



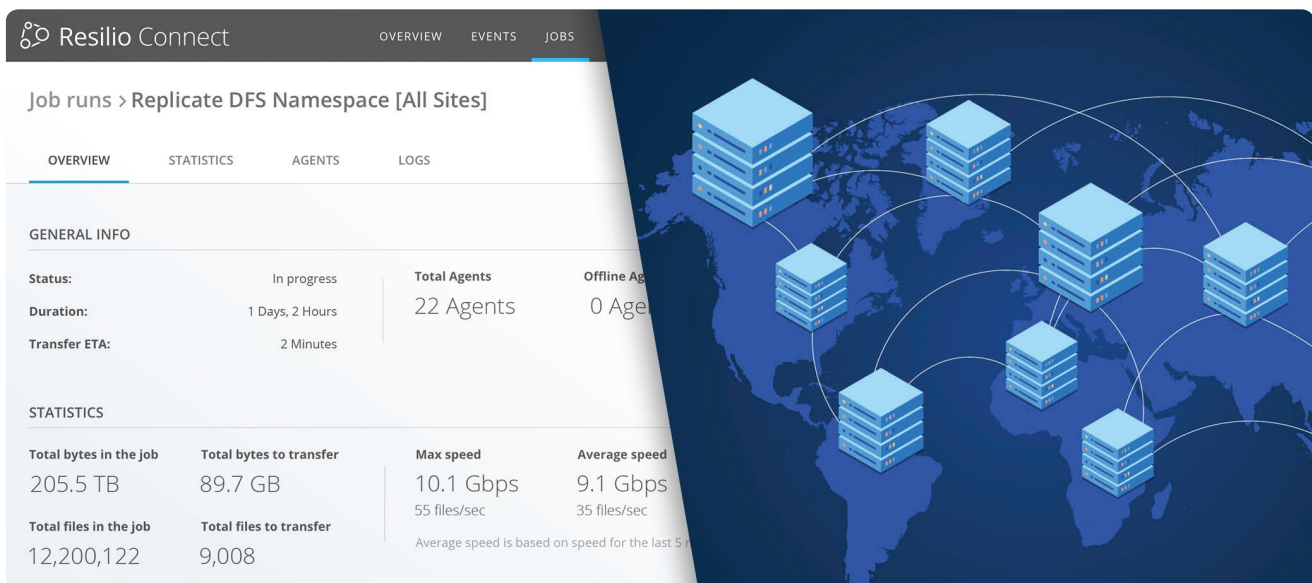
# Fast and Reliable DFSR Replacement

Resilio Connect is a high-performance replacement for Microsoft Windows DFSR that offers improved speed, reliability, and visibility

## Introduction

Anyone running Windows Servers is likely familiar with DFSR (Distributed File System Replication), Microsoft's built-in role service for replicating files and folders within a DFS namespace. When DFSR falls short, companies turn to Resilio.

Many large enterprises trust Resilio to rapidly and reliably synchronize files across their global DFS environments, giving IT managers the confidence of knowing that replication will always "just work"—protecting all files, eliminating failure points, and keeping all files current and accessible to your organization.









Gain peace of mind in knowing your DFS environment is stable, resilient to failures, and easy to manage. With Resilio, files are consistently and efficiently replicated in predictable time frames, across all locations. It eliminates hours of frustrating DFSR troubleshooting and enables IT pros to regain control of DFS through visibility into all operations; plus centrally monitor, control, and automate DFS replication.

Disaster recovery (DR) and upgrades are vastly simplified with Resilio. Meet and even exceed your recovery time objectives (RTOs) and recovery point objectives (RPOs) and reduce recovery time from days to minutes. Files are kept in sync within seconds—across all locations—and any number of DFS servers. Resilio's peer-to-peer architecture protects files and seamlessly routes traffic around failures to meet the highest levels of availability.

Compared to DFSR, Resilio speeds up replication by 10x on average. Across wide-area networks (WANs), that number is closer to a 20x boost. Synchronize up to 100s of millions of files of any size and type, across any distance and location.

## Use Cases

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**DFS Replication & Sync**  
 Easily [replace DFSR](#) with a highly reliable, highly available, fast and scalable server sync solution.
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**Azure File Sync Alternative**  
 Extend DFS to Azure to move massive numbers of files and objects within or across any Azure cloud region and availability zone.
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**File Server and Storage Sync**  
 Sync files stored on file servers and NAS devices at full speed between in any direction—one- and two-way, fan-in, fan-out, or N-way sync.

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**WAN Optimization**  
 Overcome latency and packet loss to move data fast and predictably across any IP network, over any distance.
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**Hybrid Multi-cloud**  
 Incorporate the cloud on your own terms to sync data between on-premises data centers, branch offices, and your cloud provider of choice.
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**Data Migration**  
 Reliably migrate files and metadata such as file permissions across servers and locations.

