



# White Paper

## Fabasoft on Microsoft Windows - Cluster Support

Fabasoft Folio 2024 Update Rollup 1

Copyright © Fabasoft R&D GmbH, Linz, Austria, 2024.

All rights reserved. All hardware and software names used are registered trade names and/or registered trademarks of the respective manufacturers.

No rights to our software or our professional services, or results of our professional services, or other protected rights can be based on the handing over and presentation of these documents.

## Contents

1 Introduction	4
2 Software Requirements	4
3 Cluster Preparation	4
4 Cluster Installation	5
4.1 Installing the Failover Clustering Service: .....	5
4.2 Installing the Cluster .....	6
5 Configure Cluster Support for a Fabasoft Folio Service	9
6 Fabasoft Folio Distributed Transaction Manager	11

## 1 Introduction

This document describes how to install and configure Fabasoft Folio Backend Services to run on a failover cluster with two nodes utilizing Microsoft Windows.

## 2 Software Requirements

**System environment:** All information contained in this document implicitly assumes a Microsoft Windows environment.

**Supported platforms:** For detailed information on supported operating systems and software see the software product information on the Fabasoft distribution media.

**Descriptions in this document are based on the following software:**

- Microsoft Windows Server 2019 Standard (x64)

**Note:** If the Fabasoft product is installed on a database cluster, the database instances have to be created manually.

## 3 Cluster Preparation

Prerequisites which are necessary to successfully install a failover cluster:

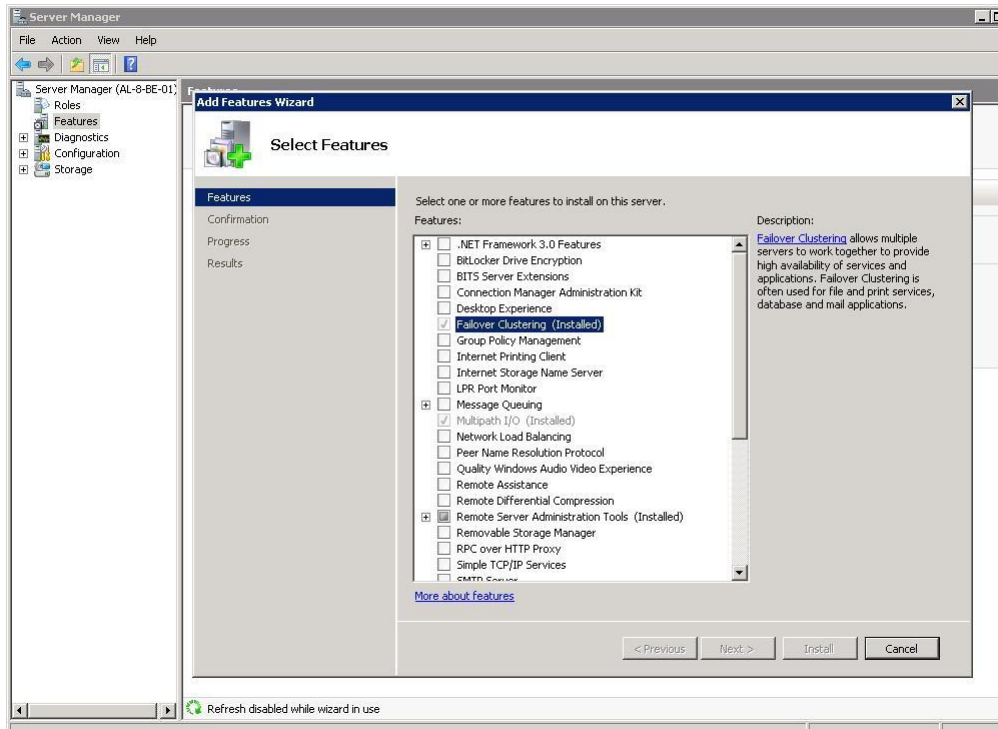
- at least two server nodes (which you want to cluster)
- two active networks
  - network: for network traffic and remote connection
  - heartbeat network
- suitable storage for cluster quorum and cluster disks

**Note:** To install the needed MSI packages on the second cluster node, you can use the Fabasoft Folio Setup. During setup, do not select "Fabasoft Folio Domain" to perform a binary-only installation of selected Fabasoft Folio services.

