eXactACCESS®
Disaster Recovery Information
Disaster Recovery Information

This document discusses the procedures that HealthCast recommends for saving XA data and functionality in the event of a disaster.

First, we will discuss out recommended best practices for backing up eXactACCESS (XA) data for recovery. Then, we will look at four possible scenarios, and our recommended actions for a swift recovery:

1. What if SQL Server fails on your primary server?
2. What if the primary or secondary XA servers fail?
3. What if both servers fail, but network and clinical applications are available?
4. What if the servers and the network fail?

Disaster Recovery Recommendations

We recommend that you:

1. Add this document to your current network disaster recovery policy (this is critical if your network policy includes recovery for directory service.)
2. Maintain backup server images on a regular basis via an automatic maintenance plan. These images should include the current states of XA and directory service - together.
3. Maintain SQL Server database backups on a regular basis via an automatic maintenance plan.
4. Use a persistent storage device for the images and database backup; have them shipped off-site for storage.
5. Maintain dedicated hardware (server(s)) off-site that would be available in the event of a disaster.

Disaster Recovery Scenarios

Scenario 1 - SQL Server on Your Primary Server
If SQL Server fails on, your primary server, but XA is still running, the clients will not failover automatically.

You will need to stop the XA Server service (HCTCPTTransport.exe) to initiate failover. Once the service is stopped, the clients will automatically failover to your secondary server. We recommend that you fix your primary server immediately.
Scenario 2 - One of the XA Servers Fails
There are two XA server failure procedures specific to the failure of either the primary server or the secondary server.

The primary server fails
If your primary server fails, your secondary server needs to be reconfigured to point to its own databases. You should reconfigure the database data strings, removing the primary server, and replacing with the secondary server. You can find documentation that details the steps for this in HealthCast’s XA Server Documentation. No client side changes are needed; clients will failover automatically.

Note: There will be disruption in SSO functionality, but you will maintain access to all of your applications natively.

The secondary server fails
If the secondary server fails, SSO functionality will continue as normal. The secondary server should be fixed immediately in this scenario because, if there is a primary server failure while the secondary server is down, there will be SSO disruption.

Scenario 3 - Both XA Servers Fail, but Network and Clinical Applications are Available
If both servers fail simultaneously, but you still have an operational network, you should rely on the back-up images (of XA and your directory service) that you have stored off site. We recommend that you recover the system on the back-up server(s) at your off-site location, and then connect to the existing network.

Note: It is critical that XA data and directory service data are synchronized and restored from the backup state. Using a directory service state that is not synchronized with XA will result in user identity problems when new users are re-created in the directory service that were previously created and mapped in XA. In this scenario, the directory service would re-allocate an already used SID for the new user that would map to an incorrect account in XA.

Scenario 4 - Both XA Servers and the Network Fail
If both servers and the network have failed, then you should refer to your internal network disaster recovery plan.

Please update the section of that plan that discusses directory service to include a reference to this document. It is critical that in the event of a network loss, directory service and XA are recovered with a synchronized state.