

Continuous DevOps monitoring and learning

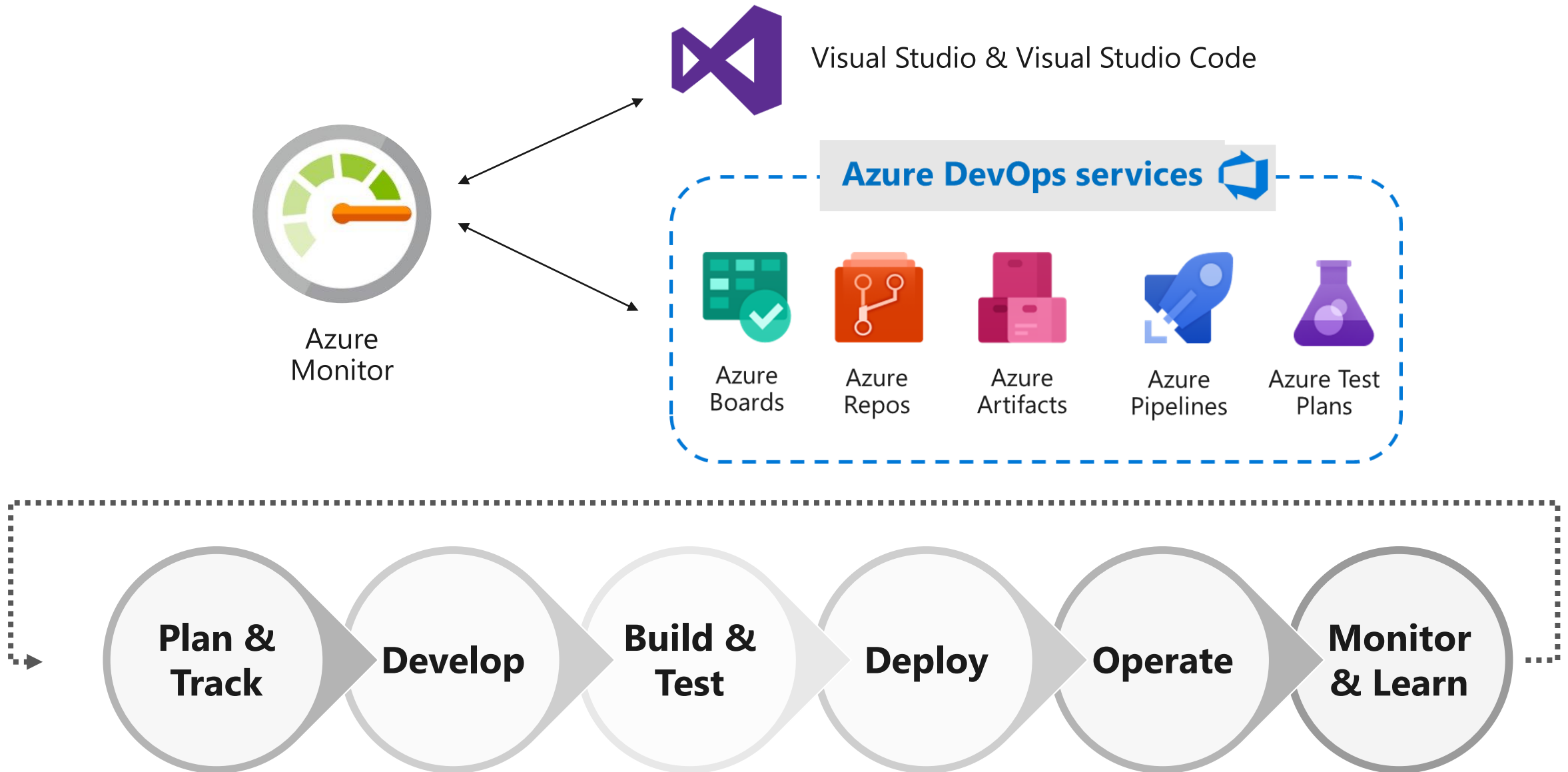


Learn.

Connect.

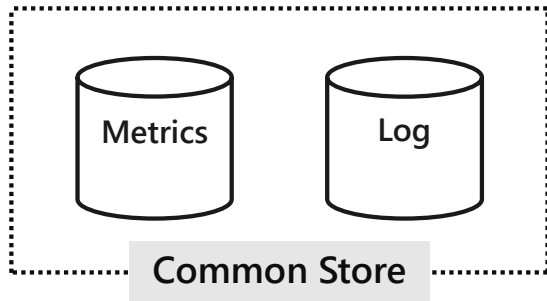
Explore.

