Co-location
Service Definition

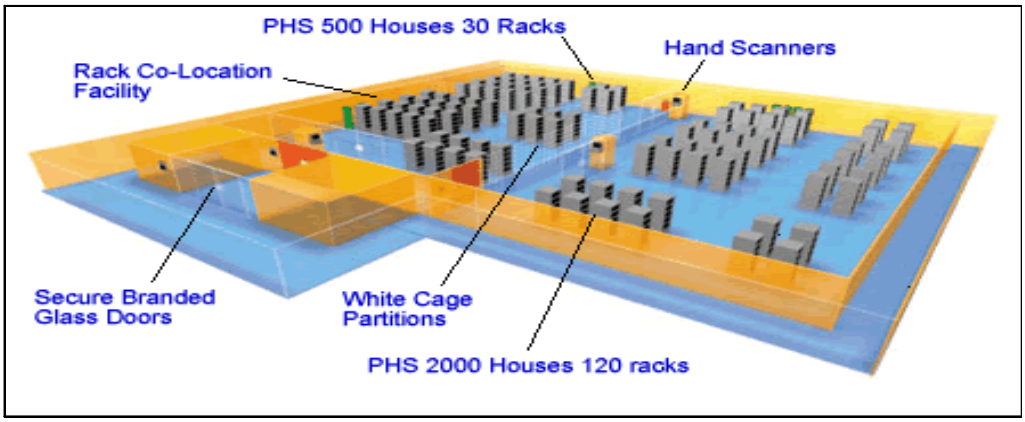
SD008 v1.2
Issue Date 18 Nov 08

inTechnology

Co-location Service Definition

Service Overview

InTechnology provides the Customer with a highly secure computing environment with 24 hour A/C power, UPS with emergency generator back-up, HVAC, fire detection and suppression and comprehensive security measures to co-locate their equipment. InTechnology's technical space offers our Customers the ability to leverage the investment, network and services of InTechnology, rather than investing, developing and managing their own facility.



InTechnology's technical environment offers two categories of space, which include fully secure lockable data cabinets through to private suites customised to Customer specific requirements. Technical support offers base level hands and eyes support, but can be tailored to meet advanced requirements, as an example hardware procurement and installation.

Technical space is currently available in all InTechnology data centres.

Benefits

Customers are offered the ability to outsource the management of their data centre services, which provides the economies of scale that enables them to improve service, whilst reducing cost and permitting capital to be used more effectively elsewhere within their business.

Customers outsourcing to InTechnology's data centres will improve there:

Performance	InTechnology's managed and resilient high bandwidth network.
Security	State of the art security via palm scanners, photo ID proximity cards etc.
Scalability	Faster and flexible network expansion..
Reliability	Provides highly reliable and secure service platform for mission-critical data management.
Cost Savings	Conserves or re-deploys capital that would have been spent on expanding network and technical space.
Time to Market	Much quicker time to market as Customer utilises ready installed technical space and infrastructure.
Corporate Focus	Allows Customers to focus on its key lines of business and delivery to their end users.

InTechnology's technical space provides Customers with geographical diversity and business cover extension, whilst minimising the capital investment in facilities, hardware and network infrastructure.
Features

Geographic Diversity	Data centres in East India Dock, Islington and Goswell Road London, Reading and Harrogate, N. Yorkshire.
Private Suite	Variable sized secure suites to host multiple cabinets.
Co-Location	Lockable cabinets within a fully secure co-location technical space.
Physical Security	Employment of strict security policies complemented with proximity card readers and video surveillance providing full audit control and logging.
Redundant Power	Redundant UPS with automatic transfer to permanent onsite generators with power configured to an N+1 standard.
Heating, Ventilation & Air Conditioning	Installed to N+1 standard, providing a monitored consistent temperature and humidity environment.
Diverse Fibre Entry	Diverse fibre entry into the data centres and multiple common raisers to diversely located telecommunication "meet me rooms" from multiple carriers.

Service Definition

Private Hosting Suite Features and Specifications

Private Suites are constructed of de-mountable partitions are available within the technical space and measured in unit sizes. A unit is equivalent to a cabinet size of 600mm (w) by 1000mm (d) 42u (h) with 8 amps of power.

A number of pre-configured Private Hosting Suites are in a state of readiness for quick availability and are supplied on an as seen basis. Customers who require Private Hosting Suites designed to their individual requirements will be constructed ensuring the Customer's need is matched exactly. Be-spoke Suite design begins with the InTechnology Sales and Facilities persons, preparing a "Private Hosting Suite" worksheet, detailing all the Customer requirements. This will be agreed by all parties and signed, from which a scope of work and cost estimates will be provided. After the Customer signs the contract, the order is submitted and the works order sent to InTechnology contractors for construction. Construction is usually completed within 40 to 60 days.

