu

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