## Challenges

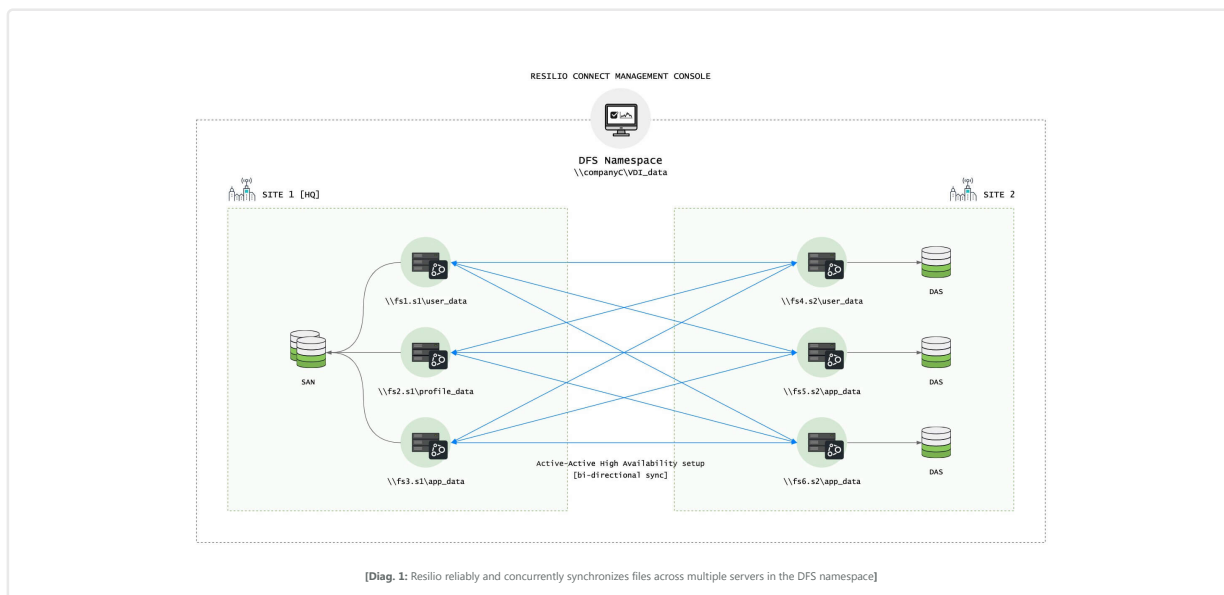
DFSR is fraught with instability, unreliability, poor diagnosability, and lack of visibility. In multi-site environments, DFSR customers complain of slow and unpredictable replication, lack of scalability, and—at its worst —DFSR database corruption and data loss.

Specific challenges with DFSR include:

- Unreliable, error prone file replication:** Stalled or failed transfers and DFSR database corruption cause unnecessary troubleshooting, restores, and downtime.
- Poor performance:** DFSR is notorious for its “backlog” of files in the replication queue. The backlog is especially problematic in large capacity file systems containing many files, or large files.
- Downtime caused by manual active-passive failover:** Failover across DFS sites must be manually performed, causing outages and downtime during maintenance and upgrades. Outages negatively impact file accessibility through DFS.
- Unstable and slow performance over WANs.** DFSR does not tolerate unreliable network connections, nor poor conditions such as network latency or packet loss.
- Poor visibility and diagnosability.** IT may spend hours diagnosing and troubleshooting [DFSR status](#), failed replication jobs, and numerous other DFS replication issues.

## Solution

Resilio’s solution for DFSR Replacement offers server administrators and IT professionals confidence knowing that replication works reliably all the time—keeping all files current to end-users and applications that depend on timely file access.



Thanks to Resilio's unique peer-to-peer (P2P) architecture, all files are reliably and concurrently synchronized across multiple servers in the DFS namespace. Jobs scale from a few DFS servers to large-scale, multi-site deployments. For hybrid clouds, Resilio extends DFS to the cloud, rapidly synchronizing files in Azure cloud storage—as well as providing cross region (CRR) and availability zone replication.

As a software-only solution Resilio agents are installed on each DFS server. The Resilio Connect management console offers administrators an easy way to visualize, manage, and monitor all replication for DFS. All functions are easily automated. Events and notifications are tracked and collected in reports and sent via email or webhooks.

## Advantages and Benefits



### Gain Peace of Mind

Once jobs are initially set up, no IT intervention is needed. Resilience and file integrity are provided end-to-end throughout the replication process. If a failure occurs on a server or in the network during the replication process, Resilio intelligently routes around the failure—and the synchronization job continues, undisrupted. IT professionals can visualize global file delivery, monitor and track DFS replication status, and set notifications.



