
AWS
re:Invent

XNT304

Modernize .NET development with CI/CD and AWS Elastic Beanstalk

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Principal Advocate

AWS

AWS re:Invent

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Agenda

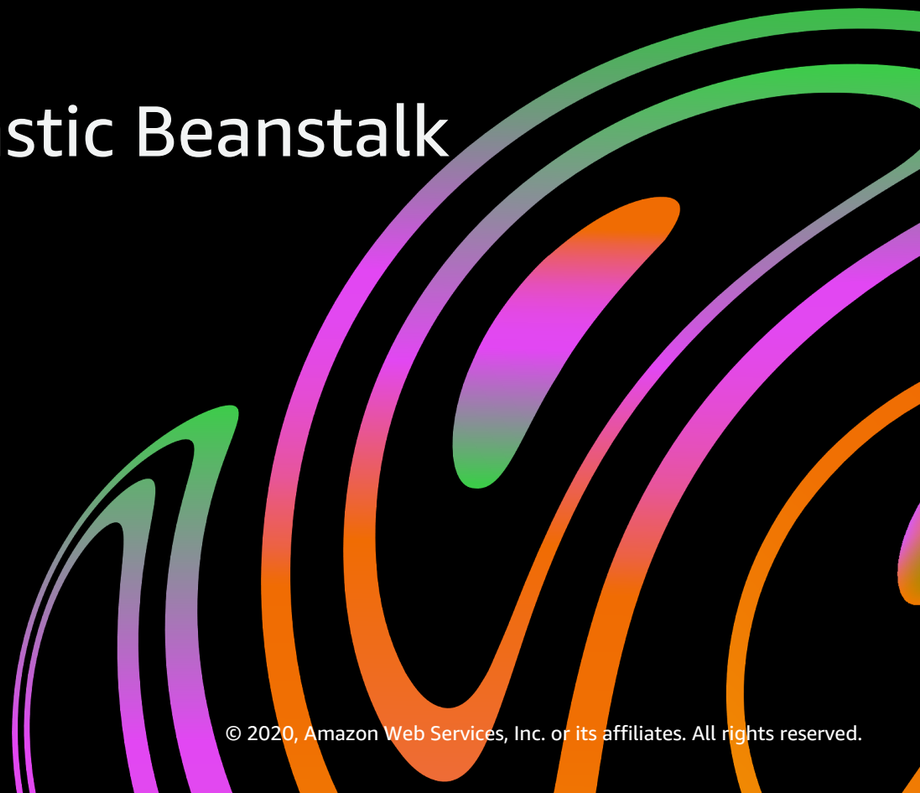
Introduce AWS Service Catalog

Demo: setting up our project with AWS Service Catalog

Explain AWS Elastic Beanstalk

Demo: How to run a .NET web application on Elastic Beanstalk

Explore continuous integration and continuous delivery (CI/CD) with Elastic Beanstalk



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AWS Service Catalog

CREATE, ORGANIZE, AND GOVERN



Allows organizations to create and manage catalogs of IT services that are approved for use on AWS



