



Certified Intronis Partner Engineer

System State Backup Fails with Exit Code 3

After setting up and running a System State Backup with our System State plugin, the process fails with the following message and backs up no data:

```
Wbadmin process failed with exit code -3, arguments: start  
systemstatebackup -backupTarget:<X:> -quiet
```

Background/Analysis

The Intronis software leverages the built-in Windows Server Backup utility to create system state backups, which are then passed to the Backup Agent for processing and transmission to the cloud or Local Vault. This error indicates that something has gone wrong with the Windows Server Backup process, *wbadmin*, and that the system state file has not been generated. There are a number of possible causes for this issue.

Troubleshooting Steps

1. Determine the cause: The cause of the failure can be found in a number of locations on the system itself, including the following:
 - Event Viewer – Application Logs
 - Here, you will want to look just before the backup failed on our end and find the event with the description of “Backup.” It will likely have an event ID of 517. This may contain a description of what went wrong, as well as possible error codes.
 - Windows Server Backup GUI
 - To access this program, open the Start Menu (Server 2008, Server 2008R2) or Start Screen (Server 2012, Server 2012R2) and type “Windows Server Backup” in the search bar. The window that opens may show recent backup attempts, but this is not a guarantee. To see any errors that appear, double-click on the action in question and then hover over the truncated error field at the top of the property box.
2. If the cause is not readily available in either of the two locations above, run the *wbadmin* command from a command prompt. The syntax is as follows:

```
Wbadmin start systemstatebackup -backupTarget:<insert-scratch-drive-  
letter-here>: -quiet
```

- Note: Do not forget the colon after the scratch drive letter. The command will fail to run without it.
- The results of the above command will state what has gone wrong with the *wbadmin* process; conversely, this can be used to possibly rule out any environmental issue. Any messaging discovered in this way can be input into Google or used to contact Microsoft Technical Support



Possible Causes

The Backup Storage Location is invalid.

This error occurs when the location used for the scratch drive has been marked as critical by the operating system, usually as a result of one or more of the following file types being located on the drive:

- Registry.
- COM+ class registration database.
- Boot files, including system files.
- Certificate Services database.
- Active Directory Domain Services.
- SYSVOL directory.
- Cluster Service information.
- Microsoft Internet Information Services (IIS) meta-directory.
- System files that are under Windows File Protection (WFP).

Some other files, such as Exchange or SQL items, may also cause the drive to be marked as critical. If this error occurs, you may see one of the following messages in the Event Viewer or Command Prompt, respectively:

- The backup operation attempted at `<timestamp>` has failed to start, error code '2155348032' (The backup storage location is invalid. You cannot use a volume that is included in the backup as a storage location.). Please review the event details for a solution and then rerun the backup operation once the issue is resolved.
- The backup storage location is invalid. You cannot use a volume that is included in the backup as a storage location

To resolve this issue, a new scratch drive is necessary as the restriction on critical drives is a Windows requirement. Partitioning of an existing drive via the Disk Management utility (diskmgmt.msc) is also an option.

System Writer Not Found In Backup

After running the wbadmin process from a command line, you may receive the following error message:

System writer is not found in the backup.

You may also see the following error in the event viewer:

```
Log Name: Application
Source: Microsoft-Windows-Backup
Event ID: 517
Level: Error
Description:
Backup started at '01/12/2009 16:21:03' failed with following error
```

code '2155348226' (System writer is not found in the backup.). Please rerun backup once issue is resolved.

This error indicates that permissions related to one or more files are incorrect. It may also be caused by an incorrect Registry key.

To fix this issue, please see this Microsoft KB article: <http://support.microsoft.com/kb/2009272>

Low Drive Space

After running a system state backup from the command line, the following error occurs:

At least 7.00 GB of free space is required on backup drive <drive>.

Windows Server Backup requires a minimum of seven gigabytes of space on its scratch drive in order to properly handle a system state backup. This may increase if the system state file is larger than the minimum. To fix this issue, either free up space on the current scratch drive or change the scratch drive to a location with more free space.

Note: This may also occur with regards to our temp location if Windows Server Backup reduces the scratch drive to less than seven gigabytes when the scratch drive shares space with the Intronis temp location.

One or More Failed/Missing Writers

Please see this related Knowledge Base article for more information on how to fix failed individual VSS writers:

Error Code: 2155348129

On a system running SharePoint 2010, the following message may be seen in the event viewer:

Log Name: Application
Source: Microsoft-Windows-Backup
Event ID: 521
Level: Error
User: SYSTEM
Description:
The backup operation that started at '?2011?-?07?-?06T02:12:07.198000000Z' has failed because the Volume Shadow Copy Service operation to create a shadow copy of the volumes being backed up failed with following error code '2155348129'. Please review the event details for a solution, and then rerun the backup operation once the issue is resolved.

This error usually indicates that a SharePoint update has not completed its installation process. To fix this issue, please see this Microsoft TechNet article: <http://blogs.technet.com/b/sbs/archi...-2010-sp1.aspx>