

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Crown Hosting Framework Agreement

Schedule 3.1

Service Description

OFFICIAL

CH Framework Agreement Schedule 3.1 (Service Description)

1. INTRODUCTION

- 1.1 This Schedule sets out the intended scope of the Services to be provided by the Supplier under each Call-Off Agreement and provide a description of what each Service entails.
- 1.2 The specific Services to be delivered by the Supplier under each Call-Off Agreement (including the relevant dates for commencement of service provision, volume of services required and specification of facilities to be supported) shall be identified within each Service Request entered into by each Customer with the Supplier in accordance with the Service Request Procedure.

2. SERVICES DESCRIPTION

- 2.1 The Services to be provided by the Supplier under this Framework Agreement comprise the following (each of which is described in more detail in the tables below):
- (a) Data Centre Co-Location Services; and
 - (b) Additional Services
- 2.2 Any changes to the scope of Data Centre Co-Location Services or Additional Services shall be made in accordance with the Change Control Procedure outlined in Schedule 6.2.
- 2.3 Nothing in this Schedule shall in any way limit the obligation of the Supplier to meet its obligations relating to the Services specified elsewhere in the Framework Agreement.

3. DATA CENTRE CO-LOCATION SERVICES

Ref	Service	Description
1	Facilities Infrastructure Management	Requirements in relation to the provision of the supporting infrastructure services and the requisite levels of quality, resilience and performance to support the Services
1.1	Floor Space Management	
1.1.1	Floor Space and Density Planning	The Supplier shall ensure the layout, density and capacity of aisles and racks within the Data Hall(s) is suitable for the Commissioned Facilities.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.1.2	Conduit & Raised Flooring	<p>The Supplier shall ensure cables, containment, pipe conduits, raised flooring and floor support structures are in place within the Data Centres or Data Hall(s) to meet the Customer's requirement for the Commissioned Facilities.</p> <p>The Supplier shall ensure that the Data Centre floor (including floor tiles and struts) is be able to support both a rolling and static load and is a minimum equivalent of Type 1 (equivalent to 1221kg/sqm).</p>
1.1.3	Environmental & Hot/Cold Aisle Planning	The Supplier shall actively manage the environment within the Data Hall(s) to support operation of the Customer's equipment, including temperature and humidity controls, equipment placement for heat extraction and blanking of unused space and adverse effects on equipment caused by other Data Centre Customers.
1.2	Cabinet Space (Rack) Management	
1.2.1	Rack Requirements Management	The Supplier shall review and assess the suitability of equipment racks provided by the Customer which will be provisioned in Dedicated Data Halls or Floor Space.
1.2.2	Rack Utilisation Management	The Supplier shall, on a quarterly basis, review and monitor utilisation levels for racks (including Customer racks) within the Data Hall(s), to ensure optimum space, cost, efficiency and performance of the rack configuration for the Commissioned Facility.
1.2.3	Rack Installation & Connection	The Supplier shall install sufficient powered and cooled racks within the Data Hall(s) to support operation of the Customer's equipment and shall provide connectivity to the Data Centre Infrastructure Management network.
1.2.4	Rack Commissioning & Testing	The Supplier shall ensure all racks (including Customer provided racks) are installed to meet the relevant Standards set out in Schedule 3.5 (Standards) including those specifically relating to earthing and bonding.
1.2.5	Rack Segmentation	The Supplier shall ensure that each rack is allocated solely for one Customer's and its Service Recipient's use.
1.2.6	Infrastructure Management	The Supplier shall operate an infrastructure management process to maintain an up-to-date record of Customer assets and information in operation within the Data Centre.
1.2.7	Rack Decommissioning	The Supplier shall recycle or dispose of racks used in relation to a Commissioned Facility (after consultation with the Customer) following the Service Decommission Date.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.3	Power Supply Management	
1.3.1	Uninterrupted Power Supply (UPS)	The Supplier shall provide an uninterrupted, conditioned mains power supply to power distribution unit(s) (PDU) within the Data Centres or Data Hall(s), capable of providing the requisite load and resilience level to meet or exceed the Service Levels set out in Schedule 3.3 (Service Levels) in order to provide the Customer's equipment with a clean uninterrupted electricity supply including during maintenance.
1.3.2	Back-up Generator Supply	The Supplier shall provide immediate backup electrical power (that meets the level of the contracted power load of the Data Centre) in the event of a primary supply failure (to comprise modular uninterrupted power supply (UPS) and diesel-powered generators). The Supplier shall ensure that the facility has sufficient fuel for at least REDACT hours continuous running and a plan in place for re-supply. The Supplier shall perform "polishing" of stored fuel on a regular basis to minimise the risk of contaminants in the fuel supply.
1.3.3	Non-Essential Power Supply	The Supplier may provide a non-essential power supply to any non-critical Data Centre mechanical/electrical components that do not require connection to a UPS provided that it does not put the critical load at risk.
