



Azure DevOps

Workshop

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Connect Visual Studio Code and Git

GitLab Integration

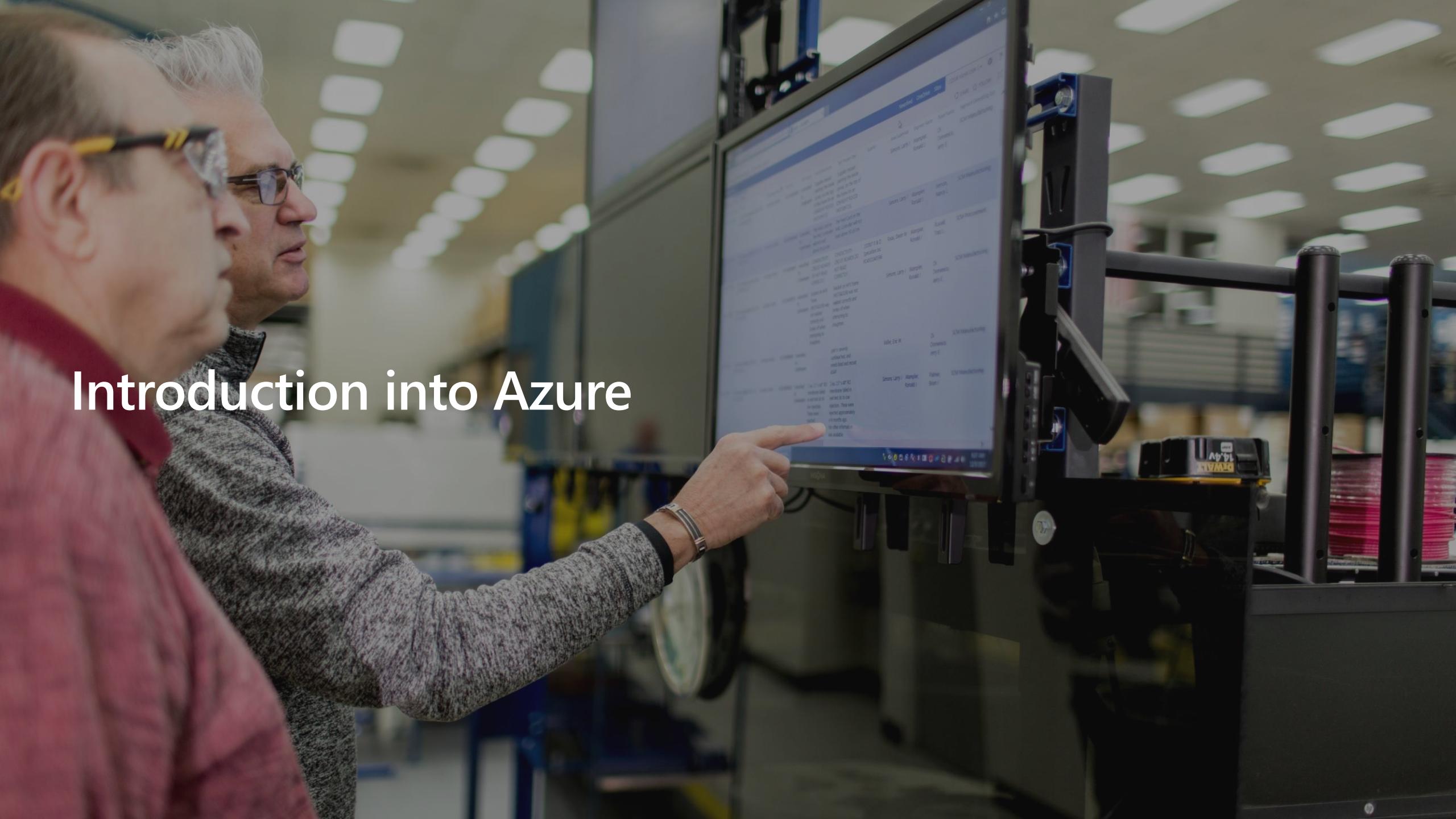
Build Pipelines & YAML Pipelines

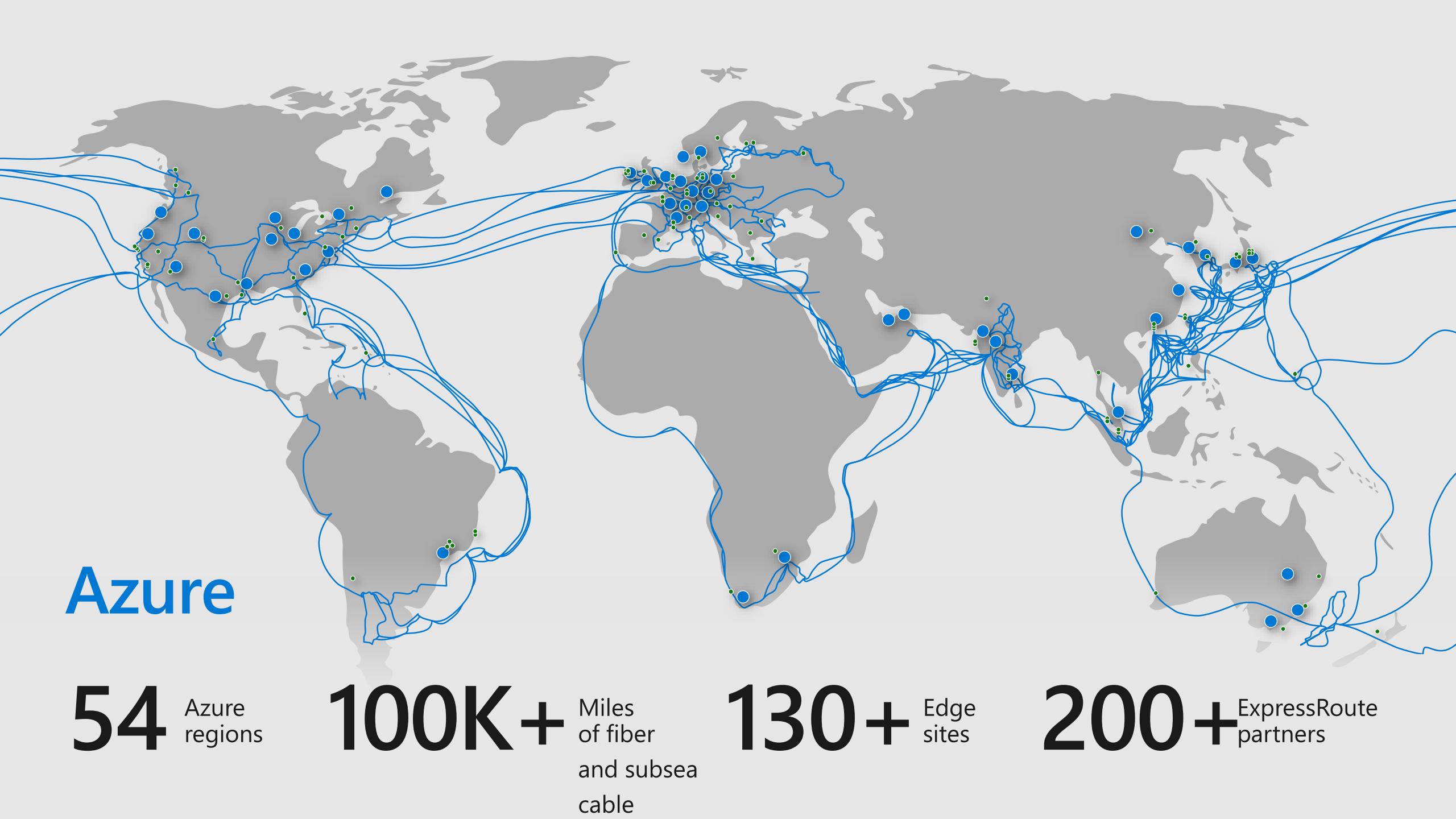
Release Pipelines

Deployment Groups



Introduction into Azure





Azure

54 Azure regions

100K+ Miles of fiber and subsea cable

130+ Edge sites

200+ ExpressRoute partners

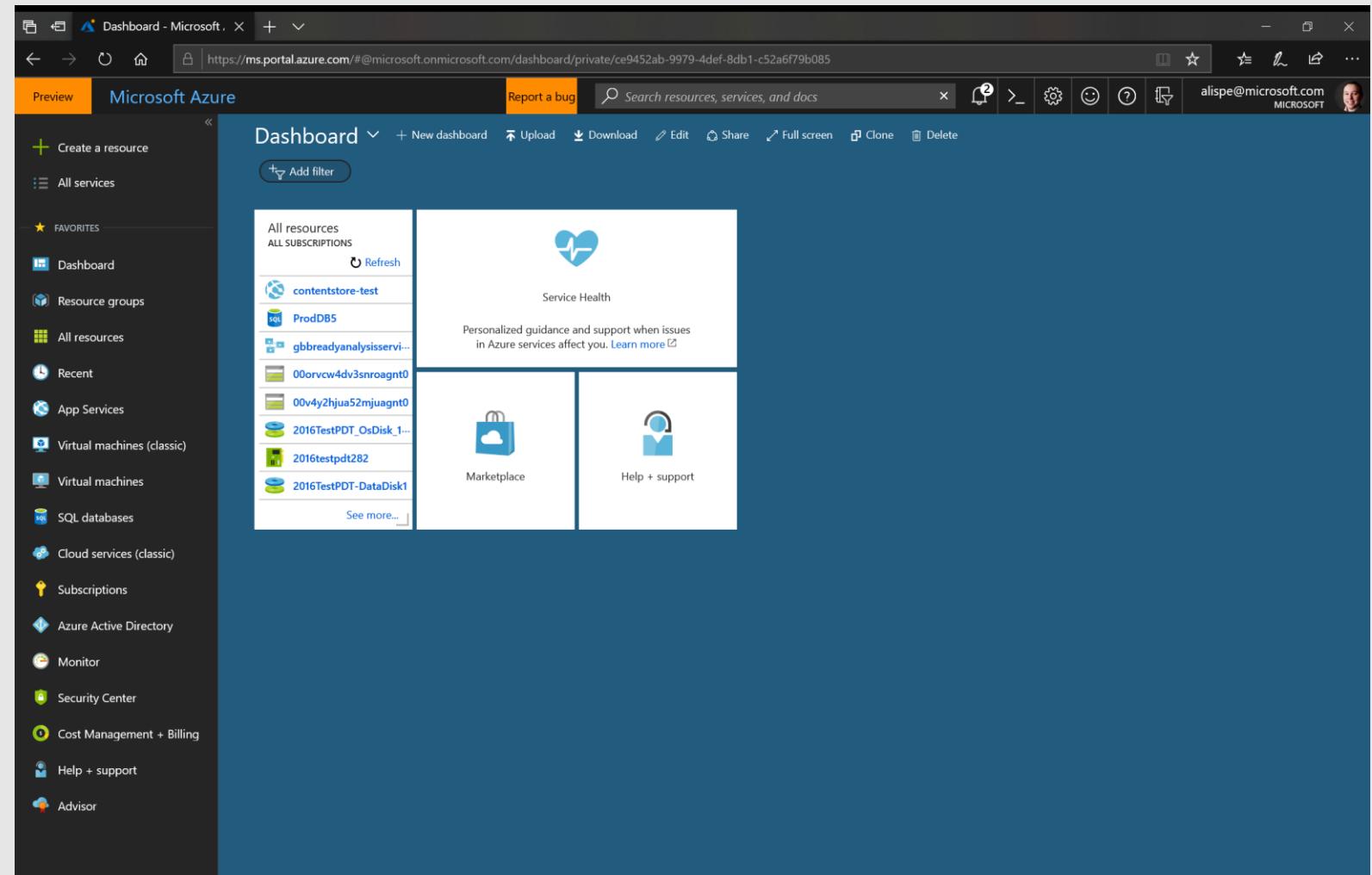
