

# MYNXG Warehouse

Create integrated supply chain solutions across the entire value chain. Drive efficiency with digital workflows and integrate supply processes, warehouse management and customer consignment stores.

The effective integration of your supply chain, internal warehouse management and automated supply processes towards your customers is key. MYNXG SMART enables the creation of supply chain interactions at zero cost. The basic version uses the SMART Warehouse App and the GS1 QR-Code labels to automate your warehouse or consignment store. Full automation can be achieved by usage of combined GS1 QR-Code and RFID labels as well as RFID readers for forklifts and gates.

## Cloud-based Warehouse Technology

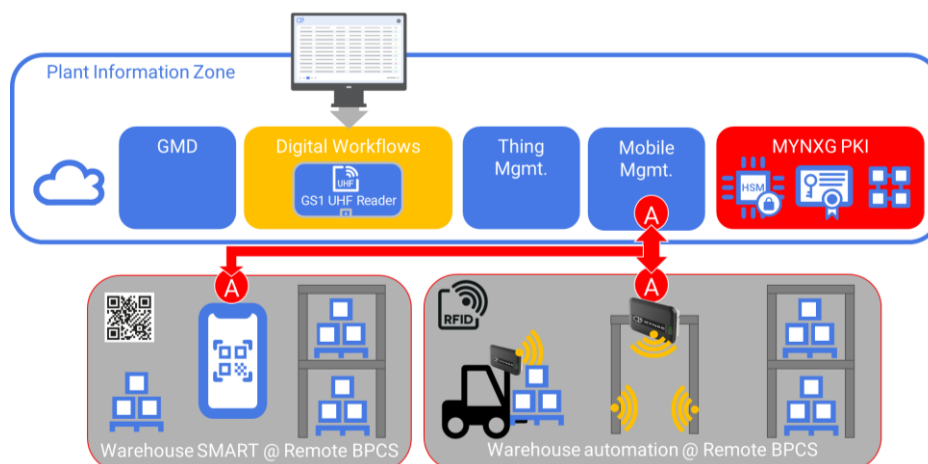
MYNXG Warehouse is based on standardized GS1 labels combining two technologies, the QR Codes readable by any smartphone and the RFID UHF tags for automated label read- and write processes.

MYNXG SMART applications are used to create zero cost process interaction. For example, consignment stores are created by supplying pallets with products, SMART QRC reading is used to report product consumption, re-ordering is triggered, if wished fully automated.

MYNXG RFID UHF readers are securely connecting warehouses via cellular 5G /LTE technology with the MYNXG cloud. Create retrofit solutions for existing warehouses and including digital workflows to create business models fast and efficiently.

## Customer Benefits

- Align automation cost and sales revenue by providing consignment stores at zero cost
- Create full automation with RFID UHF technology when economy of scale is reached
- Digital workflow solution for fast and flexible warehouse processes
- Pre-integrated with SAP Extended Warehouse Management
- Reader solutions based on Turck RFID reader and antenna technology





### Cloud-based Warehouse Technology

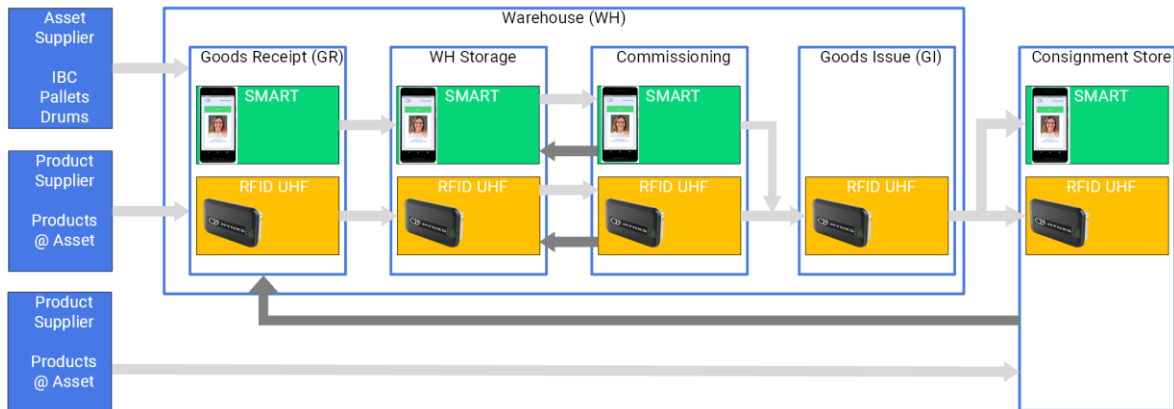
Create highly flexible supply chains by adding process modules combining QRC and QRC RFID technology. Every process step can be implemented with SMART or with RFID UHF automation.

