

Cloud Management Platform (CMP)

GCloud 11 Service Definition document

Lot 2 - Software



SEAMLESS TRANSITION



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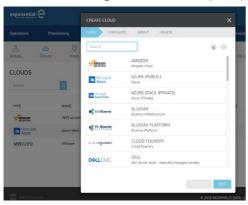
Overview of the Service

Exponential-e has constantly supported its clients in the enablement and consumption of a multi cloud ecosystem. This started in 2011 with the introduction of direct connect / express route for AWS and Azure.

Moving to the next level we are enabling multi cloud orchestration for laaS, PaaS and Application services, with brokerage in to multiple public cloud services starting with Amazon and Azure, and later introducing Google, Alibaba and a series of next generation PaaS players such as Cloud Foundry, Bluemix etc.



The Cloud Management Platform (CMP) provides the level of orchestration and API integration that



simplifies consumption of a wide ecosystem of services, as well as enabling centralisation of reporting, role based access, management and Billing. It not only can connect to your existing estate on premise, but any new private cloud deployed as part of the transformation, as well as the public cloud services mentioned above. The CMP becomes the front door to IT with an extensive range and reach of services, all controllable and governed through a customer tailored security schema, ensuring alignment to corporate compliance and IT security standards.

This will allow you, as the internal service provider, to have a single pane of glass for the IT team, as well as providing the business with a service catalogue, to deliver hybrid cloud services.

The key benefits this will give is the following:

✓ Ability to create governance and compliance aligned delivery of infrastructure and platform services, across private and public cloud

 Opportunity to use private cloud where commercially most advantageous for non-variable workloads, whilst using multi-tenant and public clouds for

more transactional workloads

Provide the wider business with a clear service catalogue of services, across private and public services, with clear billing and chargeback model as one source of the truth

Increase automation of non-production and production workloads through the blueprint factory, allowing rapid scale up and down of systems and commercial optimisation using PAYG services

 Leverage of wider Blueprints being created for the Legal and wider sectors with our SaaS partners





✓ Increased flexibility to get best in market pricing during the contract period, utilising our inbuilt public cloud optimisation tools, that use direct links to the API's to validate that the service is running in the most optimised tariff and sizing structure



- ✓ Enables commercial flexibility in life
- ✓ Centralisation of billing, bringing all of your costs through one service model, allowing transparency on spend and usage across each of your cloud services
- ✓ Inbuilt analytics to allow you clear visualisation of commercial utilisation of your services, as well as recommendations for further optimisation and rightsizing. These in-built engines, ensure you get the most of the ever changing cloud tariffs and optimise cost for the business

The Exponential-e CMP is an orchestrator providing customers with a single pane of glass from which to manage private clouds, public clouds and hypervisors (the "Connected Services") inclusive of the following:

System	Min Version	Description
Exponential-e VDC	N/A	Exponential-e Virtual Data Centre
VMWare ESXi	ESXi 6.0	Standalone ESXi Hypervisors
VMWare vCenter	vCenter 6.0	Clustered vSphere environments via vCentre
Microsoft Hyper-V	Hyper-V 2012 R2 Server 2012 R2	Microsoft Hyper-V Hypervisors
Microsoft Azure	N/A	Microsoft Azure Cloud Services
Amazon AWS	N/A	Amazon AWS Cloud Services

The CMP enables the provisioning of Instances (virtual machines) to multiple clouds and infrastructures, as well as the provisioning of more complex multi-tier, multi-network, multi-server environments via workflows, pre-defined and customisable templates or blueprints. The customer agrees that any commercial liability resulting from the creation or modification of Connected Services through the CMP is their responsibility.

- Functionality in respect of API calls made from the CMP to any of the Connected Services is subject to the availability and compatibility of the API layers within those Connected Services and the CMP.
- ✓ The customer accepts that there may be loss of functionality in relation to API changes by Connected Service provider's vendors and compatibility issues with the CMP resulting therefrom.
- ✓ The customer accepts full responsibility for commercial and, or functional changes made as a result of running blueprints from the market places.



The CMP provides the ability for the Tenant Administrators to implement Role Based Access Controls. Default User Roles have been defined as follows:

Role	Description	Access Management
Administrator	Tenant Administrator	Default first role assigned to new Tenant Administrator, Full Access to all areas within Tenancy, Create and define new services, amend existing services, including run workflows and blueprints
Read Only	Reviewer	Read Only Access to Tenancy, excluding Billing reports
User	Resource Administrator	Access, to administer in-life services, including stop, start, restart, suspend, and backup services
Approver	Authorise resource creation	Read Only Access to Tenancy, provide authorization of the deployment of new services where required.
White Label	Customer Branding	Default role assigned for the CMP customer branding.

