TECH CONFERENCE
DotNet 2020

#DotNet2020

Microsoft Azure

Increase Developer Velocity with Microsoft Tools and Cloud

Twitter: @erikaehrli1

Erika Ehrli

Director of Product Marketing, Microsoft Azure

Erika works at Microsoft and she is focused on Application Development with Azure.

Erika and her team create technical content, demos, customer stories, messaging, and keynote narratives to showcase the latest Microsoft product announcements that help every developer build end-to-end applications with Visual Studio, GitHub, and Azure.

Erika and her team also lead the Thought Leadership GTM for Developer Velocity which highlights how critical it is for every organization to empower developer teams.

ORGANIZATION

plain concepts

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Microsoft

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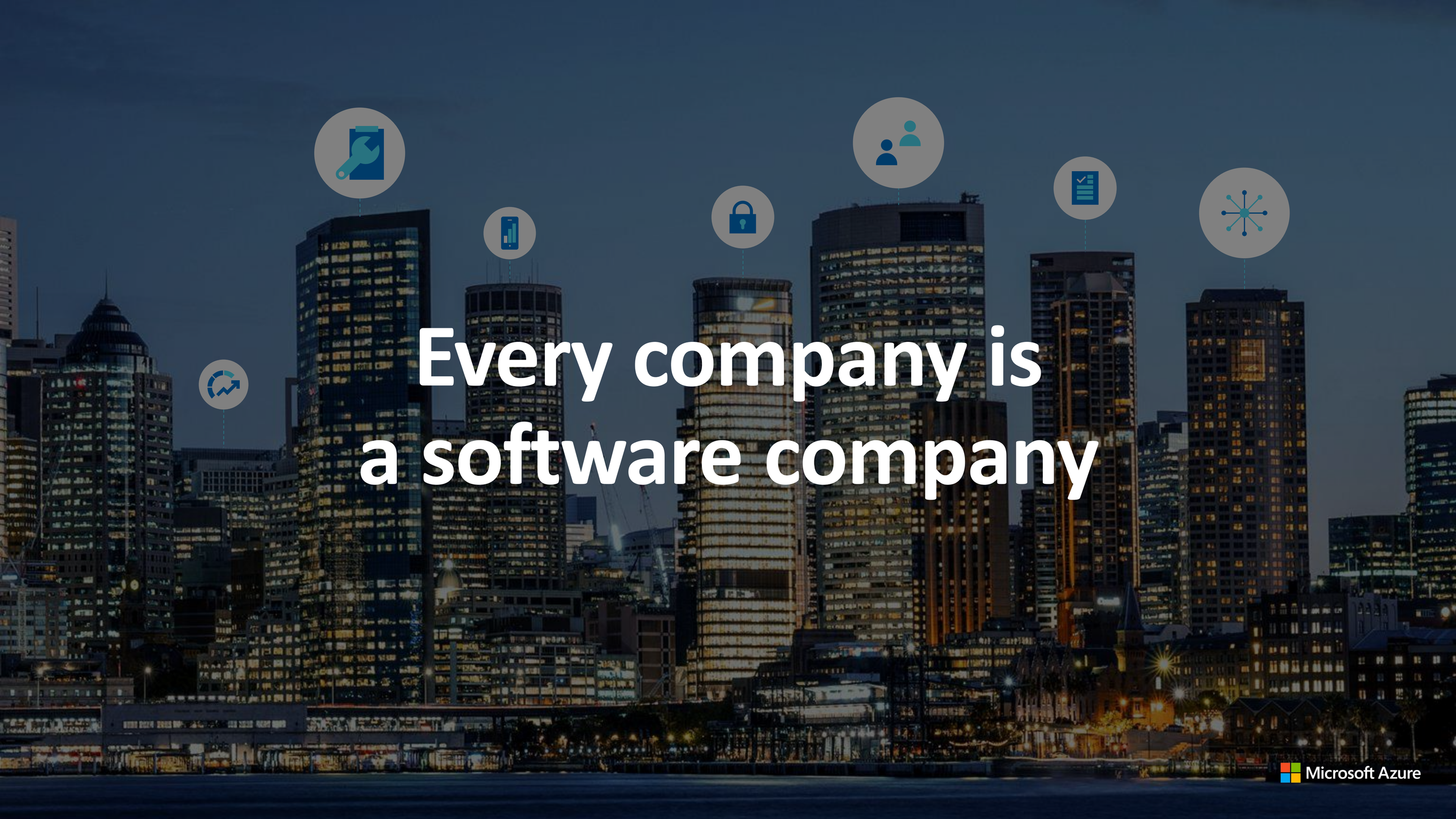
Thank you!


Every company is
a software company
Microsoft Azure

Every company wants to digitally transform

However, realizing true business value from software remains challenging

20M+

Software engineers worldwide

50%

Outside of tech industry

70%

of digital transformation initiatives do not achieve targeted outcomes

McKinsey & Company: *Driving business outcomes through Developer Velocity 2020*

Starbucks

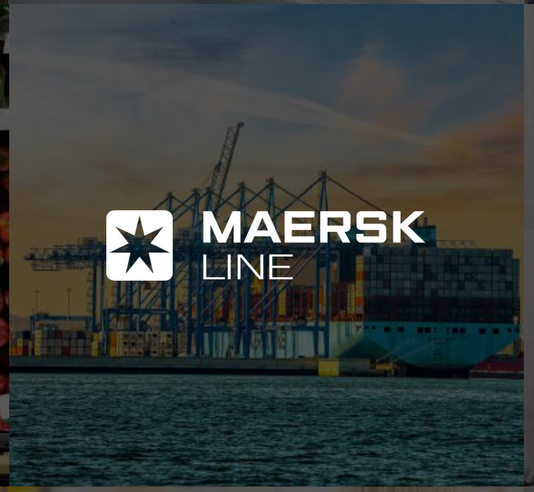
BMW

macy's
macy's

mastercard

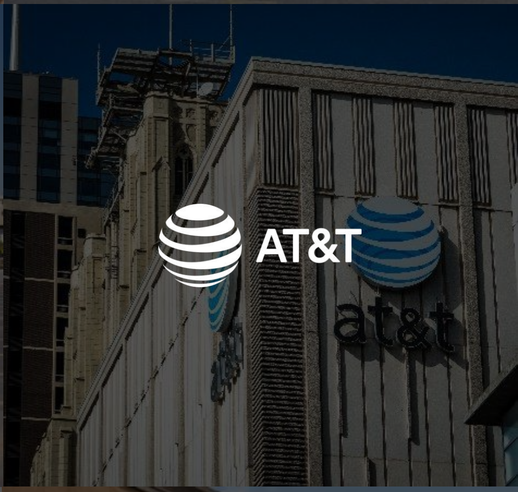
GAP

Kroger


MAERSK
LINE

nielsen

LOWE'S


AT&T
at&t

Coca-Cola
Coca-Cola

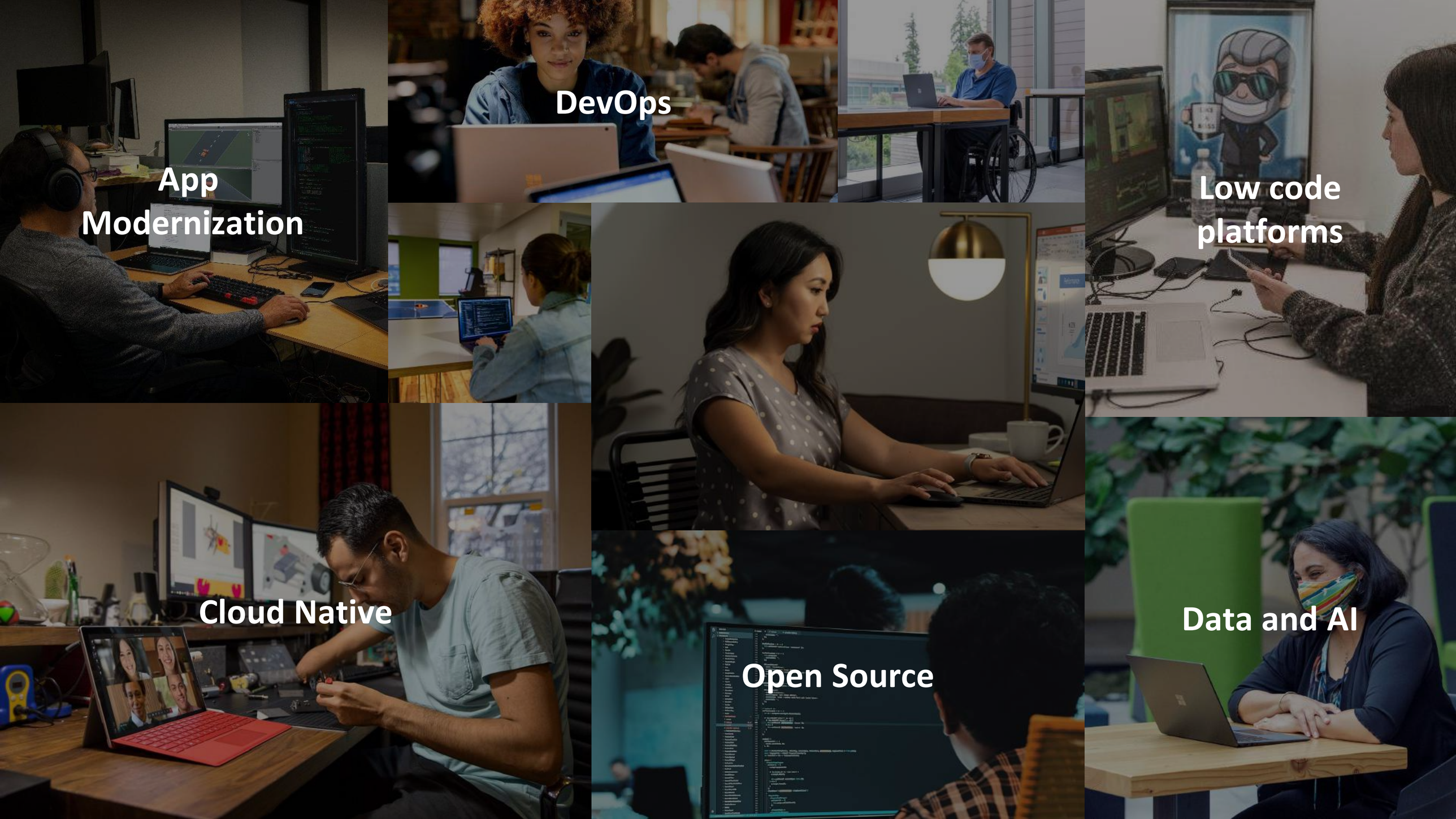
Unilever

virgin atlantic

pharmacy
Boots
Walgreens Boots Alliance

Walmart
Walmart

Developers


App Modernization
DevOps
Low code platforms
Cloud Native
Open Source
Data and AI

Companies with top Developer Velocity Index (DVI) outperform the market

4–5x

Higher revenue growth

55%

Higher innovation[1]

McKinsey & Company: *Driving business outcomes through Developer Velocity 2020*
Measured by level of adoption of new technologies and ability to innovate faster and beat competition through innovation led growth

What is Developer Velocity?

