Internet Service Definition

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inTechnology

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Service Overview

InTechnology Internet Service is a permanent Internet connectivity solution. The service connects customers to the InTechnology national network infrastructure and routes Internet traffic via our interconnection with Tier 1 service providers. Access to the Internet is provided to customer sites through a variety of connectivity methods and is available within all InTechnology data centres.

The InTechnology network infrastructure ensures a resilient service with high availability guarantees; these are reflected in the Service Level Agreement. To ensure service levels are maintained all installation, configuration and maintenance of the access link to the Internet is provided as part of the service. InTechnology's dedicated service management centre is able to respond to problems 24 hours a day, 7 days a week.

Resilience in the network infrastructure and the use of advanced monitoring means that InTechnology can provide support remotely from the service management centre. In addition, InTechnology offers a technical support desk to provide a fast and efficient response to all your Internet service related queries.

Service Inclusions/Exclusions

Service Element	Service Inclusion	Service Exclusion
Infrastructure Services	Secondary Email Services Primary DNS resolution DNS Cache Servers NTP Services Domain Name Transfers	Primary Mail Servers Domain Name Registration Mail / Web Screening Virus Checking
Internet	InTechnology resilient connection to multiple Tier 1 Service Providers	Resilient connection to Customer site (see LANnet) Web Servers Web Space Internet Software

Secondary Email Services

InTechnology's service incorporates a secondary email service as a backup facility to the Customer's own SMTP mail server. In the event that the Customer's email server or network connection fails, all incoming emails will be temporarily held on the InTechnology secondary email server from where they will be sent to the Customer’s email server, once the Customer's email server is back online.

Public IP Address Allocation

InTechnology, as an Internet Registry partner of RIPE has devolved authority for its own IP address space. InTechnology also runs its own autonomous system (AS). For Internet connectivity InTechnology assumes clients connecting to the Internet will use network address translation to map internal private Internet addresses to a single public Internet

address. With this in mind InTechnology usually allocates a block of 8 valid Internet IP addresses (/29 subnet mask). Of the 8 addresses assigned, the Customer can use 5 as one defines the 'broadcast' address, one is the network address and one is allocated to the terminating router. Customers requiring additional IP addresses need to make a specific request, via InTechnology, under the rules of RIPE (The IP address governing body). All customers will be provided with a RIPE IP address form and this must be completed before the allocation of IP addresses can take place.

DNS Cache Servers

As part of the service, InTechnology provides DNS infrastructure to resolve IP addresses for outgoing (web, email etc.) requests from users of the service.

DNS cache is a name server, which does recursive queries to find the authoritative answer to an Internet DNS request made by a user. Once this answer has been acquired it is then cached for a finite set period or 'time to live'. Using DNS caching makes popular queries faster and reduces overall bandwidth usage.

Access Methods

InTechnology offers variety of methods to connect to the Customer's location, including ADSL and Ethernet LAN extension connections; the various connections are defined in the appropriate LANnet Service definitions. The Internet service is also available within the InTechnology data centres. Customers subscribing to the InTechnology Hosting Service access the Internet Service using a LANnet 'data centre port'.

Domain Name Registration and Hosting Service

Domain name resolution is a critical part of delivering web content and emails to end-users. The domain name administration service is a chargeable additional service provided by InTechnology to enhance the Internet Service offering. InTechnology manages domain name registration, renewal, transfer and release on behalf of the client. In addition to this, InTechnology provides the authoritative domain name resolution service for the customer domain names that are administered by InTechnology. A highly skilled team is available to validate and implement customer DNS change requests relieving the customer of this often understated business critical function.

<u>Registration</u>
Assuming sufficient information is provided when the sales team take an order for a domain registration, the domain will be registered and set-up within 48 hours.

<u>Renewal</u>
When registering the domain, InTechnology will mark the auto-renewal flag on the registrar's data-base. This means that under normal circumstances after the registration period (ordinarily two years) elapses, the domain name will be automatically re-registered and InTechnology will charge the customer for the renewal. 'Renewing by default' saves potential serious disruption should a customer forget to instruct inTechnology to renew the domain before it expires. It is possible for a customer to opt out of auto-renewal, however we urge customers to think carefully about the potential ramifications of domain name expiration before they opt to do so. Customers who do not wish to renew should send instruction to InTechnology in writing at least six weeks prior to the end of the registration period.
Assuming that InTechnology has not received written instruction cancel auto re-renewal, the registrar will renew the domain name and bill InTechnology accordingly. InTechnology will charge the customer the amount published in the price-book for the renewal at the prevailing rate.

<u>Transfer</u>

Domain name hosting can be transferred away from InTechnology administration or into the administration of InTechnology.

InTechnology will co-operate fully with requests to migrate a domain name away, into the administration of another registrant agent. There is no cost associated with this.

When administration of a domain is transferred to InTechnology from another registrant agent, the transfer charge applies. The InTechnology service desk personnel are experts in the transfer process and will deal with the technical aspects of transfers.

Contract period for the resolution service

Contracts for the domain name resolution service run for 24months. If InTechnology does not receive written instruction to cease auto-renewal of the domain name at least six weeks before the end of the contract, the contract for the domain name resolution service will be renewed automatically for a further 24months. Auto-renewal is offered to protect the interests of the customer.

