STACKFORCE
embedded.connectivity.solutions

DUAL STACK

OMS® v4.5.1 / wM-BUS + OMS® over LoRaWAN® (TR06)

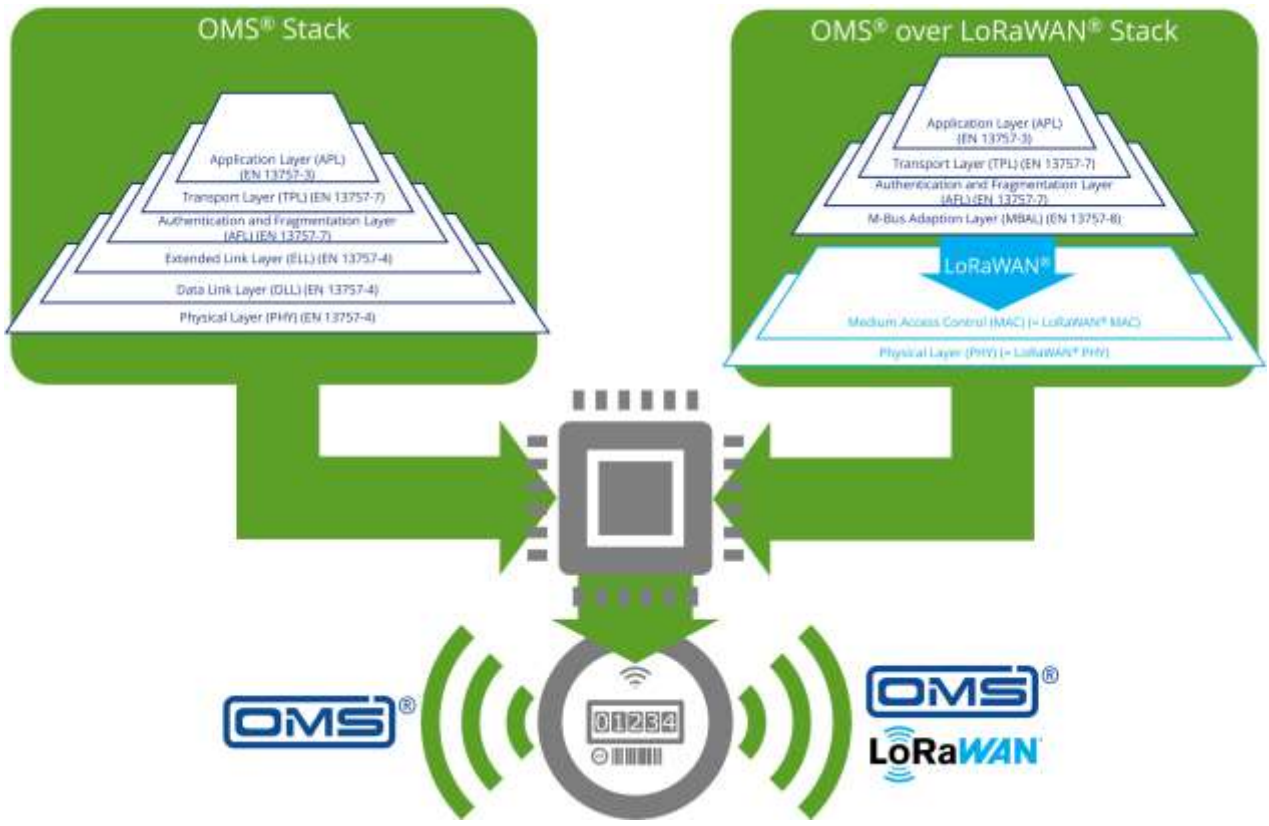
Smart utilities need more than a good network. They need a great connection with the best possible flexibility for different application scenarios. Why not offer your customers exactly that?

By integrating our dual stack for end points, you enable your customers to have interoperable devices with the latest OMS® v4 and TR06 specified communication.

OMS over LoRaWAN® defines how OMS® compliant data packets can be exchanged bidirectionally via LoRaWAN®.

The dual stack enables both remote meter reading via fixed networks and via walk-by / drive-by to ensure 100% data collection.

Take advantage of these standards in your product development – this way you can meet your customers' requirements with strong OMS® solutions.



