



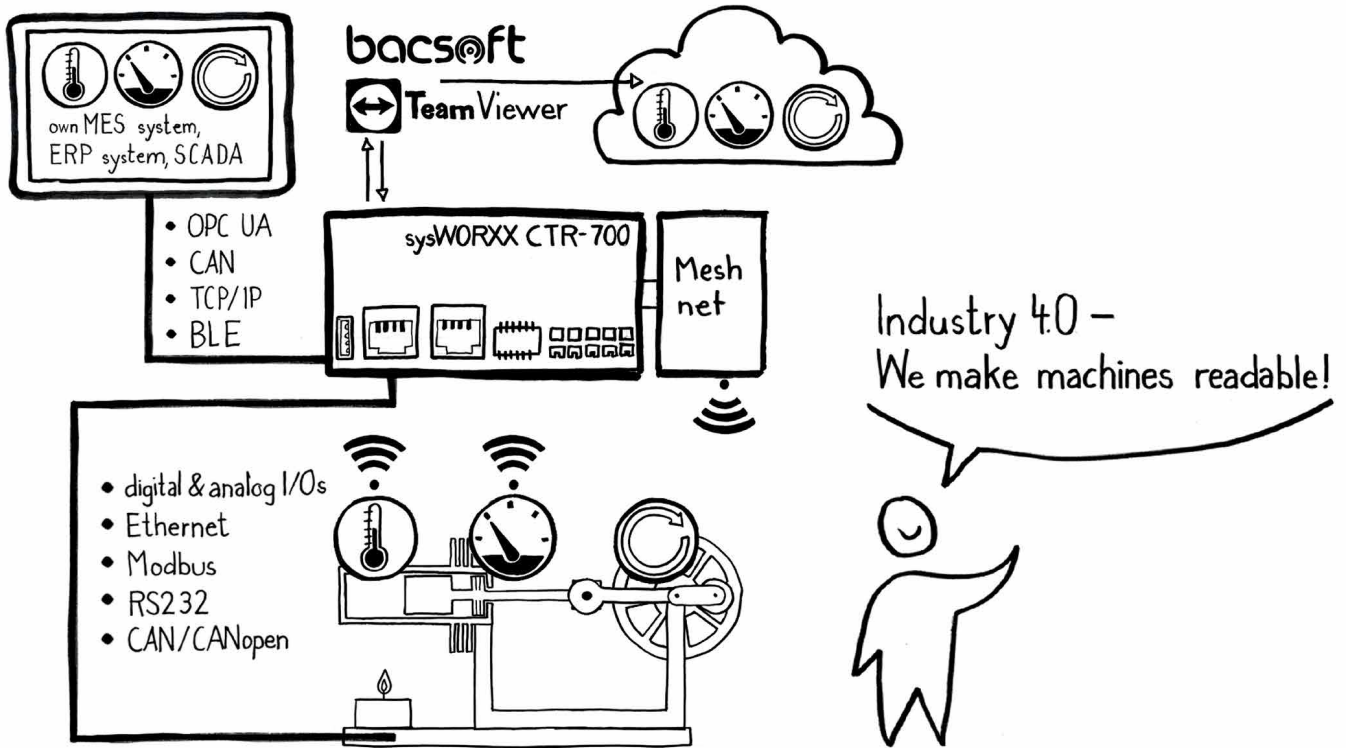
LIVE MONITORING AND CONTROL VIA RADIO with long battery life

Use Cases:

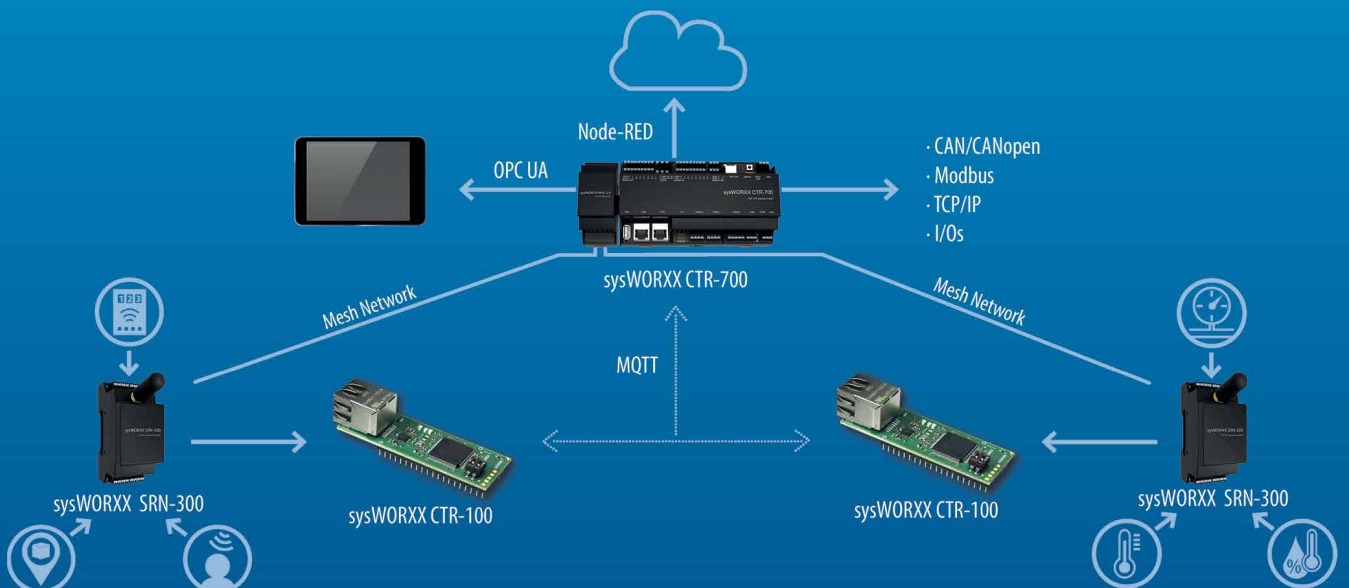
Energy Management, Asset Tracking, Machine Monitoring

