Alcea Tracking Solutions
Backups and Disaster Recovery Document for Hosted Systems

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Contents

Summary

Alcea Tracking Solutions offers a collaborative web environment for tracking and storing company data sets.   This solution is available as a licensed system where customers assume the full role of maintaining and administrating their systems, or as a hosted system which is maintained by Alcea Technologies Inc.

This document outlines the configuration, management and recovery process for all hosted systems.

Configuration

ATS (Alcea Tracking Solutions, formerly FIT) is a stand-alone client-server application which is written in Java.   Although ATS has an enterprise module for storing data in an external database, common practice is to use the default flat file storage mechanism, which is adequate in most hosted cases and simplifies configuration and maintenance. This allows each separate ATS system to be encapsulated as a single installation directory on our hosted cloud servers.

Although ATS is a specialized web servers itself, a central Apache2 installation is configured on each hosted server to handle client connection to the server.   Apache2 is configured with the following modules to offer a single encrypted connection to the server using a 256-bit encryption certificate:

ssl/rewrite/proxy/proxy_balancer

ATS can use any standard SMTP/IMAP server to deliver email notifications. Standard hosted systems are configured to use a standard exim mail server by default as it is configured on all machines.

Backups

The entire instance of a hosted ATS system is contained in a single directory which is run by a java process.   This single directory can be replicated on any hosted machine and then configured to run as a new instance, simply by adding to the Apache2 configuration and making the necessary DNS direction to this new machine.

Alcea hosts ATS systems in the following Softlayer locations: Toronto, London, Dallas

All hosted systems are then backed up in Montreal (offsite location) with the R1Soft Backup Manager, using the following schedule:

- Hourly Backups for recovering data from the last 24 hours
- Daily backups for recovering data from midnight on each of the last 4 days
- Weekly backups for recovering data from Friday midnight of the last 4 weeks

Incremental backups are performed at the block level, shortening backup windows and reducing disk space and network I/O.   R1Soft provides Alcea with the following three retrieval methods:

1- Restore single files of data in the case of corruption or user error.
2- Restore an entire system on the existing machine.
3- Restore files on the existing server in an alternate location.
4- Download backup files to an alternate location.

Alcea Disaster Recover

If a hosted server or system is compromised, a decision will be made to locate the latest backup (from above schedule) which is available.   The entire process should take less than one hour to perform for a normal system.   Some larger systems may take slightly longer as we copy data.

Once that backup has been identified, the following steps must be performed:

1) Identify the machine which will house each system in question.   Alcea has multiple servers in three separate locales (Toronto/London/Dallas) which make it able to replicate systems in the same area very quickly.   A new machine can also be instanced in the cloud very quickly.   Configuration steps for a new server are contained in KB #71 of the Alcea knowledge base.
   **Care must be taken to make sure that any system that has been tagged for a specific country is not copied to an alternate locale without permission.   Some companies have mandates which forbid their data to be hosted in some countries.
   Data is then copied to the new machine using the R1Soft Backup Retrieval Process below.
2) The DNS setting for any system being moved must be changed to reflect the new server IP.   This can take some time, which is why This DNS setting can take up to an hour to propagate through DNS servers but it is usually faster.   If essential, a temporary DNS name can be used until the DNS change is complete.
3) Identify the port that is being used by ATS for communication through apache.   Make sure this port is not being used by any other system on the new hosted system and then add this port to /etc/apache2/hosts.txt
4) Start the ATS system and try to connect

R1Soft Backup Retrieval Process

Backups for ATS hosted systems are located on our backup server.   Details for connecting to that server are contained in KB# 228 of the Alcea Knowledge Base, for security reasons.

Once a connection is made, you will see a list of all protected machines. Each machine has a list of actions that can be performed on the far-right side.   If you choose the option "Recovery Points", you will then see all the backup restoration points, matching the schedule listed above.

Each restoration point can then be browsed, using the "Browse" action from the far right.   The browse menu will then list a directory representation of the data that has been backed up.   You can continue to browse to the desired data by double clicking through the directories, or you can choose the restore/download options at any level. ATS systems are located in FBT-hosted directories.

Restoring allows you to copy directly to the machine where the backup was from.   You can specify an alternate location if you do not wish to overwrite the existing data.   If the machine was lost, then you will need to use the download option, which will save the system as a zip or tar file.