THALES

aws qualified device
internet of things

eseye
INTELLIGENTLY CONNECTED

Intelligent
Cloud Connect

**The world's first plug and play
IoT solution that automatically
connects with AWS**

Intelligent Cloud Connect: Streamlining IoT Solution Deployment
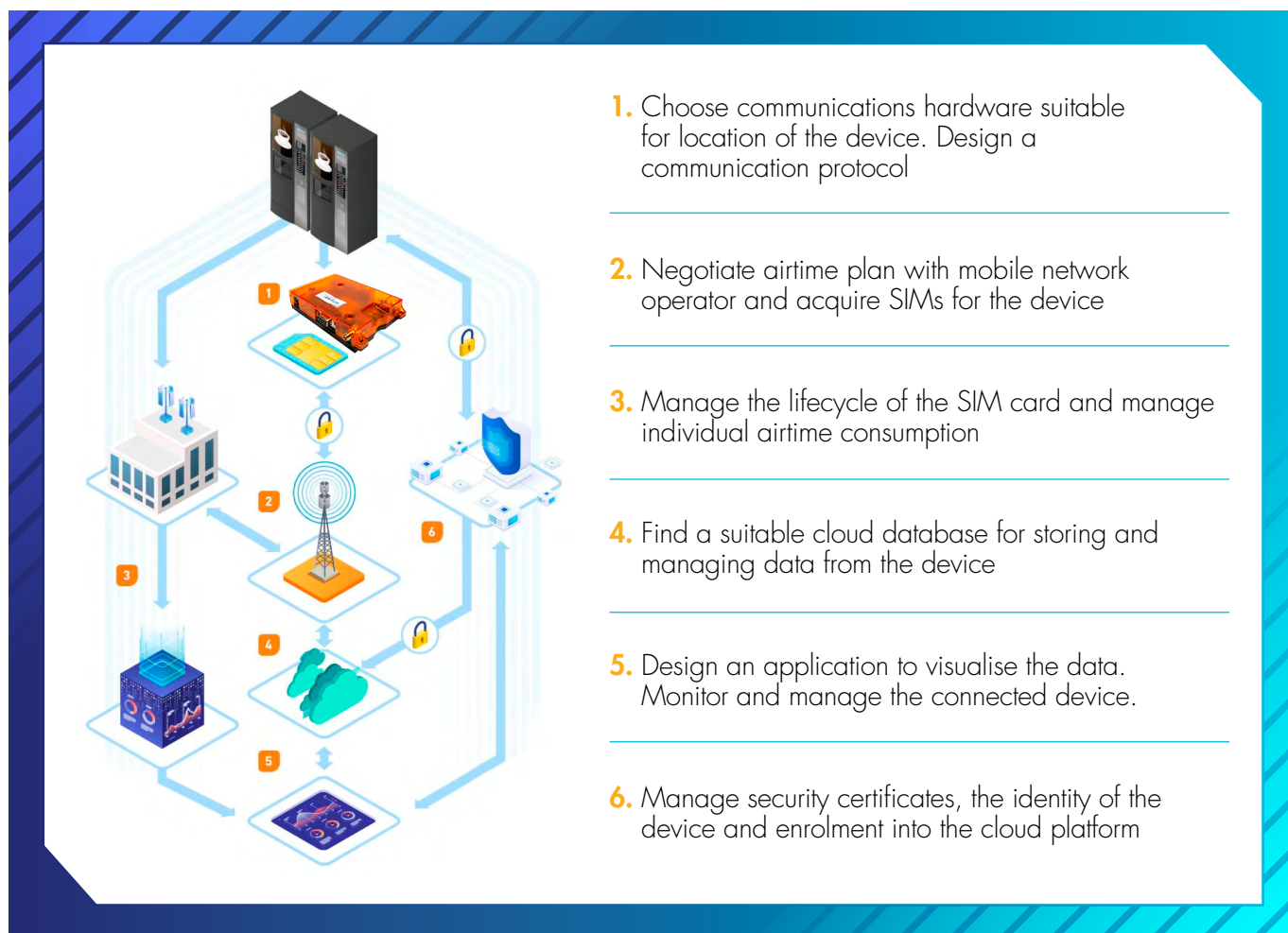
The Internet of Things is changing our world for the better, providing real time insights that accelerate efficiency, improve business outcomes and make life easier. However, to realise the benefits of IoT, organisations need to navigate an enormously complex ecosystem and a fragmented value chain. With many development hurdles to cross, it can take up to two years to launch a new IoT solution, while many projects are paralysed by complexity and never make it to market at all.

