

ANSWERS TO YOUR... FAQs

Remote Multi-Vendor Platform Support Implementation FAQ

We have anticipated some of the questions that you may have about the implementation of our new hardware fault detection technology. If you have additional questions, we encourage you to contact your account executive, who will arrange for a more detailed discussion with our operations experts.

What is our Remote Multi-Vendor Platform Support Service

The service is a sophisticated remote service from our partners, that securely enables proactive detection of hardware faults that occur within a client's data centre on assets covered by our Maintenance Agreement. This proactive detection results in an enhanced client experience and an improved service response and quality.

What are the primary benefits and features of the service?

Benefits

- ▶ Proactive detection of hardware alerts enabling faster response and problem resolution.
- ▶ Improved failure data is provided to our support staff; resulting in a higher percentage of first-time fixes.
- ▶ Real-time visibility to hardware inventory, resulting in accurate part identification on every call.
- ▶ Reduced number of client / support interactions per service incident.

Features

- ▶ Our remote support service features industry-leading technology that ensures secure connectivity, low-cost communications, and data encryption options that are designed to comply with industry and client standards.
- ▶ The advanced hardware fault detection service will be packaged with our standard hardware maintenance agreement as a value-added service for supported storage systems. Additional fees may apply for supported networking and server products.

How will the service be implemented within my data centre?

We will provide you with the following:

- ▶ A pre-built, pre-configured Virtual Machine for Hyper-V or VMWare per your requirements. This virtual machine will remotely connect to the devices in your data centre designated for the remote support service.
- ▶ A silent install package that can be implemented on the Windows-based or Linux-based server of your choice.

**Other implementation options including a pre-packaged hardware/software solution are available on request*

What are the minimum hardware requirements to run the fault detection software within my data centre?

For a basic installation, the agent requires minimal resources: 2 vCPUs, 2GB memory, and 2GB of free hard drive space. Large storage systems or more than 100 servers monitored will increase the above by a factor of 1. Running multiple copies of the agent will also increase the above values by a factor of 1 per agent.

How will the fault detection software connect to my servers/storage?

All requirements related to credentials/community strings listed below can be configured as Read-Only. Access is not required such that your system's data is accessed. On some systems, we may require some degree of OS access (which can be limited to prevent access to customer data). These situations will be addressed with your team on a case-by-case basis to ensure that the method of connectivity and fault detection meet your requirements.

Servers

The preferred method would be to connect to the server using SNMP polling. This may require the server manufacturer's agent to be installed on the server.

Exceptions

- ▶ IBM / Lenovo servers (less than 2 years old) / Lenovo servers – we connect via SNMP to the management card (IMM).
- ▶ Older IBM servers – connect to the IBM Director Agent via WMI (Windows) or WBEM (Linux)
- ▶ Newer Dell servers – connect via SNMP to the management card (iDrac7 or later)
- ▶ Manufacturers without a manufacturer's agent (Cisco, Hitachi, etc.): IPMI, either in-band via command lines / WMI, or out-of-band to the management card.
- ▶ All ESX servers – connect using WBEM (authenticated via vSphere or vCenter) to the ESX host.

Most servers have at least two fault detection methods

- ▶ If the manufacturer's agent is not installed, then IPMI is utilised. If the OS SNMP service is blocked, the management card is utilised. SNMP fault detection produces the best results in terms of detail about hardware/system performance.

Storage

- ▶ Most systems are monitored via their SMI-S proxies (often included with the system's management software or embedded).
- ▶ Systems such as (EMC CLARiiON/VNX, Hitachi HUS/AMS, IBM 3/4/5000, HP EVA, etc.) the storage system's CLI (smcli, navisphere cli, sssu) is utilised, which is installed on the system agent.
- ▶ NetApp / EMC Data Domain / various smaller system – SNMP Polling
- ▶ EMC CLARiiON – SSH access.

About MaintenancePro by 7TECH

We provide organisations with post-warranty hardware maintenance and support to extend the life of their storage, server, and networking equipment while ensuring maximum uptime, reduced operational expenses, and a superior service experience. To learn more how we can provide solutions for your post-warranty hardware equipment maintenance and support, contact us on +44 (0) 1359 221038 or visit www.7tech.ltd.uk.

What data will be sent from my data centre to our support centre?

No raw data is sent to us. The agent that is installed within your network captures, interprets, and summarises the raw data from your server and storage assets. The agent then formats and sends a detailed report of events that we takes action on.

We also receive full hardware inventories of systems maintained by us (make, model, serial number, part numbers, etc.). For storage systems we will receive information such as volume lists, etc. The data is limited to configuration information and we will ensure that non-public data (such as customer information) is not accessed.

How will data be sent from my data centre to support?

The agent(s) will connect via a centralising agent over an encrypted link. Encryption is provided in 4 levels of security, from User ID and password to fully certified encryption (DoD tested).

Will I have any access or visibility to fault detection and service activity related to the support service?

A Web portal is planned for customers to access the status/events/inventories of the systems connected to us.

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