con terra FME Flow Hosted Managed Service Support Plan

con terra is a Premier Managed Service Provider (MSP) Partner of Safe Software Inc. The con terra FME Flow Hosted Managed Service Support Plan explicitly defines what FME Flow Hosted Managed Service Plan customers can expect from con terra when they run services on FME Flow Hosted from Safe Software.

All con terra FME Flow Hosted Managed Service Support Plan customers have access to con terra Standard Support for FME Flow Hosted as referred at https://www.conterra.de/support. con terra FME Flow Hosted Managed Service Support Plan extends the Standard Support with MSP Partner Support services for the Management and Monitoring of the customers FME Flow Hosted instances as stated in Safe Software's FME Flow Hosted Support Policy at https://engage.safe.com/legal/terms-and-conditions/fme-flow-hosted-support-policy/.

1 Support Channels

For handling support cases, con terra operates a web-based service portal that can be accessed by customers at https://portal.conterra.de. Response times are limited to certain hours of coverage and may vary depending on the relative volume and complexity of requests already in the queue.

2 Scope of Support

2.1 Helpdesk Support

FME Flow Hosted Helpdesk support requests cover development and production issues on FME Flow Hosted, especially the FME Flow running on the FME Flow Hosted instance. Helpdesk support is limited to:

- Troubleshooting operational or systemic problems on both the FME Flow Hosted tier and FME Flow instances.
- Troubleshooting security concerns on both the FME Hosted tier and FME Server instances.
- Troubleshooting access Issues to either the FME Flow Hosted tier or FME Flow instances.
- Proactive investigation into product regressions, deficiencies and security threats.

Helpdesk Support does not include:
- Proof of concepts
- Advice on leveraging third-party services that complement typical FME Flow Hosted deployments
- Performing system administration tasks

2.2 Advanced Support

Within the FME Flow Hosted Managed Service Support Plan con terra offers the following advanced support services:

- Architectural Review - Review of your current architecture and advice on how to migrate to the cloud to take advantage of the many opportunities it presents.
- FME Flow Hosted version upgrades – Application of FME Flow version upgrades once a year. This applies for release version upgrades only.
- Disaster recovery plan – Application of FME Flow instance backups in case of disaster.

3 FME Flow Shared Responsibility Model

FME Flow Hosted is a Platform as a Service (PaaS). Two components comprise FME Flow Hosted. The first component is the dashboard/API, herein referred to as the FME Flow Hosted tier. This is a multi- tenant application where FME Flow Hosted customers sign up, launch/manage FME Flow instances, and conduct billing and account management. The second component is the FME Flow instances. These are where FME Flow Hosted customers publish their workspaces and associated data. Each FME Flow instance is a self-contained environment, isolated from other instances, and includes compute, storage, and database services.

Monitoring, securing and maintaining the FME Flow Hosted tier is the sole responsibility of Safe Software. You acknowledge that the FME Flow Hosted tier is provided by Safe Software Inc. and is beyond the reasonable control of con terra.

For the FME Flow instances, to ensure a high level of uptime, both con terra and Safe Software are responsible for supporting the instance—a shared responsibility model.

3.1 Proactive Monitoring Of The FME Flow Hosted Tier

The FME Flow Hosted tier is monitored 24x7 by comprehensive automated systems. In the event of any issue affecting the health and operation of the infrastructure, core systems, or tools, Safe Software's dedicated operations

team is notified and will respond to diagnose and correct any issues. This 24x7 monitoring of the FME Flow Hosted tier benefits all FME Flow Hosted users.

3.2 FME Flow Instances

Delivering a high level of uptime for the customer's FME Flow deployment on FME Flow Hosted is slightly different to on-premises data centers. When the FME Flow Hosted customer moves their FME Flow deployment up to the cloud, the responsibility of ensuring a high level of uptime for their instance is split between con terra and Safe Software. Safe Software is responsible for monitoring and maintaining the operating system down to the hardware powering the instance, and con terra is responsible for monitoring and maintaining the FME Flow application (see Figure 1).

3.3 Safe Software Support Responsibilities

Safe Software is responsible for monitoring and responding if there is an issue with the operating system, hardware or network. Safe Software monitor the health and operation of all these components and will be alerted immediately if there is an issue.

Operating System: FME Flow instances run on Ubuntu. Safe Software will fix any issues at the operating system (OS) level. Before gaining access to the instance, permission will be requested from the emergency contact on the account.

Hardware Failure: If there is an issue with the underlying hardware hosting the instance, Safe Software will be alerted and will work to either fix the issue or help the FME Flow Hosted customer migrate to another instance if the damage is irreparable.

Networking: If there is a network issue that causes connectivity to the machine to degrade, then Safe Software will be alerted and will work to fix the issue. If it is a global outage that affects all customers, Safe Software will communicate the issue as defined in our support policy.

