Managed Hosting Services Master Service Description

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1. Managed Firewall Service

Overview

Advanced use next generation firewall technology in a high availability configuration to ensure the highest levels of protection against current security threats.

Where VPN connectivity is required (for example, for network printing services), Advanced will configure the firewalls within the Advanced Data Centre to allow remote VPN connectivity.

Scope

Advanced will monitor and manage the firewalls 24/7/365 to maintain operation and security. All access to firewalls is carried out securely.

Monitoring

The firewalls are monitored 24/7/365 for availability and potential malicious attempts to access systems. Identified intrusion attempts are automatically logged and alerted to Advanced. Alerts are reviewed and remedial action taken as required. During an attack, Advanced reserve the right to modify the rule base outside of operational change control procedures to prevent further vulnerabilities. Such changes may restrict access to the system for Customers.

Advanced will regularly and securely monitor key performance thresholds including but not limited to: CPU usage, memory usage and interface usage. Firewall logs are kept for six (6) months.

In the event a monitored metric exceeds acceptable thresholds, Advanced will raise a support call to investigate the incident and contact the Customer in accordance with the escalation details held for the firewall.

Patch Management

Firewall appliances and operating systems managed by Advanced will be patched with all updates that are deemed to be critical or security related by Advanced based on classification by the firewall vendor. Advanced will provide proactive application of vendor supplied patches and updates to the Firewall operating system in accordance with Advanced's operational change management process. For the avoidance of doubt, such patches and updates will constitute a "Standard Change".

Reporting

Advanced will securely store a standard suite of firewall reports. Advanced will keep reports in archive for six (6) months.

Boundaries

The Customer can request changes to the firewall configuration including its rule / policy base. All changes must be requested via the Advanced support team and may incur additional Professional Services Charges. Advanced will endeavour to contact the Customer within two (2) working days of receiving a change request to initiate the change process, providing the Customer has provided all the necessary information.

Customer Responsibilities

To create a branch office VPN, there may be a requirement for changes to be made to the IP addressing of the Customer's Local Area Network.

To arrange for the configuration of a VPN, if necessary, on Customer owned local Router / Firewall (subject to survey).

2. Service Management

Overview

Service Management provides an overarching management structure using the Information Technology Infrastructure Library (ITILv3) Service Management framework.

Scope

Advanced will provide an overarching management structure using the Information Technology Infrastructure Library (ITILv3) compliant service management framework as a guideline for all the Service elements that will be provided:

- Incident Management;
- Problem Management;
- Change Management;
- Capacity Management.

Boundaries

The Service is bound by the hosting services statement of work issued in conjunction with the legal terms and conditions of the Service.

Customer Responsibilities

3. Hosting Service

Overview

Hosting Services are delivered from Data Centres contracted by Advanced and approved Public Cloud providers.

Advanced is responsible for procurement and maintenance of any hardware used as part of an Advanced Hosting Services. In the event of hardware failure, Advanced will take appropriate action to replace the faulty hardware with equipment that ensures continuity of Service. This includes:-

- Provision of required hardware based on contracted configuration;
- Installation and configuration into an Advanced approved Data Centre;
- Proactive monitoring of hardware for faults/failures;
- Replacement of faulty parts in line with prevailing Advanced Hosting Service Service Levels;
- Application of any firmware updates that affect security.

Scope

Advanced will:-

- 1. operate from Tier Three (3) or equivalent Data Centres as defined by the Uptime Institute Tier Classification System;
- 2. resolve failures and errors with the Hosting Service in accordance with the Incident Management Service Levels;
- 3. ensure the following service and infrastructure is adequate in respect of the Hosting Services:
 - a. data centre rack space;
 - b. power;
 - c. environmental management (i.e. temperature, humidity);
 - d. physical security and access control;
 - e. rack switching, where required;
 - f. fire suppression and flood systems;
- 4. notify the Customer in writing, in line with the sub-contractors' notification timings, of any Scheduled Maintenance scheduled for major plant and in the event of a situation requiring Emergency Maintenance shall inform the Customer;
- 5. notify the Customer in writing regarding any risk relating to the Data Centres which has a potential impact to the services.