sysWORXX SRN-300 – Short range radio node for sensors and actuators with a battery life of up to 3 years incl. mesh network functionality

WE MAKE MACHINES READABLE



OUR sysWORXX IoT ECOSYSTEM



USE CASES FOR THE INDUSTRY 4.0

MACHINE MONITORING

Live monitoring & signal control of machine data



SOFTWARE DETAILS sysWORXX SRN-300

SYSTEM SOFTWARE

Firmware	Application with Wirepas Mesh Network
Firmwareupdate	Over-the-air

BLUETOOTH VS. WIREPAS MESH NETZWERK

Estimated battery life of sysWORXX SRN-300 with

Bluetooth Mesh:

14 days*

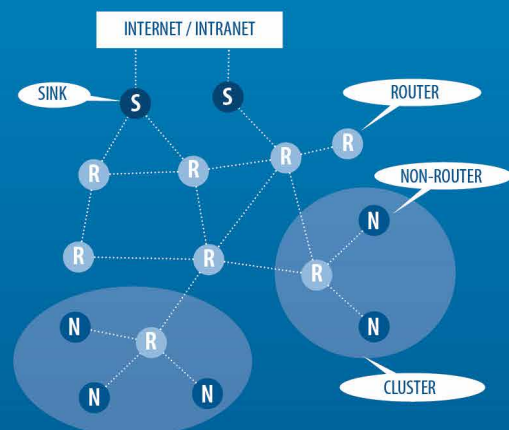


Wirepas Mesh:

1-5 years*



MESH NETWORK TOPOLOGY



Node Roles:

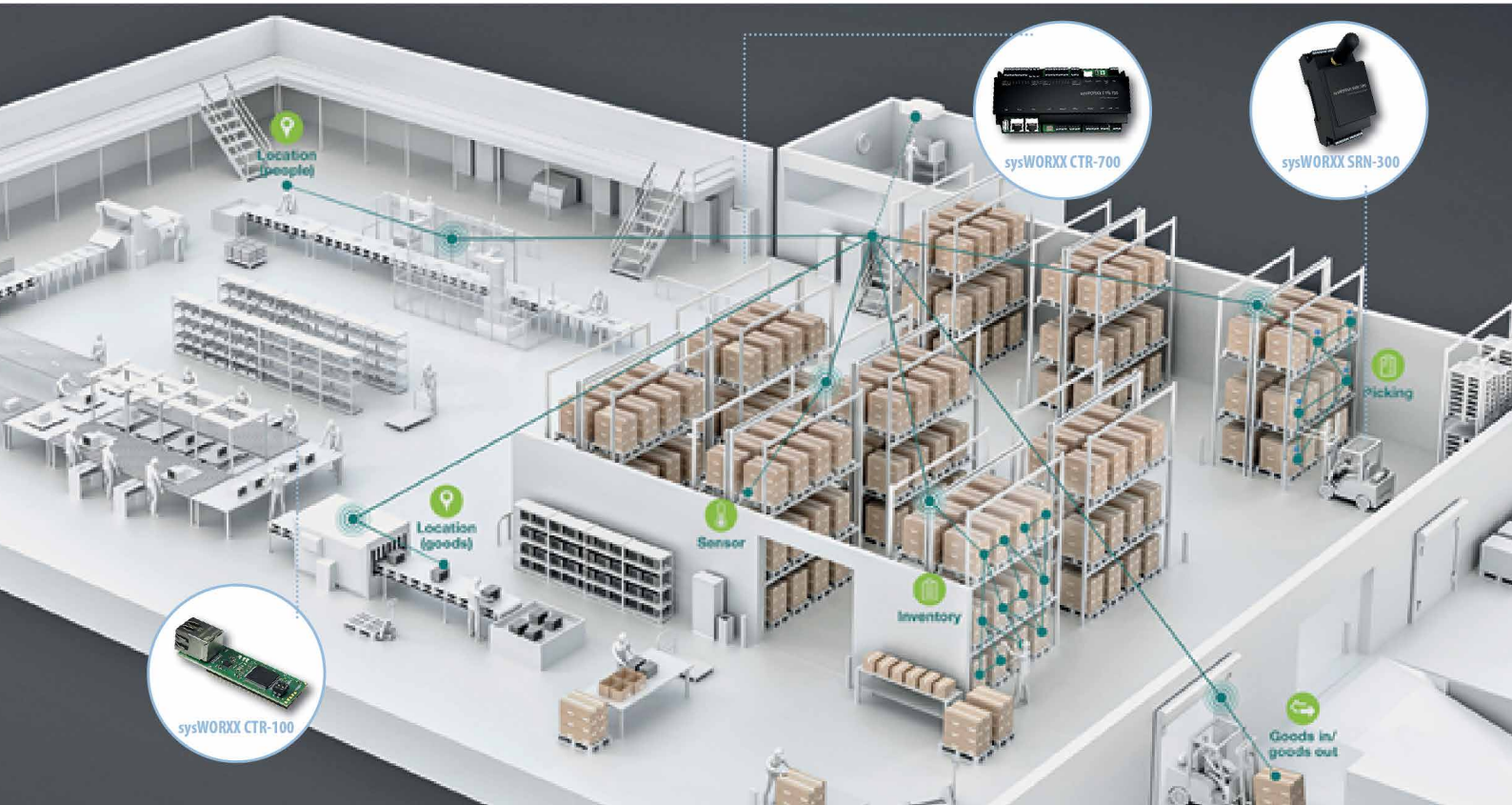
- Router = Head Node
- Non-router = Sub Node / Leaf Node
- Sink = Gateway to Internet