Co-location Space Features and Specifications

Co-Location is a section of technical space, enclosed by partitioned perimeter and secured with proximity security and monitored by CCTV. Co-location facilities feature fully enclosed lockable data cabinets for Customers who do not require the full space of a Private Suite to house their technical equipment. Managed network connections can be provided to this equipment, with optional services, such as Managed Back-up, Internet connectivity, Managed Firewalls and both physical and 'virtual' servers.

Cabinets: The technical space features fully enclosed lockable metal cabinets that provide physical and visual isolation and increased security for Customer Equipment. These cabinets provide front and rear access for ease of installation of Customer Equipment.

Specifications are as follows:
Cabinets are 600mm (W) x 980mm (D) x 990mm (H).
19" rack (wide)
42U rack mount units (high)
2 x Rear mounted cable management trays
6 x "Top Hat" fans
Front and Rear removable doors with unique locks
2 x 12 way power distribution strips with sockets designed to local country standards
2 x 16Amp 240volt AC power feed, 50 Hz supply.
1 x on-line power measuring unit (consumes 2U – very shallow space at cab rear)

Although both supplies are energised under normal circumstances, InTechnology only considers power 'unavailable' when neither supply is energised; please see the SLA for details.

Under standard commercial terms, equipment supplied in each rack can consume up to 8 Amps of power. With prior written agreement, additional power can be drawn above 8 Amps; this will be charged per Amp per calendar month at the prevailing rate. In the interest of protecting the infrastructure, the absolute maximum power draw within any rack must not exceed 12 Amps. If InTechnology determines that excess power is being drawn without agreement or with agreement but above 12 Amps, InTechnology will insist that consumption is reduced. Under extreme circumstances InTechnology may switch-off equipment and provide retrospective notice in order to protect the infrastructure for all clients.

Data centre Power

Un-interruptible Power Supplies (UPS) are provisioned in an N+1 configuration and designed to supply full power to all essential services in the event of a mains power failure or fault. UPS backup power supporting all Customer and InTechnology equipment will provide power for a minimum of 10 minutes at 100% load.

Generator systems are configured for auto-start and will typically start up within 45 seconds of a mains grid power failure. This power generation is provisioned to an N+1 configuration for resilience.

Generator fuel tanks on-site provide capacity to run generators indefinitely at 100% site load. Fuel tank top-up contracts are in place with suppliers to maintain the fuel supplies in an emergency.

Emergency lighting is provided as per building codes and regulations. In the event of a power failure, emergency lighting will continue to operate. Once the generator restores power, all lights and non-essential equipment in the data centre will regain power and become fully operational

HVAC Design

All of the air conditioning equipment is specifically designed to support typical computer room environments. These systems are designed to provide a constant temperature of 21°C (±10% of this temperature) and a relative humidity of 50% (+15 / -10% of this humidity).

All data halls operate redundant air handling units and particle filters are installed to keep dust contamination to a minimum.

Fire Alarm / Detection / Suppression

The data halls have highly sensitive, early detection and warning systems installed, which automatically notify the 24X7 service management staff immediately to any possibility of fire. This early warning places the system into alert mode for further detection to be completed. Dependant on the data centre, suppression of fire is either achieved via gas or water discharge.

Data Centre Location	Suppressant System
Harrogate	Gas
Goswell Road London	Water
Global Switch London	Gas

Physical Security

All data centres feature stringent electronic security control and policies. ID proximity access cards are utilised as the first level of security beyond the 24 x 7 security desk.

CCTV

All data centres feature CCTV located at points of entry, including common areas within the technical space. CCTV can be monitored centrally and remotely and the recording is digitally archived.

Options

Suites are configured within the technical space using de-mountable, part solid and part caged, metal partitions. Construction is floor slab to ceiling slab, to maximise Suite security.

As standard, one entrance door with card reader security is installed. As a chargeable service option, this can be upgraded to a palm scanner.

Three-phase power is available as a chargeable option and requires careful planning undertaken as a bespoke project.

Customer Supplied Cabinets

Although most Customers prefer to acquire cabinets via InTechnology, it is possible to supply their own and have the InTechnology Facilities Team install them. This will be treated as a bespoke request and will incur a non-recurring set-up charge for such items as power installation, earthing etc.

If cabinets are larger than the InTechnology standard size, additional recurring charges will apply to cover the additional square footage used.