Boundaries

Any variation to the Hosting Service is subject to the provisions of the contractual Change Control Procedure.

Occasionally, there may be additional third party applications that the Customer would like to consider using. Advanced are able to consider the hosting of third party applications, but there are a number of questions and steps that need to be addressed prior to agreement, these include:

- the type of application;
- compatibility of the software within the Hosted Service environment;
- resources required (i.e. memory, disk space etc.) in order to run the Software;
- nNumber of concurrent users that require access to the Software application;
- level of resiliency required;
- levels of integration and compatibility of the application with the existing applications working within the Hosted Services environment
- popularity of the Software application (i.e. is the product likely to be used / required by other businesses operating within the Hosted Services);
- contractual and licensing implications of operating the Software within a Hosted Service environment;
- the initial costs associated with validating the Software within the environment (proof of concept and user acceptance testing);
- the on-going costs associated with hosting the Software.

Customer Responsibilities

The Customer will provide all reasonable assistance and co-operation to Advanced in its provisioning of the Services, including all information that Advanced may reasonably require.

4. Monitoring Service

Overview

The Monitoring Service provides an automated environment that constantly monitors the system, and provides Advanced with timely warnings of issues arising to allow pro-active intervention.

Monitoring is focussed on the health of the Services and security.

This Service also captures capacity information over a period of time to allow for effective management.

Scope

Advanced will:

- 1. configure and maintain a Monitoring Service to monitor and alert against detection thresholds within the assigned infrastructure and platform services.;
- 2. resolve failures and errors in the Monitoring Service in accordance with the Incident Management Service Levels;
- 3. ensure that critical and major monitoring alerts are reviewed and, where appropriate, an Incident logged by the Service Desk;
- 4. assign Incidents arising from monitoring to Advanced Service Desk for diagnosis and resolution;
- 5. capture server and network infrastructure data to enable the provision of capacity trend analysis;

For any Advanced managed hardware, the monitoring system will alert for faults that have occurred on the Hosting Services. Standard alerts are as follows:-

- System memory failure (RAM);
- Physical hard disk failure (if applicable);
- RAID controller failure (if applicable);
- Logical drive failure;
- System temperature anomalies;
- Network interface card failure;
- System Fan failure;
- Power supply failure.

Boundaries

For all platforms, we are restricted to the limitations of each server or public cloud service as set by the relevant manufacturer or provider. For example;

- Additional local storage is not supported on blade servers within a hosting solution package. Additional external block storage can be purchased in 10GB increments.
- Advanced operate a "fair use" policy, Advanced understand that at certain times, Customers data I/O landscape will become more demanding. The "fair use" policy is to prevent prolonged, sustained high demand that may be caused by other issues within the Customer's infrastructure

outside of Advanced's control. Advanced reserves the right to limit the available I/O in these circumstances.

- No physical access is permitted at any time for any purpose.
- The addition of a processor (CPU or vCPU) may affect the number of licences required by Microsoft applications and operating system, which in turn may increase the cost of the Customer's subscription fees.

Customer Responsibilities

5. Storage Management

Overview

Customer Data is stored on storage area network hardware within the Data Centres and/or approved Public Cloud providers within agreed global regions.

Scope

The Hosting Services procured may include a "quota" for disk storage. By default, this is based on an amount of storage, allocated on a per-user or per "service" basis. The quotas for storage can be aggregated across all users on a per- purpose basis (e.g. Hosted Mail, Home Directories, Application Database), but cannot be combined across different services. The standard quotas are as defined in the appropriate Variable Charges Schedule.

Additional storage may be available for some Services in 10GB increments, if required, upon completion of the appropriate service order. Any variations to the standard quotas listed above will be defined in your Agreement.

Advanced will:

- 1. resolve failures and errors in the above environments in accordance with the Incident Management Service Levels;
- 2. manage data replication services where procured in addition to the standard Service for all agreed data to an alternate geographically separate storage array;
- 3. provide a secure logically separated storage environment or multitenant service;
- 4. manage the equipment, and software support for any assigned hardware storage platform (storage arrays and storage area network) based on the vendors warranty and/or a nominated Third Party Provider.

