

G Cloud 6



Service Definition:

Platform as a Service (PaaS)

Crown
Commercial
Service
Supplier

Introduction to Centerprise International Limited

Centerprise International Limited was established in 1983 as an engineering and manufacturing company, specialising in designing and building tailored products and solutions. The Company began by supplying PCs into the Private and Public Sectors.

By 1991 Centerprise had established a reputation within the MOD as a forward thinking SME capable of responding in an agile manner to emerging and challenging requirements. Centerprise has since diversified its Defence portfolio, which now ranges from high volume, low-end system integration services to the delivery of complete high assurance mission capable ICT systems.

In 2005 Centerprise invested in a best in class Government Approved manufacturing and logistics centre in Caerphilly, South Wales. This investment enhanced significantly the Company's scale of delivery of manufacturing and supply chain management capability as evidenced by Centerprise's contribution to the MOD's DII Programme.

Since 2012 Centerprise has continued to increase its presence across Public Sector and now delivers managed services into the Education sector and Central Government. In relation to the former, the Company has contracts to deliver end to end ICT solutions to over 20 schools and academies; and with regard to the latter, Centerprise provides a range of managed ICT services to both the MOD and HMT.

Centerprise's ever-growing portfolio of services now boasts a range of cloud services that have been tailored for use within Public Sector.

Overview of Centerprise's Platform as a Service

Centerprise's Platform as a Service (PaaS) allows customers to develop and deploy cloud-based applications in a rapid and agile fashion. It offers a highly scalable and configurable environment that can support both Linux and MS Windows-based applications without requiring changes to the application. This PaaS offering provides a flexible hosting solution for application developers and departments with legacy application hosting requirements. The application environment and the on-boarding of applications can be customer or supplier administered depending on customer need. The offering provides an intuitive management portal that enables customers to define their application environment (application servers, load balancers, databases) and subsequently upload their applications, leaving the platform to automatically scale their chosen environment vertically (for greater capacity) and horizontally (for greater capacity and/or resilience) in response to the demands of their business operation.

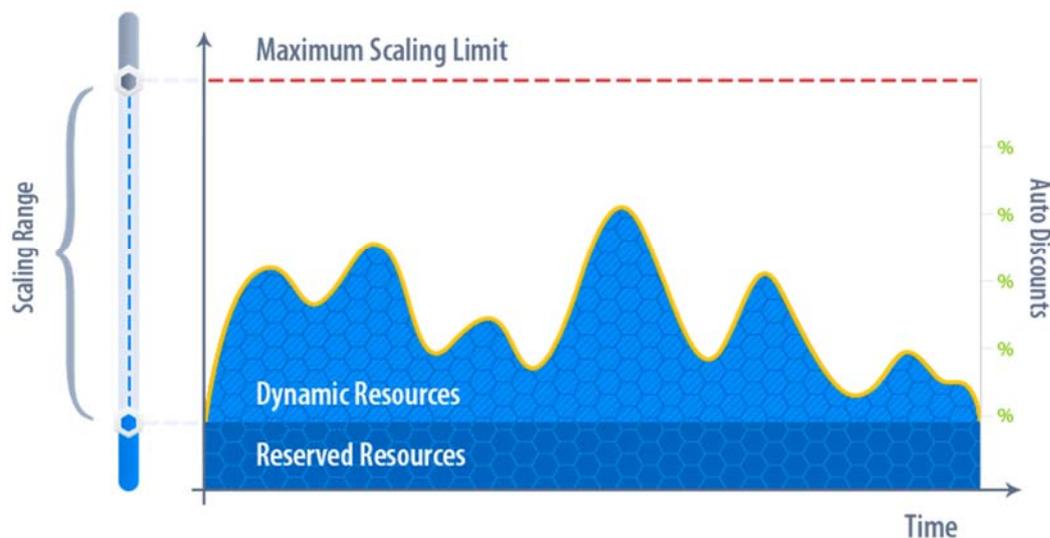
The PaaS solution enables configuration changes to be made to the environment dynamically without introducing any downtime or causing disruption to service (i.e. applications do not need to be re-started when scaling is adjusted). The management portal provides billing transparency to enable customers to monitor, tailor and remain in control of their usage. Centerprise provide a fully managed PaaS offering for customers not wishing to administer their own environment. Customers merely define their chosen application environment and scaling limits and Centerprise takes care of the provisioning and subsequent administration. Customers are provided with usage metrics and are notified when they are approaching their scaling limit.

Application Integrity

Centerprise's PaaS offering utilises container technology, which means each application and its environment is isolated from the next. This provides a built-in mechanism for security insofar as applications that crash or threaten to compromise others are prevented from doing so by being isolated to their own container. Each container is controlled for scalability and resource consumption so applications do not consume all the resources on a given server. Furthermore, Centerprise's PaaS dynamically controls resource consumption through the live migration of applications across servers if server resources are running short. This is distinctly different to traditional virtualised solutions that provide a complete operating system environment to one or more applications, thus making it very difficult to scale once a virtual machine has reached capacity.

