Memjet Cloud Services (MCS) Agent 2.0 Setup and Installation

Rev #: 1.0

Date: 21 December 2022

Revision History

Doc. Version	SW/HW Release	Date	Details
V1.0	N/A	21-Dec-22	Initial Release

Contents

Figures

1 Introduction

This document is part of the OEM-facing technical documentation suite for Memjet Dura-type printing systems (DuraFlex, DuraBolt, DuraLink). It references, and therefore requires access to, additional documentation available for download from your Memjet Partner Site.

1.1 Aim and Audience

The aim of this document is to provide Original Equipment Manufacturers (OEMs) with the installation and operating instructions for the Memjet Cloud Services (MCS) Agent 2.0 system.

MCS is a cloud-based, remote printer management system that allows OEM personnel to remotely monitor installed printing systems.

1.2 Prerequisites and Scope

The reader is expected to be familiar with:

- Memjet inkjet printing technology, its applications, and implementation
- Memjet Dura-type (DuraFlex, DuraBolt, DuraLink) printing systems, their network architecture and technical documentation suite listed in Section *1.4 Related Documentation*

This document does not cover the design, operations, or troubleshooting of a Dura-type printing system.

1.3 Typographic Conventions

Throughout this document, the following typographic conventions are used:

`Code Character`	`Courier` font is used to identify HTTP GET and POST commands with associated arguments, as well as references to source code, job states, registry settings, directory/file names, XCI commands, and XML settings.
Bold	Text that appears on-screen in the user interface is shown in **bold font**. This includes UI buttons, engine states, warning codes, and fault codes.
Yellow Highlighting	Yellow highlighting indicates sections that are new or updates in this version of the document, compared to the previous version.

1.4 Related Documentation

Other documents, besides this guide, provide further details for specific readers:

- *System Overview* – For OEM managers and non-technical personnel charged with evaluating the DuraFlex components for use within their products. This document describes the DuraFlex concept and Memjet-supplied DuraFlex components and gives an overview of the operational considerations. It introduces the components an OEM is required to design and manufacture to ensure the DuraFlex Modules function as designed in a DuraFlex-based print engine.
- *Mechanical and Fluidic Databook and Design Guide* – For mechanical design engineers and developers, providing details of the Memjet hardware modules and components (including printhead and maintenance system) and specifications of the ink delivery system fluidics.
- *Electrical Databook and Design Guide* – For electrical design engineers and developers, providing details of the Memjet power requirements, electronic assemblies, and connections.
- *Software Databook and Design Guide* – For software and firmware engineers who need to understand the software interfaces, commands, scripts, and reference software applications.
- *Installation and Commissioning Guide* – For OEM personnel who are installing and commissioning a new printing system.

- *Operations Guide* – For OEM engineers and operators to perform operational tasks.
- *Troubleshooting Guide* – For OEM engineers and technicians to identify symptoms and resolve issues.
- *Service and Repair Guide* – For OEM engineers and technicians to perform DuraFlex inspection and maintenance tasks and component and consumable replacement.
- *Job Submission Library Guide* – For OEM software engineers to incorporate the Job Submission Library (JSL) into their chosen Raster Image Processor (RIP).
- *Technical Bulletins* – For various audiences to announce product or process update or to provide specifics on single-subject technical topics.
- *CAD and Schematics* – For various audiences to provide detailed dimensions related to specific areas.

Note:	All technical documentation is available on your Memjet Partner Site.

1.5 Glossary

For terms, acronyms, and abbreviations used in this guide and some product-specific terms, see the DuraFlex Glossary or DuraLink Glossary.

Note:	This document is hyperlinked to the glossary. For offline reading, download the DuraFlex Glossary file from your Memjet Partner Site.

1.6 Additional Documentation or Access

For additional product-related technical documents, go to your Memjet Partner Site.

If you need Partner Site access, enter a case in Service Desk (*https://OEMsupport.memjet.com*), send an email to Memjet Customer Support (*customer.support@memjet.com*), or contact your Technical Account Manager.

2 Overview

The MCS Agent is provided with your Memjet printer for the purpose of collecting print job event data and printer system metrics. The data is then sent to a private Memjet cloud in near real time where it is made available to view in several dashboards on the MCS frontend.