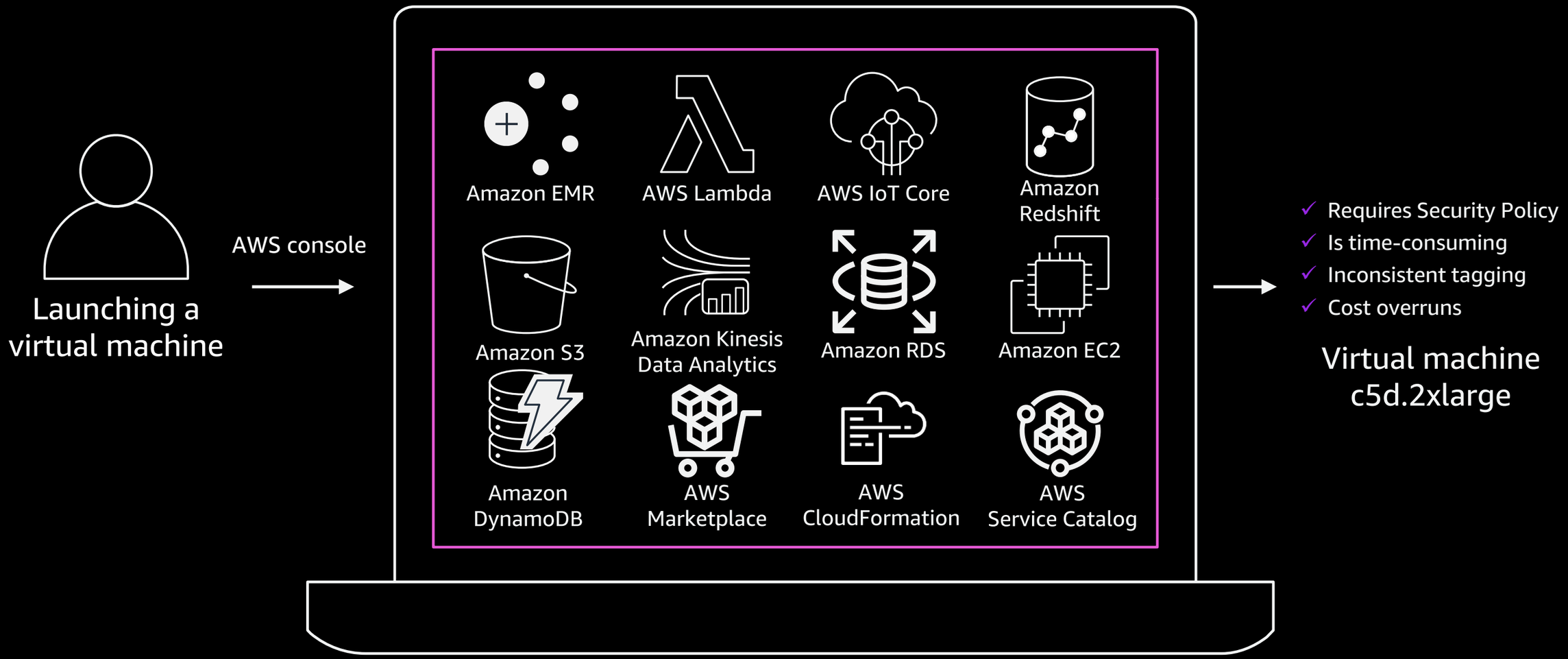
From virtual machine images to complete multi-tier application architectures



Centrally manage commonly deployed IT services and meet your compliance requirements whilst allowing users to move fast

