

FL8674001

Revision 02 (2026-03-04)

APP-MQTT

RELEASE NOTES

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Revision history			
No	Date (yyyy-mm-dd)	Author	Comments
00	2023-10-14	Resologi	App-mqtt 1.4.0 release (reference version for Dainsy 4.0.3)
01	2025-03-21	Resologi	App-mqtt 1.4.2 release (reference version for Dainsy 4.1.0)
02	2026-03-04	Resologi	App-mqtt 1.4.3 release (reference version for Dainsy 4.2.0)

Documentary references	
No	Description
FL8658001	DAINSY Linux release notes

Terms and acronyms	
No	Description

Acronyms and icons



Warning



Necessary preliminary steps



Reference to operating principles



Procedure completed



Future article



Tip or recommendation

Understanding emphasis in the document

Example Representative of Linux or DAINSY technical terminology.

Example Represents a Linux command line.

Example Represents the content of a file or the result of a Linux command line.

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1 APP-MQTT 1.4.3

1.1 Feature updates

1.1.1 app-mqtt#24 app-mqtt now supports JSON processing

App-mqtt now offers full support for JSON payloads. It can intelligently parse incoming messages to extract key data points and seamlessly build rich JSON objects by combining multiple dictionary variables, unlocking more flexible and powerful integrations.

```
Data inspection - app_mqtt_statistics
{
  Version: "1.4.2.1-10"
  Failover Status: "Active"
  Summary: "0/2 Connected"
  Global Configuration: {
    Clients Process Polling Period (us): 500
    Client Disconnect Timeout (ms): 50
    Client Closing Wait Offset (ms): 10
    Statistics Update Period (ms): 1000
    Log Level: "Notice"
  }
  Clients: [
    0: {
      MQTT Version: 5
      Client ID: "Client1"
      Server URI: "tcp://localhost:1883"
      Connected: false
      Total Messages Received: 0
    }
    1: { ... }
  ]
}
```

1.1.2 app-mqtt#31 log level adjustment

The log level for successful publish operations has been adjusted. Previously, successful publishes were logged at the warning level, generating an excessive number of unnecessary log entries. Successful publish events are now logged at the info level, reducing log noise while maintaining appropriate traceability.

1.1.3 dainsy#267 new cockpit UI with Patterfly 6

The Cockpit web interface has been modernized with Patterfly 6, providing a cleaner design, better ergonomics, and an improved user experience.

The screenshot displays the App-mqtt web interface with a modernized design. At the top, there are navigation tabs for 'Status', 'Parameters', and 'Logs configuration'. The main content area is titled 'App-mqtt 1.4.2.1-10' and features a status card for 'MQTT version 5.0/3.1.1/3.1 client' which is currently 'Running' and 'Automatically starts'. Below this is a 'Statistics' section showing a summary of '0/2 Connected' clients and an 'Active' failover status. A table lists two clients connected to 'tcp://localhost:1883', both using MQTT version 5 and currently not connected. The 'Logs' section at the bottom shows a display limit of 100 and contains two log entries: '[Start] Initialization successful, starting clients.' and 'Copyright (c) 2025, Resologi Inc. All rights reserved.'

Server URI	Client ID	MQTT Version	Connected	Total messages re...	Reset statistics
tcp://localhost:1883	Client1	5	No	0	↻
tcp://localhost:1883	Client2	5	No	0	↻

1.1.4 dainsy#273 enhancements for upcoming BSP integrations

The license mechanism has been updated to support upcoming DAINSY BSPs. Among the next candidates are the virtual platforms *Harvester HCI*, *Proxmox*, and *Hyper-V*, as well as the *Raspberry Pi 5* hardware platform.

1.1.5 dainsy#271 the service now depends on *Valkey*

Since version 4.2.0, DAINSY has adopted the *Valkey* database instead of *Redis*, making the service startup dependent on this new setup.

MQTT version 5.0/3.1.1/3.1 client 🟢 ⋮

Status 🟢 Running Active since Dec 3, 2025, 1:35 PM
🟢 Automatically starts

Path /usr/lib/systemd/system/app-mqtt.service

Memory 10.4 MB

▼ Show relationships

Requires [dainsy-app-mqtt.slice](#), [systemd-journald@app-mqtt.socket](#), [sysinit.target](#), [systemd-journald-varlink@app-mqtt.socket](#)

Wants [network-online.target](#)

Binds to [valkey.service](#), [motd.service](#)

Part of [applications.target](#)

Wanted by [applications.target](#)

Conflicts [shutdown.target](#)

Before [shutdown.target](#)

