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enterprise communications

bintec Workshop

Configuration of Event Scheduler

Version 0.9

Purpose

This document is part of the user's guide to the installation and configuration of bintec gateways running software release 7.1.4 or later. For up-to-the-minute information and instructions concerning the latest software release, you should always read our **Release Notes**, especially when carrying out a software update to a later release level. The latest **Release Notes** can be found at www.funkwerk-ec.com.

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R&TTE Directive 1999/5/EG

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1 Introduction

The configuration of the event scheduler is described in the following chapters. You allow access to the Internet weekdays from 8 a.m. – 5 p.m. As you have a volume-based flat rate, you wish to limit use to 1 gigabyte.

The Setup Tool and the shell are used for the configuration.

1.1 Scenario

1.2 Requirements

The following are required for the configuration:

- Basic configuration of router. The basic configuration using the Wizard is recommended.
- A boot image of version 7.1.4 or later.
- A working Internet access to the provider via a WAN partner.

2 Configuration

Only the following menu is used for configuring the event scheduler:

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP)

2.1 Time Limit

2.1.1 Configuring an Event

Go to the following menu to configure an event so that the router executes an action at a certain time:

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE EVENTS ➜ ADD

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_EVT][ADD]: Scheduler Events       Head Office

     Index         1         Description  Time Limit
     NextIndex     none
     Type          time









     Condition               mon_fri
       Start time (hh:mm)    17:00
       End time (hh:mm)      08:00

     Status                  notavail

                    SAVE                            CANCEL
```

The following fields are relevant:

Field	Meaning
Description	Give the event a name.
Condition	Here you select the time at which the event occurs.
Start time (hh:mm)	Enter the start time of the event.
End time (hh:mm)	Enter the end time of the event.

Table 2-1: Relevant fields in ***System*** ➜ ***Schedule & Monitor*** ➜ ***Event Scheduler (Time & SNMP)*** ➜ ***Schedule Events*** ➜ ***ADD***

Proceed as follows to configure the entry:

- Set ***Description***, e.g. to *Time Limit*.
- Set ***Condition*** to *mon_fri*.
- Enter ***Start time (hh:mm)***, e.g. *17:00*.
- Enter ***End time (hh:mm)***, e.g. *08:00*.
- Press **SAVE** to confirm your settings.

2.1.2 Configuring an Action

Go to the following menu to save an action in the router:

System ➜ ***Schedule & Monitor*** ➜ ***Event Scheduler (Time & SNMP)*** ➜ ***Schedule Commands*** ➜ ***ADD***

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_CMD][EDIT]: Scheduler Commands   Head Office

     Index          1          Description  disable Internet
     Mode                      enable
     1st Event Index           1 (Time Limit)
     Eventlist Condition       all

     Execute command           disable interface
     Interface                 Internet


     Notify                    all

     Status     inactive          Last Change    01/01/1970  0:00:00

               SAVE                              CANCEL

Enter string, max. length = 30 chars
```

The following fields are relevant:

Field	Meaning
Description	Give the action a name.
1st Event Index	Select the first event for the action.
Execute command	Here you select the action the router executes.
Interface	Define the interface affected by the action.

Table 2-2: Relevant fields in ***SYSTEM*** ➜ ***SCHEDULE & MONITOR*** ➜ ***EVENT SCHEDULER (TIME & SNMP)*** ➜ ***SCHEDULE COMMANDS*** ➜ ***ADD***

Proceed as follows to configure the entry:

- Set ***DESCRIPTION***, e.g. to *disable Internet*.
- Set ***1ST EVENT INDEX*** to event *1 (Time Limit)*.
- Set ***EXECUTE COMMAND*** to *disable interface*.
- Select your Internet access under ***INTERFACE***: e.g. *Internet*.
- Press **SAVE** to confirm your settings.

Note

The router checks the configured events only every 300 seconds. To reduce the time, e.g. to every second, enter the command `biboExtAdmScheduleInterval=1` in the SNMP shell.

If you confirm changes in the event scheduler with **SAVE** in the menu, you must enter the command again in the shell.

Note that checking every second may overload the router.

2.2 Volume Limit

2.2.1 Volume Limit Event

Configure an event in which you monitor the bytes received from your Internet interface.

