AWS
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**WIN203-R**

# Learn how to future-proof your Microsoft end-of-support applications

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# Agenda

- Background on Microsoft end of support
- Challenges with upgrading Windows Server version for legacy applications
- AWS End-of-Support Migration Program (EMP) for Windows Server
- SQL Server 2008 end-of-support options
- Frequently asked questions and open Q&A

# Background on Microsoft End of Support

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# Microsoft support policy

- Microsoft Lifecycle Policy offers five years of mainstream support
  - New features and enhancements
  - Security updates
  - Non-security updates

- Plus five years of extended support
  - Security updates
  - Non-security updates

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- Plus a maximum of three years of extended security update (ESU)
  - Critical fixes only
  - Paid for one year at a time

# Key end-of-support dates
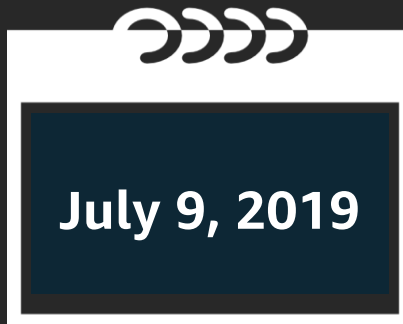
**July 9, 2019** — SQL Server 2008 and 2008 R2 reached end of support
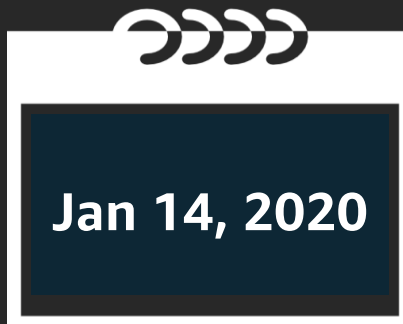
**Jan 14, 2020** — Windows Server 2008 and 2008 R2 will be reaching end of support

# What does this mean for customers?

Purchase extended support

Refactor/Rewrite applications

Upgrade operating system version

# Challenges with upgrading Windows Server version for legacy applications

# Legacy applications present migration challenges

- Lost expertise, code and/or installation media

- High cost and time commitment for refactoring or recoding the application

- High risk of upgrade failure

- Incompatible highly customized commercial-off-the-shelf (COTS) applications

- Dependencies on older runtime versions like Java, .NET, etc.

# AWS End-of-Support Migration Program (EMP) for Windows Server

**NEW**

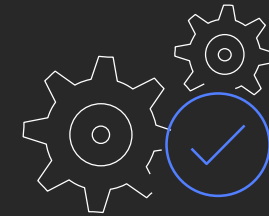# AWS End-of-Support Migration Program (EMP) for Windows Server

Upgrade your legacy Windows Server applications to newer, supported operating systems without having to refactor
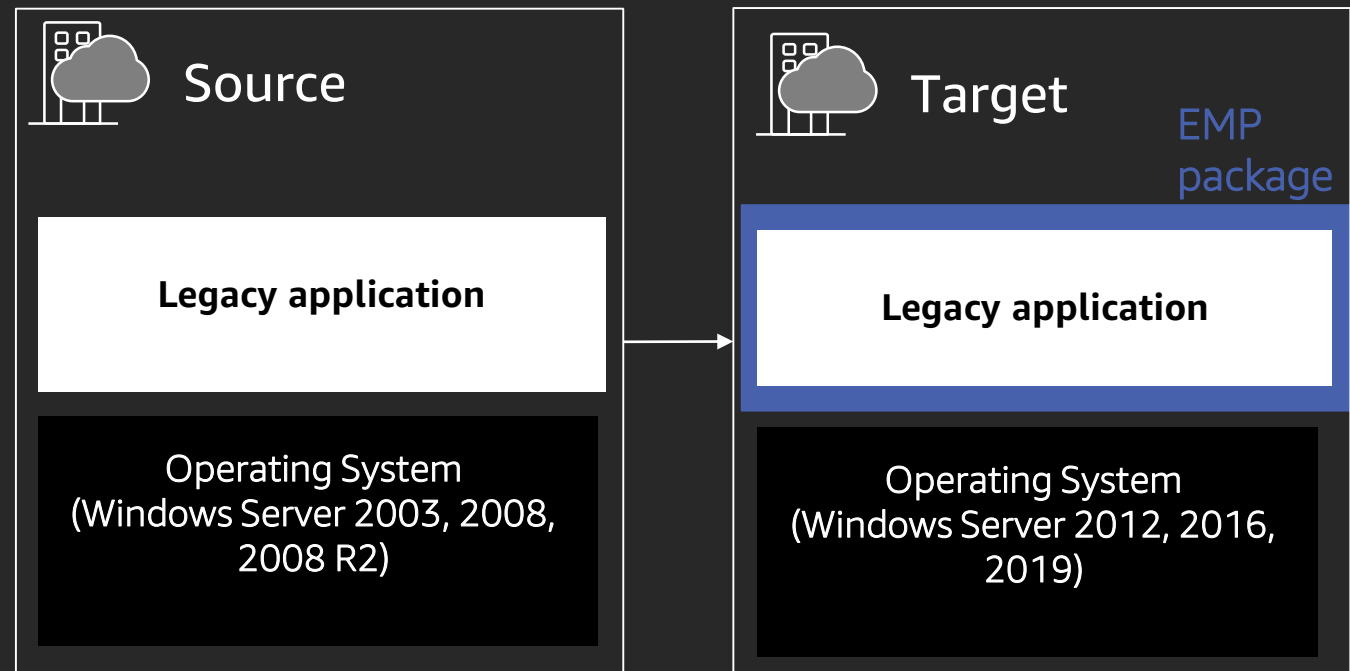
**Future-proof your applications**

