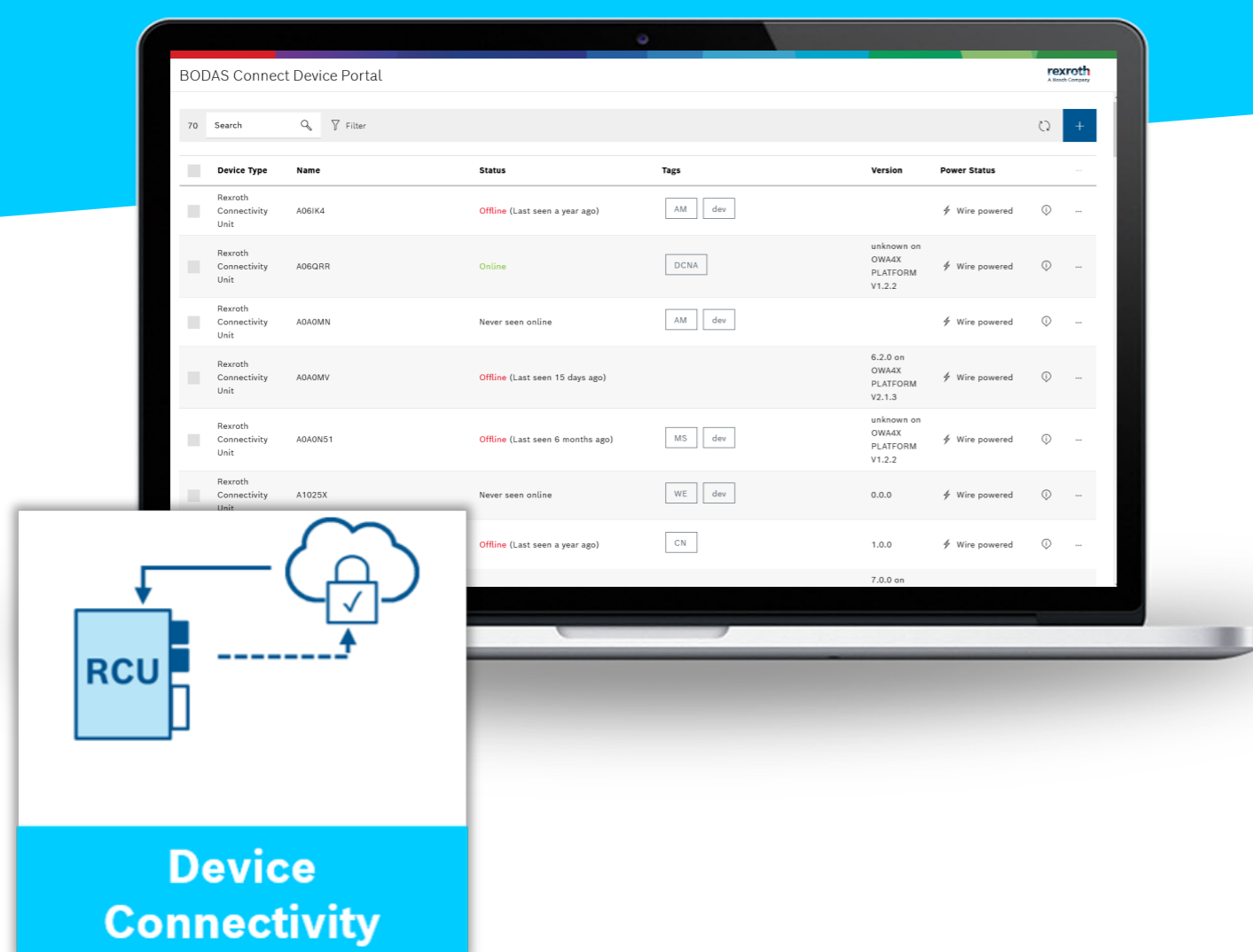


BODAS Connect – Device Connectivity

Connect and manage off-highway vehicles anywhere anytime

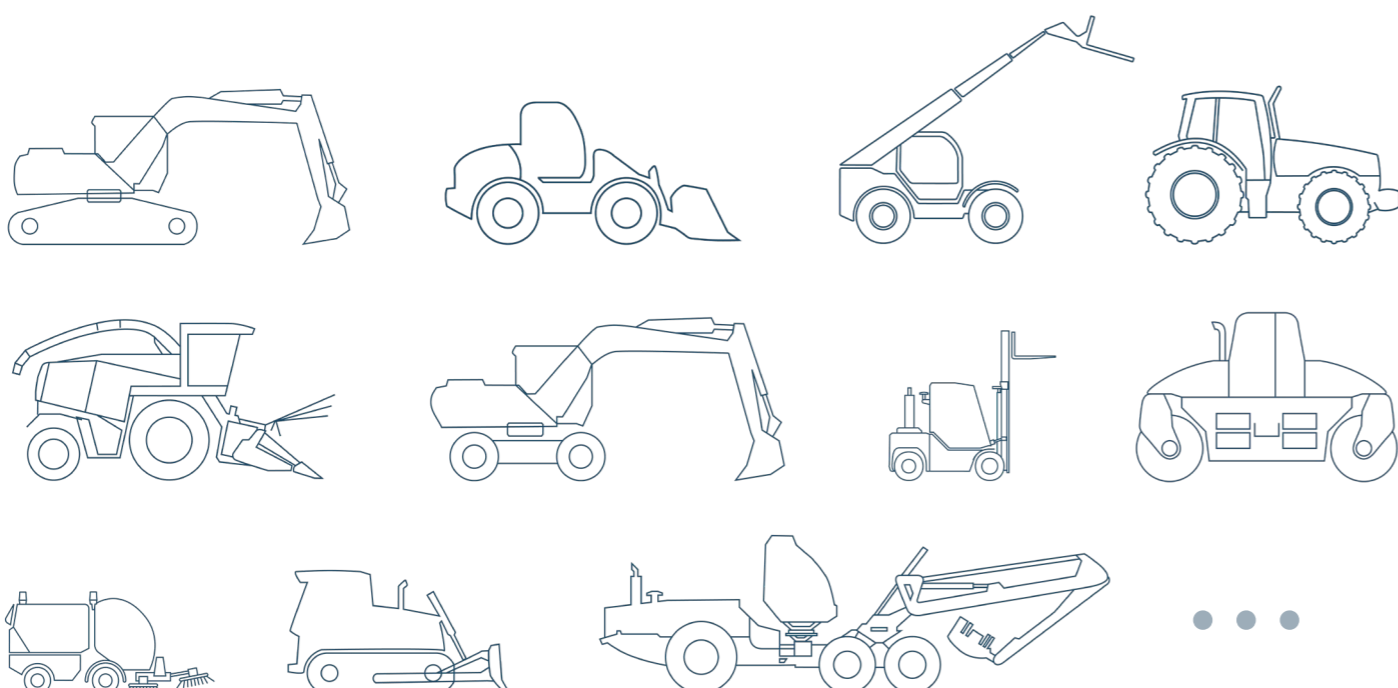


The digital transformation of the off-highway market is already well underway and has given rise to new challenges for mobile machines. In our continuous effort to support clients as a strong partner and solutions provider, Bosch Rexroth combines in-depth applications expertise and the BODAS software and hardware portfolio to create an integrated Internet of Things (IoT) solution – BODAS Connect. As an integral part of BODAS Connect, Device Connectivity uses the Rexroth Connectivity Unit (RCU) to enable numerous options to wirelessly access the control networks of off-highway vehicles. Interactions include flashing, diagnosis and parametrization of Rexroth Controllers (RC).

CUSTOMER BENEFITS

- Connect and monitor off-highway machines with a vast portfolio of Linux-based RCUs for future-proof applications with modular device software and easy portability
- Integrated device management with diagnostic, snap and certificate management as well as communication management via eSIM or plug-in SIM
- Remotely manage and diagnose all devices in network
- Over-the-air (OTA) services for RCUs, RCs and third-party UDS-based controllers and displays – or even entire fleets
- Flexibly add data management: BODAS Connect – All-in-One Connectivity

APPLICATIONS



FUNCTION AND BENEFITS

Connect and monitor off-highway machines

With Rexroth BODAS Connect Device Connectivity, connecting and monitoring off-highway machine applications no longer requires reinventing the wheel. In three steps customers can connect their machines online:

1. Choose the desired RCU variant
2. Configure and customize it via Device Management
3. Monitor your machines anywhere anytime

And for implementing further data-driven business models, customers can choose to either implement their own data management or use our fully flexible offerings from Bosch Rexroth All-in-One Connectivity.