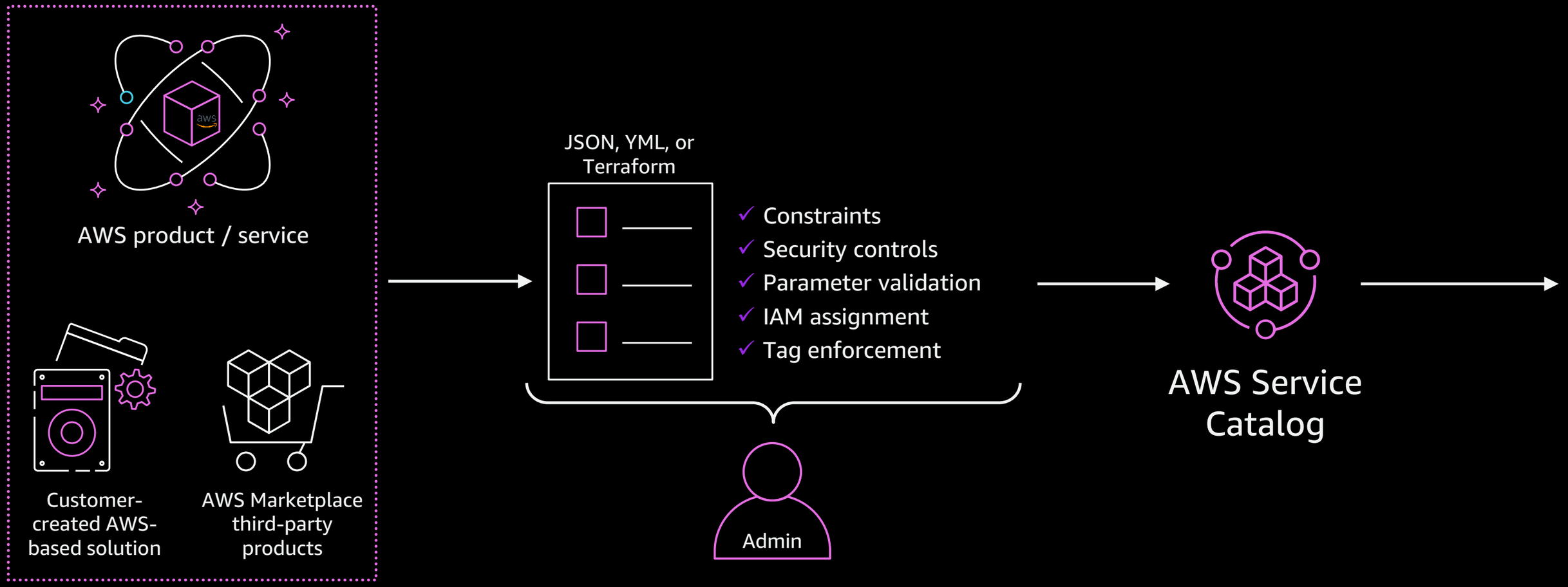
Current state of self-service

BROAD CHOICES

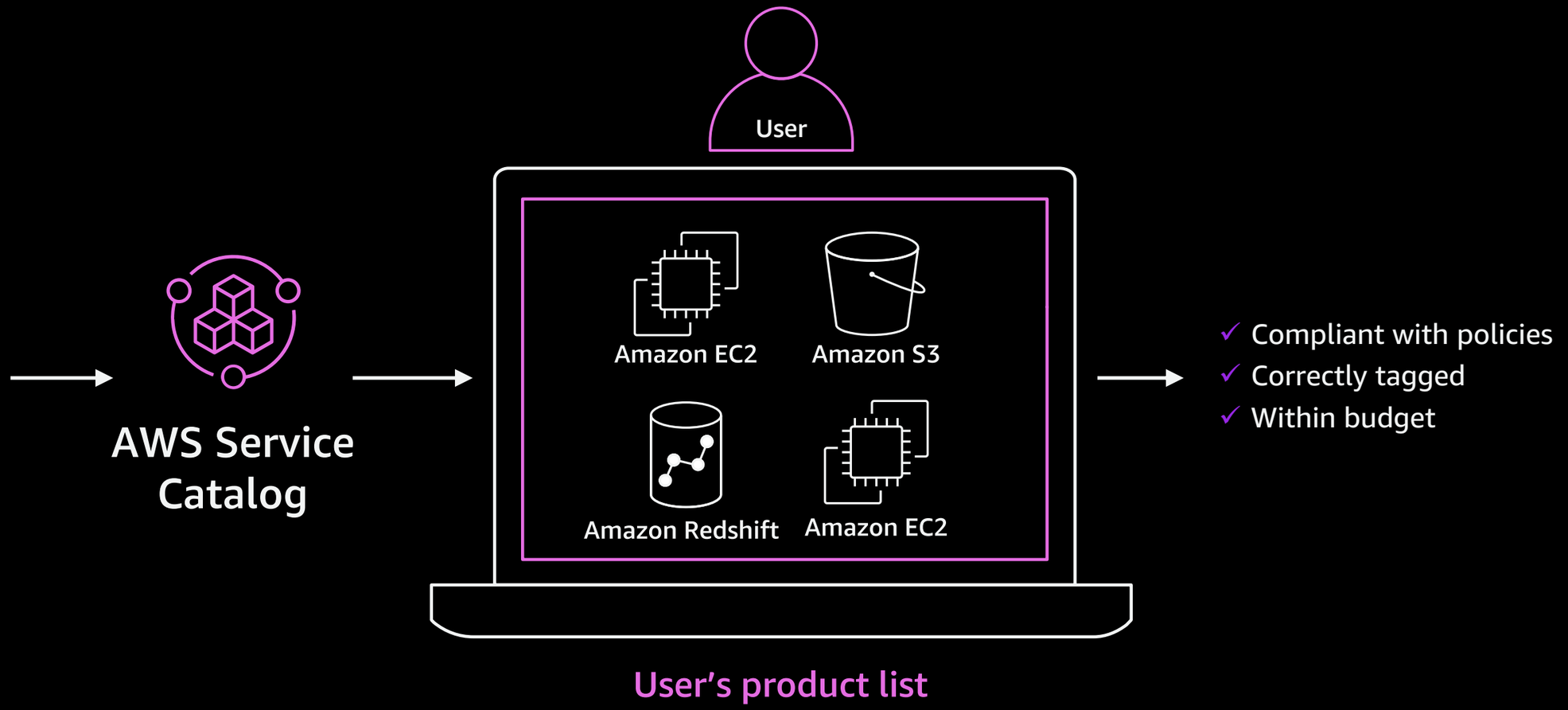


Self-service with preconfigured compliance

STANDARDIZES BEST PRACTICES



New state of self-service



AWS Management Console

us-east-2.console.aws.amazon.com/console/home?region=us-east-2

aws Services Search for services, features, marketplace products, and docs [Option+S] thebeebs @ mbeeby Ohio Support

AWS Management Console

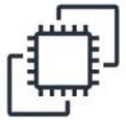
AWS services

- Recently visited services
- All services

Build a solution

Get started with simple wizards and automated workflows.

