

## LinkThru Back-up and Recovery Policy and Procedure

### LinkThru Back-up

LinkThru is hosted by SPICA Technologies Ltd on their Devicepoint® Application Framework.

All Devicepoint® instances are backed-up overnight. The back-up consists of a full copy of the database image for the Devicepoint® instance. A rolling set of back-up images is kept for the previous 7 days.

### Disaster Recovery

Devicepoint® instances are hosted in Tier 4 data centres (Amazon Web Services) to minimise the risk of a disaster event. In a disaster event where an entire instance is lost, a brand-new server instance, from (virtual) "bare-metal" up can be created, the latest database instance (or earlier if required) can be restored to this recovered/rebuilt instance, and the customer system will be operational again.

An added level of resilience to the solution which contributes towards aiming for a Zero RPO (see below) is the ability of the system to recover data from sensors, gateways or partner cloud systems.

*Recovery Time Objective* - The RTO for a *complete* server rebuild, from a previous evening's back-up is 8 business hours.

*Recovery Point Objective* -

*Default:* The worst-case, default, RPO would be almost 24 hours - where a total loss disaster occurs just before a nightly back-up, and the recovery point is the previous night's back-up. The average RPO would therefore be around 12 hours (a failure in the middle of a day). However, in reality this is very rarely the case:

*Nominal:* Although, the data restored to the refreshed instance could be as much as 24 hours old, Devicepoint® has in-built resilience to recognise that the most recent data is missing and will go to each of the connected sensor partner cloud systems of gateways, where *raw* sensor data is also being stored, and pull the missing data (from during the outage) into the platform. The combination of daily back-ups and gateway data caches means that the RPO for Devicepoint® solutions should be zero data loss.