

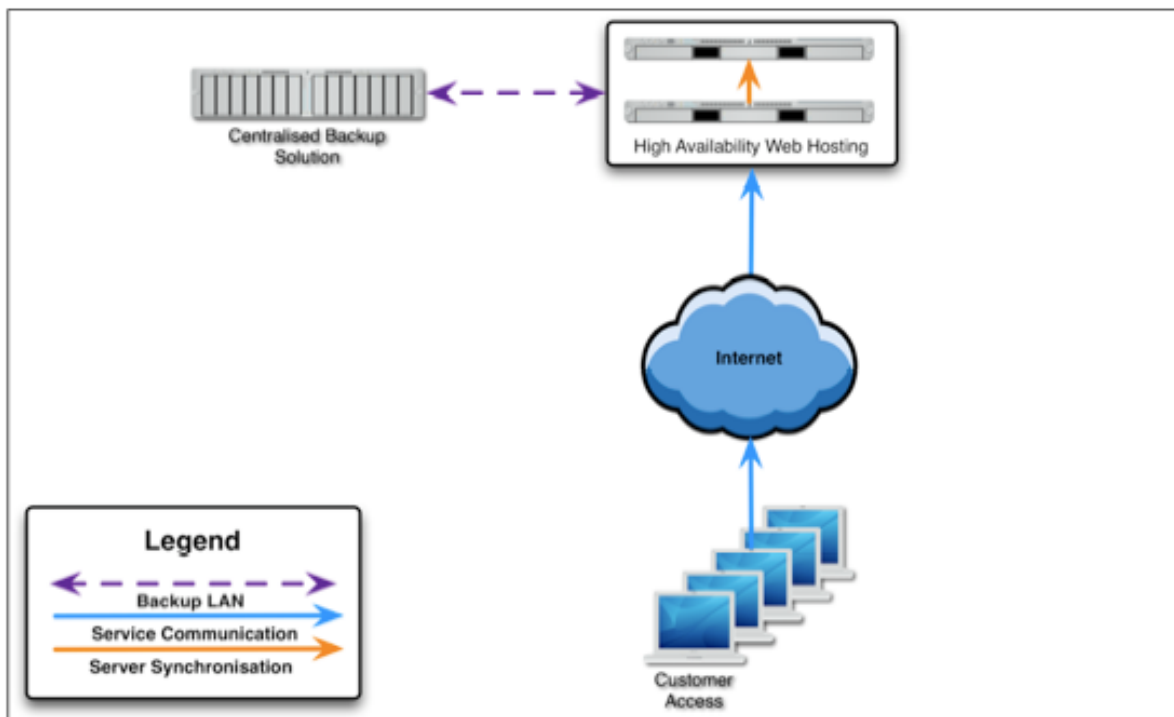
Growth Engineering Systems

Growth Engineering online academies form a critical part of business growth and team development for our customers. To ensure our customers are able to depend on our services, we have invested in a systems, connectivity and solution architecture that ensures high-availability, optimal performance and high security.

Solution Architecture

Growth Engineering training academies are hosted on resilient, dedicated clustered server environments on security hardened platforms from regional data centers across the globe. This ensures we can provide ample capacity and low-latency access to our on-line services for our customers.

Our typical server platform architecture in each data centre is comprised of two clustered server nodes, configured for high-availability, to ensure continuity of service in the event of a server or component failure.



Daily backups are conducted on each server platform, with off-site backup storage for rapid system restore at our mirror sites in the event of a requirement.

Business Continuity

Power

The power infrastructure at our hosting facilities has been built to an N+1 specification for mains power feeds, uninterruptible power supplies and backup generators. Each server has resilient connections to the power system via Redundant Power Supply (RPS) to separate Power Distribution Units (PDU).

Environment

The server platforms engaged by Growth Engineering are designed to operate under extreme temperature and humidity. At each of our data centers, the environment is controlled and maintained by close-control air conditioning units that provide stable temperatures ($21^{\circ}\text{C} \pm 2^{\circ}\text{C}$) and humidity ($50\% \pm 10\%$) providing an optimal operating environment for our infrastructure. The Heating, Ventilation, and Air Conditioning (HVAC) systems are designed to Nuclear Power Station guidelines.

Solution Fire Detection/Suppression

Our servers are protected by Very Early Smoke Detection Apparatus (VESDA) system for fire suppression. A state-of-the-art Argon-based fire extinguishing system ensures rapid and precise control of fire, without the risk of equipment damage.