The MCS Agent supports monitoring on DuraLink, DuraFlex, DuraBolt and all future printer architectures. A single MCS Agent can only be used to monitor a single printer. If you wish to use MCS monitoring for multiple printers, you will require an MCS agent for each printer.

Prerequisites

- Internet connection
- 2 × LAN cables (cat 5 or faster)

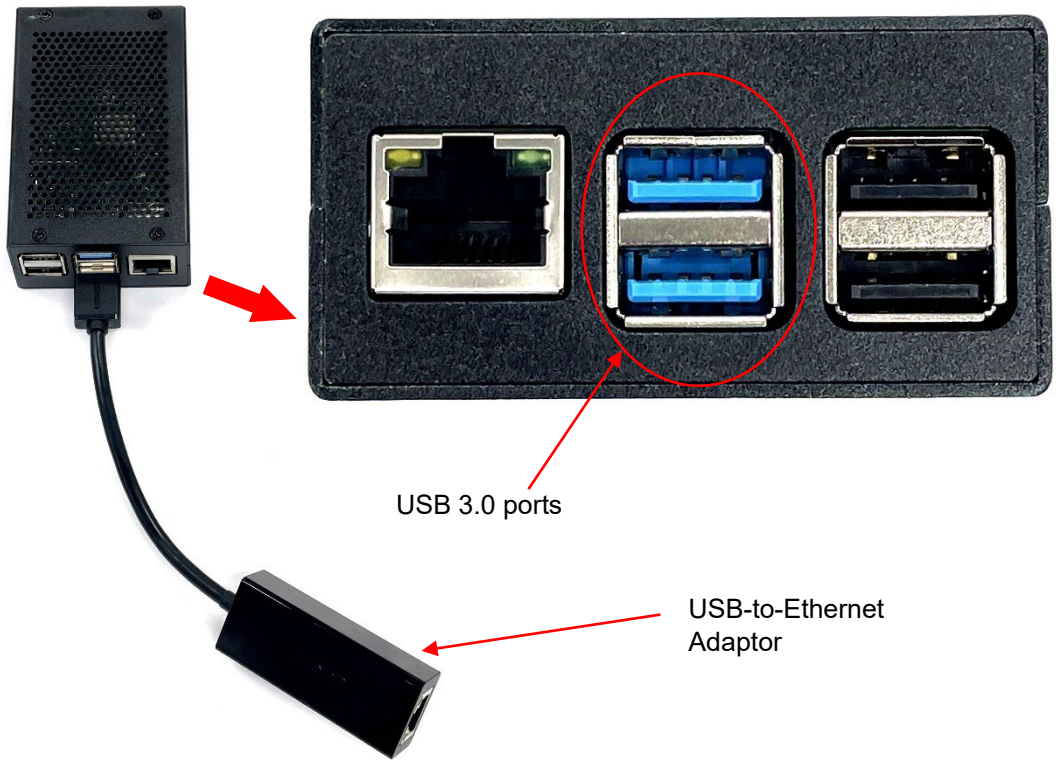
Figure 1 – MCS Agent Power Cable and USB-to-Ethernet cable

Figure 2 – MCS Agent Power Cable and USB-to-Ethernet cable

3 Connecting the MCS Agent to a Printer

1. Connect the USB-to-Ethernet cable to one of the blue USB 3.0 ports on the MCS Agent as shown in *Figure 3*.

Figure 3 – The MCS Agent



2. Connect the USB-to-Ethernet adaptor to the company LAN (Ethernet switch) via a Cat 5 Ethernet cable. A network connection diagram is shown in *Figure 6*.

Figure 4 –USB-to-Ethernet Dongle Connection to External Network

3. Connect another Ethernet cable (cat 5 or faster) to the Ethernet port of the MCS Agent to the target printer internal network. This is the same network the printer PESM is on.