Non-standard Power supplies

InTechnology can generally deal with non-standard power supply requests, such as three-phase or higher rated single-phase supplies. Again, this is treated as a bespoke request and will incur set-up charges and increased recurring charges, based on the electrical draw.

Generally, these types of supplies can be installed within 15-20 working days from receipt of order.

Customer Co-location access

Co-location Customers must call the InTechnology Support Desk to request access to their equipment for themselves or their representative. Once access is granted, the Customer will be issued with a call reference number, which must be quoted on arrival to site.

When the Customer or representative attends the data centre for access they will be asked for proof of identification before entry is permitted. They will then be escorted to their cabinet location where the door will be opened for them to perform their work.

Once finished, the Customer should contact the on-site InTechnology representative. The cabinet will then be locked and the Customer escorted off-site.

Standard Access Process

Standard access requests are defined as requests that can be fulfilled during the times summarised below: -

Requests before 17:00 hrs, InTechnology will accommodate next working day.

Requests after 17:00 hrs, InTechnology will do their best to accommodate next working day.

Emergency Access Process

Emergency requests are defined as requests that must be fulfilled sooner than the times outlined in the standard request section above. In emergency request cases, InTechnology will provide an escort if one is available.

If a Customer has the need to invoke emergency access, they must place the request through the InTechnology Support Desk. InTechnology Support will contact the relevant data centre and a precise appointment time will be scheduled. This will be communicated back to the Customer with a call reference number.

Upon arrival at the data centre, identification must be shown and the call reference number quoted. Dependent upon arrangements the access will then be approved.

Should a Customer or Customer's representative show up at the data centre unannounced and want access (except owners of permanent passes) no access will be granted, for security reasons.

Hands and Eyes Support

This is a standard service for Co-location and Managed Server Customers. This service will provide the following:

Restarts and Power re-cycling of equipment

I/F Card, Hard Drive and Disc Swaps (Hot Swaps). Available only if the hardware has been supplied by the Customer and accessibility to perform the action is from the outside of the casing. A Hot Swap is defined as a swap that can be performed without having to open the casement.

Software Reboots.

Swap, Connect and/or Re-connecting of existing data cables.

Eyes - General observation of the condition of the system e.g. messages on console (if supplied by Customer), control panel LED's, audible alerts etc.

<u>InTechnology standard Hands and Eyes Support will not provide:</u>

Interface card swaps when the I/F card is not accessible without removing the equipment casing.

Loading/reloading of software

Intelligent trouble shooting of the Customer's equipment.

Any form of cabling either between cabinets or suites.

Software and /or Hardware installations.

Equipment and/or Software Configurations.

Any form of inventories.

Service Level Agreement

InTechnology has designed its Data Centre facilities to offer a highly secure and resilient environment. Each facility is designed and built to a standard and consistent specification, which enables InTechnology to commit to the service availability levels on the following key elements:
- The electrical power to any bus bar of any PDU system located within the Data Centre to which Customer Equipment is connected. For the avoidance of doubt, PDU output circuit breakers and Customer Equipment side power cabling are excluded from this warranty. The ambient room temperature in the Private Hosted Suite or Co-Located Rack, measured at the front of a selection of racks, will remain at 24°C (±10% of this temperature). The average relative humidity in the Private Hosted Suite or Co-Located Rack shall be between 30 and 55%.

Power

InTechnology shall provide reports to the Customer detailing any interruptions to the power supply and the duration of such interruptions. For the purpose of those reports the start time of a Power Incident (the Incident Start Time) shall be defined and measured from the time the failure is detected by InTechnology or is reported by the Customer to InTechnology operational staff whichever is the earlier. The end time of a Power Incident (the Incident End Time) shall be defined as the time at which the power supply can be demonstrated by InTechnology to be available at the PDU bus bar.

Each rack is ordinarily provisioned with two separate feeds, A & B. InTechnology only consider power to be unavailable when neither supply delivers power. Customers should deploy equipment that has dual supplies where possible and connect one to the A feed and one to the B feed. For single supply devices, the customer should consider deploying an automatic switching unit. These units connect to both the A and B feeds and offer a single powered output as long as either the A or B feeds are available. InTechnology does not consider an interruption of only one of the feeds (A or B) as an interruption of power.

In the event InTechnology suffers three or more Power Incidents in a Month, or any single Power Incident in a Month, that lasts for a period equal to or more than one (1) hour, then InTechnology shall pay to the Customer by way of service credits, a sum equal to one hour's Service Charge (exclusive of VAT) for each full completed hour in excess of the SLA, that power is unavailable i.e. 3 hour outage = 2 hours Service Charge rebate. The maximum credit available will be equal to and no more than one Month's Service Charge.

