

# **G-CLOUD SERVICE DEFINITION**

LOT: CLOUD SUPPORT

CLOUD CONSULTANCY AND MIGRATION SERVICES



0800 923 0601 UKFAST.CO.UK



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## **INTRODUCTION TO UKFAST**

UKFast is the largest privately-owned hosting provider in the UK, with a comprehensive network of fully owned, high specification data centres, from which cloud services, managed hosting and colocation services are delivered. UKFast has more than 20 years' experience in delivering cloud-based solutions to a range of public sector clients including the NHS, MoD, the Cabinet Office and police forces.

As an exclusively UK-based company, we offer guaranteed data sovereignty. We fully own, manage and operate the UKFast data centre complex including the land it's built on, housing more than 30,000 sq. ft. of enterprise-grade, ISO-certified facilities.

Our PCI compliance and ISO certifications, including ISO 27001, are managed by a dedicated compliance team to ensure our customers have a professional partner in UKFast. Our continued investment, dedication and credentials are further reinforced by high levels of accreditations and qualifications across support personnel, technology and infrastructure. All services, including administration and support and all data including backups and DR capabilities, are entirely hosted within the UK, and all members of the system administration team are vetted by UKVS, holding SC Clearance.

UKFast's dedicated hosting solutions are complemented with award-winning client support, provided by a highly knowledgeable and skilled team, with extensive experience within the sector. Implementing bespoke support structures unique to client requirements, UKFast's 24/7/365 comprehensive support is exclusively UK based. We pride ourselves on our industry-leading Net Promoter Score (NPS), which is consistently in excess of +80 (ten times the industry average).

#### HIGHLIGHTS

 Accredited as a Secure Data Centre by HMG Departments including Home Office (PASF)

 HSCN, PSN, PSN for Policing, MoD RLI/ ALI and Internet Connectivity

 Protective monitoring compliant with NCSC GPG-13

 Separation of personnel administering public-sector operations to those supporting commercial operations with strong two-factor authentication logged profile-based access

 Centralised authentication and authorisation throughout the corporate environment

Large volume of bespoke proprietary software developed in house to facilitate operational control and reduce supplychain dependency

In-house team of experts in penetration testing and ethical hacking, providing additional security service for proactive testing and verification of high security standards

 Support and data centre work all undertaken by UKFast personnel, without reliance on third parties



## **DATA CENTRE SPECIFICATION**

UKFast owns and operates a 6.52MW tier 3 1,200 rack data centre estate. This contains multiple physically separate buildings, connected by dedicated fibre. High voltage power connections are provided from separate primary sub-stations. All mission-critical services including Standby Generation, Cooling systems and UPS (uninterruptible power system) are provided at N+1 or greater across the whole facility. The complex has a power density of over 6KW per square foot, providing diverse A & B power to each data rack, and all eCloud service platforms are supported from quadruple power feeds.

The data centre complex is supported by 11MW of standby generation with over 130,000 litres of fuel storage and eight hour fuel supply SLA. All critical services are supported by 5.2MW of UPS power and 5.3MW of data centre cooling. All systems are monitored by UKFast's DCIM system (Data Centre Infrastructure Management) 24/7/365 with on and offsite monitoring of all systems. The data centre complex is protected against fire with gaseous fire suppression and VESDA double knock detection.

The complex is manned 24/7/365 by UKFast's security guards and the site is protected by multiple physical and electronic security systems including 2.8m prison fencing, CCTV and multi-factor access control systems. The data centre complex is managed 24/7/365 by an in-house team of data centre engineers and facility management engineers. UKFast are also the only UK data centre owner and operator to have NICEIC-accredited electrical engineers and building services consultant engineers.