1.3.4	Power Distribution and Power Strips	<p>The Supplier shall provide Power Distribution Units (PDU) housing circuit breakers that enable multiple branch circuits to be fed from a fault tolerant feeder circuit. The power feeds must step down power using transformers (as required) and include electrical panel boards, automatic transfer switching, surge protection devices, and power monitoring/controls.</p> <p>For Cabinet Space, the Supplier shall provide rack-mounted power strips and ensure that the power strips are fed from diverse and separate circuits to enable an A and B feed for resilience.</p>
1.3.5	Energy Consumption / PUE Metering	The Supplier shall monitor individual Customer consumption of power at a cabinet level in the Data Hall(s) and use that data to (i) optimise the power utilisation efficiency of the Data Hall(s), including identification of opportunities for performance improvement, and (ii) provide information to the Customer regarding power usage statistics, including Power Utilisation Efficiency (PUE).
1.3.6	Back-up Fuel Supply	The Supplier shall ensure that there is resilience in the means of transferring fuel from the main storage tanks to the day tanks and that generators are tested under full IT load on a six monthly basis. The Supplier must ensure the generators undergo a monthly run test as part of the general maintenance schedule.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.4	Heating, Ventilation and Cooling	
1.4.1	Rack Cooling and Hot Spot Management	The Supplier shall ensure high-quality and sustained cooling throughout the Data Hall(s) in compliance with the relevant Standards set out in Schedule 3.5 (Standards). The Supplier shall undertake thermal zone mapping to identify any hot spots or thermal inefficiencies in the cooling flow, and mitigate any cooling inefficiencies or adverse impacts.
1.4.2	Air Conditioning, Ventilation & Spot Cooling	The Supplier shall ensure a flow of cool clean air throughout the Data Hall(s), including ducted ventilation and air-conditioning to relevant areas and efficient spot cooling of identified hot spots.
1.4.3	Heating & Heat Exchange	The Supplier shall ensure the efficient and cost-effective management of heating and heat exchange, including for example, by recycling waste heat generated within the Data Centres or by transferring heat to provide heating to other areas of the Data Centres (e.g. office space) either directly or via heat exchange mechanisms.
1.4.4	Humidity & Temperature Management	The Supplier shall monitor, measure and control humidity and temperature levels in all areas of the Data Centres, to ensure Data Halls and other critical operating environments are maintained at the optimal humidity and temperature, consistent with the Service Levels.
1.5	Networking & Connectivity	
1.5.1	Fibre Entrance Conduits and Cable Plant	The Supplier shall provide suitable ducting and conduits for structured cabling, high-voltage power and other plant cabling into and out of the Data Centres. The Supplier shall manage the positioning and routing of entrance conduits and cabling and must ensure physical resilience, diverse routing and support the overall (N+1) redundancy level of the Data Centres.
1.5.2	PSN and N3 Physical Network Connectivity	The Supplier shall provide a point of presence in the Data Centre that allows the Customer to connect to and access HM Government's Public Services Network (PSN) and N3 (and any replacement government networks) from the Data Centre. The point of presence shall be carrier neutral.
1.5.3	Internet Network Connectivity	The Supplier shall provide a point of presence in the Data Centre that allows the Customer to connect to and access the Internet from the Data Centre with sufficient bandwidth for Customers' needs. The point of presence shall be carrier neutral.
1.5.4	Aggregated Internet Capability	The Supplier shall have the capability to provide an aggregated (i.e. shared across Customers) internet connection to multiple Tier 1 Internet Service Providers.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.6	Security Management	
1.6.1	Security	The Supplier shall comply with the provisions of Schedule 3.6 (Security Management).
1.7	Fire Detection & Suppression	
1.7.1	Smoke & Heat Detection & Alert	The Supplier shall provide aspirating smoke and heat detection systems within the Data Centres and Data Hall(s), cross-zoned to prevent false alarms using either optical (photoelectric) or ionisation detectors, that will (when triggered) set off an audible and central control room alarm, shut down the equipment in the room (if required) and trigger the discharge of the relevant fire suppressants.
1.7.2	Fire Suppression (Dry Systems)	The Supplier shall provide safe, approved non-toxic, aerosol and/or inert gas fire suppression systems to provide immediate fire extinguishing capability for fire zones and rooms within the Data Centres and Data Hall(s) and areas that house critical mechanical and technical infrastructure.
1.7.3	Manual Extinguishing Systems	The Supplier shall provide access to suitable manual fire extinguishing systems (e.g. hand held fire extinguishers, fire blankets, hose reels) in any non-critical fire zones within the Data Centres and Data Hall(s) where it may not be necessary or feasible to have an automated fire suppression system in place. The Supplier shall ensure any manual systems are appropriate to the potential types of fire in these zones.
1.8	Lighting & Low Voltage Services	