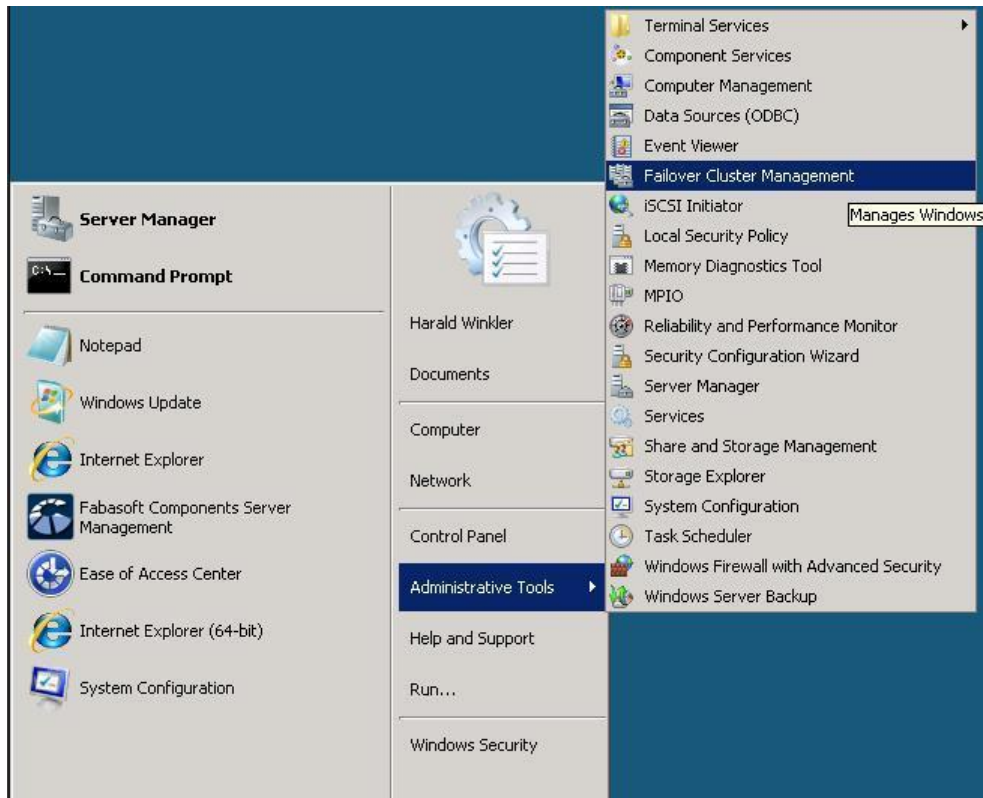
## 4 Cluster Installation

### 4.1 Installing the Failover Clustering Service:

Install the server feature “Failover Cluster Management” using the “Add Feature Wizard”.



After the “Failover Cluster” feature is installed correctly you can find the new feature in “Administrative Tools” in the “Start” menu.

