How to Initiate a Full System "Out of Place" Server Restore

> (i) **Description**
>
> This article describes the method to conduct an "Out of Place" full system restore from a File System Backup Client. An "out of place" full system restore takes a previous backup from one Cloud Server (the "source") and restores the entire file system (including OS and registry settings) to a different Cloud Server (the "target"). Any files with matching names and paths on the target Cloud Server will be overwritten server with the version of the files from the source sever's backup at the requested backup date.
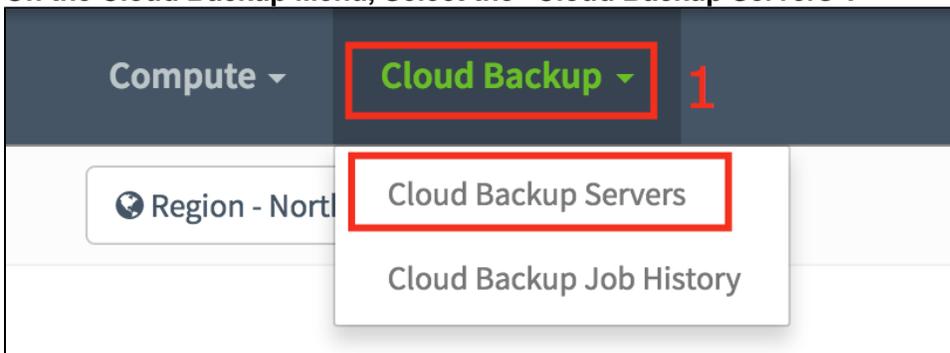>
> NOTE - An out of place restore is typically initiated when you are testing various restore points that are available, in order to verify the best restore point for your circumstance.

Prerequisites:

1. This guide assumes that the Backup service has been enabled on the Server, that the File System Backup Client has been installed on the Server and that at least one Backup exists. For details see
   Cloud Backup - Introduction
2. Full System Restores should be approached with the utmost care. Files with matching names and paths on the target server will be overwritten with the version of the files from the requested backup of the source Cloud Server at the identified backup date.
3. The source Cloud Server is the server from which you are initiating the restore and from which the backup data will be obtained. This source server must be in a stopped state at the time the backup is requested. In addition, it must be enabled with either the Advanced or Enterprise service plan (and have been enabled as such at the time of the requested backup). Full system restores are not available with the Essentials plan.
4. The target Cloud Server must also be enabled with either the Advanced or Enterprise service plan. Full system restores are not available with the Essentials plan.
5. The target CloudSeveralso must already be deployed with a compatible Operating System, with the Backup service enabled and the same type of File System Backup Client installed ("Windows File Agent" or "Linux File Agent") and visible as "Active"
6. The target Cloud Server must have enough space to accept the full system restore being requested. Failure to have enough space available so may result in an incomplete system restore.
7. On Linux system, after Restore completion, the IP address will remain the same on the target server as we don't overwrite the target server's IP address.
8. On Windows system, after you reboot, you will need to use the new console access in CaaS to re-IP.
9. Windows operating system must be installed on the same directory as that of the original computer; otherwise, full system restores will not work
10. Install the required service packs and hotfixes on the destination computer matching to the source. If you have any other software i.e SQL server you might need to match the service pack and SQL configuration same as the source server. Failed to maintain this would lead the restore job to fail. However, Do not install IIS Services. These services will be restored automatically during the restore.
11. Make sure the disks drives can accommodate the quantity of data being restored. Please note that during the restore, the target machine page file might increase in the operating system drive which may lead to low disk space and the restore job might go to pending state. So it is recommended to have extra space in OS drive.
12. Once the restore process completed, the job status shows "pending" at 99% in the UI. You need to restart the server in order to complete the restore process.

Content / Solution:

1. **On the Cloud Backup Menu, Select the "Cloud Backup Servers":**

2. **Expand the right service option(Cloud/Managed Hosting/On Premise):**

3. **Click the right server name to get to the server page and expand Backup, and click on the "+" on the Right hand side:**

4. **Once expanded select "Restore" option from the drop down menu(cog icon) from the right hand side corner on the Agents itself. Perform this task for the Backup agent that you want to do the restore for:**

5. **The system displays the "Server Restore" page now:**

Server Restore   ✕

Backup Restore Date* ℹ

| 15-06-2016 | 🗓 |

☐ **Restore from specific backup job (on date)**

Restore Type* ℹ

◯ Restore to original - The existing server will be overwritten

🔘 Restore to another - A different server will be used

Please select a target server* ℹ

☐ **Include standalone backup servers as target servers**

| | ▲▼ |

1. Restoring should be approached with the utmost care. Files with matching names and paths will be overwritten on the target server for both In Place and Out of Place Restore.

2. The target server must have sufficient disk space and the appropriate number of additional disks, matching that of the backup being restored.

3. Ensure that the source is turned off for out-of-place restore and turned on for in-place restore.

⊘ Cancel   ✔ Restore

6. **Please choose the appropriate option as described below:**
   - Backup Restore Date - The date to which the server has to be rolled back to.
     - Check the "Restore from specific backup job(on date) if you have multiple jobs done on the same day as per the data selected above.
   - Restore Type - Select "Restore to another - A different server will be used" to do out of place restore
   - Please select a target server
     - If you want to restore the backup to a standalone server then select the option "Include standalone backup servers as target servers"
     - If its for another server in the cloud then ignore the above step.
   - From the drop down box select the target server(from the available list).

7. **Select "Restore" once you have gone through the notes above in Red(Above the Restore/cancel buttons):**

Server Restore

Backup Restore Date* ⓘ

15-06-2016

☐ Restore from specific backup job (on date)

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⊘ Cancel   ✔ Restore

8. **Once you have selected the restore you will see a confirmation popup on the bottom RH corner as shown below:**

ⓘ Restore for client 'Linux File Agent' started. ✖

9. **Status of the job can be seen under the respective agent as shown below:**

🗂 Backup   ⚙ Actions ▾ —

Backup Plan: File and Folder, System State and Applications (Enterprise)

Backup Asset Id: 28fc74e7-c3c0-42f0-9007-a4f02ed10aac

Type	Status / Job	Last Backup	Schedule Policy	⟳
📁 Linux File Agent	Restore (5%)	Jun 14, 2016 12:19 AM	12AM - 6AM	⚙▾

Note: The status shown on the page does not change automatically. You need to refresh the page using the refresh icon above the setting icon to know the latest status of the job. In case if the job goes to the pending state, it automatically resumes within 20 mins from the backend. If you still see the job in pending state after 20 mins, you might need to engage support team. You might have to wait for some time if the job status shows waiting as the jobs might be in the queue to start the restore process.

10. **The job shows pending state at 99% which means the restore is completed and you need to restart the server in order to complete the restore process. The server might take some time to**

boot. Please monitor through the console. Once the server is up, we recommend connecting to the target Server to ensure that you have restored to the correct point in time

- On Linux system, after Restore completion, the IP address will remain the same on the target server as we don't overwrite the target server's IP address.
- On Windows system, after you reboot, you will need to use the new console access in CaaS to re-IP to match with your source server..

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