1.8.1	Mains Electrical Services	The Supplier shall ensure all buildings and rooms in the Data Centres and Data Hall(s) include a distributed supply of standard mains (220~240v) AC electricity to all internal and external supply sockets, switches and junction boxes.
1.8.2	Internal/Office Lighting	The Supplier shall ensure all non-critical buildings and rooms within a Data Centre's site (e.g. reception desk, visitor waiting area) include standard interior/office lighting.
1.8.3	Emergency Backup Lighting	The Supplier shall ensure all critical areas, corridors that lead to/from emergency exits (and the exit itself) and critical external areas (such as mustering zones, security sentry posts) within a Data Centre's site include emergency lighting which shall be switched on automatically and instantaneously in the event of any loss of the primary lighting. The Supplier shall reset the backup system upon restoration of the primary lighting system.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.9	Loading & Storage Facilities	
1.9.1	Shipping & Receiving Area Management	The Supplier shall ensure shipping/receiving points within a Data Centre site (e.g. goods-in/out, loading bay, docking gates) are fully compliant with UK health and safety regulations, ensuring all hazards are risk assessed and controls are in place, supported by appropriate training and supervision.
1.9.2	Secure Customer Holding	The Supplier shall ensure all pre-ship or post-receipt goods that leave or enter a Data Centre site via the loading bay are safely moved and held in a dedicated secure holding area/room within close proximity to the loading bay and managed to cater for availability of staging area capacity. The Supplier shall ensure that the area has space to provide separate and secure Customer equipment storage if required.
1.9.3	Holding Area management	The Supplier shall implement processes to manage holding area capacity and security for the Customer's storage of goods, spares and inventory at a Data Centre.
1.10	Integrated Building Management	
1.10.1	Integrated Environmental Control	The Supplier shall ensure critical environmental sensor information including leak detection, temperature and humidity sensors are captured within the Data Centres and is transmitted into an integrated environment control system which is supported by appropriate tools, processes and training.
1.10.2	Critical Systems Monitoring	The Supplier shall monitor all critical systems within the Data Centres from a central location, consistent with the policies, metrics and performance indicators in this Agreement that allow management information and operational support to be planned, managed and delivered effectively.
1.10.3	Central Alarm & Security Monitoring	The Supplier shall monitor all alarms and security zones within the Data Centres consistent with the policies, metrics and performance indicators in this Agreement that allow management information and operational support to be planned, managed and delivered effectively.
1.10.4	Data Centre Infrastructure Management	The Supplier shall monitor, collect and retain operational information from the various management and control systems within the Data Centres and Data Hall(s) and provide quarterly reports to the Framework Authority as set out in Schedule 3.4 (Reports) on the same to support accurate demand forecasting and effective service management of all relevant systems.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
1.10.5	Data Centre Infrastructure Management Tool	The Supplier shall utilise a DCIM toolset for infrastructure management reporting in accordance with Schedule 3.4 (Reports).
1.11	External Facilities	
1.11.1	Car Parking	The Supplier shall ensure the Data Centres site includes allocated space for car parking for employees, contractors and visitors, and includes designated parking space for disabled parking at the closest part of the car park to the entrance of the main building.
1.11.2	Heavy Goods Access	The Supplier shall ensure external areas of a Data Centre's site provide sufficient road capacity and access into, and within, the site to allow heavy goods vehicles to enter and move around the site (e.g. via perimeter to loading bay and engineering plant areas of the site). If Data Halls are located below ground and/or on the first floor or above, the Supplier shall provide two heavy goods lifts with a minimum load capacity in excess of 2.5 tonnes.
1.11.3	Building Access Ramps	The Supplier shall ensure that all external steps and raised loading/staging areas within a Data Centre's site offer ramp access or other means of access for use by disabled personnel, with ramps providing ready up/down transfer of goods where lifting equipment to the loading/staging area is not available.
1.11.4	Plant Room & Plant Segregation	The Supplier shall ensure high-voltage, industrial and externally sited mechanical and electrical (M&E) plant is located within designated plant rooms and segregated plant-only areas of a Data Centre's site.
1.11.5	Lightning & Flood Protection Systems	The Supplier shall adopt measures to prevent, contain and manage the risk of lightning strikes, flooding and water run off on any part of the Data Centre site with the provision of lightning protection filters to incoming power and communication lines.
2	Facilities Service Management	Requirements in relation to the requisite levels of quality, resilience and performance of the Services
2.1	M&E Asset Lifecycle Management	
