



AWS Modernization Tools for Microsoft Workloads

REFERENCE GUIDE

This guide is intended for architects and developers who are exploring modernizing Microsoft Workloads (.NET applications and SQL Server databases) to AWS. It provides guidance on the AWS modernization tools and recommended approaches to help you accelerate your journey to cloud.

The flow diagram showcases how the AWS modernization tools can help to accelerate modernization at every stage of the modernization journey. These tools can be used in conjunction with each other or individually based on the requirements.

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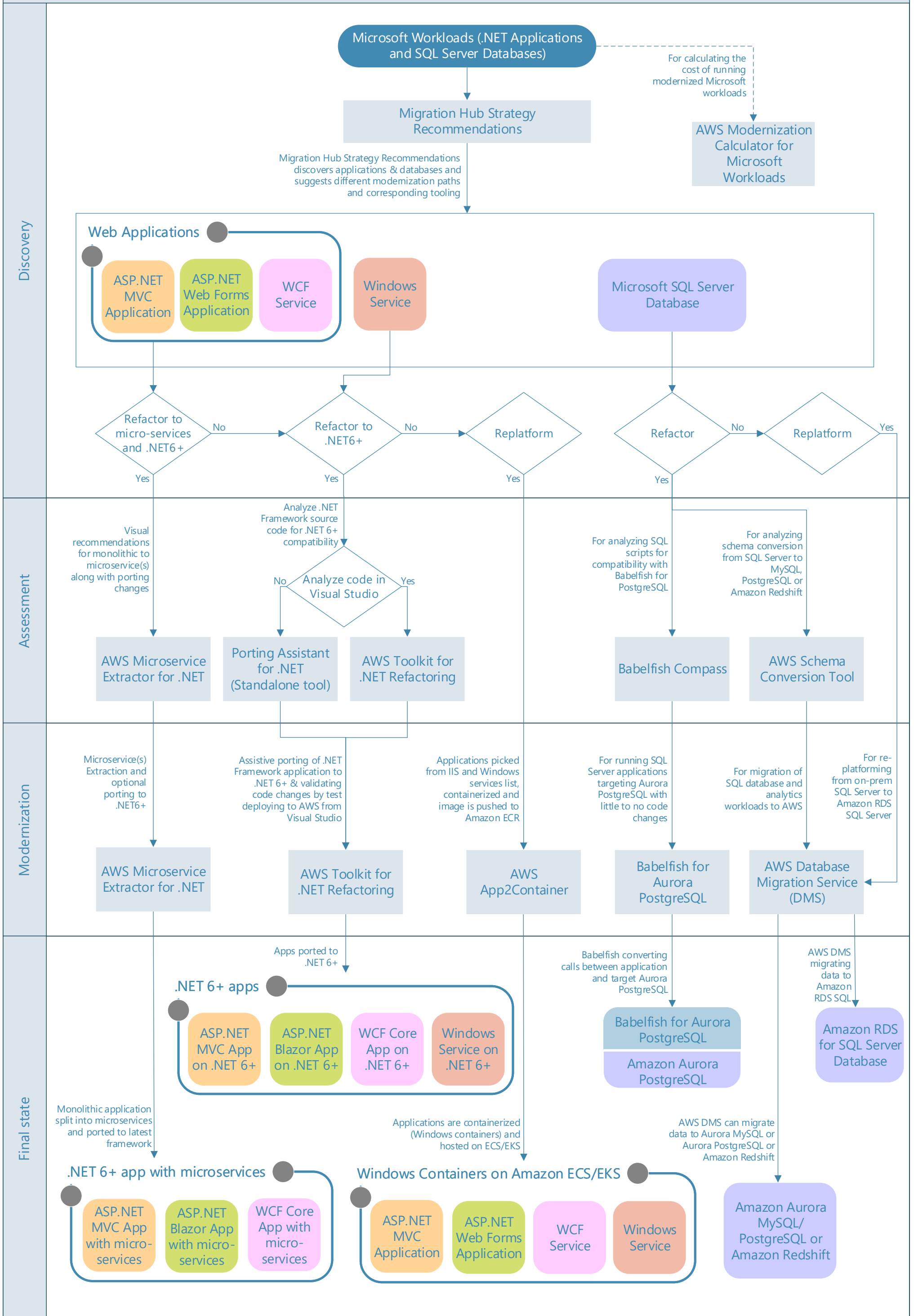
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<https://aws.amazon.com/windows/modernization/>

<https://aws.amazon.com/dotnet>

 <https://twitter.com/dotnetonaws>

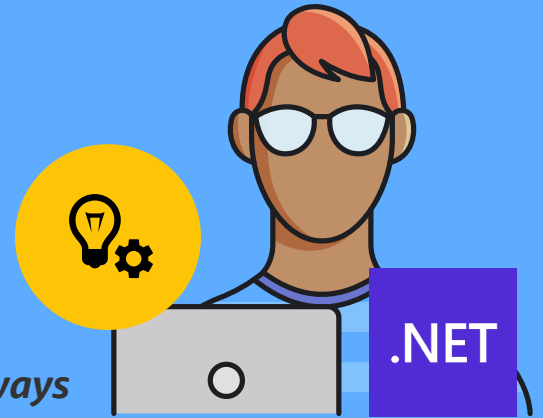
AWS Modernization Tools for Microsoft Workloads