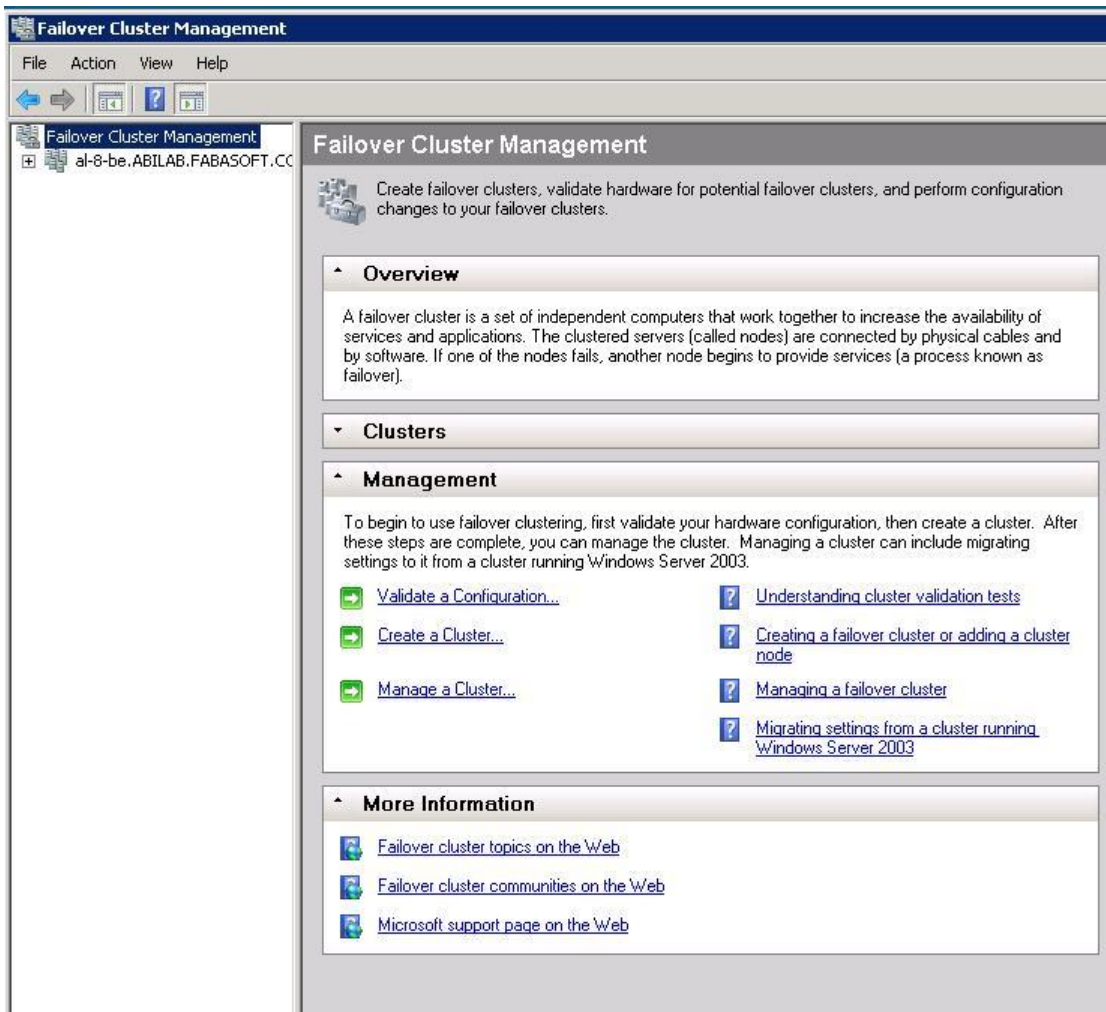


## 4.2 Installing the Cluster

To install the cluster, perform the following steps:

1. Open the “Failover Cluster Management”.

2. Create a new failover cluster click "Create a Cluster".



The “Create Cluster Wizard” will start and provide a wizard that guides you through the installation of the failover cluster.

1. Specify the cluster nodes. Enter the host name of a server that you wish to cluster and click “Add” until at least two or more servers are selected. Click “Next”.

The screenshot shows the 'Create Cluster Wizard' window at the 'Select Servers' step. The left sidebar contains a list of steps: 'Before You Begin', 'Select Servers' (highlighted), 'Access Point for Administering the Cluster', 'Confirmation', 'Creating New Cluster', and 'Summary'. The main area has a title bar with a server icon and the text 'Select Servers'. Below the title bar, it says 'Add the names of all the servers that you want to have in the cluster. You must add at least one server.' There is a text box labeled 'Enter server name:' with a 'Browse...' button next to it. Below that is a list box labeled 'Selected servers:' containing two entries: 'al-win08-01.ABILAB.FABASOFT.COM' and 'al-win08-02.ABILAB.FABASOFT.COM'. To the right of the list box are 'Add' and 'Remove' buttons. At the bottom right are '< Previous', 'Next >', and 'Cancel' buttons.

