OS Availability Monitoring & Patching

Service Schedule

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This is a Service Schedule as defined in the Conditions. Where the Services set out in this Service Schedule form part of the Services to be supplied under a Contract (as defined in the Conditions), this Service Schedule forms part of the Contract.

In this Service Schedule, references to Clauses are to Clauses of the Conditions, and references to paragraphs are to the paragraphs of (i) this Service Schedule or (ii) whichever other document is specifically referred to.

Additional Definitions

In this Service Schedule the following words and expressions shall have the following meanings:

1.1 **"Guest"** – a Virtual Machine and Operating System which runs on a Host Server.

1.2 **"Host"** – a physical Server running a Hypervisor which runs and manages Guest Virtual Machines.

1.3 **"Hypervisor"** – an Operating System designed to run on a physical Server (the Host) which provides the ability to securely run one or more Virtual Machines (the Guests). The Hypervisor ensures that each Virtual Machine is entirely segregated from every other Virtual Machine and manages the resources which are available to each.

1.4 **"Operating System", "OS"** – a software system designed to run directly on physical or virtual hardware which manages the hardware state and allows running of additional application software.

1.5 **"Pulsant Cloud Backup"** – a backup service provided by the Supplier, described in the document "Pulsant Service Description - Cloud Backup".

1.6 **"Server"** – a physical or virtual server managed by the Supplier on the Customer's behalf entirely for the Customer's own business needs.

1.7 **"Virtual Machine", "VM"** – a virtualised Server environment running a Guest Operating System including the data files which define the Virtual Machine and those which contain the Virtual Machine's associated virtual disk drives and their data.

1.8 **"In life templates"** – Virtual Machine Operating System Templates are the supported versions available for cover under the AMP service schedule:

    1.8.1 - **Windows Server** - Pulsant recognise the Microsoft "Fixed Lifecycle Policy" and monitor Operating Systems within vendor *Mainstream* and *Extended Support* phase.

    1.8.2 - **RHEL** – Pulsant recognise the *Red Hat Enterprise Linux Life Cycle Policy* and monitor "*Full Support*" and "*Maintenance Support*" phases as defined by the vendor.

1.8.3   - In all cases, where vendor Security Updates remain available at no additional cost.

2   Service Scope and Description

2.1   Pulsant management of the Server hardware and associated Operating System layer for either a physical or virtual Server provided by the Supplier or one of the Supplier's partners.

2.2   The Customer confirms that it has considered and accepts full responsibility for all scenarios relating to any failure conditions and functionality of each related or dependent Service where those Services are not provided by the Supplier.

2.3   Pulsant Services are provided to the Customer for so long as the Contract remains in force in accordance with the terms of the Contract and the Supplier's acceptable use, security and access policies and procedures.

2.4   Pulsant Services are subject to payment by the Customer of the Supplier's Charges for installation and support services, as set out in the Order Form or as subsequently agreed between the parties from time to time.

2.5   The Order Form will indicate the Operating System and level of service being provided to the Customer.

2.6   The Service must be hosted on a physical or virtual Server platform within the Pulsant Cloud infrastructure, with an in life supported version of the Windows Server or Linux Operating Systems running on the Server; the Supplier will manage the Server and Operating System to the following extent:

3   Pulsant will:

3.1   Install and configure the Operating System from Pulsant Cloud template library. Supported Operating Systems are 'in life' versions of Windows Server and Red Hat Enterprise Linux (RHEL).

3.1.1   Windows Server - Pulsant recognise the Microsoft "Fixed Lifecycle Policy" and monitor Operating Systems within vendor Mainstream and Extended Support phase.

3.1.2   RHEL – Pulsant recognise the Red Hat Enterprise Linux Life Cycle Policy and monitor "Full Support" and "Maintenance Support" phases as defined by the vendor.

3.1.3   In all cases, where vendor Security Updates remain available at no additional cost.

3.2   Vendor default anti-virus solution deployed as standard. Alternatively, a Customer can provide anti-virus of their choice. Customers are responsible for implementing security measures to protect their operating systems and Pulsant are not liable for the efficacy of anti-virus solutions.

3.3   Monitor the Operating System availability and will notify the Customer where appropriate.

   3.3.1   Monitoring includes:

   - Network availability

   - CPU usage

   - Memory usage

   - Disk capacity

   3.3.2   Monitoring excludes:

   - Antivirus/Managed Detection and Response (MDR)

   - Pulsant recommend Customer deploy and monitor their preferred solution.