Linux-based RCU for future-proof applications and easy migration

The RCU features a state-of-the-art microprocessor-based architecture that enables remote development, deployment and operation of IoT applications. Thanks to the device software's container-based architecture, customers can flexibly add and manage software functions that can be written in most of the common languages. This architecture also supports seamless migration to other Linux-based TCUs and thereby prepares customers for future technologies like 5G. Being IP67 compliant, it is perfectly suited for use in off-highway applications.

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TECHNICAL DATA

Device Connectivity

Subscription model Monthly

Rexroth Connectivity Unit

RCUx-x/xx Variants according to RE95430

Operating system Linux OS

Device Software

Software layers Linux OS and hardware drivers
Network services
Hardware layer
System layer
Application layer

Application format SNAP application containers. These offer the possibility to implement individual software in hardware-independent containers

Programming languages C, C++, Java, Python, JavaScript, Go

Device Management

Backend Container-based Device Management

Functionalities Device configuration and management
Security management
Communication management
Application management
Opt.: mobile network connection

Over-the-Air- (OTA-) Services Device Software OTA
ECU Firmware OTA
Parameter OTA (RCs)
Diagnostics OTA (RCs)

Data sheet **RE95406**

Remotely manage and diagnose controller networks

With Rexroth BODAS Connect Device Connectivity, connecting off-highway machines couldn't be easier:

- Monitor RCU status and implement new functions
- Develop and deploy features anywhere anytime
- Benefit from BOSCH security and data privacy features

Over-the-air services for the RCU and connected controllers

BODAS Connect Device Connectivity offers a large variety of over-the-air services, enabling convenient wireless access to machine control networks even from within the home office.

- SOTA: Update RCU device software and deploy features
- FOTA: Roll-out firmware updates to any machine ECU or to entire fleets (campaign management)
- POTA & DOTA: Read and write parameters for single Rexroth controllers or troubleshoot errors with the DOTA Diagnosis-toolkit – all done remotely, anywhere anytime.

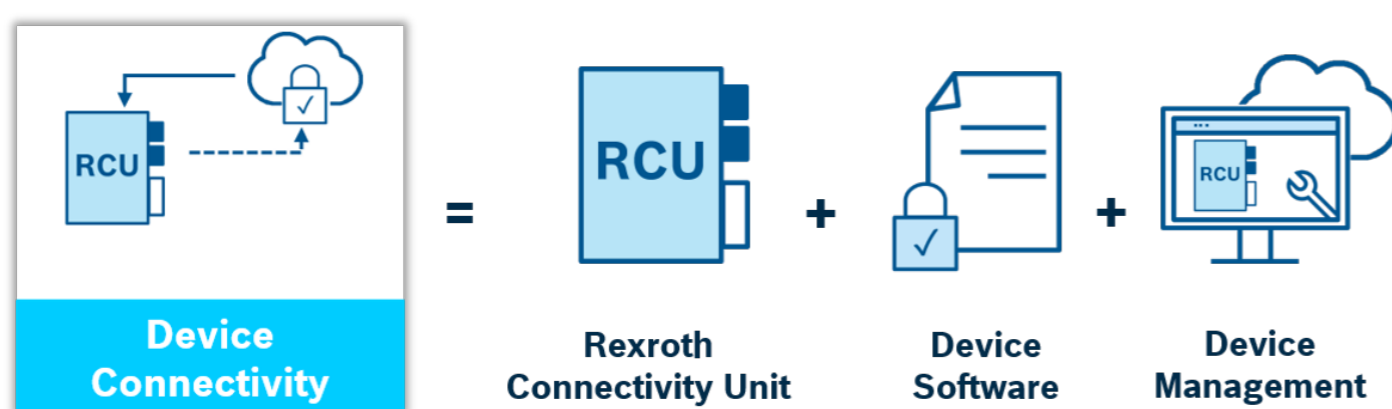
Device Connectivity – getting started

Contact your Bosch Rexroth sales representative to get your desired RCU delivered (available in various performance classes & configurations). Only a few clicks and you are ready to connect your machine & operate your RCU online.

- Start small with a handful of devices; scale seamlessly anytime to millions of machines
- no vendor lock-in; unsubscribe anytime

Flexibly add data management

Interested in learning more about the possibilities of connecting off-highway machines? Have a look at the Rexroth All-in-One Connectivity solution. Its preconfigured functions offer a wide choice of services that precisely fit individual requirements.



BODAS Connect – Device Connectivity

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