Azure Portal – <https://portal.azure.com>

Recommendations

Create multiple portal dashboards by key roles, (e.g., operations, finance, development), key projects, and key service KPIs

Customize portal to specific needs

Share portal dashboards in teams



Azure Cloud Shell – <https://shell.azure.com>

Hints

Choose shell environment via URL path

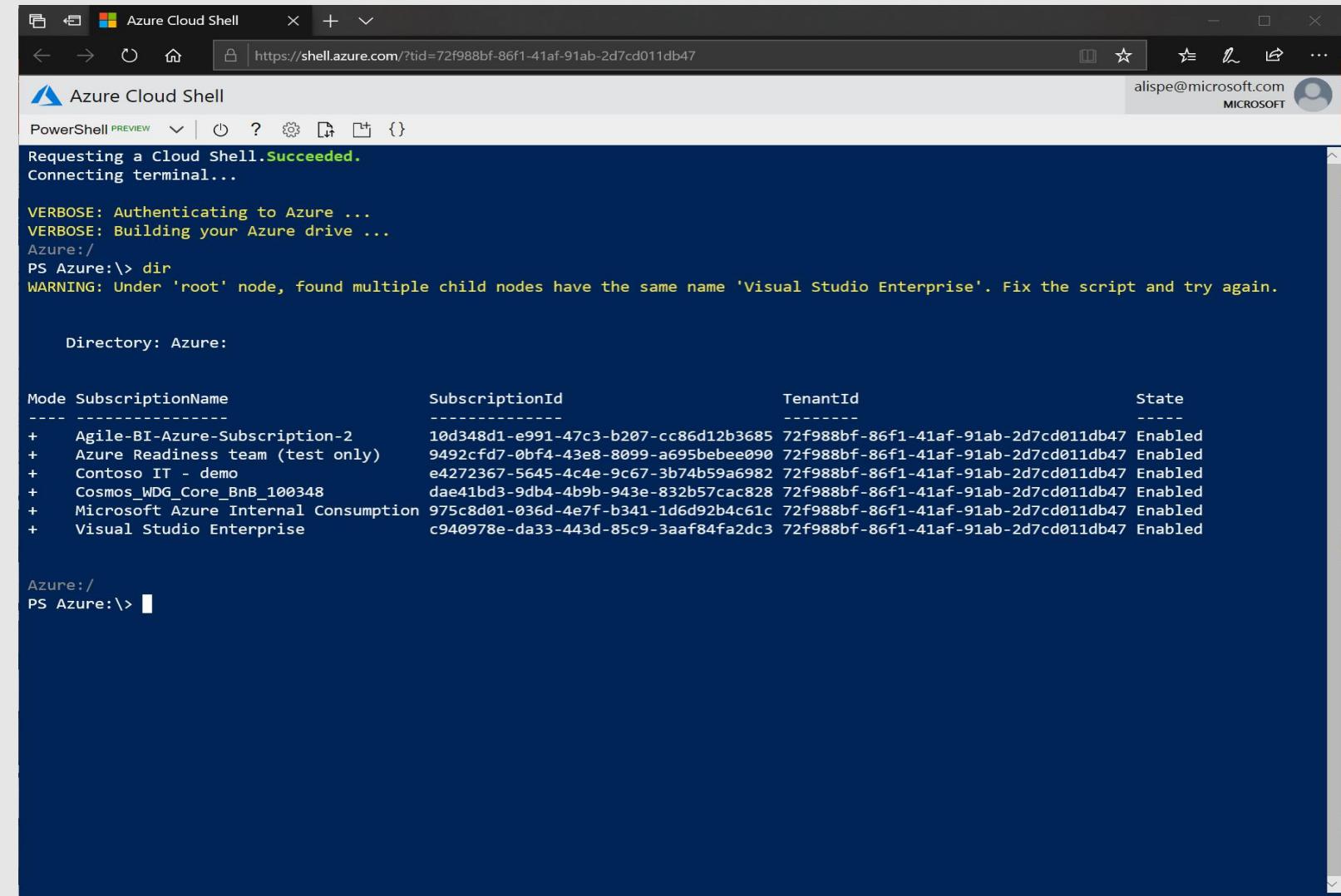
- /powershell
- /bash

Latest tools installed (e.g. kubectl, terraform, Az modules)