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE EVENTS ➜ ADD

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_EVT][EDIT]: Scheduler Events   Head Office

     Index          1          Description  1GB Volume
     NextIndex      none
     Type           value

     Monitored event           WAN interface total RX traffic




     Condition                 greater
       Compare value           1000000000


     Status                    notavail

                    SAVE                              CANCEL
```

The following fields are relevant:

Field	Meaning
Description	Give the event a name.
Type	For determining if you enter table values manually.
Monitored event	Here you select a preconfigured table parameter.
Condition	Here you select the condition.
Internal Port	For configuring which value determines the event.

Table 2-3: Relevant fields in ***System*** ➜ ***Schedule & Monitor*** ➜ ***Event Scheduler (Time & SNMP)*** ➜ ***Schedule Events*** ➜ ***ADD***

Proceed as follows to configure the entry:

- Set ***Description***, e.g. to *1GB Volume*.
- Set ***Type*** to *value*.
- Set ***Monitored event*** to *WAN interface total RX traffic*.
- Set ***Condition*** field to *greater*.
- Enter the value for ***Compare value***, e.g. *1000000000*.
- Press **SAVE** to confirm your settings.

As you have not yet indicated the interface for which you would like to check the value in the table, you must now process a value.

Enter the following in the shell to activate the table.

```
scheduleEventTable
```

```
inx Index(*rw)          NextIndex(rw)         Descr(rw)           Type(-rw)
VarTable(rw)            VarName(rw)           VarIndexName(rw)    VarIndexVal(rw)
Condition(rw)           Start(rw)             End(rw)             Status(ro)
LastChange(ro)

00 1                    0                     "1GB Volume"        value
"biboPPPStatTable       "TotalReceivedOct     "ConnIfIndex"        "10001"
greater                 "1000000000"                               notavail
01/01/70 0:00:00
```

The following field is relevant:

Field	Meaning
VarIndexVal	For entering the index number of your Internet access.

Table 2-4: Relevant field in ***SCHEDULEEVENTTABLE***

Proceed as follows to configure the entry:

- Enter a value in ***SHELL***, e.g. `VarIndexVal:0=10001`.

2.2.2 Disable Internet Action

You must disable the Internet once a volume of 1 gigabyte has been received over the interface.

Go to the following menu to save an action in the router:

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE COMMANDS ➜ ADD

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_CMD][EDIT]: Scheduler Commands   Head Office

     Index         1          Description  disable Internet
     Mode                     enable
     1st Event Index           1 (1GB volume)
     Eventlist Condition      all

     Execute command          disable interface
     Interface                Internet


     Notify                   all

     Status    inactive          Last Change    01/01/1970  0:00:00

               SAVE                              CANCEL

Enter string, max. length = 30 chars
```

The following fields are relevant:

Field	Meaning
Description	Give the action a name.
1st Event Index	Select the first event for the action.
Execute command	Here you select the action the router executes.
Interface	Determine the interface affected by the action.

Table 2-5: Relevant fields in ***SYSTEM*** ➜ ***SCHEDULE & MONITOR*** ➜ ***EVENT SCHEDULER (TIME & SNMP)*** ➜ ***SCHEDULE COMMANDS*** ➜ ***ADD***

Proceed as follows to configure the entry:

- Set ***DESCRIPTION***, e.g. to *disable Internet*.
- Set ***1ST EVENT INDEX*** to event *1 (1GB Volume)*.
- Set ***EXECUTE COMMAND*** to *disable interface*.
- Select your Internet access under ***INTERFACE***, e.g. *Internet*.
- Press **SAVE** to confirm your settings.

2.2.3 Once a Month Event

Configure an event in which you start counting the traffic again once a month.

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE EVENTS ➜ ADD

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_EVT][EDIT]: Scheduler Events     Head Office

     Index          2         Description  First of Month
     NextIndex      none
     Type           time



     Condition                 day1
       Start time  (hh:mm)     06:00
       End time    (hh:mm)     06:10

     Status                    inactive

             SAVE                              CANCEL
```

The following fields are relevant:

Field	Meaning
Description	Give the event a name.
Condition	Here you select the time at which the event occurs.
Start time (hh:mm)	Enter the start time of the event.
End time (hh:mm)	Enter the end time of the event.

Table 2-6: Relevant fields in ***SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE EVENTS ➜ ADD***

Proceed as follows to configure the entry:

- Set ***DESCRIPTION***, e.g. to *First of Month*.
- Set ***CONDITION***, e.g. to *day1*.

- Enter ***START TIME (HH:MM)***, e.g. *06:00*.
- Enter ***END TIME (HH:MM)***, e.g. *06:10*.
- Press **SAVE** to confirm your settings.

2.2.4 Reset Volume Counter Action

You must set the counter in the received bytes tables to 0 on the first of the month.

SYSTEM ➜ SCHEDULE & MONITOR ➜ EVENT SCHEDULER (TIME & SNMP) ➜ SCHEDULE COMMANDS ➜ ADD

```
VPN Access 25 Setup Tool                    Bintec Access Networks GmbH
[SYSTEM][SCHEDULED][SCHED_CMD][EDIT]: Scheduler Commands    Head Office