2.1.1	Asset Lifecycle Management (ALM) Policy	The Supplier shall maintain a defined policy and set of standards for the management of all facilities M&E assets (the " ALM Policy "). This includes a comprehensive asset management plan and process that cover all stages of the asset lifecycle (including acquisition, implementation & assignment, reporting, maintenance and disposal) and the creation and maintenance of a central asset catalogue used to hold and maintain information about every asset, and its locations.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
2.1.2	Asset Identification & Cataloguing	The Supplier shall assign a unique asset identifier to each M&E asset deployed at the facility (or in inventory) and shall ensure that each asset is tagged and registered in the central asset catalogue in accordance with the ALM policy.
2.1.3	Routine & Preventative Maintenance	The Supplier shall plan and undertake routine and preventative maintenance in order to adhere to the ALM policy which shall be executed strictly in accordance with the operational maintenance requirements for each specific asset. The Supplier shall develop and put in place a routine/preventative maintenance plan for each asset to plan and generate maintenance service orders, assign resources and track maintenance costs and parts.
2.1.4	Remedial Component Maintenance	The Supplier shall ensure that the remedial component maintenance adheres to the ALM policy and shall execute such maintenance strictly within the risk and performance tolerances of each specific asset. The Supplier shall perform asset component remediation so as to ensure that all assets are running at a good performance level; the requirement for remediation will result from both proactive (e.g. routine maintenance) and non-emergency reactive (e.g. fix on fail) asset maintenance situations.
2.1.5	Emergency Component Maintenance	The Supplier shall provide emergency component maintenance in accordance with the ALM policy. Such maintenance is triggered in response to an emergency reactive (e.g. fix on fail) asset failure situation that requires immediate component maintenance or replacement in order to contain and manage the critical business or operational risk impact caused by the asset component failure.
2.1.6	Deployment and Decommissioning	The Supplier shall ensure that the deployment and commissioning of facilities assets is fully planned, executed and managed in accordance with ALM policy, and the asset catalogue updated to reflect this. The Supplier shall ensure that plans and procedures are executed and managed for the decommissioning and disposal of all assets at their end of life, and the asset catalogue updated accordingly. The Supplier shall adhere to and enforce all regulatory policies for disposal of specific assets.
2.1.7	Spares & Inventory Management	The Supplier shall ensure that all replacement/standby assets and all relevant and associated engineering spares are stocked either locally onsite or offsite, to enable maintenance to be conducted effectively and efficiently, in line with Service Levels. The Supplier shall ensure that planning, processes and resources are in place to manage the spares inventory.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
2.1.8	Warranty Management	The Supplier shall ensure all facilities M&E assets are supplied with an initial warranty and support contract (which unless otherwise agreed will be renewable on expiry if needed). The Supplier shall also ensure that these warranties are centrally managed and controlled so that renewals and extensions of warranties are planned and budgeted for, in support of Service Levels and the ALM policy.
2.2	Service Continuity Management	
2.2.1	Facilities Service Continuity Planning	The Supplier shall ensure that the Data Centres used to deliver the Services are configured and specified to meet Tier III Uptime Institute Certification for system and architecture or equivalent and TIA-942-A1 (2013). The Supplier shall maintain a facilities service continuity plan which will be an integral part of the overall Business Continuity Plan of the Customer-Supplier ecosystem for the Data Centres and the Services.
2.2.2	Disaster Recovery	The Supplier shall comply with its obligations set out in Schedule 6.7 (Business Continuity and Disaster Recovery).
2.3	M&E Capacity Management	
2.3.1	Facilities Services Demand Management	The Supplier shall be responsible for facilities demand management. This is essential to ensure that the requirements, volumes and timing of Founder Customers and Future Customers are understood individually and collectively so that the facility M&E and floor space demand profile is accurately forecast and the management plan developed. The Supplier should then make sure this demand profile feeds into the facilities capacity planning and sizing plan.
2.3.2	Capacity Planning & Sizing	The Supplier shall ensure the capacity of the Services is driven by and can supply the demand forecast. The Supplier shall ensure that there is flexibility in the provision of power supply between 4kW and 21 kW (as a minimum) per Cabinet. Forecast M&E requirements must be understood in detail and regular planning and sizing analysis conducted to ensure that there is sufficient capacity to cater for existing, near-term and strategic future demand, including contingency/backup services.
2.3.3	Capacity Monitoring & Reporting	The Supplier shall ensure all Critical Infrastructure Services are proactively monitored and controlled to ensure that there is sufficient capacity to cater for current operational demand, which must include the ability to furnish fluctuating load requirements. Regular capacity usage and availability reporting, in accordance with the requirements set out in Schedule 3.4 (Reports), must be used in order to ensure transparency and accuracy of capacity usage.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
