



PROPELLER



2023 Company Policy Documents

30th September 2023

Applications and Hosting Policy



PROPELLER



Applications and Hosting Policy Document

A requirement of the Company is to provide a secure hosting environment for its clients. The Company regularly undertakes formal risk management reviews, and these have identified that the speed, security and reliability of the service is a fundamental requirement of its own success.

Consequently, the board of directors have developed robust procedures and have forged strategic alliances with a number of reliable and competent organisations to ensure that it maintains a best practice approach in this area. The basis of the service is to ensure that its customers enjoy uninterrupted access to the applications that it provides. The Company overall strategic objectives for the system are: -

- That they be available for use from any location with an internet connection twenty four hours a day, seven days a week with the exception of pre-communicated outage periods for the purpose of planned maintenance and upgrades;
- Be designed and maintained in such a way that no single point of failure exists within the overall system architecture;
- Be regularly tested during simulations and fire drills that form a part of its overall business continuity plan;
- Have sufficient processing power and be designed in such a way to ensure that they work quickly and efficiently;
- Have sufficient hard storage space to cater for the requirements of its own and its customers' needs;
- Be secure against third party attacks;
- Be backed up through the use of a mirrored array meaning that single component failure neither interrupts the service nor losses data;
- Be daily backed up to a further hosting facility as a further insurance against component or hardware failure;

Considering the importance of the issue, the Managing Director undertakes detailed review of the arrangements on a quarterly basis, as well as unannounced audits of the strategic partners' arrangements biannually.

The full roles and responsibilities of the partners is documented and attached to this policy. The policy is reviewed, amended, and signed off annually or when considered appropriate by the board of directors.



A D Hammond
Managing Director

Hosting Arrangements

The latent risks to our hosting systems can be categorised into defined areas. For our applications to be delivered effectively we ensure that:-

- We always have sufficient power available to run our computer array;
- The array is located in a controlled, secure environment free of dust and at a pre-determined temperature;
- That we have multiple options for connection to the internet at sufficient speed and band width to meet our clients requirements;
- That regular penetration testing is conducted of the network and the applications themselves;

The Company maintains ongoing relationships with three strategic partners in order to deliver the service, with each partner responsible for a defined area of expertise.