Driving business performance through software development by empowering developers, creating the right environment for them to innovate, and removing points of friction.

azure.com/developervelocity

Developer Velocity Index (DVI)

McKinsey conducted a comprehensive review of software development and converged on a single holistic metric—Developer Velocity Index

Technology

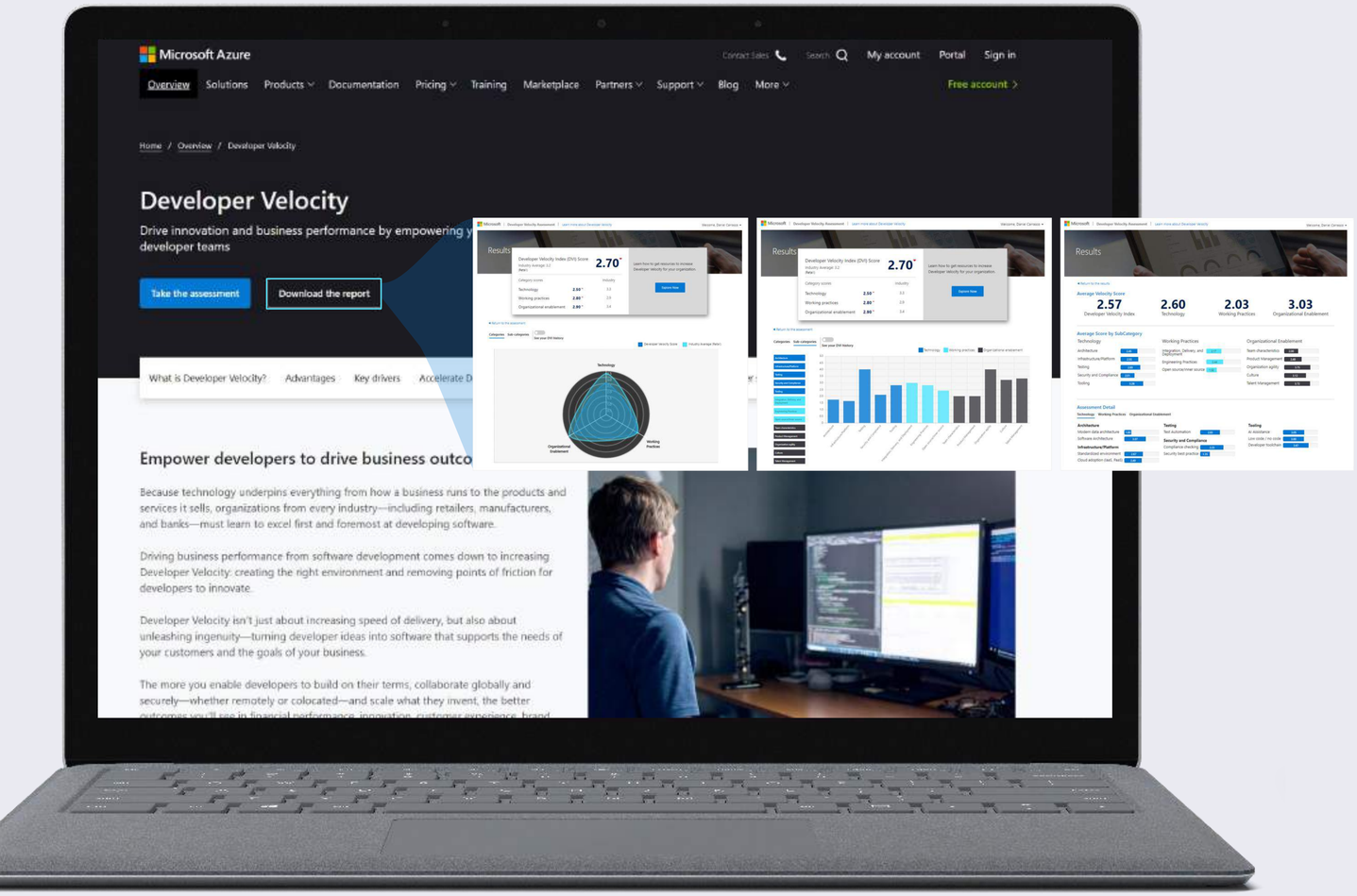
1. Architecture
2. Infrastructure and platform
3. Testing
4. Tools

Working practices

5. Engineering practices
6. Security and compliance
7. Open source, inner source
8. Agile team practices

Organizational enablement

9. Team characteristics
10. Product management
11. Organizational agility
12. Culture
13. Talent management



Developer Velocity Assessment

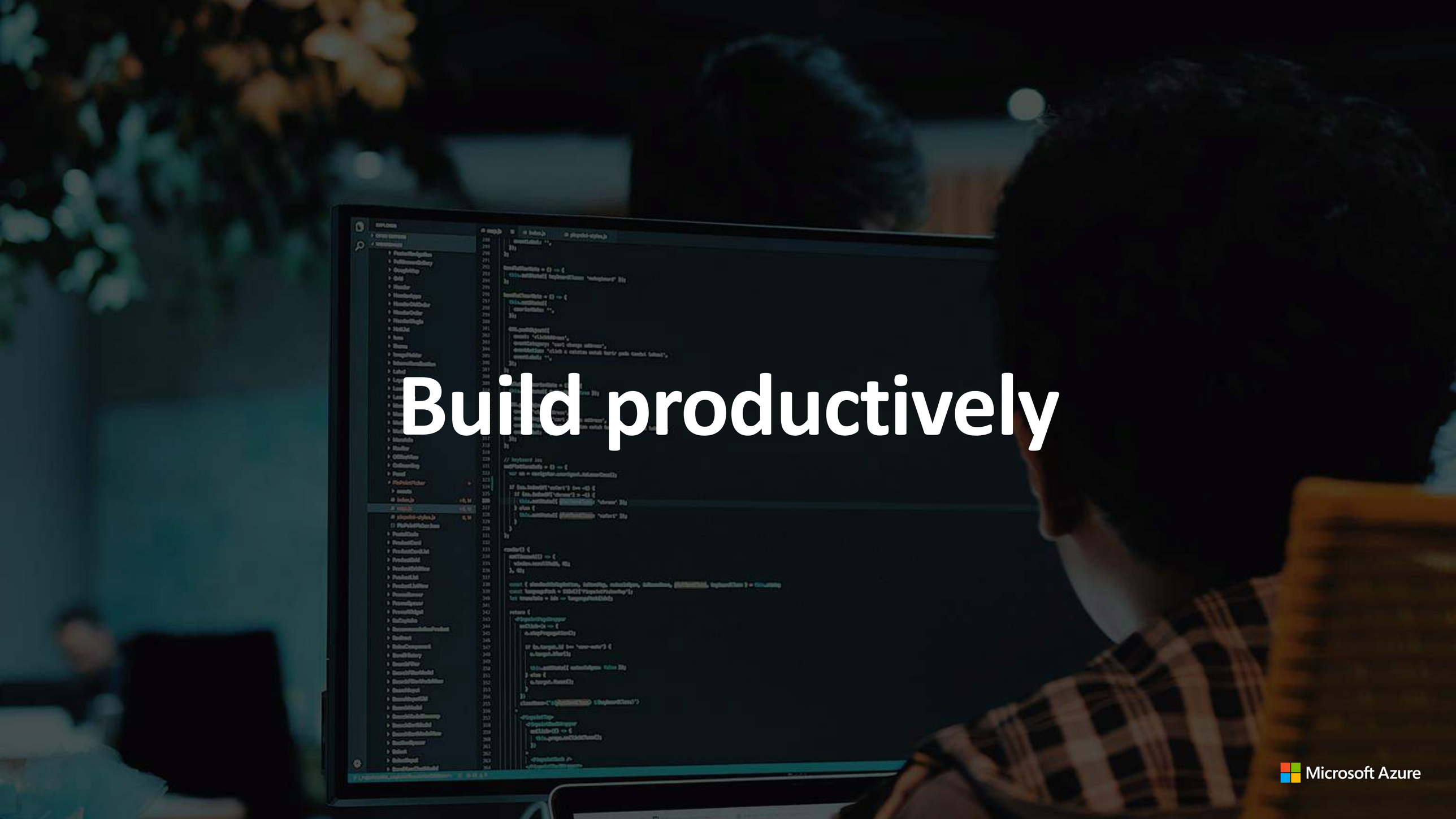
Discover where your organization is on the Developer Velocity maturity scale and benchmark your Developer Velocity Index (DVI) relative to your peers. Then, get actionable guidance for how to drive better business outcomes for your organization.

aka.ms/developervelocity-assessment

Collaborate
globally & securely

Build
productively

Scale
innovation



Microsoft Azure

Best-in-class tools are the #1 driver of business performance

+65%

more innovative

47%

developer satisfaction and retention rates

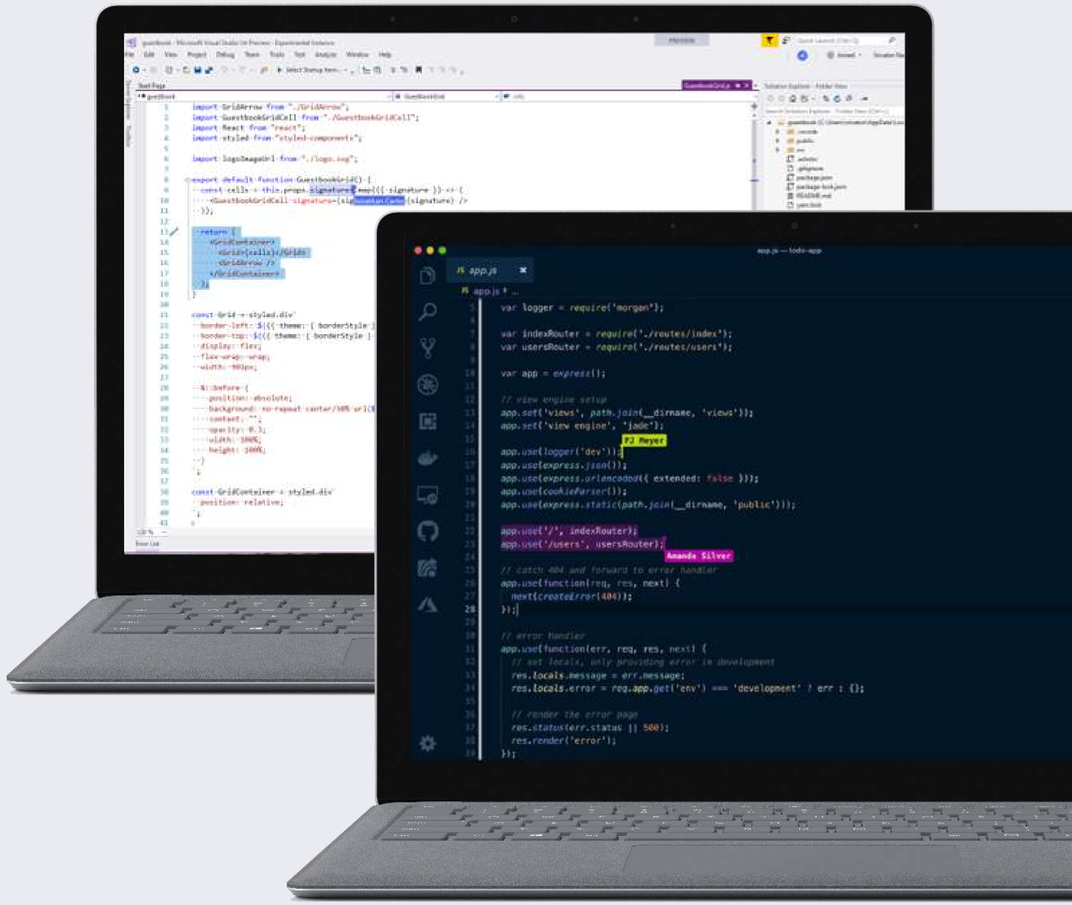
McKinsey & Company: *Developer Velocity: How software excellence fuels business performance. April 2020*

Visual Studio Family

Support developers with any language or platform

Modern development practices

Integrated tools and cloud



Collaborate globally & securely
Microsoft Azure

Open source is the biggest differentiator for organizations

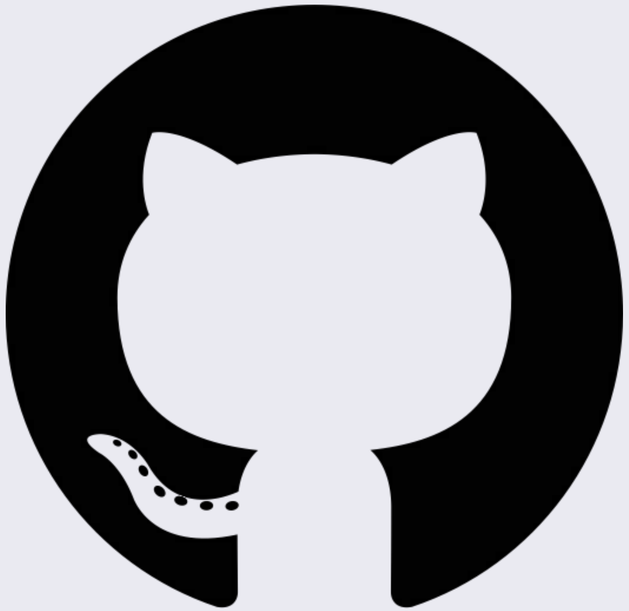
+30%

more innovative

+20%

developer satisfaction and retention rates

McKinsey & Company: *Developer Velocity: How software excellence fuels business performance. April 2020*



