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## Device monitoring setup

Note when changing settings don't forget to click on update at the bottom of the page.

- Monitoring Settings
  - Monitor Phone Handsets
  - Monitor Mikrotik Routers
  - Concurrent Background Processes
  - Monitor Mikrotik Configs
  - Monitor Unify Controllers
  - Monitor Wireless Client Radios
  - Monitor RaspberryPi Devices
- Mikrotik settings
  - Default Mikrotik API username
  - Default Mikrotik API password
  - Enable Neighbour scanning on all interfaces
- Syslog settings
  - Enable Syslog service
  - Syslog IP Address
  - Syslog Port No
  - Mikrotik topics to monitor
  - Keywords to ignore
- Speedtest Settings
  - Run Internal Speedtests
  - Run External Speedtests
  - Internal Speedtest Mikrotik IP

- Power Monitoring
  - Trigger Power Failure Events
  - Alert Solar Charge Failures
  - Voltage Alert Level

## Highsites

## Network Devices

- API user needs to be configured on the network device, if it is a non-Mikrotik device, the username and password needs to be specified. full control fo MT.
- SNMP need to be enabled on the network devices with public community
- FTP and API ports need to be enabled on Mikrotik's. For API user to be able to log into the MTm and for backups to be copied from a network device to HeroTill.
- Network devices need to be reachable from HeroTill.
- Device IP needs to be added to devices.

## Network Device Fields

Go to Devices->Device Monitoring

- Device IP Address
- Device Description
- Device Location

These are the locations found in the asset register.

- Device Type
- Device Make
- Device Model
- Device Login Username
- Device Login Password
- Run Speedtests
- Firmware Version
- Router configuration
- Router Backups

## Network Device Operations

- Add
- Edit

### Network Device operations found in the edit device menu.

**Scan** Scan will Ping the device, test the SNMP and API Scan Results

If the Device is a Mikrotik Router or Ubiquity Device then the following additional functions are available:

**Export Config . Download Config . View Config changes** .Every Hour HeroTill checks for config changes, When it finds changes, it lists the changes here and creates a backup of the router. so manually backing up the router is not necessary. **Backup Router Config** .The Router Config can be downloaded. Every Hour HeroTill checks for config changes **Download Router Backup Config . View device performance . Configure Radius Syslog Topics** Here additional log topics can be added. This is specific to the network device. Each Network device will log the default topics that were set in the Syslog settings in Device monitoring settings.

**View Config changes** Config changes shows the new and previous config, highlighting any changes made. A full history of changes is kept.

## Network Device Performance

Accessed by clicking on view performance (Green button) of the device you would like to view. gives an overview and history of the device. The history goes back up to one year.

## Wireless Connections

Wireless Connections is all the wireless connections to a Highsite. These can be filtered by a station to give all the connections to a specific station.

## Station Performance

Shows the overall performance of a wireless station, with a full history (CCQ, Signal, Noise, Tx and RX) which can go back up to 5 years.

## Wireless Signal Distribution

Go to Devices->Wireless Signal Spread This gives a summary of the quality of the wireless connections of clients connected to a station.

## Mikrotik NAS Users

The Mikrotik Nas Users shows all the users that are physically logged (Authenticated) into a router. A full history is kept of all past Authentications

## Mikrotik Neighbours

The Mikrotik Neighbours shows all the users that are connected to a specific router. Use the Menu next to the refresh button to all the users connected to that router.

## Mikrotik - Offline Netwatch Devices

This shows all the past Authenticated users that are not currently connected to a router.

## Raspberry Pi

Go to Devices->RaspberryPi Devices

## RaspberryPi Fields

**Device Description** . **Device Address** . **Device Login Username** . **Device Login Password** . **Generate Power Alerts (ON/OFF)** . **Thermal Printer Attached (ON/OFF)**  
This is used for printing hotspot vouchers **Voucher Printer Title** This is not a compulsory field. **Weather Station Title** This is not a compulsory field.