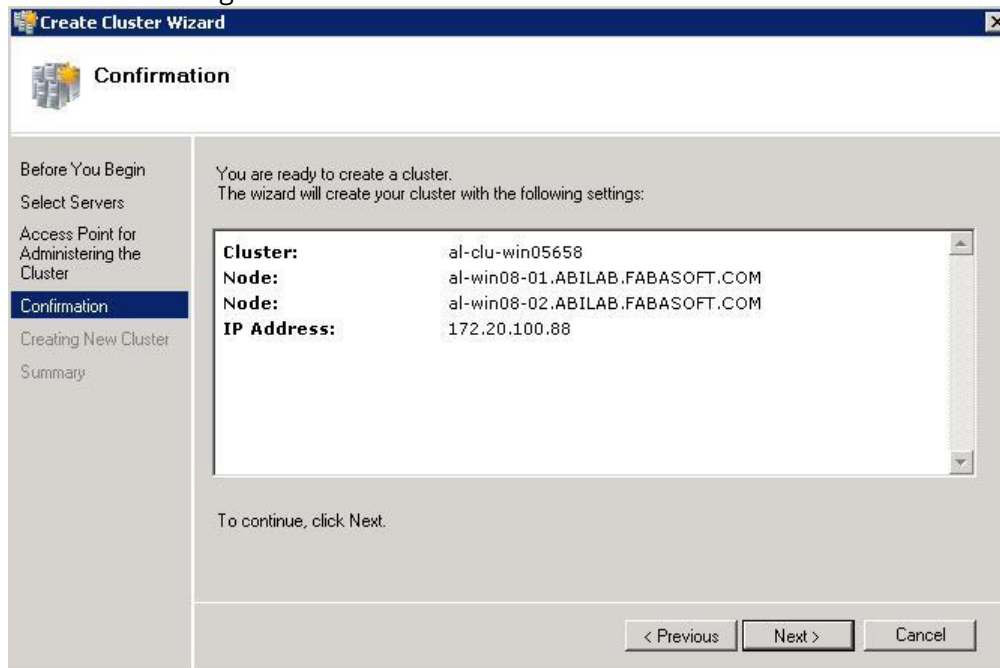
2. Specify the cluster name and the cluster IP address. Click “Next”.

The screenshot shows the 'Create Cluster Wizard' window at the 'Access Point for Administering the Cluster' step. The left sidebar contains a list of steps: 'Before You Begin', 'Select Servers', 'Access Point for Administering the Cluster' (highlighted), 'Confirmation', 'Creating New Cluster', and 'Summary'. The main area has a title bar with a server icon and the text 'Access Point for Administering the Cluster'. Below the title bar, it says 'Type the name you want to use when administering the cluster.' There is a text box labeled 'Cluster Name:' containing 'al-clu-win08'. Below that, it says 'One or more IPv4 addresses could not be configured automatically. For each network to be used, make sure the network is selected, and then type an address.' There is a table with two columns: 'Networks' and 'Address'. The first row has a checked checkbox in the 'Networks' column, the value '172.20.0.0/16' in the 'Networks' column, and the value '172.20.100.88' in the 'Address' column. Below the table is a link: '[More about the administrative Access Point for a cluster](#)'. At the bottom right are '< Previous', 'Next >', and 'Cancel' buttons.