Organisations just want to connect their devices and ingest the data into their back-end systems in order to make business decisions based on the insights gained, however they face numerous challenges, including but not restricted to:

Hardware selection and development targeting the correct geography

▌ The connectivity and SIM management platform

▌ Managing rate plans and device data utilisation

▌ Cloud provider and analytics applications.

▌ Device management and security.

The diagram below outlines the building blocks and associated complexities with a typical IoT solution ecosystem.

1. Choose communications hardware suitable for location of the device. Design a communication protocol

2. Negotiate airtime plan with mobile network operator and acquire SIMs for the device

3. Manage the lifecycle of the SIM card and manage individual airtime consumption

4. Find a suitable cloud database for storing and managing data from the device

5. Design an application to visualise the data. Monitor and manage the connected device.

6. Manage security certificates, the identity of the device and enrolment into the cloud platform

Eseye and Thales: Together, Simplifying the IoT Journey

Thales and Eseye are fundamentally disrupting this IoT ecosystem with a collaborative IoT Connectivity Platform that cuts through complexity, reducing new product development timelines from two years to typically six months to deployment.

As global leaders in module technology and ubiquitous reliable connectivity, Thales and Eseye have combined their expertise to deliver Intelligent Cloud Connect; the world's first integrated IoT solution that vastly simplifies IoT device design and deployment.

60% of Companies substantially underestimate the complexities of building an IoT service

Cisco Industry Survey 2017.

Intelligent Cloud Connect: Streamlining IoT Solution Deployment

The Intelligent Cloud Connect solution allows device and equipment manufacturers to develop a single IoT product SKU for any industry that can intelligently switch between over 700 mobile networks to provide near 100% global connectivity, while offering seamless data provisioning to AWS IoT Core. The platform handles zero-touch IoT security certification as well as lifecycle device management, allowing customers to manage global fleets of devices through a 'single pane of glass'. The complexity of balancing bandwidth and data plans and negotiating MNO contracts is removed, providing customers with only one, carrier agnostic, message based (MQTT) bill covering all connectivity requirements globally via AWS Marketplace.
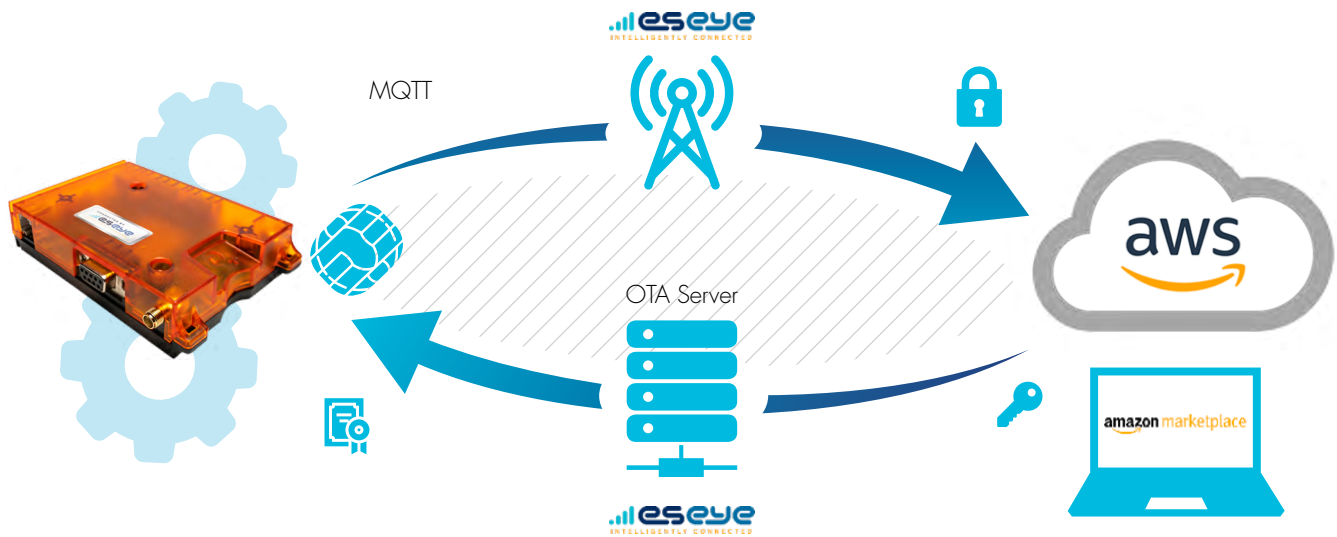

The solution delivers pre-installed firmware in the IoT terminal which intelligently manages security, connectivity and credentials between the device and the cloud, ensuring a consistent global 'out of the box' experience. The device behaviour simplifies IoT deployment and automates global, secure connectivity into AWS IoT Core.