AWS Migration Hub Strategy Recommendations

Easily identify migration & modernization pathways



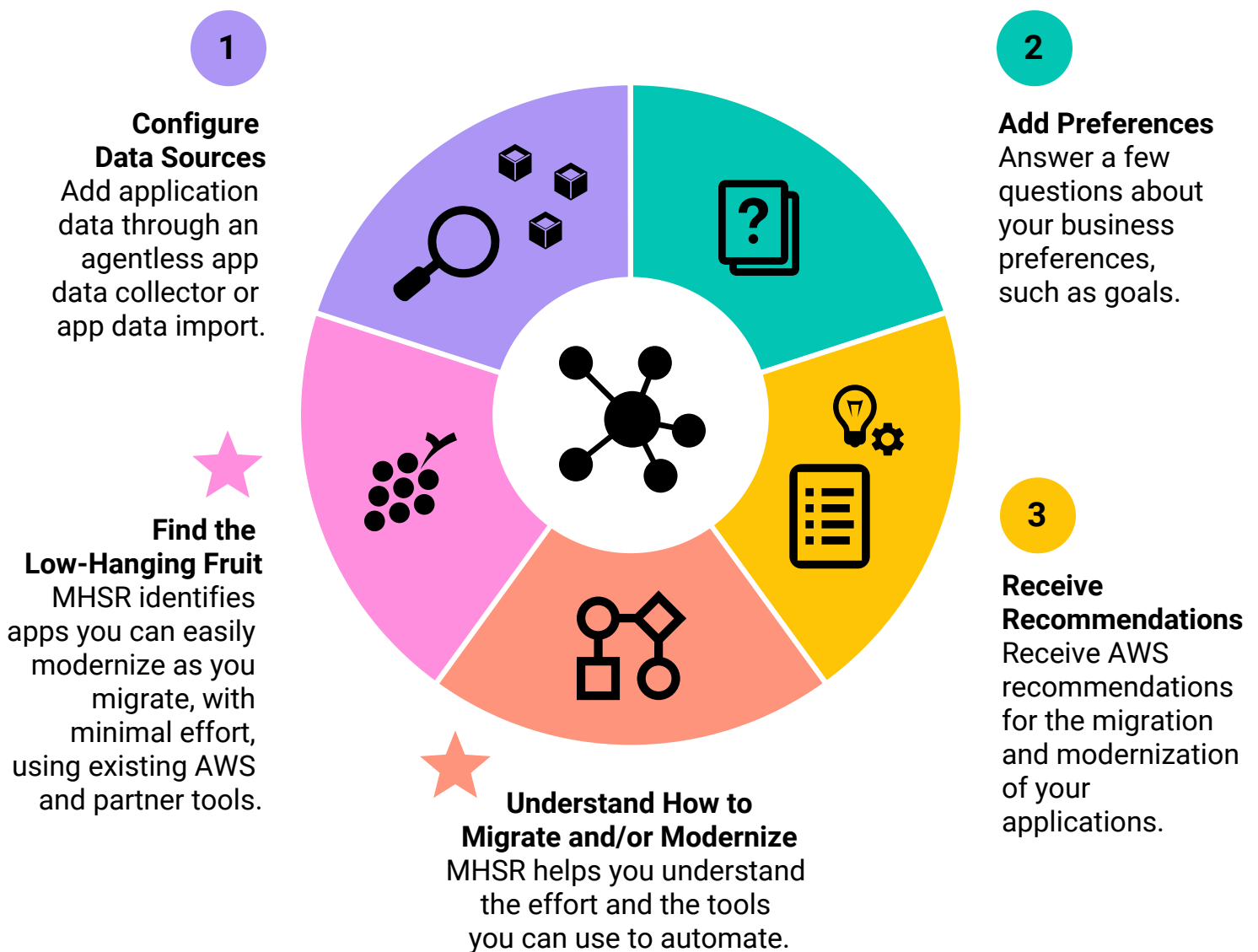
What

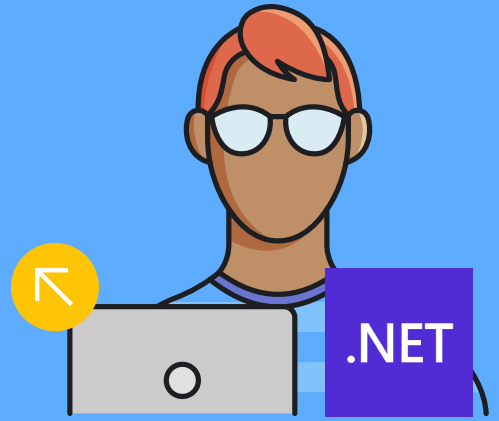
Part of AWS Migration Hub, Strategy Recommendations (MHSR) analyzes your servers, application source-code, and databases to provide prescriptive modernization recommendations.

Why

- ✓ Identify the best-suited option
- ✓ Portfolio-wide recommendations
- ✓ Understand how to migrate & modernize
- ✓ Find the low-hanging fruit
- ✓ Make informed decisions

How





Porting Assistant for .NET

Insight and assistance for porting .NET Framework applications to modern .NET

What

Porting Assistant for .NET (PA) is an analysis tool that scans .NET Framework applications and generates a modern .NET compatibility assessment, helping you port your applications to Linux faster.

Why

Porting .NET Framework applications to modern .NET helps customers take advantage of the performance, cost savings, and robust ecosystem of Linux. However, porting can be a significant manual effort. Application owners need to identify dependencies and resolve incompatible APIs.

How

1

Scan

PA scans .NET Fx apps to find APIs & NuGet packages incompatible with .NET 6+.

2

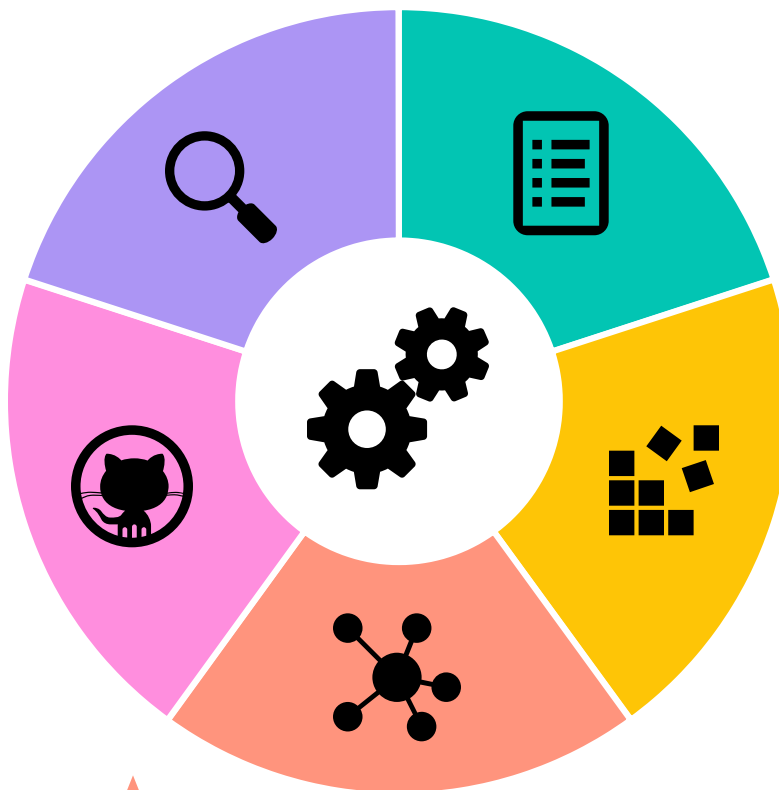
Assessment Report

PA generates compatibility report and suggests available replacements.