## Operations

**Edit Show RaspberryPi Information** This will load the Pi's webpage **Shutdown .**  
**Execute remote command on RaspberryPi Update software**

**RaspberryPi Weather Summary**

**Raspberry Pi Power Summary**

## Generate A List Of Down Devices

**Where to get the text format that you can copy and paste to Whatsapp:**

Go to Devices -> Downtime Summary -> Text Format

[https://yourdomain/devices/summary\\_text](https://yourdomain/devices/summary_text)

**Highsite Summary**

active PPP radius sessions  
6 active non-PPP radius sessions

highsites in total  
devices in total

25 highsites affected  
33 devices down

**Downed Highsites**

5 devices, 2 down

Downed Highsite **X** - Ubiquiti  
Down since 2017-06-07 13:26:10 (4 days, 23 hours)

Downed Highsite **X** - Ubiquiti  
Down since 2017-06-07 13:26:10 (4 days, 23 hours)

**Downed Devices**

!1 device, all down

Downed Device **X** - Mikrotik  
Down since 2017-06-12 12:52:04 (1 minute, 31 seconds)

**Copied and Pasted into Whatsapp:**



### To see the normal format of the downtime

Go to Devices -> Downtime Summary -> Normal Format

<https://yourdomain/devices/summary>

### Device Downtime Summary

Total Highsites	222	Total Devices	610	Total Active Radius Sessions	1798
Hightsites Un-Affected	199	Devices Online	584	Active PPP Sessions	1793
Hightsites Affected	23	Devices Offline	26	Active Non PPP Sessions	5

Highsite Name	Total	Devices					Last Known Active Sessions				Down Since
	Devices	Offline	Device Name	Device IP	Make	Model	PPP	Wireless	Radius	Hotspot	
Bluebird Highsite	5	2	On Device Device 001	10.40.0.10	Ubiquiti	UBUNTU		9			2017-06-07 13:26:10 (4 days, 23 hours)
			On Device Device 002	10.40.0.11	Ubiquiti	UBUNTU		10			2017-06-07 13:26:10 (4 days, 23 hours)
CO-Office	10	1	UBUNTU	10.40.0.10	Ubiquiti						2017-06-01 00:01:47 (11 days, 12 hours)
PT Storage Highsite (Monitoring)	2	2	Redundant Net	10.40.0.1	Mikrotik	UBUNTU					2017-06-12 12:42:36 (17 minutes, 39 seconds)
			at Redundant	10.40.0.2	Mikrotik	UBUNTU	1	2	1		2017-06-10 15:17:10 (1 day, 21 hours)

This monitors all devices added in HeroTill, and reports on these.

If the device or power monitor is not added to HeroTill, it will not appear in the list.

### **Include Network Devices and Power Monitors in the “Device Downtime Summary”:**

Every device and power monitor also now has a switch on the edit screen allowing you to exclude or include it from the monitoring page, should you wish to do so.

Make sure “Include in Monitoring” is enabled on power monitors:



### Edit Power Monitor

Device IP Address: [IP Address] 1.2 ms

Device Description: [Description]

Device Location: [Location] Add New

Power Monitor Device: Raspberry Pi

Device Login Username: [Username]

Device Login Password: [Password]

Generate Power Alerts:  ON

**Include in Monitoring:  ON**

Normal Voltage: 24 Volts

Thermal Printer Attached:  OFF

Voucher Printer Title: [Title]

Close Scan Ping SNMP Delete Save Changes

Make sure “Include in Monitoring” is enabled on network devices:

### Edit Network Device ✕

Device Details | **Configs** | Backups | Syslog Entries | Downtime | Passwords | MT Users | Audit Trail

Device IP Address	<input type="text" value="192.168.1.1"/> <span>3.7 ms</span>
Device Description	<input type="text" value="R1 - 192.168.1.1"/>
Device Location	<input type="text" value="R1 - 192.168.1.1"/> <span>✕</span> <span>Add New</span>
Parent Device (Default gateway)	<input type="text" value="R1 - 192.168.1.1"/> <span>✕</span>
Device Type	<input type="text" value="Router"/> <span>✕</span>
Device Make	<input type="text" value="Mikrotik"/> <span>✕</span>
Device Model	<input type="text" value="R1 - 192.168.1.1"/>
Device Login Username	<input type="text" value="admin"/>
Device Login Password	<input type="password" value="....."/>
SNMP Community	<input type="text" value="public"/>
Run Speedtests	<input checked="" type="checkbox"/> ON
<b>Include in Monitoring</b>	<input checked="" type="checkbox"/> ON

Close Scan Ping SNMP API Hotspot Delete Add to LibreNMS Save Changes