     Index         2          Description  Traffic Reset
     Mode                     enable
     1st Event Index           2 (First of Month)
     Eventlist Condition      all

     Execute command          user defined
       Table                  biboPPPStatTable
       Variable               TotalReceivedOctets
       Index variable         ConnIfIndex
       Index value            10001
       Set value active       0
           value inactive
     Notify                   all

     Status     inactive        Last Change     01/01/1970   0:00:00

              SAVE                              CANCEL
```

The following fields are relevant:

Field	Meaning
Description	Give the action a name.
1st Event Index	Select the first event for the action.
Execute command	Here you select the action the router executes.
Table	This is the table for which the action is executed.

Field	Meaning
Variable	This is the table parameter for which the action is executed.
Index variable	Here you define the uniqueness of the table (e.g. index number).
Index value	Here you define the value the index variable must contain.
Set value active	This is the value written in the table when the action is executed.

Table 2-7: Relevant fields in ***System*** ➜ ***Schedule & Monitor*** ➜ ***Event Scheduler (Time & SNMP)*** ➜ ***Schedule Commands*** ➜ ***Add***

Proceed as follows to configure the entry:

- Set ***Description***, e.g. to *Traffic Reset*.
- Set ***1st Event Index*** to the event, e.g. *2 (First of Month)*.
- Set ***Execute command*** to *user defined*.
- Enter *biboPPPStatTable* under ***Table***.
- Set ***Variable*** to the value *TotalReceivedOctets*.
- Write *ConnIfIndex* in the ***Index variable*** field.
- Enter ***Index value***, e.g. *10001*.
- Enter *0* for ***Set value active***.
- Press **SAVE** to confirm your settings.

Note

Tables with the attribute *(ro)* can also receive new values from the event scheduler in an action.

3 Result

You have configured the event scheduler and limited the Internet access to timed use. You have also limited the transfer volume to 1 gigabyte.

3.1 Overview of Configuration Steps

System ➜ Schedule & Monitor ➜ Event Scheduler (Time & SNMP)

Time Limit

Field	Menu	Description
Description	***Schedule Events ➜ ADD***	e.g. *Time Limit*
Condition	***Schedule Events ➜ ADD***	e.g. *mon_fri*
Start time (hh:mm)	***Schedule Events ➜ ADD***	e.g. *17:00e*
End time (hh:mm)	***Schedule Events ➜ ADD***	e.g. *08:00*
Description	***Schedule Commands ➜ ADD***	e.g. *disable Internet*
1st Event Index	***Schedule Commands ➜ ADD***	e.g. *1 (Time Limit)*
Execute command	***Schedule Commands ➜ ADD***	*disable interface*
Interface	***Schedule Commands ➜ ADD***	e.g. *Internet*

Volume Limit

Field	Menu	Description
Description	***Schedule Events ➜ ADD***	e.g. *1GB Volume*
Type	***Schedule Events ➜ ADD***	*Value*
Monitored event	***Schedule Events ➜ ADD***	*WAN interface total RX traffic*
Condition	***Schedule Events ➜ ADD***	*greater*

Field	Menu	Description
Compare value	SCHEDULE EVENTS ➜ ADD	e.g. *1000000000*
VarIndexVal	TABLE ➜ SCHEDULEEVENTTABLE	e.g. *10001*
Description	SCHEDULE COMMANDS ➜ ADD	e.g. *disable Internet*
1st Event Index	SCHEDULE COMMANDS ➜ ADD	e.g. *1 (1GB Volume)*
Execute command	SCHEDULE COMMANDS ➜ ADD	*disable interface*
Interface	SCHEDULE COMMANDS ➜ ADD	e.g. *Internet*
Description	SCHEDULE EVENTS ➜ ADD	e.g. *First of Month*
Condition	SCHEDULE EVENTS ➜ ADD	e.g. *day1*
Start time (hh:mm)	SCHEDULE EVENTS ➜ ADD	e.g. *06:00*
End time (hh:mm)	SCHEDULE EVENTS ➜ ADD	e.g. *06:10*
Description	SCHEDULE COMMANDS ➜ ADD	e.g. *Traffic Reset*
1st Event Index	SCHEDULE COMMANDS ➜ ADD	e.g. *2 (First of Month)*
Execute command	SCHEDULE COMMANDS ➜ ADD	*user defined*
Table	SCHEDULE COMMANDS ➜ ADD	*biboPPPStatTable*
Variable	SCHEDULE COMMANDS ➜ ADD	*TotalReceivedOctets*
Index variable	SCHEDULE COMMANDS ➜ ADD	*ConnIfIndex*
Index value	SCHEDULE COMMANDS ➜ ADD	e.g. *10001*
Set value active	SCHEDULE COMMANDS ➜ ADD	*0*