### Save Time

Automation gives IT set-it-and-forget-it control over all replication. Once jobs are created, files are automatically replicated across as many DFS servers and other endpoints (such as Azure Files) as needed across your DFS environment. Job types include Synchronization, Distribution, Consolidation, and Scripting. All operations can be easily scripted or automated through APIs.

This simplifies global DFS replication—both on-prem and to the cloud. Your IT team may choose to extend your on-prem Windows Servers to Azure. Resilio simplifies using Azure Files, Azure Blobs, and Azure NetApp Files—for DFS and other use cases like remote work, server sync, and VDI replication.

One joint Microsoft customer [saved 14 hours per week](#) of administration time compared to DFSR.

**"Our file recovery times were substantially decreased with Resilio. Our recovery time took 3 or 4 days using DFSR and we could not meet our RTOs. Using Resilio Connect, we can restore a single file—in some cases in less than a minute—using the exact same IT infrastructure (servers, storage, and DFS namespace)."**

**— Head of IT, large US-based insurance company (name withheld for privacy)**



### Keep Files Current and Accessible

Files are replicated and synchronized in real-time. Only the changed portion of the file is updated on other DFS servers. Unlike DFSR, file changes are reliably and rapidly synchronized in parallel across all DFS servers in the namespace; alternatively, you can define a subset of servers to update and have flexibility to define your own file delivery scenario.

Concurrently distribute, consolidate, and synchronize files in any direction—one-way, two-way, one-to-many, many-to-many, or many-to-one.

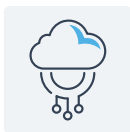
Remote users in branch offices and other remote sites will always have access to current files. If a failure occurs on one site, user access can be routed to another site through DFS. Factors such as network latency, packet loss, bandwidth, and reliance on VPNs are mitigated.



### Accelerate and Scale Performance

Resilio is the fastest way to sync files for DFS—across any network. Resilio's P2P architecture enables all DFS servers to participate in file synchronization. As more servers are added to the job through the management console, performance increases; conversely, with DFSR, as more servers are added, performance degrades.

WAN optimization ensures predictable performance across any high latency network. The solution overcomes latency to obtain full-utilization of bandwidth across any distance, using any IP network. That also saves bandwidth. You can allocate different bandwidth policies for different sites—and obtain full bandwidth utilization when needed.



### Extend DFS to the Cloud

With Resilio, you can use your choice of IT infrastructure: any type of servers, storage, and network—including the Azure cloud or another cloud provider. The solution also gives you the flexibility to expand storage capacity for DFS using on-premises and/or cloud storage. Use any S3-compatible cloud object storage and incorporate strategic cloud file storage offerings like Azure Files and Blogs and Azure NetApp Files into your enterprise file services.

Through an innovative feature called transparent selective sync, Resilio extends your Windows file servers into [storage caching gateways](#). This allows IT and storage administrators to browse cloud storage like a local file system in Windows Explorer. Files can be selectively downloaded, cached, and synchronized based on policies and the needs of your organization, and accessed locally on the Windows Server, or through a DFS or UNC share.



### Feel Confident

Feel confident knowing your data is always protected and available to your organization—to keep IT and your business critical applications running smoothly. Resilio gets your files where they need to be—when you need them.

From a DR perspective, Resilio enables true active-active high availability (HA) across sites for fast site-to-site failover, reduces recovery times from days to minutes, and keeps files synchronized within seconds—across as many DFS servers as needed. This gives you a big boost in time savings and confidence during upgrades and DR readiness.

One joint Microsoft and Resilio customer reduced their DFS recovery times from 3 to 4 days to minutes using Resilio. [Read the full case study here.](#)



### For More Information

For more information about Resilio Connect, please visit <https://www.resilio.com> or contact [sales@resilio.com](mailto:sales@resilio.com)

### About Resilio Connect

Resilio Connect is a software-only, agent-based server synchronization solution. Agents are installed on all servers participating in jobs. Job types include Distribution, Consolidation, Scripting, and Synchronization. Resilio Connect agents support popular operating systems, virtualization platforms, servers, storage, NAS devices, networks, and cloud providers. Server agents are available for Windows Server, Linux, macOS Server, and FreeBSD.

The Resilio Connect management console offers a centralized, web-based UI to manage and monitor all agents and job functions. Control agents, manage users, create and run jobs, control bandwidth allocations, and deploy job instructions across the organization. Once jobs are running, Administrators can monitor and collect statistical data globally. Events and notifications are tracked and collected in reports and sent via email.

Resilio's complete API set automates all functions. The management console runs on Windows and Linux servers. Please see [Resilio.com](https://www.resilio.com) for the latest System Requirements.