



# RUSHFILES INSTALLATION AND SERVER MAINTENANCE

*RushFiles Domain Setup*

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*[www.rushfiles.com](http://www.rushfiles.com)*

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## 1. INTRODUCTION

This document describes components of a RushFiles installation and addresses issues regarding system requirements, possible setups and maintenance process. This current documents serves as a reference for partners to answers inquiries on domain setups.

## 2. RUSHFILES INSTALLATION

### 2.1. General RushFiles setup

In our Overview of the RushFiles Architecture (Figure 1) we show the following elements:

- **RushFiles APPs:** the applications offered by RushFiles for your users to share files
  - o 2 desktop versions: one for Windows (PC Client) and one for Mac
  - o 2 mobile versions: one for iOS and one for Android
  - o Web Client, can be accessed using any browser

RushFiles offers our partners the possibility to white-label RushFiles applications so that their branding elements (eg. Colors, application name, logo) match the partner's brand, and make the client "their own".

- **Auth.RushFiles.com:** Central component owned by RushFiles. Acts as a federation gateway for other identity providers (e.g. domainauth). Allows SSO (Single Sign-On) across multiple domains.
- **Domain setup:** represents a partner installation performed on their servers. On these servers, partners will have:
  - o IIS to host your Web Client and our API services:
    - Client Gateway
    - Domain Master - responsible of database management
    - File Cache – perform operations on files (upload, download)
    - **Domain Auth** – local IdentityProvider & Authorization server, SSO endpoint for all client applications
  - o Windows Services for maintenance purposes
  - o RushFiles DB – Mongo database (can be installed on a Linux server)
- **Domain Auth:** Identity Provider component handling the authentication of users in the system. This identity provider can be extended by integrating with other Identity Providers like ADFS (Active Directory Federation Services) or other Enterprise Identity Providers that implement OpenIDConnect and OAuth. OpenID Connect 1.0 is an identity layer on top of the OAuth 2.0 protocol. It allows identity validation of the user based on the authentication performed by an Authorization Server, as well as to obtain

basic profile information about the user.