Continuous Monitoring (CM) for DevOps



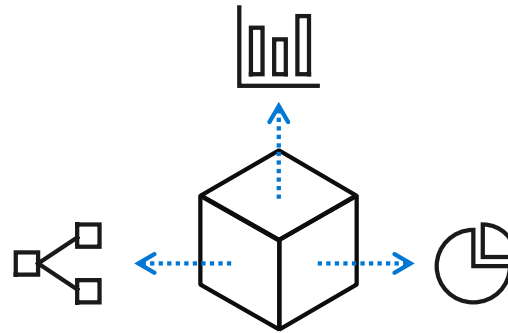
Azure Monitor

Full observability for your apps, infrastructure and network



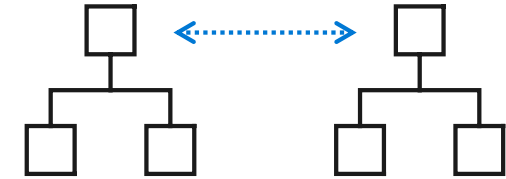
Unified Monitoring

A common platform for all metrics, logs and other monitoring telemetry



Data Driven Insights

Advanced diagnostics and analytics powered by machine learning capabilities



Workflow Integrations

Rich ecosystem of popular DevOps, issue management, SIEM, and ITSM tools



Azure Monitor

Application

Operating System

Azure Resources

Azure Subscription

Azure Tenant

Custom Sources



Stores