Figure 5 – The Ethernet Connections on the MCS Agent

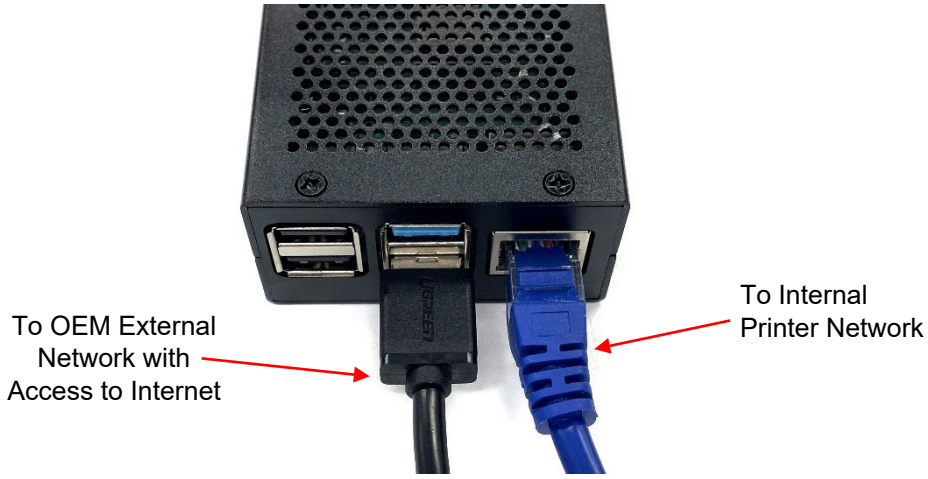
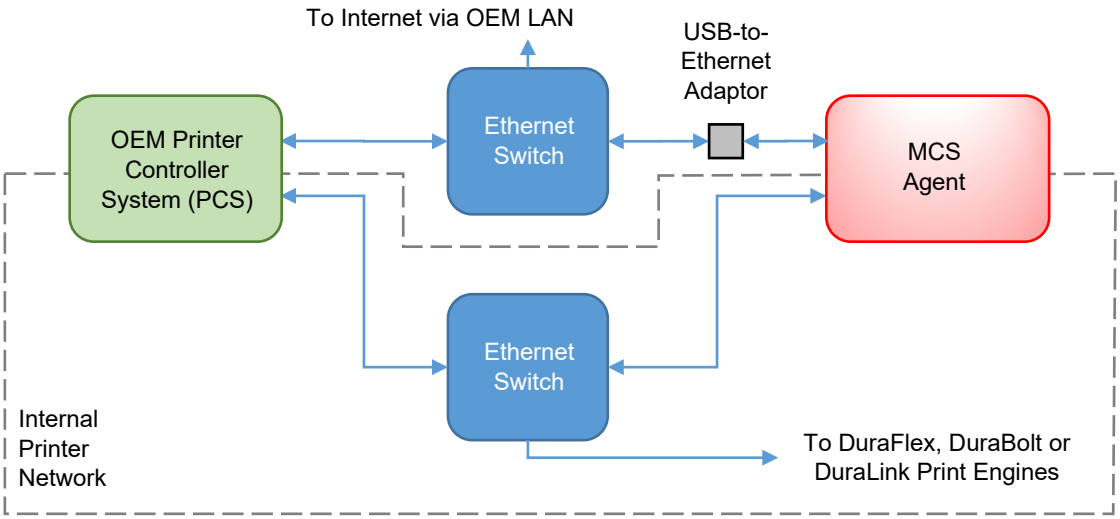


Figure 6 – Network Connections for the MCS Agent



4. Plug the power adaptor into the MCS Agent (*Figure 7*). The MCS Agent will power on.

Figure 7 – Power Connection to the MCS Agent

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3.1 Configuring the MCS Agent for First Use

Once the MCS Agent has booted up (approximately 30 seconds), you must configure the device before it can start monitoring printer data.