Following our £22m investment in data centres in 2013, UKFast has recently invested a further £2.4m to build a separate hosting suite dedicated solely to public sector clients. This incorporates enhanced security and resiliency features, including:

- Dual-factor access, with weight sensors
- Fully resilient networking, switches and carrier-redundant leased lines, separated from the rest of the UKFast network and data centre complex
- Isolated power and backup generator redundancy, again separated from the rest of the UKFast network and data centre complex
- Accessed only by SC cleared employees





## **INFORMATION ASSURANCE**

We have an extremely robust and proven security policy and have gained the following accreditations through being independently audited and assessed. We continually improve our processes in information security, quality management and environmental management to facilitate a secure and efficient quality-of-service to our customers.

- ISO 27001:2013 Information Security Management System
- ISO 27017:2015 Code of practice for information security for cloud services
- ISO 27018:2014 Protection of personally identifiable information in public clouds
- ISO 22301:2012 Business Continuity Management System
- ISO 9001:2015 Quality Management System
- ✓ ISO 14001:2016 Environmental Management System
- PCI DSS Level 1 Service Provider
- Cyber Essentials +
- Monitoring service compliant with GPG-13
  - NIC EIC approved contractor

The environment follows NCSC guidelines and architectural patterns, including HMG standards with a fully-implemented BCS (Baseline Control Set)

Tier 1 accreditation/certification from CyDR, NCSC, Home Office

A number of options are available for connectivity to environments equivalent to OFFICIAL and OFFICIAL-SENSITIVE standards at UKFast. A basic guide is provided below but further dialogue with UKFast's solution architects is encouraged to ensure the correct guidance is followed.

#### **OFFICIAL / OFFICIAL-SENSITIVE**

- For Dedicated Circuit Connectivity you will require one of the following:
  - Site-to-site IPSEC or SSL-based VPN
  - Dedicated fibre direct to our data centre
  - CAS(T) \ Non-CAS(T) compliant connections via MPLS and leased line
  - CPA overlay encryption where required
- For access to the PSN you must be a PSN service provider or hold a PSN certification
- Access to HSCN requires an ODS code and compliance with NHS Digital obligations framework



## **CLOUD CONSULTANCY AND MIGRATION SERVICES**

When providing both consultancy and migration services, UKFast follows a structured architecture methodology built on best practices and experience gathered from the field.

As with all things at UKFast, a specific, customer-focused approach is taken with any migration and transition work. We believe in allowing the customer full access to the project team throughout the complete lifecycle. We adopt a true collaborative partnership with our customers to drive the specific milestone stages and deliver established end results.

We are proud of our industry leading NPS score of over +80 which is testament to the exceptional relationships and shared success we enjoy on our customer journeys.

The phases described in this document are provided purely as a guide, each project will be formed on a bespoke basis as agreed with the customer using best practice guides but by no means limited to them.

#### **BENEFITS**

Supporting the government's initiative to improve service quality, reduce costs and increase efficiency, we enable public sector organisations to do more with less.

FASTER	COST-EFFECTIVE	SAFER
Tailored and bespoke cloud solution and migration plan to meet your unique business needs. Rapid deployment plans available.	Scalable and flexible to meet budget and needs. Ongoing support for new and existing cloud platforms.	Proven and trusted methodology. UK-based, ISO-accredited data centres, fully owned and operated by UKFast. UK based, in-house expert SC cleared support 24/7/365.

#### **FEATURES**

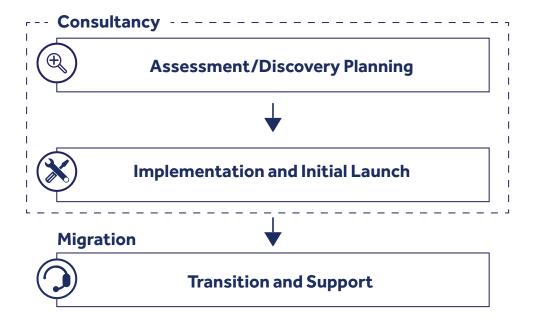
- Experienced and certified SC-cleared engineers and architects with years of design experience
- Dedicated personnel allocated to your project
- UK-owned and operated business
- Consultancy process compliant with ITIL best practice



## **EXAMPLE TECHNICAL SPECIFICATION**

We offer our consultation and migration services individually or as a combined package for customers looking for a more holistic approach to cloud migration. The following sections outline our approach to both services and the steps we follow to guide our consultancy services.

