

Automate now

and eliminate end-of-support challenges for good.

End-of-support (EOS) for Windows Server 2008/R2 is a critical event that, if left unaddressed, puts an organization at much higher risk for security breaches. Unfortunately, most organizations don't align their internal application lifecycle schedules to the EOS schedules maintained by software vendors like Microsoft, and therein lies the problem. How do you migrate applications running on Windows Server 2008/R2 to a supported OS without disrupting current business or projects.

Wherever you are in your migration efforts for Windows Server 2008/R2, Chef can help you get there faster and improve the long-term manageability of the applications.

Core benefits of Chef's automated approach include:

- Avoid Costs – No expensive extended support contracts
- Accelerate Cloud Migrations – Decrease cloud migration times by 30% or more
- Scale Continuous Delivery – Build once and deploy on-demand anywhere
- Lower Operational Overhead – Eliminate 1,000s of hours of manual work
- Mitigate Risks – Ensure systems are current and compliant
- Increase Application ROI – Deliver features and updates up to 80% faster

Out-of-date software is a never-ending problem.

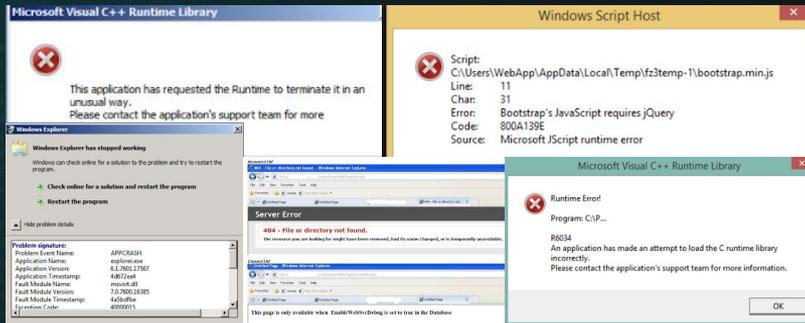
Developing a long-term strategy for managing software updates is critical to the success of any modern IT organization.

Upcoming Software EOS Dates:

- July 9, 2019: Microsoft SQL Server 2008 / 2008 R2
- August 31, 2019: Red Hat Linux 7.4
- December 31, 2019: OpenSSL 1.0.2
- January 4, 2020: Microsoft IIS 7.5
- **January 14, 2020: Microsoft Windows Server 2008/R2**
- March 7, 2020: Symantec Altiris 8.0
- March 12, 2020: VMware vCenter and ESX/ESXi 6.0



The big blocker: app dependencies



Windows Server offers good backwards compatibility. The challenge related to moving older applications to newer versions of Windows Server is not typically that the application won't run on a newer version of the OS but that the needed dependencies to get the application to run in the new location are no longer known. Without clear documentation regarding the needed runtime configurations it can be very difficult to next to impossible to reinstall the application in a new location - whether that be in the cloud or on-premises.

Applications written in .NET Classic and running on IIS are especially challenging to modernize.

Tightly-coupled applications often depend on operating system-provided features like Internet Information Services (IIS). Applications written in .NET Classic or Microsoft Visual C/C++, or ones that load custom drivers into the operating system kernel, are extremely difficult to untangle and refactor. Many times this results in what is referred to as "DLL Hell".

Chef Habitat provides x-ray vision for identifying DLLs for apps running on Microsoft IIS.