Rely on Az modules and migrate away from AzureRM modules

Cloud shell always runs on Linux and is executed within Docker containers

Migrate away from Windows PowerShell to PowerShell Core



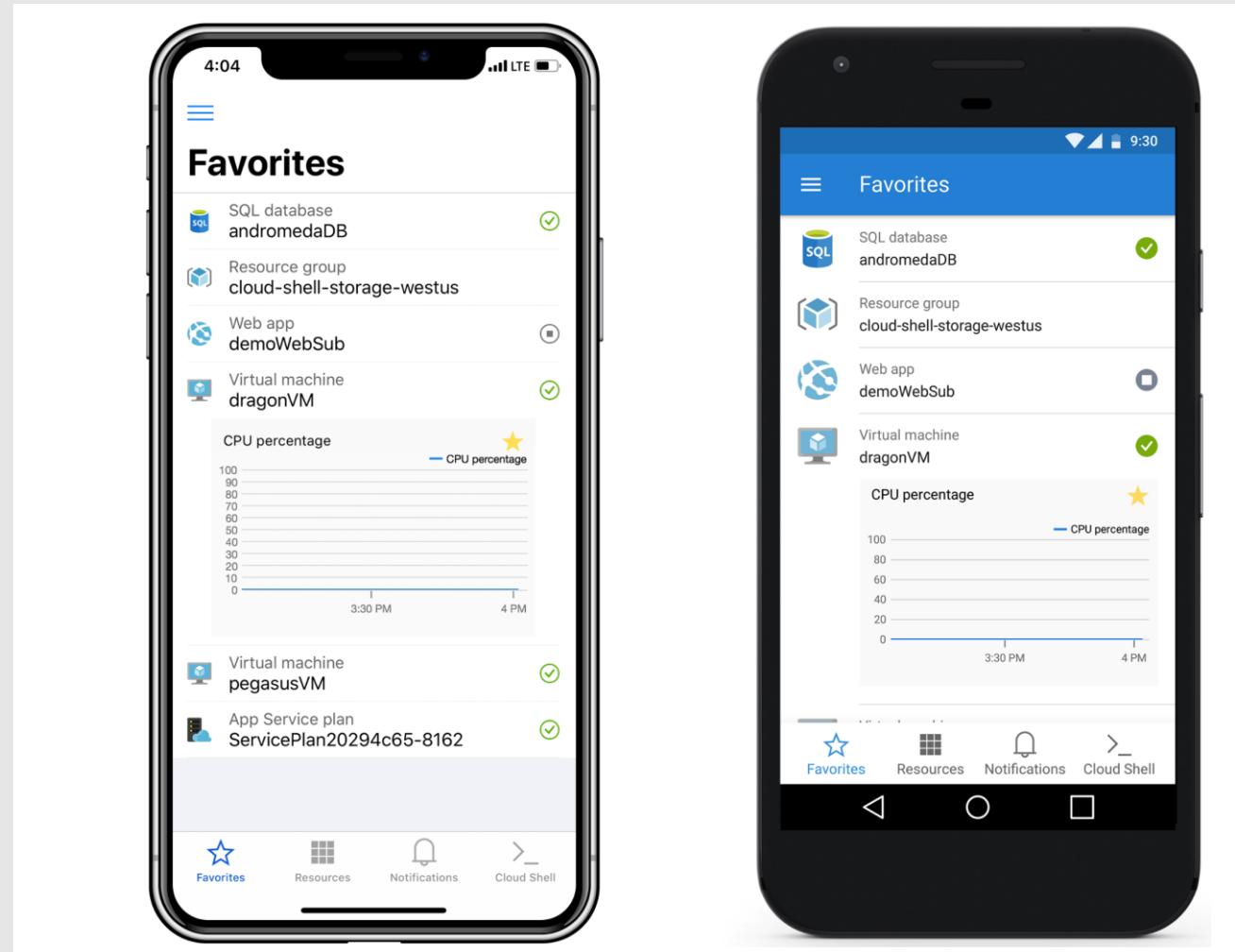
The screenshot shows a Microsoft Edge browser window titled "Azure Cloud Shell". The address bar displays the URL <https://shell.azure.com/?tid=72f988bf-86f1-41af-91ab-2d7cd011db47>. The user's email, alispe@microsoft.com, is visible in the top right corner. The main content area is a terminal window titled "PowerShell PREVIEW". It shows the following output:

```
Requesting a Cloud Shell. Succeeded.  
Connecting terminal...  
  
VERBOSE: Authenticating to Azure ...  
VERBOSE: Building your Azure drive ...  
Azure:/  
PS Azure:\> dir  
WARNING: Under 'root' node, found multiple child nodes have the same name 'Visual Studio Enterprise'. Fix the script and try again.  
  
Directory: Azure:  
  
Mode SubscriptionName SubscriptionId TenantId State  
---- -- -- -- --  
+ Agile-BI-Azure-Subscription-2 10d348d1-e991-47c3-b207-cc86d12b3685 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
+ Azure Readiness team (test only) 9492cf7-0bf4-43e8-8099-a695bebee090 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
+ Contoso IT - demo e4272367-5645-4c4e-9c67-3b74b59a6982 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
+ Cosmos_WDG_Core_BnB_100348 dae41bd3-9db4-4b9b-943e-832b57cac828 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
+ Microsoft Azure Internal Consumption 975c8d01-036d-4e7f-b341-1d6d92b4c61c 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
+ Visual Studio Enterprise c940978e-da33-443d-85c9-3aaaf84fa2dc3 72f988bf-86f1-41af-91ab-2d7cd011db47 Enabled  
  
Azure:/  
PS Azure:\>
```

Azure Mobile App

Stay connected to your Azure resources – anytime, anywhere

- Monitor the health and status of your Azure resources on the go
- Get quick access to your favorite resources
- Get notifications and alerts about important health issues
- Quickly diagnose and fix issues from your mobile device
- Run Azure Cloud Shell scripts (PowerShell or Bash) from the app
- Control access to resources using Role Based Access Control
- Available on iOS and Android



Infrastructure and Configuration as Code

Azure Resource Manager, Automation & 3rd Party Integrations

→ Infrastructure as Code,
built-in

→ Azure Config & Automation

→ Support for 3rd party and OSS
tooling such as Terraform,
Ansible, Chef, Puppet &
SaltStack



TERRAFORM



ANSIBLE



CHEF



puppet



SALTSTACK

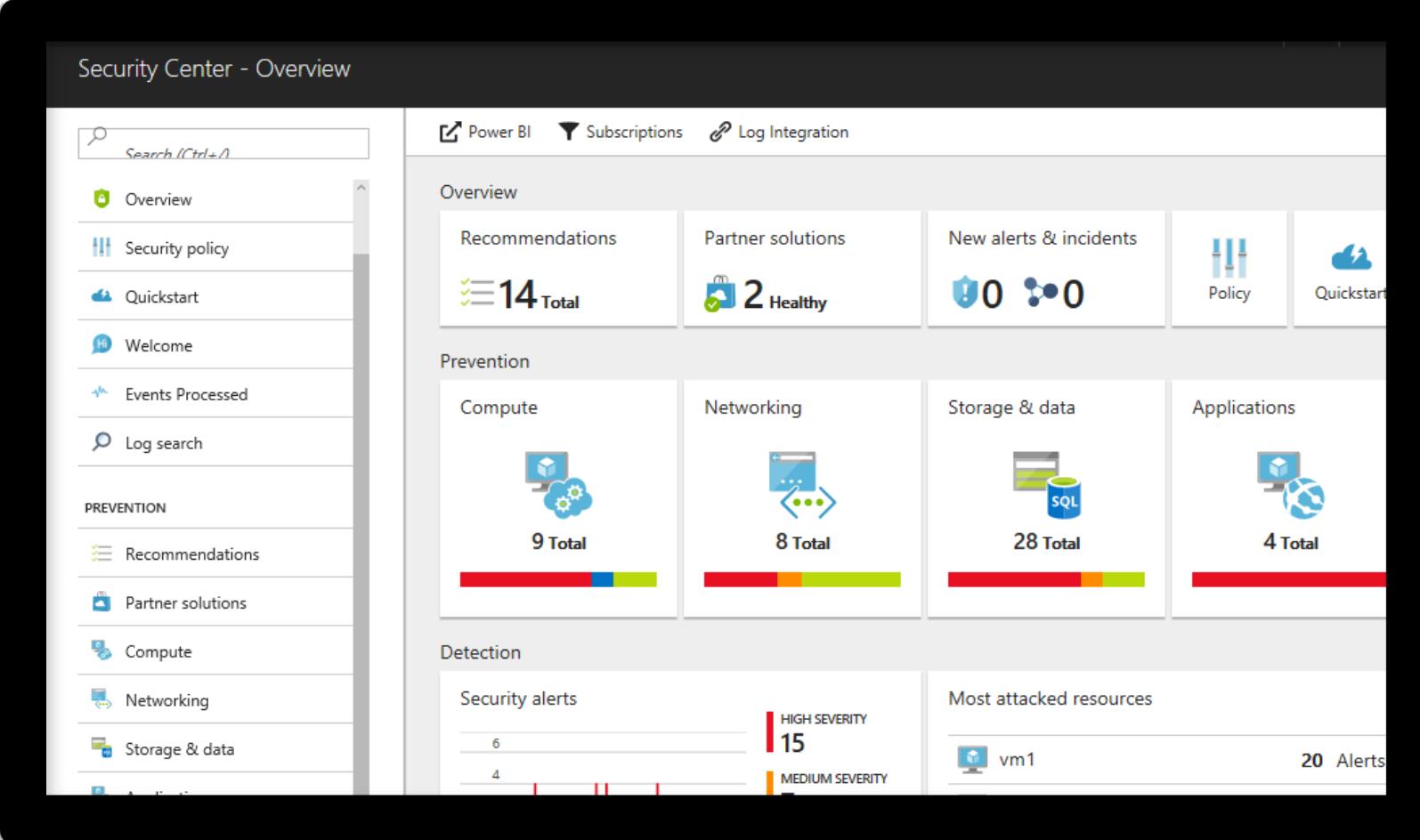
The screenshot shows the Microsoft Azure portal interface. On the left, the sidebar lists various services like Dashboard, Resource groups, Virtual machines, etc. The main area shows a list of Resource groups: AustraliaSEDevelopment, AustraliaSEProduction (selected), autoShutdown, cloud-shell-storage-westus, DefaultResourceGroup-EUS, and securitydata. To the right, the 'AustraliaSEProduction - Automation script' blade is open. It displays an 'Overview' section with tabs for Template, Parameters, CLI, PowerShell, .NET, and Ruby. The 'Template' tab shows a JSON template for deploying resources using Azure Resource Manager. The template includes definitions for parameters, variables, and resources, such as dnszones_onazure, NS, SOA, A_vote, A_draft, A_devops, and A_*_draft.

```
$schema: "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#"
contentVersion: "1.0.0.0"
parameters: {
  "dnszones_onazure_io_name": {
    "defaultValue": "onazure.io",
    "type": "String"
  },
  "NS @_name": {
    "defaultValue": "@",
    "type": "String"
  },
  "SOA @_name": {
    "defaultValue": "@",
    "type": "String"
  },
  "A_vote_name": {
    "defaultValue": "vote",
    "type": "String"
  },
  "A_draft_name": {
    "defaultValue": "draft",
    "type": "String"
  },
  "A_devops_name": {
    "defaultValue": "devops",
    "type": "String"
  },
  "A_*_.draft_name": {
    "defaultValue": "*_.draft",
    "type": "String"
  }
},
```

