

# Private Cloud for Compute

laaS





# Service assessment guide

# What the service provides

Our Private Cloud for Compute product provides single-tenant Compute as a Service, where your compute needs are hosted either in one of our UK data centres, to gain the benefits of our Assured and Elevated cloud platforms; or within the Crown Campus.

# What the service can help you achieve

- Ownership of the underlying hardware, with associated capital expenditure (CAPEX)
- A private infrastructure that is sized for predictable size and type of workload
- The assurance of additional isolation within the community of UK public sector customers
- Less complex compute management: no more managing compliance, hypervisors or hardware you can just consume assured cloud computing
- A better way to deliver the private cloud element of a hybrid cloud strategy with secure, UK-sovereign hosting; management by UK government security-cleared experts; and accredited connectivity to government community networks

# Key service capabilities

- Designed around your requirements the perfect balance between a bespoke solution and the efficiency of a dedicated environment
- Choice of location for your infrastructure hosted at a UKCloud data centre or within the Crown Campus
- UKCloud data centres located on the same sites as the data centres offered by Crown Hosting (Crown Campus) — providing proximity to your workloads hosted by UKCloud
- Secure and flexible software-defined data centre solution powered by VMware vCloud Director, Microsoft Azure Stack, Oracle Virtual Machine, Oracle Cloud at Customer, Red Hat OpenStack and Red Hat OpenShift
- Advanced Cross Domain Security Zone (secure-managed or self-managed area) that enables citizen access over the DDoS-protected internet to data that is securely hosted on the Elevated domain
- Ability to either choose from preconfigured or custom service configurations

# Why UKCloud

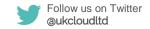
- Our multi-cloud platform offers choice, scalability and flexibility for our public sector customers, without locking them into a single proprietary technology stack
- We are UK sovereign, with secure and resilient government-grade UK data centres separated by over 100 kilometres, located in Crown Campus. We give 2% of our pretax profits to charity, and our values, beliefs and behaviours are aligned to the needs of the UK Public Sector
- Secure cloud platforms optimised for public sector workloads, fully aligned to the NCSC 14 Cloud Security Principles and subject to regular technical CHECK tests information security and data governance comes as standard. We're compliant with GDPR/UK DPA 2018 (CISPE certified), the Network and Information Security













Directive (NIS) and the new NHS Data Security and Protection Toolkit. These are supported by our wide portfolio of industry and public sector accreditations and certifications

- UK-based telephone service desk providing 24/7 support for P1 critical incidents, and a dedicated UK 24/7 Network Operations Centre (NOC) using industry-leading monitoring solutions on our platform. Access to UKCloud's technical experts including Technical Account Managers, Cloud Delivery Managers, and Customer Success Managers to help customers through the onboarding and ongoing delivery of their solutions – all at no extra cost
- We work with a community of over 240 partners, including Independent Software Vendors, System Integrators and Managed Service Providers, to deliver end-to-end solutions specifically for the UK Public Sector

# Cloud characteristics delivered

- Elasticity scalable as your needs grow
- Self-service UKCloud Portal provides transparent interaction with UKCloud support teams
- Measured usage SLA and capacity reporting giving you full visibility of the service you're getting
- Broad networking connect via DDoS-protected internet; a government community network such as PSN, N3/HSCN, Janet or RLI; or HybridConnect, using your own dedicated circuits
- Resource pooling although your infrastructure is dedicated, you can still leverage
  the benefits of the UKCloud Assured cloud platform (network connectivity and access
  to the management and automation inherent in our platform)

# Key characteristics of our service

The service is designed for organisations whose requirements suit a dedicated compute infrastructure, rather than a multi-tenant compute solution. It is ideal if you need:

- Scale for a unique hardware configuration (for example, high-performance compute and SAP HANA)
- Enhanced assurance for additional isolation within the community of UK public sector customers
- Control over your budget choose between a predictable cost model and ownership
  of the infrastructure asset

#### **Kev benefits**

Private Cloud for Compute provides a High Assurance, cost-effective alternative to hosting and managing your own compute infrastructure. It offers the following features and benefits:

- Dedicated infrastructure the compute infrastructure is designed for the exclusive use of each customer, and provides the highest levels of separation and isolation from other customers
- Automation the compute solution is delivered as a cloud service through high levels of automation, enabling self-service via the UKCloud Portal













 Crown Campus — we can deliver your infrastructure in-situ within your Crown Hosting suite as Compute as a Service

# Key technical features

Private Cloud for Compute provides the following technical features:

- Choice of technology stacks which includes VMware vCloud Director, Microsoft
  Azure Stack, Oracle Virtual Machine, Oracle Cloud at Customer, Red Hat OpenStack
  and Red Hat OpenShift implementations
- Native compatibility with a wide variety of operating systems (for example, Windows, Linux and Solaris x86) and applications (for example, Oracle, SAP and Microsoft)
- Automated systems management via the UKCloud Portal and API (for example, show-back of utilisation, health, availability)
- Option to implement a dual-site replicated Private Cloud Compute solution, leveraging UKCloud's existing NCSC-assured WAN connectivity

# Pricing and packaging

UKCloud Private Cloud for Compute offers three packaging options:

- All-inclusive
- UKCloud Hosted
- Crown Campus Hosted

# **Option 1: All-inclusive**

Provides a turnkey solution, including the hardware and underlying Assured cloud platform.

### All-inclusive pricing

		Upgrade options* £ / VM / month			
Asset options	Single-site platform size	£ / VM / month†	Automated VM backup	Site replication and failover	50VM pack: compute and storage
Small	500 VMs	From £20			
Medium	1,000 VMs	From £18	From £50	From £150	From £16
Large	2,000 VMs	From £16			

<sup>†</sup> Based on 24-month contract and average VM size of 2vCPU, 8GiB RAM and 100GiB disk. The price will vary depending on specific hardware and performance requirements.

<sup>\*</sup> Assuming 24-month contract; however, upgrades will be coterminous with the original contract, so the price will increase on a pro-rata basis. Based on average VM size of 2vCPU, 8GiB RAM and 100GiB disk. The price will vary depending on specific hardware and performance requirements.

	<b>CAPEX-optimised</b>	<b>OPEX-optimised</b>
Upfront payment — design and installation	10% of asset cost	From £10,000
Annual payment — asset prepayment	Asset cost / 2	03













	CAPEX-optimised	OPEX-optimised
Monthly charge — asset finance	£0	Asset cost + 20% / 24 months
Monthly charge — platform fee	From £150 per VM*	From £1,000 per KW
Minimum term	3 months	24 months
Early exit charge	Remainder of asset cost	Remainder of asset Finance
Premium for Elevated OFFICIAL	20%	20%
Unit of billing	VM capacity upfront Platform fee per month	VM capacity per month (includes platform fee per month)

<sup>\*</sup> Based on 24-month contract and average VM size of 2vCPU, 8GiB RAM and 100GiB disk. The price will vary depending on specific hardware and performance requirements.

Pricing is per hour / month or part thereof.

# **Option 2: UKCloud Hosted**

Provides you with the underlying UKCloud Assured Cloud platform to host and manage your Private Cloud for Compute platform. We supply the environment specification, so that you can procure the hardware. We will then arrange for the build and support the infrastructure for you.

# **UKCloud Hosted pricing**

	UKCloud Hosted
Upfront payment — design and deploy	From £25,000
Monthly charge	From £150 per VM
Minimum term	24 months
Early exit charge	Remainder of fee
Premium for Elevated OFFICIAL	20%
Unit of billing	Per VM fee per month

# Service options (All-inclusive and UKCloud Hosted)

Service options include:

- Offline facilities to support data ingestion and extraction
- Connectivity options including HybridConnect, PSN, N3/HSCN, Janet, RLI, DDoSprotected internet and data centre interconnect

Other service options are available — see the UKCloud Pricing Guide.

# **Option 3: Crown Campus Hosted**

Have your compute infrastructure hosted directly within the Crown Campus, whilst benefiting from UKCloud running your infrastructure as a private cloud. This enables you to consume Compute as a Service from your assets running in your Crown Campus suite.

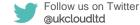
We supply the environment specification, so that you can procure the hardware. We will then arrange for the build and support the infrastructure for you.













# **Crown Campus Hosted pricing**

	Crown Campus Hosted
Upfront payment — design and deploy	From £10,000
Monthly charge — platform fee (excludes hosting)	From £250 per host per month
Minimum term	24 months
Early exit charge	Remainder of contract
Premium for Elevated OFFICIAL	20%
Unit of billing	Per host per month

# Package feature comparison and responsibilities

	All-inclusive	UKCloud Hosted	Crown Campus Hosted	
	UKCloud Customer	UKCloud Customer	UKCloud Customer	
Hardware design	✓	<b>√</b>	<b>✓</b> ✓	
Provision of data centre capacity	✓	✓	✓	
Procurement of hardware - including network infrastructure	<b>✓</b>	✓	✓	
Installation of compute hardware — including additional capacity	<b>√</b>	✓	✓	
Installation of networking infrastructure	✓	✓	✓	
Connectivity between Crown Campus suite and UKCloud platform	n/a	n/a	<b>√</b>	
Availability management	✓	✓	✓	
Capacity management — including additional capacity	<b>√</b>	√	✓	
Health management	✓	✓	✓	
Platform monitoring and maintenance	✓	✓	✓	
Performance management of laaS	✓	√	✓	
Performance management of customer workload	✓	✓	✓	
Assurance and compliance	✓	✓	✓	