	Networks	Address
<input checked="" type="checkbox"/>	172.20.0.0/16	172.20.100.88



3. Validate the settings and click "Next".



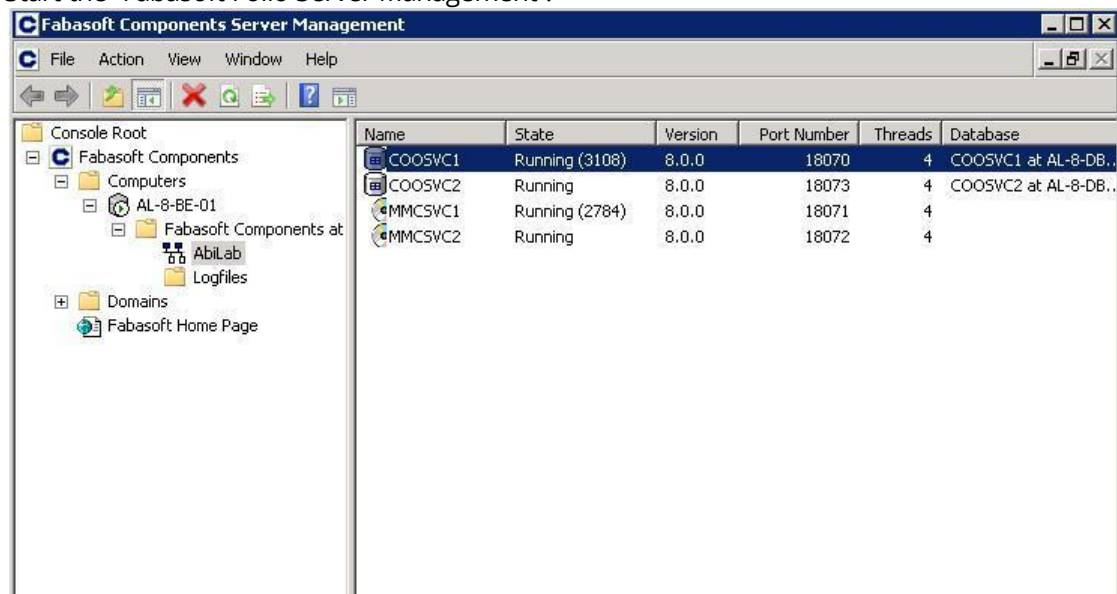
The cluster validation test will start, which verifies that the configuration that you made is sufficient for creating a failover cluster.

4. After the cluster validation test is finished you can review the result of the test and by clicking "Next" the cluster configuration will finish.

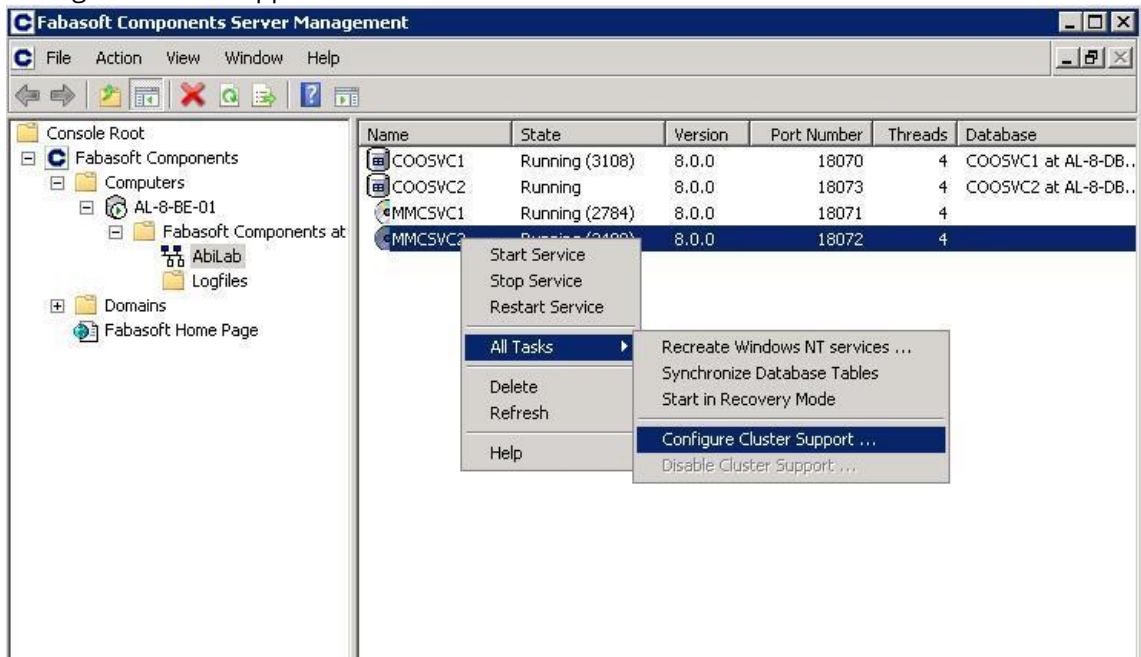
## 5 Configure Cluster Support for a Fabasoft Folio Service