**Improve security, performance, and compliance**

**Technology to package legacy applications**

Learn more at: https://aws.amazon.com/emp-windows-server

# How it works



**Source**

Legacy application

Operating System
(Windows Server 2003, 2008,
2008 R2)

**Target**

EMP
package

Legacy application

Operating System
(Windows Server 2012, 2016,
2019)

## Packaging process

Packaged on source operating system by capturing
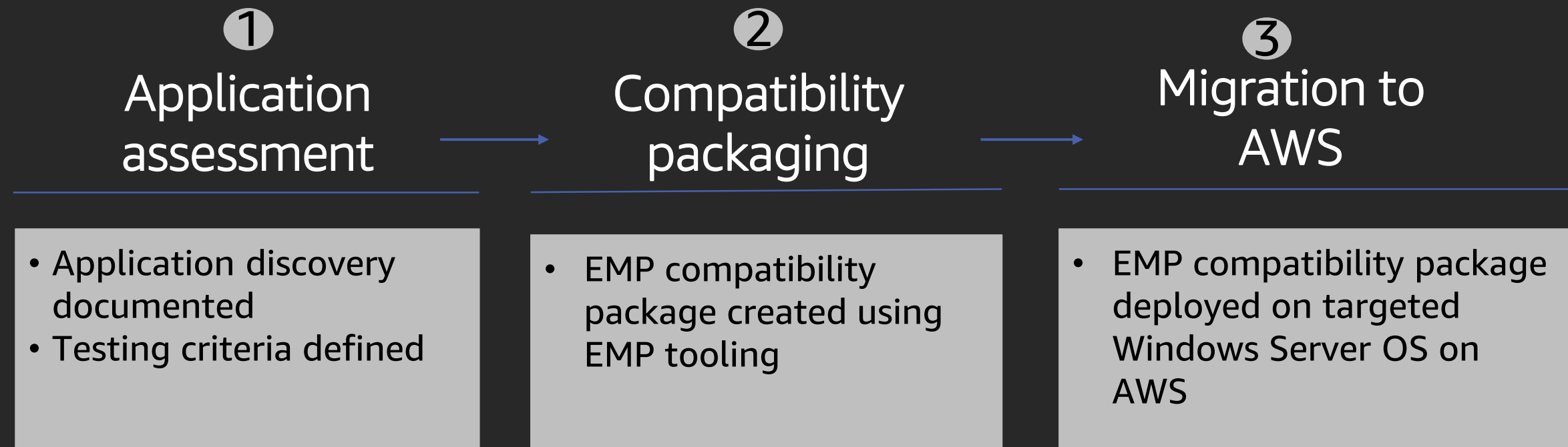resources during application install process and
runtime analysis

## Redirection

Intercepts Windows API calls as the application
interacts with local operating system returning the
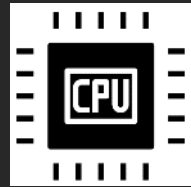resources expected by the application regardless of OS

## Isolation

Run older versions of runtimes that can only be
accessed by packaged application

# EMP for Windows Server Process

① **Application assessment** → ② **Compatibility packaging** → ③ **Migration to AWS**

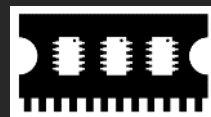|  ①  |  ②  |  ③  |
|-----|-----|-----|
| • Application discovery documented<br>• Testing criteria defined | • EMP compatibility package created using EMP tooling | • EMP compatibility package deployed on targeted Windows Server OS on AWS |