Data Centre

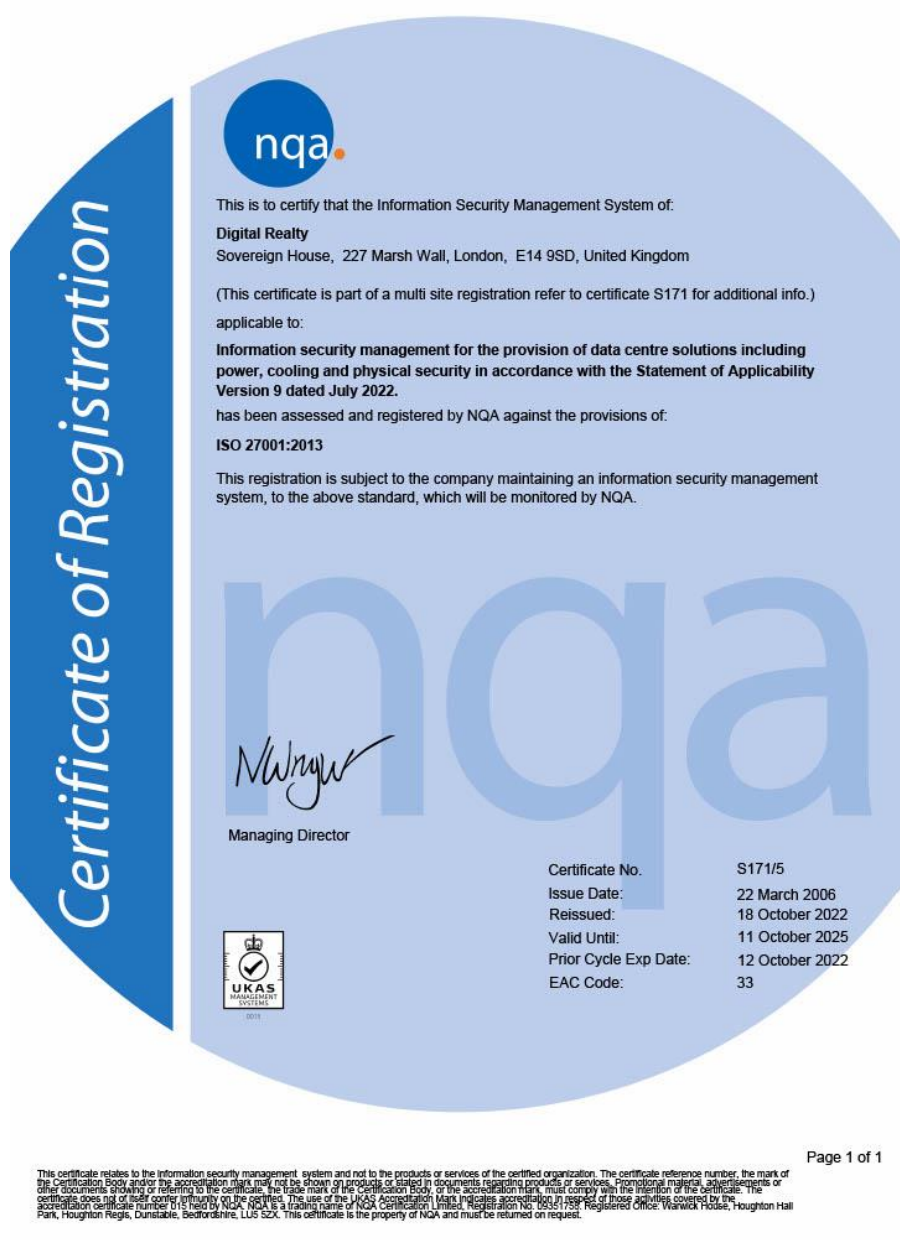
Equinix Digital Realty – Equinix Digital Realty is Europe’s leading provider of premium carrier-neutral data centres, operating facilities in city locations across Europe.

Their data centres provide secure and highly-connected environments for the IT and telecoms equipment that powers the digital economy. The data centres are enabling environments in which the separate networks that make up the internet meet and where bandwidth intensive applications, content and information are hosted.

Our network is distributed over two datacentres in London's Docklands at Digital Realty and at our head office facility in Hertfordshire. Each facility is connected to the other by redundant Gigabit Ethernet circuits and each host autonomous services and independent external Internet connections for both international peering and global transit reach.

The datacentre themselves have stringent arrangements in place to ensure that power is always available to our computers. They maintain six independent generators capable of maintaining an uninterrupted power supply to our systems, even in the event of total power loss from the national grid. Identical arrangements are in place for environmental controls of the hosting environment.

These systems are tested on a three monthly basis with regular and planned maintenance activities undertaken to the service schedule provided by the manufacturer. A copy of their ISO registrations that cover the locations of our equipment are shown on the next page.