Traditional options are not good enough

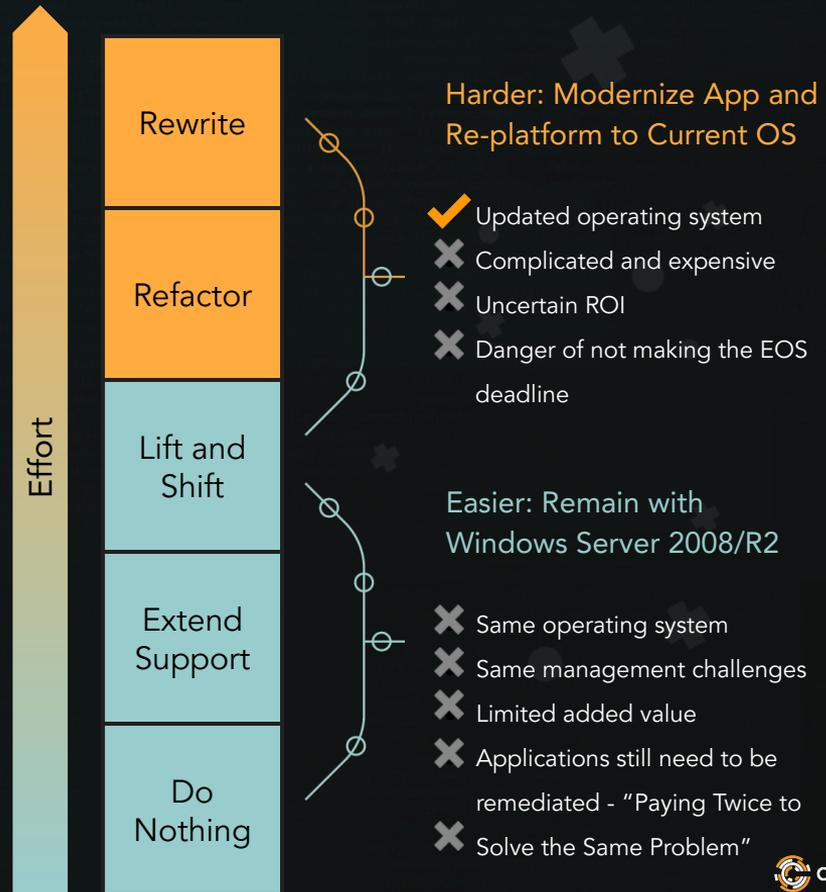
Organizations facing Windows Server 2008/R2 end-of-support have a number of options to consider. These include everything from doing nothing to completely rewriting the application. For most, the solution will lie somewhere in-between. In addition to cost and risks, customers must consider:

Internal Resource Requirements (Effort): Pulling internal resources away from other projects can cause the company to fail to meet current business objectives.

Long-Term Manageability (ROI): Implementing a costly solution that does not drive down operational overhead or improve agility does not help the business become more competitive in the long-run. It also may be a missed opportunity for teams responsible for the applications to automate their processes and bring in needed tools.

Traditional options many times leave customers with more questions than answers, such as:

- Do we have the internal expertise to deal with this?
- What ongoing and/or new problems will I have?
- What if we can't rewrite or refactor by the deadline?
- Will the app run well in the cloud and/or be harder to manage?



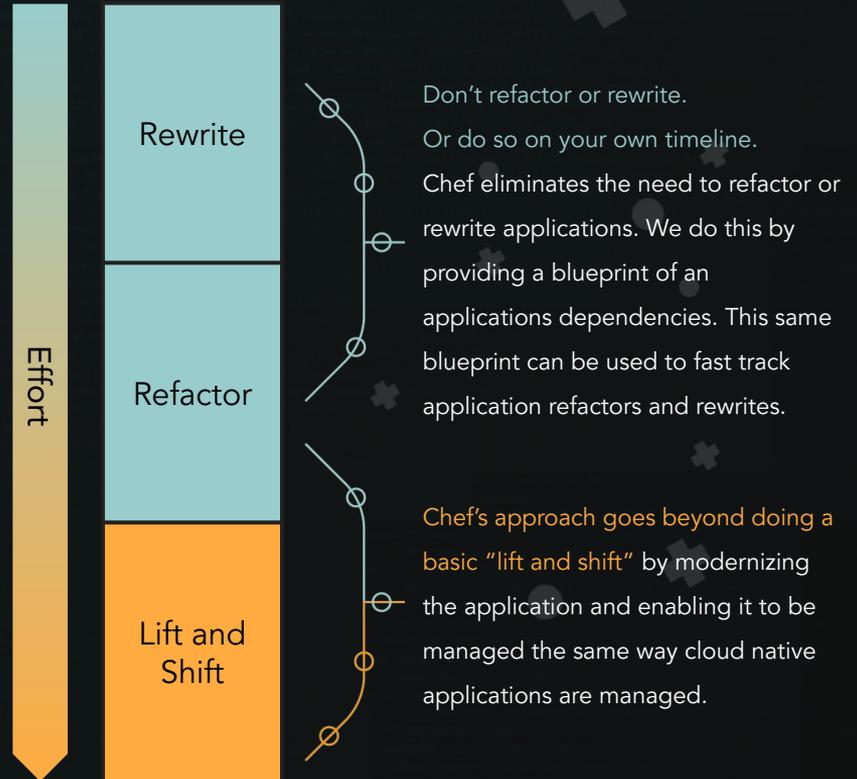
Migrate and modernize with Chef without refactoring or rewriting