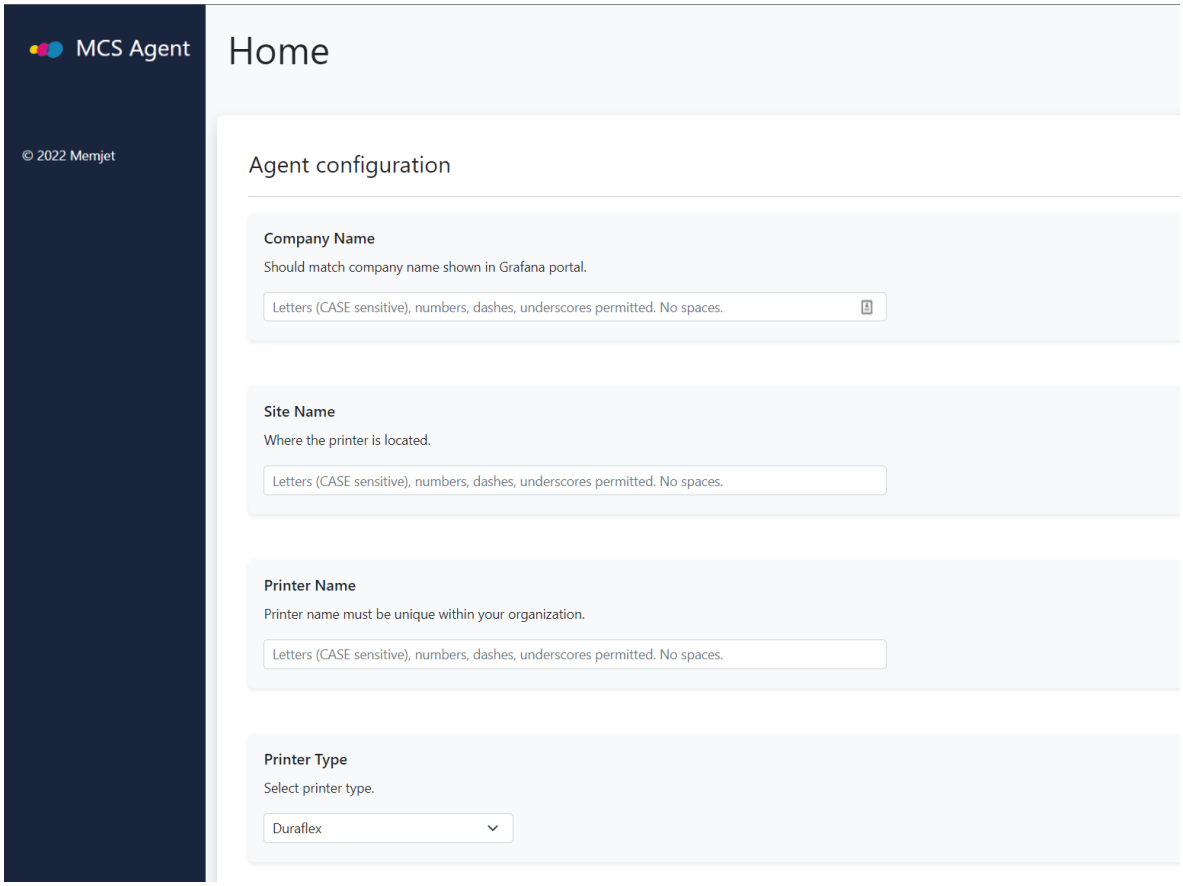
1. From a PC connected to the same LAN as the MCS Agent, open a web browser and navigate to:

   `http://mcs-agent.local`

2. Once the Printer Name is set and the config page shown below is saved, the MCS Agent URL will change to:

   `http://mcs-<printer name>.local`
   You should see the web page shown in *Figure 8*:

Figure 8 – MCS Agent Configuration Screen – First Run

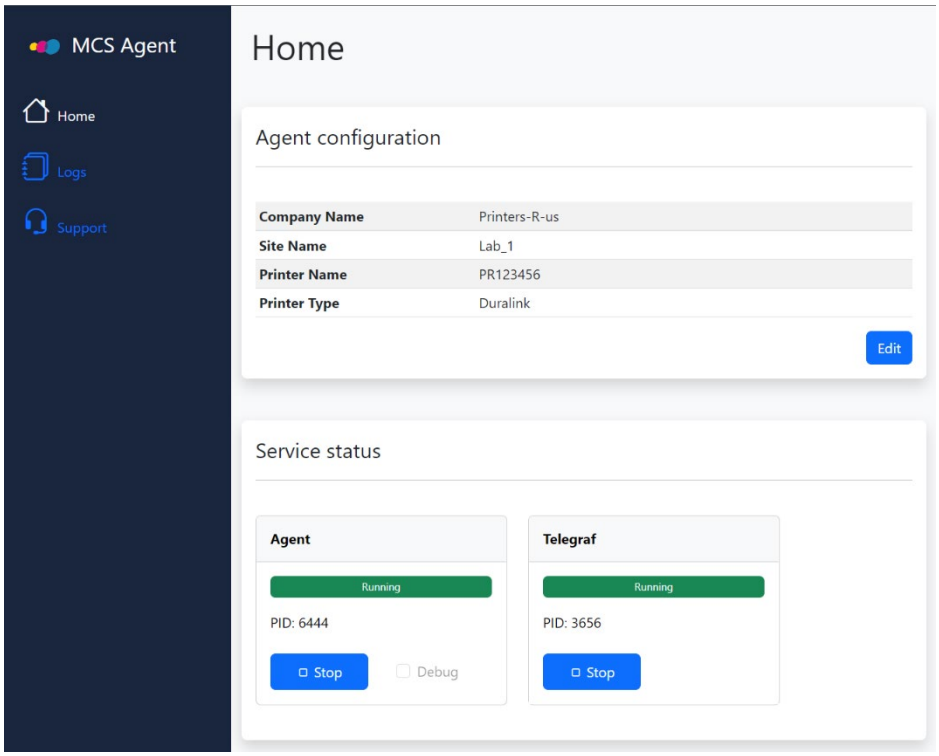


3. Enter the **Company Name** - this should be consistent across all devices within the same organization
4. Enter the **Site Name** - this should be consistent across the same site
5. Enter the **Printer Name** - this should be unique within the organization and easily identify the target printer.

Note:	If you are moving from MCS 1.0 to 2.0, the printer name conventions should match any that were used previously within your organization.

6. Select the **Printer Type** from the dropdown - this must match the type of the target printer.
7. Click **Save** and the page will refresh to a page similar to *Figure 9*.

Figure 9 – The Configured MCS Agent Page



8. Once the target printer is ON and ready to print, all items in the Service Status section should be shown as **Running**. The agent is now ready to accept events from the printer, collect data and store it in logs.

   Once the initial configuration is saved, the MCS Agent URL will change to:

   `http://mcs-<printer name>.local`

4 MCS Agent Software User Guide

1. To access the MCS Agent, navigate to:

   `http://mcs-<printer name>.local`.

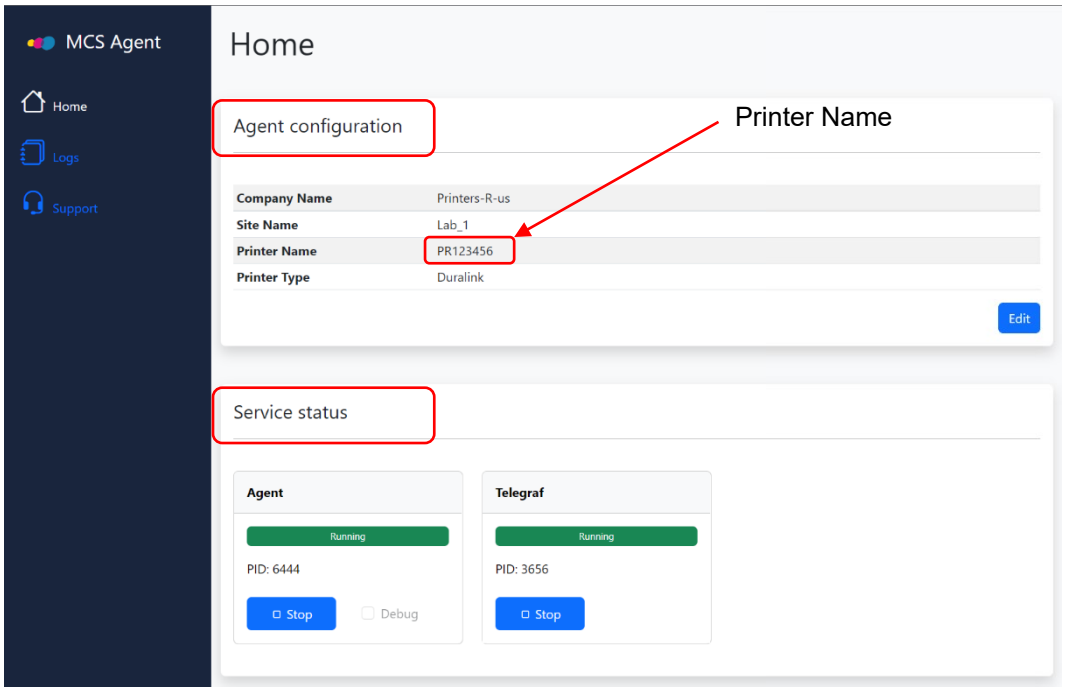
   For the example show in *Figure 10*, the URL of the MCS Agent would be:

   `http://mcs-PR123456.local`

4.1 Home Screen

The Home screen contains two sections shown in *Figure 10*:

Figure 10 – The MCS Agent Home Page



- Agent Configuration

  This section allows for the editing of the company, site, printer, and printer type.

  1. Press **Edit** and update any of the fields as required.

- Service status

  The section shows the status of the collector and the Telegraf process (daemon), their process IDs (PIDs) and allows the user to stop/start the services. The collector service can be put into debug mode for more detailed logging.

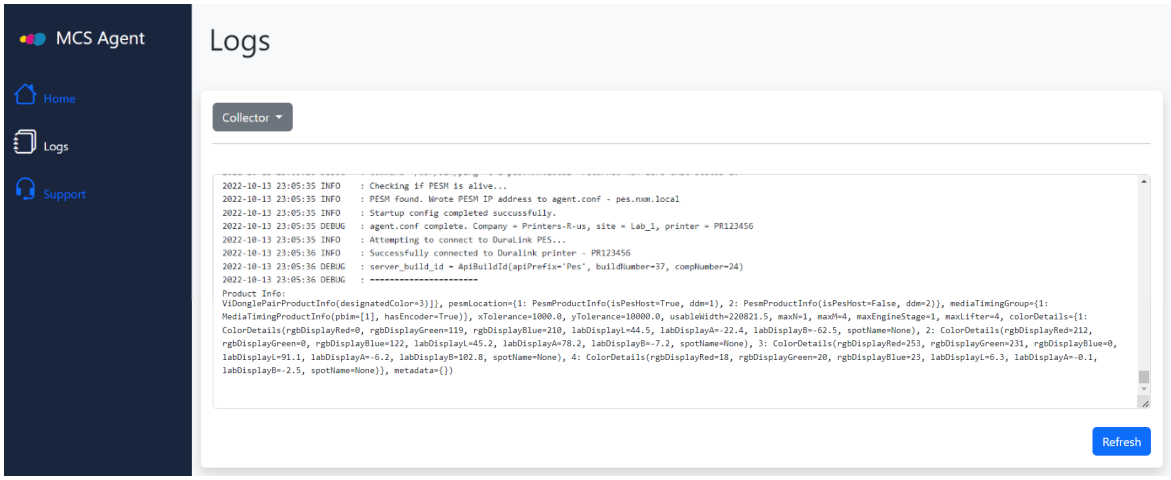
  - Agent - collector software that listens to events from the printer and logs them
  - Telegraf - reads the data from the collector logs and uploads it to the Memjet Cloud

4.2 Logs Page

The Logs screen allows for viewing of the MCS agent logs (*Figure 11*). To access the various logs, press the button shown in *Figure 11* and select the log to view.

- Collector log – status the connection status of the service, and whether it is listening to events
- Telegraf log – status of the Telegraf service and uploading behavior
- VPN log – VPN support session log detailing connection status and/or issues