3

Assisted Porting

PA updates packages and changes project reference files for you to start porting.



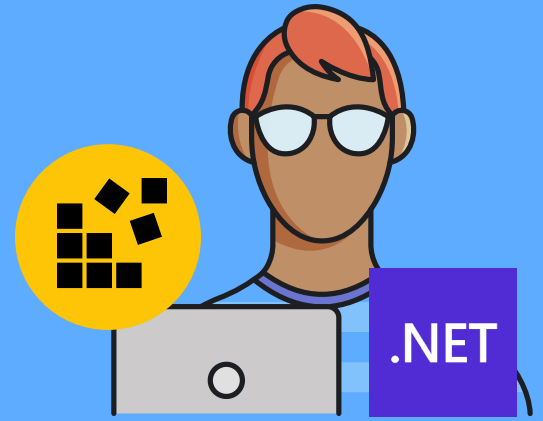
Public Dataset
The dataset PA uses is publicly available on GitHub and includes data AWS has curated as well as data from other public sources.

Dependency Visualization
PA GUI visualizes dependencies within a solution file, helping assess the impact of changes.



AWS Microservice Extractor for .NET

Simplify refactoring .NET applications



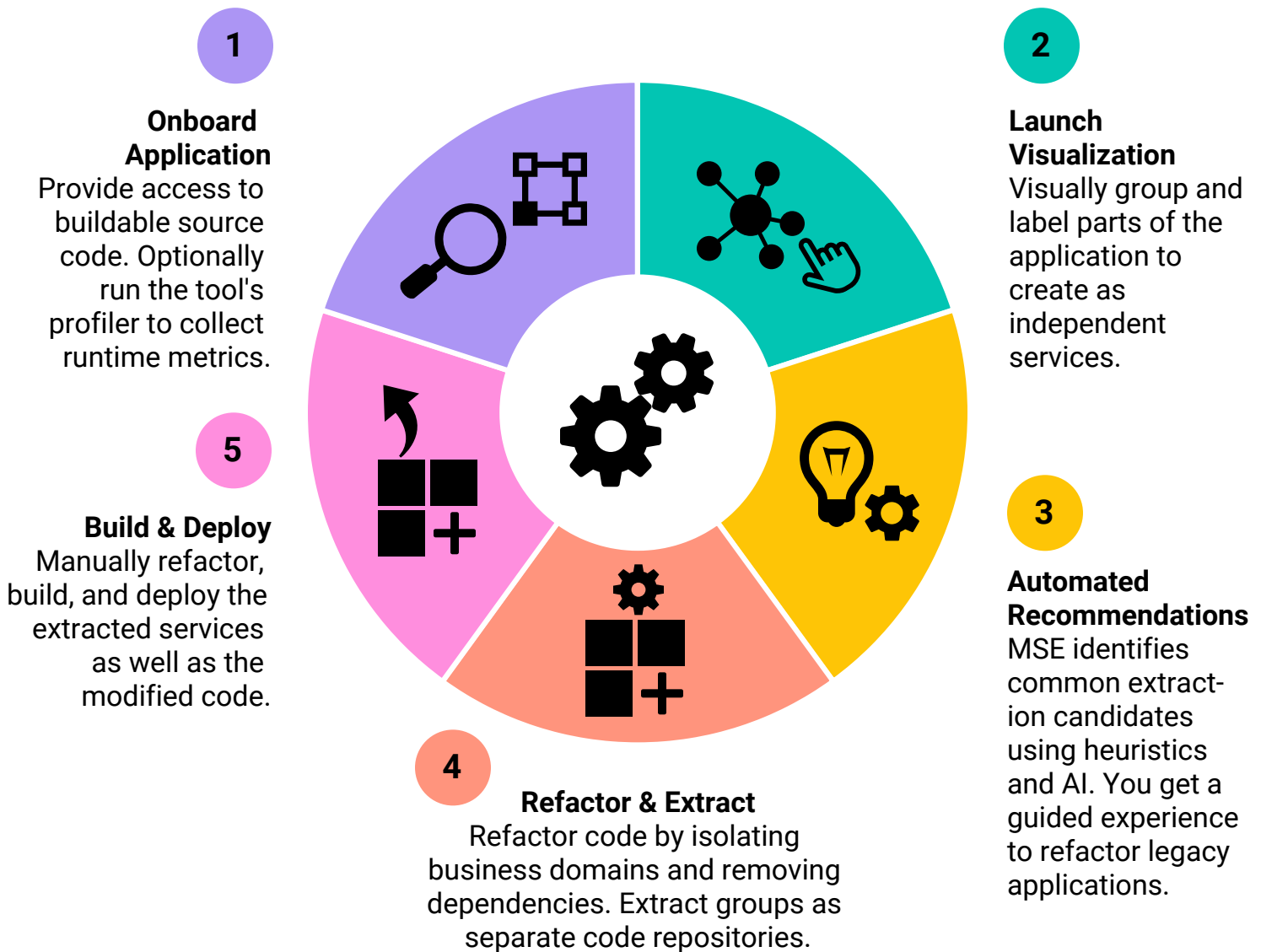
What

AWS Microservice Extractor for .NET (MSE) simplifies the process of refactoring older monolithic apps into small code projects to build a microservices-based architecture.