Continuous Security

Azure Security Center

- Gain full visibility and control of your cloud security state
- Leverage ML to Proactively identify and mitigate risks to reduce exposure to attacks
- Quickly detect and respond to threats with advanced analytics



The screenshot shows the Azure Security Center - Overview page. The left sidebar contains navigation links: Search (Ctrl+F), Overview, Security policy, Quickstart, Welcome, Events Processed, Log search, PREVENTION (Recommendations, Partner solutions, Compute, Networking, Storage & data, Applications), and DETECTION (Security alerts, Most attacked resources). The main area is divided into sections: Overview (Recommendations: 14 Total, 2 Healthy, 0 Critical, 0 High, 0 Medium, 0 Low; New alerts & incidents: 0 Critical, 0 High, 0 Medium, 0 Low), Prevention (Compute: 9 Total, Networking: 8 Total, Storage & data: 28 Total, Applications: 4 Total), and Detection (Security alerts: 6 High Severity, 15 Medium Severity, 4 Low Severity; Most attacked resources: vm1 with 20 Alerts).

Smarter Insights, Faster

Azure Monitor, Application Insights & Log Analytics

- Pre-defined solutions with smart thresholds
- Visualize data in intuitive and customizable dashboards
- Separate the signal from the noise and accelerate root-cause analysis
- Integrate your existing processes & tools like Service Now



Self-Service Dev/Test Environments

Azure Lab Services

→ Simplify cloud environment management for developers and testers.

→ Enforce policies and control costs with full visibility

→ Use templates, custom images and formulas to reproduce environments.

→ Orchestrate with Azure Pipelines or integrate using REST API

The screenshot shows the Microsoft Azure portal interface. On the left, the classic Azure navigation menu is visible. In the center, a specific Dev/Test Lab named 'Contoso' is selected. The main content area displays the 'Configuration and policies - Marketplace images' page. At the top right of this page, there are buttons for 'Save', 'Discard', and 'Feedback'. Below these, a section titled 'Allowed images' contains a search bar and a checkbox labeled 'Select all'. A dropdown menu is open, showing the option 'red hat'. The main list area is titled 'NAME' and 'OFFER STATUS'. It lists various marketplace images, including several Red Hat Enterprise Linux offerings, some SQL Server options, and other standard terms offers. Some items have checkboxes next to them, indicating selection status. The entire interface is set against a dark background theme.

NAME	OFFER STATUS
Free SQL Server License: SQL Server 2017 Developer on Red Hat Enterprise Linux 7.4 (RHEL)	Standard terms
Free SQL Server License: SQL Server 2017 Express on Red Hat Enterprise Linux 7.4 (RHEL)	Standard terms
Red Hat Enterprise Linux 6.7	Standard terms
Red Hat Enterprise Linux 6.7 for SAP HANA	Standard terms
Red Hat Enterprise Linux 6.8	Standard terms
Red Hat Enterprise Linux 6.8 for SAP Business Apps	Standard terms
Red Hat Enterprise Linux 6.9	Standard terms
Red Hat Enterprise Linux 7.2	Standard terms
Red Hat Enterprise Linux 7.2 for SAP HANA	Standard terms
Red Hat Enterprise Linux 7.3	Standard terms
Red Hat Enterprise Linux 7.3 for SAP Business Apps	Standard terms
Red Hat Enterprise Linux 7.4	Standard terms
SQL Server 2017 Enterprise on Red Hat Enterprise Linux 7.4 (RHEL)	Standard terms
SQL Server 2017 Standard on Red Hat Enterprise Linux 7.4 (RHEL)	Standard terms

DevOps Introduction



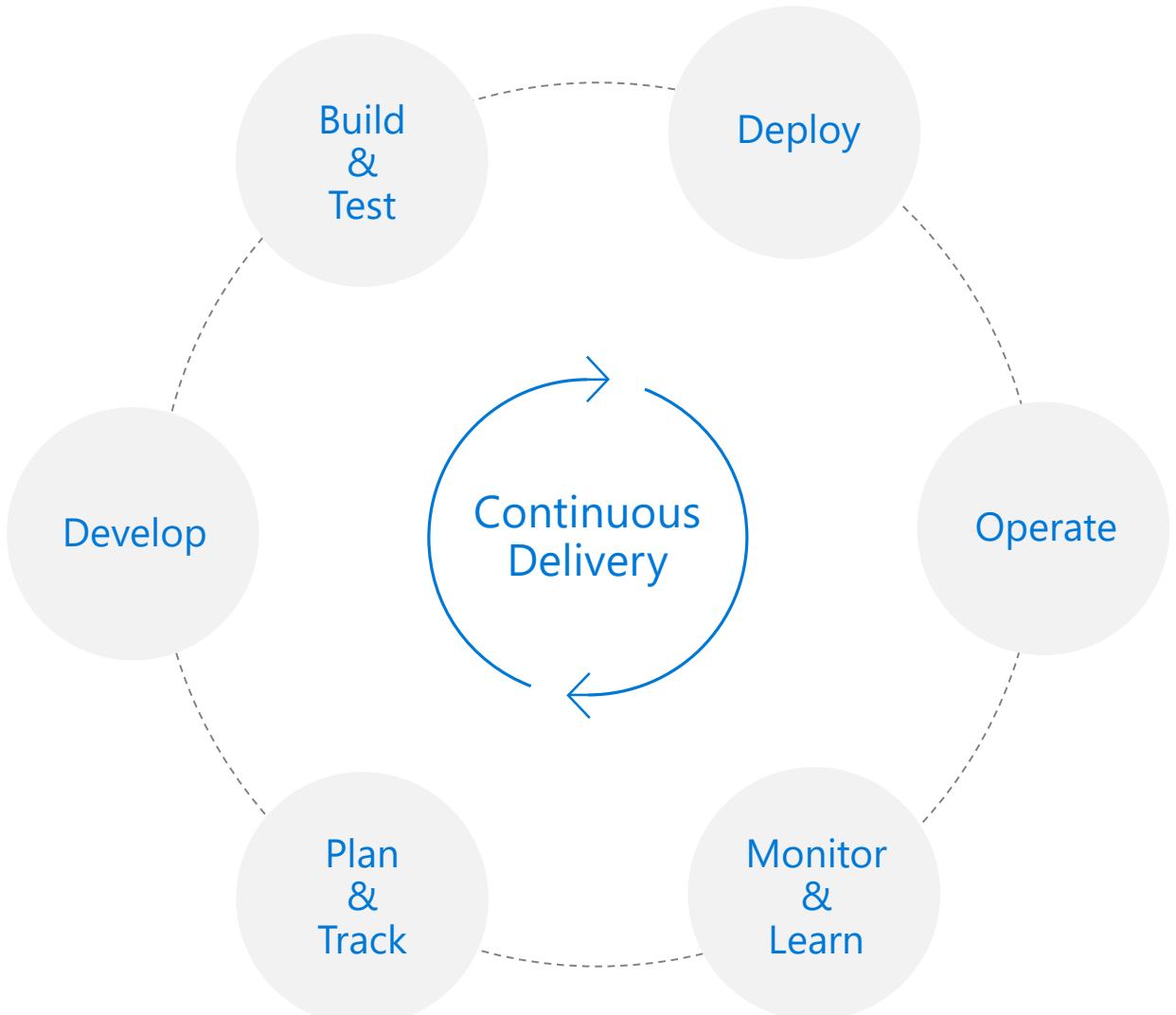
What is DevOps?