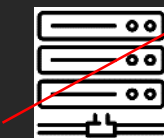# Minimal overhead

< 1% CPU hit

+10MB additional disk space

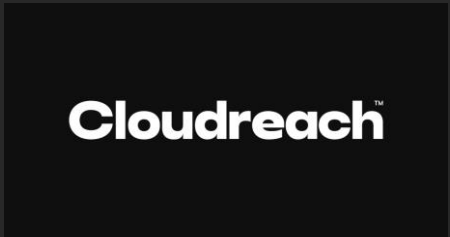+20MB RAM overhead per package

No agent or client, only requirement is .NET 4.0

No backend infrastructure

# Featured AWS Partners

# Customer references

*EMP for Windows Server addresses regulatory requirements by upgrading applications that have no reasonable refactoring path forward*

*EMP for Windows Server provides the expert help in migrating tactical applications without having to go through any code changes, to address technical debt and uplift security posture*

*EMP for Windows Server packages legacy Windows Server 2003 and 2008 applications to mitigate risk, modernize estate, and accelerate move to AWS*

# Demo

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# Examples for applications supported

- Applications that are incompatible with newer Windows versions

- Legacy Windows workloads that have not yet been migrated into AWS

- Legacy workloads that have been lifted and shifted into AWS but still run on older Windows versions

**Examples of technologies supported:**

**Applications and databases:** Apache Tomcat 6.2, SQL Management Studio x86 2008, SQL Management Tools x86 2005, MS-SQL 2000, MS-SQL 2005, MS-SQL 2008, dBase, Oracle 9i, Oracle 10g, Oracle 11g, IBM DB2, Microsoft JET Engine, Access 2003, WebSphere

**Runtimes:** ActiveX, VB 4, VB 5, VB 6, .NET 1.1, .NET 2.0, .NET 3.5, Java 4, Java 5, Java 6, C++ runtimes CRT

Applications with **no installation media, or source code**

# Applications currently out of scope

**The following are out of scope:**

- Non Windows Server operating systems

- 16-bit Windows applications

- 64-bit device drivers aren't virtualised but can be deployed with the package

- Low level applications e.g., anti-virus, firewall, and VPN applications
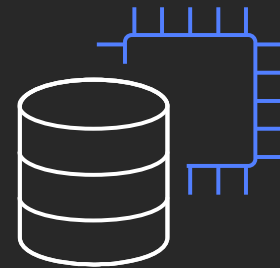
# SQL Server 2008 end-of-support options

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# SQL Server 2008/R2 end of support

Upgrade
_____

Migrate
_____

Modernize



SQL Server
upgrade tool



SQL Server re-
platforming
tool



AWS Database
Migration
Service

# SQL Server on Amazon EC2

| SQL Server on Microsoft Windows | SQL Server on Linux |
|---|---|
| Easy 'lift and shift' to the cloud | Leverage open source to reduce cost |
| OS-level control | Consistent user experience |
| Flexible licensing* | No change to apps |
| **Migrate** | **Modernize** |

**2019 support launched**

* Customers have 2 BYOL options for SQL Server: BYOL SQL Server with SA on EC2 instance with LI Windows or BYOL SQL Server on Dedicated host with BYOL Windows (as long as Windows license is purchased before 10/1/2019)

# Frequently asked questions and open Q&A

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# Frequently asked questions

- How does EOS affect my existing instances and Amazon Machine Images (AMIs) on AWS?

- Can I launch new instances that include EOS software from my custom AMIs?

- Can I import images that contain EOS software into AWS using AWS tools?

# Please ask your questions

# How does EOS affect my existing instances on AWS?

- There is no direct impact to existing instances. Customers can continue to start, run, and stop instances.

- Microsoft will not provide patches for EOS products unless customers purchase extended security updates.

# Can I launch new instances that include EOS software from my custom AMIs?

Yes.

There is no direct impact to existing AMIs registered in customer accounts.

AWS will not publish or distribute managed AWS Windows AMIs that contain EOS software to AWS Management Console, Quick Start, or AWS Marketplace.

Customers with dependencies on managed AWS Windows AMIs impacted by EOS should consider their options, including creating custom AMI(s) within their AWS account(s) to enable new instance launches. Learn more about custom AMI creation [here](here).

# Can I import images that contain EOS software into AWS using AWS tools?

Yes, customers can continue to import images to AWS using VM import/export (VMIE), AWS Server Migration Service (SMS), or CloudEndure

# Resources

Important links:

EMP for Windows Server: https://aws.amazon.com/emp-windows-server

End of support FAQ: https://aws.amazon.com/windows/faq

Related sessions:

WIN301: Modernizing Microsoft SQL Server on AWS

WIN302: Migrating Microsoft Applications to AWS like an expert

WIN318: Manage your Microsoft licenses on-premises and in the cloud

# Thank you!

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