2.3.4	Capacity Utilisation Optimisation	The Supplier shall maximise efficiency of M&E through optimised capacity utilisation of the Services. The Supplier shall monitor and report on M&E available capacity and latent demand.
2.4	M&E Supplier & Vendor Management	
2.4.1	Day-to-day Sub-contractor Engagement	The Supplier shall ensure that there are effective processes and resources in place to manage the day-to-day engagement with all potential and existing Sub-contractors. Different types of Sub-contractors will require designated engagement strategies and processes, depending on the scope and scale of their involvement. The scope of engagement will typically include commercial, contractual, sales/support, training/accreditation and assurance by the Supplier.
2.4.2	Supplier Technical Relationship Management	The Supplier shall provide specialist technical relationship managers who shall engage with certain types of Sub-contractors where there is a technical account manager in place. Example Sub-contractor types that would require technical relationship management include, without limitation, the following: power, cooling, network connectivity, integrated building management, environmental monitoring, fire detection & suppression, HVAC and security management.
2.4.3	M&E Support for Facilities Procurement	The Supplier shall utilise specialist support from M&E subject matter experts (SMEs) to define the requirements and preferences for new assets and services being procured.
2.4.4	M&E Product/Vendor Evaluation	The Supplier shall utilise M&E SMEs to provide specialist consultancy advice and support to the process of reviewing and assuring the product/vendor proposal and to participate as required in the evaluation team for new products and vendors.
2.4.5	M&E Support for Contract Negotiation	The Supplier shall utilise M&E SMEs to provide specialist consultancy advice and support to the process of negotiating M&E contracts for new products and vendor services.
2.5	Environmental Monitoring	
2.5.1	Environmental Monitoring Planning	The Supplier shall conduct regular environmental monitoring at the Data Centres including, without limitation, the sensing of specialist environmental conditions (e.g. humidity in the data hall) or general environmental management (e.g. waste storage and disposal). All environmental monitoring will be planned and conducted by the Supplier in order to inform and support integrated environmental control.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
2.5.2	Environmental Sensor Management	The Supplier shall ensure all environmental sensors on Data Centres (internal and external) will be subject to regular functional testing and sensitivity calibration to ensure that the assets and zones that they monitor are protected from environmental hazards and events.
2.5.3	Environment Monitoring & Reporting	The Supplier shall ensure that planned and existing environmental monitoring sensors and tools are effective, in good operational condition, monitoring their environments and reporting information as expected.
2.5.4	Site Environment Checks (External)	The Supplier shall conduct and/or organise external site checks on a regular basis to ensure that a Data Centre's exterior features and areas are kept under acceptable environmental control. The Supplier shall log site checks and the outcomes of the checks including reference to any issues and agreed actions recorded in writing in accordance with Schedule 3.4 (Reports).
3	Facilities Service Support	Requirements in relation to the business and operational processes and capabilities required for operational delivery of the Services
3.1	Demand & Supply Management	
3.1.1	Long-term Demand Planning	The Supplier shall undertake long-term demand planning for the Services taking into account the demand for the Services that will exist throughout the lifetime of the Framework Agreement, driven by existing hosting contract expiries and transition/ growth of existing facilities services. Long-term demand planning is essential to assess the timing and volume of new business and the Supplier should plan for this forecast demand profile.
3.1.2	Asset Sourcing & Supply Planning	In response to the projected facilities demand driven out of demand planning, the Supplier must define a strategic sourcing plan and source assets and service supply to match short and long term demand in the most cost effective way.
3.2	Customer Account Management & On-boarding	
3.2.1	Customer Account Planning	The Supplier shall ensure each Customer is treated and managed as an individual customer account. The Supplier shall provide business-to-business (B2B) customer account planning which shall include business planning, targeted new account prospecting, customer account acquisition and on-boarding, existing Customer account management and account portfolio management.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
3.2.2	Customer Relationship Management (CRM)	The Supplier shall ensure that there are effective processes and capabilities in place to manage Customers and Potential Customers. The client relationship management processes to be put in place by the Supplier will include B2B marketing, sales and support and engagement with Customer stakeholders from the business, commercial, risk and technical domains.
3.2.3	Communications & Liaison	The Supplier shall provide targeted and tailored communications to individual customers, using the Customer's preferred channel(s) in accordance with Schedule 6.1 (Governance).