Internet connectivity

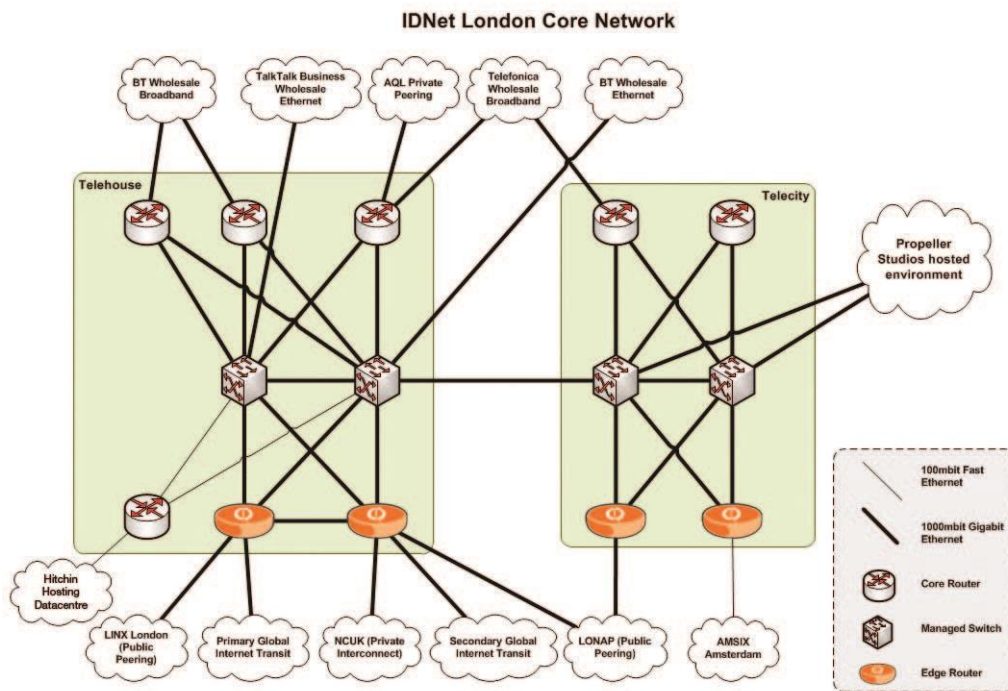
IDNet - Established in 1996, IDNet is a leading technology-driven Internet Services & Communications Provider (ISP/CP), delivering high performance data & telecoms solutions for a multitude of businesses, blue-chip corporations and government agencies throughout the UK.

Their core global Internet connectivity is presented in London at LINX & LONAP, and in Amsterdam at AMS-IX, where they have multiple transit and peering connections with over 500 global networks, enabling them to deliver data from around the world at incredibly fast speeds.

All external circuits are duplicated to ensure redundant failover in the event of an outage. In order to ensure that their own internal network can survive unexpected equipment failure every router and switch is deployed as a pair working in tandem. Should a device fail then their core network will automatically self-heal to route traffic around the problem, maintaining full service, allowing them to replace and repair the

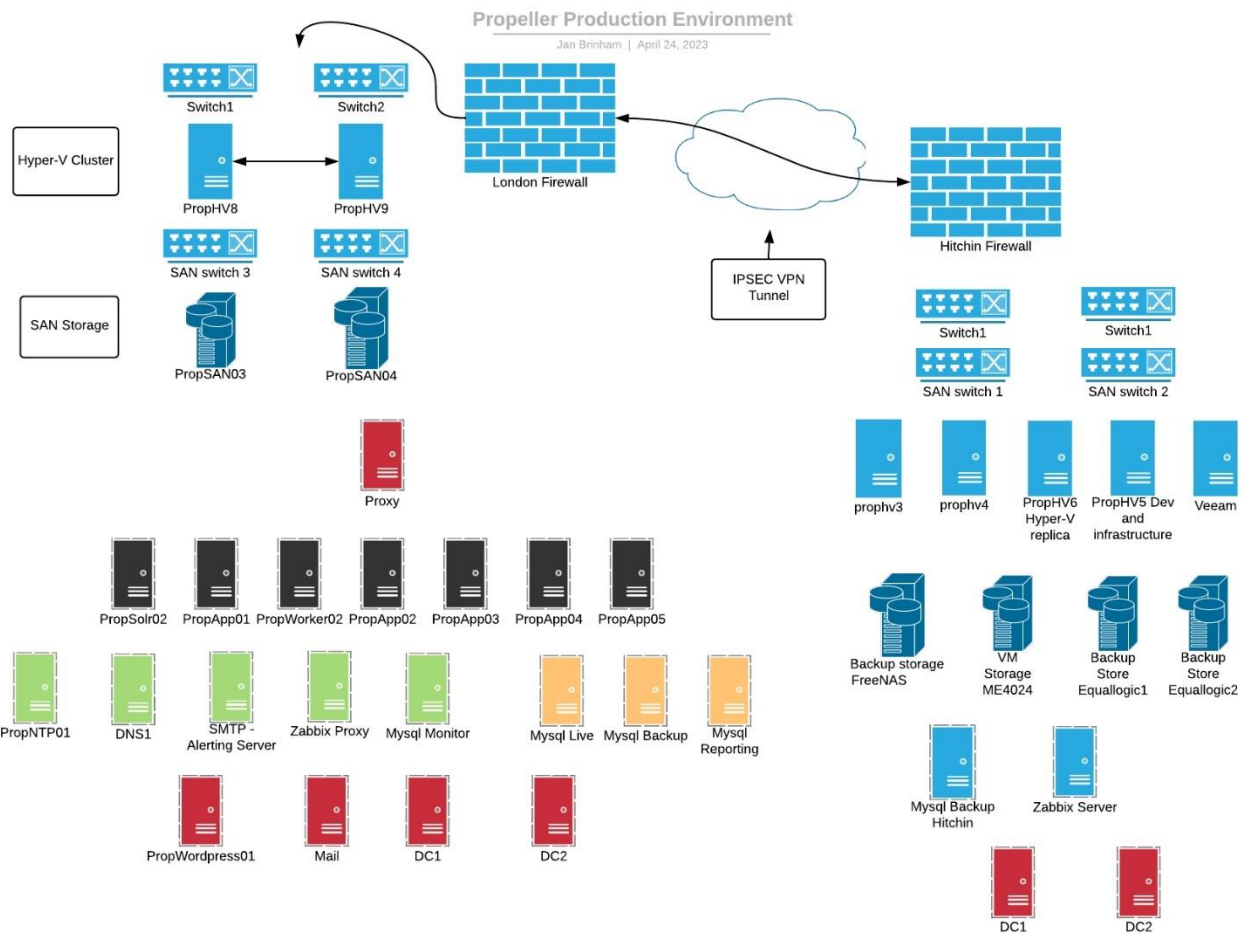
fault without disrupting normal operations. With respect to SAN units used for the purpose of storing data, they operate up to a 30 minute delay in transfer of data between the master and the slave unit. This means that in the event of a total failure between the master and slave, data can be quickly recovered and served from the slave unit while the master unit is diagnosed.