Why

- ✓ Faster app component identification
- ✓ Auto refactoring recommendations
- ✓ Assisted monolith refactoring
- ✓ Porting Assistant for .NET integration
- ✓ Available for use at no cost

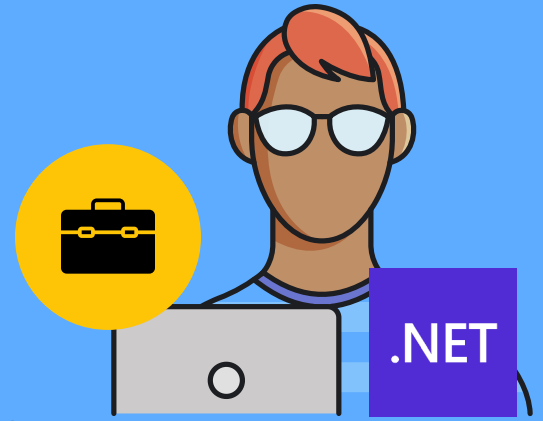
How





AWS Toolkit for .NET Refactoring

Expedite .NET modernization in Visual Studio



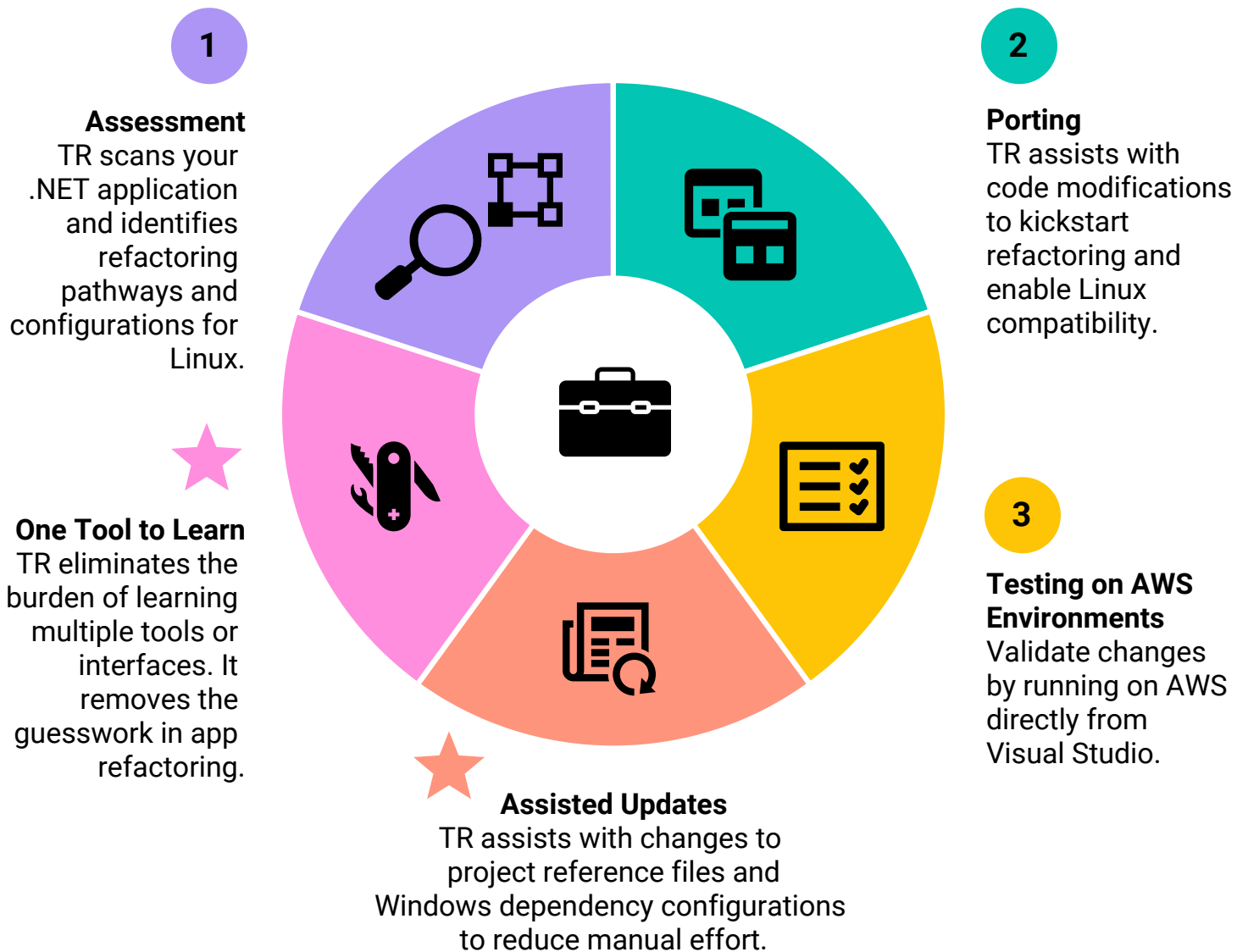
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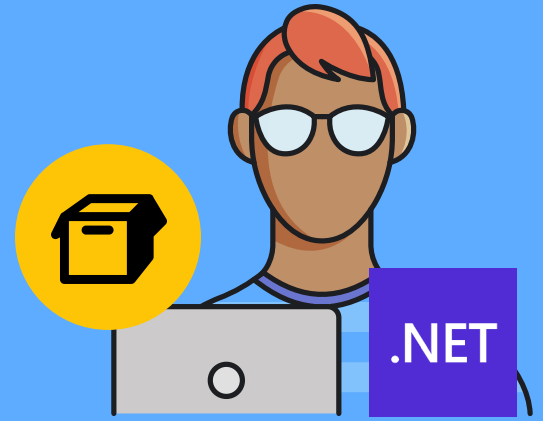
AWS Toolkit for .NET Refactoring (TR) is a Visual Studio extension that helps developers refactor legacy .NET applications to cloud-based alternatives on AWS.