People. Process. Products.

“

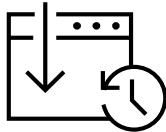
DevOps is the union of **people**, **process**, and **products** to enable continuous delivery of value to your end users.”

”



What technologies do I need to support DevOps?

DevOps brings together people, processes, and technology, automating software delivery to provide continuous value to your users. Using Azure DevOps, you can deliver software faster and more reliably - no matter how big your IT department is or what tools you're using.



Continuous Integration (CI)

- Improve software development quality and speed.
- When you use Azure Pipelines or Jenkins to build apps in the cloud and deploy to Azure, each time you commit code, it's automatically built and tested and bugs are detected faster.

101010
010101
101010

Continuous Deployment (CD)

- By combining continuous integration and infrastructure as code (IaC), you'll achieve identical deployments and the confidence to deploy to production at any time.
- With continuous deployment, you can automate the entire process from code commit to production if your CI/CD tests are successful.



Continuous Learning & Monitoring

- With Azure Application Insights you can identify how your applications are performing and test if the recent deployment made things better or worse.
- Using CI/CD practices, paired with monitoring tools, you'll be able to safely deliver features to your customers as soon as they're ready.

Git – Foundation of IaC

Fundamentals

❖ About Version Control

- Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later
- It allows you to revert selected files back to a previous state, revert the entire project back to a previous state, compare changes over time, see who last modified something that might be causing a problem, who introduced an issue and when, and more.

❖ History of Git – “an unpleasant or contemptible person”

- In 2005, the relationship between the community that developed the Linux kernel and the commercial company that developed BitKeeper broke down, and the tool’s free-of-charge status was revoked. This prompted the Linux development community (and in particular Linus Torvalds, the creator of Linux) to develop their own tool based on some of the lessons they learned while using BitKeeper.



progit.pdf

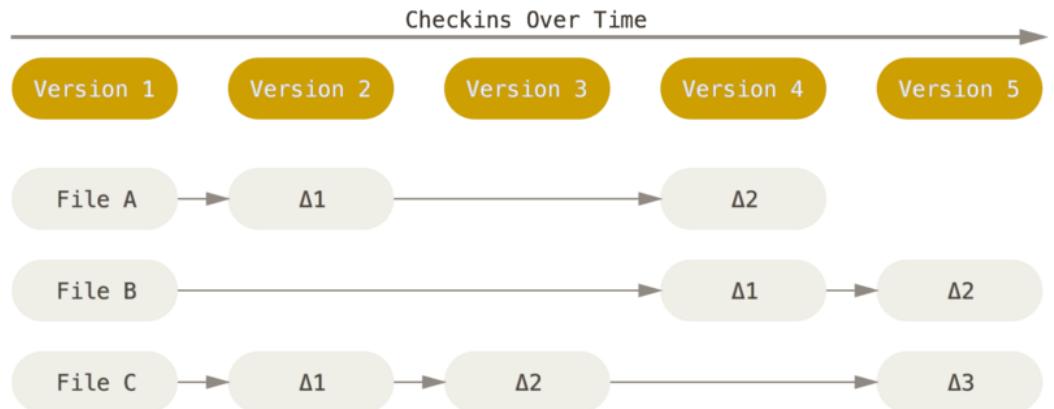


Git – Foundation of IaC

Fundamentals

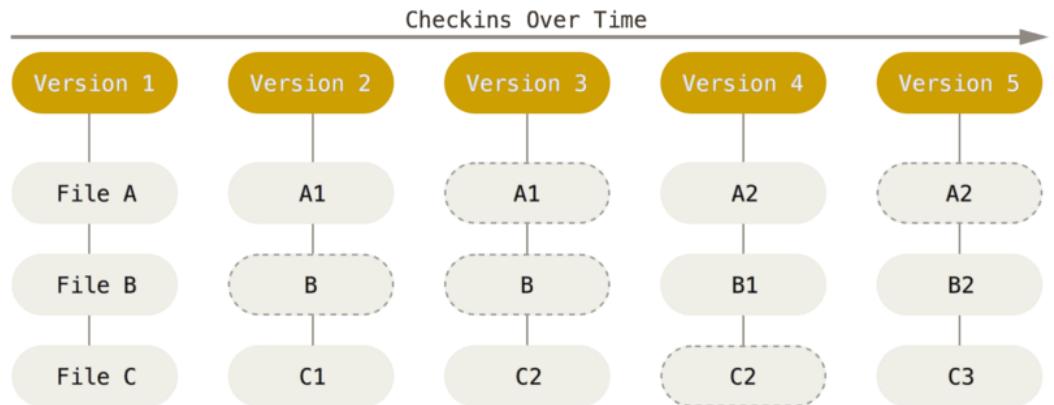
❖ Snapshots, not Differences

- The major difference between Git and any other VCS (Subversion and friends included) is the way Git thinks about its data. Conceptually, most other systems store information as a list of file-based changes.



❖ Stream of Snapshots

- Git doesn't think of or store its data this way. Instead, Git thinks of its data more like a series of snapshots of a miniature filesystem. With Git, every time you commit, or save the state of your project, Git basically takes a picture of what all your files look like at that moment and stores a reference to that snapshot.



Git – Foundation of IaC

Fundamentals

❖ Git Has Integrity

- Everything in Git is checksummed before it is stored and is then referred to by that checksum. This means it's impossible to change the contents of any file or directory without Git knowing about it.

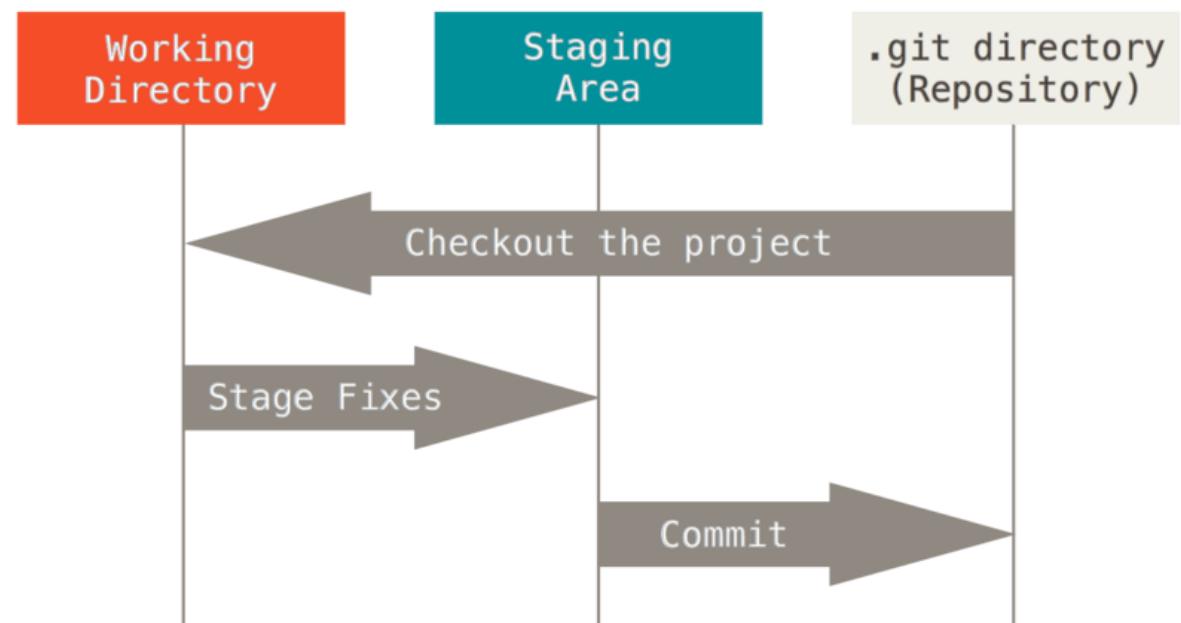
❖ The Three States

- Committed means that the data is safely stored in your local database.
- Modified means that you have changed the file but have not committed it to your database yet.
- Staged means that you have marked a modified file in its current version to go into your next commit snapshot.



git-cheat-sheet-education.pdf

24b9da6552252987aa493b52f8696cd6d3b00373



Git – Foundation of IaC

Demo Time

❖ Git Branching & Merging

```
1 Id CommandLine  
-----  
1 git  
2 sl .\Source\Repos\  
3 gci  
5 New-Item -Name Test -ItemType Directory  
6 sl Test  
9 git init  
12 gci -Attributes Hidden  
14 gci .git  
16 clear  
17 code FileA  
18 code FileB  
19 code FileC  
20 gci  
22 git add FileA FileB  
28 code.  
31 git log  
32 git status  
35 git commit -m 'First check-in.'  
36 git log  
37 git add FileC
```

```
38 git status  
40 git commit -m "Second check-in."  
41 git status  
42 git log  
46 code FileD  
47 git status  
49 git branch newfeature  
51 git checkout newfeature  
53 git status  
54 git add FileD  
55 git commit -m "Third check-in."  
56 git log  
58 git checkout master  
59 gci  
60 git checkout newfeature  
61 gci  
62 git branch  
63 code .  
66 git status  
67 git checkout master  
68 git merge newfeature  
70 git status  
74 git branch -d newfeature  
84 git branch hotfix  
86 code FileD  
88 git commit -a -m "Change in FileD."  
89 git status  
90 git checkout hotfix  
91 code FileD  
92 git commit -a -m "Another change in FileD"  
93 git status  
94 git checkout master  
95 git merge hotfix  
97 code FileD  
98 git add FileD  
100 git commit -m "Conflict resolution."  
105 git log  
106 git branch -d hotfix  
107 clear  
109 git remote add origin https://github.com/petersen65/Test.git  
112 git push -u origin master  
113 git remote
```



[Branching Part 1](#)

history.txt

[Branching Part 2](#)

Download: <https://git-scm.com>

Azure DevOps



Introducing Azure DevOps



Azure Boards

Deliver value to your users faster using proven agile tools to plan, track, and discuss work across your teams.