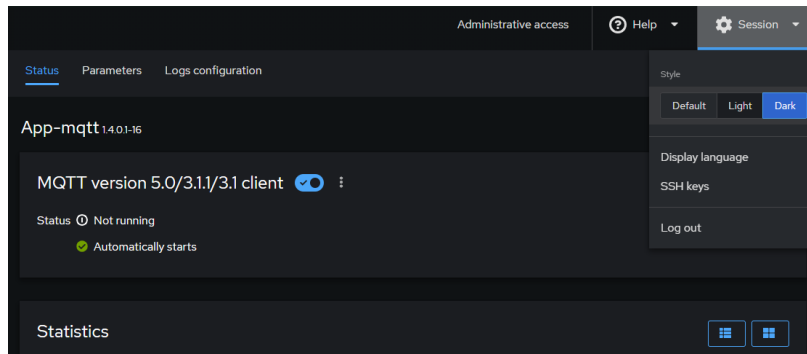
After [applications.target](#), [systemd-journald@app-mqtt.socket](#), [basic.target](#), [network-online.target](#), [cluster-ctrl.service](#), [motd.service](#), [sysinit.target](#), [systemd-journald-varlink@app-mqtt.socket](#), [dainsy-app-mqtt.slice](#), [valkey.service](#)

2 APP-MQTT 1.4.2

2.1 Feature updates

2.1.1 cockpit-dainsy#18 introduce the light/dark theme.

The cockpit panel can now be displayed in light or dark by selecting the style in the session menu.



2.1.2 dainsy#204 keep the firewall profile on uninstall.

When the application is removed, maintain its firewall profile on the system to avoid corrupting the firewall configuration.

2.1.3 dainsy#237 using the *dainsy* beaver historian feature.

Data published in the dictionary now uses the new historian functionality introduced in Daisy Beaver.

History of app_mqtt_statistics

Display limit 10

Time	Value	Quality	Description	Source
> 2024-12-03T15:39:58.435Z	Config file not found	Bad		app-mqtt 2024-12-03T15:39:58.435Z
> 2024-12-03T15:39:58.435Z	App is initializing	Good		app-mqtt 2024-12-03T15:39:58.434Z
> 2024-12-03T15:39:58.434Z	App is not running	Bad		app-mqtt 2024-12-03T15:39:58.434Z
> 2024-12-03T15:39:58.432Z	App is initializing	Good		app-mqtt 2024-12-03T15:39:58.432Z

OK

3 APP-MQTT 1.4.0

3.1 Feature updates

3.1.1 app-mqtt#19 validate the contents of the configuration file at startup.

The configuration file loaded when the application starts is validated to ensure that the mandatory fields are present. The optional fields have also been configured with default values. If there is a problem loading, the application exits cleanly.

3.1.2 app-mqtt#20 fix application crash when receiving large data from broker.

When receiving data from the MQTT broker with a large data load, the application could crash. This anomaly has been fixed.

3.1.3 app-mqtt#21 Process only changed Redis variable into the internal logic.

Changed the internal architecture of the application so that CPU usage depends on the number of value changes per second rather than the number of variables in the configuration. This change makes it possible to substantially reduce the CPU consumption of the application process.

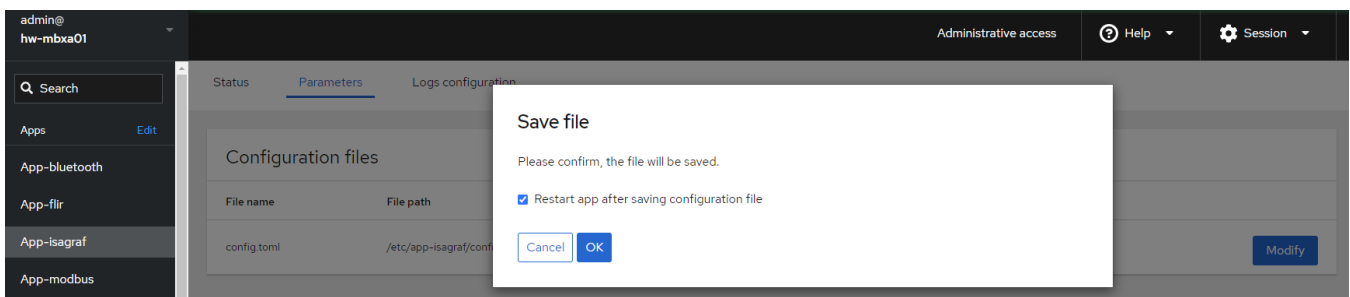
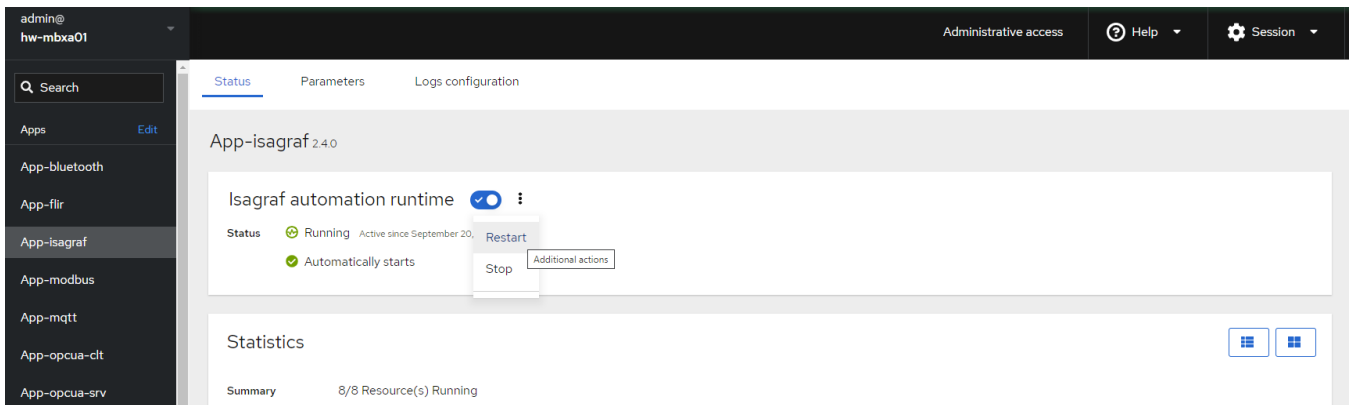
3.1.4 app-lib#6 password encryption in configuration file.