Why

- ✓ Modernization recommendations
- ✓ Identifies IIS and AD dependencies
- ✓ Modifies code for Linux compatibility
- ✓ Validates refactored app on AWS
- ✓ All without leaving Visual Studio IDE

How





AWS App2Container

Containerize and migrate
.NET web applications

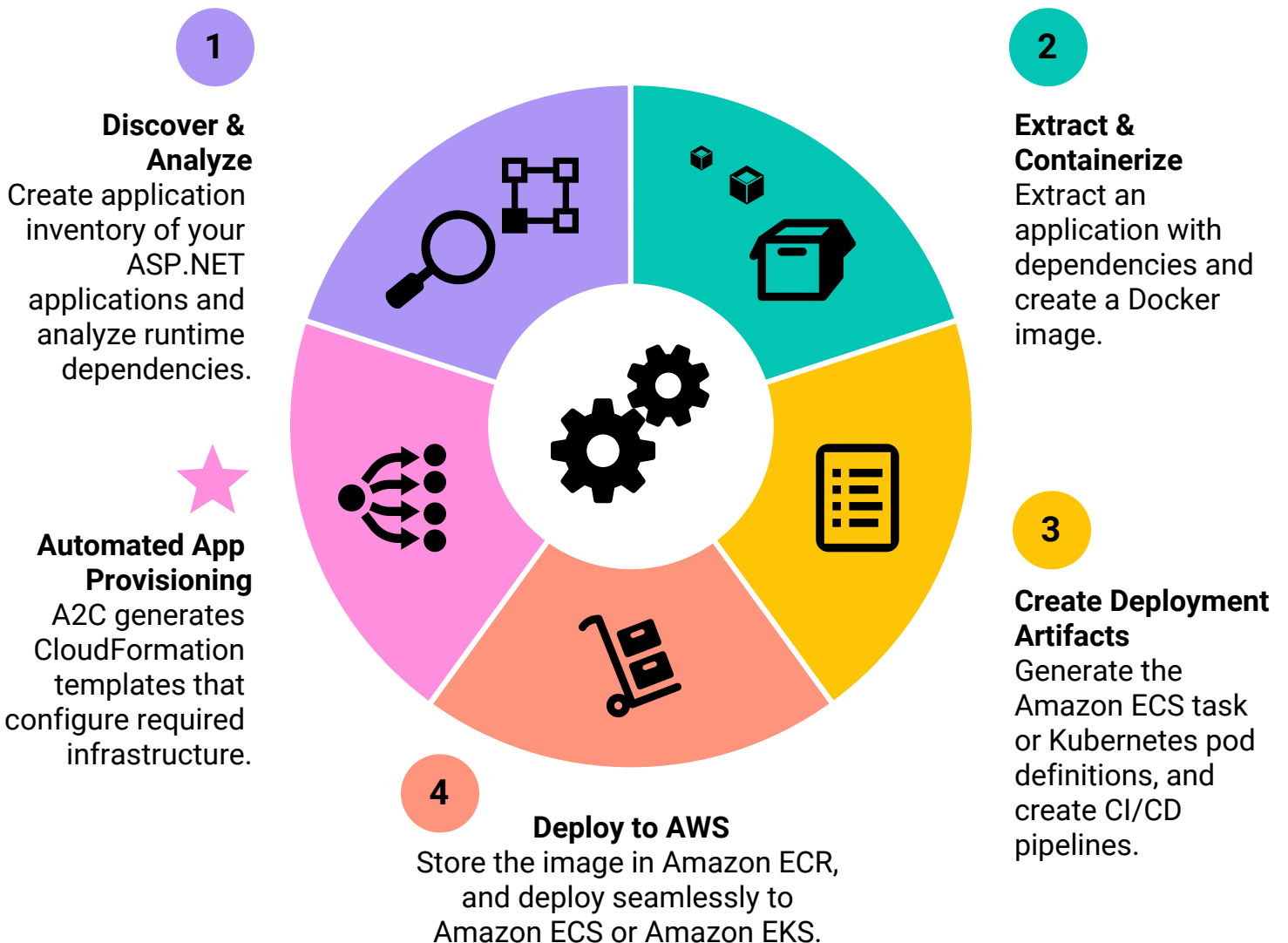
What

AWS App2Container (A2C) is a command line tool for migrating and modernizing .NET web applications running in IIS on Windows into container format. It also supports Java applications.

Why

- ✓ Save on infrastructure & training costs
- ✓ Accelerate modernization
- ✓ Automated application analysis
- ✓ Auto-generated container images
- ✓ Containerize without code changes
- ✓ Built-in automation pipeline integration

