

# Hosted Virtual Desktop (Citrix VDI)

GCloud 11 Service Definition document

Lot 1 - Hosting

Crown  
Commercial  
Service  
Supplier

RM1045, RM3804  
& RM1557

 **HEALTH &  
SOCIAL CARE  
NETWORK**

RM3825 ACCESS SERVICE FRAMEWORK



HM Government | G-Cloud



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## Overview of the Service

### Introduction

Hosted Virtual Desktop Infrastructure (VDI) services provide users with consistent access to organisation computing environment from remote and internal locations through a secure central portal. The business benefit is that organisation security policies and governance are enforced and ensure that intellectual property is not unduly put at risk. The centralised management plane promotes simplified and streamlined management to reduce lights-on maintenance costs, reduces time-to-deploy updates and lengthens the lifespan of endpoint hardware.

It is important to recognise that VDI provides significantly *more* than just a virtual desktop experience. Implemented correctly, this provides a common user experience across virtual desktops, mobile devices, workstations and laptops to simplify the experience and provide a secure digital workspace with a common access method.

### Partnership with Citrix Systems Inc.

Exponential-e partner with Citrix to provide highly performant and resilient digital workspaces to our customers. Exponential-e have a strong proposition within the VDI market by having full control of all layers of the service. This provides a clear benefit of superior user experience including the consumption of rich media content, unified communication, and graphic processing, through the use of granular policy control and our VDI expertise.

Our VDI solutions are designed from the top down, ensuring that the platform and experience is tailored to meet customer requirements with modular scalability to ensure the environment can grow with your organisation.

### Value of Our Hosted VDI Service

A typical end-to-end Exponential-e VDI service will encompass high speed, low-latency connectivity to corporate applications to ensure high quality user experience. This is delivered through a combination of our own SDN network fabric and corporate WAN solutions, and dedicated public cloud peering via ExpressRoute or DirectConnect. A service will feature infrastructure hosted within our dedicated data centres or deployed natively onto public cloud.

Our Platform-as-a-service (PaaS) approach to VDI enables your internal IT team to focus upon supporting users, business projects and revenue generating IT projects. Our highly experienced 24 x 7 x 365 managed services team will undertake all management responsibilities. This can be extended to support the end user device estate if required.

Our experience and service portfolio enables us to provide an array of VDI options to customers ranging from small scale through to large organisations.

We have a number of reference architecture models to cover the common hosting scenarios;

- ✓ **Single Site resilient** – hypervisor redundancy and N+1 application resilience
- ✓ **Dual site geo resilient** – as above, with distribution across two geographically diverse data centres and optional global load balancing

- ✓ **Multi Cloud** – through the combination of public cloud peering and SDN capabilities, we present applications and desktops that are dependent upon resources located on multiple platforms (e.g. Azure and AWS) with assured availability and performance.

## VDI Design and Implementation

The most critical phase of a VDI implementation is information gathering and design.

Our approach to delivering successful and highly performant Citrix solutions is to undertake consultative, application-centric workshops. This enables us to capture critical information relating to:

- ✓ Application performance
- ✓ Application compatibility
- ✓ Application Licensing constraints
- ✓ User experience requirements
- ✓ Capacity sizing and usage
- ✓ Security governance and controls
- ✓ Access and authentication
- ✓ Platform availability (High Availability/Business Continuity)
- ✓ Migration and transformation planning.

## Validation Process

We can provide an additional level of detailed consultancy to validate the information gathered within the initial discovery phase. This is a professional services exercise and would include a term of application monitoring and assessment to validate the solution design assumptions.

## Licensing

Exponential-e is a Citrix Service Provider (CSP) and can provide Citrix product licensing on an ongoing operational cost basis. This helps customers reduce capital expenditure on licensing.

## 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)



## 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.

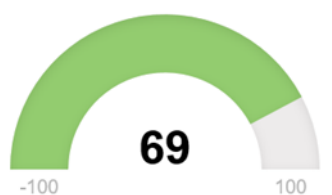
Details of our events can be found on our website, <http://www.exponential-e.com/about/events>, where you can register.

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.