Launch a virtual machine
With EC2
2-3 minutes



Build a web app
With Elastic Beanstalk
6 minutes



Build using virtual servers
With Lightsail
1-2 minutes



Register a domain
With Route 53

Connect an IoT device
With AWS IoT

Start migrating to AWS
With CloudEndure Migration

Stay connected to your AWS resources on-the-go



Download the AWS Console Mobile App to your iOS or Android mobile device. Learn more

Explore AWS

Free Digital Training

Get access to 350+ self-paced online courses covering AWS products and services.
Learn more

AWS Certification

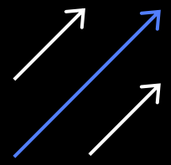
Explore the resources available to help you prepare for your AWS Certification.
Learn more

Amazon Elasticsearch Service

AWS Elastic Beanstalk

EASY TO BEGIN, IMPOSSIBLE TO OUTGROW

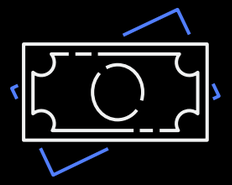




Deploying and scaling web applications and services, such as those developed with .NET or Docker, on familiar servers, such as IIS



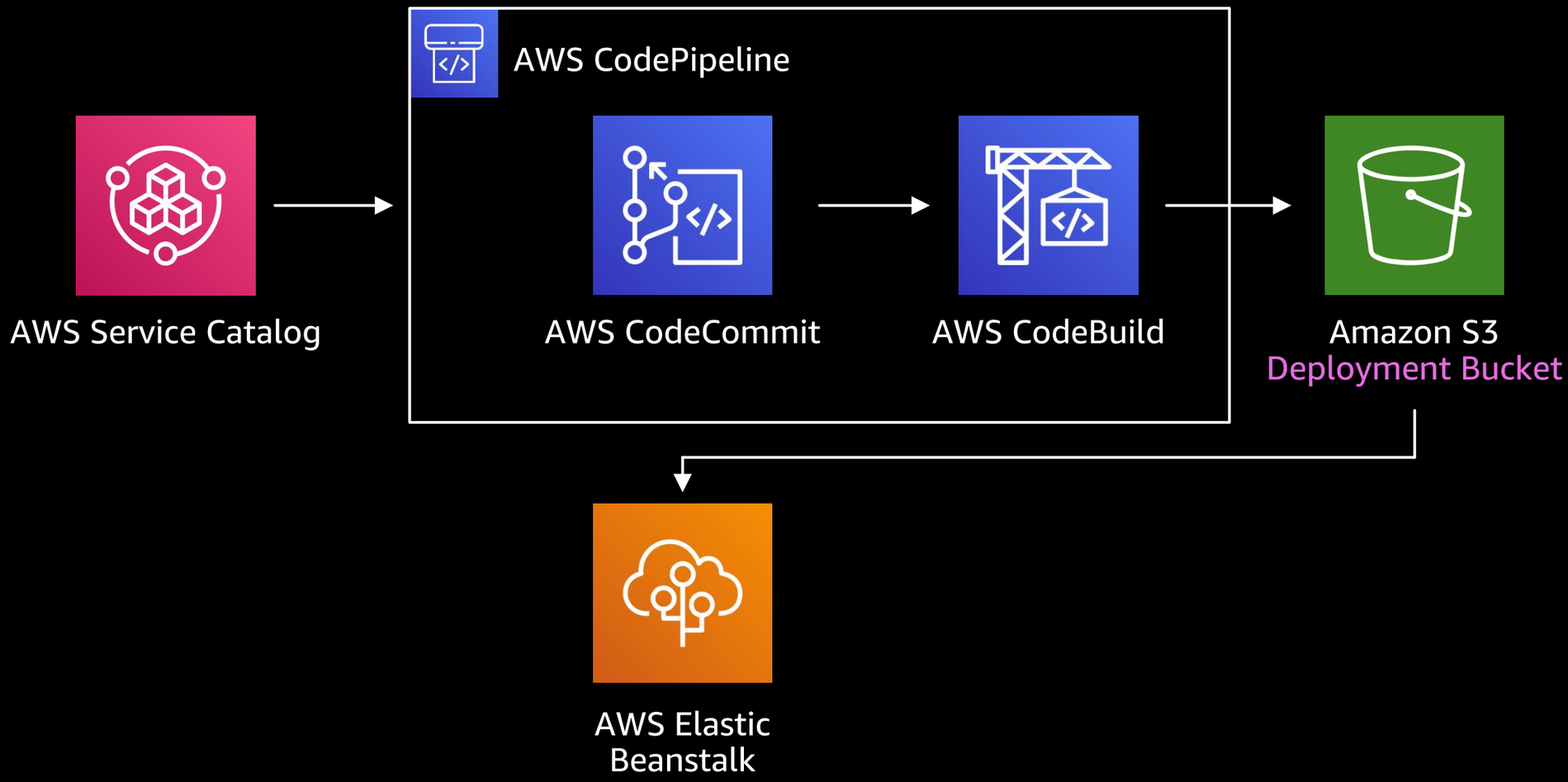
Upload your code, and Elastic Beanstalk handles all the undifferentiated heavy lifting