The CMP is able to display a list of available service plans from multiple cloud platforms, and provides a unified billing summary and reporting across the Connected Services. Through the CMP native, automated backups can be arranged to be performed on each server, database or app stack component provisioned by the CMP and stored within Exponential-e's Cloud Storage S4 Service (please see our GCloud 11 Service Line for Cloud Storage S4). The Exponential-e Cloud Storage S4 Service is not designed to replace an enterprise backup solution, but can be utilised to provide a backup for non-production and non-critical environments. The customer is responsible for ensuring any Connected Service is compliant with licensing requirements both for the OS and Applications provisioned.

Bound Subscriptions

The CMP allows the customer to bind its existing public cloud subscriptions such as Azure and AWS, as well as private VMWare and Hyper-V clouds and local virtualisation infrastructures. In this scenario, all obligations in respect of the bound public cloud subscriptions will remain between the customer and the respective provider.

Novated Subscriptions

The customer may be able to novate its existing Azure and/or AWS cloud subscriptions to the Exponential-e Microsoft Cloud Solution Provider (CSP) Program or the Exponential-e AWS Service Provider Program (SPP) (as applicable). In this scenario, Exponential-e will provide the customer with a single bill for the novated public cloud subscriptions and any Exponential-e-provided Connected Services. In this scenario, and with the exception of invoicing rights, payment obligations and first line support, all obligations in respect of the public cloud services to be provided via the novated public cloud subscriptions will remain between the customer and the respective provider.



Target Service Commencement Date

The target service commencement date for CMP is 24 hours*

The binding or novation of existing public cloud subscriptions, or the binding of existing private virtualisation platforms will be in line with the following table:

System	Target completion time (Exponential-e delivered)	Customer
Exponential-e VDC	48 hours	N/A
VMWare ESXi	48 hours*	Self Service
VMWare vCentre	48 hours*	Self Service
Microsoft Hyper-V	48 hours*	Self Service
Microsoft SCVMM	48 hours*	Self Service
Microsoft Azure (bind)	N/A	Self Service
Microsoft Azure (novate)	48 hours**	N/A
Amazon AWS (bind)	N/A	Self Service
Amazon AWS (novate)	48 hours**	N/A

^{*}The binding of private virtualisation infrastructures by Exponential-e may require network connectivity, firewall changes, and requires root/administrative credentials.

Service Level Agreement

Service Availability

The CMP is available if the customer-facing web portal is available. This excludes connectivity problems and issues with functionality and third party integrations such as public cloud API layers.

Service	Target Availability
CMP	99.99%

^{*} from Order acceptance by Exponential-e. This involves the setting up of the CMP tenancy inclusive of a default tenant administrator with email confirmation of access.

^{**}The novation of public cloud subscriptions requires the customer to take manual configuration steps to complete.



Service Credits

Description	Measure	Service Credit*
CMP.	> 0.01 Below required level	5%
	> 0.1 Below required level	10%
	> 0.5 Below required level	15%

^{*} The Service Credit is applied as a percentage of the Monthly Charge for the CMP (if applicable).

PAYG Charges

Pay As You Go customers (including those with a Hybrid billing model) consuming public cloud subscriptions via the CMP will be subject to a monthly in arrears charge per Server Instance (VM) in accordance with the Rate Card.

Unless agreed otherwise by the Parties in writing, the customer shall be subject to a commercial threshold of £5,000.00 per month in respect of all Pay As You Go consumption of Connected Services effected through the CMP, whereby the customer shall be prevented by the CMP from consuming PAYG above this level. The foregoing commercial threshold shall not apply to consumption of public cloud via a Bound Subscription.

CMP Management

Aspect	Exponential-e's Responsibilities
Documentation	Maintain solution design documentation for the CMP. Maintain solution configuration documentation for the CMP. Implement and maintain version control for all documentation.
Licensing	Exponential-e is responsible for licensing and licensing maintenance under this contract to cover the CMP.
Monitoring	Monitoring & Alerting in respect of CMP Availability.
Patch & Firmware Management	Review and test critical CMP updates. Updating the CMP. Install critical and security updates onto the CMP. Install non-critical updates onto the CMP. Notify the customer of proposed updates to the CMP.



