funkwerk)))

enterprise communications

User's Guide

bintec R3000w / R3400 / R3800

External Systems

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1 External Systems Menu

The fields of the *EXTERNAL SYSTEMS* menu are described below.

In the *EXTERNAL SYSTEMS* menu external systems can be configured resp. monitored. Presently only the artem Access Point discovery is implemented.

1.1 Submenu artem Access Point Discovery/Configuration

The fields of the *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* menu are described below.

The options of this menu enable the discovery and configuration of artem Access Points that are located in the same wired network as your gateway. Once an access point has been discovered, a number of basic parameters (node name, IP address, netmask and gateway address) can be configured on the access point (given that you know the administrative password).

1.1.1 Submenu Initiate Discovery

In the *EXTERNAL SYSTEMS* ➜ *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* ➜ *INITIATE DISCOVERY* menu the discovery of possibly existing artem Access Points is initiated.

In ex works state the displayed list contains no entries. The following screenshot shows an example:

```
R3000w Setup Tool              Funkwerk Enterprise Communications GmbH
[EXT][artem AP][DISCOV]: artem AP Discovery                  MyGateway

 Press 'd' to run discovery on selected interface


 Interface  Operation  Result          Last Run

 ISP        none       no Error        10/29/04 13:57:55
 en1-0      discovery  no Error        10/29/04 13:57:55
 vss0       none       Dest.unreachable

    ADD              DELETE            EXIT


```

The list displays the following details about the configured entries:

Column	Description
Interface	This column displays the name of the IP interface which is configured for artem access point discovery. The name shown to identify the interface is the *IFDESCR* from the *IFTABLE*.
Operation	This column displays whether a discovery for artem access points is running. It is updated automatically to indicate, when the discovery operation has finished.
	It can assume the following values:
	■ *none*: Discovery is not running on this interface.
	■ *discovery*: Discovery is currently running on this interface.

Column	Description
Result	This column displays the result of the operation. It is updated automatically.
	Ensure that the network cable is plugged in to the required interface.
	The values are read-only:
	■ *no Error*: No discovery initiated or discovery was a success.
	■ *Dest. unreachable*: The interface is currently not usable, i.e. the interface is not operational, has no IP address assigned or has no associated direct route. The request could not be sent.
	■ *internal errror*: Is displayed, if the discovery has been configured more than once for one interface.
	Specific failure reason can be found in the syslog messages.
Last Run	This column displays the date and time of the last successful discovery. Nothing is displayed if no discovery has been performed yet or all discovery runs have been unsuccessful.

Table 1-1: *EXTERNAL SYSTEMS* ➜ *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* ➜ *INITIATE DISCOVERY*

By selecting an entry and pressing the **d** key on your keyboard, you can initiate the discovery process for the selected interface.

Note Possibly available artem access points are discovered by sending a multicast. Thus it is not important whether the access point has an IP address and which one it is.

Note

Note that discovered access point are not stored in the flash, i.e. the discovery has to be repeated after a reboot of your gateway.

You can add an instance of the access point discovery in the menu *EXTERNAL SYSTEMS* ➜ *ARTEM ACCESS POINT DISCOVERY/CONFIGUR-ATION* ➜ *INITIATE DISCOVERY* ➜ *ADD*:

```
R3000w Setup Tool            Funkwerk Enterprise Communications GmbH
[EXT][artem AP][DISCOV][ADD]: Add Interfaces for            MyGateway
                        artem AP Discovery

  Interface                 en1-0
  Operation                 none


            SAVE                             CANCEL

```

The menu contains the following fields:

Field	Description
Interface	Here you can choose for which of the IP interfaces the discovery is to be performed. All access points to which the gateway connects via this interface will be discovered.

Field	Description
Operation	Here you can choose if the discovery of an artem access point is to be triggered immediately when the entry is saved, i.e. as soon as you confirm with *SAVE*. Available choices are: ■ *none* (default value): No operation is performed when the entry has been saved. The discovery can later be triggered as described above. ■ *discovery*: Discovery on this interface is performed immediately after the entry has been saved.