How





AWS Modernization Calculator for Microsoft Workloads



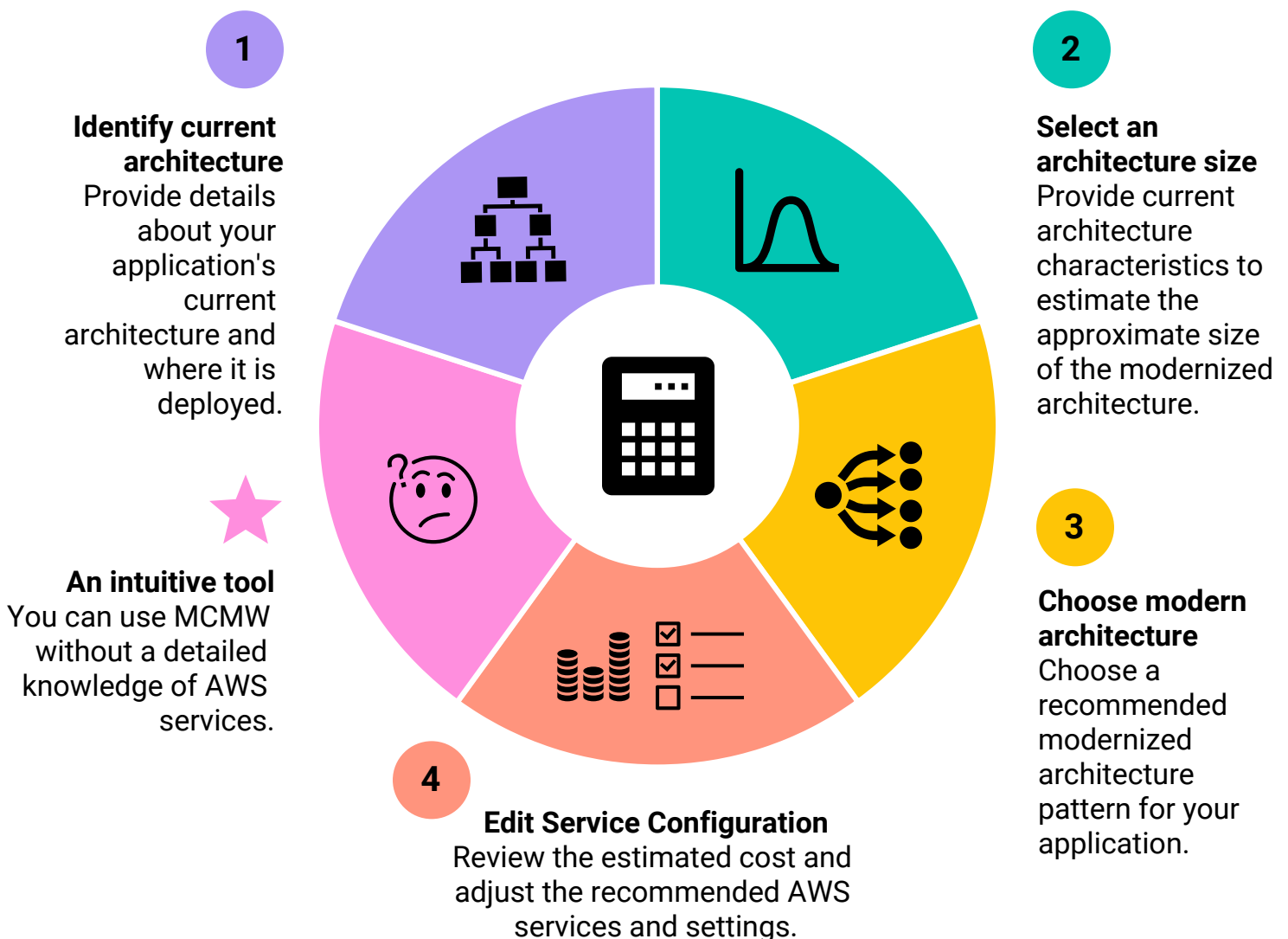
What

Modernization Calculator for Microsoft Workloads (MCMW) helps you estimate the cost of modernizing your Microsoft workloads to a new architecture, using open-source software and cloud-native services on AWS.

Why

- ✓ Estimate your modernization costs
- ✓ Assess benefits of cloud technologies
- ✓ Reduce total cost of ownership (TCO)
- ✓ Eliminate software license management
- ✓ No AWS expertise required
- ✓ No AWS account required

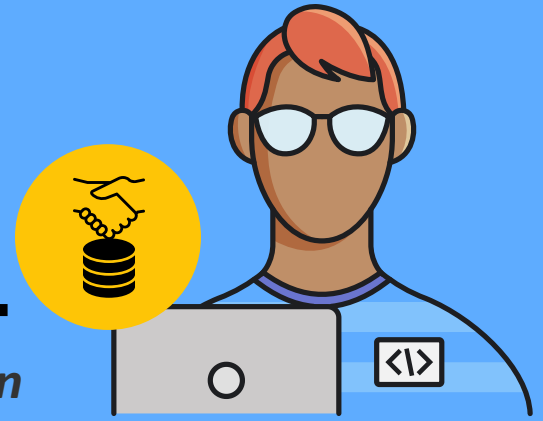
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Babelfish for Aurora PostgreSQL

Run Microsoft SQL Server applications on PostgreSQL with little to no code change