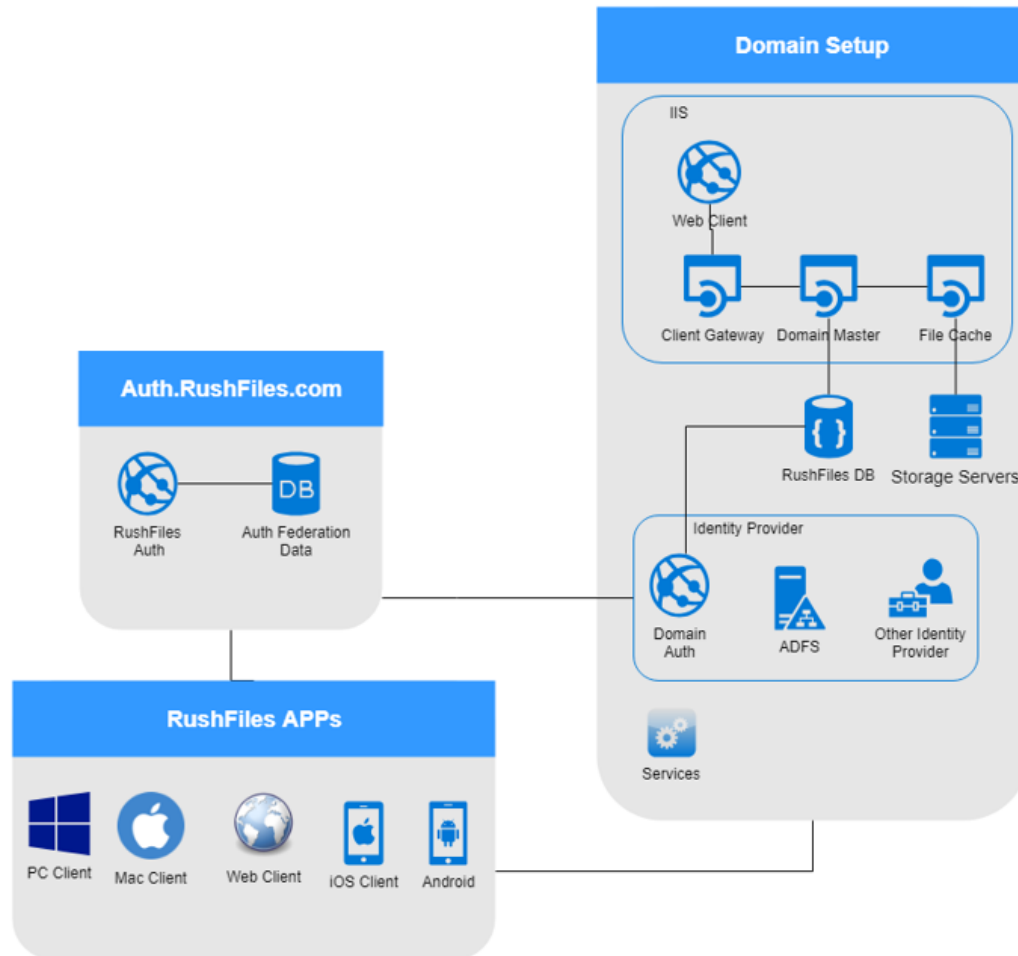


Figure 1- RushFiles Architecture Overview

RushFiles is designed to allow users to login using Single Sign-On (SSO) by connection to multiple domains (server installations). The Auth.Rushfiles.com component enables access to multiple servers from the same client application.

RushFiles can also offer an Isolated Data Island setup to our partners, enabling them to separate their domain setup from the external network, ensuring private and sensitive data is stored and guarded inside your network. The only exception is our WOPI (Microsoft Office Online) integration, whose use requires communication with external components. However, the use of this integration is completely optional.

## 2.2. Domain installation accounts & components

Bellow, we will describe accounts and all components installed on Domain installation.

### 2.2.1. Accounts

IIS AppPool (IIS POOL\RF\_<app name>)

- Requires full control for <app name> web application folder.

FileCache AppPool (IIS POOL\RF\_filecache01.<domain>)

- Requires full control for web application folders

- Requires full control for ArchiveCache and UploadCache folders configured in <filecache app folder>\Config\ArchiveDrives.cfg and <filecache app folder>\Config\UploadDrives.cfg

#### Service Account

- Local System Account

#### Database Account

- Local System Account

#### 2.2.2. Installed components

A short description of all installed components with the following details:

- Database access – if required and name of the database
- Application type – Web application, Windows service or Windows task
- Configuration – location of configuration files
- File storage access – if access to file storage drive is required
- External dependencies – communication with other components
- Multiple instance - the possibility to have more instances of the same components in the same domain setup.

DomainMaster	
<b>Database access</b>	Rushfiles
<b>Application type</b>	Web application
<b>Account</b>	IIS POOL\RF_domainmaster.<domain>
<b>Configuration</b>	Config\FrontendConfiguration.cfg Config\ServerConfiguration.cfg Config-Refactored\MongoClientSettings.cfg Web.config
<b>File storage access</b>	no
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• Geo</li> <li>• BillingV1</li> <li>• XChange</li> <li>• FileCache</li> <li>• DomainAuth</li> </ul>
<b>Multiple instances</b>	No

FileCache	
<b>Component name</b>	FileCache
<b>Database access</b>	no
<b>Application type</b>	Web application
<b>Account</b>	IIS POOL\RF_filecache01.<domain>
<b>Configuration</b>	Config\ArchiveDrives.cfg Config\UploadDrives.cfg Config\ServerConfiguration.cfg Config\RestoreDrive.cfg Config\TokenCfg.cfg
<b>File storage access</b>	Yes
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• DomainMaster</li> </ul>
<b>Multiple instances</b>	yes

ClientGateway	
<b>Database access</b>	no
<b>Application type</b>	Web application
<b>Account</b>	IIS POOL\RF_clientgateway.<domain>
<b>Configuration</b>	Config\ServerConfiguration.cfg
<b>File storage access</b>	no
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• DomainMaster</li> <li>• Geo</li> <li>• FileCache</li> </ul>
<b>Multiple instances</b>	yes