Outside of doing nothing or purchasing an extended support agreement, the Chef Windows Server 2008/R2 Application Migration Program is designed to help customers accelerate their migration off of Windows Server 2008/R2 wherever they are in their current journey. With Chef, IT teams can repackage an application and deploy on a supported system without having to do a rewrite or refactor. It goes beyond doing a basic “Lift and Shift” by enabling modern application management best practices, which include:

- Agile Repeatable Builds – Packaging all applications using the same process in a portable format allows for a single continuous delivery workflow for all applications across all teams.
- Flexible Deployments – Selecting an application's deployment platform is independent of how it was previously deployed. Bare metal, VM, containers or whatever is next, all become options.
- Automated Management – Ongoing security and application updates can be automated as part of continuous delivery cycles.

How Much Could Chef Save You?

A major manufacturer estimated a savings of at least \$1.6M across a portfolio of two hundred legacy apps using Chef Habitat vs. their previous plan of doing a lift-and-shift.



Continue to "abstract value" from your applications with Chef.

Application abstraction is a unique approach pioneered by Chef that involves separating the application from the underlying operating system by bundling it with the needed dependencies.

How application abstraction works

Business App 1	Business App 2	Business App 3	Business App 4
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Bundle as much of this as needed with the app:

Msvc, COM+, etc	MS .NET 2.0	IBM WebSphere	Tomcat 6 Java 7
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Eliminate or reduce dependency on this:

Windows 2003	Windows 2008 R2	Red Hat Linux 6	Red Hat Linux 5
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By building automation from the application down in development, identification of failures is shifted-left from run-time to build-time. Delivery teams can then be confident that what they build, deploy and manage will behave consistently in any runtime environment.

This approach not only enables IT teams to migrate apps off of Windows Server 2008 R2, but also to reduce operational overhead and drive ROI across the application lifecycle.

Furthermore, applications packaged with Chef Habitat provide a uniform management interface and can be continuously delivered in the same way as the most modern microservice-based applications.



Windows Server 2008/R2 Application migration program

The Windows Server 2008/R2 Application Migration Program consists of: Chef Professional Services, so you don't have to divert internal resources off of more important projects; Chef IIS Site Migration Accelerator, to automate the identification and migration of qualified apps on old servers, and the Chef Enterprise Automation Stack (EAS), which codifies the entire technology stack, continually checks compliance and ensures the application continues to function after the migration.

Assess & Design | Sprint 1

- Assess current apps and determine which apps will be migrated
- Define new environments, compliance policies, and integrations

✓ Leverage existing investments in tools and infrastructure.

✓ Minimize disruptions to business and risks.

Migration | Sprint 2

- Capture apps for migration
- Abstract apps from OS
- Package dependencies
- Test new builds

✓ Migrate without any refactoring or rewriting.

Enablement | Sprint 3

- Enable supporting staff
- Version builds
- Automate delivery pipelines
- Deploy packages into production

✓ Modernize build, deployment and management practices across all your applications.

Run & Maintain | Sprint 4

- Implement monitoring requirements
- Validate reporting
- Establish feedback loops

✓ Ensure systems remain current and patched after the migration

Solution Spotlight: Chef Windows IIS Site Migration Accelerator

.NET apps running on top of Microsoft's Internet Information Services (IIS) comprise a large number of the applications running on Windows Server 2008/R2. In response to the large number of .NET apps running on top of , Chef has built an accelerator that dramatically reduces the time it takes to migrate ASP.Net based applications. The Chef Windows IIS Site Migration Accelerator scans the dependency tree of an app and pulls together all of the DLLs so they can be recreated in their new home - dramatically cutting down the time spent doing manual forensics.

How the Chef IIS Windows Server Site Migration Accelerator works

Core Plans

Import existing plans from the Chef Habitat Community

IIS Site Migration Accelerator

Identify all IIS site dependency configurations and required service binds

Troubleshoot

Identify remaining build-time errors and updates the Habitat Package with missing dependencies

Package, Version and Run

Final Chef Habitat Package is versioned and stored in the appropriate channel for consumption as part of CI/CD pipelines



Abstracts Away Application Outages with Chef Habitat

Learn how the Automation Platforms Team at Alaska was able to eliminate ongoing app disruptions caused by OS updates by using Habitat to abstract from the OS and then package it in a portable format that could be deployed anywhere.



[Watch the Video.](#)

Modernize application management and scale DevOps.