Table 1-2: *EXTERNAL SYSTEMS* ➜ *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* ➜ *INITIATE DISCOVERY* ➜ *ADD*

1.1.2 Submenu View/Configure

Once you have run the discovery on all desired interfaces, you can view the result of the discovery and configure the discovered access points in the menu *EXTERNAL SYSTEMS* ➜ *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* ➜ *VIEW/CONFIGURE*:

```
R3000w Setup Tool            Funkwerk Enterprise Communications GmbH
[EXT][artem AP][CONF]: Discovered artem Access Points        MyGateway

Interface  AP MAC Address    Node Name  IP Address   / Mask

en1-0      00:01:cd:0e:a5:01  XAIR AP1   192.168.0.1   / 24
en1-0      00:01:cd:0e:af:02  XAIR AP2   192.168.0.20  / 24
en1-0      00:01:cd:0f:e4:03  XAIR AP3   192.168.0.30  / 24
en1-0      00:01:cd:0f:e4:ea  XAIR 4     192.168.0.30  / 24


EXIT


```

The list displays all discovered access points giving the following information: the interface of the gateway they have been found at, the MAC address of the access point, their current node name and their current IP configuration. You can change a number of values by selecting an entry and confirming with **Return**:

```
R3000w Setup Tool              Funkwerk Enterprise Communications GmbH
[EXT][artem AP][CONF][EDIT]: artem AP Configuration         MyGateway

  Interface        en1-0
  AP MAC Address   00:01:cd:0e:a5:01
  IP Status        unknown
  Operation        none
  Result           no Error
  Last Change      10/29/04 14:13:29

  Node Name        XAIR AP1
  IP Address       192.168.0.1
  Netmask          255.255.255.0
  Gateway Address
  Admin. Password

       SET              REFRESH              CANCEL


```

The menu offers the following configuration options:

Field	Description
Interface	The value of this field is read-only.
	This field displays the interface of your gatewy to which the access point is connected.
AP MAC Address	The value of this field is read-only.
	This field displays the MAC address of the access point.

Field	Description
IP Status	The value of this field is read-only. This field displays by which mechanism the access point has received its IP configuration. Possible values are: ■ *unknown*: The information cannot be collected from the access point. ■ *static*: The IP configuration was carried out manually. ■ *DHCP Lease*: The IP configuration was established by DHCP. ■ *DHCP Failed:* IP configuration by DHCP has failed and a fallback IP configuration, i.e. its static IP address or, if this has not been configured, the 0.0.0.0 (ex works state) is used.
Operation	The value of this field is read-only. This field displays the operation that is currently carried out, it is updated depending on the operation state, when you hit *REFRESH*. Possible values are: ■ *none*: No operation is currently running. ■ *set in progress*: A "set" operation is running, i.e. parameters are being configured on the access point.

Field	Description
Result	The value of this field is read-only. This field displays the result of a "set" operation. Possible values are: ■ *no Error*: The access point has reported success or a configuration modification with **SET** has not yet been initiated. ■ *no Reply*: The access point has not replied. ■ *Access denied*: The access point has reported an authorization failure. Please check the admin password. ■ *invalid IP parameters*: There is a problem with the intended IP parameters (IP address, netmask or gateway address). ■ *Dest. unreachable*: The acces point cannot be reached because of internal reasons (e.g. the interface the access point is connected to is down). A set request cannot be sent to the access point. ■ *other AP error*: The access point replies with an unexpected or unspecific error to the set request. ■ *internal Error*: A gateway internal problem has prevented the set operation.
Last Change	The value of this field is read-only. This field displays the date and time when the access point has been discovered or has last been configured.
Node Name	Here you can change the name of the discovered access point.

Field	Description
IP Address	Here you can change the IP address of the discovered access point.
Netmask	Here you can change the netsmask of the discovered access point.
Gateway Address	Here you can change the gateway address of the discovered access point.
Admin. Password	Here you must enter the admin password of the access point. Otherwise the set operation cannot be carried out.

Table 1-3: *EXTERNAL SYSTEMS* ➔ *ARTEM ACCESS POINT DISCOVERY/CONFIGURATION* ➔ *VIEW/CONFIGURE* ➔ *EDIT*

After starting the set operation with the **SET** button, the help line displays the message Set in progress... and the value of *OPERATION* changes to set *in progress*. To view the result of the configuration modification, hit **REFRESH**: *OPERATION* will change back to *none* and *RESULT* will display the outcome of the set request.

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