

Carelink Hosting Services Facilities Fact Sheet



This fact sheet provides an overview of the high level security, power resilience and optimum operational conditions the provided by the Carelink Hosting Service to our NHS customers, and outlines the facilities and procedures that are in place to protect our customers' critical data and provide continuity of service.

Data Centre

The Carelink service is hosted from the ioko data centre in IX Europe with the option of a resilient service running in Telehouse Docklands

Power Supply and UPS systems: The ioko data centre in has two separate power supplies and full UPS backup systems (220/240V AC). The entire electrical system in the Data Centre is designed with multiple levels of built-in redundancy. The back-up electrical power system is powered by a diesel generator. UPS batteries can sustain AC power supplies under full load for up to 10 minutes. Redundant, onsite fuel tanks provide forty-eight hours worth of generator fuel.

Mechanical Systems: The ioko data centre has reliable heating, ventilation and air conditioning (HVAC) system - to assure optimum conditions for our customers' equipment operation and to help minimise downtime due to equipment failure. The HVAC system in the Data Centre has been designed to consistently provide appropriate airflow, temperature and humidity. The mechanical systems themselves are monitored around the clock, providing additional protection.

An advanced fire detection system continuously samples the air for any indication of fire and warns onsite staff of potential fire hazards, initiating extensive and localised emergency procedures to extinguish any fire at the source

Physical Security: The ioko Data Centre delivers financial-grade security for equipment through multilevel physical security of features and rigorously enforced security policies and procedures at the Telehouse Docklands facility. This includes:-

- Security staff onsite 24x7, with roving security patrols in addition to staff guarding building entries
- Access to the data centre is strictly controlled to prevent forced entry into the facility
- High-density, motion-sensing digital colour closed-circuit television cameras (CCTV) throughout the facility
- Motion detectors and alarm systems are located throughout the facility, with a silent alarm and automatic notification of appropriate law enforcement officials protecting all exterior entrances

The design of the hosting facility specifies a hardened structure that meets numerous physical criteria, ranging from Class 3 or Class 4 standards to local Uniform Building Code. Concrete bollards or other similar barriers are placed around the perimeter of the facility to prevent vehicles from penetrating an exterior wall. External mechanical or equipment yards are secured by fences and concrete bollards and are under 24 hour motion-sensitive video surveillance.

Internet and NHS Connections

The Carelink environment has dual 100 Mb Ethernet connection to the internet and dual 10 Mb MPLS connection to the NHS net, both of these connections are protected by a Checkpoint Firewall-1 NG R55 (ITSEC E3 Certified) firewall.

System Monitoring

The core networking infrastructure, including switches and firewalls, and every server hosted in the Carelink Environment is monitored around the clock. Server monitoring includes network connection, http response, processor usage, disk space usage as well as key processes and services. Any reported problems detected by the monitoring systems are investigated by an ioko engineer.

Backup and Disaster Recovery

A daily incremental and weekly full back up to tape is taken of the file system and registry of every server that is hosted in the Carelink environment. These tapes are then, from the first week in any month, stored on a secure off-site facility for the period of six months.

In addition to this an image of each server is taken prior to installation, and refreshed on a regular basis.

In case of absolute disaster we aim to be able to restore a server, and all data, up to the last available back up to tape, onto suitable alternative hardware, even at an alternative location should this prove necessary.