**Goods Receipt (GR):** registration of goods, labeling and Electronic Inventory of GR. **Warehouse (WH) Storage:** management of storage places (bins) via electronic inventory. **Commissioning:** packaging of goods to assets according to picking list and creation of Bill of Lading (BOL). **Goods Issued (GI):** monitoring of goods leaving the warehouse and shipment control.

**Consignment Store:** monitored store at you customer including Electronic Inventories and re-ordering / replenishment processes.

### Benefits of MYNXG devices

- ISA/IEC 62443 compliance for SMART apps and RFID UHF readers create industrial grade security.
- MYNXG RFID UHF reader can be installed everywhere without IT support and will securely connect via LTE/5G to the MYNXG cloud.

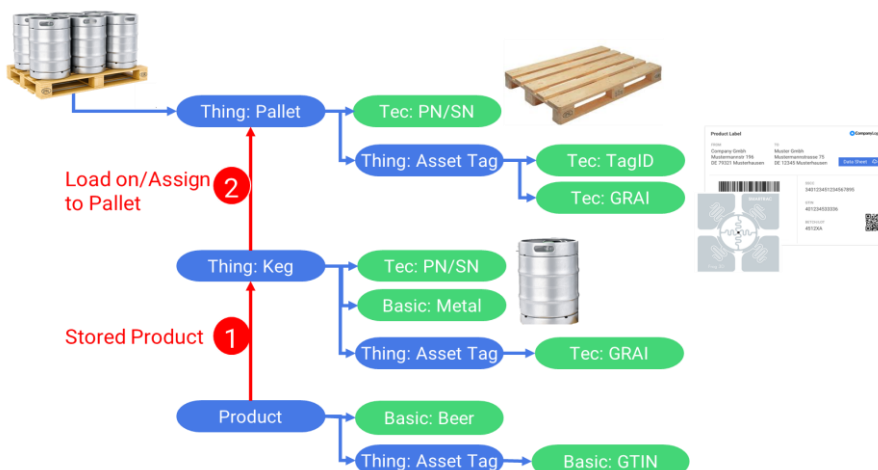


### GMD Warehouse Automation

Global Master Data (GMD) create the logical link between assets and products. The example below shows a pallet, transporting six barrels (kegs) filled with beer. Multiple labels are utilized and create a unique traceable structure. Pallets and kegs are identified via Global Returnable Asset Identifier (GRAI). Products are identified via the Global Trade Identification Number (GTIN) and the Serial Shipping Container Code (SSCC) is used for the pallet, kegs, and the product in our case the beer.

### Benefits GMD Data

- Data structures that are GS1 compliant and that can be implemented across all industries





## Functions

### GS1 Coding Standards, release 19 or later



- QRC Symbol as GS1 compliant 2D label
- Serial Shipping Container Code SSCC for shipments
- Global Returnable Asset Identifier GRAI for e.g. pallets
- Serialized Global Trade Item Number SGTIN for products referenced via GTIN and unique serial number

### RFID UHF tags @ MYNXG GS1 labels



- RFID UHF tags according to ISO 18.000, part 6
- Optimized labels for pallets, kegs, bags, bins etc.
- Optimized labels for paper, wood, fluids, and metals
- Product labels with storage space for SGTIN
- Asset labels to store SSCC, SGTIN, GRAI information

### QR-Code @ MYNXG GS1 labels



- Read with your SMART the QRC info from the label
- QR coded information include SSCC, SGTIN and GRAI
- SMART supports all warehouse processes

### Goods Receipt



- SMART-based QRC reader solution OR
- RFID UHF gate solutions for automated processing
- MYNXG Edge Q180 RFID UHF reader and 3 antennas identify incoming goods in real time