3.4   Monitor the Operating System availability and will notify the Customer where availability may be at risk. Pulsant will work with the Customer to remediate availability issues which may include:

   3.4.1   Investigate availability issues and where Pulsant availability monitoring identifies a root cause to be within the OS default template or Hypervisor configuration, Pulsant will work with the Customer to make configuration changes to help prevent any recurring availability problems.

   3.4.2   Reboot server.

   3.4.3   Where AMP service is supported by a Pulsant Backup Solution; re-deployment of templates would include any Pulsant backup agents required for that service and recovery of server as detailed in the Pulsant Backup schedule.

   3.4.4   Re-deploy the Operating System from template following failure.

   3.4.5   Customers are responsible for further troubleshooting in the configuration of the operating system.

3.5   Apply regular, automated Operating System updates on a schedule selected by Pulsant as standard. This includes critical and security patches only for any in life, 'born from template' service. Customers can opt-out of automated patching if required.

4   Service limitations

Major Upgrades

4.1   Pulsant will not perform major version upgrades of the Operating System: A major version upgrade example would be Windows Server 2019 to Windows Server 2022 or RHEL 8.2 to RHEL 9.0 (this is available as a Professional Services engagement).

4.2   Pulsant AMP service is supported only for Operating Systems that are 'in life' versions of Windows Server and Red Hat Enterprise Linux (RHEL) as stated in Section 1.14. Versions that are deployed outside of these versions may still be charged.

OS Reinstallation

4.3   Pulsant will not redeploy the Operating System, unless required by the failure of a server provided by Pulsant (this would be available as a Professional Services engagement).

Application Reinstallation

4.4   Pulsant will not install or reinstall any applications or services outside the boundaries of the template deployment.

Endpoint Detection and Response:

4.5   EDR (inc. Antivirus) is the Customer responsibility. Pulsant is not obligated under this agreement to provide any support services for EDR.

4.6   Customers are responsible for implementing security measures to protect their operating systems.

Service boundaries

4.7   The Customer is responsible for ensuring that the Service does not interfere with operation of other services not covered by this agreement, for example patching schedules that conflict with other critical activities elsewhere within the Customer's infrastructure.

4.8   The Customer is responsible to provide the Suppler with the relevant access to fulfil service obligations.

4.9   Active Directory is the responsibility of the Customer.

4.10   Installation and configuration beyond the deployed standard template is the responsibility of the Customer, unless covered in a separate service schedule.

5   Chargeable work:

5.1   Certain activities outside the normal management scope of the service can be performed by Pulsant as chargeable work. These are an engagement and sit outside of any Service Level Agreement, they can include:

5.1.1   A re-install of the Server or Hypervisor Operating System (note that a re-install required because of a failure of Pulsant owned or managed infrastructure is not considered chargeable work.)

5.1.2   Customisation of the update schedule or non-automated patching in exceptional circumstances.

5.1.3   Installation of major upgrades to the Server or Hypervisor Operating System.

Service Levels

6   The Supplier will use its reasonable endeavours to deliver the following Response Times and Availability as classified in the tables below.

6.1 Incident Response Times

Event Priority	Definition	Service Hours	Response Time
P1	• Total loss of production service; or • A significant revenue, operational, or safety impact on the entire company; or • Service degraded, affecting the entire company	24/7/365	Within 15 minutes
P2	• Partial loss of service affecting the company; or • Service degraded, affecting multiple departments or a single site; or • There is the potential of significant revenue, operational, or safety impact to the company if not resolved quickly	24/7/365	Within 30 minutes
P3	• Service degraded, affecting non-production services	Business Hours	Within 1 Hour
P4	• Minor service degradation affecting non-production services	Business Hours	Within 2 Hours

Event Priority	Definition	Service Hours	Response Time
P5	• Standard requests for change or information	Business Hours	Within 4 Hours

6.2 Service Availability.

Event Priority	Definition	Service Hours	Response Time
Measure	• Description	Value	Fee Credits
Service Hours	• The hours during which the service and SLA is provided	24/7/365	
Availability — Standard Solution	• % of the service hours during which service availability is guaranteed (excluding planned maintenance)	99.85%	**Pro rata proposition of the Monthly Charges for any Non-Availability Period**
Availability — Geographically diverse Solution with DRaaS	• % of the service hours during which service availability is guaranteed (excluding planned maintenance)	100%	**Pro rata proposition of the Monthly Charges for any Non-Availability Period**