For security reasons, passwords are now encrypted in the configuration file. Note, however, that an unencrypted password can still be used when the `PasswordEncryption` field is left blank.

```
Version = "1.0"
[[Clients]]
  IsConnected = "MQTT1_Connected"
  FailoverStandbyType = "NO_PUBLISH"
  CleanStart = false
  KeepAliveInterval = 60
  MinRetryInterval = 1
  MaxRetryInterval = 60
  MaxInFlight = 65535
  ServerURI = "tcp://127.0.0.1:1883"
  ClientId = "MQTT1"
  MQTTVersion = 5
  UserName = "user"
  Password = "rRmoIvOIQpY/cYXo6SYm6aV1i00wXpnR1TEyX"
  PasswordEncryption = "V1"
  Topics = [
  ]
```

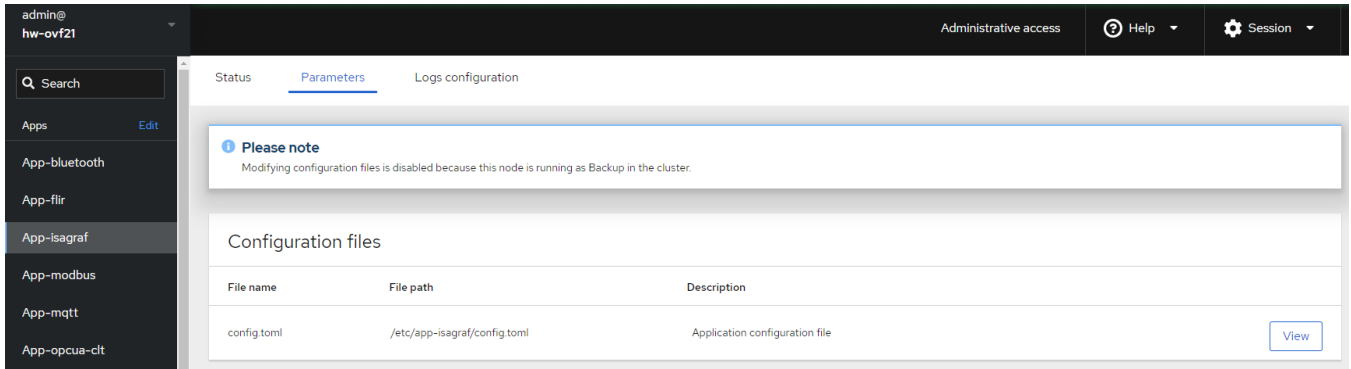
3.1.5 cockpit-app-base#19 make it easier to restart the application.

It is now possible to stop, start, activate, or deactivate the service from the Status tab. In addition, when a configuration file is modified and requires a restart of the application for the change to be applied, the user is asked to respond to the restart action if desired.