Azure Test Plans

Test and ship with confidence using manual and exploratory testing tools.



Azure Pipelines

Build, test, and deploy with CI/CD that works with any language, platform, and cloud. Connect to GitHub or any other Git provider and deploy continuously.



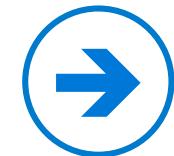
Azure Artifacts

Create, host, and share packages with your team, and add artifacts to your CI/CD pipelines with a single click.



Azure Repos

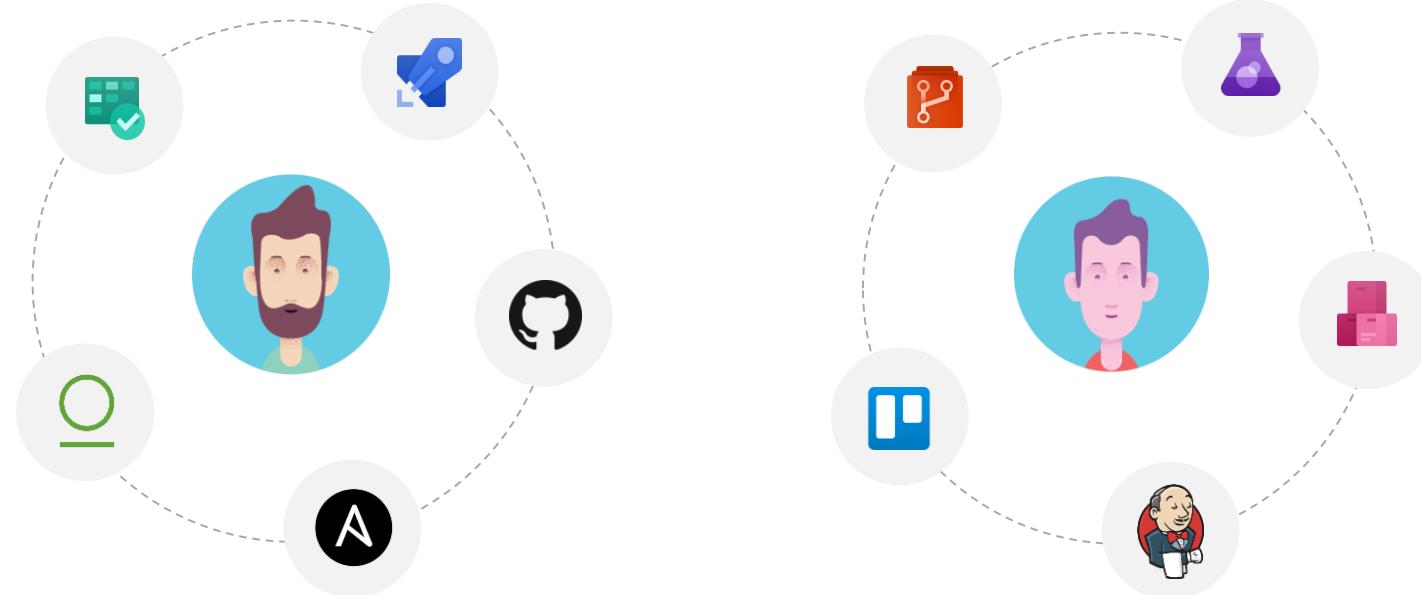
Get unlimited, cloud-hosted private Git repos and collaborate to build better code with pull requests and advanced file management.



<https://azure.com/devops>

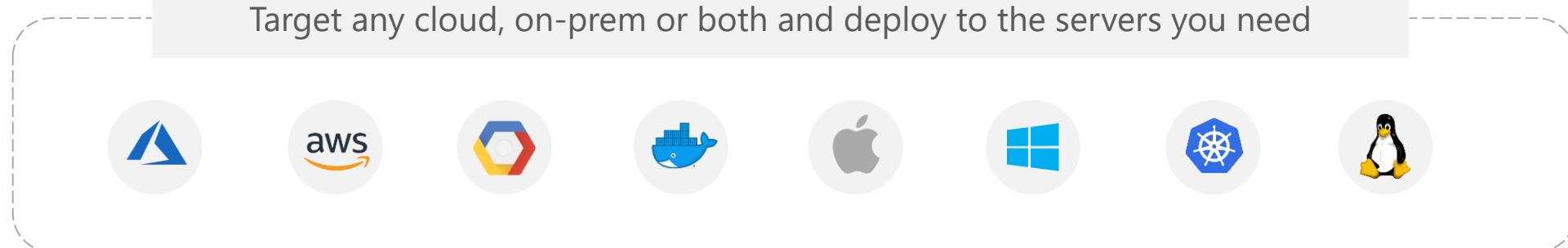
Azure DevOps: Choose the tools and clouds you love

Azure DevOps lets developers choose the tools that are right for them



Mix and match to create workflows with tools from Microsoft, open source or your favorite 3rd party tools

Target any cloud, on-prem or both and deploy to the servers you need



Azure Boards

Track work with Kanban boards, backlogs, team dashboards, and custom reporting



Connected from idea to release

Track all your ideas at every development stage and keep your team aligned with all code changes linked directly to work items.



Scrum ready

Use built-in scrum boards and planning tools to help your teams run sprints, stand-ups, and planning meetings.



Project insights

Gain new insights into the health and status of your project with powerful analytics tools and dashboard widgets.



<https://azure.com/devops>

The screenshot shows the Azure DevOps interface for the 'FabrikamFiber' board. The left sidebar includes links for 'Overview', 'Boards', 'Work items', 'Backlogs', 'Sprints', 'Queries', 'Plans', 'Repos', 'Pipelines', 'Test Plans', and 'Artifacts'. The main area is titled 'FabrikamFiber Board' and displays a Kanban board with columns for 'New', 'Active', '5/5', 'Staging', '15/5', and 'Deployed'. The board contains several cards representing work items, each with a title, description, assignee, and labels like 'Design', 'Xamarin', 'ML', 'Spike', 'Blocked', and 'General'. The cards are color-coded by category, such as purple for 'Design' and blue for 'Xamarin'.

Azure Repos

Unlimited private Git repo hosting and support for TFVC that scales from a hobby project to the world's largest Git repositories



Works with your Git client

Securely connect with and push code into your Git repos from any IDE, editor, or Git client.



Web hooks and API integration

Add validations and extensions from the marketplace or build your own using web hooks and REST APIs.



Semantic code search

Quickly find what you're looking for with code-aware search that understands classes and variables.



<https://azure.com/devops>

The screenshot shows the Azure DevOps interface for the 'AdventureWorks Mobile' project under the 'Pull requests' section. The left sidebar includes links for Overview, Boards, Repos, Files, Commits, Pushes, Branches, Tags, and Pull requests (which is currently selected). The main content area displays a list of pull requests categorized by status: Mine, Active, Completed, and Abandoned. Each pull request card includes the author's profile picture, the title of the PR, a brief description, and the number of reviews and comments. The interface is clean with a white background and a dark sidebar.

Category	Title	Description	Reviews	Comments
Mine	Initialize client with .client.init	Kat Larsson requested #238 into master	6	1
Active	Testing configuration settings	Kat Larsson requested #230 into features/config	0	1
Completed	Check returned identity for null status	Colin Ballinger requested #212 into master	0	0
Abandoned	[WIP] Add tests for deployment mapping	Robin Counts requested #221 into master	3	7
Mine	Add exception on disconnect	Colin Ballinger requested #249 into master	0	2
Active	Maintain structure when converting isomorphs	Robin Counts requested #234 into master	0	1
Completed	Hottfix payload to releases/99	Robin Counts requested #201 into releases/99	99+	2

Azure Test Plans

Get end-to-end traceability. Run tests and log defects from your browser. Track and assess quality throughout your testing lifecycle.