The core network and external connectivity is monitored 24/7 with alerts issued to duty engineers in the event of a failure or unusual traffic event. Where a circuit regularly reaches 70% utilisation the capacity of that link is increased to provide sufficient headroom again.



Our own Server Array

The Company has continually reviewed and improved its own arrangements for the maintenance, security and backup of the network of computers that make up its hosting array. The schematic diagram above depicts the way in which the system is configured.



The primary array – This network of computers, switches, firewalls and hard storage units make up the day to day system that delivers the company’s application hosting services.

The secondary array – This network of computers is located at the company’s own datacentre in Wilbury Way, Hitchin.

The Primary and Secondary Array

The Primary hosted virtualisation platform has been designed to deliver the following:

- Fully Redundant infrastructure
- A high level of security
- Flexible server infrastructure, allowing hot upgrades with minimal downtime
- Flexible, upgradable and resilient storage
- Redundant backups both onsite and offsite
- 24 hour on call support service

The Primary array has been designed so that no single piece of hardware can cause a system wide failure of any service. Utilising the Microsoft Hyper-V 2016 platform and Dell Compellent SCV5020 SAN storage devices, automatic failover of key hardware has been designed, and tested, so that the virtual servers will automatically switch to the live server in the event of a hardware failure.

The hardware is connected using multiple switches configured in a crossover setup. This adds the ability for any single network device to fail without interruption to service.

All data at the Primary array is backed up locally, and then transferred to the Secondary array (Hitchin Disaster Recovery site) during off peak times where historic copies of data are stored.

In the event of any failure our engineers are contacted by email and text message with the details of the failure. They will then respond to any support call within their SLA times:

- 8 – 6 Monday to Friday:
 - Critical Failure : 30 minute response
 - Other Failure : 1 hour response
- 24 Hours:
 - Critical Failure : 1 hour response
 - Other Failure : 2 hour response

In most cases the response times will be far below this. Our aim is to respond to any type of failure within 5 minutes.

RPO and RTO objectives

Our Recovery Point Objective varies depending on the type of data to be recovered. We have an hourly, continuous replication from live, coupled with a 24-hourly, 7-day rolling backup.

Our Recovery Time Objective varies depending on the type of incident and will fit within a 4hr – 24hr window of recovery.