XChange01	
<b>Description</b>	Exchange is the component, which acts as a central hub for sending notifications to clients about changes made on resources.
<b>Database access</b>	no
<b>Application type</b>	Web application
<b>Account</b>	IIS POOL\RF_xchange01.<domain>
<b>Configuration</b>	Config\ServerConfiguration.cfg Web.config
<b>File storage access</b>	no
<b>External dependencies</b>	none
<b>Multiple instances</b>	No

FrontEnd	
<b>Database access</b>	no
<b>Application type</b>	Web application
<b>Account</b>	IIS POOL\RF_frontend.<domain>
<b>Configuration</b>	Config\ServerConfiguration.cfg Config\FrontendConfiguration.cfg Web.config
<b>File storage access</b>	no
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• ClientGateway</li> <li>• FileCache</li> <li>• Wopi</li> </ul>
<b>Multiple instances</b>	Yes

DomainAuth	
Database access	yes
Application type	Web application
Account	IIS POOL\RF_frontend.<domain>
Configuration	Appsettings.json Web.config
SSL Certificate	Requires access to private key of certificate "domainauth.rushfiles.com" generated by KeepAlive. Certificate hostname/domain is <b>not</b> used, just the private key.
File storage access	no
External dependencies	<ul style="list-style-type: none"> <li>• DomainMaster</li> </ul>
Multiple instances	No (currently 1 instance on same machine as DomainMaster)

KeepAlive	
Description	Updates all installed components using the settings and the packages available on updates.rushfiles.com.
Database access	RushFiles
Application type	Windows Service
Account	Service Account
Configuration	
Repository access	no
External dependencies	<ul style="list-style-type: none"> <li>• DomainMaster</li> <li>• Update</li> </ul>
Multiple instances	Yes



Cleanup Service	
<b>Description</b>	Marks files that expired or marked as deleted.  Updates KeepAlive service using the settings and the packages on updates.rushfiles.com.
<b>Database access</b>	RushFiles
<b>Application type</b>	Windows Service
<b>Account</b>	Service Account
<b>Configuration</b>	<domainmasterfolder>\Config\ServerConfiguration.cfg  <domainmasterfolder>\Config\MongoClientSettings.cfg  CleanupConfig.cfg
<b>File storage access</b>	no
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• DomainMaster</li> <li>• Billing</li> <li>• Update</li> </ul>
<b>Multiple instances</b>	Yes (only for KeepAlive update)

CleanupFiles	
<b>Description</b>	Removes physical files from storage.
<b>Database access</b>	no
<b>Application type</b>	Windows Task
<b>Account</b>	SYSTEM
<b>Configuration</b>	
<b>File storage access</b>	Yes
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• DomainMaster</li> <li>• DomainAuth</li> </ul>
<b>Multiple instances</b>	No

MailService	
<b>Description</b>	Sends mails generated by other components (domainmaster). Email messages are stored in database.
<b>Database access</b>	RushFiles
<b>Application type</b>	Windows Service
<b>Account</b>	Service Account
<b>Configuration</b>	RFMailConfig.cfg <mailservicefolder>\Config\MongoClientSettings.cfg
<b>File storage access</b>	No
<b>External dependencies</b>	None
<b>Multiple instances</b>	No

CleanupLog	
<b>Description</b>	Deletes log files for local components.
<b>Database access</b>	No
<b>Application type</b>	Windows Service
<b>Account</b>	Service Account
<b>Configuration</b>	CleanupConfig.cfg
<b>File storage access</b>	No
<b>External dependencies</b>	None
<b>Multiple instances</b>	Yes

BillingService	
<b>Description</b>	Send a report containing company and billing information to DomainMaster.
<b>Database access</b>	RushFiles
<b>Application type</b>	Windows Service
<b>Account</b>	Service Account
<b>Configuration</b>	<domainmasterfolder>\Config\ServerConfiguration.cfg <domainmasterfolder>\Config\MongoClientSettings.cfg
<b>File storage access</b>	No
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• BillingV1</li> <li>• DomainAuth</li> </ul>
<b>Multiple instances</b>	No

RfAdReplicatorService	
<b>Description</b>	Replicates users from Active Directory into RushFiles.
<b>Database access</b>	No
<b>Application type</b>	Windows Service
<b>Account</b>	Service Account
<b>Configuration</b>	<rfadreplicatorfolder>\UserSetup.cfg <rfadreplicatorfolder>\AdConfig.cfg
<b>File storage access</b>	No
<b>External dependencies</b>	<ul style="list-style-type: none"> <li>• DomainMaster</li> <li>• DomainAuth</li> </ul>
<b>Multiple instances</b>	No

