How to Accelerate Server Migrations While Reducing Cost and Risk

Windows Server 2012 & 2012 R2 have reached end of support. The clock is ticking. Are you prepared?

What You Need to Know

Microsoft is ending support for Server 2012 and 2012 R2 on October 10, 2023. That means, among other things, no more security patches, no more driver updates, and no more compatibility support. It also means any server migration project that wants to beat the deadline needs to start **yesterday**.

Server migrations are complex and perilous. Completing one without disrupting operations can take months.

Risk accelerates after EOL; each day, unpatched networks face greater vulnerability to:

- **Cyberattacks**—known vulnerabilities in older systems are prime targets for hackers.

- **Non-Compliance Lawsuits**—outdated systems struggle to meet regulatory requirements.

- **Data Breaches**—legacy systems often compromise information security.

- **Downtime**—like cars, older networks require more maintenance to keep running.

⚠️ **Did you know boards of directors could be held personally liable for failing to address security vulnerabilities?[1]**

The clock is ticking. In this playbook, we discuss server migration options, and provide tips on how to navigate the complexity of such a critical transformation project.

[1] The Caremark case established a legal framework for holding directors personally liable when they completely fail to implement a system that identifies risks or that ignore warning signs.

What Are Your Options?

There are some key differences in how you can migrate from 2012 and 2012 R2.

Here's what you can migrate to:

Windows Server 2016

This is the only target server OS that doesn't require a two-phase upgrade for Server 2012 migrations. But keep in mind: this OS reaches EOL in 2027, which means you'll be repeating the process within a few years.

Windows Server 2019

This option allows for an in-place upgrade when migrating from 2012 R2, and is supported until 2029, giving you two more years of service. Migrating from Server 2012 will require a two-phase upgrade, however.

Windows Server 2022

For on-prem systems with compatible apps and hardware, Server 2022 offers the longest shelf life, with EOL in 2032.

Hybrid/Multi-Cloud

With the rise in Anywhere Operations, more and more organizations are migrating to cloud-based, hybrid cloud, or multi-cloud infrastructures, reducing the system's dependence on centralized migration programs.

And here's how to manage the migration:

In-Place Upgrade

Upgrade up to two versions away from your source server (from 2012) using the same hardware (e.g. from 2012 to 2016). If your target is 2019 or 2022, it will requires a two-phase upgrade.

Note: Windows Server 2012 R2 is capable of in-place upgrades of up to **three** steps—so it's possible to cut over to 2022 in a single move (provided your hardware and apps are compatible).

Clean Install

Install on new server hardware, new server VM, or Cloud VM and migrate to the new environment.

Cluster OS Upgrade Rollout

Install an new cluster, then migrate applications and data to ensure redundancy.

Migrate

Migrate one feature or role at a time from a source computer to a destination computer running the new server OS.

How you migrate and what server OS path(s) you decide on will depend on your apps and hardware.

Know Your Apps: A Journey of Discovery

Make a List (and Check It Twice)

- What applications do you have?
- What servers and databases do they interact with?
- Will they work on a later version of Windows Server?
- If not, can they be retired, replaced, or developed?

Compile an App (and Dependencies) Inventory

- Compile hardware and software inventories, user data, and more. (Data sources typically include CMDBs, SCCMs, Access Management Systems, spreadsheets, and other databases.)
- Map dependencies.
- Identify application owners and stakeholders.
- Identify missing information about apps and hardware that needs to be collected from owners, stakeholders, and users.

Survey App Owners and Users (Internal and Third Parties)

- Does the app still have an owner, or is it orphaned?
- Is the app still required? Can it be retired or replaced?
- What are the relevant dependencies? Does a back-end server associated with the app need an upgrade?
- Does it have to stay on-prem, or can it be moved to the cloud?
- Is the app compatible with the target OS?
- Is a new version available that's compatible with the target server OS?
- Does the app require development for proper functionality in the new environment? If so, how soon, and at what cost?

Manually compiling this data by chasing down stakeholders and app owners can take months **on its own**

- **Automate the aggregation, scrubbing, and rationalization of your data from apps, severs, databases, and other sources.**

- **Automate communications, reminders, and escalations to collect information.**

- **Automate the data chase. Leverage self-guided surveys within ReadyWorks to collect missing information and verify application requirements.**

Identify Hardware Requirements

Use the information you collected about application requirements to evaluate hardware readiness.

- Will the server have enough resources (CPU, RAM, or storage space)?
- Has the warranty for the server hardware expired?
- Are hardware drivers compatible with target server OS?

✓ **ReadyWorks helps you identify hardware that needs to be upgraded.**

✓ **Use ReadyWorks to automate hardware replacement workflows.**

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Build Your Migration Plan

Information from app owners will help you define a migration plan for moving each app to the new server OS environment (in the cloud, or on-prem).