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
3.2.4	Customer On-Boarding	<p>The Supplier shall provide new Customers with a collaborative on-boarding service to provide support and assurance to Customers in order to assist Customers to plan, de-risk, accelerate and facilitate a successful inbound transition into a Data Centre from their existing facility.</p> <p>This support and assurance shall include the following Services:</p> <ul style="list-style-type: none"> • Providing the Customer with information about their cabinet locations within the Data Centre including the proximity of the cabinets to the relevant Data Centre facilities and services (including cable run distances). • When rack layouts and patching schedules are provided by the Customer, providing assurance services to the Customer to ensure that the rack layouts and patching schedules are optimal (including with the capacity available in the Data Centre). The rack layouts and patching schedules shall be based on the asset list and patching schedules supplied or agreed by the Customer. • When rack layouts and patching schedules are not provided by the Customer, providing rack layouts and patching schedules for the Customer's equipment. The rack layouts and patching schedules shall be based on the asset list and patching schedule agreed by the Customer. • Facilitating all onsite activities to enable any required telecommunication provider surveys and circuit commissioning activities to occur. • Analysing the Customer migration plan and providing appropriate advice and suggesting appropriate mitigation strategies relating to risks associated with the on-boarding to the Data Centre. • Accepting and assisting in the management of deliveries of inbound Customer equipment. • Assisting the Customer to optimise the density of the racks utilised with a view to maintaining a Cabinet Space Density and/or a Cabinet Power Density of a least 60% across its cabinets and seeking to avoid potential capacity shortages and location inefficiencies. • Assisting the Customer to ensure that the kW capacity of equipment installed does not exceed 100% of the capacity commissioned for use as identified in the prevailing Service Request Matrix.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
3.3	Change Management	
3.3.1	Project Portfolio Management	The Supplier shall plan, manage and resource its portfolio of changes and projects scheduled to occur at the Data Centres. The Supplier shall identify, and notify the Framework Authority of, the dependencies and the business, technical and operational impacts of these changes, along with their cost management and risk management.
3.3.2	Change Management	The Supplier shall plan, manage and report on all changes and projects undertaken by the Supplier that directly relate to or impact upon the Services.
3.4	HSE Training Services	
3.4.1	Training & Certification Policy	The Supplier shall develop, implement and maintain a training and certification policy to ensure that all employees of the Supplier, agents and contractors hold the certification and have completed all necessary training in order to carry out their respective roles in accordance with prevailing laws and this Framework Agreement.
3.4.2	Training Planning & Budgeting	The Supplier shall ensure that all training and certifications required by law and/or as designated by the training and certification policy, are proactively planned and budgeted for including training and certification forecasting and trainer/accreditor engagement as necessary.
3.4.3	Training Provision	The Supplier shall ensure that the training and certification policy is efficiently and effectively discharged, such that training is delivered to all relevant staff and Sub-contractors cost-effectively within known operational constraints.
3.4.4	Certification Management	The Supplier shall ensure that all employee training certifications are clearly noted, documented and managed so that staff are only allocated roles and tasks for which they are suitably accredited, as designated in the training and certification policy. In addition, the Supplier shall ensure that any impending accreditation expiries or training renewals/follow-ups are proactively managed and fed into the training planning and budgeting process.
3.4.5	Organisational Capability Review	The Supplier shall review the organisational capability of the Data Centre staff and employees on a 6 monthly cycle to ensure that there is a necessary and sufficient level of technical, operational, M&E, security, assurance and management capability to run and operate the site. The Supplier shall use such reviews to determine training and recruitment plans.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
3.5	Miscellaneous Building Services	
3.5.1	Structural Building Maintenance Services	The Supplier shall manage all structural building changes, building projects and building fabric maintenance at a Data Centre's facilities, including, without limitation, comprehensive planning, project management, costing, Customer engagement and the preparation of operational impact assessment for all building works within and across a Data Centre's site.
3.5.2	Cleaning & Environmental Services	The Supplier shall ensure the Data Halls and the exterior of the equipment cabinets undergo annual deep cleaning to ISO14664 Class 8 standard and quarterly less invasive cosmetic cleaning to floors and surfaces. The Supplier must provide proactive and reactive cleaning and hygiene management of the Data Centre and its surrounding external environment within the perimeter of a Data Centre site. This includes external environmental services such as waste management, pollution control, rodent control and spillage containment.
3.5.3	Ancillary Equipment Rooms	The Supplier shall provide secured storage and safekeeping of all ancillary equipment used to maintain the building(s) and Data Centre physical structures (e.g. mobile/light engineering plant, cleaning equipment, trolleys) when not in use by Data Centre staff.
3.5.4	Visitor Reception Area	The Supplier shall ensure all visitors to a Data Centre will be directed to the main visitor reception area in order to be greeted, checked in and (where necessary) provided with the relevant security access passes. This activity is performed at the visitor reception area. The Supplier shall provide seating for visitors to use.
3.5.5	Customer Hot Desks	The Supplier shall provide a single room or designated area that will be used solely for the purpose of conducting engineering work, holding informal meetings, workshops or ad hoc breakout sessions. The Supplier shall provide internet connectivity to the designated areas.
3.6	Data Centre Inter-connectivity WAN	
3.6.1	Inter Data Centre WAN - Connectivity	The Supplier shall provide and maintain the infrastructure necessary to allow Customers to connect to a "data centre to data centre WAN", including by providing and maintaining space within telecommunication building entry ducts and cable chambers for the installation of cabling that carries Customers' circuits (use of the WAN by Customers, including any encryption requirements, may be requested as an Additional Service).