GitHub

The largest developer community on the planet

GitHub

Collaboration

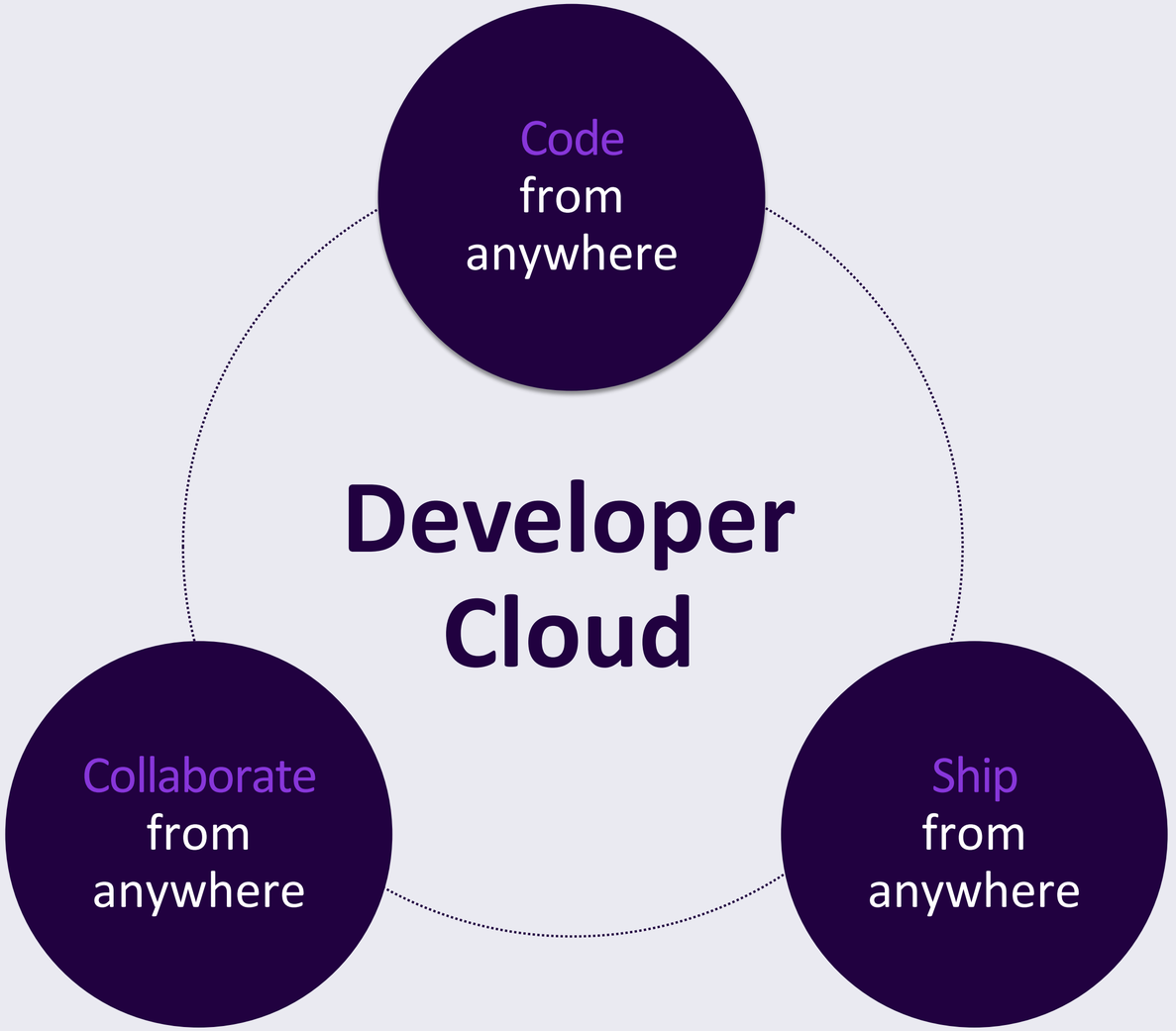
Attract and retain the best talent with tools developers know and love

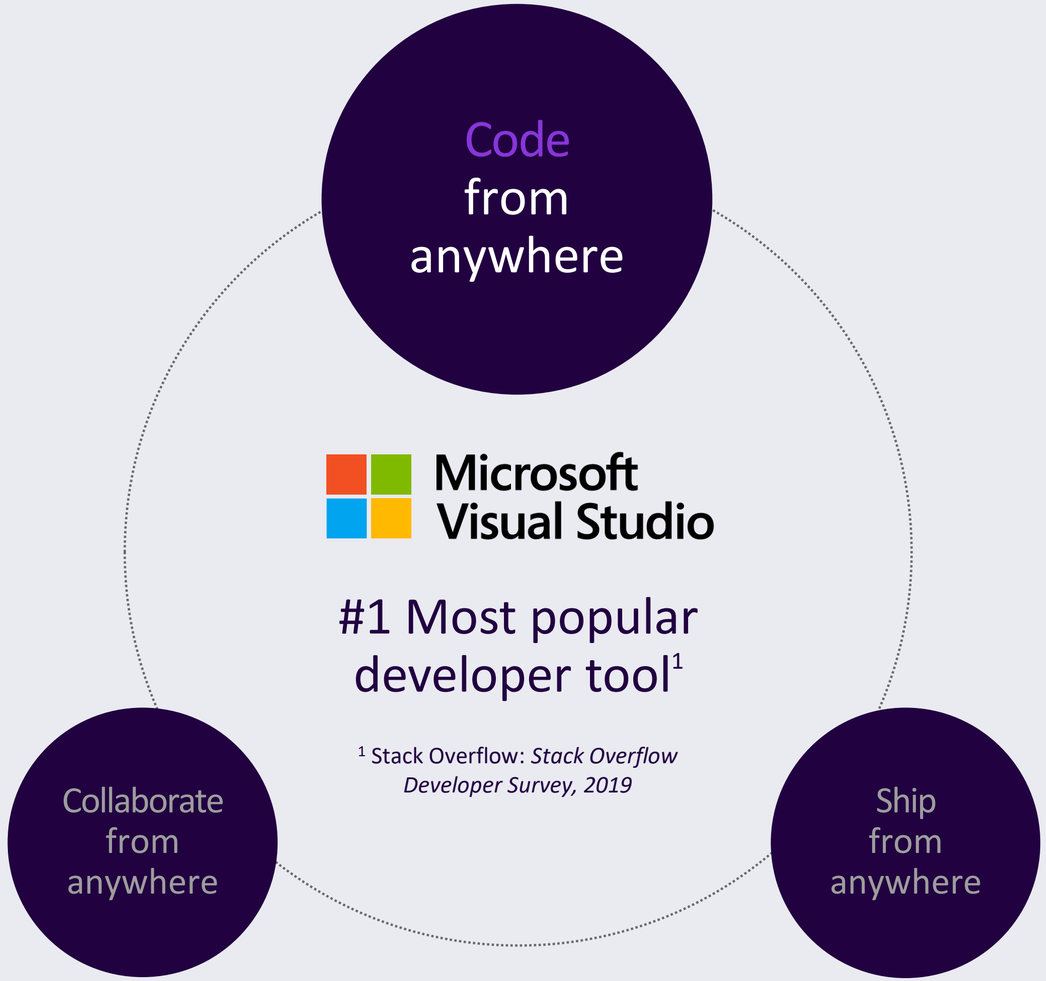
Security

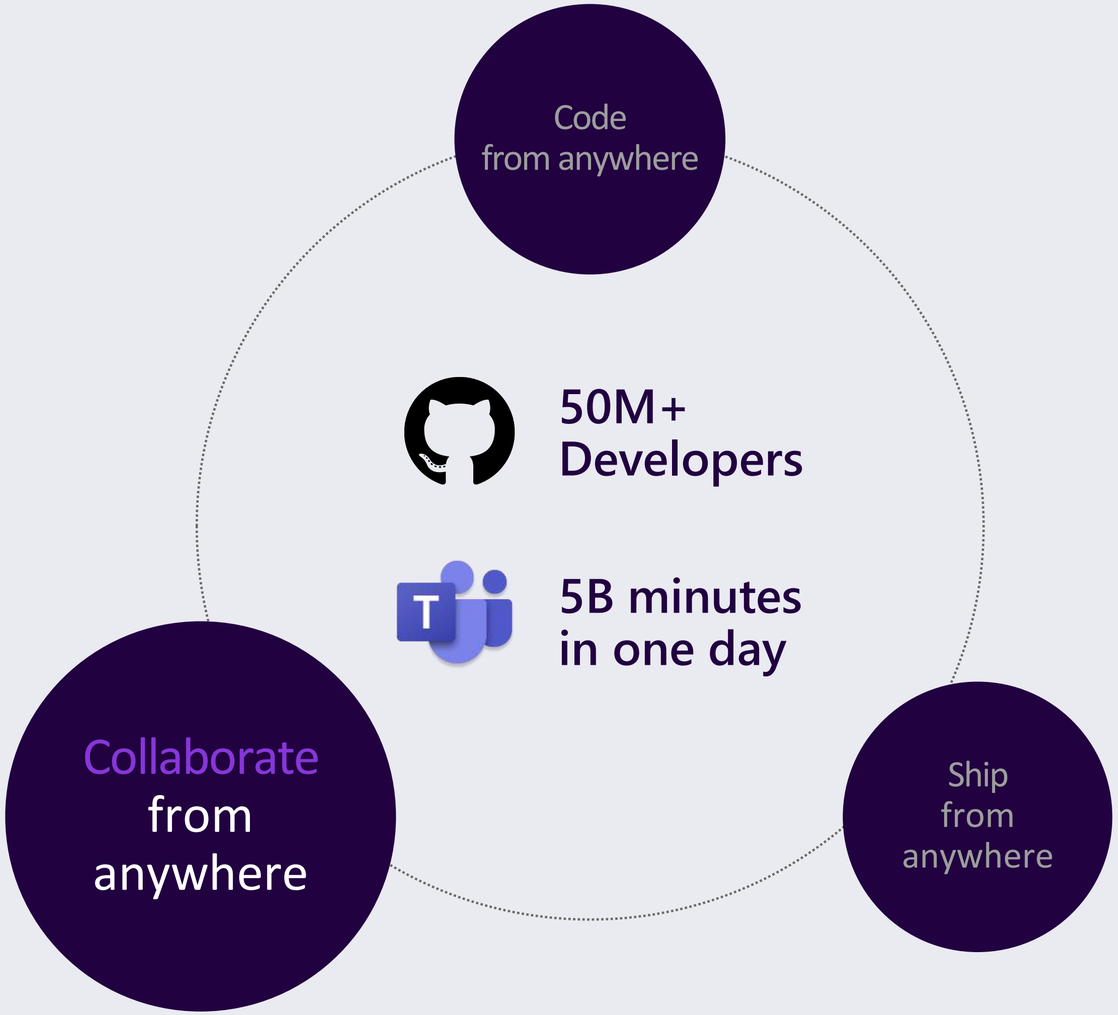
Securely integrate open source code in your software