Environment

InTechnology shall provide reports to the Customer detailing any deviations from the defined "ambient room environment" SLA. For the purpose of those reports the start time of a Environment Incident (the Incident Start Time) shall be defined and measured, from the time the Environment SLA deviation is detected by InTechnology, or is reported by the Customer to InTechnology operational staff (whichever is the earlier). The end time of a Environment Incident (the Incident End Time) shall be defined as the time at which the Environment can be demonstrated by InTechnology to have returned within the SLA parameters.

In the event that temperature and/or humidity deviates outside of the levels defined above (a "Temperature/ Humidity Failure"), on five (5) or more occasions in a Month, or any single incident lasts for a period equal to or in excess of one (1) hour, then InTechnology shall pay to the Customer by way of service credits, a sum equal to one hour's Service Charge (exclusive of VAT) for each full completed hour outside the SLA. i.e. 3 hour temperature and/or humidity

variance = 2 hours Service Charge rebate. The maximum credit available will be equal to and no more than one Month's Service Charge.

It is the Customers responsibility to submit a written or email request for service credits to the Customer Support Manager, within 5 working days of a breach of SLA. Requests for service credits outside this timeframe will not be honored. Service Availability For purposes of measuring availability performance against SLA, availability is calculated each calendar month. Service Credits are available where the Service fails to achieve the Availability for that month as specified in this Service Level Agreement.

Service Element	**Availability**	**Equivalent downtime per month (24 x 7 x 365)**
Electrical Power	99.95%	22 minutes
Ambient Room Temperature	99.95%	22 minutes
Ambient Room Humidity	99.95%	22 minutes

Subject to the above, in the event of a failure by InTechnology to provide the service levels identified in the above definitions "electrical power", "the ambient room temperature", "the ambient room humidity" the Customer shall be entitled to service credits which are calculated below.

The Service is unavailable when a Qualifying Fault has occurred and the Qualifying Fault is still continuing at the time of reporting by the Customer or identified by InTechnology. The period of unavailability is the Time to Restore (TTR) for the Qualifying Fault. The TTR for each Qualifying Fault is the time from the Customer notification to the time when the fault is rectified and the Service is restored. At all other times the Service is deemed to be available.

<u>The Availability of Service is measured over a month and is defined as:</u>
Availability (%) = (Total Hours in Month - Total Period of Unavailability x 100%) / Total Hours in Month

NOTE: for the purposes of calculating availability of the Service a calendar month will commence on the first day of each month. Where the Commencement Date (as defined in the Service Agreement) falls part way through a calendar month the first calendar month shall be deemed to commence on the Commencement Date and end on the last day of the month in which the Commencement Date falls.

Service Availability Limitations

For the avoidance of doubt, InTechnology shall not be liable to pay any more to the Customer by way of service credits in any one (1) Month than a sum which is equal to (the VAT exclusive amount of) one (1) Month's Fees regardless of the number of Power Incidents and/or Environmental Failures in that particular Month.
The Customer should acknowledge that the warranties provided above shall not apply in the event that any failure or suspension of the Services arising as a result of a failure of the Customer Equipment, or is caused by any action or omission of the Customer, its employees, agents, sub-contractors or invitees.

InTechnology shall not be liable for any failure to comply with the service levels defined where the Customer is in breach of any warranties set out in the contract. In calculating Service availability the following circumstances are excluded:
Service unavailability as a result of Service suspension pursuant to the Service Agreement.

Service unavailability due to faults on the Customer's side of the service.

Service unavailable due to circumstances created by the client

Faults that do not affect delivery of the Service.

Service unavailability due to planned maintenance.

Service unavailable due to Force Majeure.

Planned maintenance can involve a temporary suspension of part or all of the Service in order to enable InTechnology to undertake vital remedial/maintenance or upgrade work. Controlled outages will always be notified to the Customer at least 7 days in advance and be planned in such a way to have minimum impact on the Customer's operations. Controlled outages will not be classified as Qualifying Faults.

Service Credits

The Service Credits set out in this Service Level Agreement are the only remedy available to the Customer. InTechnology shall pay to the Customer by way of Service Credits, a sum equal to one hour's Service Charge (exclusive of VAT) for each full-completed hour in excess of the SLA based on the following calculation.

Service Credit = (A x Monthly Service Charges) x Full completed hr(s) in excess of SLA) / Number of hours in month

InTechnology designs and supports the best IP solutions for business with a range of applications seamlessly integrating clients' communications needs through the delivery of secure voice, data and mobile solutions.

InTechnology employs 200 people and has data centres in Harrogate, London and Reading.

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