### Warehouse Storage Processing



- Forklift version of MYNXG Edge Q180 RFID UHF reader
- Asset labels mark each warehouse storage place (bin)
- MYNXG creates pairs the information pairing of pallet, goods, and storage place in real time

### Commissioning



- SMART-based QRC reader solution OR
- RFID UHF commissioning place with
- MYNXG Edge Q180 RFID UHF reader and 4 antennas identify the picking and packing of goods in real time

### Goods Issued



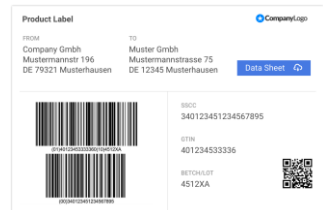
- SMART-based QRC reader solution OR
- RFID UHF gate solution for automated processing
- MYNXG Edge Q180 RFID UHF reader and 3 antennas detect any shipment of pallets, assets, and products.
- Electronic inventories provide real time information

## Information provided

### Applied Methods

- RFID UHF reading /writing
- QRC reading
- MYNXG signing and whitelisting of Software
- MYNXG blockchain transactions
- SMART application technology including Android™ class KeyStore and SafetyNet Attestation
- MYNXG digital workflows BPMN 2.0 based
- MYNXG MBB functions for each warehouse element

### Customer Benefits

- Create integrated supply chains with standardized GS 1 QRC RFID labels
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- End-2-end RFID UHF solution including labels, tags, and readers for each warehouse process step and commonly used good / shipment combinations
  - ISA/IEC 62443 certified industrial grade security
  - Blockchain transactions create secure transactions and provide audit logs



MYNXG

## MYNXG Warehouse Product Information

**MYNXG Warehouse** is compliant with the

- RFID UHF Tags according to ISO 18.000, part 6
- GS1 Coding Standards, release 19 or later

**MYNXG SMART** requires a MYNXG user account and asset owner invitation, SMART can be automatically installed at any Android™ Smartphone. SMART is providing MYNXG Warehouse functionality.

- SMART is provided at zero cost for MYNXG User “Viewer”
- SMART may cause blockchain transaction fees.
- SMART can be configured per user / per solution

**MYNXG Edge Q180 RFID UHF Reader** is combining the

- Turck Q180 reader/writer for RFID UHF Tags,
- Turck Antenna Solutions like the Q191 and the
- MYNXG Edge FCO 4G ECO with LTE/WCDMA capabilities,
- MYNXG Edge FCO 5G ECO with 5G/LTE/WCDMA capabilities,
- MYNXG Edge FCO ECO Technology is CE/FCC certified and
- MYNXG Smallest Possible Cell Technology compliant.

**MYNXG Warehouse** is integrated with the SAP Extended Warehouse Solution, this solution will be available during Q4 2021.

**MYNXG Labels** supporting GS1 compliant labeling including QR code and RFID tags providing:

- Symbol as GS1 compliant 2D label,
- Serial Shipping Container Code SSCC for shipments,
- Global Returnable Asset Identifier GRAI for pallets,
- Serialized Global Trade Item Number SGTIN for products.

**MYNXG Tags for Assets and Products** supporting GS1 compliant tags for packaging scenarios combining

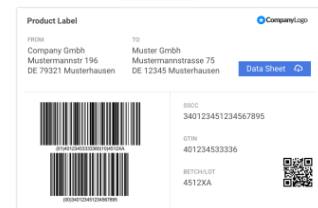
- Warehouse storage places
- Pallet’s wood, plastic, metal
- Intermediate Bulk Containers plastic /metal for liquids
- Kegs and Drums plastic/metal
- Bags plastic /paper for dry material and granulates
- KLT “Kleinteile Ladungsträger” small bin container

## About MYNXG

MYNXG is a secure industrial IoT architecture to protect assets, infrastructure, and their data to the highest cybersecurity standards. MYNXG is the technology of choice to securely connect operational devices in highly regulated industries and the people interacting with them. The platform supports all industrial interfaces at the device level, provides cloud platform APIs and provides digital workflow support for BPMN 2.0.

The MYNXG platform sets the de-facto security standard for operational technology and is fully ISA/IEC 62443 certified.

## Warehouse Products



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