DevOps

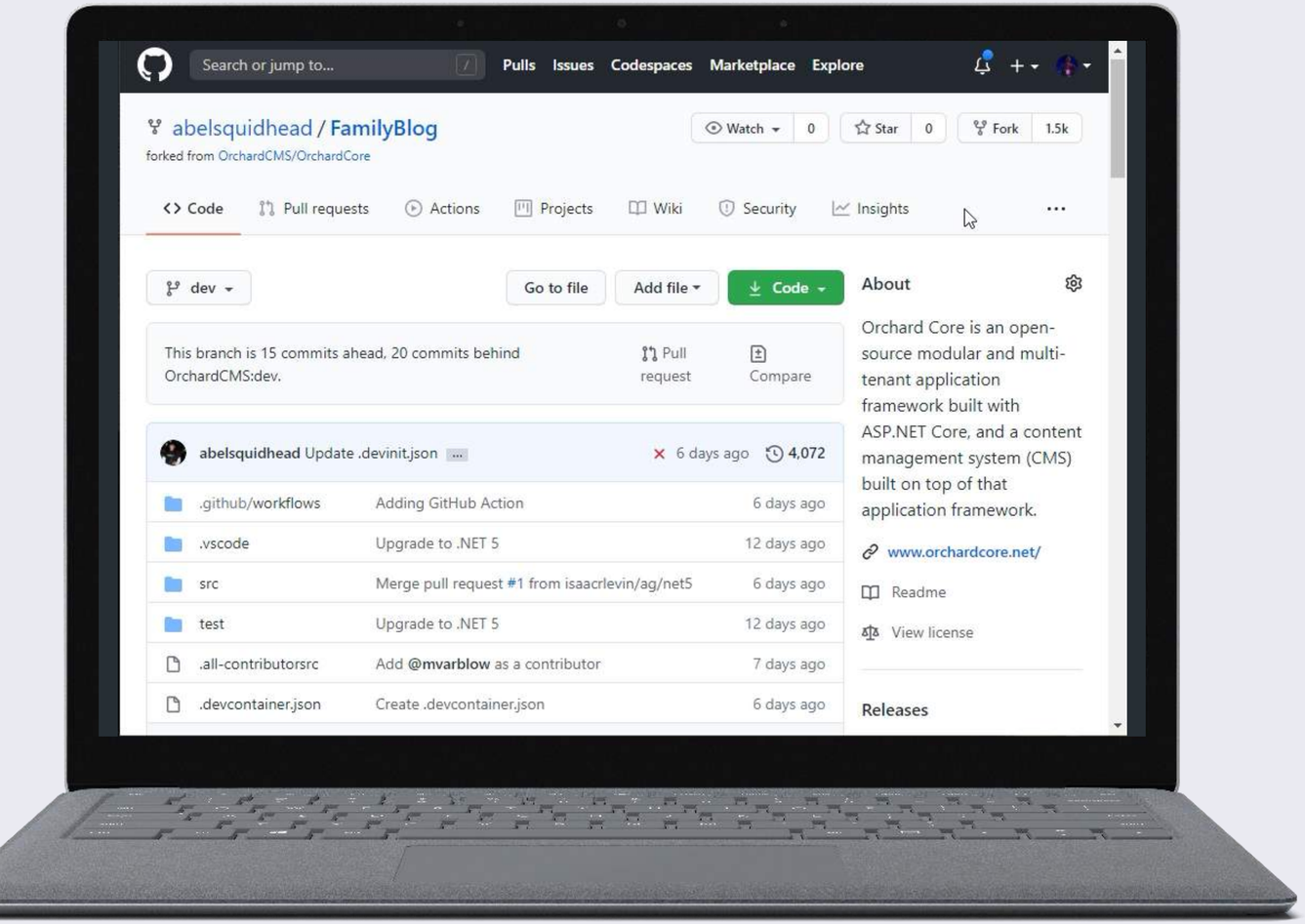
Automate workflows from code to any cloud


Code
from
anywhere
Developer
Cloud
Collaborate
from
anywhere
Ship
from
anywhere


Code
from
anywhere
Microsoft
Visual Studio
#1 Most popular
developer tool[1]
[1] Stack Overflow: *Stack Overflow Developer Survey, 2019*
Collaborate
from
anywhere
Ship
from
anywhere


Code
from anywhere
50M+
Developers
5B minutes
in one day
Collaborate
from
anywhere
Ship
from
anywhere

Code
from anywhere
Microsoft
Azure
Leader in
development platform[2]
[2] Forrester: The Forrester Wave™ for
Public Cloud Development and
Infrastructure Platforms
and Public Cloud Development
Platforms, Q1 2020
Collaborate
from
anywhere
Ship
from
anywhere



BETA

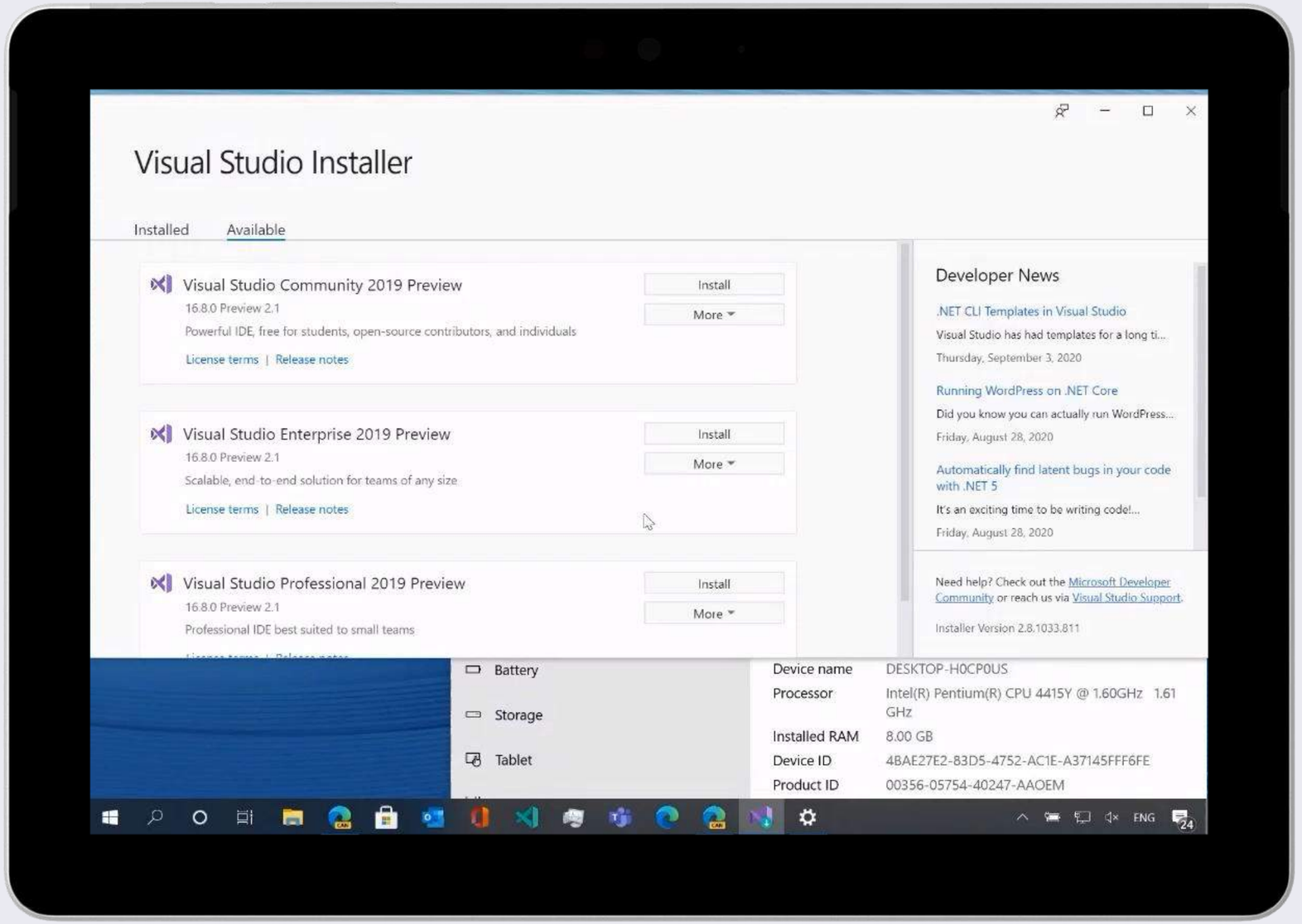
GitHub Codespaces

Cloud-powered developer environments

Seamlessly integrated into GitHub

Experience with Visual Studio and Visual Studio Code

Demo
Developer Cloud


Visual Studio Installer
Installed
Available
Visual Studio Community 2019 Preview
16.8.0 Preview 2.1
Powerful IDE, free for students, open-source contributors, and individuals
License terms | Release notes
Install
More
Visual Studio Enterprise 2019 Preview
16.8.0 Preview 2.1
Scalable, end-to-end solution for teams of any size
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Professional IDE best suited to small teams
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Visual Studio has had templates for a long ti...
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Running WordPress on .NET Core
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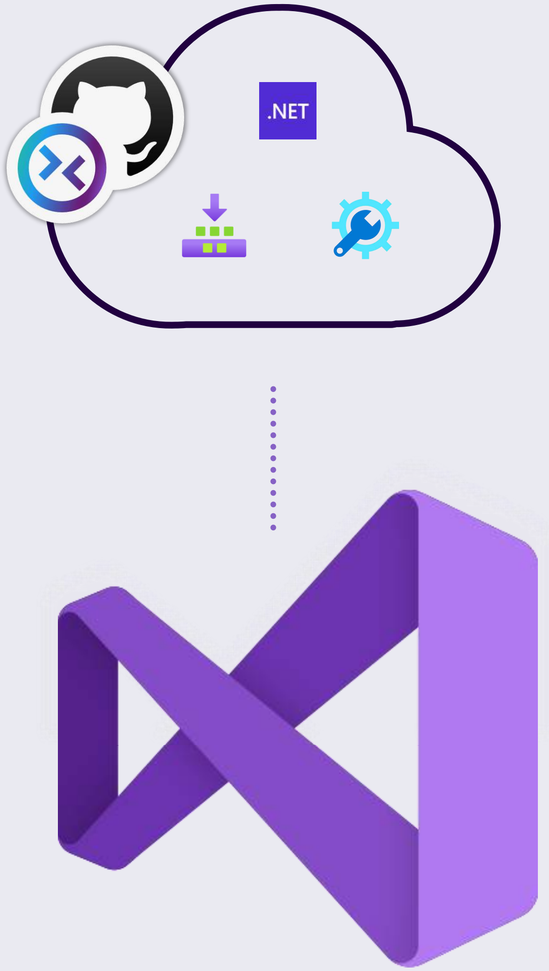
Friday, August 28, 2020
Automatically find latent bugs in your code with .NET 5
It's an exciting time to be writing code!...
Friday, August 28, 2020
Need help? Check out the Microsoft Developer Community or reach us via Visual Studio Support.
Installer Version 2.8.1033.811
Battery
Storage
Tablet
Device name DESKTOP-H0CP0US
Processor Intel(R) Pentium(R) CPU 4415Y @ 1.60GHz 1.61 GHz
Installed RAM 8.00 GB
Device ID 4BAE27E2-83D5-4752-AC1E-A37145FFF6FE
Product ID 00356-05754-40247-AAOEM
ENG