Insights



Application



Container



VM



Monitoring Solutions

Visualize



Dashboards



Views



Power BI



Workbooks

Analyze



Metrics Explorer



Log Analytics

Respond



Alerts



Autoscale

Integrate



Event Hubs



Logic Apps

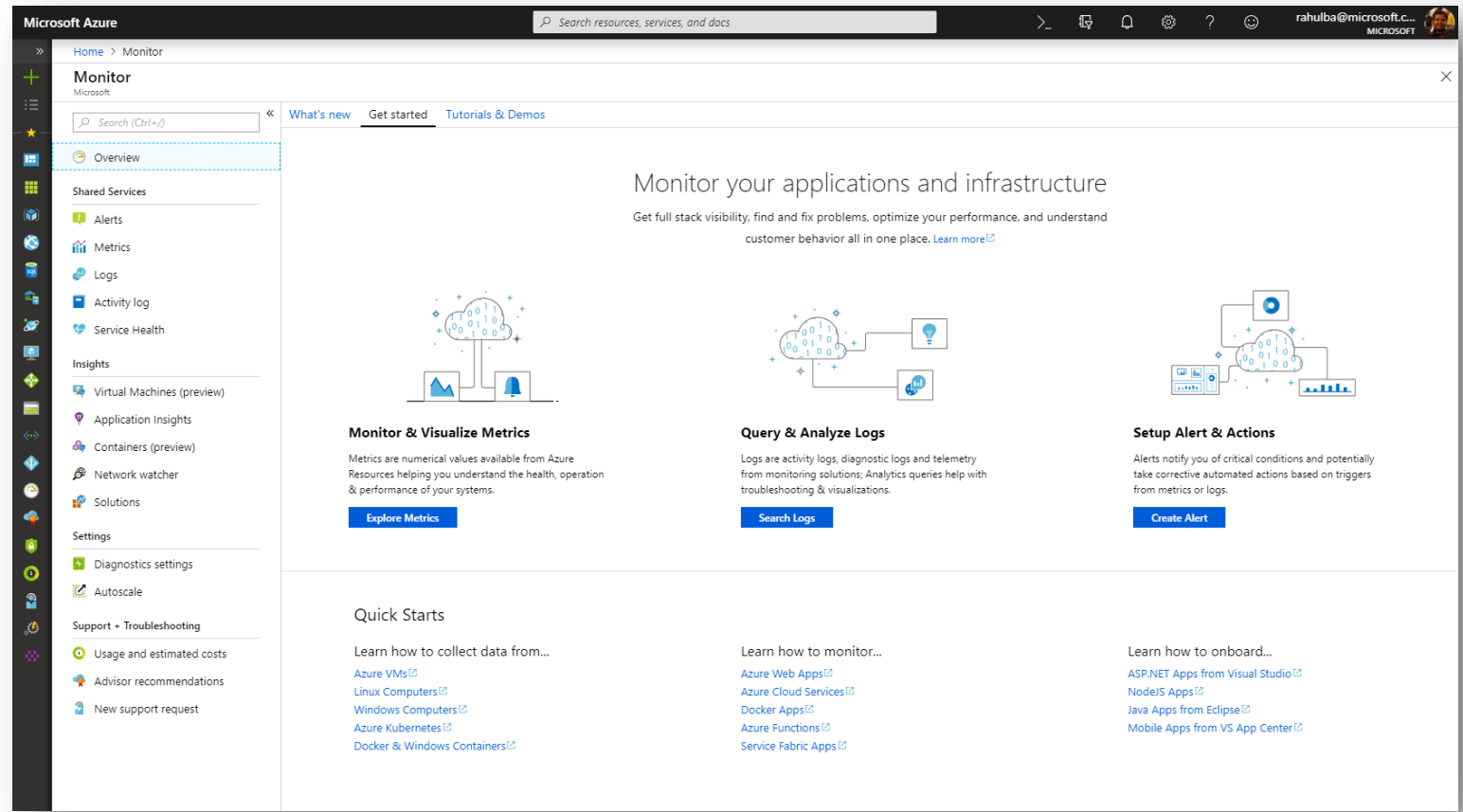


Ingest & Export APIs

Unified Monitoring



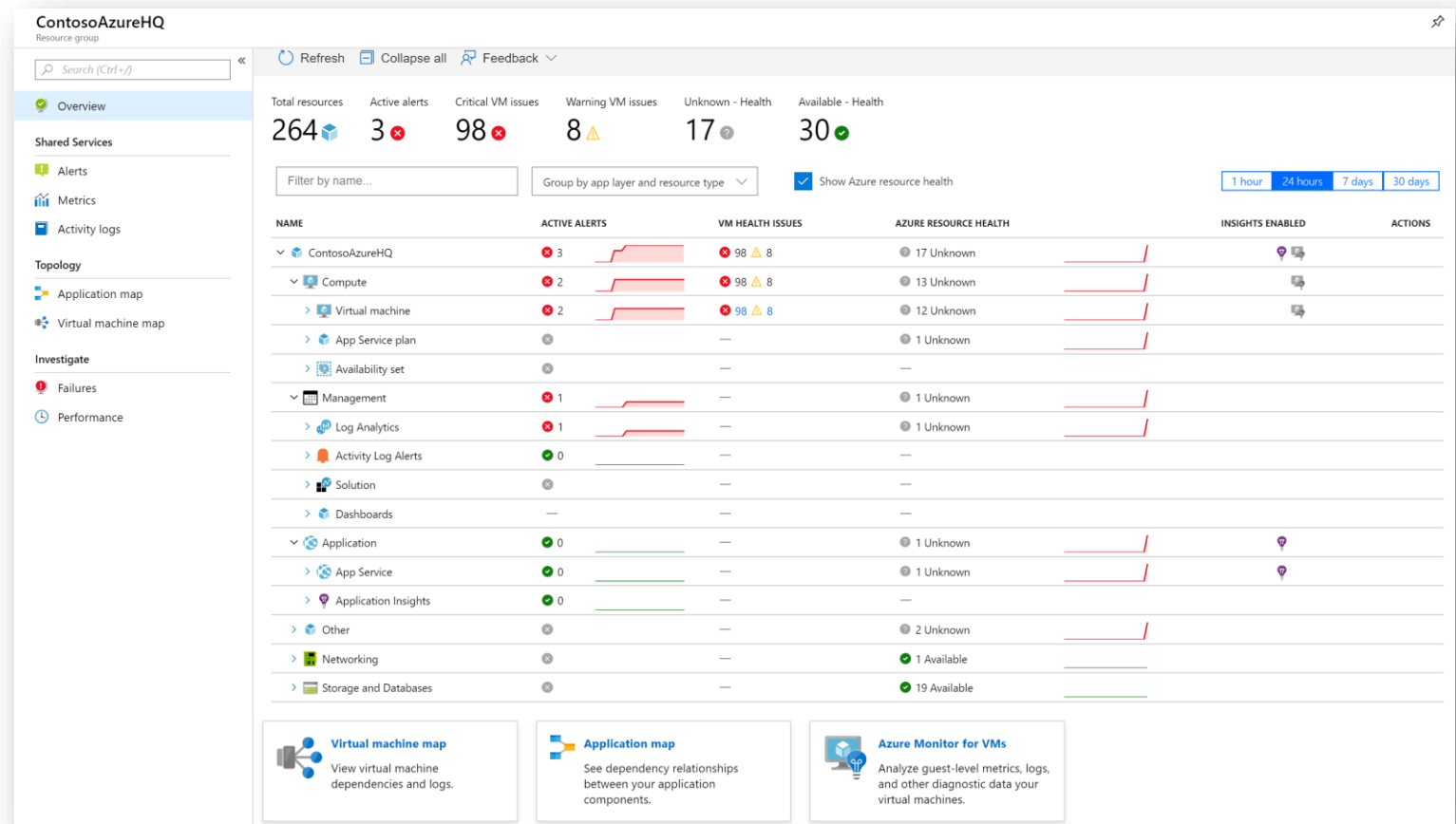
- One Metrics, One Logs, One Alerts across Azure/on-prem resources
- Unified offering with App Insights & Log Analytics as integrated features
- Integration into native Azure resource blades
- Ability to send custom metrics & custom logs