*heavily dependent on network and node configuration

USE CASES FOR THE INDUSTRY 4.0

TRACKING OF GOODS

Efficiency increase through monitoring in industry/production



ADVANTAGES sysWORXX SRN-300

- Radio interface for sensors and actuators
- Software stack allows activation only if it's necessary
- Result: extremely low battery consumption with battery life of 1-3 years
- Suitable for mesh networks (*details see software details*)
- Measurement of any physical quantities of a machine - no dependency of exclusively single physical quantities of a machine
- NFC antenna for provisioning
- 4 LEDs to indicate the device status make commissioning easier (*power LED for 24V supply, 2x status LED for D10 and D11*)



USE CASES FOR THE INDUSTRY 4.0

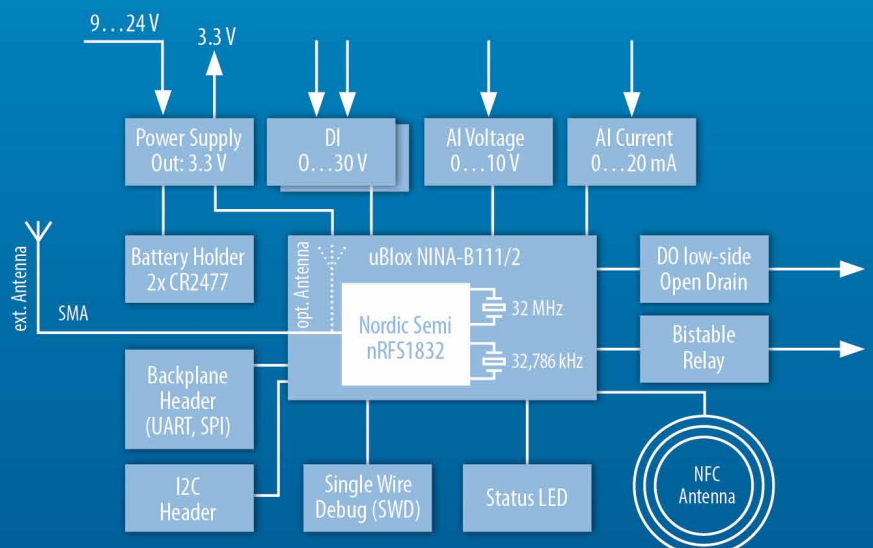
ENERGY MANAGEMENT

Monitoring of stationary and mobile energy systems



HARDWARE DETAILS sysWORXX SRN-300

- Mountable on DIN Rail
- SoC
 - Nordic Semiconductor nRF52832
 - Cortex-M4F, 64 MHz
 - 64 kB RAM on-chip, 512 kB Flash on-chip
- Power Supply
 - Battery: 2x CR2477
 - 24V supply: 9...28V
- Connectivity
 - 2.4 GHz Transceiver with external antenna
 - NFC-A tag emulation for mesh network provisioning



block diagram sysWORXX SRN-300

FROM THE IDEA TO SERIES PRODUCTION

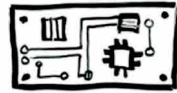
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1. Concept



2. HW-Design



3. SW-Design



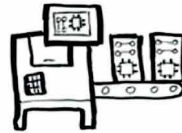
4. Casing



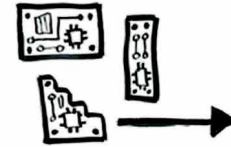
5. Prototype



6. Series



7. EMS



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