Improved Application Density

The auto-scaling and live migration features within Centerprise's PaaS offer at least a 30% improvement in application density over traditional virtualised solutions. Centerprise's PaaS uses highly granular 'Cloudlets' which are a fraction of a traditional virtual machine, billed by the hour, thus driving significant cost savings compared to all other alternatives. A Cloudlet is defined as 128MB RAM and 200MHz CPU. Most virtualised environments are over-provisioned to allow for the required scalability whilst avoiding the complex reconfiguration that would otherwise be needed to achieve it. Centerprise's auto-scaling and live migration features means that over-provisioning can be minimized or even eliminated since application environments dynamically scale up and down in minutes using only the resources they need and applications can be moved onto other servers as required (without service interruption) to free up physical resource. Additionally, applications that are not in use can be made to hibernate in order to release server resources back into the pool. In addition to improving application density (and therefore lower operating costs) these features enhance scalability, security and reduce the management of the application environments.



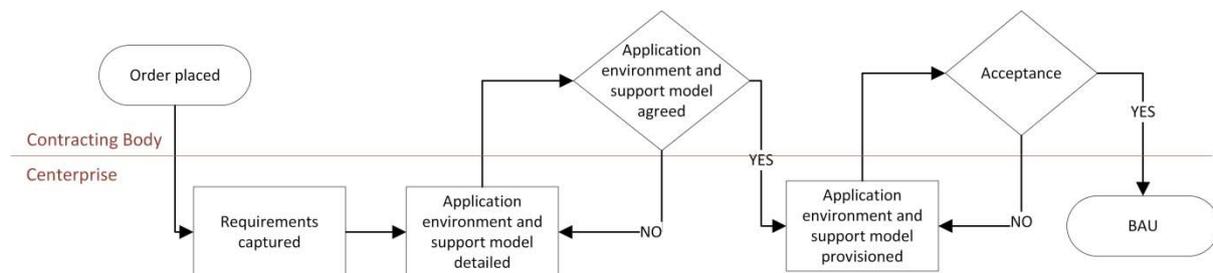
Backup/Restore and Disaster Recovery

Centerprise's PaaS is hosted in a Tier III Data Centre. Both system configuration data and application data are hosted on multiple physical servers and are replicated in real time to offer n+2 redundancy and a service availability of 99.99%. The system data and application data is automatically backed up every 1 hour providing a Recovery Point Objective of 1 hour. Restoration is an automated process in order to minimise the Recovery Time Objective.

The Centerprise Service Management Team work from two separate sites in the South of England and also has a full BCDR complex available for use in Wales. Centerprise's Service Management Toolset is also cloud-based ensuring a smooth and seamless response to service effecting events.

On-boarding and Off-boarding

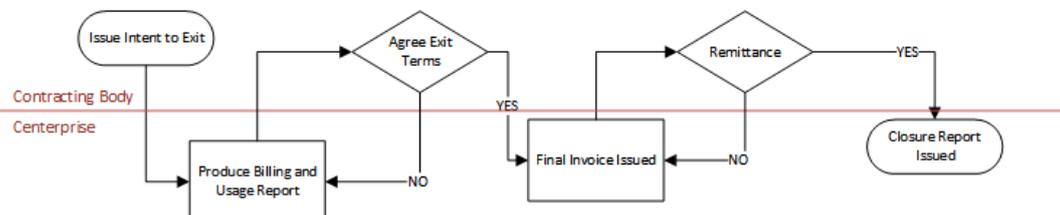
Centerprise will determine the operating platform (Linux or MS Windows) required to support the application environment and will familiarise the customer with the PaaS management portal to enable the customer to configure and/or monitor the application environment.



The on-boarding process shall result in an on-boarding pack that will detail:

- The required application environment (with defined scaling limits, load balancing, databases and IP addresses).
- How the service is to be supported (Customer or Centerprise).

Off boarding is designed to be simple and agile to allow the Customer to exit services with ease at the end of the contract period.



Service Management

Service Desk. Centerprise's Service Desk actively monitors service availability and undertakes trend analysis to identify and resolve Problems before they become service affecting. Users are able to raise incidents to the Service Desk via telephone, email and/or a web portal. Our Service Desk comprises Level 1 and Level 2 analysts. The Level 1 analysts are trained to a high competency level which, combined with access to our extensive library of knowledge base articles, enables them to resolve a high percentage of incidents on first contact. Incident and Problem Management processes ensure that the knowledge base is updated dynamically to ensure its currency. A robust Incident Management process ensures more complex incidents are managed through to resolution in the shortest time possible thus minimising business impact on the Customer. The Service Desk monitors service level achievement and escalates incidents that are approaching a service level failure. The Service Desk coordinates and issues timely and effective communication to those users impacted by a service affecting Incidents.

The Service Desk undertakes Service Measurement and Reporting (SM&R) activities that monitor and capture supporting data relating to service performance and request fulfilment. The data is collated from the Configuration Management System (CMS) which serves as the repository for all service management information. Reportable data is provided to an allocated Service Delivery Manager who is responsible for analysing it and producing a report that is subsequently distributed to the Customer via email or presented at Service Review Boards, depending on the level of governance in operation. The SM&R product provides a means for the customer to assess service delivery performance and remain apprised of their consumption.