Boundaries

- 1. Costs may be incurred if the growth of data is considered to be unreasonable. To establish what is considered reasonable, the following combination factors would be considered:
 - a. Agreed volume of data import at service take on and any subsequent agreed projects

Customer Responsibilities

The Customer will be responsible for:

- 1. ownership of the data entrusted to Advanced to store;
- 2. ensuring the Advanced data retention policy meets the requirements of any applicable corporate and legislative policies and guidelines affecting the Customer;
- 3. the on-going maintenance of the policies referenced above;
- 4. engaging in a decommissioning process on termination of the Agreement;
- 5. storing all Data immediately following on termination of the Agreement.
- 6. providing a purchase order reference to the Account Manager, in the event the growth of data is considered to be unreasonable.

6. E-Mail & Security Services

Overview

These Services apply only to Advanced Hosted Mail Services where specifically procured and form part of the Agreement.

Hosted Mail

The Hosted mail Service utilises Microsoft exchange server as a mail and collaboration platform, delivered as a Hosted Service from the Data Centre.

Advanced can, if requested, provide a Simple Mail Transfer Protocol (SMTP) service for Customer applications to relay outbound SMTP mail which will be detailed in the statement of work. Use of this relay server is subject to the Advanced Acceptable Use Policy.

E-Mail Security

The anti-virus Service is designed to provide a high level of protection to the hosted environment and Customer data from: malware, ransomware, viruses, worms, rootkits, trojans, and other threats, as detailed below.

SSL Certificates

Advanced can provide a single SSL certificate for use with encrypted web sites as a chargeable option. This is subject to restriction dependant on the Service to be secured.

Scope

Hosted Mail

To the Exchange platform can be achieved via the following:-

- Microsoft Outlook Client (Outlook 2010 and above);
- OWA (Outlook Web Access) via a compatible web browser;
- A mobile device, compatible with Microsoft active sync.

Advanced will administer the following (Administrative fees may apply):

- Create New user with mailbox;
- Modify details of a mailbox, such as storage or modify users contact details, or add / delete email addresses;
- Create and modify send and receive thresholds for mailboxes;
- Delete users;
- Reset users' passwords;
- Setup email forwarding;
- Create and manage distribution lists;
- Create and manage external contacts for inclusion in private address book;

- Mailboxes, contacts and distribution lists each have an automated import facility for creation (using CSV files);
- Manage quotas for public folders;
- Assign permissions to mailboxes;

E-Mail Security

The Anti-Spam (AS) Service is designed to protect Customers from unsolicited or unwanted email. The default settings applied for the AS service include the following actions:

- Block and delete Email;
- Quarantine Email;
- Use of an approved senders list for IP addresses, domains and email addresses;
- Use of predictive spam detection.

The anti-virus (AV) Service is managed on a 24/7 basis and monitored for hardware availability, service capacity and network resource utilisation. Through stringent monitoring of Service Levels, regular adjustments are made to the AV Service to ensure its optimum efficiency is maintained.

Customer inbound and outbound electronic mail including all attachments, macros or executables are directed through the AV Service using DNS and MX record settings.

Email and attachments are electronically routed and digitally examined. The email and attachments are scanned by industry leading anti-virus products. Some types of attachment are currently not known to contain viruses so these are not currently scanned by the AV Service.

Advanced will:

- 1. provide an up to date, centralised AV service across the entire hosting infrastructure;
- 2. operate behaviour monitoring software within the Hosting Service infrastructure;
- resolve failures and errors with the Anti-Virus Service in accordance with the Incident Management Service Levels;
- 4. investigate any reported incidents, where applicable reporting incidents to the Advanced security incident log.

SSL Certificates

- Certificates are Thawte SSL-123 domain validated 128-bit certificates that are valid for a single URL. Other certificate types can be provided upon request.
- Advanced will create the Certificate Signing Request (CSR) on the web server for signing by the signing authority. Once an encryption key is created, Advanced will install and configure the web server accordingly.
- Advanced will ensure that the SSL certificate is registered for the Service Term.
- If changes are required to the certificate, an additional service must be purchased.

