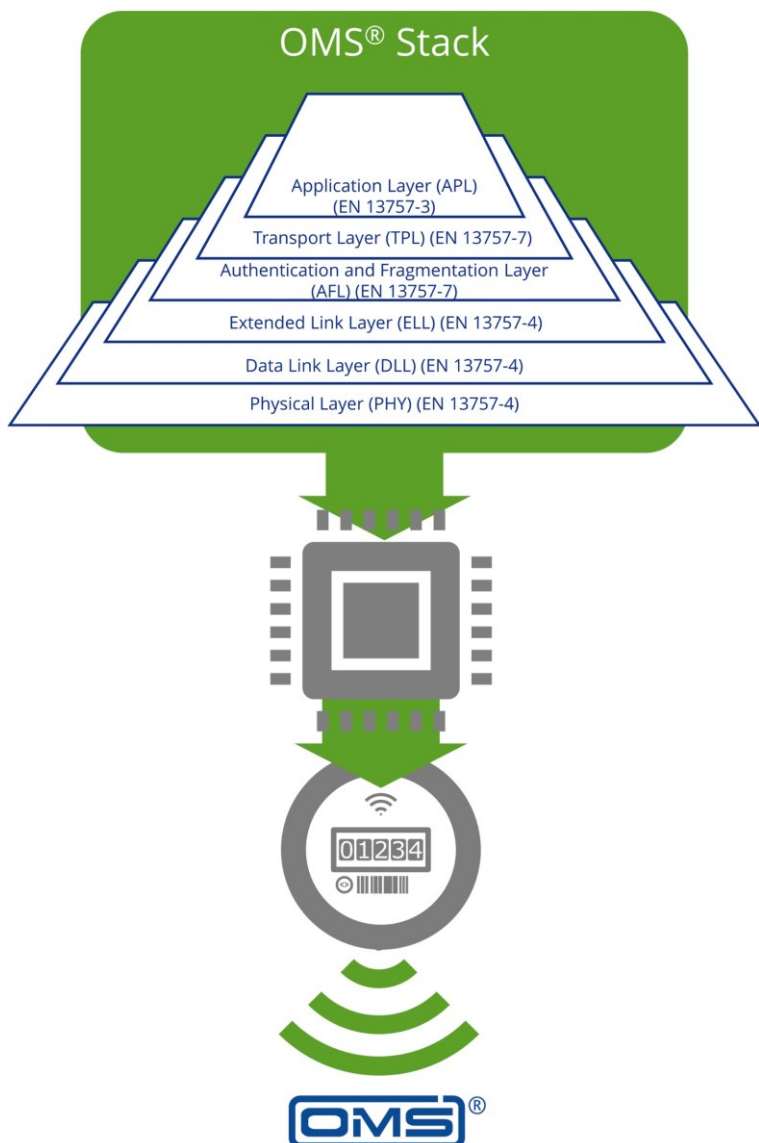# OMS® v4.5.1
FOR END DEVICES

The OMS® Stack for End Devices is the proven software solution for metering applications from our product portfolio and comes with some new features in OMS® version 4.5.1.

The stack implements all the protocol elements required for Wireless M-Bus compliance and covers a large part of the options and features specified in EN 13757 and its sub-standards, with a focus on the most commonly used options and features.

This single stack is optimized for a compromise between small footprint, excellent modularity and scalability, but still rich in features.

With the OMS® v4.5.1 Stack, you can be sure to equip your products with a proven and constantly evolving software solution.

OMS® Stack

- Application Layer (APL) (EN 13757-3)
- Transport Layer (TPL) (EN 13757-7)
- Authentication and Fragmentation Layer (AFL) (EN 13757-7)
- Extended Link Layer (ELL) (EN 13757-4)
- Data Link Layer (DLL) (EN 13757-4)
- Physical Layer (PHY) (EN 13757-4)

✔ Compliant to EN 13757 -3/-4/-7 (Wireless) M-Bus and OMS® Specification

🔋 Low complexity and optimization of energy consumption

⬇⬆ Bidirectional as well as unidirectional communication possible

🏅 Pre-certification on reference hardware platform

SUPPORTED SPECIFICATIONS

Compliant according

- EN 13757-3/-4/-7
- OMS® Specification

STACK FEATURES

- EN 13757-3/-4/-7 (Wireless M-Bus) compliant protocol stack for meter
  - o Operation modes S, T or C
  - o Encryption modes 5 and 7
- Compliant to specification OMS® v4.5. by OMS® group, referring to EN 13757
  - o Security profiles A or B

New

- Security profile D (encryption mode 10
- Annex C „Sensor" compatibility
- Enables application to support all use cases specified by Annex M „Requirements for OMS® use case support"
- Enables optimization of TRX timing

REFERENCE HARDWARE

STM32WL55 / WLE
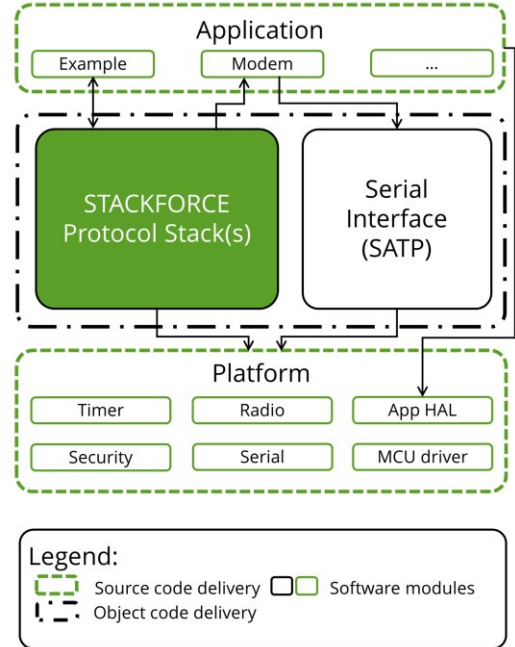
STACK CHARACTERISTICS

Memory requirements*

	Library	Applications, HAL, drivers, other software
Flash	~ 58 kB	~ 25 kB
RAM	~ 3 kB	~ 7 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.

STACK PACKAGE

Legend:
- Source code delivery
- Object code delivery
- Software modules

YOUR BENEFITS

✓ Optimization of energy consumption and usability of utilities (as e.g., CRC or AES) by application

✓ On-the-fly configuration: Quick stack adaption to different use cases

✓ Stack porting to your specific hardware

✓ With a directly available OMS® v4.5.1 Standard Stack you shorten your time-to-market significantly.

STACKFORCE
embedded.connectivity.solutions