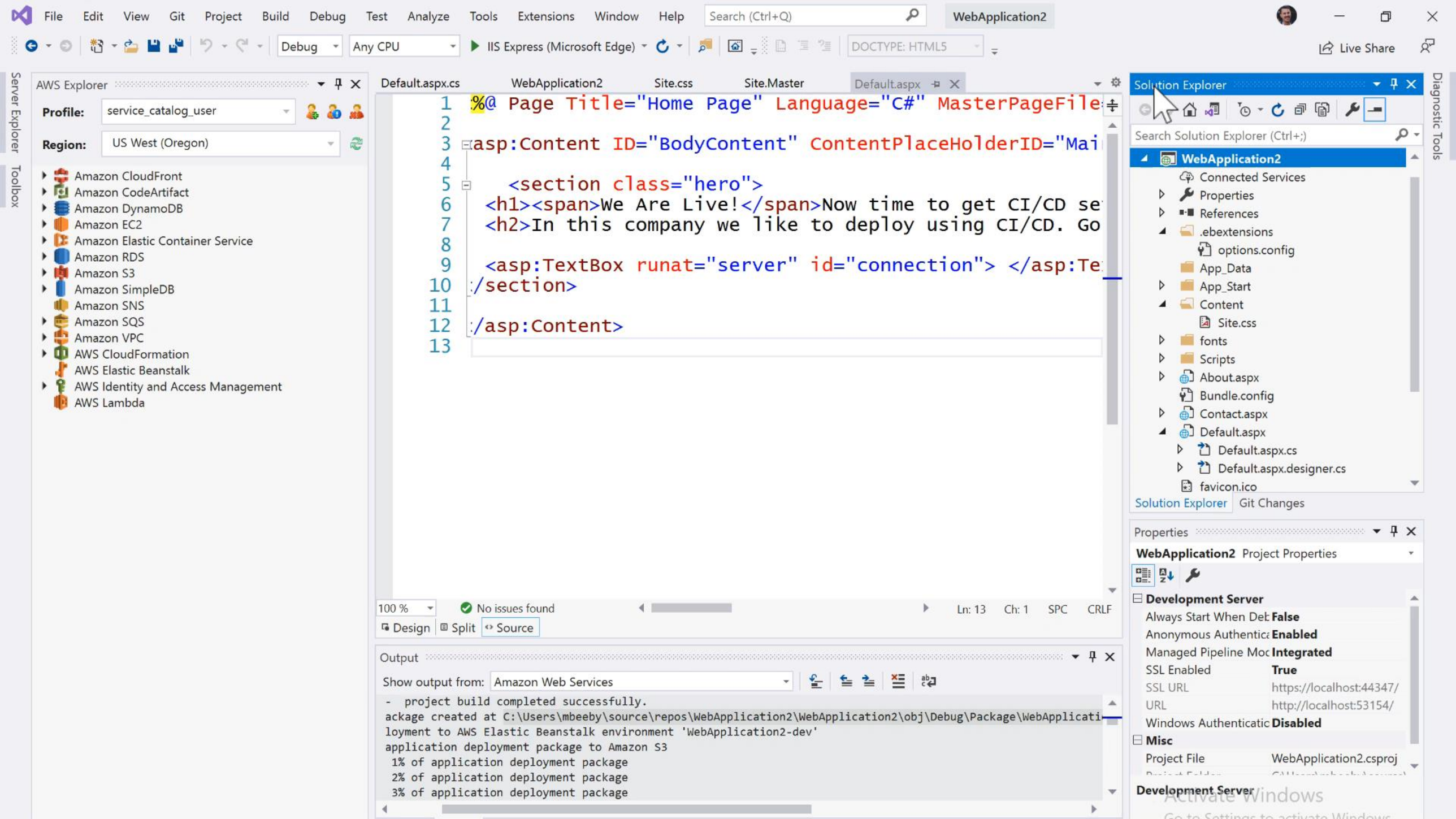


No additional charge for Elastic Beanstalk – you pay for the AWS resources needed to store and run your applications