# **Connectivity options**

UKCloud provides one of the best connected cloud platforms for the UK Public Sector. We offer a range of flexible connectivity options that enables access to our secure platform by virtually any government user community or system. The variety of government, public and private networks is shown in the following diagram:



Please refer to the pricing guide for all options and details.

**PSN Assured:** The general-purpose unencrypted Public Services Network. Connected to most central, local and devolved government organisations.

**PSN Protected:** Encrypted higher-security Public Services Network. Connected to legacy IL3 networks including GSI, PNN, CJX, GSE, GSX and others.

**Janet:** The UK's research and education network. Connected to all education organisations and research councils.

**CloudConnect:** Enables customers to establish connectivity to UKCloud-approved public cloud providers through peering exchanges or via private connections.

N3/HSCN: The NHS National Network and its replacement, the Health and Social Care Network. This enables you to connect to all health and social care organisations nationwide.

**HybridConnect/CrownConnect:** Supports a variety of flexible private connectivity options. Enables connection to Crown Hosting (CHDC) and other third-party facilities.

**RLI:** A high-security network for defence and industry partners. Connection to RLI is subject to extensive vetting and approval from the MoD.

#### Purchase scheme — Cloud Credits

Purchase Cloud Credits upfront and redeem them against UKCloud services over a maximum two-year period. This enables you to effectively commit your CAPEX or budget spend in advance, with monthly usage deducted from the balance until depleted. You can find full details in our pricing guide.

# An SLA you can trust

We understand that UK public sector organisations need a dependable service that demonstrates value to stakeholders, which is why we offer one of the best SLAs on G-Cloud.

We back our SLA with Service Credits. If we fall short of our agreement, we'll compensate you with Service Credits.

The table below outlines the SLA and Service Credit details. For more information, see the terms and conditions.













Service level agreement	99.99%		
Portal level agreement	99.90%		
Availability calculation	Availability is calculated based on the number of hours in the billing month (for example, 744 hours for months with 31 days). Excludes any planned and emergency maintenance.		
Measurement of SLA	Unavailability applies to existing VMs when the compute platform becomes inaccessible due to a fault recognised at t laaS layer or lower:  • Fault is not within the customer's control (OS configuration, customer applications and customer networks)  • Fault is within UKCloud-controlled components such as the dedicated compute infrastructure, UKCloud data centre facilities, physical firewalls and routers		
Key exclusions The following are examples of what is no		e examples of what is not covered:	
	All-inclusive, platform only within Crown Campus	Deletion or modification of VM by customer. Any access provided by you to your user base that takes the compute system beyond its recommended performance and connectivity thresholds. Faults within external connectivity providers (for example DDoS-protected internet, PSN, Janet or N3/HSCN) and components colocated at UKCloud. Any connectivity between data centres that is out of the control of UKCloud.	
	Customer- supplied hardware	As above plus; any loss of connectivity or data including data corruption as a result of you or your suppliers installing new or additional capacity to the compute system.	
	Crown Campus	As above plus; any platform outages causing disruption to power and cooling (as they're out of UKCloud's control).	
Service Credit*	10% of monthly spend for Private Cloud for Compute 1% of monthly spend per 1% below service level target or part thereof for the UKCloud API and Portal.		

<sup>\*</sup> You will not be eligible to receive a Service Credit if your account has any undisputed payments outstanding beyond their due date or you are in violation of UKCloud's Terms and Conditions including the UKCloud System Interconnect Security Policy (SISP).

# **Supporting documents and resources**

This service definition aims to give you enough information about the service, options and pricing to support your G-Cloud procurement process. The following documents, available on request or from the UKCloud Portal, should provide any additional information you need:

- Service Scopes provide more details about our services; they also cover service
  options, such as the Mass Transfer Facility, Cloud Enablement and Smart Hands
- FAQs for each service aim to answer the most commonly asked questions
- Factsheets provide a high-level description of each service













 Getting started guides help you to get up and running quickly using the UKCloud platform, our Portal and our API

In addition, we have:

- Cloud Architects who can help you understand how this service can address your requirements
- Over 240 partners who can provide professional and managed services

# **Jumpstart service**

Not all customers need a full transition service consultancy package. Sometimes getting value from cloud just requires a few days with a subject matter expert to get the building blocks in place that helps your organisation understand and start consuming cloud services. The UKCloud jumpstart service provides a 4 day package of work to help you get going with whichever UKCloud technology you are planning to use. This is provided at a fixed price of £3,500.