Figure 11 – Logs Page

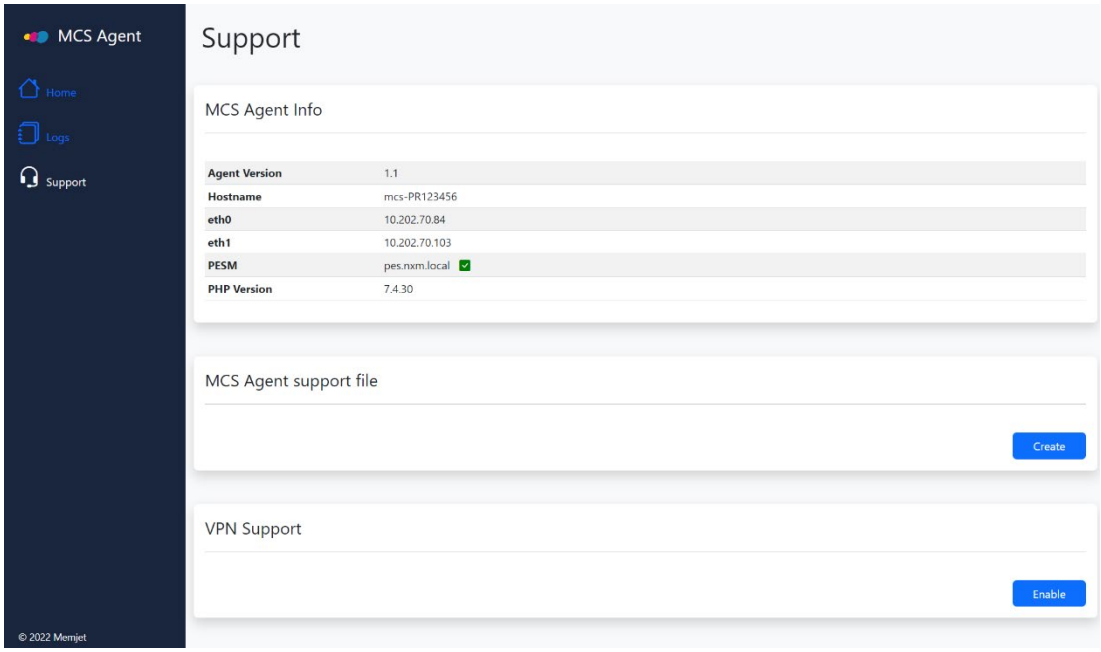


4.3 Support Page

The Support page (*Figure 12*) consists of the:

- *MCS Agent Info*
- *MCS Agent Support File*
- *VPN Support*

Figure 12 – Support Page



4.3.1 MCS Agent Info

Information panel containing naming, version, and connectivity data:

- Agent version - the version of the MCS Agent software currently installed
- Hostname - the current hostname of the MCS Agent
- eth0 - the IP address of the port connected to the Printer network
- eth1 - the IP address of the port connected to the LAN
- PESM - the hostname of the PESM. A green tick indicates it is successfully connected. A red cross indicates it is not connected.
- PHP Version - version of the PHP used in the MCS Agent software

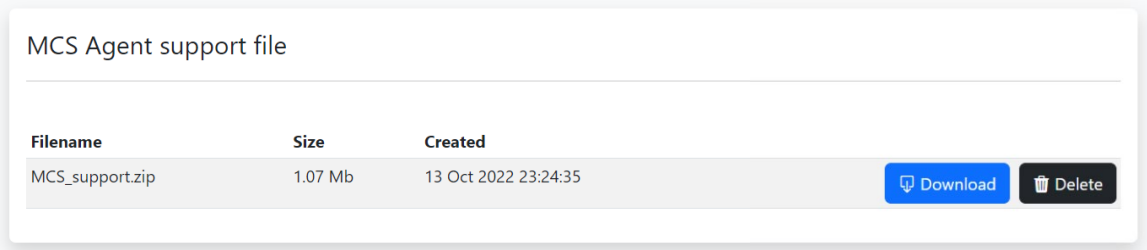
4.3.2 MCS Agent Support File

If you are having trouble setting up the MCS Agent, you can generate a support file that can be sent to Memjet for troubleshooting assistance.

1. On the MCS Agent Support Page, click the **Create** button to generate the support file (*Figure 12*).
2. You can then choose to download the file or delete it (*Figure 13*)

   The support file is a .zip file containing various agent logs and agent system info that can then be downloaded and sent to Memjet support to assist with troubleshooting in the event of a fault or issue.

Figure 13 – Support File Management



4.3.3 VPN Support

If you require real-time assistance from Memjet, the MCS Agent can create a dedicated VPN tunnel to Memjet to assist you.

1. Click the **Enable** button to create a dedicated VPN tunnel.
2. Once the connection has been enabled, contact your Memjet TAM, and give them the IP address, shown in *Figure 14*, to enable the VPN connection.

Figure 14 – Support File Management