RouterApp

Backup APN

Used symbols

⚠️ | Danger – Information regarding user safety or potential damage to the router.

❗ | Attention – Problems that can arise in specific situations.

ℹ️ Information – Useful tips or information of special interest.

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1. Backup APN

1.1 Backup APN Introduction

> ⚠ This router app is not installed on *Advantech* routers by default. See *Configuration Manual* for the description how to upload a router app to the router. For more information see the *Configuration manual*, chapter *Customization –> Router apps*.

The Backup APN router app allows you to set backup (secondary) APN for each SIM slot available. With this module, user have a way how to handle APN failure.

1.2 Web Interface

Once the installation of the module is complete, the module's GUI can be invoked by clicking the module name on the Router apps page of router's web interface.

Left part of this GUI contains menu with Status menu section, Configuration menu section and Information menu section. Customization menu section contains only the Return item, which switches back from the module's web page to the router's web configuration pages. The main menu of module's GUI is shown on Figure 1.

Status
Overview
System Log

Configuration
Global

Customization
Return
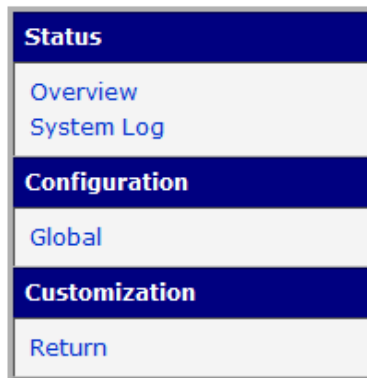
Figure 1: Menu

1.3 Status

1.3.1 Overview

An overview of the current status can be viewed by clicking on the *Overview* item in the main menu of module web interface. At the beginning of this page is a list of services and information about whether the corresponding service is active or not.

Status Overview

Services

```
2020-06-25 10:24:13 Backup APN service is running.
2020-06-25 10:24:13 SIM 1 is enabled.
2020-06-25 10:24:13 SIM 2 is enabled.
2020-06-25 10:24:13 Switch to other SIM card when connection fails is disabled.
2020-06-25 10:24:13 SIM 1 is set as default.
2020-06-25 10:24:13 Changed APN to  (SIM 1)
```

Figure 2: Status Overview

1.3.2   System Log

In case of any connection problems it is possible to view the system log by pressing the *System Log* menu item. Detailed reports from individual applications running in the router are displayed. Use the Save Log button to save the system log to a connected computer (the text file with the .log extension will be saved). The second button – Save Report – is used for creating detailed report (generates all information needed by support in one text file in the .txt format – statistical data, routing and process tables, system log, configuration).
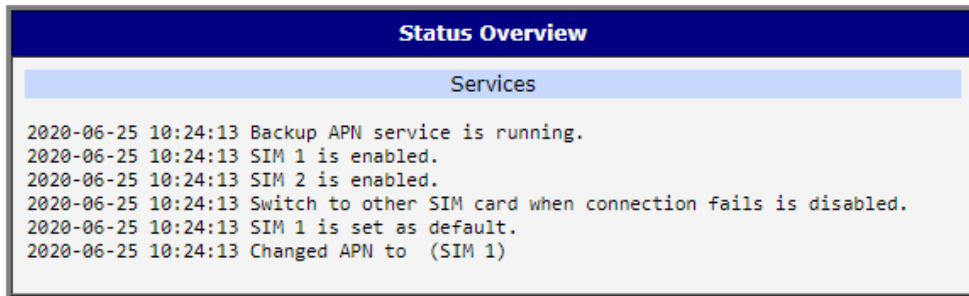
The default length of the system log is 1000 lines. After reaching 1000 lines the new file is created for storing the system log. After completion of 1000 lines in the second file, the first file is overwritten with the new one.
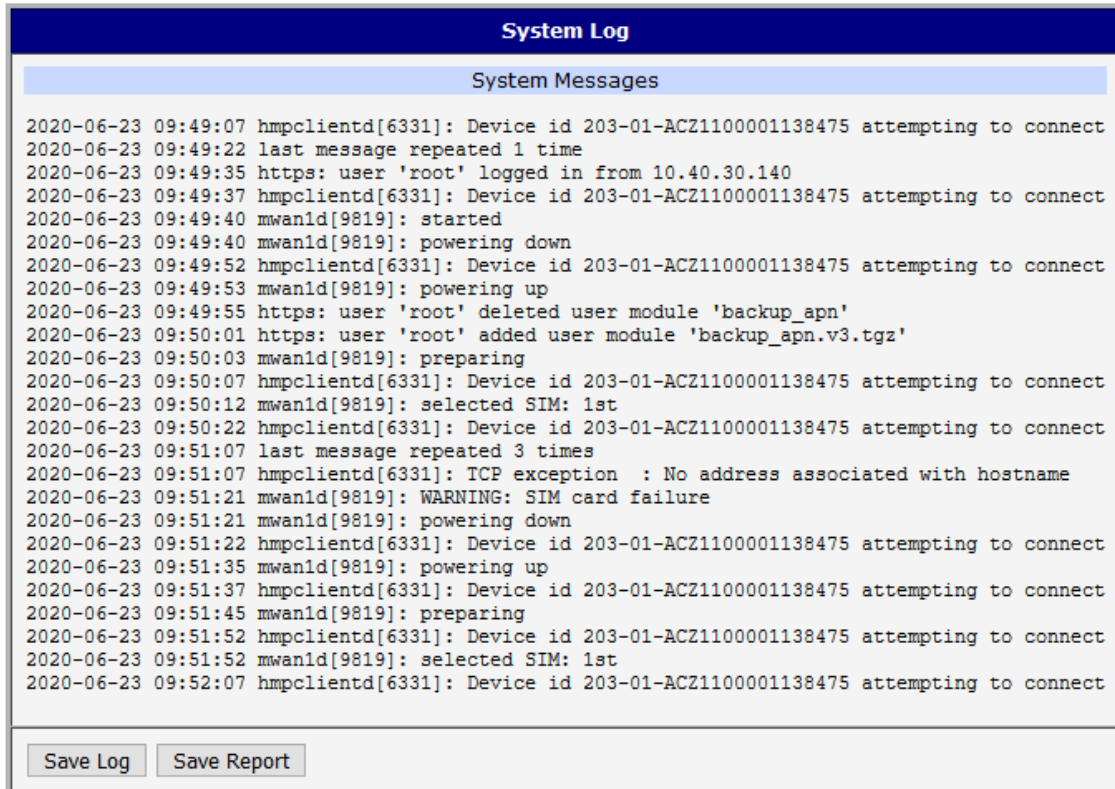
```
                                    System Log
                                  System Messages
2020-06-23 09:49:07 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:49:22 last message repeated 1 time
2020-06-23 09:49:35 https: user 'root' logged in from 10.40.30.140
2020-06-23 09:49:37 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:49:40 mwan1d[9819]: started
2020-06-23 09:49:40 mwan1d[9819]: powering down
2020-06-23 09:49:52 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:49:53 mwan1d[9819]: powering up
2020-06-23 09:49:55 https: user 'root' deleted user module 'backup_apn'
2020-06-23 09:50:01 https: user 'root' added user module 'backup_apn.v3.tgz'
2020-06-23 09:50:03 mwan1d[9819]: preparing
2020-06-23 09:50:07 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:50:12 mwan1d[9819]: selected SIM: 1st
2020-06-23 09:50:22 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:51:07 last message repeated 3 times
2020-06-23 09:51:07 hmpclientd[6331]: TCP exception  : No address associated with hostname
2020-06-23 09:51:21 mwan1d[9819]: WARNING: SIM card failure
2020-06-23 09:51:21 mwan1d[9819]: powering down
2020-06-23 09:51:22 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:51:35 mwan1d[9819]: powering up
2020-06-23 09:51:37 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:51:45 mwan1d[9819]: preparing
2020-06-23 09:51:52 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect
2020-06-23 09:51:52 mwan1d[9819]: selected SIM: 1st
2020-06-23 09:52:07 hmpclientd[6331]: Device id 203-01-ACZ1100001138475 attempting to connect

Save Log    Save Report
```

Figure 3: System Log

1.4 Configuration

1.4.1 Global

Configuration of this router app can be done on Global page, under Configuration menu section. All configuration items for Global configuration page are described in the table below.

Each SIM slot has its own section in global configuration. In example below router has 2 SIM card slots.

Global Configuration

☐ Enable Backup APN service

SIM 1 Primary APN*	
SIM 1 Primary Username*	
SIM 1 Primary Password*	
SIM 1 Secondary APN*	
SIM 1 Secondary Username*	
SIM 1 Secondary Password*	

SIM 2 Primary APN*	
SIM 2 Primary Username*	
SIM 2 Primary Password*	
SIM 2 Secondary APN*	
SIM 2 Secondary Username*	
SIM 2 Secondary Password*	

APN Failure Timeout	60	sec
Secondary APN Timeout	10	min

* can be blank

[Apply]

Figure 4: Global Configuration

Item	Description
Enable Backup APN service	Enabled, Backup APN functionality of the module is turned on.
SIM 1 Primary APN	Enter primary APN.
SIM 1 Primary Username	Enter primary APN username.
SIM 1 Primary Password	Enter primary APN password.
SIM 1 Secondary APN	Enter secondary (backup) APN.
SIM 1 Secondary Username	Enter secondary (backup) APN username.
SIM 1 Secondary Password	Enter secondary (backup) APN password.

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Item	Description
APN Failure Timeout	Enter timeout in seconds after which is switched from failed Primary APN to Secondary (backup) APN.
Secondary APN Timeout	Enter timeout in minutes after which is attempted to switch back to Primary APN.

Table 1: Configuration Example Items Description

! When enabled, Mobile WAN settings from Router configuration is ignored and credentials from this module Global configuration table is used. For proper function the option *Switch to other SIM card when connection fails* in Mobile WAN settings should not be active.

2. Related Documents

You can obtain product-related documents on *Engineering Portal* at *icr.advantech.com* address.

To get your router's *Quick Start Guide*, *User Manual*, *Configuration Manual*, or *Firmware* go to the *Router Models* page, find the required model, and switch to the *Manuals* or *Firmware* tab, respectively.

The *Router Apps* installation packages and manuals are available on the *Router Apps* page.

For the *Development Documents*, go to the *Development* page.