# Synergy Join
# High Availability

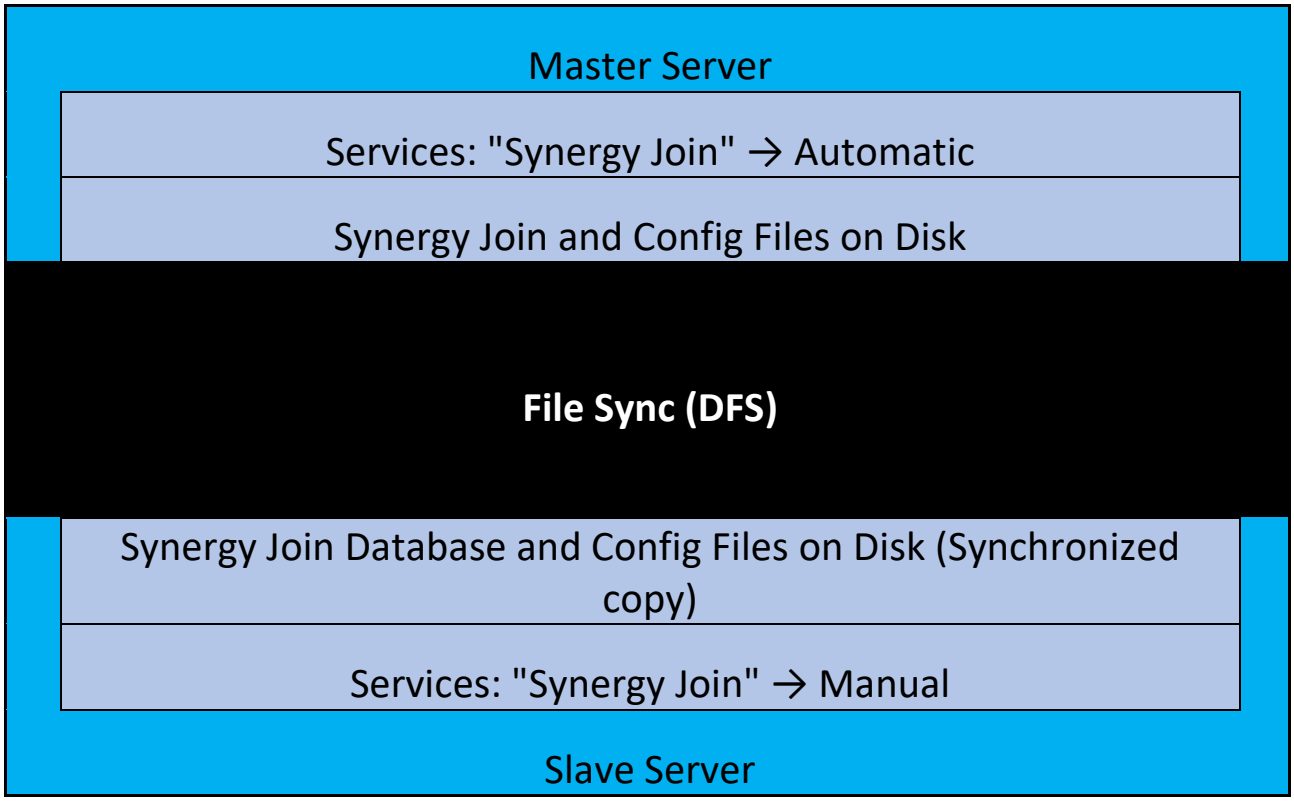
## Introduction

The Synergy Join can be delivered in a High Availability environment with an active/passive deployment. This ensures that no data is lost and that meetings start on time in case of a server failure.

Synergy Join uses a memory based database, where every meeting is flushed to disk when booked, updated or deleted. All configurations changes are also automatically flushed to disk. The advantage of this flexible design is a very high-performance database, which utilizes the file system as permanent storage.

## Architecture

The same version of Synergy Join must be installed on two Microsoft Windows servers that match the software, hardware and network requirements outlined in the “Synergy Join Installation and Configuration Guide”.




EMEA & APAC (HQ)
EMAIL: emea@synergysky.com TELEPHONE: +47 916 48 444
ADDRESS: Dronning Eufemias gate 16, 0191 Oslo, NORWAY

AMERICAS
EMAIL: americas@synergysky.com TELEPHONE: +1 (347) 439-1067
ADDRESS: 142 W 57th Street, 11th Floor, New York, NY 10019 USA

www.synergysky.com

# Installation

## Active server

Run the Windows installer according to the "Synergy Join Installation and Configuration Guide" and install the Synergy Join service from the Synergy Join configuration tool, but do not start the service.