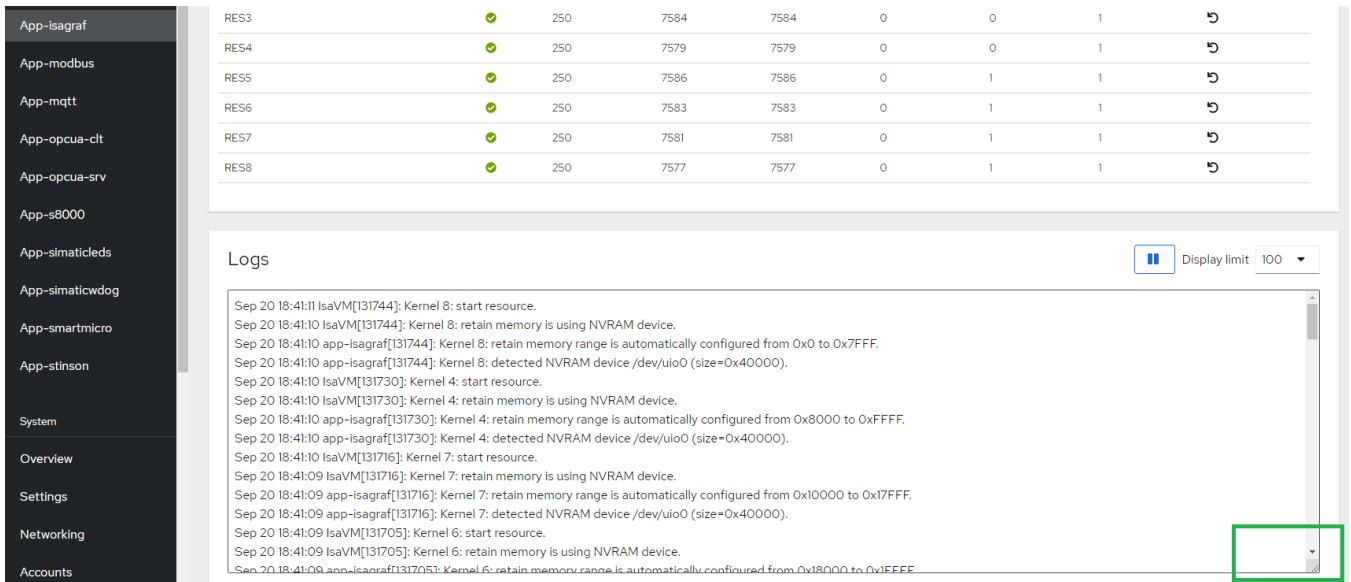
3.1.6 cockpit-app-base#21 does not allow modification of configuration files from the backup unit.

Modification of configuration files is now prohibited on the backup unit of a redundant system because the modification conflicts with the *cluster-sync* synchronization tool.



3.1.7 cockpit-app-base#24 allow resizing of logs section.

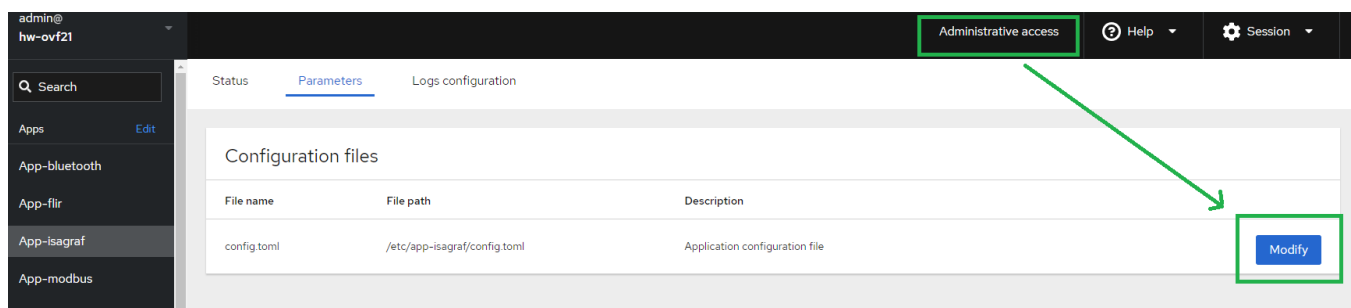
The user can now extend the size of the logs section.



3.1.8 cockpit-app-base#25 manages configuration files permissions.

File access security is now enforced according to the following policies.

- Reading files is always allowed for members of the `grp-config` security group or by super-users who have activated cockpit administrative mode.
- Modification of files deployed in the `/config` folder is allowed for members of the `grp-config` security group or by super-users who have activated cockpit administrative mode.
- Modification of files deployed in other folders is allowed by supers-users who have activated cockpit administrative mode.



3.1.9 dainsy#185 use of control groups (v2) by the creation of dedicated slice for the application.

With the release of DAINSY 4.0.3, the use of control groups is now possible and allows better sharing of machine resources between the installed applications. App-isagraf is now identified in a dedicated slice under the "app" tree and will have guaranteed access to resources according to the distribution established by the DAINSY policy.

**** END OF DOCUMENT ****