Security of the Primary and Secondary Array

The security configuration at the data centre comprises two dedicated firewalls configured in tandem for fault tolerance. They are locked down to only allow web traffic (Ports 80 and 443) from public internet address. All other traffic is blocked to prevent unauthorised access to critical servers.

Web traffic is being routed through a Mod Security Web Application Firewall, providing another level of protection as public web access does not have direct access to the application servers.

There is access permitted from specific IP addresses to specific ports and servers for management by Propeller Studios and their strategic partners. Communication between servers takes place on an internal private network, not connected to the public internet. The Storage Area Network is also completely offline with no direct internet access.

Fire drills and audits of the system

We have developed a comprehensive and robust series of fire drills and simulated disaster recovery events that are undertaken at planned periods throughout the year.

The table below details these arrangements: -

Monthly fire drill events, reports and audits	Outcomes
Review of the monthly hardware inspection sheets for all hardware that makes up both the primary and secondary array completed on the Companies behalf by the service engineer. Monthly inspections are conducted remotely, using our computers own monitoring systems.	The purchase or upgrade of the system based upon decisions reached by the Managing Director, Operations Director and Director of Application Programming ensuring a robust process to identify and replace at risk items.
Review of the systems performance report during the month, identifying any concerns and suggestions for improvement.	The purchase or upgrade of the system based upon decisions reached by the Managing Director, Systems Operations Manager and Director of

	Application Programming ensuring that the systems performance matches or exceeds the service agreements pledges to clients
Monthly back up data integrity audit between the primary and secondary array and between San units of the Primary array.	A compliance report provided from our Systems Operations Manager confirming the successful replication of data between primary and secondary arrays and duplication of data between the SAN units of the primary array.

Quarterly fire drill events, reports and audits	Outcomes
Pre notified testing of the primary array failover capability.	A rigorous examination of the primary and secondary arrays capacity to function when an item of component hardware failure is simulated. The event is supported by a detailed report, highlighting any concerns or suggestions for improvement which are considered and actioned where required.
Half yearly fire drill events, reports and audits	Outcomes
Physical inspection of the hosting facilities and inspection of the fire drill records of the strategic partner to ensure compliance with the arrangements.	Completed audit inspection form completed by the Director of Application Programming
Physical inspection of the Intranet providers facilities and inspection of the fire drill records of the strategic partner to ensure compliance with the arrangements.	Completed audit inspection form completed by the Director of Application Programming.

EasyPQQ and EasyBOP client access to their own data

Registered users of either application can only ever see the data stored in their own company account. Both applications core logic architecture has been designed to run as a multi-user environment from their inception. Data segregation is enforced through a unique client identifier and is persistent through the application programming logic, the database table relationships, and the file system structure.

Application logic data segregation

Client login sessions are validated on each major page and script, including script-helpers and function library pages. The underlying rule is to check and validate the client's login session prior to any code execution that returns (or potentially makes visible) sensitive data that related to individual specific clients.

Should the client session become corrupt or malformed in any way, the system will flag an error and realise that the client's session is no longer valid. In this case, the client is forcefully logged-out of Intranet where they may then log back in.

An example of a forced log-out may occur if a client tampers with query-string variables while answering a question. The applications will detect an illegal relationship between client and document and force a log-out.

In addition to this validation, client data segregation is enforced multiple times with each identity variable forming a 'chain' back to the client's identity as the source of the validation. If this chain fails, the client is either logged-out, or blank data is purposely returned to the screen.

Database information segregation

This is enforced in the standard database architecture of primary key relationships. The client's unique identifier is used as the basis for most data tables, with complex relationships ultimately forming paths that resolve back down to the client's unique identifier.

File system segregation

Both applications handle file references using the client's unique identifier. For example, File Manager uploads are segregated in to separate physical folders on a per client basis. This ensures Client A's files do not mix with Client B's on any level.

At times the applications will need to generate temporary files. These are always generated with temporary file names which include the client's unique identifier, as well as a time stamp number value down to micro-seconds.

Penetration Testing

Penetration testing is carried out monthly in order to assess the security of our networks and applications. The results of the penetration tests are reviewed during the monthly server committee meeting and remedial actions taken, as and when required. Because of the nature of the internet, new threats are constantly evolving, and our policy ensures that we rigorously monitor the situation and take pre-emptive and proactive steps to ensure that we are prepared for all eventualities.