Working with Exponential-e

Introduction

Founded in 2002, we are an award-winning, privately owned British Cloud and Connectivity provider. The majority owner, CEO and founder of the company - Lee Wade - is still at the helm of Exponential-e and demonstrates the same passion for our customers, service innovation and business as he did at our inception. We pride ourselves on delivering super-fast, low latency Connectivity, flexible and resilient Cloud solutions Unified Communications, Cyber Security and world-class IT Services. Organisations from all sectors of the economy run critical services underpinned by our technological innovations. We deliver leading-edge solutions to over 2,200 customers in every vertical sector.

Our Network

Exponential-e's own Cloud infrastructure is fully integrated with our 100 Gigabit Carrier-Class Ethernet Network, utilising premium grade enterprise compute, and is supported by our UK based 24x7x365 Customer Service Desk to deliver a non-stop compute platform to you and your end users.

What differentiates us from the competition is how we utilise our own network to deliver multiple services over one connection, with 100% Network visibility and control, and the cost efficiencies this provides our customers. Our fusion of complementary technologies, a carrier-class network and Cloud infrastructure, means we can deliver enterprise applications at super-fast, low latency, with an end-to-end SLA, for a superior end-user experience.













Our Accreditations

We support the security and compliance standards of the Public Sector by embedding our compliance certifications into our Business Management Systems. These include:

- ✓ **ISO27001** Information Security
- ✓ CSA Star Cloud Security
- ✓ Cyber Essentials Plus
- ✓ PCI-DSS
- ✓ (HSCN) Health Social & Care Network Stage 2 Compliance



- ✓ CAS(T) accreditation
- ✓ ISO9001 Quality Management
- ✓ ISO20000-1 Service Management
- ✓ BS10012 Personal Information (GDPR)
- ✓ ISO22301 Business Continuity
- √ ISO50001 Energy Management
- ✓ ISO14001 Environmental Management

Our certifications are fully audited every three years by BSI, NCC Group & NHS Digital, supplemented by six monthly continuing assessment audits to ensure continuing compliance. The following preventive are undertaken actions to ensure we maintain our certifications & accreditations;

- √ 12 month Audit Schedule
- ✓ Monthly Internal Audits in line with our audit schedule
- ✓ Six monthly external Audits
- ✓ Live Net Promoter Score on our Website
- ✓ All Engineers undertake BPSS vetting by a government approved vendor
- ✓ Corrective and Preventive Actions CAPA
- ✓ Control of Documents and Records
- ✓ Companywide Risk Assessment
- ✓ Annual review of policies, procedures and documents
- ✓ Internal & External PEN (ITHC) Network Test by a 'Check' or "Crest" approved vendor
- ✓ Annual off site Business Continuity Test
- ✓ Management reviews (Management Meeting, Service Review, Quality Review, Business Continuity, Security Review and Operation Review









FRAMEWORK RM 3804, RM 1045









Our Promise

Our brand promise is to 'Constantly exceed expectations with innovation and service'. In order to achieve this, we promise to deliver the following:

- ✓ Customer Service Excellence: Our first priority we never compromise on, this culture spans across every department and is championed by every board member
- ✓ **Trusted Supplier:** A reliable and fully owned carrier-class network, with pro-active support from our 24x7x365, fault find and fix Service Desk, and verified financial stability inspire customers' confidence in us
- ✓ Technical Capability: Working within eight international ISO and British Standards, we design, manage and support customers' complex, bespoke network, Cloud and Voice requirements



✓ Applied Innovation: Ensuring customers' businesses remain at the leading edge with a dynamic approach to investment, R&D and innovation, and consistently delivering industry firsts.

Our network has undergone a rigorous security assessment and has achieved PCI-DSS compliance to ensure top security standards. We design, deliver, manage and support communications solutions, both simple and complex, to international ISO management standards: 9001, 22301, 14001, 5001, 27001, 20000 and BS 10012.

By the start of FY2018, our turnover had reached approximately £115 million and ongoing recruitment activity meant that we had over 500 employees. Our success is driven by the quality of service we provide and is underpinned by investments in people and infrastructure that enable us to deliver on our brand promise.

Exponential-e's Approach

Our approach is based on a partnership philosophy, ensuring we deliver high quality, competitive services. In keeping with this, our technology solutions provide cost-effective connectivity, future-proof networking and uncompromising customer support. Our approach is designed so that there are no hidden extras from you. From the initial point of contact, including technical consultancy, project management and on-going customer support, we are entirely transparent about our work and the costs involved. To maximise the value for money customers receive, we constantly challenge the performance of the service through 24x7x365 monitoring and management via the Exponential-e Service Desk, feeding back at monthly service reviews that constantly benchmark your expectations. During these reviews, we propose and implement continuous improvement targets for service levels and cost efficiency. On award of any contract, we analyse the service required and explore how we will improve the services year-on-year.