Security

Our Data Centre systems are monitored 24/7 with over 150 CCTV permanently recording video cameras, safety inter-locks across the range of technologies from key-codes to biometric scanning and personnel airlocks ensure that only authorized personnel can enter our Data Centres, ensuring that your data is always safe and secure.

Firewalls and Intrusion Detection

All of our servers are protected by hardware firewalls. These ensure protection from both internal and external attacks.

Service Level Agreement

The data centers used by Growth Engineering guarantee 99.99% uptime for Internet connectivity, ensuring our customers can always access our systems. The network core is based on redundant Cisco 12,000 switches and Juniper M40's, with fully resilient connectivity.

High Validity Solution

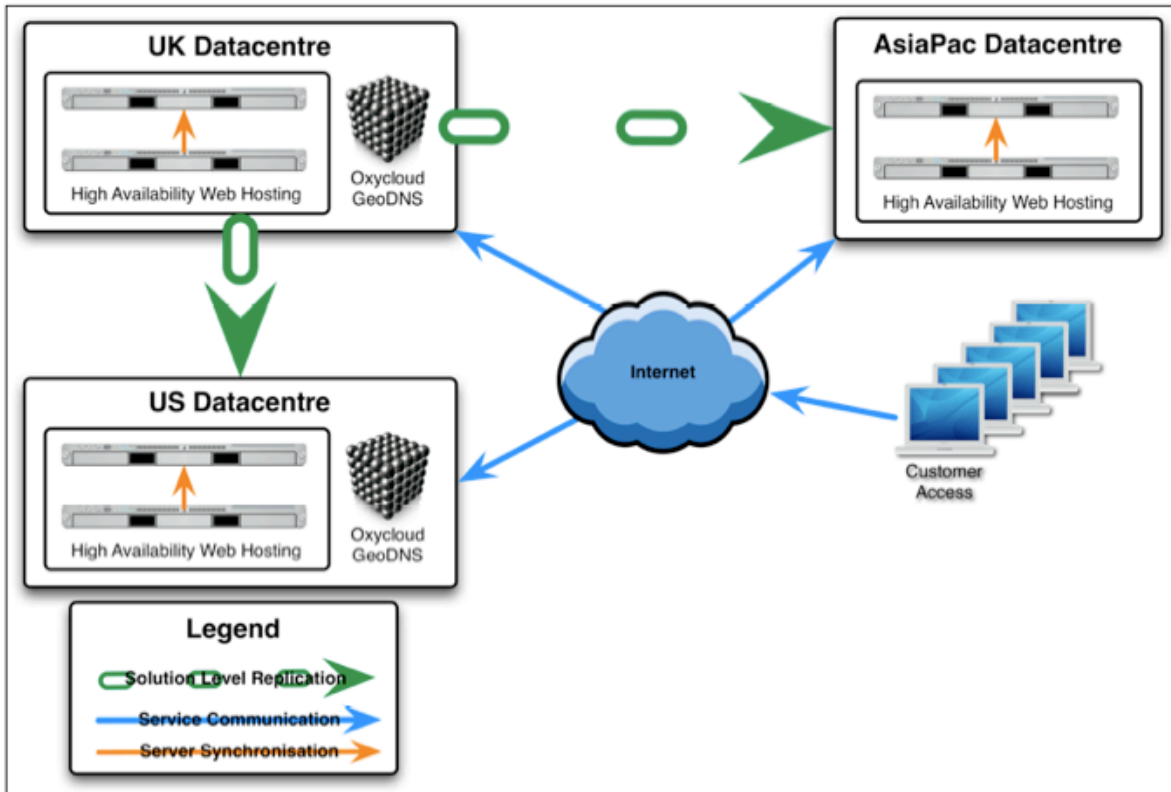
Our server solutions utilize clustering technology to ensure N+1 server failure, which ensures that should one server fail, it is near instantaneously replaced by another. This ensures consistent and continual access to our systems at all times.

Data Encryption

All data transmitted between our servers and the end user is subject to 128-bit encryption using SSL encryption. SSL is the industry standard method of passing sensitive information used between computers over the Internet.

Global Distribution

Growth Engineering has a number of secure hosting facilities available to ensure low-latency access to our on-line services from around the world. Our global architecture ensures high-performance and high-availability using a Geo-DNS solution:



Solution Service Monitoring

Server performance and availability are monitored around the clock to ensure customer access to our on-line solutions. In addition, to traditional server monitoring, Growth Engineering also monitor end-user monitor service performance from regional locations to enable us to maintain the highest standards in solution performance.