#### **OUR SERVICE DELIVERY PHASES**



#### ASSESSMENT/DISCOVERY AND PLANNING PHASE

#### **Challenges and Insight**

The most significant challenges UKFast encounters on any transition work include the following:

- Limited time for the transition. This is normally the biggest culprit of overdue transitions
- Missing or incomplete documentation and information flow of business processes and application
  inter-dependencies. Missing information will create unforeseen challenges at any stage of a transition.
  In our experience, it is not possible to identify every missing piece of information or technical detail.
  Therefore, expecting these unforeseen challenges by incorporating additional layers of testing has
  resulted in the best transition success rates. Milestone testing will occur throughout the transition at
  relevant and defined periods with sign-off points for both the customer and UKFast
- Software edition, version, and/or licence changes in software between incumbent solution and UKFast. We don't shy away from these changes as they are often a key driver for the transition. However, we acknowledge that they can often bring about subtle changes to end-user experiences and thus extra emphasis will be placed on those changes during the user acceptance testing (UAT)



Transitions can erroneously be forced into a large-scale single switch over period. We have found
that greater risk mitigation can be achieved through a piece-by-piece transition. This style of transition
allows for a greater degree of control over the challenges encountered with each individual aspect of the
transition. A good example would be transitioning email services and desktop services at separate stages.

#### **Discovery and Assessment**

Our team first accesses the customer's environment to fully discover and assess the current state and operations. This includes benchmarks for performance that are measured against Initial Launch load testing to ensure the performance of the new environment is in line with expectations and requirements.

Existing diagrams will be verified or new ones will be created to document the following:

- Infrastructure
- Role/Services
- Network/Logical Flow
- Business Systems and Application Interdependencies.

#### **Team Construction**

We firmly believe that you are only as good as the people behind you. This transition project wouldn't be endeavoured by a single person at UKFast, but a whole team of individuals with different skill sets from both the customer and UKFast. All UKFast public sector engineers are certified and SC cleared for these purposes.

#### Constructing the Team

- Assess stakeholders and key decision-makers in the transitions
- Identify team roles
- Identify corporate and individual responsibilities
- Discover individuals with unique insight into and/or knowledge of the incumbent environment.

#### **Best Practice Software Installation and Configuration**

Wherever possible, a baseline of best practice transition tools and procedures would be implemented for those component or technology transitions.

The customer and/or the Transition team's knowledge could then be leveraged on top of this, based on industry best practices.



#### **Architectural Design**

Initial infrastructure and core components would first be architected by UKFast to meet the requirements outlined customer. Further amendments may need to be implemented to the VM or role/services layer in the environment, based on the Discovery and Assessment phases.

#### Acceptance Testing

- Identifying the key service deliveries for a successful transition. This is exclusive of milestones and timings.
- The chosen defining technology or business systems tests are signed off by both the customer and UKFast to determine a successful transition.
- The overall success is determined by the successful completion of the individual acceptance tests for the individual technologies, business systems, and user acceptance tests.

#### **Gap Analysis**

- The Transition team aims to identify gaps between the customer's environment and the UKFast environment.
- These gaps are then incorporated into a Risk Log to be identified and assessed to mitigate the risks.