Thought Leadership and Applied Innovation

We have an entire team devoted to seeking out new products, features and enhancements. We pride ourselves on our ability to generate, identify, and deploy the latest technologies. Our commitment to innovation has seen us develop pioneering new products and services for our customers and deliver all manner of industry firsts.. We will constantly keep you informed of new technologies that ensure you remain current and knowledgeable as to innovative solutions and best practices. The most effective means of doing that is during our regular Service Management review meetings; the reviews will take place on a monthly or quarterly basis, or upon request. These sessions are used to understand your requirements, address any current service issues, and for our team to update you on new market trends or technologies our researchers have identified.

You will have the opportunity to attend regular events that provide an opportunity to speak with our subject matter specialists and to exchange ideas and experiences with other Exponential-e customers. We are firmly committed to listening and collaborating with our customers, and partners, in order to deliver innovative technical solutions that drive tangible business benefits.



We organise industry focused and private seminar events at exclusive venues, such as the Ritz and Emirates Stadium. We invite key speakers to present, as well as our in-house technical experts and evangelists, and look at topics including 'Demystifying SD-WAN' These events are excellent networking opportunities which present you with a chance to speak with like-minded individuals in an informal environment and gain real technical knowledge and insight from our team of experts.

Details of our events can be found on our website, http://www.exponential-e.com/about/events, where you can register.

You will also be sent updates from our marketing department, highlighting new features or services available in the market. New products, features or services that we feel are well suited to our customer's infrastructure, or will benefit their IT environment, will be brought to their attention. Initially, many of our customers adopt our WAN solution and are often keen to complement this service with our Cloud, IT and Voice services.

Meeting our Brand Promise

For over 17 years we have focused on building trusting relationships with our customers by placing service excellence at the heart of our operations. Key to our success is the development and sustainment of effective working partnerships through regular service review meetings, proactive management and - most importantly - continually seeking to improve the services which will be delivered.

In order to ensure that we are continuously improving, we benchmark customer satisfaction which provides us with the analysis to improve. Measuring our customer satisfaction is achieved through our Net Promoter Score and our Voice of the Customer Programme.



Rolling 3 month average. Industry average 17

https://www.exponential-e.com/about/customer-service-promise

Our current 3 monthly rolling NPS score is more than double the UK Industry average.

Our Voice of the Customer Programme gives you the opportunity to provide real-time feedback by simply clicking on one of four icons on each Exponential-e employee's email-signature (Gold-Excellent,

Green- Good, Amber- Could have been better, Red- Poor).

These awards are all testament to our solutions and achievements in innovation. Details of our other awards can be found on our website:

https://www.exponential-e.com/about/our-accreditations-awards

Meeting our brand promise through customer service excellence is embedded into our culture; anytime our customers recognise our people doing well, we reward this throughout the business. At Exponential-e, we're committed to service excellence and are empowering our people to deliver it.



Our Security Capabilities

Security assurance

Our services are designed, built and optimised with clear alignment to the 14 CESG Cloud Security Principles that UK Public Sector organisations use when assessing cloud hosted solutions for information assurance compliance.

The Exponential-e cloud benefits from extensive independent validation via certifications ranging from international standards e.g. ISO9001, ISO27001 and ISO20000 to UK public sector specific standards such as CAS(T) and HSCN Stage 2 certification.

The Exponential-e Cloud Platforms are subject to regular, extensive IT Security Health Check (ITSHC) CHECK Tests by independent, CESG-approved assessors to ensure that our customers have confidence in the physical and technical security controls which have been implemented to protect their valuable data assets. Platforms are suitable for all data classified at OFFICIAL under the Government Security Classification Policy (GSCP)

All customer data is stored in Exponential-e's two secure UK data centres with SC-cleared UK staff. Customer identifiable data does not leave the UK.

Connectivity

Our UK Data Centres have resilient connections to secure UK government networks such as HSCN Assured as well as large scale, DDoS protected internet connectivity. We also offer the ability for customers to present their own connections (such as direct connectivity into your MPLS, or inexpensive point to point connections via leased lines) and the Secure Remote Access solution to allow security assured VPN access to the Elevated OFFICIAL platform.