



e2e Managed VM Service - Service Definition Document

OVERVIEW

A range of **virtual machine management services**, purchased as a service with minimum terms from one month. These are fully managed virtual machine services including patching and monitoring of the Operating Systems. This is a cloud independent service. We will provide this Service to VMs running on customer private clouds, hybrid clouds, public clouds or any other similar cloud service.

The service comes in three variations that align with the organisation's workload, availability, threat and data classification posture. Organisations can choose a profile that meets their security requirements. All e2e Managed VM Services are designed to handle OFFICIAL and OFFICIAL-SENSITIVE data.

The managed service support model can also be scaled up on demand (on a day by day basis if needed), providing outstanding value for money and return on investment.

The service supports Windows and Linux VMs (both Servers and Desktops).

STANDARD FEATURES

- Full managed service for your cloud VMS
- Windows and Linux operating systems supported
- Includes Open Source, Red Hat, Ubuntu, Centos, Fedora, etc
- Options for managed Anti-Virus and Host Intrusion Detection Systems
- Includes patching of your VMs
- Includes maintenance and monitoring of your VMs
- Includes capacity management of your VMs
- Change control and service management included
- Options for host security management (managed anti-virus and managed host IPS)
- Option for pro-active Performance Monitoring

BENEFITS

- ✓ Allows you to focus on managing your applications
- ✓ Allows you to consume the cheapest cloud IaaS available
- ✓ Receive the benefits of the cloud without the hassle
- ✓ Scale your service level up and down daily or monthly
- ✓ Easy to leave with short minimum term
- ✓ Have the freedom to choose the best service provider
- ✓ Only pay for support of the actual VMs in use
- ✓ Enables you to focus on service consumption and not management

THE MANAGED VM SERVICE

The Managed VM Service is designed for organisations that have in house or third party IT resource to install and configure applications and who have also purchased a cloud IaaS or similar cloud service that provides the cloud IaaS.

There are three levels of service provided that vary in service response times, patching hours, change windows, etc.

This is a VM managed service by e2e: we manage the virtual machine at the operating system level.

HOW DO WE DELIVER THE SERVICE?

The default method is through an IPSec connection over the Internet. The customer is required to provide the bandwidth for the remote connectivity. These bandwidth requirements are very low: (2Mbps for small numbers of VMs, up to 10Mbps for large deployments).

We then deploy VPN devices on the cloud we are managing or use the VPN service provided by the Cloud Service (as with MS Azure or Amazon EC2) or we can provide virtual VPN appliances. The cost of setting the VPNs up and providing the appliances is covered in the on boarding.

All service management is then provided from our ISO27001:2013, Cyber Essentials Plus (CES+) and IASME certified security operations centre by our expert, SC cleared staff.

Where the customer is using a high security cloud service or where security is paramount e2e have a secure connectivity service – ‘e2e Secure Cloud Connect Service’. This is a separate g-cloud service that provides an enhanced security connection that enables us to connect to your service in a manner amenable to the secure cloud provider (in line with latest CESG guidelines and architectural patterns).

WHAT DOES THE CUSTOMER NEED TO PROVIDE?

The customer needs to provide the bandwidth as mentioned above and may also be required to pay the IaaS cost to their existing supplier of any VM's we require in order to deliver this service. These VM's would be required when:

- We have to deploy a virtual VPN device (in this case a VM with 2cpu/4gb RAM is required per cloud (typically only one is required)
- In secure environments we may need a 'jump box' or similar – again one or two VMs with 2cpu/4gb RAM
- If the customer requires it we can run some aspects of our service on their cloud (i.e. the monitoring server and syslog servers we use to provide monitoring). In this scenario we would require two VMs with 2cpu/4gb RAM for most typical deployments
- The customer may be required to liaise with their existing cloud provider in order to facilitate our access

- The customer may need to liaise with and create tickets we can access the monitoring and management API services provided by their IaaS provider (we have integrations with most major cloud provider API's that allow us to integrate with the IaaS platform in order to expedite fault resolution, etc.)

HOW DO I KNOW WHICH SERVICE IS APPROPRIATE?

There is a level of service appropriate for all organisations. If you do not currently know what the right level of service is we offer a simple process:

1. e2e provide a free, one day on site cloud workshop led by a CESG Senior IA Architect where we work with your organisation to establish your requirements and cover aspects such as your organisations risk profile and security assurance requirements, connectivity requirements as well as your platform and application requirements.
2. The workshop report includes expert advice from e2e and includes generating your heat map similar to the below and this gives us a score:

Heat Map Scoring Chart														
0-3	4	5	6	7	8	9	10	11	12	13	14	15		
Very Low	Low		Medium			High			Very High					

3. This score then maps to our recommended services:

Recommended Service				
Score	Basic	Enhanced	Premium	Custom
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

4. If you need more help we can provide follow up workshops with no commitment from you to purchase a cloud service. We will walk you through a risk based approach that starts with your business requirements and allows you to decide which service aligns best.