Separate charges apply for registration / transfer and that of the domain name resolution service (i.e. running the DNS service it's self).

Service Implementation

During installation of the Internet Service, InTechnology will provision and install the hardware and software components of the Internet Service. There are a number of elements to the installation:

1. Connection installation

2. Installation and configuration of the router on the Customer's site (if appropriate)

3. Internet Service delivery.

4. Service hand-over.

Connection Installation

The Internet Service cannot be implemented until the connection circuit between the Customer's location and the InTechnology data centre is installed and operational.

InTechnology will plan and co-ordinate all aspects of ordering, implementation and testing of the connection; please see the LANnet Service Definitions for more details. Clearly this is not required for Internet delivery to a customer's area within an inTechnology data centre.

Router/Switch Installation and Configuration

InTechnology will arrange a convenient time just prior to the final delivery of the connection circuit to install and configure the router/switch at the Customer's site; please see the LANnet Service Definitions for more details. This terminating device is not usually required if service is to be delivered within an inTechnology data centre.

Service Support

InTechnology will manage the Internet Service to the SLA stated below. As part of the SLA, InTechnology will provide remote monitoring from an InTechnology service management centre and onsite support to an agreed Service Level.

Infrastructure Support, Monitoring & Management

The Internet Service is delivered to either a customer site or to the Customer's rack or suite within one of the InTechnology data centres. All data centre connections are supported by a comprehensive support, monitoring and management package, which enables 24 hour monitoring of all elements. The same support, monitoring and management package applies to most LANnet customer connections too; please see the LANnet Service documentation for details.

Errors affecting the availability of the service are escalated to InTechnology's 24x7 service support staff and/or service support groups for immediate action. Some LANnet Service connectivity options have limited or no monitoring and this does not apply. Please see the appropriate LANnet Service documentation for further detail.

Delivery Timescales

This is subject to the timescales for delivery of the specific connection mechanism used to connect the Customer's site to the InTechnology core network. The chosen service connection provider has standard lead times for the delivery of the physical access circuit. Service delivery from InTechnology will be 5 days from the chosen providers 'ready for use' (RFU) certificate being received by InTechnology.

Provision of the connectivity from the chosen provider has a typical lead-time of between 35-65 working days to RFU, therefore the circuit should be ordered at the earliest possible time. This will typically be on signing of the Service agreement.

Internet Service Level Agreement

Three distinct areas of the Internet Service are covered by this SLA:

- Service availability
- Time to restore
- Network performance

InTechnology provides Internet bandwidth through its association with leading Tier 1 Internet service providers.

Service Availability

In calculating Internet availability and time to restore service the following circumstances are excluded:

- Service unavailability as a result of contractual service suspension.
- Service unavailability due to faults on the Customer's side of the service termination point including power or local area network failure.
- Faults that do not affect delivery of the Internet service.
- Service unavailability due to planned maintenance.

Typical committed average availability as listed below. This availability may be reduced dependant upon the LANnet delivery service chosen, please see the appropriate LANnet Service description for more detail.

Availability	**Internet Service Component**	**Equivalent Downtime per month**
99.8%	Internet bandwidth provided to a Service hosted within InTechnology's data centre	1 hours 30 minutes
Please see corresponding LANnet SLA	Internet Bandwidth provided to a remote customer site using LANnet connection	Please see corresponding LANnet Service SLA

For the purposes of measuring availability performance against SLA, availability is calculated each calendar month. Service credits are available where the service fails to achieve the committed average availability for that month.

Services are unavailable at a site when a qualifying fault has occurred and the qualifying fault is still continuing at the time of reporting by the Customer or notifying by InTechnology. For sites with failover, service is unavailable during the period when qualifying faults exist simultaneously on both primary and failover services at the site. The period of unavailability is the time to restore (TTR) for the qualifying fault. The TTR for

each qualifying fault is the time from notification by the Customer to the time when the fault is rectified and the service is restored.

At all other times the service is deemed to be available.

The Availability of Service is measured over a month and is defined as:

Availability (%) = Total hours in month - total period of unavailability x 100% / total hours in month

Network Performance & Availability

Hosts on the InTechnology LANnet Service network are monitored for availability. The hosts are polled on a five-minute interval, failure to respond results in a critical alarm notification within the InTechnology SMC (managed services only). Round-trip-delay is measured on the InTechnology core network; this information is available on the online portal. Please see the LANnet Service description for more detail.

Planned Maintenance

Planned maintenance can involve a temporary suspension of part or all the Internet service, in order to enable InTechnology to undertake vital remedial/maintenance or upgrade work. Controlled outages will always be notified to customers 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.

InTechnology reserves the right to carry out emergency works to maintain the integrity of the network and prevent the occurrence of a more prolonged failure. This may result in a shorter notification period.

Definition of Out of SLA

The Service will be deemed to be outside of the SLA if any of the service components defined in this SLA are less than the stated committed availability. Availability is expressed as a percentage and defined in this SLA document.

Service Credits

InTechnology shall pay to the Customer by way of Service Credit, a sum equal to one hour's Internet Service Charge (exclusive of VAT) for each full-completed hour in excess of the SLA based on the following calculation.

Hours in excess of SLA x (monthly Internet £/720) = Service Credit

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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