BETA

GitHub Codespaces

BETA

GitHub Codespaces



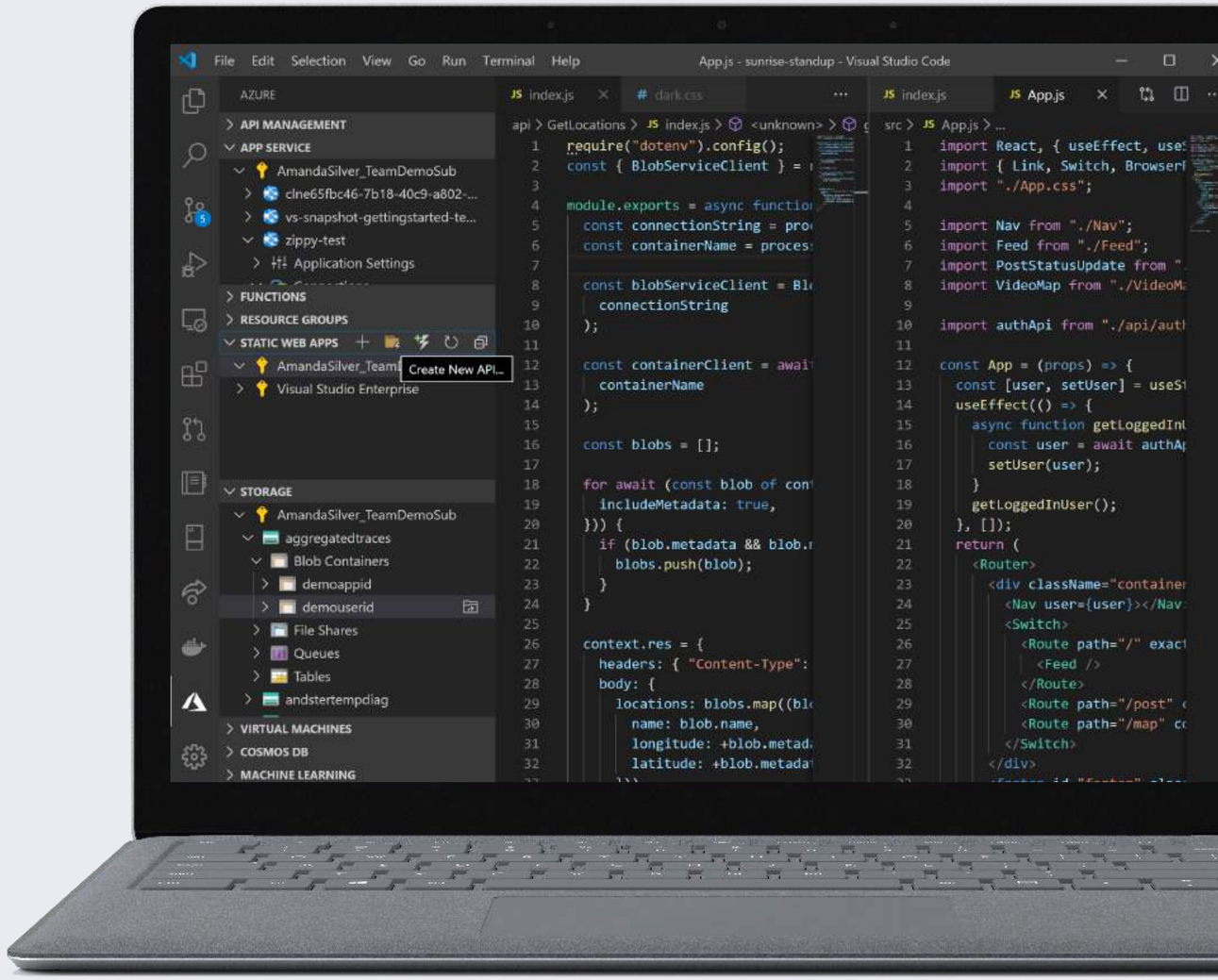
Code-to-cloud with Azure

End-to-end workflows that enable team collaboration + agility

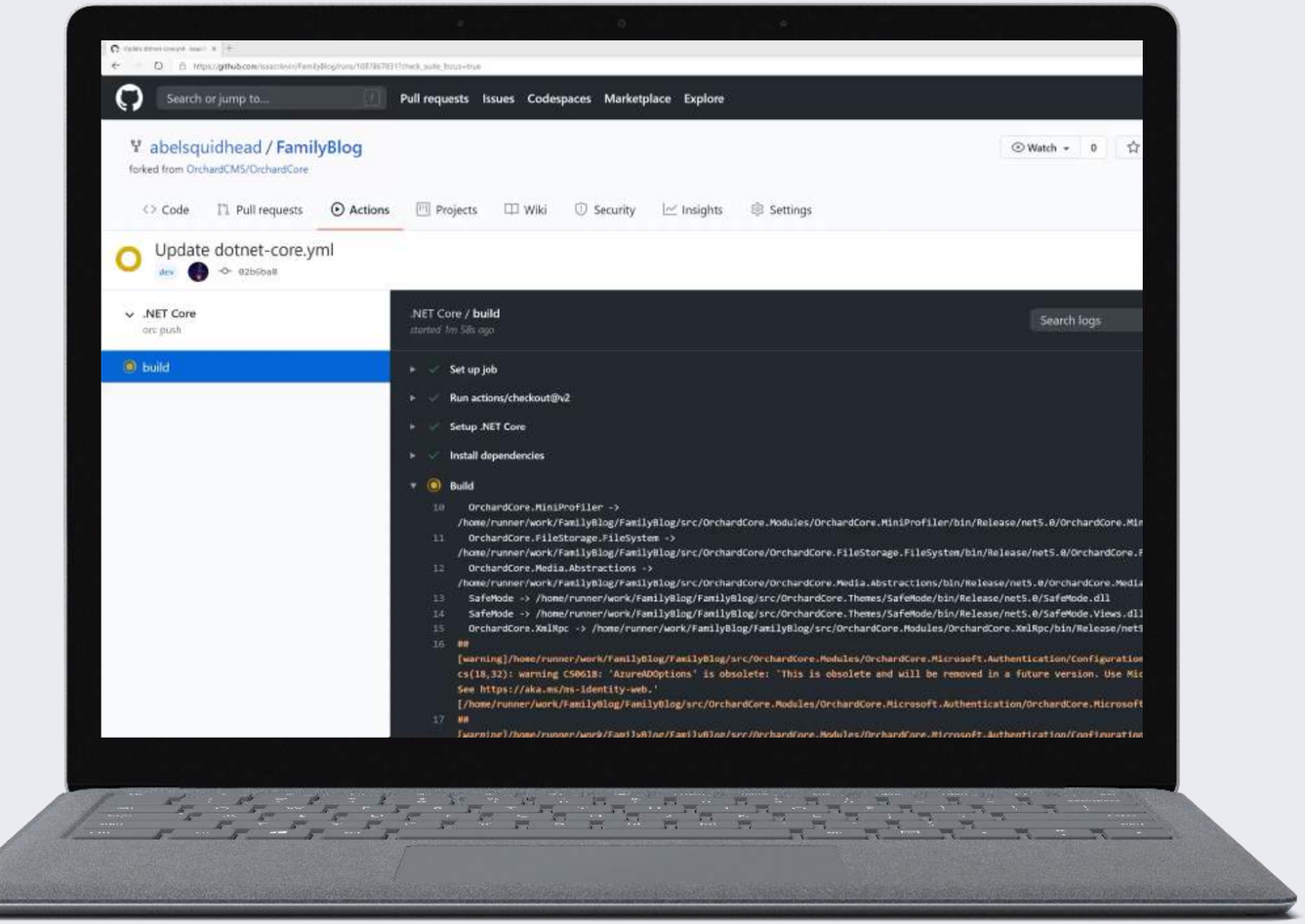
Support developers with any language or platform

Services that enable devs to focus on apps, not infrastructure

Build, test, and deploy consistently with GitHub



Microsoft Azure



GitHub Actions for Azure

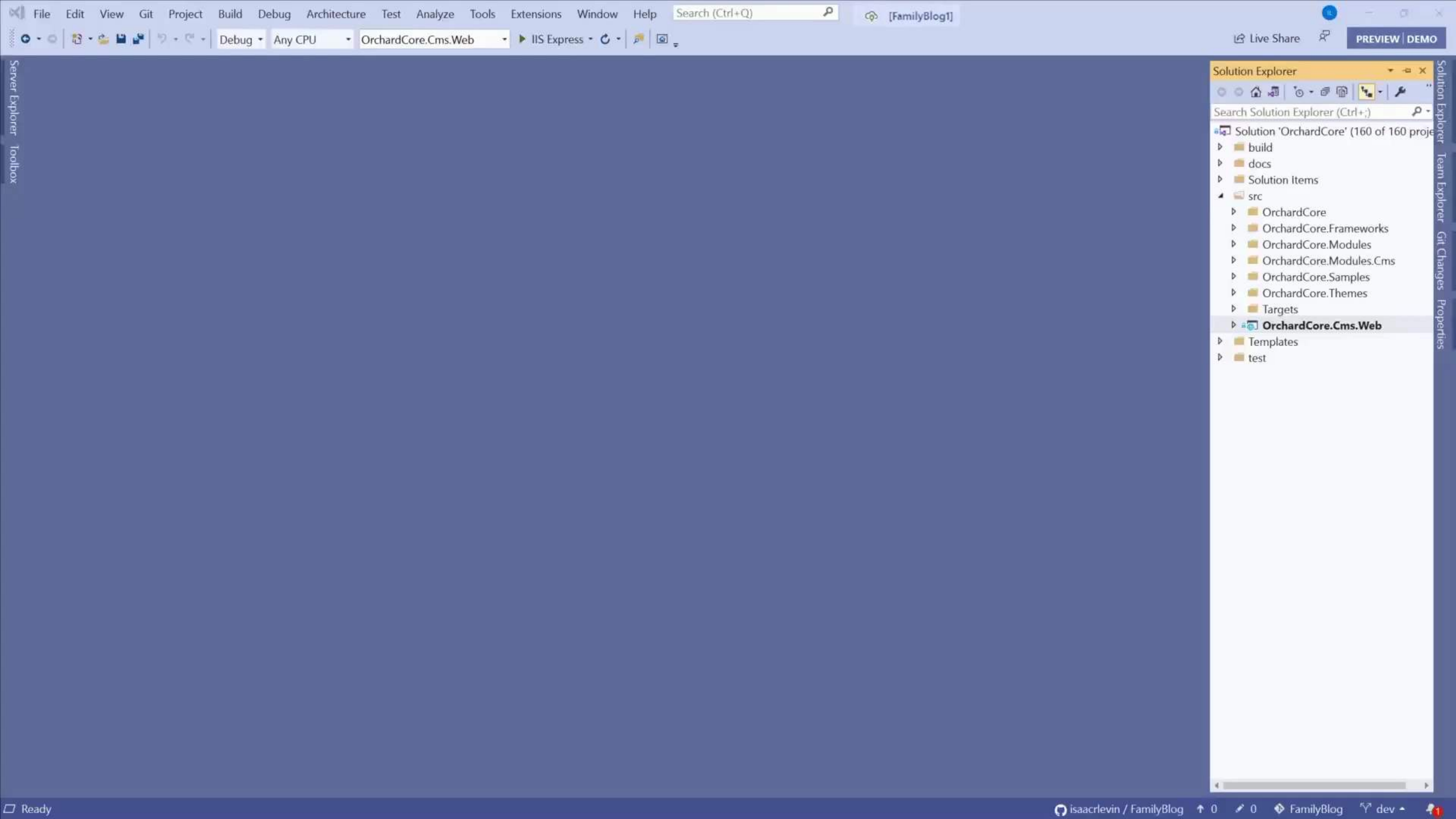
Azure Policy as Code

ARM infrastructure as Code

Container Scanning

Traceability for AKS

Demo
GitHub Actions for Azure


File Edit View Git Project Build Debug Architecture Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
[FamilyBlog1]
Debug
Any CPU
OrchardCore.Cms.Web
IIS Express
Live Share
PREVIEW DEMO
Server Explorer
Toolbox
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'OrchardCore' (160 of 160 proje
build
docs
Solution Items
src
OrchardCore
OrchardCore.Frameworks
OrchardCore.Modules
OrchardCore.Modules.Cms
OrchardCore.Samples
OrchardCore.Themes
Targets
OrchardCore.Cms.Web
Templates
test
Solution Explorer
Team Explorer
Git Changes
Properties
Ready
isaacrlevin / FamilyBlog
0
0
FamilyBlog
dev