E2E MANAGED VM SERVICE - LEVELS OF SERVICE

Baseline	
Service Hours	8am to 6pm Mon-Fri
Service Hours Response Time	2 hour
Emergency/out of hours 24/7 response time	8 hours
Change Windows	Inside Service Hours
Server Patching routine	Patching not included – monitoring and support only
Enhanced	
Service Hours	8am to 6pm Mon-Fri
Service Hours Response Time	1 hour
Emergency/out of hours 24/7 response time	8 hours
Change Windows	Inside Service Hours plus 2 changes/month out of hours
Server Patching routine	Monthly outside Service Hours
Premium	
Service Hours	24/7
Service Hours Response Time	1 hour
Emergency/out of hours 24/7 response time	2 hours
Change Windows	Out of hours
Proactive Performance Monitoring	Included
Server Patching routine	Up to twice Monthly

SCALE UP AND SCALE DOWN SERVICE OPTIONS

e2e offer an innovative solution that provides unique flexibility to their Managed VM Service. Customers can scale up service levels and can also scale down. This allows them to utilise the appropriate level of service at all times thereby avoiding situations where customers are paying for premium support services when they require a more basic level.

SHORT TERM SERVICE SCALE UP OPTIONS

The service includes the BAU activities relating to managing VMs but it is possible that the customer requires the reassurance of having e2e resource on hand to support their IT team during critical times.

The service provides scale up options and support to cover emergencies or other times of high service demand or heightened importance.

MEDIUM TERM SERVICE SCALE UP OPTIONS

It is possible to scale up from Baseline to Enhanced and from Enhanced to Premium or from Baseline to Premium.

There are no one off charges for scaling service levels up or down.

Customers are charged at the new level of service pricing for the period of time they operate at that level of service. There is a one month minimum term for a scale up of this type and the customer can scale down in the same manner.

CLOUD SERVICE SCALE DOWN OPTIONS

It is possible to scale down from Enhanced to Baseline and from Premium to Enhanced or from Premium to Baseline.

Customers are charged at the new level of service pricing for the period of time they operate at that level of service. There is a one month minimum term for a scale up of this type and the customer can scale down in the same manner.

OPTIONAL SERVICES

MANAGED ANTIVIRUS

e2e provide managed antivirus using McAfee or Sophos. Most Windows and Linux operating systems are supported as well as Mobile devices. Includes agents on devices and a central management component (note: the customer must provide the IaaS element of the AV management servers as follows):

- For small deployments of up to 100 VMS we require one VMs with 2CPU/4GB RAM, 200GB disk
- For deployments of 101-250 VMS we require one VM with 4CPU and 8GB RAM, 500GB disk
- For deployments over 250 VMS we require two VMS with 4CPU and 8GB RAM, 500GB disk

MANAGED ANTIVIRUS PRICING

The pricing includes all the AV software as well as a fully managed service where we ensure the definitions are updating, rollout new versions and patches and install agents on new servers as required. We monitor the health of the systems protected by the service and receive alerts and liaise with the customer when these alerts occur.

If the customer requires incident response and a full security monitoring service e2e have a separate g-cloud service (e2e Cloud Protective Monitoring Service) that provides a full managed Security Operation Centre service that provides an extensive set of additional security components and managed services that complement the managed VM and Managed AV services.

MANAGED HOST IPS AND HOST BASED FIREWALLS

e2e provide host IPS services using OSSEC. Most Windows and Linux operating systems are supported. Includes agents on devices and a central management component. This service can also manage Windows and Linux firewalls (host based firewalls) using an automation tool deployed onto the same management server as specified below:

Requires the customer to provide an OSSEC manager and alert/log processor IaaS VMs as follows:

- For small deployments of up to 100 VMS we require one VMs with 2CPU/4GB RAM, 200GB disk
- For deployments of 101-250 VMS we require one VM with 4CPU and 8GB RAM, 500GB disk
- For deployments over 250 VMS we require two VMS with 4CPU and 8GB RAM, 500GB disk

TYPICAL DEPLOYMENT SCENARIOS

Most customers will deploy managed AV to all EUDs, desktops and servers. They may also then choose to use a managed host IPS and host based firewall service for critical servers (such as internet facing service delivery points). Other customers may decide to use antivirus on all Windows devices and managed host IPS and host based firewall service for all Linux servers.

OTHER SERVICES

Server build - we work with you to incorporate any custom server/VM builds required for your applications. We then use these templates to deploy onto the cloud.