Don't forget to incorporate regulatory and compliance requirements. For example, are there any requirements to keep some applications on prem?

Each app migration plan/workflow will have multiple sub-plans, such as testing and additional development. Make that easier by sorting apps into groups like these:

- No longer needed/can be retired ahead of server migration.
- Requires development before migration to the new OS.
- Requires third-party update before migration.
- No upgrade required. Server has in-place upgrade preserving existing ecosystem.
- No upgrade required. New server is built, and application is installed, tested, and data is cutover to the new server.
- Exceptions—Some apps may have already sunset, and aren't supported beyond server 2012 (or 2012 R2), but may still be mission-critical, at least temporarily. For these, build an exception plan that facilitates their use by deploying them in a separate controlled environment VM or Sandbox network. That way, you can more easily maintain privacy and security until the app can be retired or replaced.

Tracking so many workflows in static spreadsheets is both torturous and dangerous. You risk migrating before you're ready—potentially breaking access or disrupting operations.

Test, Test, and Test Again

Never underestimate the importance of testing in the new server environment. Every application that has a migration plan associated with it must be tested and certified before you can move forward.

- Create tickets that instruct app owners to begin testing.
- Establish a formal feedback process to track testing progress and manage any issues.
- Don't sign off on an app until testing is complete, and it's certified to work on the new OS.

Reduce risk of business disruption by thoroughly testing each app

- ✓ **ReadyWorks orchestrates testing workflows, including: opening and closing tickets; facilitating communications and issue reporting; tracking escalations and sign-offs; and more.**

- ✓ **Sign-off and feedback is captured for migration readiness and audit trails.**

- ✓ **Issues and exceptions are clearly visible so you don't progress with the migration until you're ready.**

Automate Repetitive Tasks to Reduce Time and Effort

Any IT program involves repeating one or more simple, identical tasks thousands of times across the system. Which means, with a little automation, team member efforts can be redirected to higher-level responsibilities. Tasks that can be automated include:

- Communicating with app owners, stakeholders, and business leaders.
- Scheduling activities – working out the best time to schedule any step of the migration so you aren't performing tasks when business could be disrupted.
- Tracking progress status.
- Reporting and escalating on issues and risks.

TIP: By automating emails and escalations, you free up your team's time to handle more complex, more delicate tasks.

✓ **ReadyWorks automates repetitive tasks and uses dates and workflow triggers to automate task sequencing.**

✓ **Use the ReadyWorks self-service portal to get users to provide critical program information in one central place.**

Automate Communications

Leverage templates to communicate program details with owners and stakeholders, including program overview, how to provide information via the self-service portal, escalations, and links to reporting.

Automate Scheduling

Scheduling is an important element of any migration. You'll need to make sure your migration activities aren't scheduled during key business times or blackout days. But end users are always the most troublesome part of a migration to organize. So, automate the scheduling, and let end users pick times that don't interfere with their operations.

Migrate to the New Environment

When you're certain that testing for every application has been completed and certified, you're ready to manage the cutover to the new environment.

TIP: Add steps like "back up data before cut over" to automated templates, so minor missed details never cause major problems again.

Use ReadyWorks to easily analyze migration readiness before starting the cutover.

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Track Program Status

Keeping your migration on schedule requires monitoring many plans and workflows. You need to know if critical milestones are being met, track application and hardware readiness, and share progress with owners and stakeholders to improve program transparency.

At the cutover stage, you need to be sure all app migration activities are complete, the hardware is ready for the install, and that the schedule/appointment is free of conflicts or competing network demands. ReadyWorks makes this part of the process easy:

- Communicate with migration teams to understand progress, and keep on top of issues and escalations.
- Compile data into an easy-to-parse view for stakeholder consumption.
- Share with stakeholders and manage regular progress meetings.

✓ **Get full program visibility with ReadyWorks' real-time dashboard view, and spend less time creating status reports.**

✓ **With improved transparency, everyone knows what they need to do, and when, to ensure migration success.**

ReadyWorks Helps You Migrate Faster, with Fewer Risks

ReadyWorks is a digital platform conductor. It integrates and normalizes critical program data, analyzes risk, automates and orchestrates workflows, and provides real-time status in a single command and control platform. Simplify your server migration and ensure everything stays on track, from data discovery through cutover to the new environment. With ReadyWorks you can:

Automate 50% or more repetitive tasks including data discovery, workflow automation, and reporting.

Shorten server migration timelines by 30% or more.

Reduce migration costs by 40%.

Book a demo to see how ReadyWorks can remove risk and complexity of your server migration.

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