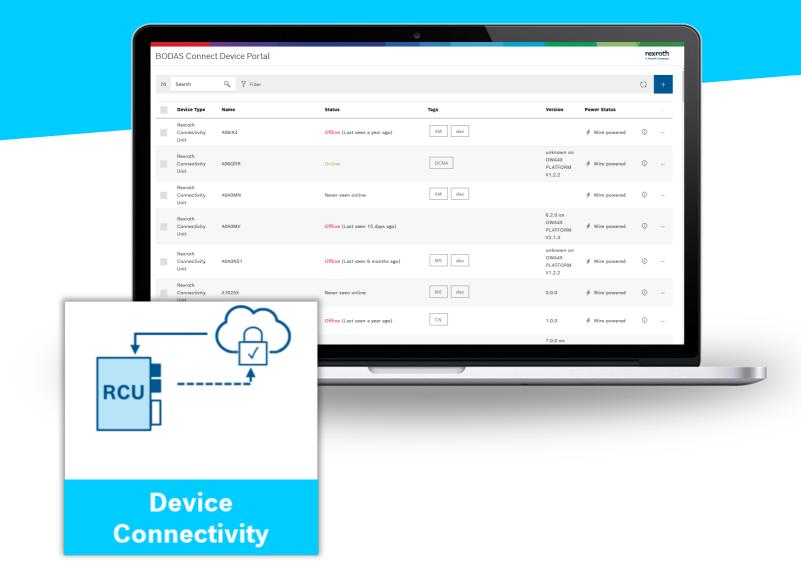


## **BODAS Connect** – **Device Connectivity**

Connect and manage off-highway vehicles anywhere anytime

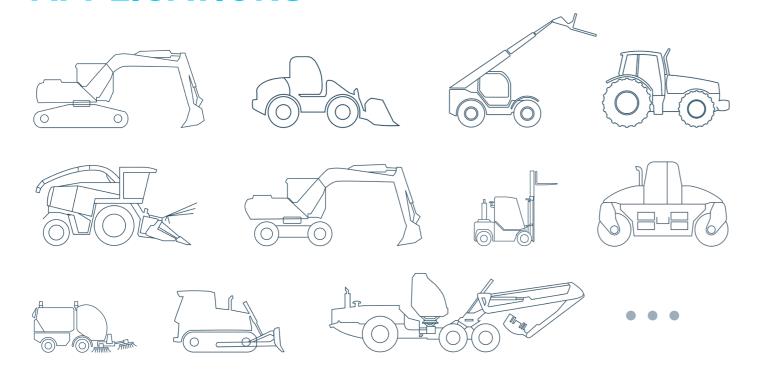


The digital transformation of the off-highway market is already well underway and has given rise to new challenges for mobile machines. In our continuous effort to support clients as a strong partner and solutions provider, Bosch Rexroth combines in-depth applications expertise and the BODAS software 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.

#### **BODAS Connect - Device Connectivity**

Connect and manage off-highway vehicles anywhere anytime

#### **TECHNICAL DATA**

#### **Device Connectivity**

Data sheet	RE95406
Over-the-Air- (OTA-) Services	Device Software OTA ECU Firmware OTA Parameter OTA (RCs) Diagnostics OTA (RCs)
Functionalities	Device configuration and management Security management Communication management Application management Opt.: mobile network connection
Backend	Container-based Device Management
Device Management	
Programming languages	C, C++, Java, Python, JavaScript, Go
Application format	SNAP application containers. These offer the possibility to implement individual software in hardware-independent containers
Software layers	Linux OS and hardware drivers Network services Hardware layer System layer Application layer
Device Software	
Operating system	Linux OS
RCUx-x/xx	Variants according to RE95430
Rexroth Connectivity	y Unit
Subscription model	Monthly

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**BODAS Connect – Device Connectivity** 

#### 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 Diagnosistoolkit – 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.

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