FAQs about the RFID Server

Commissioning, configuration, troubleshooting

How does the RFID Server get its IP address?

The following three methods are available for initial assignment of the IP address. Detailed descriptions of all the procedures are found in the corresponding section of the manual for the RFID Server.

Management and inventorying tool WuTility
Using the *Scan* function of *WuTility* RFID Servers located in the local subnet are automatically searched for and displayed in a list. Devices whose current IP address is 0.0.0.0 (=factory default) can then be assigned a valid address by clicking on the button *Assign IP address*.
Static ARP cache entry
Via a static entry in the ARP cache of a TCP/IP computer located in the same sub-network followed by a ping. In the same way as when using *WuTility*, this method is only possible if the RFID Server currently has no IP addressed assigned to it.
Input example in Windows: *arp -s [IP address] [MAC address]*
Assignment via BOOTP / DHCP
The IP can also be assigned in centrally administered networks using BOOTP or DHCP servers. This method offers the additional advantage that these protocols also allow simultaneous setting of the subnet mask and gateway address. In such centrally administered environments, please contact the responsible system administrator **before** connecting the RFID Server and ask the administrator to reserve a fixed IP address for the RFID Server in the DHCP system.

Additional information:
Manual for the RFID-Server
How is the RFID Server prevented from getting an undesired IP address in DHCP environments?

How does the RFID Server get the valid subnet mask and gateway address?

To be able to communicate beyond the local network, the RFID Server requires in addition to the IP address the subnet mask and gateway address valid for the respective subnet. Both values must be obtained from the responsible system administrator.

Assignment via BOOTP / DHCP
In centrally administered networks, the subnet mask and the gateway can also be assigned together with the IP address via the BOOTP or DHCP server.

Additional information:
Manual for the RFID-Server

Why can't I assign an IP address using a static entry in the ARP cache?

This method can only be used if the RFID Server does not already have a different IP address.
Some older Windows versions have a defective version of the program arp.exe, which is needed to edit the system-internal ARP cache. Here you can only make a new static entry if at least one other entry already exists. In this case, one remedy is to send a PING request to another TCP/IP station in the network, since this will force a dynamic ARP entry. The desired static entry can then be made immediately following.

How is the RFID Server prevented from getting an undesired IP address in DHCP environments?

The RFID Server uses DHCP-compatible BOOTP protocol to prevent this problem. In contrast to DHCP, this is based on fixed reservations for particular IP addresses for particular MAC addresses stored in a corresponding database. In other words, a DHCP server located in the network does not assign an IP address without a corresponding entry for the MAC address. Since some DHCP implementations (e.g. Win2000 servers) however in their standard configuration handle BOOTP and DHCP requests in the same way, we recommend deactivating the BOOTP client of the RFID Server if you want to use ARP to assign the IP address. The following option is provided for deactivation:

- via Web-Based Management under Config -> Device -> Network -> BOOTP disable

Additional information:
Manual for the RFID Server

How can the RFID Server be restored to its factory defaults?

The standard method of restoring the factory default settings is to use Web Based Management. After login, the RFID Server can be set to its factory defaults using Config >> Session Control >> Reset >> Factory Defaults. The IP address is reset to 0.0.0.0, which enables reassigning using the WuTility tool or a static ARP entry.

Additional information:
Manual for the RFID-Server

Where can I find current versions of the firmware, manuals, tools etc. for the RFID Server?

The quickest method is to use the Insider Search on our homepage. Enter the article number of your RFID Server and select the desired item in the menu located below.

How can a record of the network traffic be recorded?

All terminal devices which are connected to a network can experience communications problems for which no cause can be found at first glance. In such cases it is helpful to record the data traffic for these devices using a network analyzer. Instructions on how to do this can be found here.

How can RFID servers be inventoried in the network?

WuTility
By using the free RFID Server management and inventory tool WuTility for Windows. This automatically finds all RFID Servers located in the respective subnet as well as all other W&T devices (incl. those without a valid IP address) and creates a list with their most important basic information. Other functions include direct starting of Web Based Management, initial assignment of IP addresses, and software updates.

Additional information:
Manual for the RFID-Server

Why is an RFID Server no longer accessible under the "old" IP address after units have been exchanged?

The reason for this is often due to use of an identical IP address for 2 devices having different MAC addresses within a short time. TCP/IP stations update a dynamically administered ARP table which contains the assignments of IP-to-MAC addresses. If a replacement RFID Server which has the same IP address as its predecessor is placed in service, before resuming communication the "old" ARP entry device processing IP protocol before the RFID Server may need to be deleted.

ARP entries are automatically deleted after a certain time has passed with no data flow, so that if some considerable time has passed between when the device was replaced and resumption of communication, you can omit manual deletion. In addition, when restarted, the RFID Server generates special ARP packets which are used to update the ARP cache for newer TCP/IP stacks and switches.

Example 1: A Windows computer communicates with an RFID Server in the same IP subnet without use of a router. In this case you only need to use the following command to delete the no longer valid ARP entry: arp -d [IP address]

Example 2: Communication with an RFID Server takes place over one or more routers. After replacement, the ARP entry for the last router before the RFID Server (gateway) needs to be deleted. The specifics of this procedure can be found in the documentation from the respective manufacturer.

Note: *Since switches also process and save the MAC addresses of the connected devices, these must also be taken into account when replacing a device.*

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