Chef's approach not only solves the Windows Server 2008/R2 issue but provides a better path forward for managing the application. Chef Habitat is part of the Chef Enterprise Automation Stack (EAS). EAS gives organizations the ability to scan, extract and package legacy applications and their dependencies, using source control repositories like GitHub, and deliver them via pipelines such as Jenkins and Azure DevOps.

Once packaged, customers can easily deploy the application into the cloud and then run continuous security and compliance scans against it. This ability empowers DevOps teams to manage their newly migrated applications in the same way as apps built for the cloud.

Chef is both Operating System and Cloud Agnostic

Chef Habitat packages can not only be deployed from one version of an operating system to another without any refactoring but also can be deployed on any cloud platform without refactoring.

Habitat comes with an exporter that can generate build files in a variety of formats including container runtimes like Kubernetes, Helm charts, and DC/OS packages.



Chef Habitat
2019 Cloud Computing Product of the Year
[Read More:](#)



Chef Earns Microsoft DevOps Gold Competency for Ability to Accelerate
Coded Enterprises' Microsoft Azure Migrations
[Read More:](#)

Gold DevOps
Gold Cloud Platform
Gold ISV



Best DevOps Cloud
Product
[Read More:](#)



Why CHEFHABITAT™ for application modernization

It's the applications that are providing value to the business not the operating system. By taking an application first approach Chef enables companies to minimize disruptions to business caused by software updates and remediate vulnerabilities quickly and easily.

💰 Increase Productivity

Save 1000s of manual configuration, testing and remediation hours across Dev, QA, Security and Ops.

Agile Repeatable Builds:

- 700+ core plans maintained by Chef and robust open source user community
- Centralized, versioned, coded, documented, templated, and modular build packages
- Risk mitigation and testing shifted-left, problems found at build-time vs. run-time

💰 Optimize Infrastructure Expenditures

Easily scale workloads, change environments and deploy 30%+ faster

Flexible Deployments:

- Small portable packages that can be deployed across VMs or Containers, on-prem or in the cloud, with no refactoring
- Open APIs and easy integration with other DevOps and ITSM solutions
- Scale CI/CD – Build once deploy anywhere

💰 Reduce Operational Overhead

Reduce time and effort to maintain apps over their lifetime by up to 80%

Automated Management:

- Promote any build to any environment on-demand
- Automated health and compliance checks
- Automated service discovery and prioritization



GE Digital

Habitat packaging addresses many of the complexities distributed computing app deployment introduces, because we can fully package apps as a single artifact, we see a 30 percent reduction in the time it takes to create the first cluster, and 30 percent over that for subsequent clusters. It also boosts our agility by allowing us to deploy to any and all of the runtime formats and targets we use, including plain VMs, Docker, Kubernetes, Mesos and Cloud Foundry.

- Amulya Sharma, senior staff engineer at GE Digital



[Watch the Video.](#)

Chef Enterprise Automation Stack: Scalable automation for all apps and environments

The Chef Enterprise Automation Stack (EAS) offers a modern approach for coded enterprises to deliver value quickly, repeatedly, and securely over every application lifecycle. It is an automation system that allows modern application teams to express infrastructure, security policies, and application lifecycle events as code via an automated pipeline, and to deploy, observe, and manage the technology lifecycle.

Chef Enterprise Automation Stack

- Legacy apps
- Cloud-native apps
- Packaged apps
- IT apps



The Chef Advantage

For large enterprises and government agencies who rely on digital initiatives to serve their customers and compete effectively, Chef helps them become Coded Enterprises that can:

- Continuously deliver applications at velocity
- Continuously validates security and compliance
- Continuously reduce operational overhead

They can repeatedly deliver value ahead of the competition, unlike traditional infrastructure management approaches that cause applications to break when changes occur or cloud-native approaches that require organizations to refactor or rewrite applications.



 [MSN](#) accelerated application deployment times by 50%



 [Barclays](#) fully automated their pipeline and maintained compliance across 110,000 servers and 4,000 applications



 [Optum](#) reduced audits cycles by 95% with continuous detection and remediation of compliance errors





Chef, is the leader in DevOps, driving collaboration through code to automate infrastructure, security, compliance and applications. Chef provides a single path to production making it faster and safer to add value to applications and meet the demands of the customer. Deployed broadly in production by the Global 5000 and used by more than half of the Fortune 500, Chef develops 100 percent of its software as open source under the Apache 2.0 license with no restrictions on its use.

For more information

visit <http://chef.io>

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