To configure cluster support for a Fabasoft Folio Service, perform the following steps:

1. Start the "Fabasoft Folio Server Management".

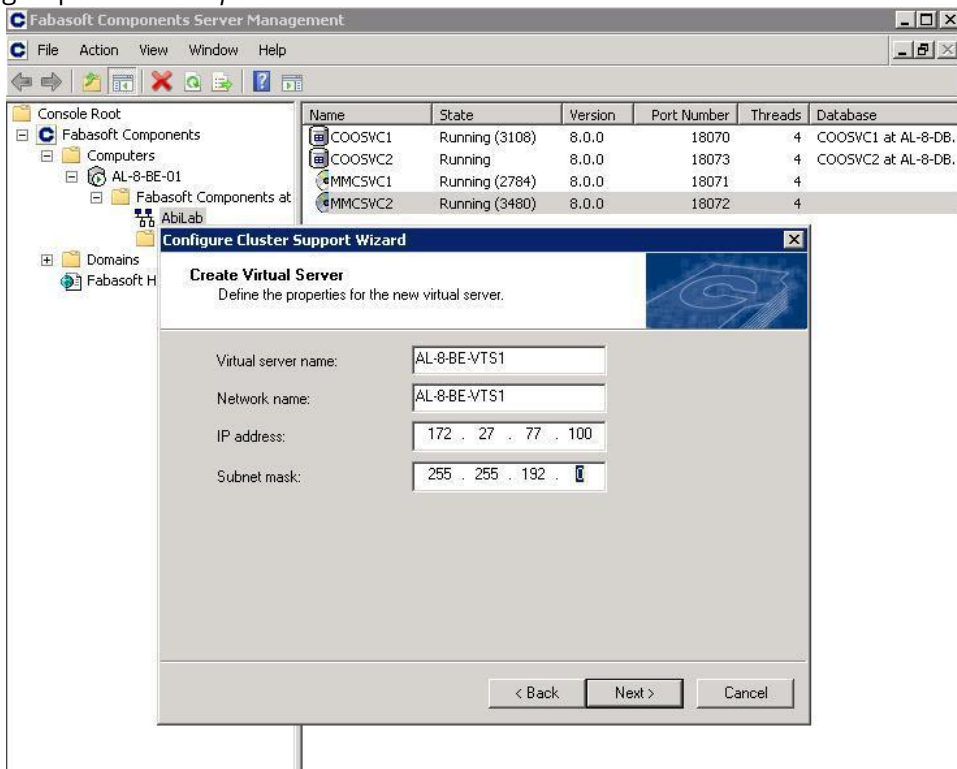


2. Select the service you want to run on the cluster open the context menu and click "All Tasks" > "Configure Cluster Support".



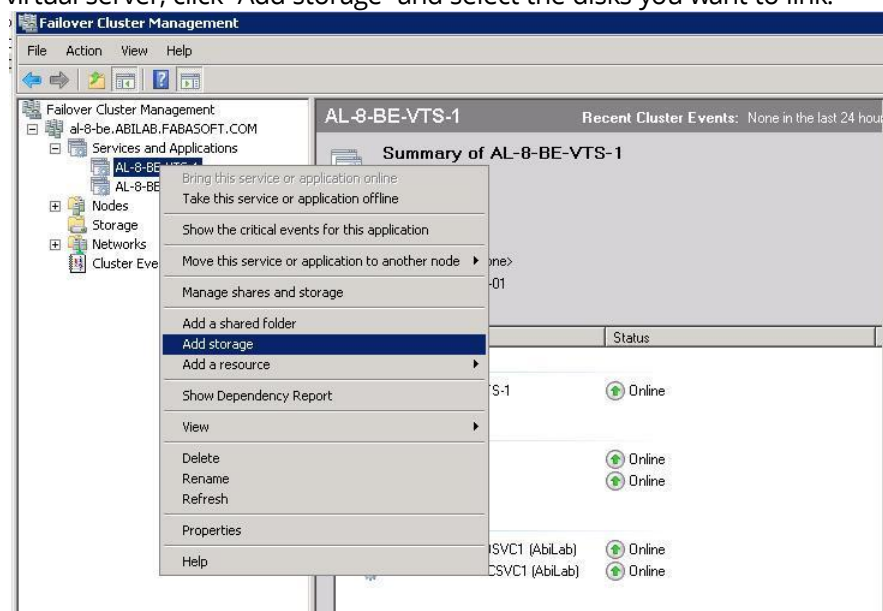
3. Enter the password for the service account.
4. Create a new virtual server if you do not have created a valid cluster group before.

