housingpartners

HOSTING RESILIENCY, DISASTER RECOVERY AND BACKUP POLICY (EXTERNAL SUMMARY)

HOUSING PARTNERS' CLOUD INFRASTRUCTURE

Live, staging and operational systems hosted in our cloud environment benefit from Microsoft Azure's high-speed and geographically decentralized infrastructure.

Microsoft Azure Cloud is the industry leader's solution for cloud-based architecture offering outstanding resiliency and high availability services with endless capabilities.

Microsoft Azure meets a broad set of international and industry-specific compliance standards, such as ISO 27001, HIPAA, FedRAMP, SOC 1 and SOC 2, as well as country-specific standards, such as Australia IRAP, UK G-Cloud and Singapore MTCS. Rigorous third-party audits, such as by the British Standards Institute, verify Microsoft Azure's adherence to the strict security controls these standards mandate.

Our cloud infrastructure utilises Microsoft data centres located in Dublin, Ireland (Primary) and Amsterdam, Netherlands (Secondary) for backup purposes.

DATABASE RESILIENCY

All Housing Partners' databases hosted in Azure consist of three synchronously replicated copies residing in the same Azure region, Dublin, Ireland - North Europe.

These three copies are all hosted in segregated sections of the data centre to reduce single points of failure such as flood, power cut or connectivity outages.

Furthermore, backups of all databases are stored in geo-redundant storage accounts enabling Housing Partners to access these backups from either the primary or secondary data centre location in the event of a data centre outage.

DATABASE BACKUP

All Housing Partners' databases are backed up to geo-redundant storage accounts using the following schedule:

• 	Full backups - Weekly

• 	Differential - Daily

• 	Transaction - Five to ten minutes

Backup restores are completed via a Point in Time Restore window, during which you can restore backups from a retention period of 35 days for live sites.

Housing Partners can restore databases to another Azure region if the primary region becomes unavailable using Geo-restore.

Geo-restore is Housing Partners' default recovery option when databases become unavailable due to an incident in the region where the database is hosted. If a large-scale incident in a region results in unavailability of Housing Partners' database application, Housing Partners can restore a database from the geo-replicated backups to a server in any other region such as Amsterdam, Netherlands – West Europe

The time it takes to recover a database might result in some downtime with an Estimate Recovery Time (ERT) of 5 minutes, with a maximum ERT of up to 12 hours.

If a database is unintentionally deleted, Housing Partners keep the backups in the same way it would for an online database (for the duration of the retention period).

WEB-APPS & WEB JOBS RESILIENCY

Scaling Up and Scaling Out technology gives the ability to instantly increase the number of instances, and/or the power of an instance within seconds, without the need of changing code, redeploying an application or restarting a service. This enables Housing Partners to ensure its services always have the resources available required to perform at an optimum performance level.

With App Service Deployment Slot technology, Housing Partners is able to validate deployments in a staging deployment slot before swapping it with the production slot. By doing so, all instances of the slot are warmed up before being swapped into production which in turn drastically minimises, if not removes downtime all together when deploying applications. This provides an instant rollback plan should the deployment to the live environment fail.

WEB-APP & WEB JOB BACKUPS

Housing Partners create app backups on a scheduled basis enabling Housing Partners to restore the app to a snapshot of a previous state by overwriting the existing app or restoring to another app.

Housing Partners back up the following information:

• App configuration

• File content

Housing Partners back up all live sites using the above method which enable Housing Partners to restore backups from a retention period of 7 days for live sites.

Furthermore, due to the application deployment process Housing Partners has adopted for site deployments to its Azure cloud infrastructure, all life cycle deployments are stored locally after being

deployed to Housing Partners' live platform in its cloud infrastructure, providing Housing Partners with a full offsite copy of its web applications.

CLOUD SERVICES RESILIENCY & BACKUP

By utilising IP asynchronous operation swap technology, a process which involves a virtual IP address swap between the two deployment environments of a service, Housing Partners is able to perform cloud service product deployments with minimal to no downtime with a fully viable rollback solution in the event of a failed deployment.

Similar to the web application deployment process to Housing Partners' Azure cloud infrastructure, all life cycle deployments of cloud services are stored locally after being deployed to Housing Partners' live platform in its cloud infrastructure, providing Housing Partners with a full offsite copy of its website applications.