Boundaries

Hosted Mail

For Customers connecting to the Advanced hosted mail service outside of the Advanced hosted desktop (for example, from a local PC), each PC must have a Microsoft Windows desktop operating system which is still in support with Microsoft ((Windows 7 and above), as well as a local licence / software for Microsoft Office 2010 (or above) or Microsoft Outlook 2010 (or above) with all up to date service packs applied. If you utilise any other client mail software on your PC (for example, Outlook Express, Windows Mail, Pegasus, Eudora), you will not be able to use this to send and receive mail.

Advanced does not provide support for end users utilisation of mail clients (such as Outlook), LAN or desktop configuration.

Microsoft Office 365 email can be accessed from the Hosted Service desktop using Outlook Web Access (OWA) but will not be supported by the Advanced support team. The following should be noted if you use Microsoft Office 365:

- Microsoft Office 365 licensing cannot be used in conjunction with your Advanced Hosted Service as the solution is licensed under a SPLA license agreement; this is a Microsoft licensing stipulation;
- Microsoft Office 365 OWA and Microsoft Web Apps have limited functionality with Advanced Software;
- Integration of the Advanced Hosted Services with Microsoft Office 365 exchange email service is not permitted as standard.
- In the event that integration with Microsoft Office 365 email service has been approved it is the responsibility of the Customer to setup the integration, example being Microsoft Outlook. The Advanced support team will not support Microsoft Office 365 email service or integration via Microsoft Outlook or any other method of integration.
- Advanced does not support the use of Microsoft Office 365 Exchange on the Hosted Services in "Outlook cached" mode. However it will allow a Customer to have this feature setup on the understanding that this can only be performed with the restriction that only three (3) months of cached mail can be stored on the Hosted Services.
- The Customer must be using Outlook 2013.
- SAN Storage in the Data Centre is premium and if Outlook cache mode is used by one or many users there will be cost implications for the Customer and storage thresholds maybe exceeded and billed for.

SMTP Service

The following limitations apply to SMTP Service:

- this Service supports outbound email (from the server to the internet) only and will not support inbound SMTP delivery to the server;
- SMTP Service supports up to 20,000 emails per month per Hosted Service purchased;
- As per the Advanced Acceptable Use Policy (AUP), unsolicited commercial email (UCE) and unsolicited bulk email (UBE) are not supported with any Advanced solution.

SSL Certificates

In order to ensure the validity of the SSL certificate will verify you are the registrant of the domain name used in your application by verifying the information in the WHOIS database.

Customer Responsibilities

E-Mail Security

The Customer will:

- 1. ensure all client PCs and devices used to access the hosting infrastructure have up to date antivirus software in use;
- 2. apply any client-side anti-virus scanning exclusions recommended by Advanced in the relevant product minimum specification document;
- 3. ensure their users have a high level of awareness of the dangers email presents in an organisation:
 - a. Spoofed senders and company names;
 - b. Spoofed websites;
 - c. Unexpected documents and attachments;
 - d. Unexpected requests for action that involve entering personal data;
- 4. ensure Customer Users have a high level of awareness of the dangers that can arise from uncontrolled use of USB storage devices in an organisation.

7. Patch Management Service

Overview

The patching of the Hosted Service platform is governed by a separate patching policy, available on request. This details the release cycle of evaluation, testing and deployment on to the environment.

Scope

Advanced will:

- 1. review patching bulletins from hardware and software vendors;
- 2. aAssess notifications received from industry sources, software and hardware vendors for their criticality and relevance to the Customer environments;
- 3. minimise the downtime of the services whilst patch(s) are being applied. All patching is normally applied during the routine Scheduled Maintenance windows;
- 4. apply operational change control process.

Boundaries

In some cases, where host servers need restarting, Advanced Software requires patches to be applied during Scheduled Maintenance windows. In all cases this will follow the Scheduled Maintenance process.

All Advanced Software applications will only be updated following consultation. New versions, service packs and patches may require deployment outside of the standard maintenance window. This work will only be undertaken with the prior agreement of the Customer.

