

Pre-Deployment Best Practices

Scope:

This article contains information and best practices to ensure your production environment provides for success with Datto appliances.

Objectives:

Upon review of this document, partners will:

1. Be aware of recommended tools to prepare for Datto deployment in a production environment.
2. Be able to understand what is needed for sustainable success in backups.
3. Have a firm understanding of Datto's network bandwidth needs and configuration options.

Set yourself up for success:

In order to ensure that your servers are ready for deployment, we have several recommendations as far as preparation.

First, we believe that it is important to run a chkdsk on any Windows machine you plan on backing up. You may have heard the term "Garbage in, garbage out" when referring to backup data that is difficult to restore. The ultimate goal of the backup process is to get a snapshot from the production machine to the Datto device. It is essential that the production machine has a clean disk image for restores to be useful. We recommend running the chkdsk in write mode which does require the filesystem to be

unmounted, such as a chkdsk /f. You can run the chkdsk in read-only mode however this will not always reveal underlying corruption.

Now that you have ensured the Windows machine is in a healthy state for backups we recommend running through StorageCraft's pre-install checker or guide. These tools will help to provide for long term success for backups. We have provided links below to the pre-install checker and manual guide.

Download pre-install checker

<http://www.storagecraft.com.au/install.php>

Manual tuning recommendations

<https://www.storagecraft.com/support/kb/article/241>

Local Backup Maintenance Planning:

Now that you have established a healthy environment, let's look at some things you can do to ensure consistent, successful backups.

Ports:

As Datto backups occur over the local network, we have some port requirements which will allow for backups to complete successfully. Two ports that require bi-directional access from the Windows machine are 25566 and 139. These are the ShadowSnap Raw Agent and Samba ports respectively. If this is not the case backups will fail.

Note: If you are using our backup encryption feature TCP port 3260 must also be open bi-directionally. The checkin process to our monitoring servers also will require port 443 (HTTPS) to be open outbound for checkins to complete successfully.

For further information about our networking requirements, feel free to reference the following knowledge base article:

<https://helpdesk.dattobackup.com/hc/en-us/articles/200555135-Datto-Networking-Requirements>

VSS:

As the backup data now has a means to get to the Datto, you will need to ensure that the production machine can provide accurate backup data.

VSS, or Volume ShadowCopy Service, is a Microsoft tool used to track and communicate data change on a given volume. With that being said, other backup jobs and utilities that leverage VSS have the potential to conflict with our backup job and are best avoided if possible. Assuming you have already ran a chkdsk as recommended above, you now should have healthy data to back up.

For more information on VSS and some tools you can use to troubleshoot it, please refer to the following TechNet article:

<https://technet.microsoft.com/en-us/library/cc754968.aspx>

Alerting:

As with any backup job it is vital to be aware if there are problems or failures. First, make sure that your agents are setup to notify you in the event of any critical failure. These alerts can be configured in the web interface under the Protect tab. It is additionally possible to set up custom device audits to provide a scheduled high level overview of backup and screen shot outcomes. This can be done from the Partner Portal --> Devices --> Device Audit.

Offsite Synchronization:

After confirming that the local environment is setup for success, we have a couple recommendations as far as maintaining offsite sync. This is important because if your data is not able to make it offsite, it may start to build up on the local device. This could result in backups failing due to not enough free space on the Datto. Here's what you need:

Bandwidth:

In order to maintain a reliable synchronization to our Cloud we recommend bandwidth availability of 1Mbps (125KBps) per terabyte of protected data on the local device. Additionally, you can adjust bandwidth restrictions and schedules by navigating to the device's remote web, then --> Configure tab --> Offsite Synchronization.

Roundtrips:

Unexpected large backups or lack of connectivity over extended periods of time can cause a build up of local backup data that needs to be synced to the cloud. This is because we build compressed send files, and store them locally until they can be sent offsite. In these instances we recommend ordering a roundtrip. A free roundtrip may be requested once per quarter, as well as upon initial deployment of the device. We recommend allowing all initial backups to complete first to ensure the roundtrip is appropriately sized and that your bandwidth can keep up with the production environment's data change.

Further Learning:

Datto Knowledge Base: <https://helpdesk.dattobackup.com/hc/en-us>

Datto Academy: <https://academy.dattobackup.com/basictraining>

StorageCraft Tuning: <https://www.storagecraft.com/support/kb/article/241>