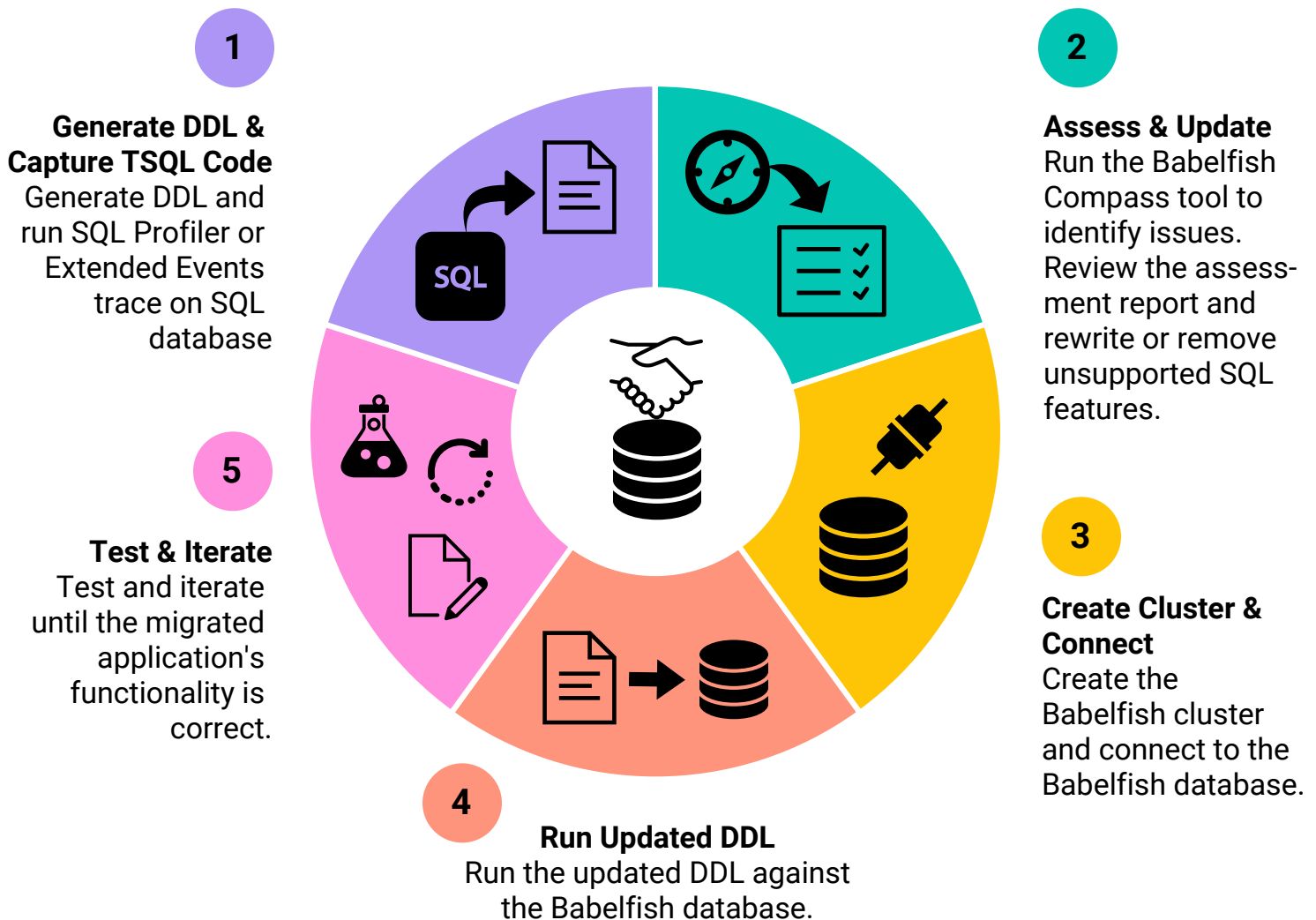
What

Babelfish for Aurora PostgreSQL enables Amazon Aurora PostgreSQL-Compatible Edition to understand commands from applications written for Microsoft SQL Server.

Why

- ✓ Move to an open source database
- ✓ Migrate SQL Server apps to Aurora
- ✓ Use same communication protocol
- ✓ Fewer code changes needed
- ✓ Accelerated, cost-effective migration
- ✓ Built-in capability, no additional cost

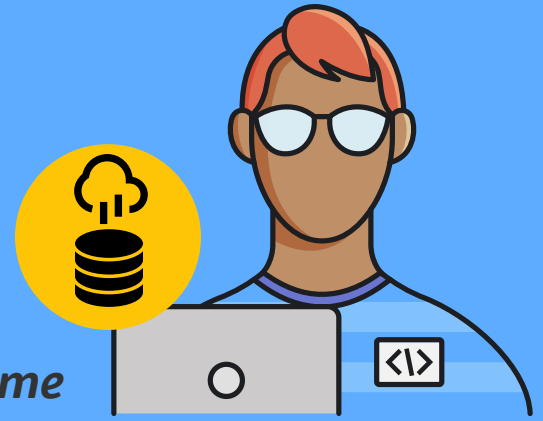
How





AWS Data Migration Service

Migrate databases with minimal downtime



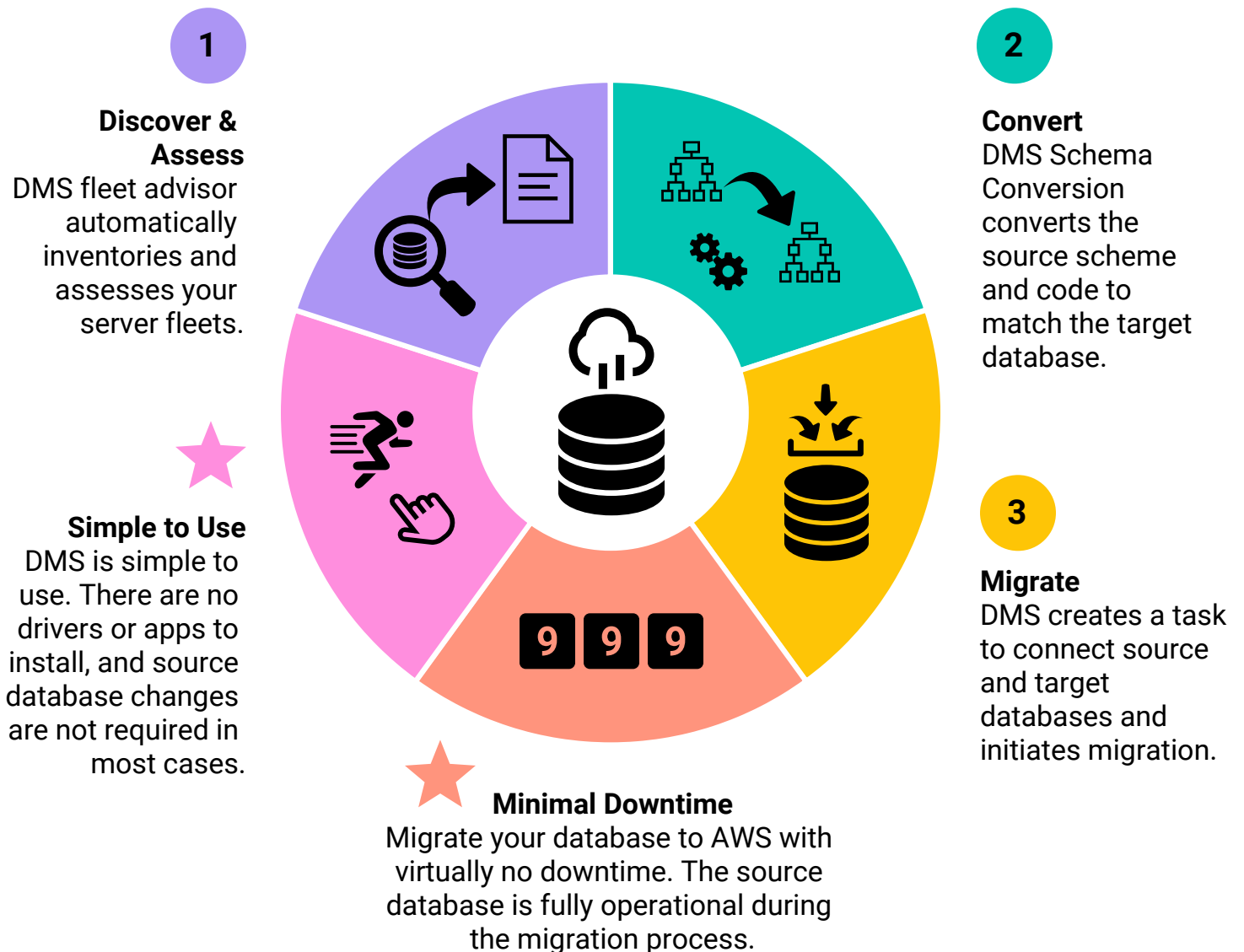
What

AWS Database Migration Service (AWS DMS) is a managed migration and replication service that helps move your database and analytics workloads to AWS quickly, securely, and with minimal downtime and zero data loss.