Custom Cloud design - we work with you to incorporate any customer design element, custom components (physical or virtual) into the cloud design so that we can incorporate any customisations you wish to make. We can accommodate many different types of customer specific requests and charge on a time and materials basis.

Ad hoc support – we come and spend the day with you and your team assisting with any support issues or working as one of your support team to assist in a support task. This would only be needed in exceptional circumstances but we understand that there may be critical events that requires as much de-risking as possible and having an e2e cloud support expert on site is one way to achieve this.

Data migration services - we assist you to move your data into or out of the service. Can also be used to connect to and migrate data to other cloud systems such as hybrid or public cloud services for the purpose of data or machine migration or configuring ongoing hybrid cloud services. For service migration e2e allows existing data to be migrated to and from the Cloud platform. Typical

formats include exported VM images from VMWare or Hyper-V or VM templates of servers/server images. We support many methods of transferring data and existing services in and out of clouds.

Advice and consultancy – these days are typically used to support your organisation at times when you need expert cloud architects on site to support you. Examples of such events are when internal or external auditors have design/architecture questions, meetings with Accreditors/Assessors, preparing for penetration tests, preparing to roll out new applications to the cloud, cloud planning activities, presentations to the board/IT managers or any other such event that requires technical cloud architects present to support you.

MORE INFORMATION AND CONTACT DETAILS

For more details on this service and to see the other services we offer visit

www.e2e-assure.com

Enquiries, and more information is available on request, email info@e2e-assure.com with any queries.

WHO ARE E2E?

e2e are a cloud security company with 20 years' experience of providing military grade cyber security. We provide repeatable cloud-based services to the public sector. Security depth, quality and service excellence set us apart from our competition.

OUR ORIGINS

e2e was founded by two industry experts, each holding 20 years' experience of delivering secure, end-to-end solutions. We have a history of designing secure networks for online payment systems; designing, developing and delivering cyber defence solutions; developing and starting up complete Managed Service solutions; and have built several worldwide Data Centres. Our clients over the years have covered most sectors from banking to the MoD.

OUR PEOPLE

e2e have brought together a highly experienced team of cloud experts, developers, security architects, CESG CLAS consultants, support specialists, security analysts and expert cyber security business development specialists. This core team has since been bolstered by the addition of a vibrant cloud support and cyber analyst team, recruited through channels such as the Cyber Security Challenge UK, SANS Cyber Academy and other government backed schemes to find cyber talent.

OUR WORK IN GOVERNMENT

We have earned an excellent reputation over the last three years as a trusted service provider to government and our cloud services are helping deliver key UK wide services. All our services are ISO27001:2013 accredited, CES and CES+, IASME certified, and we are the go-to organisation when a need for cost effective, cloud based services are required that must be secure to protect UK sovereign

reputation. Our services to government cover central government, local government as well as other public sector organisations.

OUR AMBITIONS

e2e are a service company. We have a well-developed range of cloud-based services, all of which are designed to be repeatable, scalable, flexible and on-demand.

- We aim to be the best supplier: the easiest to deal with, the most reliable, and the best at delivering cloud service support and managed services. So far we have made a huge impression with our existing customers – e2e just does it better than the competition.

- We aim to be the most secure supplier, to deliver and maintain the most secure services. There is simply no other supplier on the market with our security credentials and no other supplier with the technology and team to deliver security-as-a-service at our level. We are miles ahead in this area and this is where we want to stay.

OUR METHODOLOGY

We focus on applying well established skillsets and a wealth of experience to ensure highly responsive delivery without sacrificing quality. We invest in our technology and our people so that our customers can benefit from our thirst for excellence. We understand how to integrate security seamlessly into our services, giving you secure cloud based services that 'just work'.

We have fully embraced the 'As a service' model: e2e is a cloud based business, with a cloud business model, operating model, service delivery model and we deliver all our services from our cloud based operations centre.

OUR QUALIFICATIONS

e2e is a UK based SME Company operating exclusively from within the UK using SC cleared staff. We operate out of two UK datacentres (Tier3 and Tier4). We are ISO27001:2013 accredited, CES and CES+, IASME certified, CLAS members, CESG CCP Senior level, UKCEB members, TechUK members, BCS and IoD members, Crown Commercial Suppliers, UK Cyber Security Forum members. We sponsor and recruit from the Cyber Security Challenge UK as well as the SANS Cyber Academy. We understand how to work with partners and ensure we are honest and straightforward to deal with. We embrace the cloud first approach and are heavily involved in UK Cyber in general; we want to help spread the UK cyber messages (CESG Cloud Security Principles, 10 steps, Get safe on line, etc.) and are active CiSP members with strong links within UK Cyber.