To ease device application development, an easy to use Message Queuing Telemetry Transport (MQTT) client is supported by the Intelligent Cloud Connect devices. This AT command-controlled feature simplifies the communication between embedded hardware in the IoT devices and the AWS IoT Core with other related IoT services.

The foundation of the solution is the ground-breaking Cinterion® PLS62T-W Global IoT Terminal paired with Eseye's intelligent network switching AnyNet SIM for AWS. This combination provides out-of-the-box, zero-touch secure connectivity anywhere in the world. With this device/SIM combination, developers can streamline and secure IoT development, deployment and activation from device to AWS IoT Core a few basic steps:

1. Unbox and Plug in

SIM/MIM card   Serial RS-232

2. Set up AWS Account

3. Load 'thing' into AWS
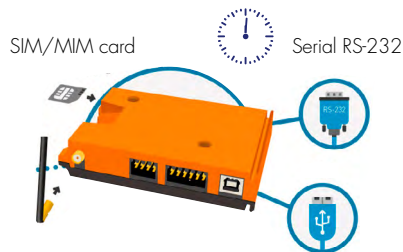
4. Switch on terminal.
Send messages to AWS cloud

5. Optional
(embed application/sensors)

Extra I/O
Java (optional)
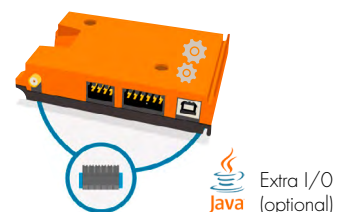
The PLS62 Terminal uses either RS232 or USB to connect to the host device. This is ideal for use cases where the host device is able to send AT commands. Further connectivity is provided using the expansion connector offering SPI, I²C, GPIO, an additional RS232 interface and 5v power supply. For a completely self-contained solution the PLS62 Terminal offers programmable embedded intelligence capability meaning an entire sensor to cloud IoT application can be realised by Intelligent Cloud Connect.

Let's get started.

PRE-APPROVED GLOBAL CONNECTIVITY

The Cinterion® PLS62WT LTE Cat 1 Terminal offers highly efficient 4G connectivity with seamless fall back to 2G and 3G networks. The plug and play Terminal works out of the box to quickly connect industrial applications to the Internet with pre-approvals, virtually zero design time and minimal integration effort. Delivering M2M optimized LTE speeds of 10Mbit/s download and 5Mbit/s uplink, it's ideal for industrial automation, vending, security, smart city solutions and integrations not dependent on super high speed but still require the longevity and global adoption of 4G.

Intelligent Cloud Connect capitalises on the Embedded Java which eases and speeds application development, offering a broad choice of tools for custom designs. Intelligent Cloud Connect Terminals contain pre-installed applications handling security, automatic integration into AWS IoT and interactions with the Eseye AnyNet Global SIM.

As Intelligent Cloud Connect Terminals include a pre-installed MQTT Client only 2 custom AT commands are required therefore exchanging data messages with AWS IoT is easy.

Thales in IoT:
Driving digital transformation with the power of the IoT

Thales delivers innovative IoT technology that simplifies and speeds enterprise digital transformation. For more than 20 years, our customers – in a wide range of industries - trust our IoT solutions to seamlessly connect and secure their IoT devices, maximise field insights, and accelerate their global business success.

Thales solutions:

- **Connect** assets to wireless networks and cloud platforms
- **Manage** the long lifecycle of IoT solutions
- **Secure** devices and their data
- **Analyse** real-time data transforming it into business intelligence that improves decision making

Our 360° approach provides the essential building blocks needed to simplify design, streamline development and accelerate time-to-market.

For more information, please visit **www.thalesgroup.com/IoT** or follow **@ThalesIoT on Twitter**

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