# Try before you buy

Owing to the exclusive-use, single-tenant nature of this service, no trials are available.

# The small print

The appendix to this service definition provides a summary of the service terms. For full terms and conditions, refer to the Terms and Conditions document, available from the Digital Marketplace.











# **Appendix**

# Ordering and invoicing

The service can be ordered via the G-Cloud Framework and must be supported by a valid purchase order.

UKCloud will issue invoices as follows:

- At point of order for upfront fees and service options
- Annually in advance for pre-payment fees
- Monthly in arrears for monthly fees

Payment can be made by direct bank transfer (BACS/CHAPS).

# **Onboarding**

Given the nature of this service, on acceptance of an order, UKCloud will work with the customer to create a detailed design for the Private Cloud for Compute platform, using UKCloud supported hardware. This design will formalise the dedicated components required for the solution, such as server and storage hardware, systems management software, network hardware and cables.

Lead times for delivery and hand over will depend on the final solution design.

The dedicated components will be procured by UKCloud or by the customer, depending on the package requested.

UKCloud will also create the customer's Primary Administrator account and send the customer a Welcome Pack which includes the URL for the UKCloud Portal for access to the Knowledge Centre and service management function.

Customers have the choice of deploying the solution in one or both of UKCloud's UK data centres. Customers can request to be deployed into a specific data centre at the time of the order. Crown Campus is also an available option.

You will be assigned a Customer Success Manager (CSM) to provide any assistance required during the first 90 days of the service.

UKCloud also has a large ecosystem of partners who can deliver additional services, such as support and professional services. UKCloud would be pleased to introduce you to the right partner to suit your needs.

#### **Crown Campus Environments**

If the customer chooses to locate their hardware solution in a Crown Campus environment, the customer will be wholly responsible for setting this arrangement up through the Digital Marketplace.

UKCloud will design the customer's compute environment, the customer is responsible for

# Service Definition

purchasing the required hardware. UKCloud will supply the customer with the environment specification so that they can procure the hardware. UKCloud will arrange for the build and support the infrastructure for the customer.

The customer is responsible for providing the connectivity between their environment within the Crown Campus suite and the UKCloud Meet Me Room.

#### **Data migration**

In many circumstances, UKCloud can help facilitate a bulk migration to the platform using local data import. This is priced on a time-and-materials basis from the UKCloud SFIA rate card.

UKCloud can also help facilitate a bulk migration to the platform using offline data ingest and extraction — please ask UKCloud for details.

#### Service management

UKCloud will allocate a Technical Account Manager (TAM) to provide you with an assigned point of contact. The TAM will provide additional assistance with reporting and incident escalation, at all times following UKCloud's ISO20000-certified ITIL-based process framework.

For organisations that require a managed service, UKCloud has a mature and active partner ecosystem that can provide value-added services such as consultancy, training and on-going custom managed services. UKCloud will be pleased to make an introduction on request.

#### **Crown Campus Environments**

For UKCloud to manage the platform for customers with Crown Campus environments, UKCloud will require all management tools and root access applicable to the infrastructure to ensure the platform can be monitored and maintained by UKCloud.

The customer will not have access to the management of the platform, which will be managed by UKCloud.

A minimum of four named UKCloud personnel need to be added to the whitelist to access the Crown Campus, to ensure maintenance and capacity upgrades can be carried out.

# **Service constraints**

The UKCloud Assured Cloud platform is designed and optimised to operate in specific conditions. UKCloud therefore imposes a number of service constraints, including:

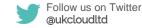
 Support for specific hardware configuration (such as certain VCE vBlock configurations, certain Cisco + EMC + VMware 'POD' configurations and certain Super Micro + Arista configurations)













- UKCloud must be named agents for all support and maintenance contracts
- UKCloud data centre access is available to UKCloud staff only — customers will not be allowed access to the data centres except in exceptional circumstances
- Private Cloud for Compute must include specified top-of-rack/end-of-rack network switches which will be designed, implemented and managed by UKCloud
- Private Cloud for Compute must include specific software features to enable UKCloud to provide automation, orchestration and instrumentation
- UKCloud provides no SLA or warranty related to performance

UKCloud will adhere to the following in terms of maintenance windows:

"Planned Maintenance" means any pre-planned disruptive maintenance to any of the infrastructure relating to the service. Planned Maintenance activity may result in periods of degradation or loss of availability depending on the nature of the activity required. In such cases, UKCloud shall provide affected customers with at least fourteen (14) days' advance notice of the Planned Maintenance.