Why

- ✓ Automated migration
- ✓ Maintain HA and minimal downtime
- ✓ Migrate to same or different DBMS
- ✓ Migrate securely at low cost

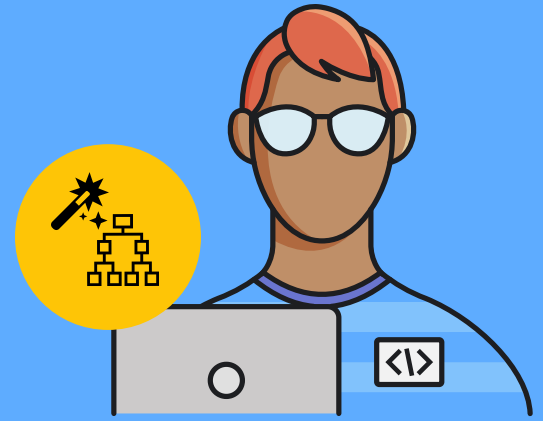
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AWS Schema Conversion Tool

Convert database schemas from one database engine to another



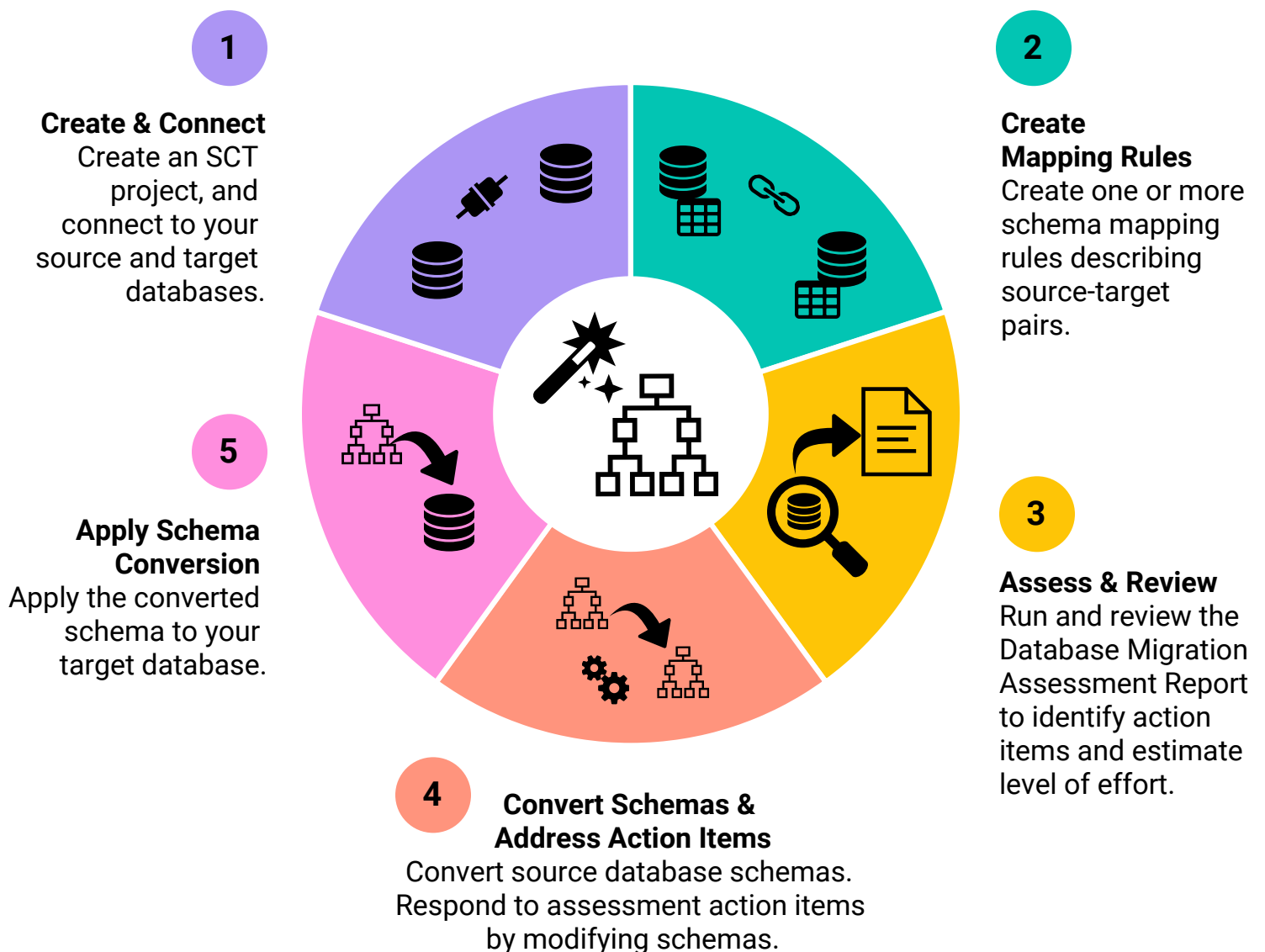
What

AWS Schema Conversion Tool (SCT) simplifies database migrations by automating schema analysis, recommendations, and conversion at scale.

Why

- ✓ Automated schema analysis
- ✓ Assessment identifies action items
- ✓ Converts views, SPs, & functions
- ✓ Converts embedded SQL in code

How



Resources

[.NET on AWS Developer Hub](#)

Technical Guides

[Monolithic to Microservice Journey for .NET Applications Technical Guide](#)

[Modernize .NET Applications with Linux Containers Technical Guide](#)

[Replatform .NET Applications with Windows Containers Technical Guide](#)

[Microsoft SQL Server 2019 to Amazon Aurora PostgreSQL Migration Playbook](#)

Hands-on Workshops

[AWS Microservice Extractor for .NET Workshop for ASP.NET MVC app](#)

[AWS Microservice Extractor for .NET Workshop for ASP.NET WebForms app](#)

[Migration Hub Strategy Recommendations workshop](#)

[Porting Assistant for .NET Workshop](#)

[App2Container DotNet Modernization Lab](#)

[Babelfish Immersion Day](#)

[Modernize .NET application from A to Z workshop](#)

[AWS Database Migration Workshop](#)