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
4	Facilities Assurance	Requirements in relation to the functions, processes and capabilities required to ensure comprehensive quality management and assurance of the Services
4.1	Risk Management	
4.1.1	Facilities Threat Model	The Supplier shall ensure there is an up to date, documented threat model in place for the Data Centres identifying and analysing potential vulnerabilities and threats. The Supplier shall regularly review and use the threat model in order to determine and assess prevailing or potential attack vectors.
4.1.2	Facilities Risks & Controls Framework	The Supplier shall use the Facilities Threat Model and other relevant sources of intelligence to develop, populate and manage a risk framework. This framework is the basis of operational risk management within a Data Centre and shall document and categorise the relevant risks to a Data Centre facilities. For each documented risk the Supplier shall ensure at least one control exists to enable the prevention and containment of any risks that become triggered into live issues within a Data Centre's operation.
4.2	Policy & Standards	
4.2.1	Operational Governance Policy	<p>The Supplier shall develop, maintain and implement the following policies:</p> <ul style="list-style-type: none"> • Risk Management • Environmental • Health and Safety
4.3	Service Quality Assurance	
4.3.1	Service Desk	The Supplier shall provide and manage a 24/7 Service Desk which shall provide a centralised communication point capable of accepting email or telephone calls for all Customer Incident reporting, problem solving and technical assistance for Customers. The Service Desk shall receive and manage Customer requests and update Customers on the progress and completion of activities requested by the Customer (including problem and incident management and technical and operational support). The Supplier shall ensure that the Service Desk interfaces with the Customer Help Desk.
4.3.2	Site Quality & Accreditation Management	The Supplier shall provide and maintain an integrated quality and accreditation management function to ensure that a Data Centre site is fully compliant with the Standards and Laws.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
4.3.3	Site Operational Quality Audit & Review	The Supplier shall ensure that all quality reviews and statutory audits are conducted as designated and on time to monitor compliance with all applicable site operational policies, codes of conduct and standards and shall report the findings of such reviews and audits to the Framework Authority.
4.3.4	Legal, Regulatory & Commercial Assurance	The Supplier shall ensure that capability and capacity is in place to provide internal or external advisory support and specialist assurance services when required by the Framework Authority or a Customer.
4.4	Governance & Compliance	
4.4.1	Operational Controls & Compliance	The Supplier shall audit the controls put in place to ensure that operational processes and procedures comply with the requirements of the Framework Agreement and Call-Off Agreements.