Database	
<b>Description</b>	Mongo DB used for main application data storage
<b>Name</b>	RushFiles
<b>Supported Mongo versions</b>	3.4, 3.2,3.0, 2.6 ( .Net Driver 2.4.4.0)
<b>Account</b>	Database Account
<b>Configuration</b>	
<b>Connections from</b>	<a href="#">DomainMaster</a> <a href="#">CleanupService</a> <a href="#">MailService</a> <a href="#">BillingService</a>

## 2.2. Possible RushFiles installation setups

A domain setup can be installed on a single machine, but also can also install components on several machines in order to ensure high availability and system redundancy. See below our proposal for a high availability setup.

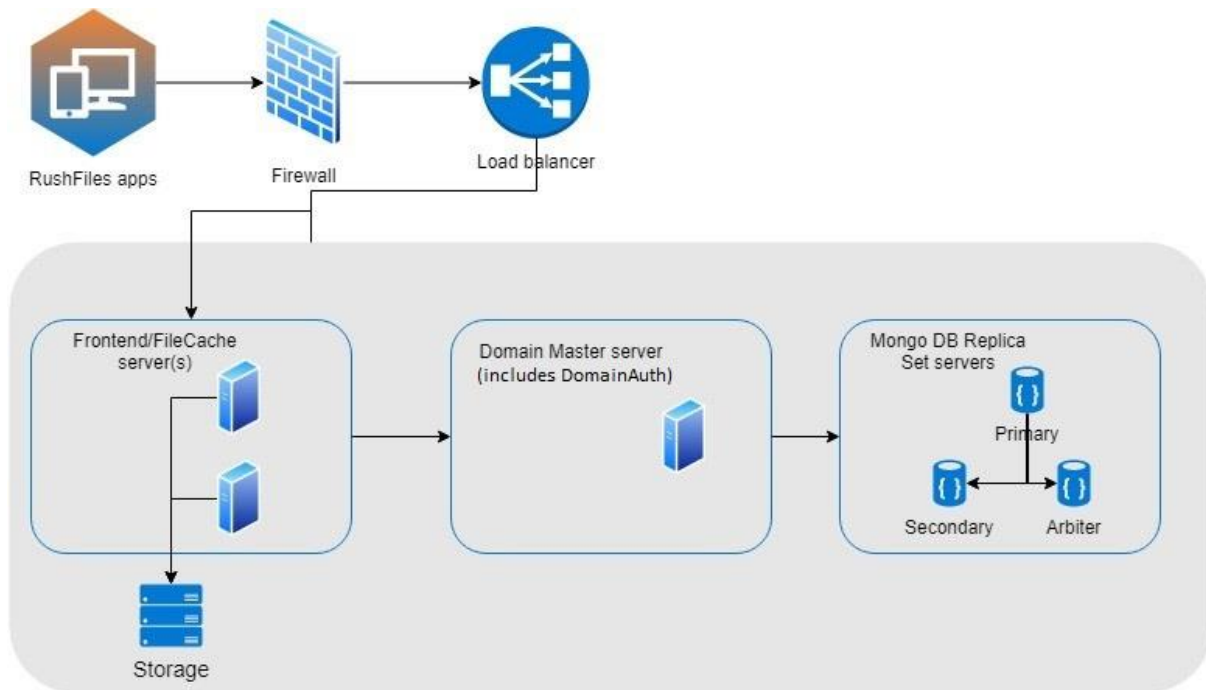


Figure 2- RushFiles High Availability setup

### Proposed VM configs

**Frontend**-2x windows 2012/2016 R2 servers (min 4VCPU`s/8GB RAM/60 GB Disk)

**Backend/Domain Master server**-1x windows 2012/2016 R2 servers (min 4VCPU`s/8GB RAM/60 GB Disk)

**Database**-2x Linux Ubuntu LTS versions (min 4VCPU`s/16GB RAM/1 TB Disk) 1x Linux Ubuntu LTS version (1 VCPU/0,75 RAM/20 GB disk-Arbiter)

**Load Balancer**-1x virtual or physical-(min.4 VCPU`s/8GB RAM/)

### 2.3. System pre-requirements

A domain setup installation can be done on Windows Server 2012 or 2016 machines, with the exception of the RushFiles Mongo database which can be stored on a Linux machine.