Capture rich data

Capture rich scenario data as you execute tests to make discovered defects actionable. Explore user stories without test cases or test steps. You can create test cases directly from your exploratory test sessions.



Test across web and desktop

Test your application where it lives. Complete scripted tests across desktop or web scenarios. Test on-premises application from the cloud and vice-versa.

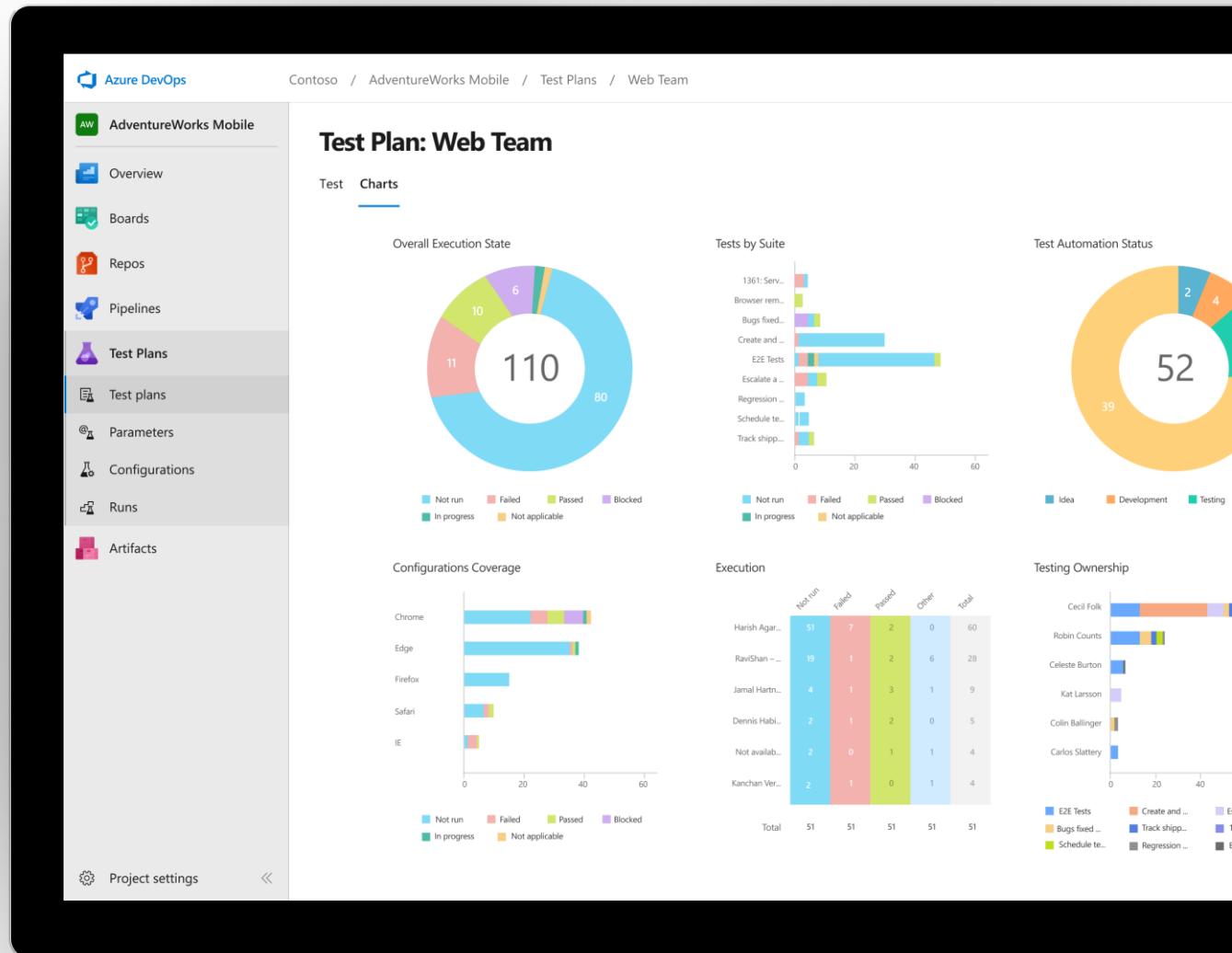


Get end-to-end traceability

Leverage the same test tools across your engineers and user acceptance testing stakeholders. Pay for the tools only when you need them.



<https://azure.com/devops>



Azure Artifacts

Create and share Maven, npm, and NuGet package feeds from public and private sources – fully integrated into CI/CD pipelines



Manage all package types

Get universal artifact management for Maven, npm, and NuGet.



Add packages to any pipeline

Share packages, and use built-in CI/CD, versioning, and testing.



Share code efficiently

Easily share code across small teams and large enterprises.



<https://azure.com/devops>

The screenshot shows the Azure DevOps interface for managing artifacts. The left sidebar includes links for Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The Artifacts link is highlighted. The main content area displays a table of packages with columns for Package, Views, Source, Last pushed, and Description. The packages listed are abbrev (Version 1.1.0, nuget), accepts (Version 1.3.3, npmjs), acorn (Version 5.0.3, MyFeed), acorn-dynamic-import (Version 2.0.2, maven), aclr-jsx (Version 3.0.1, nuget), acorn-object-spread (Version 1.0.0, maven), ajv (Version 4.11.7, npmjs), ajv-keywords (Version 1.5.1, nuget), and alphanum-sort (Version 1.4.0, npmjs). The table also includes a 'Connect to feed' and 'Recycle Bin' button at the top.

Package	Views	Source	Last pushed	Description
abbrev Version 1.1.0		nuget	a year ago	Like ruby's abbrev module, but in js
accepts Version 1.3.3		npmjs	a year ago	Higher-level content negotiation
acorn Version 5.0.3		MyFeed	a year ago	ECMAScript parser
acorn-dynamic-import Version 2.0.2		maven	a year ago	Support dynamic imports in acorn
aclr-jsx Version 3.0.1		nuget	a year ago	Alternative, faster React.js JSX parser
acorn-object-spread Version 1.0.0		maven	a year ago	Custom JSON-Schema keywords for ajv validator
ajv Version 4.11.7		npmjs	a year ago	Alphanumeric sorting algorithm
ajv-keywords Version 1.5.1		nuget	a year ago	ANSI escape codes for manipulating the terminal
alphanum-sort Version 1.4.0		npmjs	a year ago	An elegant lib that converts the chalked (ANSI) text to HTML

Azure Pipelines

Cloud-hosted pipelines for Linux, Windows and macOS, with unlimited minutes for open source



Any language, any platform, any cloud

Build, test, and deploy Node.js, Python, Java, PHP, Ruby, C/C++, .NET, Android, and iOS apps. Run in parallel on Linux, macOS, and Windows. Deploy to Azure, AWS, GCP or on-premises



Extensible

Explore and implement a wide range of community-built build, test, and deployment tasks, along with hundreds of extensions from Slack to SonarCloud. Support for YAML, reporting and more



Containers and Kubernetes

Easily build and push images to container registries like Docker Hub and Azure Container Registry. Deploy containers to individual hosts or Kubernetes.



Best-in-class for open source

Ensure fast continuous integration/continuous delivery (CI/CD) pipelines for every open source project. Get unlimited build minutes for all open source projects with up to 10 free parallel jobs across Linux, macOS and Windows

The screenshot shows the Azure DevOps Pipelines interface for the AdventureWorks Mobile project. The pipeline is titled "Enabling feature flags for Preview Attachment and Grid Views". It consists of three parallel jobs: a Windows Job (Running, 1m 53s), a Linux Job (Running, 3m 29s), and a macOS Job (Running, 3m 07s). The Linux Job details are shown on the right, listing the following steps:

- Prepare job
- Initialize job
- Get sources
- Cmdline
- Nodetool
- Install dependencies

The logs for the Linux job show the following command output:

```
yarn install v1.7.0
$ node build/npm/preinstall.js
[1/4] Resolving packages...
[2/4] Fetching packages...
[3/4] Linking dependencies...
[4/4] Building fresh packages...
$ npm run compile
#####
> code-oss-dev-build@1.0.0 compile ./adventureworks/build
> tsc -p tsconfig.build.json

✖ Done in 4.89s.
$ node ./postinstall
[#1] 2/2 removed './adventureworks/extensions/node_modules/typescript/lib/tsc.js'
removed './adventureworks/extensions/node_modules/typescript/lib/tsserverlibrary.d.ts'
removed './adventureworks/extensions/node_modules/typescript/lib/tsserverlibrary.js'
removed './adventureworks/extensions/node_modules/typescript/lib/typescriptServices.d.ts'
removed './adventureworks/extensions/node_modules/typescript/lib/typescriptServices.js'
```



