

IDEXX Redundant Server Environment

Document Purpose	This document is presented to IDEXX Computer Systems' customers who will be using an IDEXX Redundant Server Environment in their practice. This document outlines the basic configuration, process to setup, and process to recover from a server failure.																					
What is a Redundant Server Environment?	In a redundant server environment, a backup (redundant) server is configured as a replica of the main server. In the event of a server failure, this environment allows for minimal downtime. The important server functions, including Active Directory (User Accounts) replicate almost instantly. Data files, including Cornerstone data, replicates to the backup server nightly. Windows Server® 2008 R2, Windows Server® 2012 R2, and a combination of these two operating systems are supported.																					
Basic Configuration	<table border="1"> <thead> <tr> <th></th> <th>Main Server</th> <th>Backup Server</th> </tr> </thead> <tbody> <tr> <td>Active Directory</td> <td>Replicating</td> <td>Replicating</td> </tr> <tr> <td>DNS</td> <td>Replicating</td> <td>Replicating</td> </tr> <tr> <td>Group Policy</td> <td>Replicating</td> <td>Replicating</td> </tr> <tr> <td>DHCP</td> <td>Configured and active</td> <td>Configured but not active</td> </tr> <tr> <td>File Replication (DFS-R)</td> <td colspan="2">Replicates data to backup server nightly</td> </tr> <tr> <td>Terminal Services</td> <td>Installed and Licensed</td> <td>Installed but not Licensed</td> </tr> </tbody> </table>		Main Server	Backup Server	Active Directory	Replicating	Replicating	DNS	Replicating	Replicating	Group Policy	Replicating	Replicating	DHCP	Configured and active	Configured but not active	File Replication (DFS-R)	Replicates data to backup server nightly		Terminal Services	Installed and Licensed	Installed but not Licensed
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In the Event of a Failure of the Main Server	<p>To return to normal functionality after a main server failure the following steps need to be done with the help of an IDEXX Hardware Support technician.</p> <ul style="list-style-type: none"> • Server roles need to be transferred to the backup server. • Activate DHCP Scope on the backup Server. • Install the same version of Cornerstone that was installed on the main server if needed. • Restore Cornerstone and other data from last night's replication or backup. • Update the Cornerstone database. • Update or install printers and printer ports if needed on server and workstations. • Install and update any 3rd party software if needed. • Install licensing if needed. • Change Remote Desktop Connection information on any thin-client workstation. • Set default printers and printer assignments. 																					
Average Recovery Time	<ul style="list-style-type: none"> • Without Redundant Server Environment: 4 to 8 hours is typical but actual time depends on the type of failure. (The recovery steps include replacing a part from Dell, reloading the operating system and re-configuring the network from scratch, or shipping a loaner server). • With redundant server environment: As little as 1-hour dependent on the backup server being up-to-date with software and other changes. <p>With a Redundant Server Environment, the downtime is much less due to the fact that a backup server is already onsite. The steps listed in the above section are typically the only steps that need to be completed. (Then the focus can be moved back to the failed server to replace a part, reload the operating system and reconfigure the network, or purchase a replacement server). In the event of both servers failing or some other catastrophe, the recovery time will be similar to an environment without a redundant server environment.</p>																					

Important Items to Minimize Total Down Time

- Whenever you update Cornerstone on the main server installing that same update on the backup server will ensure that the backup server is always up to date.
- Keeping your backup server up to date with any 3rd party software changes.
- Keep your backup server up to date with any printer changes/additions
- This doesn't replace a backup. Always ensure you have a valid backup.

For further assistance, please call IDEXX Hardware Support at **1-800-695-2877** and reference **KB4035**.



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