My web applications modernized deployment

ASP.NET CORE 2.0, ORIGINALLY BUILT IN 2011

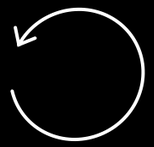



File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
WebApplication2
Debug
Any CPU
IIS Express (Microsoft Edge)
DOCTYPE: HTML5
Live Share
AWS Explorer
Profile:
service_catalog_user
Region:
US West (Oregon)
Amazon CloudFront
Amazon CodeArtifact
Amazon DynamoDB
Amazon EC2
Amazon Elastic Container Service
Amazon RDS
Amazon S3
Amazon SimpleDB
Amazon SNS
Amazon SQS
Amazon VPC
AWS CloudFormation
AWS Elastic Beanstalk
AWS Identity and Access Management
AWS Lambda
Default.aspx.cs
WebApplication2
Site.css
Site.Master
Default.aspx
%@ Page Title="Home Page" Language="C#" MasterPageFile
asp:Content ID="BodyContent" ContentPlaceHolderID="Mai
<section class="hero">
<h1>We Are Live!Now time to get CI/CD se
<h2>In this company we like to deploy using CI/CD. Go
<asp:TextBox runat="server" id="connection"> </asp:Te
/section>
/asp:Content>
100 %
No issues found
Ln: 13
Ch: 1
SPC
CRLF
Design
Split
Source
Output
Show output from:
Amazon Web Services
- project build completed successfully.
ackage created at C:\Users\mbeeby\source\repos\WebApplication2\WebApplication2\obj\Debug\Package\WebApplicati
loyment to AWS Elastic Beanstalk environment 'WebApplication2-dev'
application deployment package to Amazon S3
1% of application deployment package
2% of application deployment package
3% of application deployment package
Solution Explorer
Search Solution Explorer (Ctrl+;)
WebApplication2
Connected Services
Properties
References
.ebextensions
options.config
App_Data
App_Start
Content
Site.css
fonts
Scripts
About.aspx
Bundle.config
Contact.aspx
Default.aspx
Default.aspx.cs
Default.aspx.designer.cs
favicon.ico
Solution Explorer
Git Changes
Properties
WebApplication2 Project Properties
Development Server
Always Start When Deb
False
Anonymous Authentica
Enabled
Managed Pipeline Moc
Integrated
SSL Enabled
True
SSL URL
https://localhost:44347/
URL
http://localhost:53154/
Windows Authenticatic
Disabled
Misc
Project File
WebApplication2.csproj
Development Server
Activate Windows
Server Explorer
Toolbox
Diagnostic Tools

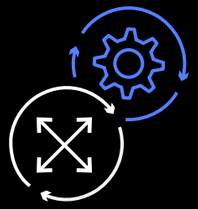
AWS CodePipeline

EASY TO BEGIN, IMPOSSIBLE TO OUTGROW





Fully managed continuous delivery service



Automates the build, test, and deploy phases of your release process every time there is a code change



Can deploy to AWS Elastic Beanstalk and many other services

CodePipeline - AWS Developer

console.aws.amazon.com/codesuite/codepipeline/pipelines?region=us-east-1&pipelines-meta=eyJmIjp7InRleHQiOiIifSwicyI6eyJwcm9wZXJ0eSI6InVwZGF0ZWQiLCJk...

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Developer Tools
CodePipeline

- **Source** • CodeCommit
- **Artifacts** • CodeArtifact
- **Build** • CodeBuild
- **Deploy** • CodeDeploy
- **Pipeline** • CodePipeline
  - Getting started
  - Pipelines
- **Settings**

Go to resource
Feedback

Developer Tools > CodePipeline > Pipelines

Pipelines Info

Notify | View history | Release change | Delete pipeline | Create pipeline

1

Name	Most recent execution	Latest source revisions	Last executed
ElasticBeanstalk-ProductPipeline-my-website	Succeeded	**Source** – 7e5971c6: Adding New Files	6 hours ago

Thank you!

Martin Beeby

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