#### **Milestones and Timings**

- Full scoping and transition milestones and complete timelines will be determined in collaboration with the customer.
- Start
  - o This is the starting point of the transition once UKFast has been chosen as the partner for the project implementation

#### Solution Design

- o Carried out once the final solution design has been refined and agreed at the end of the Discovery/Assessment and Planning phase
- Pre-Launch
  - UKFast procures all necessary equipment and performs the various stages of testing and quality assurance on the infrastructure where needed. From this, the solution in its basic form is created. UKFast Enterprise Support is also included in the transition so that they can be fully familiar with the environment by the time a successful transition has been reached



- Launch
  - All aspects of the environment has now passed the UKFast testing standards and the customer is invited into the environment at this stage for an initial walk-through
- Initial Testing
  - o This starts the stage of initial UAT and load testing
- Transition Testing
  - o Full process testing. Completely defined during Discovery/Assessment and Planning phase.
- Final Testing
  - o Is signed off by all levels of the Transition team
- Roll-out: Live
  - o Implementation of transition plan; this may be completed in different stages dependent on the final plan
- Completion
  - o Complete review of transition and final sign off by all levels of the Transition team
- On-going Support
  - o Cyclical stages of assessment/review and on-going maintenance/improvement of the environment.





#### IMPLEMENTATION AND INITIAL LAUNCH PHASE

#### New vs. Existing Infrastructure

New builds provide a great degree of control over what is being transitioned whereas 'lift and shifting' an existing infrastructure moves all aspects, even those that are out of scope.

The greatest risk in 'lift and shift' transitions is the factor of unknown aspects being transitioned into the UKFast environment. Even with the most rigorous assessment and discovery phase not every aspect and permutation of inter-dependencies can be identified. UKFast minimises this risk by recommending new build transition as the focus changes from moving 'everything' to only the in-scope components.

#### Other reasons for a new build transition:

- Easiest transition to new technologies, different version of software, or dissimilar software
- Cleanest transition as only the information and systems in the transition scope are transferred to the new environment
- Greatest control of reliability as minimal legacy issues are transferred over from the incumbent environment.

#### Implementation

UKFast builds up the infrastructure according to the agreed architectural design. This includes any procurement of physical components needed for the environment, full quality assurance testing of individual components, and full redundancy testing of resilient components.

#### **Initial Launch**

Pre-defined load testing is carried out once the initial environment has been built. This load testing creates a bench-line to measure the new solution against the old. The bench-line also creates a starting point for future growth and expansion planning for the customer and UKFast.

Our relationship with UKFast is really strong and our account manager has been engaged throughout. As our platform grows and becomes more business critical we can rely on UKFast's expertise to help us achieve this along with a continued guarantee of data security. < REGIS</p>



#### **TRANSITION AND SUPPORT PHASE**

#### Transition

The Transition phase is highly customised based on the Discovery/ Assessment and Planning phase. The key aspects of the transitions are in our flexible and agile approaches to the transition plan and in knowing the organic and inevitable hidden challenges that could occur during the progress of the plan. Finally, we are confident that our dynamic and supportive values lead the way for the transparent and measurable stages, defined and agreed on at the very beginning.



#### **On-going Support**

This final component will start once there is full agreement that the transition has completed. It is important to note this is not the first stage in which the UKFast Enterprise Support would be incorporated into the transition. At this stage, the transition team would step aside. It is also the stage in which the customer will be fully operational with the UKFast environment and the nominated regular reviews and involvement from the relevant team will commence.

#### **ORDERING AND INVOICING**

Orders will be accepted via a signed UKFast order form or a signed G-Cloud order form. Order forms can be signed digitally online through your MyUKFast portal if you choose to use our order form. Invoices are then raised on a monthly basis (please refer to the on boarding process and pricing document for more details).

#### **LEAD TIME**

Once an order has been accepted, creation of a new customer within MyUKFast will be complete within 48 hours. Given the bespoke nature of this service lead times will be agreed upon completion of the schedule of work.

#### **CONTRACT TERMINATION**

#### Terms

Please refer to G-Cloud Call Off terms and UKFast's standard Terms & Conditions for rights to terminate. Any agreed fee and termination arrangements will be documented on the Order Form which will prevail over our standard Terms & Conditions.



## PRICING

Pricing is charged at a day rate, please see the SFIA rate card for this service.

### **TRIAL SERVICE**

No trial service is available for this service.



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