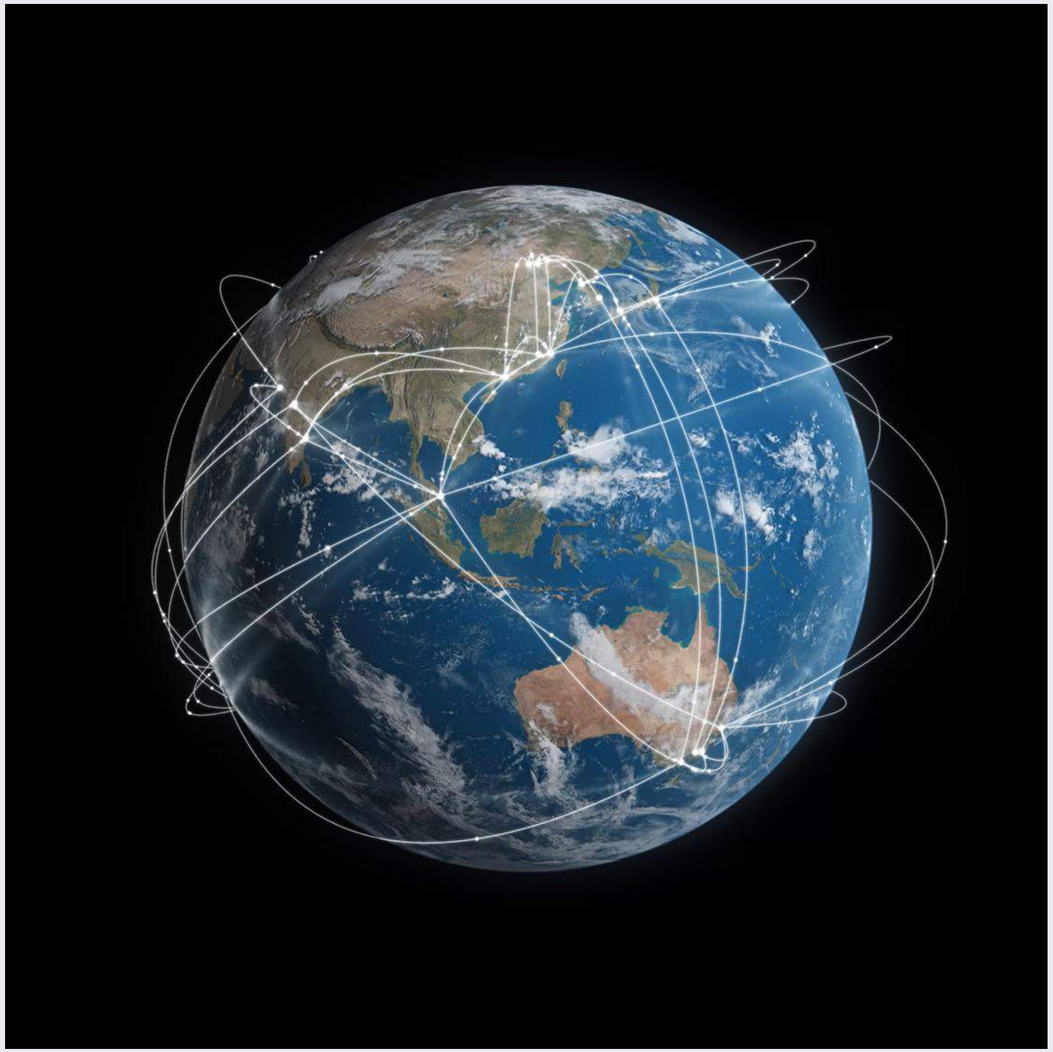
Spotify®

Scale innovation

Microsoft Azure

Public cloud adoption is key for Developer Velocity for non software companies

McKinsey & Company: *Developer Velocity: How software excellence fuels business performance. April 2020*