All third party software applications are the responsibility of the third party vendor.

Customer Responsibilities

8. Database Management Service

Overview

The database management service is designed to ensure that the Customer's database is available and operating at the optimum levels, through a process of pro-active monitoring and management and the execution of agreed administration tasks by database administrators (DBA's).

Scope

Advanced will:

- 1. manage and support the Customer's databases;
- 2. resolve any failures and errors with Database Management Service in accordance with the Incident Management Service Levels;
- 3. monitor and manage, where procured, database replication, mirroring / log shipping and availability groups within the Hosting Service environment;
- 4. manage database security;
- 5. administer and optimise performance of databases and database instances;
- 6. provide the following database administration activities:
 - a. Scheduled Maintenance tasks in line with best practices set by Advanced developers;
 - b. monitor and review scheduled jobs;
 - c. integrity checks;
 - d. ensure that databases are backed up in accordance with the Data and System Backup Service;
 - e. apply database patches in accordance with the Patch Management Services, and application of any emergency patches.

Boundaries

This Service is only available where the underlying database service is Microsoft SQL. This excludes specific Advanced Software products.

Customer Responsibilities

9. Licence Management

Overview

Advanced will provide the licences which form part of the Hosting Service as scoped with individual customers.

Scope

Advanced will:

- 1. Provide appropriate operating system and Microsoft application and connection licences for the Hosting Services package. These licences are the property of Advanced and provided to the Customer as part of the Service only. Advanced will ensure that the licences remain in good standing with the respective vendor for the Service Term.
- 2. Update builds from time to time at our discretion and after full testing, as necessary to ensure the continued availability of vendor support.

Software licensing may include:-

- Operating System;
- Microsoft Applications;
- Anti-Virus Software;
- Web Security;
- Advanced Applications;
- Third Party Applications.

Boundaries

The Customer must never attempt to exceed the user numbers sold as part of the Agreement. A formal service request to add users should be made through Service Desk and may require Customer acceptance of costs through formal quotation and/or signature of an Order Form.

The version of operating system and Microsoft applications installed at the start of the Service will remain in place for the Service Term. Critical and security patches will be applied to the installed software as stipulated in the section "Patching Service". Upgrades to later versions during the Service Term are available upon request, subject to compatibility with any applications installed on the platform, and payment of any associated professional services fees to complete the upgrade.

Customer Responsibilities

The Customer will:-

- 1. unless stated to the contrary in the Agreement, be responsible for third party application licenses other than Microsoft or Advanced applications;
- be bound by Microsoft End User License terms. The licensing conditions and restrictions in respect of Microsoft software and Service Provider Use Rights are set out and can be found at: <u>http://www.microsoftvolumelicensing.com/DocumentSearch.aspx;</u>
- 3. provide the appropriate non-Microsoft third party application licenses for the Software hosted by Advanced.

10. Domain Registration & Domain Name Services

Overview

Advanced will register or transfer a single domain name as part of the hosting solution package if required **and where specifically procured and included in the Agreement**.

Scope

The following domain names are supported by Advanced:-

- .com;
- .net;
- .org;
- .info;
- .biz;
- .eu;
- .co.uk;
- .org.uk.

In addition to the registration, Advanced will provide Domain Name Service (DNS) to resolve the domain name to the Hosting Services.

The Customer may choose to keep their domain name with the current registrar. Advanced can provide the Customer with Domain Registration and / or DNS Service individually.

Boundaries

For a new registration, the domain configuration will be complete within standard implementation timescales. A domain transfer may take considerably longer and will not be delivered within standard implementation timescales.

The following limitations apply to Domain Registration and DNS Services:-

- Advanced cannot assure that the domain name has not been registered and is available. The Customer is responsible for ensuring that the domain name is available for registration;
- The domain registered remains the sole property of the Customer at all times. Advanced will provide full cooperation to the Customer if they wish to move the domain name away from Advanced.

Customer Responsibilities

The Customer is required to supply the domain name and DNS settings at the time of project initiation. Advanced will register the domain name on behalf of the Customer.