<https://azure.com/pipelines>

Migrating from TFS to Azure DevOps

Move from Team Foundation Server to Azure DevOps and bring your data along

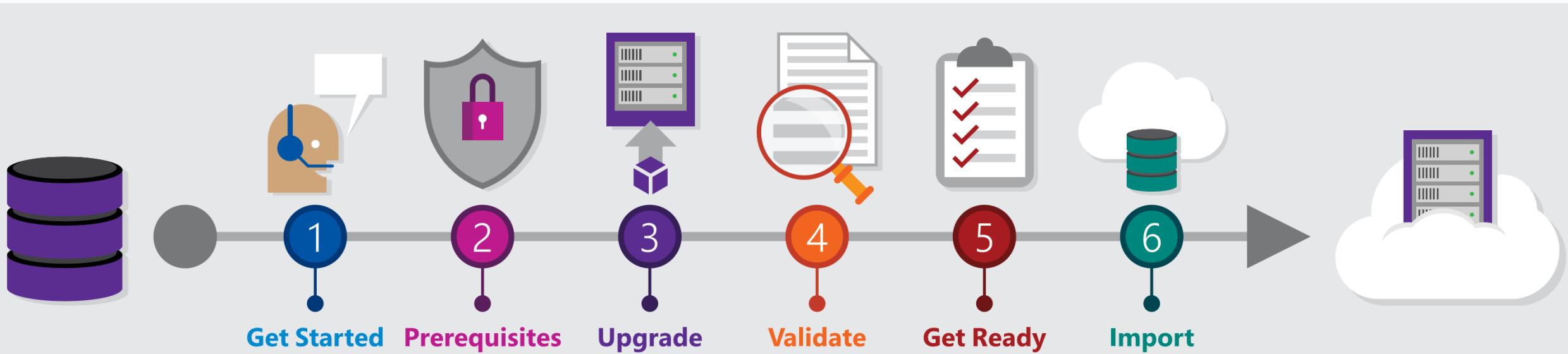
Benefits of Cloud Hosted Azure DevOps Services

- Global availability
- Hosted and maintained by Microsoft with 99.9% uptime guarantee and 24x7 support
- Immediate access to latest features
- Simplified deployment to Azure

TFS Import Service

- Fully supported high fidelity migration path
- Trusted by many large enterprises
- Now faster and easier to use

➡ <https://aka.ms/tfsimport>
[Migrate XAML Pipelines](#)



DevOps at Microsoft

Azure DevOps is the toolchain of choice for Microsoft engineering with over 90,000 internal users



<https://aka.ms/DevOpsAtMicrosoft>

372k

Pull Requests per month

4.4m

Builds per month

5m

Work items viewed per day

2m

Git commits per month

500m

Test executions per day

500k

Work items updated per day

78,000

Deployments per day

Data: Internal Microsoft engineering system activity, August 2018

Azure DevOps Services Pricing

Open Source Projects	Small Teams	Teams of any size
<p>Free</p> <p>Unlimited users and build time</p> <ul style="list-style-type: none">• Azure Pipelines: 10 parallel jobs with unlimited minutes for CI/CD• Azure Boards: Work item tracking and Kanban boards• Azure Repos: Unlimited public Git repos	<p>Free</p> <p>Start free with up to 5 users</p> <ul style="list-style-type: none">• Azure Pipelines: Run 1 Microsoft-hosted job for 1,800 minutes per month and 1 self-hosted job for any amount of time• Azure Boards: Work item tracking and Kanban boards• Azure Repos: Unlimited public Git repos• Azure Artifacts: package management• Unlimited stakeholders	<p>Starts at \$6</p> <p>per user, per month for Boards & Repos*</p> <p>Easy pricing that grows with your team</p> <ul style="list-style-type: none">• Azure Pipelines: Run 1 Microsoft-hosted job for 1,800 minutes per month and 1 self-hosted job for any amount of time• Azure Boards: Work item tracking and Kanban boards• Azure Repos: Unlimited public Git repos• Azure Artifacts: package management• Unlimited stakeholders• Boards & Repos included for Visual Studio subscribers



<https://azure.com/pricing/details/devops/>

* 5 Boards & Repos users and 5 Artifacts users free. Pipelines with unlimited minutes, Test Plans users and additional Artifacts users also available. Please see the Azure pricing calculator for details.

Azure DevOps Deep Dives



Azure DevOps Repos & Pipelines

Demo Time



We have a lot of settings (Organization, Project)



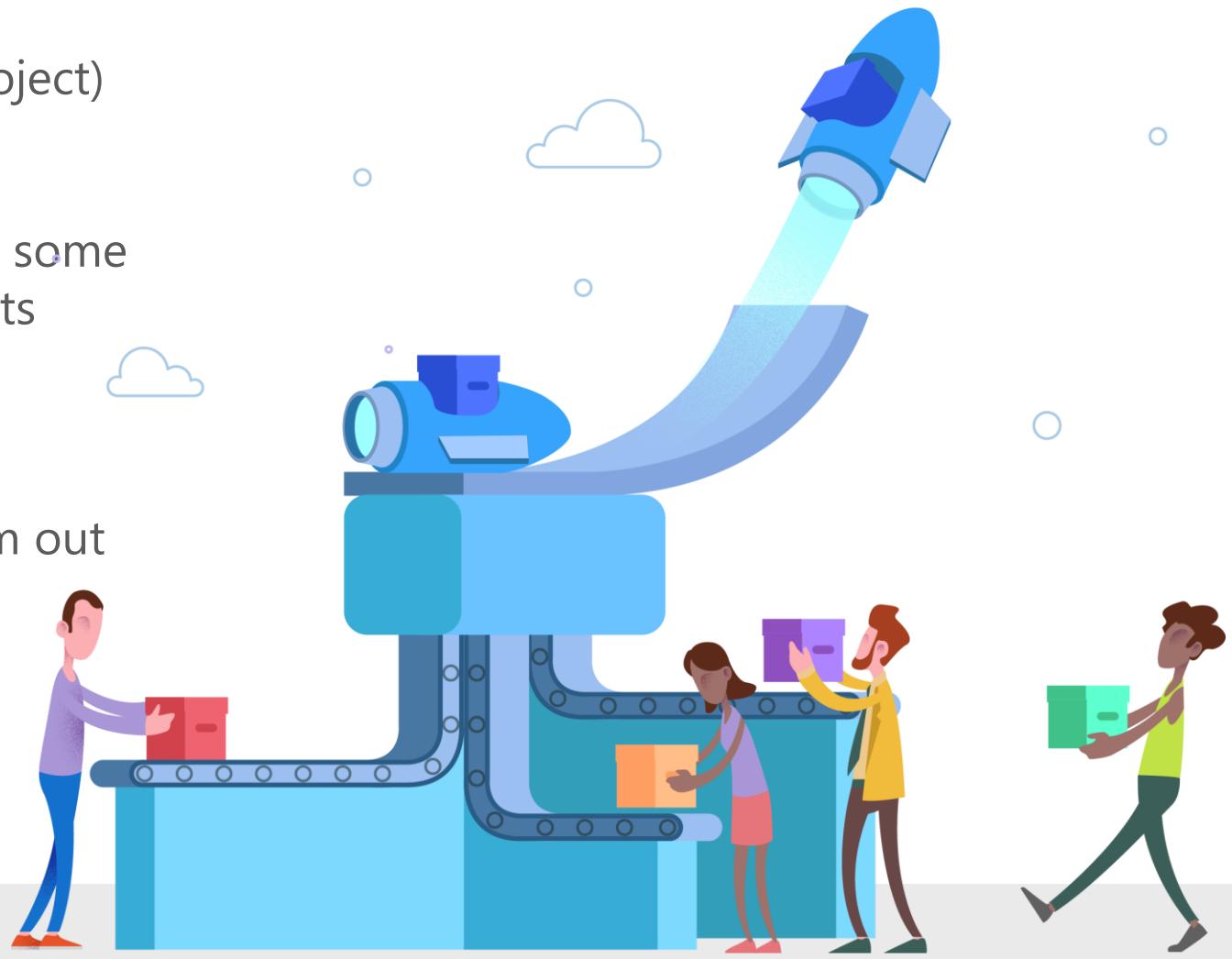
Connect with Visual Studio Code and build some first projects with Build Pipelines and Agents by using Pull Requests and Remotes

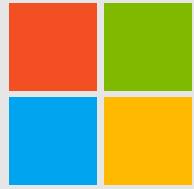


Study YAML Pipelines and try some of them out



Study, Build and Release “Parts Unlimited” from Repos & GitLab with Classic Pipelines





Microsoft Azure

Productive + Hybrid + Intelligent + Trusted