61

Azure regions worldwide

>90

Compliance certifications

Azure

Edge Devices

Azure Stack | Azure Sphere | Azure Kinect | HoloLens | Azure Arc

Serverless

Web
Mobile
Mixed Reality
Kubernetes
Events + Integration

Databases
Analytics + ML
AI
Internet of Things
Media

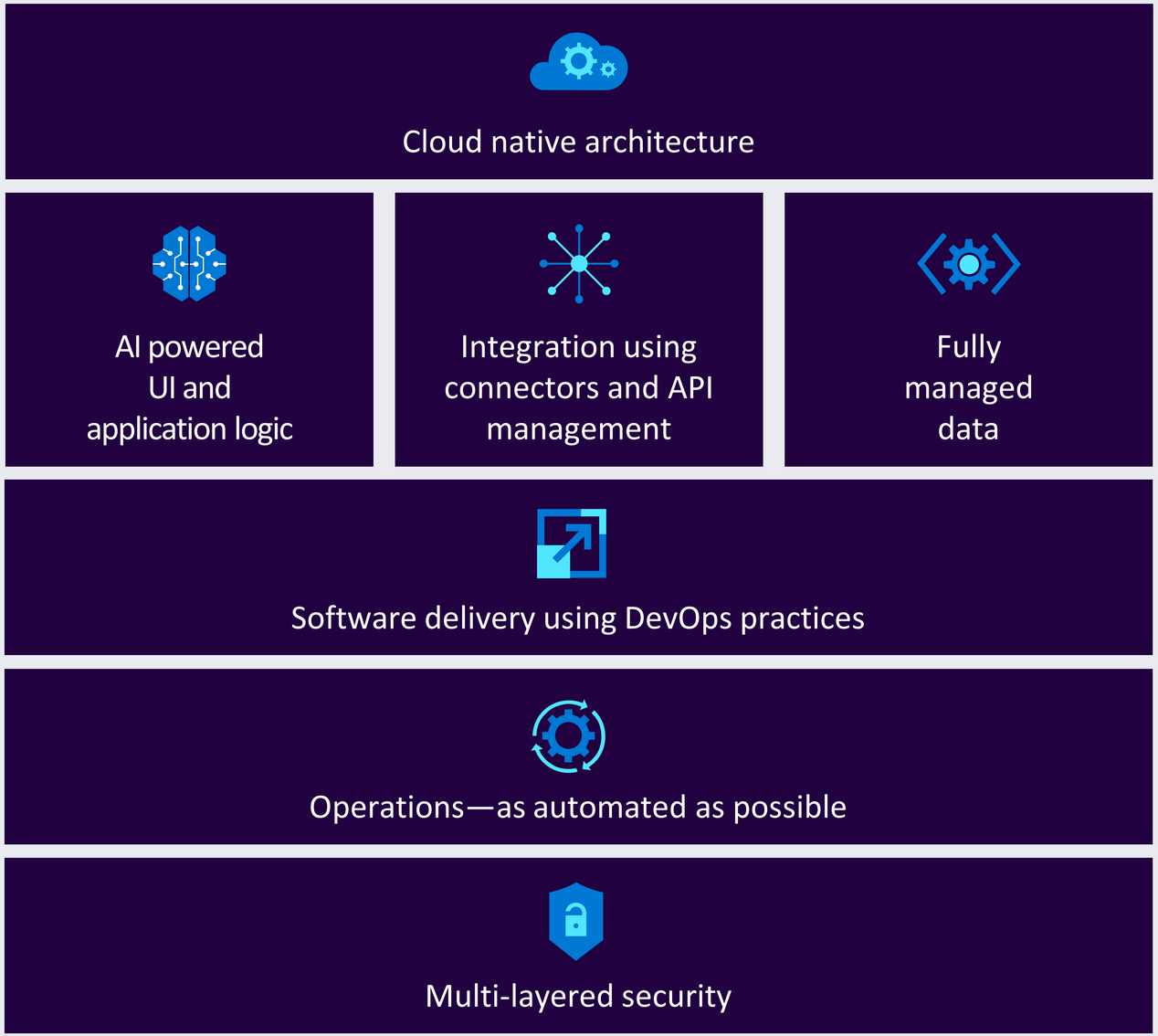
Infrastructure

Compute | Networking | Storage | Security | Identity

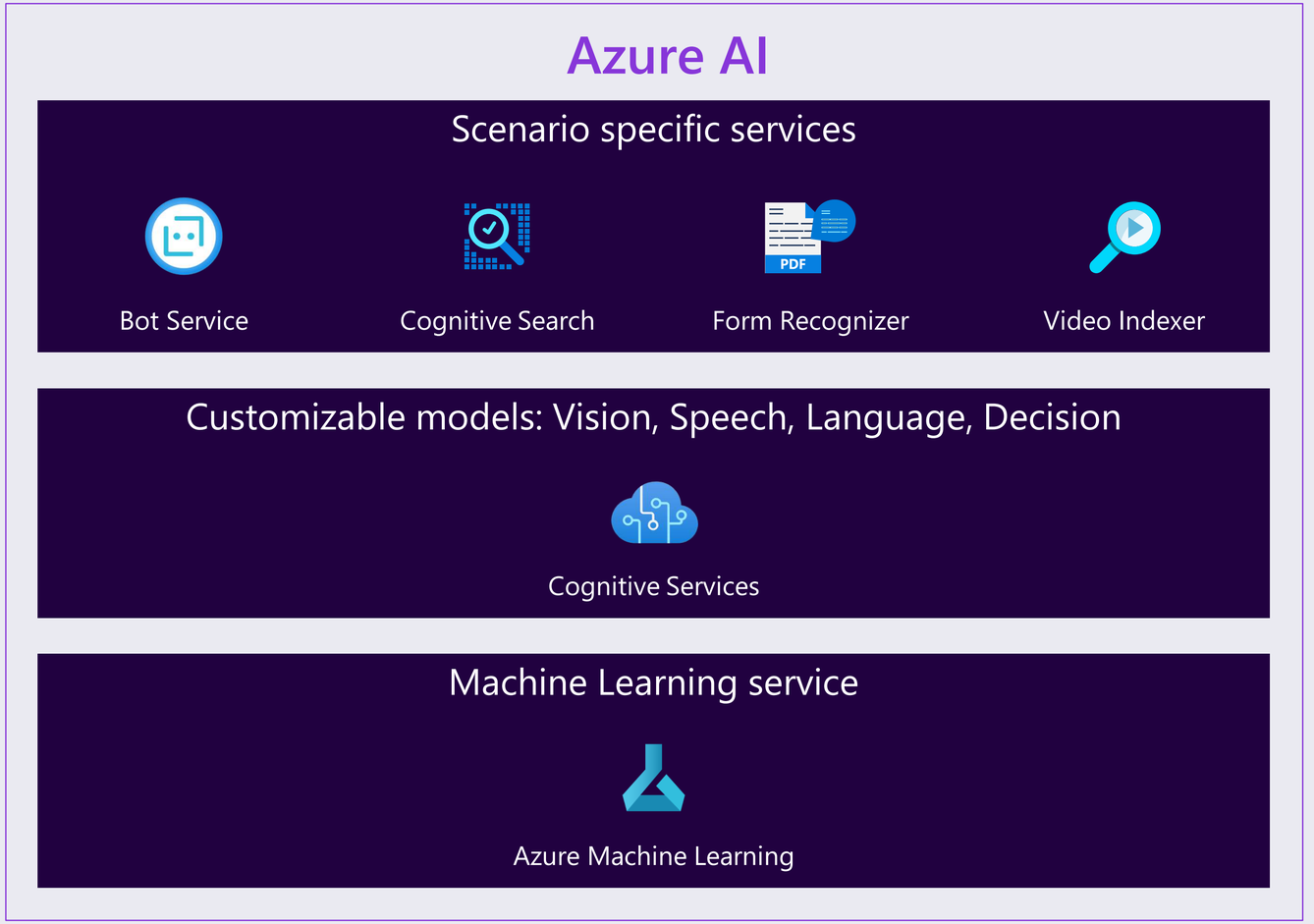
Tools

Visual Studio
Azure DevOps
GitHub
Power Apps
Power BI

Cloud native application development



AI on Azure

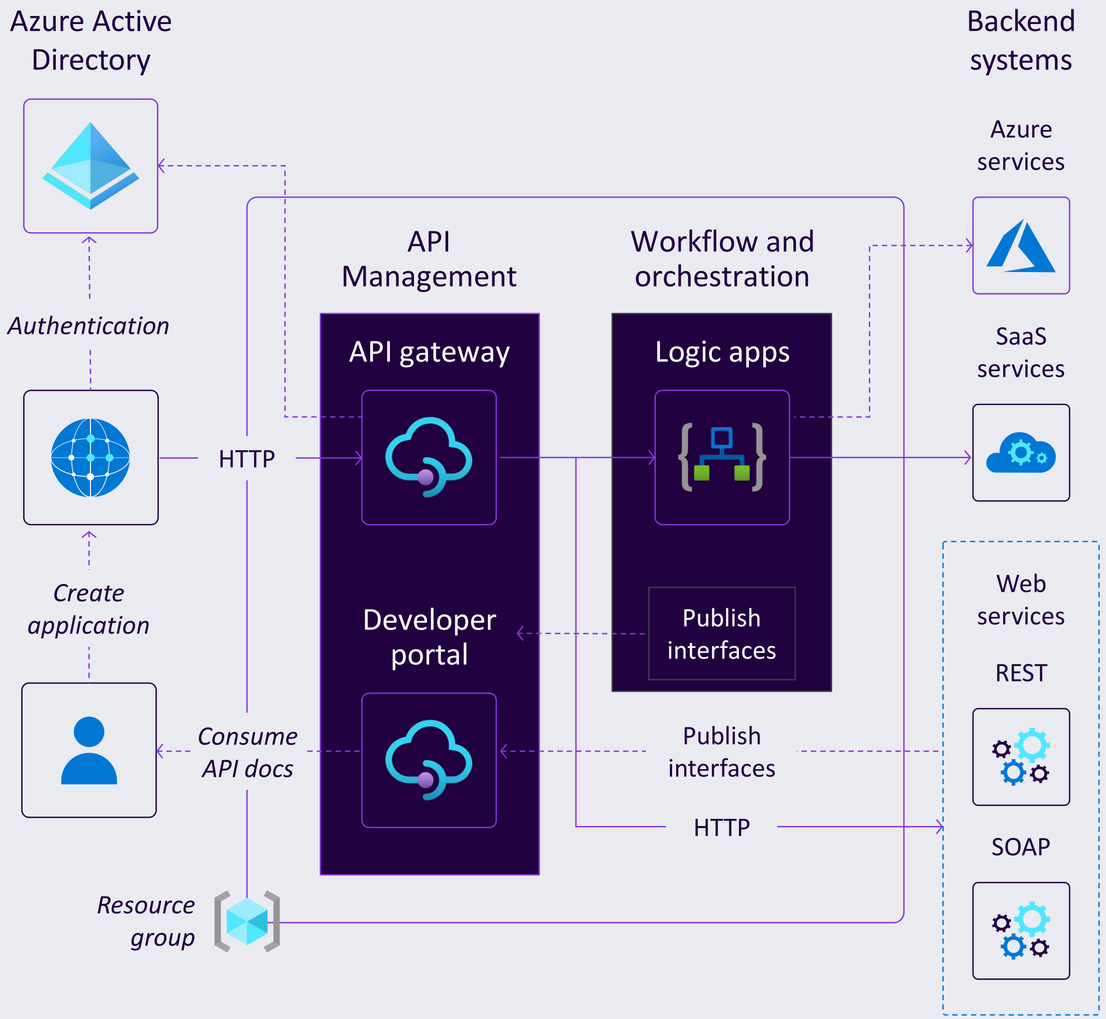


22,000+
paying customers

85%
of Fortune 100 companies use Azure AI

Leader
recognized by top industry analysts

Integration using out-of-the-box connectors and API management



Fully managed databases on Azure

Always up-to-date | Hybrid compatibility | High availability | Limitless scale | Low latency

Azure SQL Database

Azure SQL Managed Instance

Managed intelligent SQL in the cloud

Azure Database for PostgreSQL

Azure Database for MySQL

Azure Database for MariaDB

Enterprise-ready, fully managed, and scalable open-source databases

Azure Cache for Redis

In-memory data store to power fast, scalable applications

Azure Cosmos DB

Fast NoSQL database with open APIs for any scale

Built-in AI and built-in high availability maintain peak performance and durability with an SLA of up to 99.995%

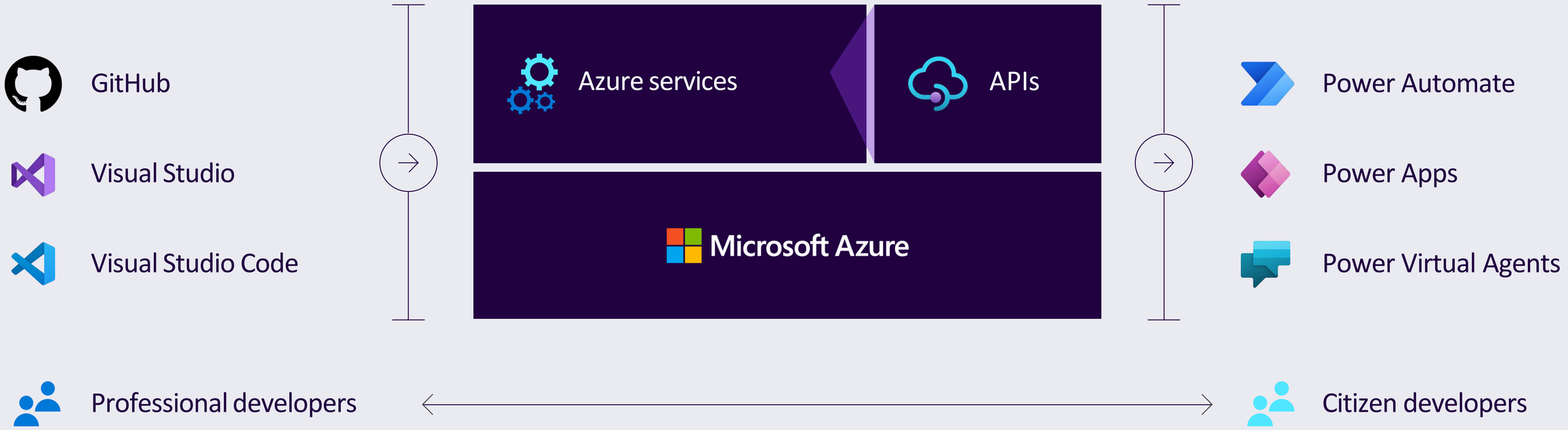
50k+ customers in 100+ countries, Azure is the only cloud with Hyperscale PostgreSQL

Used by Microsoft Teams to help scale to 75M+ daily active users

Companies that empower citizen developers score higher on innovation

McKinsey & Company: *Developer Velocity: How software excellence fuels business performance. April 2020*

