

Business Continuity and Disaster Recovery

Operating Specification

Summary

To ensure operation of Astute Solutions services in the event of a disaster or other critical event, Disaster Recovery and Business Continuity services are provided for customers. This document defines the capabilities and service tiers.

Definitions

Disaster Declaration: A formal communication from Astute Solutions identifying the complete loss of service functionality or availability due to a hardware, software, or communications failure within Astute Solutions span of control.

A disaster will be declared when there is total loss of system availability for longer than 15 minutes.

Notification will occur within one hour of when a declaration of a disaster has been made. Initial notification will be via standard methods (i.e. Astute Solutions Status IO). For customers with designated contacts (D.C), the D.C. will be contacted by the customer's preferred communication method (phone, email or text).

Recovery Point Objective (RPO): RPO is the age of files that must be recovered from backup storage for normal operations to resume if a disaster declaration occurs. The RPO is expressed backward in time (that is, into the past) from the instant at which the failure occurs, and specifies that all data before that time point is to be restored. Data between the point of failure and the recovery point object is subject to risk of loss.

Recovery Time Objective (RTO): RTO is expressed forward in time, from the time a disaster declaration occurs. The RTO is the target time from the point of declaration to restore the data to systems available to provide full service capabilities to a customer.

Region: A separate geographic area where multiple Availability Zones are hosted.

Availability Zone: Each region has multiple, isolated locations known as Availability Zones. An Availability Zone consists of one or more discrete data centers, each with redundant power, networking and connectivity, housed in separate facilities.

Basic Capabilities

In the Astute Solutions cloud, all customers receive a base level of Disaster Recovery. Each Astute Solutions customer is assigned to a Region. This region is where all production services and data are hosted. Within each region, there are multiple Availability Zones. For information describing the industry and regulatory compliance offered by an Availability Zone, see <https://aws.amazon.com/compliance/>

With the basic offering, services are provided through a single Availability Zone. A backup of all customer data is performed every 24 hours. Data is stored within the same Availability Zone that services are provided from. Should there be a hardware or software failure in a Zone that causes loss of data, Astute will install the backup database, and recover customer data. Should there be an irrecoverable failure at the Zone the backup data is stored, Astute will make best efforts to reconstitute the customer's databases and software. Astute does not commit to a fixed timeline for this effort.

The Basic capabilities offer the following metrics:

Basic Tier

- **Recovery Point Objective:** 24 Hours
- **Recovery Time Objective:** 72 Hours
- **Tier Description:** Basic Capabilities included. A backup of all customer data is performed every 24 hours. Data is stored within the same Availability Zone that services are provided from.

Optional Capabilities

In addition to the basic capabilities, Astute Solutions offers additional tiers with decreased RPO and RTO guarantees.

Disaster Recovery (DR) Tier 3

- **Recovery Point Objective:** 24 Hours
- **Recovery Time Objective:** 24 Hours
- **Tier Description:** Basic Capabilities included. A backup of all customer data is performed every 24 hours. Data is stored within the same Availability Zones that services are provided from.
- **Recovery Process:** Astute will maintain backups of the customer database at two availability zones within the same Region. Should there be a hardware or software failure in a Zone that causes loss of data, Astute will install the backup database, and recover customer data. Should there be an irrecoverable failure at both Zones where the backup data is stored, Astute will make best efforts to reconstitute the customer's databases and software. Astute does not commit to a fixed timeline for this effort.

Disaster Recovery (DR) Tier 1

- **Recovery Point Objective:** 24 Hours
- **Recovery Time Objective:** 4 Hours
- **Tier Description:** Basic Capabilities included. A backup of all customer data is performed every 24 hours.
- **Recovery Process:** Astute will maintain backups of the customer database at one availability zone in two separate Regions. Should there be a hardware or software failure in a Zone that causes loss of data, Astute will install the backup database, and recover customer data. Should there be an irrecoverable failure at both Regions where the backup data is stored, Astute will make best efforts to reconstitute the customer's databases and software. Astute does not commit to a fixed timeline for this effort.

Business Continuity (ePowerCenter only)

- **Recovery Point Objective:** 24 Hours
- **Recovery Time Objective:** 15 Minutes
- **Tier Description:** Basic Capabilities included. A backup of all customer data is performed every 24 hours.
- **Recovery Process:** Services are provided through a minimum of two Availability Zones. Data between Availability Zones are synchronized in near-real time. In the event of a failure in an Availability Zone, users will automatically be routed to a set of identical services and data in another Availability Zone within their designated region with no interruption of services. Astute will maintain backups of the customer database at one availability zone in two separate Regions. Should there be a hardware or software failure in a Zone that causes loss of data, Astute will install the backup database, and recover customer data. Should there be an irrecoverable failure at both Regions where the backup data is stored, Astute will make best efforts to reconstitute the customer's databases and software. Astute does not commit to a fixed timeline for this effort.