Note: Do not select the cluster group known as *Cluster Group* that represents core resources required by the cluster in order to operate. By default, a failure of a cluster group resource initiates a failover for the whole group, which takes the cluster offline in case of the cluster group *Cluster Group*.

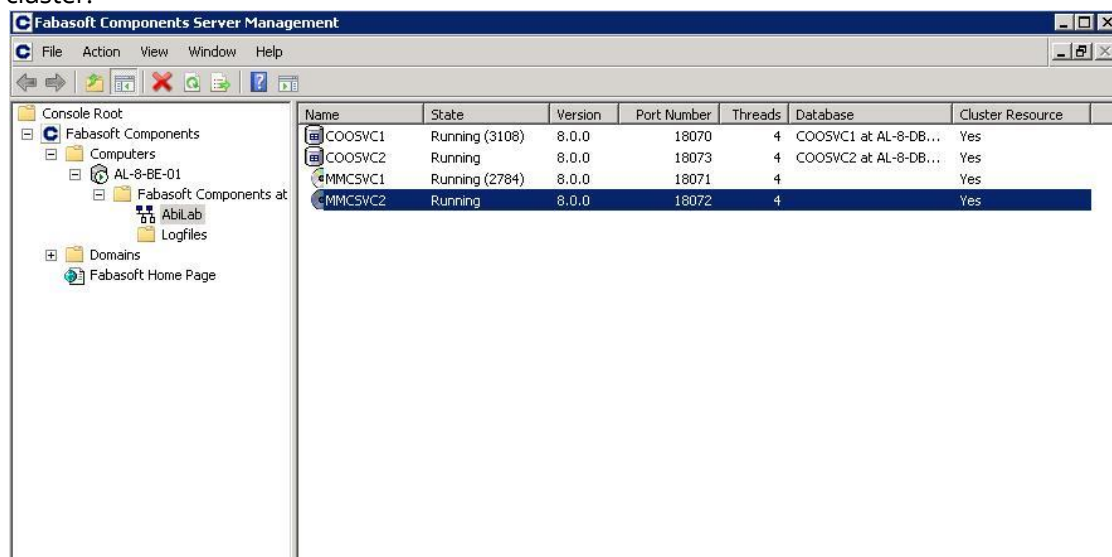


5. Link the storage to the cluster service.  
If you want that other physical drives are also linked to the virtual server, you have to start the

“Failover Cluster Management” and select the virtual service. Open the context menu of the virtual server, click “Add storage” and select the disks you want to link.



6. Check if everything finished correctly.
  - In the “Fabasoft Folio Server Management” the column “Cluster Resource” must have the value “Yes”, for the service you have already clustered.
  - In the “Failover Cluster Management” the virtual server that was created in the step “Configure cluster support” must be displayed in the “Services and Applications” menu of the cluster.



## 6 Fabasoft Folio Distributed Transaction Manager

Using a cluster, the log files for each Fabasoft Folio COO Service have to be available on an appropriate cluster resource (Fabasoft Folio Distributed Transaction Manager log files may exist only once).

When changing the path to the log files of the Fabasoft Folio Distributed Transaction Manager, the existing logs files have to be moved to the new directory in order to ensure that all transactions are handled correctly.

By default the log files are stored in this directory:

```
C:\ProgramFiles\Fabasoft\Components\Server\CooSrv\files\FSCDTM_COOService_x_x_x.dtm
```

To change the location a registry key has to be defined:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain  
<x.y>\Service <z>\Datasource\Default\FSCDTM_TXLOG_PATH
```

To apply changes the modified Fabasoft Folio COO Service has to be restarted.