The administration of the cloud platform and customer application environments is undertaken by Service Desk analysts that have been trained to Level 2 on the PaaS solution. This ensures customers receive effective support from first contact through to the resolution of their service request or incident.

Service Constraints.

There are no service constraints with this Service beyond the stated service description. The Service is hosted on multiple physical servers within a Tier III Data Centre, which provides for a high level of availability and resilience. The live migration and automatic scaling features of the PaaS means that Centerprise can offer a Service that is not subjected to service-affecting maintenance windows or service outages caused through the implementation of service enhancements.

Service Levels and Response/Resolution Times

Service Availability and Service Hours. The Service is available for use 24/7 and is supported during the Service Hours of 0800 – 2000 Mon to Fri (excluding UK holidays). The Service Level for Service Availability is 99.99% as a measurement of the total Service Hours. Service Availability is therefore measured by:

$$\text{Service Availability \%} = ((\text{Service Hours} - \text{Service Downtime}) / \text{Service Hours}) \times 100$$

Response and Resolution Times. The response times for service affecting incidents are determined by the severity level of the incident. The table below details the incident severity levels and the corresponding response times.

Severity Level	Incident Type	Definition	Response	Resolution
----------------	---------------	------------	----------	------------

1	High	Service is completely unavailable or there is a critical impact on the Customer's business operation.	20 min	2 hours
2	Medium	The Service is severely degraded or there is a significant impact on the Customer's business operation.	1 hour	4 hours
3	Low	The quality of the Service is degraded and is affecting one or more users.	1 hour	24 hours
4	Service Request	Customer is seeking a change to the Service.	1 hour	48 Hours

Financial Recompense Model

A Service Credit regime will be used to recompense the Customer for the service failing to meet the agreed Service Level. Service Credits shall be valued as a percentage of the related Service Charges for the month.

Service Credit Points will be allocated for Performance Failures. The total number of points accrued will be converted into a cash value. The cash value will be calculated on the basis that one Service Credit Point is worth 1% (one percent) of the Service Charges for the relevant month. Half a Service Credit Point will accrue for each 0.5% below the 99.9% Service Level Availability.

If Centerprise fails to achieve the Service Level during 2 consecutive months the second such failure shall be a Repeat Failure. If a Repeat Failure occurs the number of Service Credit Points shall be multiplied by a factor of 2. The maximum value for all Service Credits accrued in respect of a month shall not exceed fifteen percent (15%) of the Service Charges for that month.

Service Credits are a reduction of the amounts payable in respect of the Services and do not include VAT. Centerprise shall apply the value of any Service Credits against the appropriate invoice.

Centerprise's liability for Service Credits does not extend to service failures when the cause relates to the Customer (or one of its services) or a Force Majeure event.

Training

Once the order has been processed a welcome pack will be sent to the purchaser. This will include a user guide outlining the basics of the Service and how to use the intuitive management portal. Onsite training can be provided via our professional services offering listed on Lot 4. This is provided on a day rate basis in accordance with the SFIA pricing schedule.

Ordering and Invoicing

Customers are able to subscribe to this Service by submitting an Order Form to gcloud@centerprise.co.uk. Centerprise will contact the customer within one working day of receiving the Order Form and will process the order within 2 working days of all required details being formalised between Centerprise and the Customer.

Invoices will be raised monthly and will be submitted to the Customer's finance department in electronic format.

Termination Terms

The terms of Termination are as per detailed in the G-Cloud 6 Framework Agreement and Call-Off Contract. Notice to terminate the Service is to be provided in accordance with Clause FW-21 of the G-Cloud 6 Framework Agreement. Notices are to be submitted marked for the attention of Jeremy Nash [Tel: 07584 216725, Email: jeremy.nash@centerprise.co.uk].

Data Restoration / Migration

Centerprise's PaaS offering provides an automatic restoration process that minimises the Recovery Time Objective (RTO) of application data hosted within the cloud. The RTO is dependent on the amount of data stored. The on-boarding process does not include the migration of application data. Centerprise's professional services for PaaS offering can be ordered by the Customer from Lot 4 (Specialist Cloud Services) should support be required with data migration.

Customer Responsibilities

The Customer is responsible for clearly defining the application environment, application data storage requirements and the support model to be adopted during the on-boarding process. The Customer is also required for making the required configuration changes to their network (in line with the stated technical requirements) ahead of service commencement.

Technical Requirements

The Centerprise PaaS offering is at OFFICIAL and therefore is dependent on the Customer's internet connection being configured to support a VPN connection that has been certified through the Commercial Product Assurance scheme. The internet connection must have sufficient bandwidth to cope with the data transfer rates expected between the Customer's network and the application environment.

Service Trial

Centerprise provides a 14-day free of charge trial to assist prospective customers with assessing the suitability of the Service. Customers wishing to make use of the free trial are to contact Centerprise at gcloud@centerprise.co.uk. Centerprise does not require the Customer to submit an Order Form to gain access to the free trial.

To seek clarification on any aspect of this document / service please contact us via gcloud@centerprise.co.uk.