4. ADDITIONAL SERVICES

Ref	Service	Description
4.1	Cabling	
4.1.1	Data Centre Structured Cabling	The Supplier shall provide and connect requisite structured cabling (being Backbone Cabling and Horizontal Cabling) within the Data Centres. The Supplier shall route cables through overhead cable trays or under raised floors depending on the design and usage of the Data Hall floor and the nature of other utilities and services running therein (e.g. ventilation/cooling ducts). Terminations for each fibre optic structured cable shall be a Lucent Connector (or equivalent) and for copper structured cabling, the terminations shall be RJ45 terminations.
4.1.2	Data Centre Power Cabling	The Supplier shall provide power connectivity to each Cabinet with IEC 60309 (commando) presentation. The Supplier shall route cables through dedicated power trays, which must have sufficient capacity for future expansion in the provision of new cables.

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Ref	Service	Description
4.2	Floor Strengthening	
4.2.1	Floor Strengthening	<p>If the Customer requires floor strengthening within Dedicated Data Hall Space that have a "secret" or "top secret" security classification to accommodate equipment with a floor loading in excess of the Type 1 standards specified in item 1.1.2 (i.e. where floor loading is required to meet either Type 2 (equivalent to 1,528 kg/sqm) or Type 3 (equivalent to 1,831 kg/sqm) levels to cater for the relevant equipment or cabinets), the Supplier shall strengthen floors to this enhanced standard as an Additional Service following receipt of a Change Request from the Customer under the Change Control Procedure.</p> <p>Floor Strengthening is not available as an Additional Service for other types of Commissioned Facility (i.e. those carrying an "official" security classification).</p>
4.3	Power	
4.3.1	Power Strips	<p>The Supplier shall provide vertically rack mountable 24 port power strips specified at either single phase or three phase (and ensure that the power strips are fed from diverse and separate circuits to enable an A and B feed for resilience). The power strips shall be installed and connected to the local commando sockets ready to use.</p>
4.4	Inter Data Centre WAN	
4.4.1	Inter Data Centre WAN - Usage	<p>The Supplier shall provide use of the inter Data Centre WAN referred to in item 3.6.1 by the Customer as set out in Schedule 3.2 (Pricing).</p> <p>Inter Data Centre WAN Usage may be requested for either of the following:</p> <ul style="list-style-type: none"> Diverse Route Inter Data Centre WAN - The Diverse Route Inter Data Centre WAN shall provide two different cable routes between each Data Centre. Each cable shall be routed diversely throughout the building and in external cable duct routes with no single point of failure. Single Route Inter Data Centre WAN - The Single Route Inter Data Centre WAN shall provide a single cable route between each Data Centre without any consideration for resilience.

OFFICIAL

CH Framework Agreement Schedule 3.1 (Service Description)

Ref	Service	Description
4.5	Intelligent Hands	
4.5.1	Intelligent Hands	<p>An Intelligent Hands service (as described below and in Schedule 4.1 (Supplier Solution)) shall be provided to Customers as and when requested by the Customer for "official" Commissioned Facilities:</p> <p>On-site support services may involve:</p> <ul style="list-style-type: none"> Assisting the Customer to identify Customer equipment faults. Observing the condition of Customer equipment, functionality and indicator light status and reporting to the Customer. Performing re-boots and power-cycling of equipment or soft reboot (performed via keyboard) when possible. Securing cables and connections. Organising and labelling cables and visually verifying connectivity. Testing and fault finding of structured cabling. <p>The Charges for the Intelligent Hands service for Commissioned Facilities located within Dedicated Data Hall Space that have a "secret" or "top secret" security classification shall be determined in accordance with the Change Control Procedure.</p>

5. SECRET AND TOP SECRET SERVICES

5.1 Without limiting any other requirements set out in the Framework Agreement or any Call-Off Agreement, if any of the Services to be delivered by the Supplier under a Call-Off Agreement are required to meet a "secret" or "top secret" security classification (as specified in the relevant Service Request), the Supplier shall ensure Dedicated Data Hall Space made available for receipt of those Services complies at all times with the security requirements set out in this Schedule 3.1 (Service Description) for the processing of information designated with a "secret" (or, as applicable, "top secret") security classification, together with any further security requirements specified by the Customer for the processing of such classified information ("**Classified Security Requirements**").

5.2 The Classified Security Requirements shall:

5.2.1 be determined by the Customer under the relevant Call-Off Agreement by reference to relevant security classification standards and controls, including those described in the Government Security Classification Policy and controls set by CPNI and Pan Government Accreditation ("**PGA**");

5.2.2 incorporate (as a minimum) the features of physical and environmental security set out in Part A (for "secret") or Part B (for "top secret") of Annex 1 of this Schedule 3.1 (Service Description) as applicable;

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

- 5.2.3 incorporate the features of IT and related security protection determined by PGA; and
 - 5.2.4 be applicable only to those Services which are required to be provided from a Dedicated Data Hall on a "secret" or "top secret" basis (as specified in relevant Service Requests).
- 5.3 Without limiting Schedule 3.8 (Data Centre Onboarding), the Supplier:
- 5.3.1 shall demonstrate to the Customer's satisfaction that each Dedicated Data Hall used for the provision of Services on a "secret" or "top secret" basis is located within an Approved Data Centre that meets and complies with the Classified Security Requirements prior to delivering those Services; and
 - 5.3.2 acknowledges that the Data Centre Assurance Criteria for such Approved Data Centres may be updated from time to time by the Framework Authority to reflect changes in the Classified Security Requirements in accordance with paragraph 5.1 of Schedule 3.8 (Data Centre Onboarding).

OFFICIAL

CH Framework Agreement
Schedule 3.1 (Service Description)

Annex 1

Classified Security Requirements (Minimum Features)

REDACTED