Planned maintenance will be reported as an SLA event but will not be eligible for service credits

If during Planned Maintenance there is a loss of availability outside the scope described in the planned maintenance notification to the service, an SLA event will be triggered and will be eligible for service credits.

"Emergency Maintenance" means any urgent maintenance required to prevent or mitigate against any event compromising the infrastructure relating to the service. Whenever possible, UKCloud shall: a) provide affected customers with at least six (6) hours' advance notice and b) carry out the emergency maintenance between the hours of 00:00 and 06:00 (UK local time) Monday to Friday or between the hours of Saturday 00:00 to 06:00 (UK local time) on Monday, (including bank holidays) unless there is an identified and demonstrable immediate risk to customer environment(s). Emergency Maintenance may result in periods of degradation or loss of availability depending on the nature of the activity required.

Emergency maintenance will be reported as an SLA event, but will not be eligible for service credits.

# **Technical requirements**

Customers will require appropriate network connectivity such as DDoS-protected internet access or accredited connectivity such as a government secure network to our platforms. Connectivity via the DDoS-protected internet, a government secure network (PSN, Janet, N3/HSCN)

or RLI) or private leased line is available but may incur additional charges if the hosting of CPE routers is required — see the pricing section for more details. Where they are required, customers are responsible for procuring and managing appropriate devices or software to meet the requirement for data security over the various forms of connectivity.

#### **Customer responsibilities**

The control and management of access and responsibilities for end users including appropriate connectivity, security and accreditation if required. If access is required over government secure networks such as N3/HSCN, Janet, RLI or PSN (including legacy networks), the customer is responsible for adhering to the relevant Code of Connection (CoCo) and for providing evidence of their CoCo to UKCloud upon request. UKCloud is unable to provide access to secure networks where such evidence has not been provided by the customer.

Customers are responsible for backing up all data relating to this service.

Management and administration of layers above the laaS (for example the systems that use the Private Cloud for Compute platform).

As a core benefit of the cloud platform, customers are able to self-manage their environment including provisioning, stopping/starting virtual machines, antivirus and patching which UKCloud support with the availability of update repositories for key operating systems.

Customers must be aware of the variable nature of the billing based on usage.

The customer is also responsible for ensuring only lawful data that supports the UK Public Sector is stored and processed by applications on this environment, and that they fully comply with the UKCloud Security Operating Procedures (SyOPs) and other information assurance requirements as specified in the UKCloud System Interconnect and Security Policy (SISP) and associated accreditation documentation sets.

#### **UKCloud Hosted and Crown Campus Hosted**

The customer is responsible for supplying UKCloud with all network switches and cabling to connect to the customer's compute environment. The customer may ask UKCloud to supply these on the customer's behalf.

An agreement between UKCloud and the customer will be established to cover hardware failures and associated removal and/or disposal.

The customer will be responsible for:

 Arranging the installation of their own hardware and associated software













- Setting up a service and maintenance contract for their hardware
- Setting up a software and maintenance agreement for all licensed software
- · The cost of software patch licences
- Performing capacity planning and activities
- Raising service requests through the portal when you need configurations implemented
- Raising incident tickets if you experience any issues with your service
- Giving us time to plan the installation of any additional hardware

#### **Termination**

#### **Terms**

You may terminate this Agreement by providing UKCloud with not less than 30 days' advance notice in writing.

At the point of termination, you are responsible for removing all Content by 23:59:59 on the Effective Date of termination. If Content is not removed by this time We reserve the right to charge for any Content not removed, or for retrieving and returning your content, and may destroy or otherwise securely dispose of any of Your Content in Our possession.

#### Offboarding

#### All-inclusive package

Prior to terminating the contract, the customer must make the final payment (early exit charge) in order to take ownership of the storage hardware. The customer must make arrangements to collect the server and storage hardware within 14 days of contract termination and pay any applicable early exit charges.

# **UKCloud Hosted package**

As the Private Cloud for Compute platform hardware is owned by the customer, the customer must make arrangements to collect the server and storage hardware within 14 days of contract termination and pay any applicable early exit charges.

For clarity, when the customer terminates their agreement with UKCloud, UKCloud ensures all of the organisation's data is deleted unless the customer owns the storage hardware.

#### **Crown Campus Hosted package**

Prior to terminating the contract, the customer can terminate the connectivity between the Crown Hosting and the UKCloud Meet Me room and pay any applicable early exit charges.









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