Encryption at rest

All data stored within our applications is encrypted at rest. This means that in the unlikely event that our security precautions are breached, any data extracted from our systems will be unintelligible to the agency stealing it.

Our approved procedure for providing auditable customer support

The mechanism by which we access user accounts, to diagnose bugs or aid during implementation periods, is via a named user account(s) within your security module. The name of the account is generally **Propeller Consultant**, or it might be a specific staff name depending upon your requirements. This is set up by us when you subscribe to the product.

In this way we can control access to your systems and ensure that the details are only ever available to approved personnel within our organisation. It also provides you with visibility of the actions carried out by our customer support staff and any information that they have downloaded from your system. The reports are available in the staff card of our user(s).

We recommend that you manage the account(s) by deactivating it during periods when support is not required. The controls for this are in the security module. In this way, access to the system by Propeller Customer Services staff is impossible without you first opening the connection.

To be effective it should be a super user account with the highest levels of access to the system. You can of course change the access level yourselves, but it will limit our ability to quickly diagnose issues and resolve them on your behalf.

To be clear, our support staff are strictly prohibited from providing password information to customers either verbally or by electronic communication.

Data protection and security policy

The Company has implemented policies which govern our approach to Data Protection and Data Security.

The scope of these arrangements is to ensure compliance with all statutory requirements in respect of the Data Protection Act and the General Data Protection Regulations, and to ensure that the systems required to manage its own systems, and that of its clients, are managed in a professional and robust way.

The aim of these policies is to ensure that Propeller Studios provides them optimum environment for the custody of its, and clients', data and to ensure that it remains safe, available and properly managed at all times

A copy of the policy and the registration certificate is attached at the end of this document.

Restitution of Data

Upon termination of a contract with The Company, client data will be stored for a maximum of three months, should the client wish to reinstate their user licence. Following the three month period, the data will be deleted from our servers and will be permanently irretrievable. In regard to backup, The Company's client's data is stored on a rotating seven day backup system therefore no historic data exists beyond the seven day period.

ISO27001 accreditation

The Company recognises that data security is an important aspect of its business and has gained accreditation for ISO27001. Our data security processes and procedures are independently audited by third party consultants on an annual basis. A copy of the accreditation document is also provided with this document.

Propeller Reference Number	P0011
Version	V10
Document Owner	Andy Hammond
Date Last reviewed	30/09/2023
Date of Next Review	30/09/2024



Certification is conditional on maintaining the required performance standards throughout the certified period of registration
The British Assessment Bureau, 30 Tower View, Kings Hill, Kent, ME19 4UY

The management system of Certificate Number **185161**

Propeller Studios Ltd

1st Floor, Alexander House Business Centre, 40a Wilbury Way, Hitchin, Hertfordshire, SG4 0AP

has been assessed and certified as meeting the requirements of

BS EN ISO/IEC 27001:2017

for the following activities

PQQ Bid and tender writing consultancy providing support to private companies to secure work under OJEU processes, and provide associated online software to management business activities, compliance and document authoring internationally (and domestically)

This is in accordance with the Statement of Applicability **Current as of 30/09/2021**.

Further clarifications regarding the scope of this certificate and the applicability of requirements may be obtained by consulting the certifier.



8289



Valid from
Initial Certification: 26 January 2015
Latest Issue: 30 January 2023
Expiry Date: 25 January 2024
subject to annual assessments

Authorised by

Mike Tims
Chief Executive Officer

www.british-assessment.co.uk

Certificate issued by Amtivo Group Limited, trading as British Assessment Bureau

The validity and status of this certificate can be verified by using the UKAS CertCheck website at certcheck.ukas.com

Data Protection Registration Certificate

PROPELLER STUDIOS LIMITED

PO BOX 501 THE NEXUS BUILDING
BROADWAY
LETCWORTH GARDEN CITY
HERTS, SG6 9BL

Registration reference: **Z8231587**
Date registered: **13 October 2003**
Registration expires: **12 October 2024**



Issued by: Information Commissioner's Office,
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