3.4 con terra MSP Partner Support Responsibilities

FME Flow Hosted is a Platform as a Service (PaaS), allowing the FME Flow Hosted customer to provision an instance with FME Server installed in minutes instead of weeks. On provisioning the instance, Safe Software and con terra have no ability to access the instance through the FME Flow web interface or APIs. This means it is impossible for Safe Software

and con terra to support the FME Flow application uptime as we have no access, and thus insight, into FME Flow workloads being run. con terra is responsible for supporting the FME Flow Hosted customer on this application tier.

3.4.1 Monitoring and Automated Alerts

con terra manages this application tier using a suite of tools provided by FME Flow Hosted.

Disk Monitoring: If an FME Flow instance runs out of disk space, then it can cause a critical outage as FME Flow requires free disk to function. con terra will monitor disk usage and define alerts that will send a notification when the amount of remaining disk goes below a certain value.

Memory Monitoring: If an FME Flow instance is consistently running out of memory, then it can potentially cause a severe degradation of service. con terra will monitor memory and define alerts that will send a notification when the memory usage is above a certain value for a period of time.

Web Server Responsiveness: If an FME Flow instance is overloaded, or experiences connectivity issues, one of the best indicators of a potential critical outage is whether the FME Flow web server is responsive. con terra will define alerts on the server response time and there is a special alert which triggers when the server is non-responsive. Notifications can then be configured to ensure the correct people are instantly made aware of the issue.

FME Flow Load: If an instance is constantly overloaded, then it can cause a degradation in service as all services (engines, web server, database, etc.) share the same compute. For example, if an FME Engine hogs all of the CPU, then it can cause the database and web server to crash. If the load is consistently high, then the instance type may need to be upgraded. con terra will monitor server load and define alerts that will send a notification when the load is above a certain value for a period of time.

3.4.2 Security Update Management Ensuring the FME Flow Hosted instance is secure is critical to ensuring a high level of uptime. If the operating system is not patched with the latest fixes, then the instance could be vulnerable to attack. con terra will set the automated security patching provided by FME Flow Hosted which allows to ensure the instance is patched with a few clicks in the dashboard.
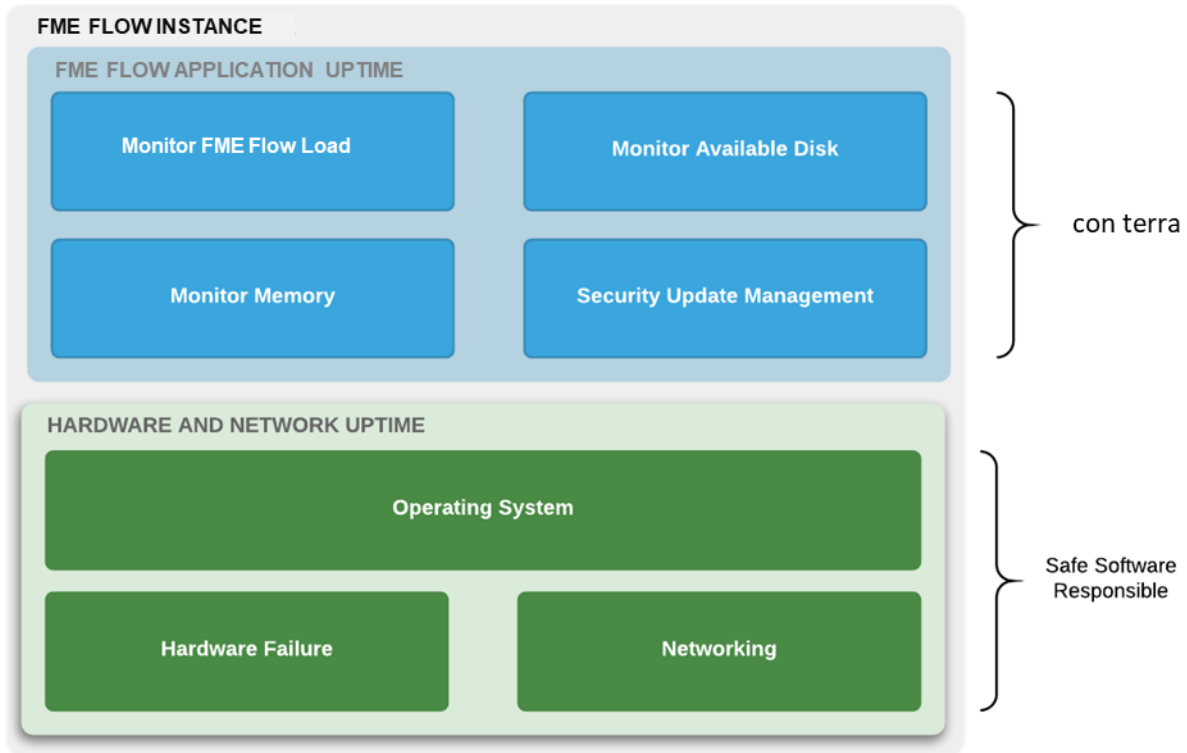
Figure 1: FME Flow Hosted *Shared Support Responsibility Model*