LOW POWER WIDE AREA CONNECTIVITY POWERED BY ARKESSA

Sales Information Pack

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To place an order email: connect@arkessa.com

Α R K E S S Α

Getting started with LPWA connectivity

Arkessa offers extensive Low Power Wide Area (LPWA) connectivity solutions across the globe, giving our customers freedom to test and deploy their low-data, high-density applications in different geographical locations.

By 2025 it is predicted that NB-IoT and LTE-M will account for over half of all cellular IoT connections.

IoT at scale with LTE-M

Arkessa offers Long-Term Evolution connectivity (LTE-M) to support massive IoT deployment at a lower cost across the globe.

Great for gathering data on the go, LTE-M supports remote applications that require longer battery life and coverage in hard-to-reach locations.

Global NB-IoT Connectivity

NB-IoT is designed for applications requiring low-cost, low-power and mass deployment.

LPWA

DEVICE

TO CLOUD

It is best suited to static applications transmitting periodic short bursts of data such as metering, predictive maintenance, agriculture and smart city applications like building automation and lighting.

Order your Arkessa LPWA trial pack - connect@arkessa.com

Design considerations when deploying LPWA





Technical considerations when deploying LPWA

	LTE-M	NB-loT
Data Rate	~300 Kbps	60kbps downlink/30kps uplink
Bandwidth	1.4 MHz	200 KHz
Latency	50 – 100 Milliseconds	1.4 – 10 Seconds
Device Mobility	Full Support	No support
Power Consumption	eDRx and PSM	eDRx and PSM
Roaming	Yes	Limited ²
Voice / SMS	Yes / Yes	No / No
eUICC support (GSMA v3.2)	Yes	Νο
Price vs 2G	Greater	Greater

*1 - Check the module and network supports PSM / eDRX

*2 - Caused by limited commercial roaming agreements





Applications and use cases for LPWA

NB-IoT and LTE-M are designed for applications that require long battery life, ease of deployment and lower costs.

These technologies allow for reduced device power consumption and can support up to 10-15 years' battery life. They excel in areas of poor coverage, including deep within buildings or underground.

Designed for long-range operation, LPWA technologies are suited to smart metering, assisted parking, lighting, agriculture, tracking, and smart city applications.



Arkessa connects you to NB-IoT/LTE-M networks covering Europe, USA & APAC



Considering NB-IoT for your connected application?

Arkessa delivers global NB-IoT cellular connectivity, designed for applications requiring low-cost, low-power and mass deployment.

- Bandwidth 200 kHz (60kbps downlink/30kps uplink)
- Up to 10 seconds latency
- Reduced power consumption
- Range 5km urban / 50km rural
- Low power, low data, low cost
- Uses existing LTE network infrastructure
- Deepest penetration (indoor) and widest reach (outdoor) of any LPWA network
- Up to 10 years' battery life



Arkessa connects you to >50 NB-IoT networks* covering Europe, USA & APAC

Considering LTE-M for your connected application?

Arkessa delivers global LTE-M solutions, making it the best choice for real time communication, voice commands and location tracking.

- Bandwidth 1.25 MHz (300 kbps downlink/375 kps uplink)
- Reduced power consumption
- Up to 10 years' battery life
- 🔥 Range 5km urban / 50km rural
- Uses existing LTE network infrastructure
- **OVER IT SUPPORT FOR VOLCE VIA VOLTE**
- Support for eUICC
- High density deployment
- **Better in-building coverage**
- Mobility support for non-static applications



Power Saving Mode

What is Power Saving Mode?

Power Saving Mode (PSM) allows the device to disable its cellular radio and 'sleep' in a lower power mode while remaining registered to the network, resulting in significant power savings.

To enable PSM, both the network and mobile device need to support this feature.

Timer values negotiated between the network and mobile device determine duration the mobile device can 'sleep' for and how long the mobile device is reachable after waking up.



PSM is not always available on roaming networks and timers can vary by network

Power Saving Mode

What is eDRX?

Extended Discontinuous Reception (eDRX) can be used by IoT devices to reduce power consumption even further.

If supported by the network, eDRX will allow the mobile device to switch off the receive side of the cellular module to save power. eDRX can be used without PSM or in conjunction with PSM to obtain additional power savings.

Whilst not providing the same levels of power reduction as PSM, for some applications eDRX may provide a good compromise between device reachability and power consumption.



eDRX is not always available on all networks





Predictive Maintenance









Metering



Building Automation



Smart Cities



Video Surveillance

RKE S S

SCALABLE

Global roaming solutions with access to 600 networks in over 200 countries

SECURE

Secure network with access to private static IP addresses. VPN connection to private / public cloud

FUTURE-PROOF

Multi-network capabilities enable access to high data options

Find out more or start your trial

www.arkessa.com



Watch the video: