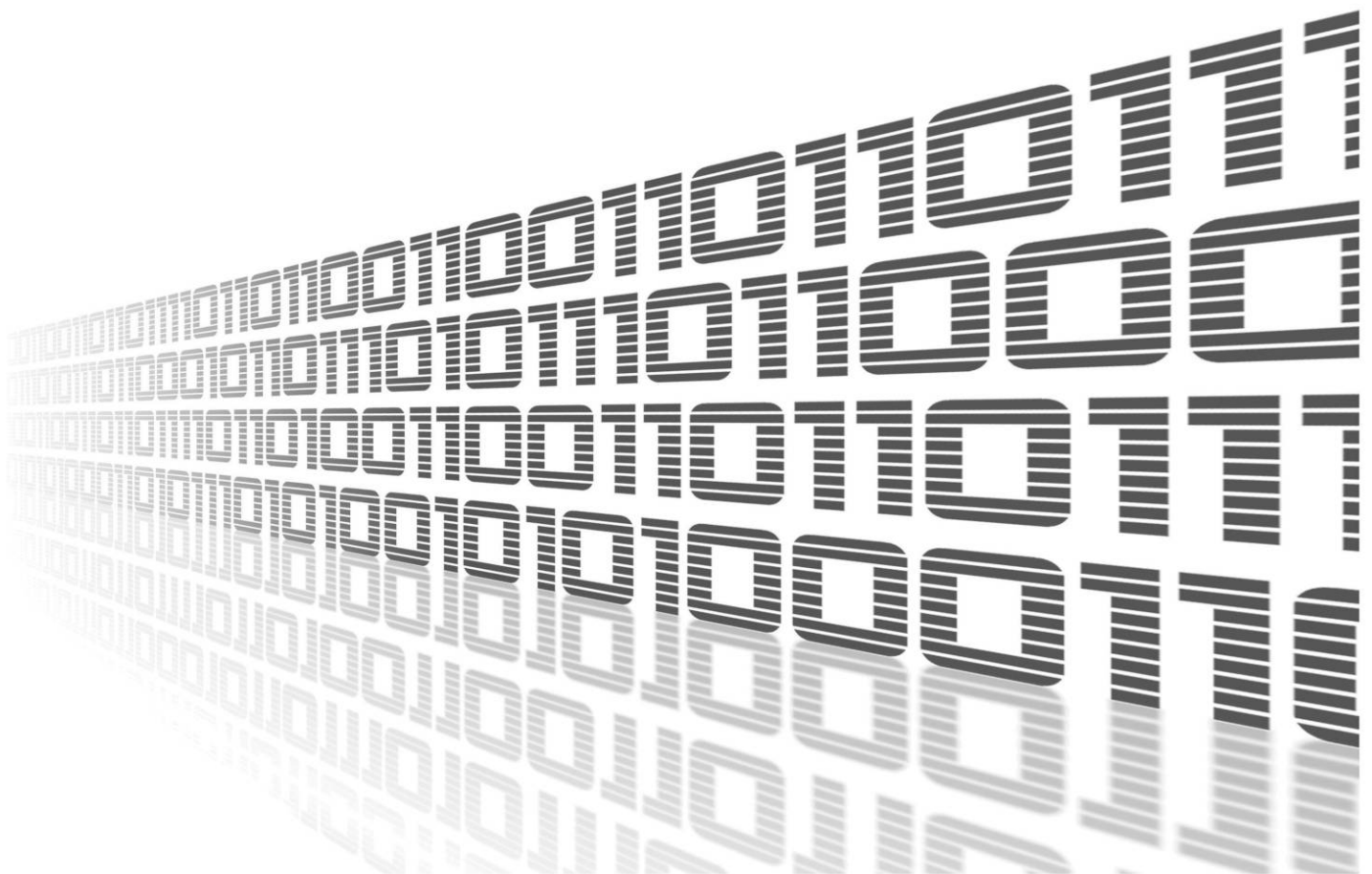


ADVANTECH



SSH Client





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Used symbols

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

 *Attention* – Problems that can arise in specific situations.

 *Information* – Useful tips or information of special interest.

 *Example* – Example of function, command or script.

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1. Changelog

1.1 SSH Client Changelog

v1.0.1 (29.4.2014)

- First release.

2. Description of router app



Router app is not contained in the standard router firmware. Uploading of this router app is described in the Configuration manual (see Chapter [Related Documents](#)).



The router app is not v4 platform compatible.

This module extends the portfolio of Advantech router functions by the ability to use it as an SSH client. This means that the module allows to establish the SSH connection to the remote router and execute commands on it. Due to the fact the SSH server is a standard part of the firmware, it is possible to connect to any Conel router.

SSH can be understood (from the administrator's perspective) as an encrypted tunnel between two devices based on client/server. In essence it is secure encrypted communications between two untrusted devices. Using SSH it is possible to access to shell of a remote device, create encrypted tunnels for remote access to a service which is behind a firewall, etc.

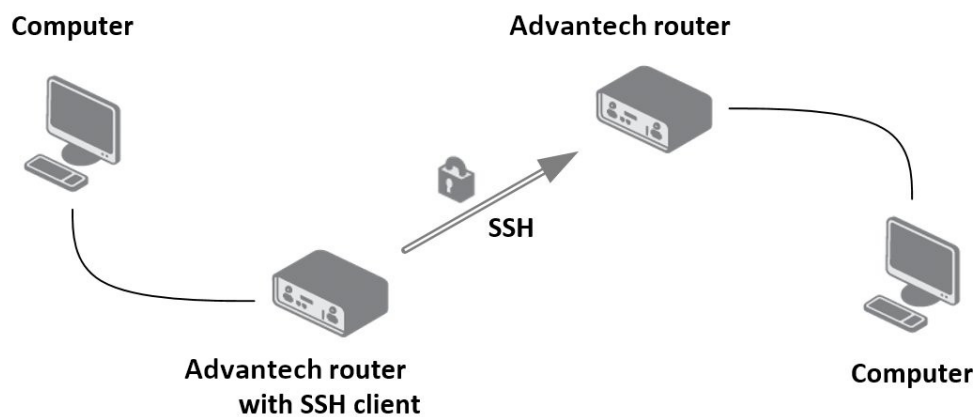


Figure 1: Model situation

For configuration *SSH client* router app is available web interface, which is invoked by pressing the module name on the *Router Apps* page of the router web interface. The left part of the web interface contains the menu with pages for monitoring (*Status*), configuration (*Configuration*) and customization (*Customization*) of the module. *Customization* block contains only the *Return* item, which switches this web interface to the interface of the router.

3. Configuration

The actual configuration of the *SSH client* router app configuration only consist in activation or deactivation of SSH client. For this purpose *Enable ssh client* item on *SSH client* page is meant for. If the module is activated, there is also displayed a line which informs about usage (*Usage: ssh parameters*). Basically, this is only information relaying to user that it is necessary to use a command line and `ssh` command with the appropriate parameters after activation. Activation or deactivation of *SSH client* module must be confirm by pressing the *Apply* button.

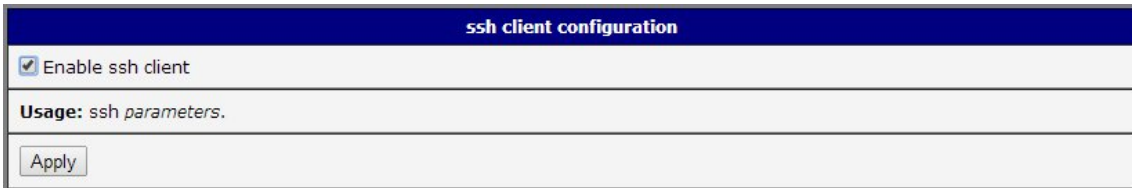


Figure 2: SSH client

If we want to connect from one router to another router via SSH (ie. log in to the remote shell), it is needed to enter to command line the following command (please note the `-p` parameter which allows to select other than the standard port 22 on the destination server):

```
ssh -p port_number user@server
```

In the event that it is necessary to enter only one command and access to the remote shell is not required, the command can be called directly:

```
ssh -p port_number user@server command
```

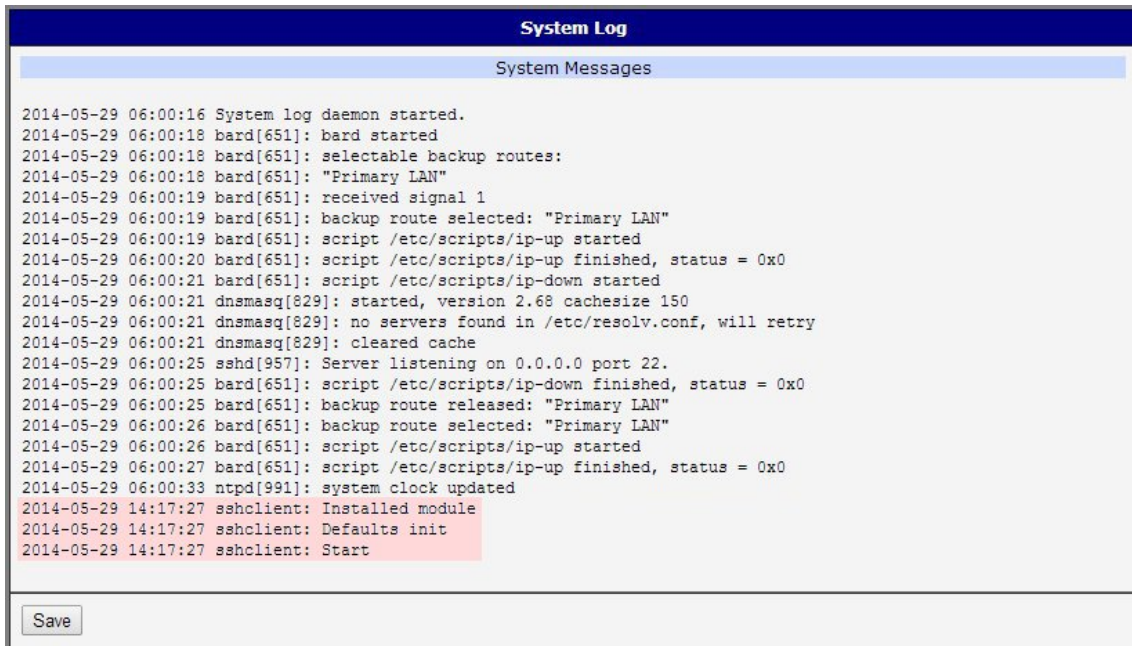


Detailed description of all parameters of `ssh` command can be found in the man page for this command (see for example [3]).

3.1 System log

In case of any problems it is possible to view the system log by pressing the *System Log* menu item. In the window are displayed detailed reports from individual applications running in the router including possible reports relating to the *SSH client* module.

The highlighted lines in the figure illustrate a situation where the system log displays information about running this module (ie. about running SSH client).



```
System Log
System Messages

2014-05-29 06:00:16 System log daemon started.
2014-05-29 06:00:18 bard[651]: bard started
2014-05-29 06:00:18 bard[651]: selectable backup routes:
2014-05-29 06:00:18 bard[651]: "Primary LAN"
2014-05-29 06:00:19 bard[651]: received signal 1
2014-05-29 06:00:19 bard[651]: backup route selected: "Primary LAN"
2014-05-29 06:00:19 bard[651]: script /etc/scripts/ip-up started
2014-05-29 06:00:20 bard[651]: script /etc/scripts/ip-up finished, status = 0x0
2014-05-29 06:00:21 bard[651]: script /etc/scripts/ip-down started
2014-05-29 06:00:21 dnsmasq[829]: started, version 2.68 cachesize 150
2014-05-29 06:00:21 dnsmasq[829]: no servers found in /etc/resolv.conf, will retry
2014-05-29 06:00:21 dnsmasq[829]: cleared cache
2014-05-29 06:00:25 sshd[957]: Server listening on 0.0.0.0 port 22.
2014-05-29 06:00:25 bard[651]: script /etc/scripts/ip-down finished, status = 0x0
2014-05-29 06:00:25 bard[651]: backup route released: "Primary LAN"
2014-05-29 06:00:26 bard[651]: backup route selected: "Primary LAN"
2014-05-29 06:00:26 bard[651]: script /etc/scripts/ip-up started
2014-05-29 06:00:27 bard[651]: script /etc/scripts/ip-up finished, status = 0x0
2014-05-29 06:00:33 ntpd[991]: system clock updated
2014-05-29 14:17:27 sshclient: Installed module
2014-05-29 14:17:27 sshclient: Defaults init
2014-05-29 14:17:27 sshclient: Start
```

Save

Figure 3: System log

4. Related Documents

[1] Internet: http://linux.about.com/od/commands/l/blcmd11_ssh.htm

You can obtain product-related documents on *Engineering Portal* at icr.advantech.cz 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 [DevZone](#) page.