Pre-requirements for an installation:

1. IIS must be installed on machines hosting any of the web applications.
2. Allow access to Windows updates server (from machines hosting web applications). Updates need to be available during the RushFiles installation, in order to activate a list of Windows features.
3. Domain certificate installed

A certificate installed in Personal or WebHosting store for the targeted domain. The certificate must be installed on all machines.

4. 50 GB space must be available on the installation drive.
5. Allow access to mongo DB from the machine hosting Domain Master.
6. If storage will be on Network drives, we need credentials for a user with full control rights on installation and network drive(s), for machine hosting file cache.
7. DNS configuration must be setup for the new domain

### **3. MAINTENANCE**

#### **3.1. RushFiles updates**

RushFiles team is continuously developing new features and functionalities for our product. New releases are announced with at least 3 working days' notice via our newsletter or will be scheduled based on your contract agreement.

Using our Update panel we publish a new package for our partners. The Update panel is a web application hosted by RushFiles and is located at the *update.rushfiles.com* address. The KeepAlive windows service, which is installed on each of your machines, performs a check to our Update panel every 15 minutes. If a new package is detected, the KeepAlive service downloads the package and performs the update of all web sites and services installed.

The update process time depends on the download speed of the server and the time KeepAlive service needs to perform all necessary updates. User activity should not be affected by the update process.

If updates are necessary for the KeepAlive service, the CleanupService will perform the update in a similar manner as the KeepAlive service.

Updates for the desktop client applications, are published on the *update.rushfiles.com* site. The desktop applications periodically check for updates, downloads and installs the latest version.

Mobile versions are published in Google Play and App store, by the RushFiles team.

#### **3.2. Server maintenance**

##### *3.2.1. Update server certificate*

Domain certificate needs to be updated prior to expiration date. After purchasing the renewed certificate you need to install it on all machines. The certificate must be installed in Personal or WebHosting store for the targeted domain.

After installation, make sure to update the https binding in IIS for all web applications, to use the new certificate.

##### *3.2.2. Updates and system check*

Any infrastructure work on RushFiles VMs should be performed after a manual shutdown of RushFiles sites and Services.

In case of unplanned system shut down please ensure that all windows services are running and websites hosted in IIS are started.

You can refer to RushFiles logs in case something is not functioning correctly.

### 3.2.3. RushFiles logs

System logs are located in the installation drive in folder RfLogs.

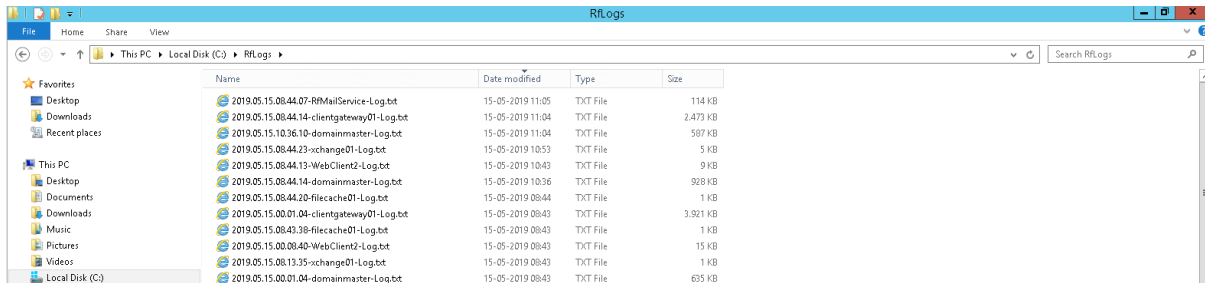


Figure 3- RushFiles logs

In this folder you can locate logs from all web applications and services installed on the machine(s).

### 3.2.4. Backup

RushFiles recommends our partners to setup Backup processes on their VMs. We encourage periodical backup of VMs and a minimum daily backup of Storage drives and database.