Azure + Power Platform

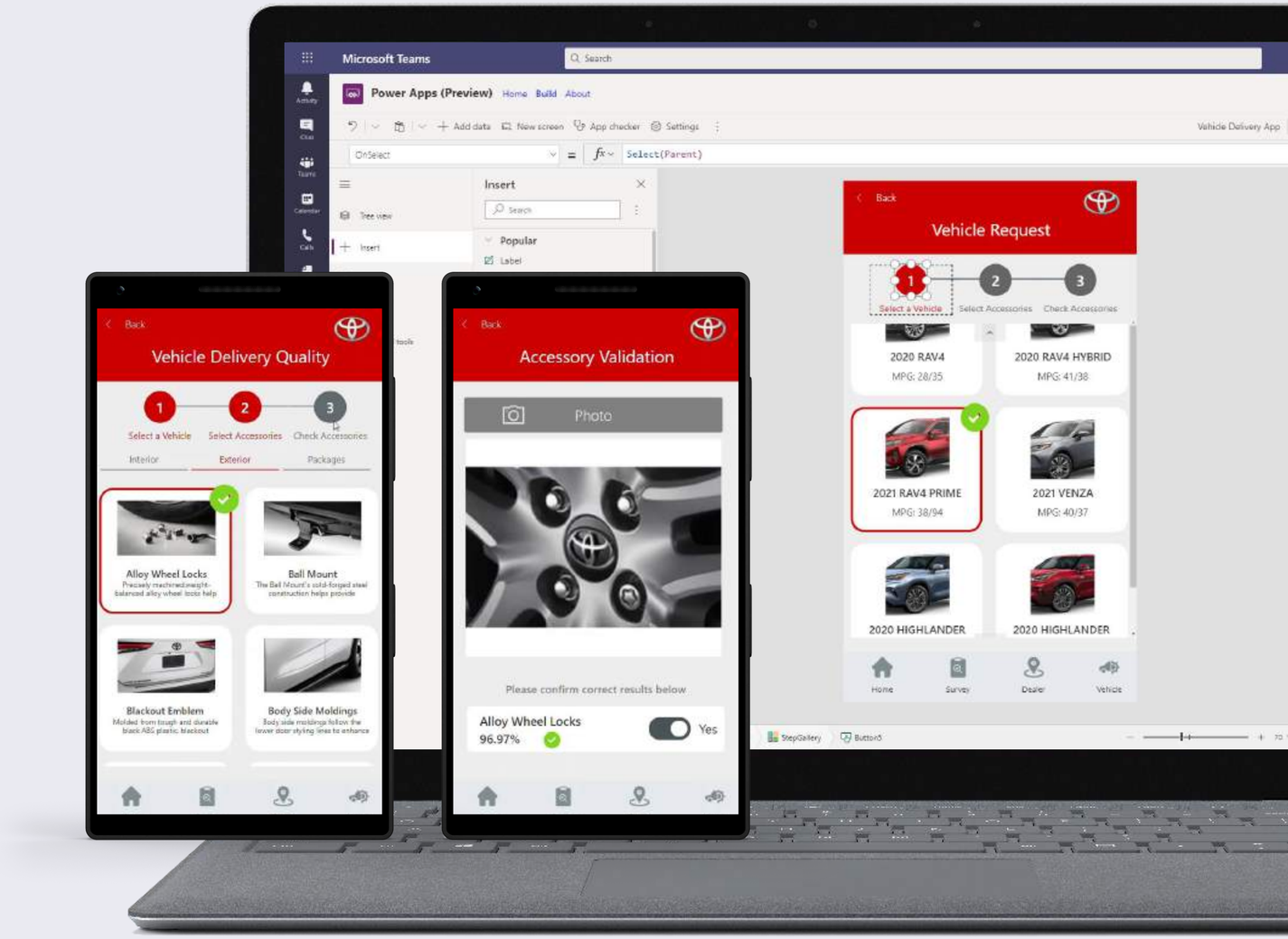


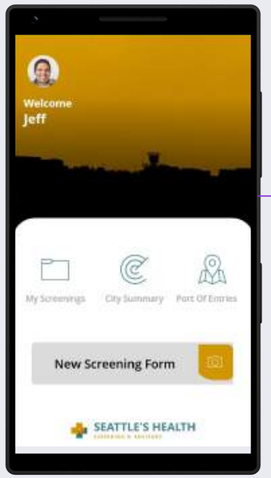
Power Apps

Built-in CI/CD with GitHub Actions

API management support for custom connectors

Power Virtual Agents extension with Bot Framework





Power App
in Teams

API
Management

Azure
Kubernetes Service

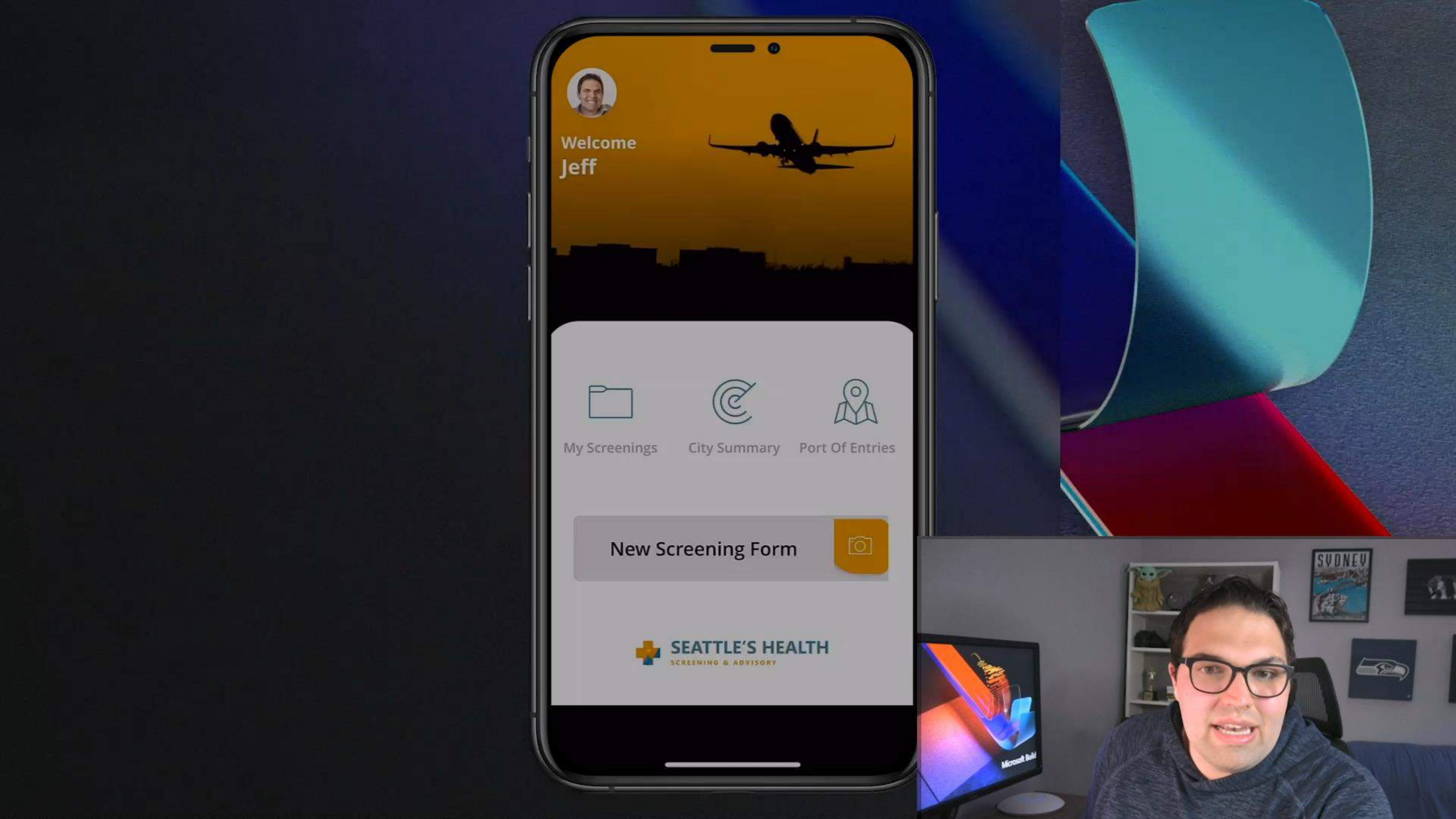
Azure
Cosmos DB

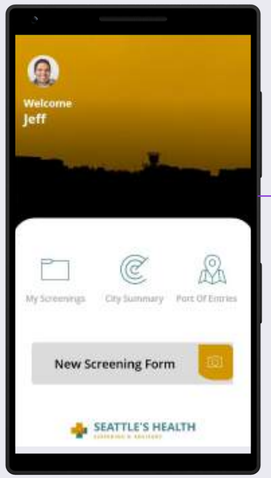
GitHub

Visual Studio

Demo

Azure + Power Apps + Teams


Welcome
Jeff
My Screenings
City Summary
Port Of Entries
New Screening Form
SEATTLE'S HEALTH
SCREENING & ADVISORY
SYDNEY



Power App
in Teams

API
Management

Azure
Kubernetes Service

Azure
Cosmos DB

GitHub

Visual Studio

Hospital Emergency Response
Hospital Emergency Response
Manage and maximize your resources
Hospital system
Contoso Health Systems
Region
Washington
Facility
Ballard
Next
Discharge planning
Ballard
Barriers to long stay discharge:
11
Authorization
Durable medical equipment
Guardianship
Home + Community Services
Placement
Discharges
Past 24h
Submit
SWEDISH
Contoso Health Systems
Ballard
Update current:
Bed capacity
COVID-19 stats
Equipment
Staff
Supplies
Staffing needs
Discharge planning
Staff
Ballard
Location
4E - Overflow
Number of patients
How many patients are in this area?
72
Registered nurses on duty
12
Partners
60
Requested
23
Assigned
Unassigned
Submit
Staff updated!
This critical data helps us manage and maximize our resources.
Home

World's most popular developer toolchain

GitHub

50M developers

Microsoft Azure

Leader in development platform[2]

Visual Studio

#1 developer tool[1]

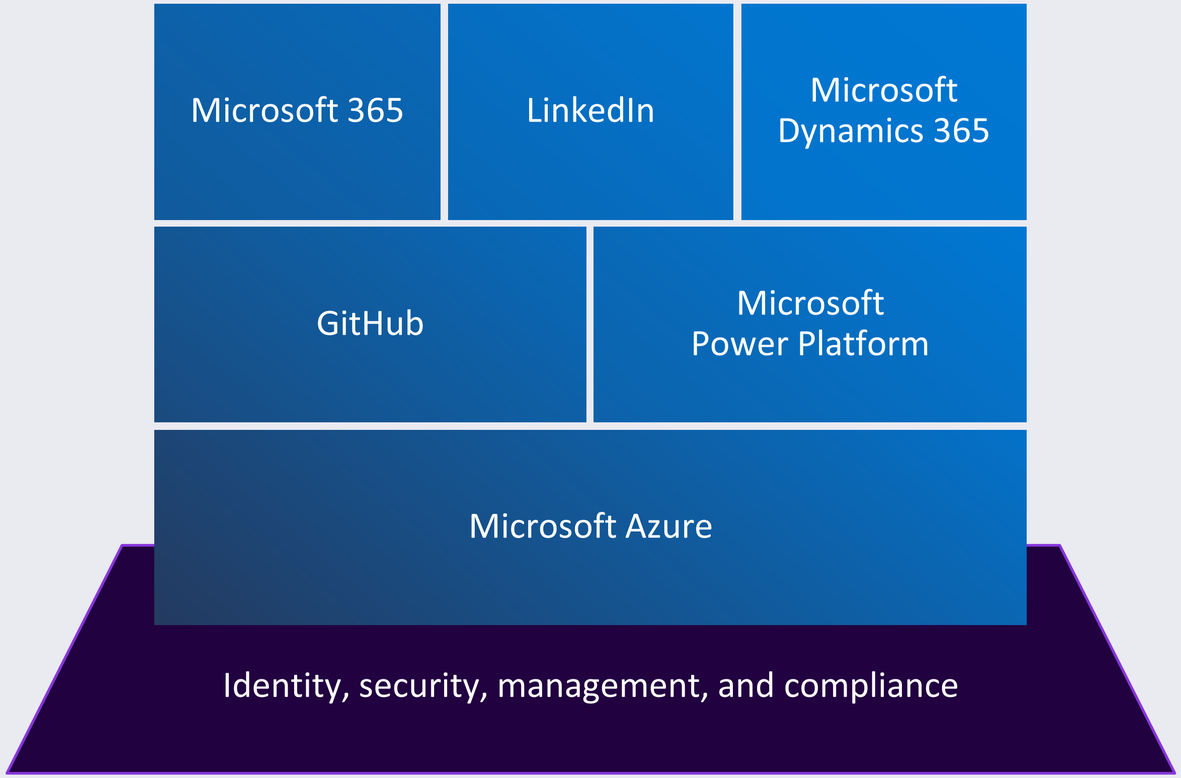
Power Apps

Leader in low-code development platforms[3]

[1] **Stack Overflow:** *Stack Overflow Developer Survey, 2019*

[2] **Forrester:** *The Forrester Wave™ for Public Cloud Development and Infrastructure Platforms and Public Cloud Development Platforms, Q1 2020*

[3] **Forrester:** *Forrester Wave for Low-Code Development Platforms, 2019*


Microsoft 365
LinkedIn
Microsoft Dynamics 365
GitHub
Microsoft Power Platform
Microsoft Azure
Identity, security, management, and compliance

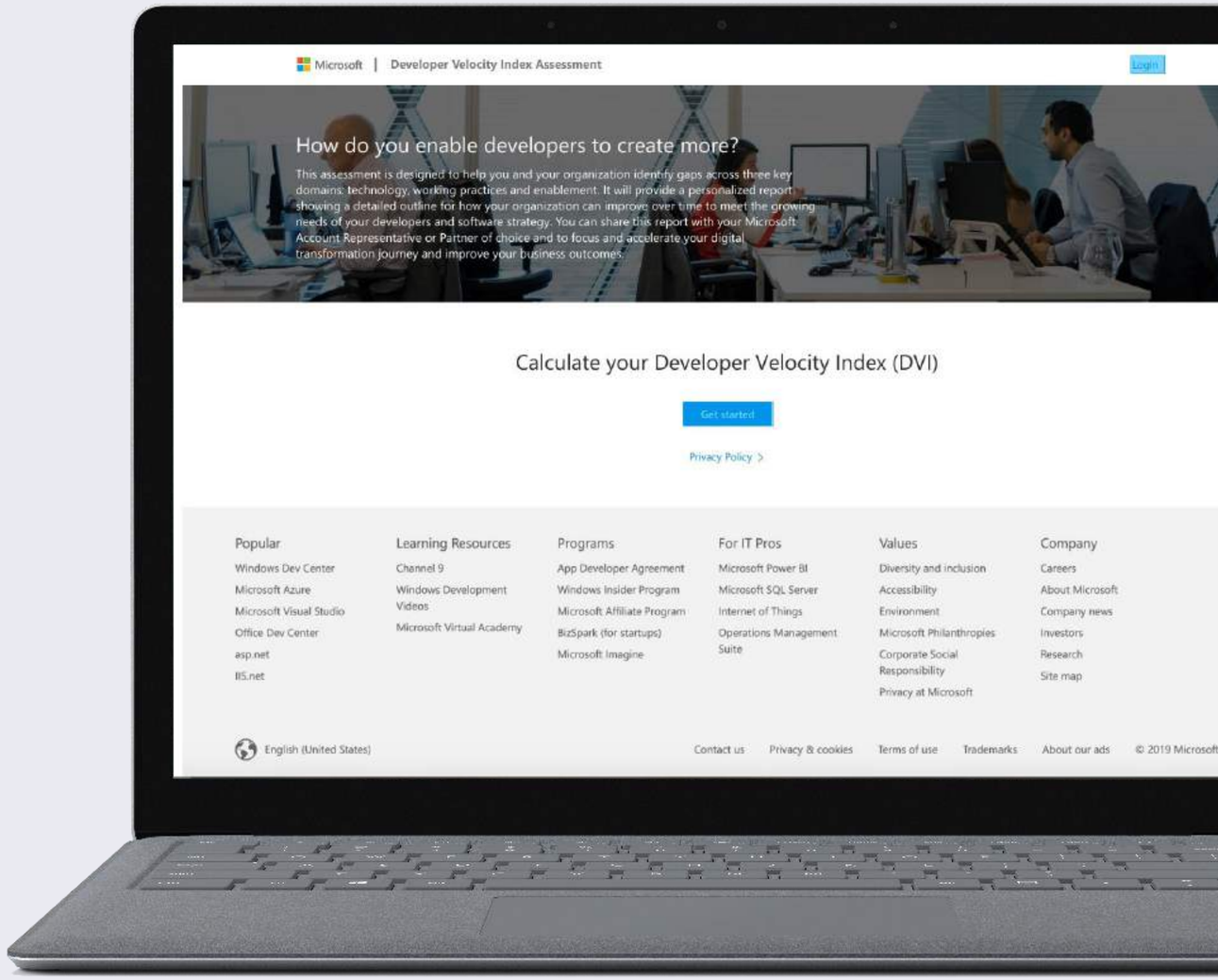
Developer Velocity

Learn more about Developer Velocity and complete your assessment today!

https://azure.com/developervelocity

https://aka.ms/Ignite20/DeveloperVelocity

https://developervelocityassessment.com/



Microsoft Azure

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Questions & Answers

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Microsoft

axazure

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