Seamless switching between stacks ensures maximum flexibility

Remote meter reading enabled by fixed networks and drive-by / walk-by

Ease of integration of LoRaWAN® into the OMS® world

Pre-certification on reference hardware platform

SUPPORTED SPECIFICATIONS

- EN 13757 (Wireless M-Bus)
- Open Metering Standard (OMS®)
- OMS® over LoRaWAN®
  (acc. to TR06 v2.0.8) specification

STACK FEATURES

OMS® v4.5.1 / Wireless M-Bus

- Operation modes S, T or C
- Security profiles A and B (encryption modes 5 and 7)
- OMS® Annex C „Sensor“ compatibility
- OMS® Annex M "Requirements for OMS® use case support“

OMS® over LoRaWAN®

- OMS® Up- & Downlink via LoRaWAN®
- Security profiles A, B & D

REFERENCE HARDWARE

- STM32WL5/STM32WLE5

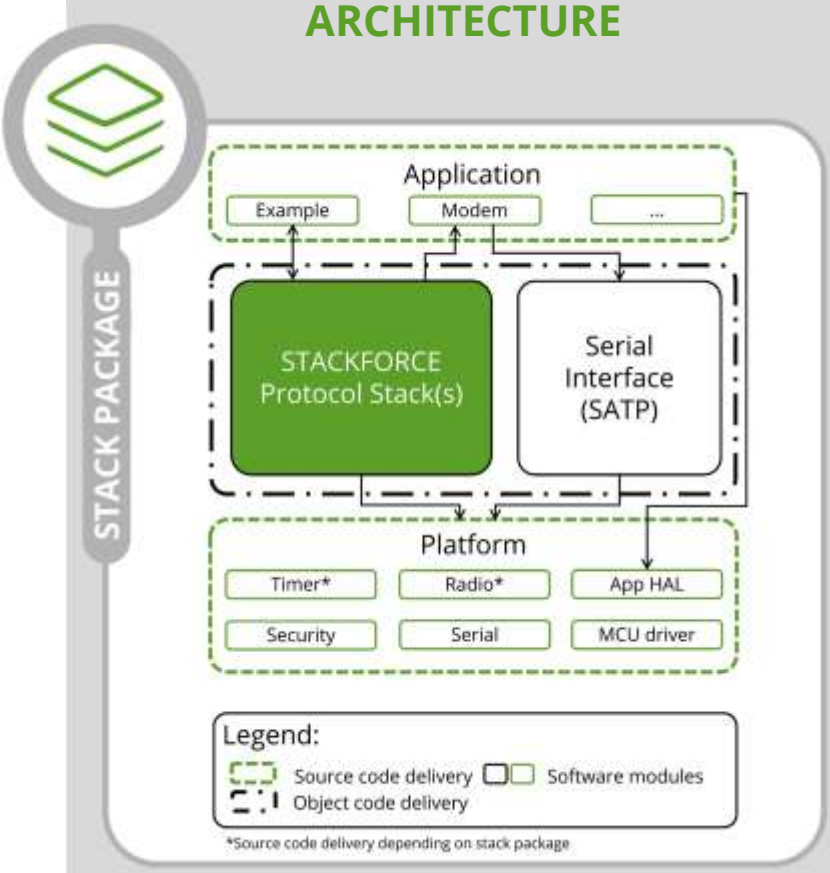
STACK CHARACTERISTICS

Memory requirements*

	Library	Applications, HAL, drivers, other software
Unidirectional		
Flash	~ 74 kB	~ 26 kB
RAM	~ 8,7 kB	~ 8,3 kB
Bidirectional		
Flash	~ 87 kB	~ 26 kB
RAM	~ 9,2 kB	~8,3 kB

* The code sizes described above specify the typical required memory for operating the full featured protocol stack as a library including related drivers. Values based on reference hardware. The RAM requirements for LoRaWAN® FUOTA are not included in the values, as these are very dependent on the application.

STACK PACKAGE ARCHITECTURE



YOUR BENEFITS

✓ Exchange of standardized OMS® data points, which facilitates the reuse of existing systems for data processing

✓ Platform Interface now available as source code:
- Customization and fine tuning of platform driver
- Customization of radio settings (e.g., frequency)

✓ Optimized footprint when using a dual stack compared to using two single stacks