STORAGE DATA

Housing Partners utilise locally redundant storage (LRS) in its cloud infrastructure. Data within Housing Partners LRS accounts is hosted in its primary data centre, Dublin, Ireland - North Europe over three synchronously replicated copies.

These three copies are all hosted in segregated sections of the data centre to reduce single points of failure such as flood, power cut or connectivity outages.

ENCRYPTION

All Housing Partners' data hosted in Azure is configured with TDE (Transparent Data Encryption). This provides real-time encryption and decryption of data, associated backups, and transaction log files at rest.

All website traffic and successful connections to Housing Partners' SaaS products are accessible and secured using HTTPS connections via SSL certificates.

USER RESTRICTIONS & ACTIVITY LOGGING

Housing Partners apply Locks to live resources including databases, storage accounts, Web Apps and Cloud Services which prevent/restrict unauthorised users from deleting any resources.

IP restrictions are in place for all Housing Partners' databases to restrict access to authorised Housing Partners' users only.

Activity logging is enabled for all resources which provides insight into the operations and events that were performed in Azure. Activity log events are retained for 90 days.

DOCUMENT AND CONTENT SCANNING

Housing Partners have real time document scanning solutions in place to help protect and identify malware, and other dangerous content for content uploaded to its applications in the cloud.

DATABASE RESILIENCY FOR SQL VM'S

Databases running on Housing Partners SQL virtual machines are stored in Azure LRS accounts, hosted in our primary data centre, Dublin – Ireland over three synchronously replicated copies.

These three copies are all hosted in segregated sections of the data centre to reduce single points of failure such as flood, power cut or connectivity outages.

All Housing Partners' databases hosted within its data centre exist as clustered resources replicated between two high specification hosts. Both hosts are actively running side-by-side and are configured, in the event of a system failure on the primary host, to pass the database resources between each other seamlessly.

These hosts are running within a closed domain subnet. This ensures that all access to the resources themselves are controlled via domain controllers and trusted clients only. Access to this network can only be granted via a VPN between the headquarter's firewall and the data centre firewall.

DATABASE BACKUP

All Housing Partners' databases are backed up daily in full set. Transaction logs are backed up hourly with Append existing to keep hourly snapshots of changes.

The databases are also backed up individually via a backup tool to provide redundant backup for Housing Partners' data.

- Full Backups : Daily
- Transaction Logs : Hourly
- SAN Snapshots : Daily

WEB-APP & WEB JOB BACKUPS ON VM'S

All Housing Partners' webservers are running within a virtual infrastructure. This allows for disaster recovery to be faster by restoring a new server from backups and restoring the systems from bare metal recovery. This also allows for dynamic resource allocation allowing Housing Partners to increase the performance of the web servers should there be a high demand on the websites.

The web servers are running on their own independent subnet to isolate these public facing servers away from the rest of the network

Web servers are backed up on a daily schedule. The directories featuring the web server files are also backed up to a segregated section of the network via snapshots daily.

- Full Backups : Daily
- SAN Snapshots : Daily

ISO 27001

Housing Partners are ISO 27001 accredited.

Housing Partners' processes, policies and procedures, as well as the rest of our ISMS framework are audited twice a year by BSI in order to retain this accreditation.

This standard is in place to give Housing Partners' customers and partners the confidence and reassurance that the appropriate controls for legal, physical and technical assets are managed and protected.

Certificate Number: 561436

Further information can be found here
https://www.british-assessment.co.uk/services/iso-certification/iso-27001-certification/

APPLICATION TESTING

Scheduled web application security testing is carried out during the development, release and ongoing improvement phase of new products.

Upon major releases, full web application penetration testing is also carried out to ensure that there are no security vulnerabilities present.

As well as web application testing, a full network penetration test against all live sites, infrastructure and firewalls is carried out annually.

MONITORING & ALERTING

Housing Partners use the following products for performance, application, uptime and stability monitoring on live and staging products.

- New Relic – Application performance monitoring
- Status Cake – Up time, and certificate monitoring
- Push Over – Instant alerting and reporting
- Azure Alerting – Performance and alerting