## Passive server

Run the Windows installer according to the "Synergy Join Installation and Configuration Guide" and install the Synergy Join service from the Synergy Join config tool, but do not start the service.

Close the configuration tool.

Open the Services tab in "Windows Management Console" (run services.msc from Start→Run), locate the service called "Synergy Join" and change the "Startup Type" to "Manual".

# Configuration

The configuration of Synergy Join will be performed on the "Active Server", from where it will be replicated to the passive server.

## Active server

Synergy Join should be configured according to the "Synergy Join Installation and Configuration Guide" on the "Active server" as if it was a single server environment.

Perform all tests and verify that the functionality is according to expectations.

## Passive server

No configuration required.

## File replication

A file replication process must be set up **from** the "Active server" **to** the "Passive server". The replication process should add new files, update changed files and delete deleted files.

### *Meeting database*

All files and folders from the following directory:
*c:\SynergySKY\SynergySKYEnterpriseScheduling\databases*

### *Configuration file*

This specific file:
*c:\SynergySKY\SynergySKYEnterpriseScheduling\config\config.json*

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**Note:** We recommend setting up Distributed File System (DFS) (an inbuilt function in Windows Servers) for the file replication process.

### Service monitoring (optional)

A tool for server monitoring can be set up to monitor the state of the Synergy Join Windows service on the "Active server" to allow for automatic service failure alert and automatic failover. The alert and failover should be triggered when the Synergy Join service has been in "Stopped" for some minutes.

*Synergy Join Windows Service name:*
*SynergySKYEnterpriseSchedulingService*

**Note:** The service will stop when the server is rebooted, or the Synergy Join application is upgraded. We advise that the monitoring threshold take this into account.

## Failover

The failover from the Active to the Passive server should happen when the Synergy Join service has been in "Stopped" state for some minutes.

The process of failing over from the Active to the Passive server is done by:

1. Ensure that the Synergy Join service has stopped on the Active server
2. Stop the file replication service from the Active to the Passive server
3. Start the Synergy Join service on the Passive server

The files that are replicated from the Active to the Passive server contain updated configuration, updated meetings and updated Microsoft Exchange Sync Cookies. The cookies will ensure that the Passive server get any created, updated and delete events that have been generated after the Active server stopped.

*Synergy Join Windows Service name:*
*SynergySKYEnterpriseSchedulingService*

**Note:** The service will stop when the server is rebooted, or the Synergy Join application is upgraded. We advise that the monitoring threshold take this into account.

## Failback

Failing back from the Passive to the Active server is done by following these steps:

1. Stop the Synergy Join service on the Passive server
2. Ensure that the Synergy Join service has stopped on the Active server
3. Ensure that the file replication service from the Active to the Passive server is stopped

4. Ensure the Synergy Join service is stopped on the Active server
5. Copy all the replication files and folders from the Passive to the Active server
6. Start the Synergy Join service on the Active server
7. Start the file replication service from the Active to the Passive server

*Meeting database*
All files and folders from the following directory:
*c:\SynergySKY\SynergySKYEnterpriseScheduling\databases*

*Configuration file*
This specific file:
*c:\SynergySKY\SynergySKYEnterpriseScheduling\config\config.json*

*Synergy Join Windows Service name:*
*SynergySKYEnterpriseSchedulingService*

# Upgrade

## Active server

Upgrading Synergy Join on the active server is done by using the inbuilt upgrade feature in the configuration tool.

## Passive server

Upgrading Synergy Join on the passive server must be done manually to ensure the Synergy Join service is not automatically started when the upgrade is complete.

1. Copy the upgrade file from the upgrade folder on the Active Synergy Join server
    - Default location is: *C:\SynergySKY\SynergySKYEnterpriseScheduling\config\upgrade\SetupProject.msi*
2. Run the installer copied from the Active server on the Passive server, and follow the instructions in the installer
3. Ensure that the Synergy Join service is not running on the Passive server
4. Close the Synergy Join configuration tool

# Limitations

## Time zones

Both the Passive and Active server must be in the same time zone (Windows time zone settings) and be synchronized with the same NTP server.

## Corrupt Sync Cookie

A corrupt sync cookie may occur if the Active server was updating the sync cookie on file when it crashed. If this occurs, Synergy Join will request all meetings from the meeting room in Exchange to rebuild the sync cookie. This may lead to the URI of future one-time-VMR meetings changing, and new dial-in information being sent out to the invitees.

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