Full Stack Visibility in Resource Groups



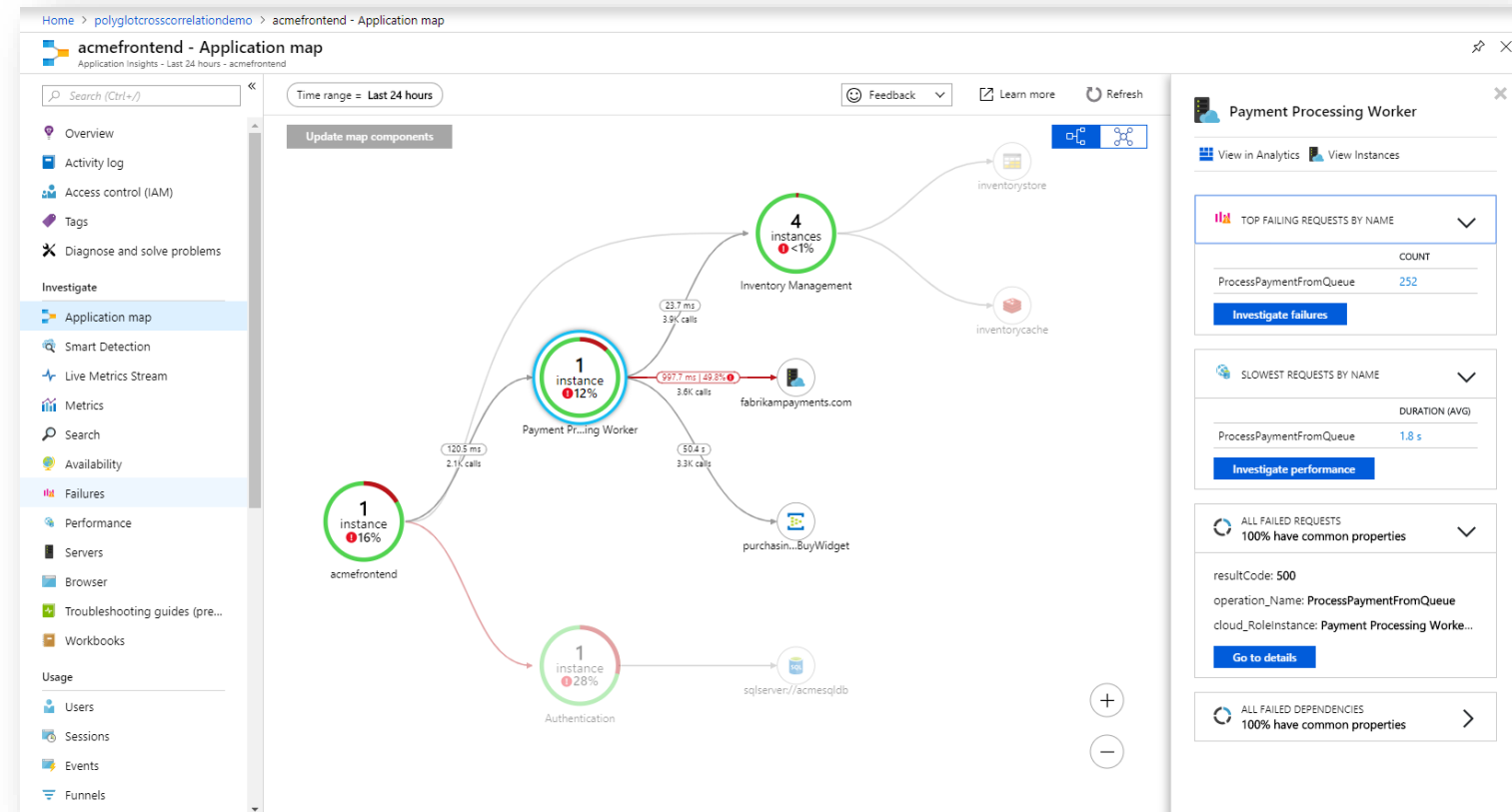
- ➔ Monitor health state of all resources
- ➔ See alerts firing across app & infra
- ➔ Jump to Application Map or VM Map
- ➔ Drill down into failures or perf issues



Diagnose E2E issues with Application Insights



- ➔ Monitor apps in .NET, JS, Java, Node.js or any language with OSS SDKs **NEW!**
- ➔ Visualize server/client connections & dependencies with App Map
- ➔ Track E2E distributed transactions (including for Python & Go) **NEW!**
- ➔ Drill down to code-level with Snapshot Debugging & Profiling
- ➔ Understand end-user cohorts, behavior & engagement for planning



Integration with Monitoring & SIEM Tools

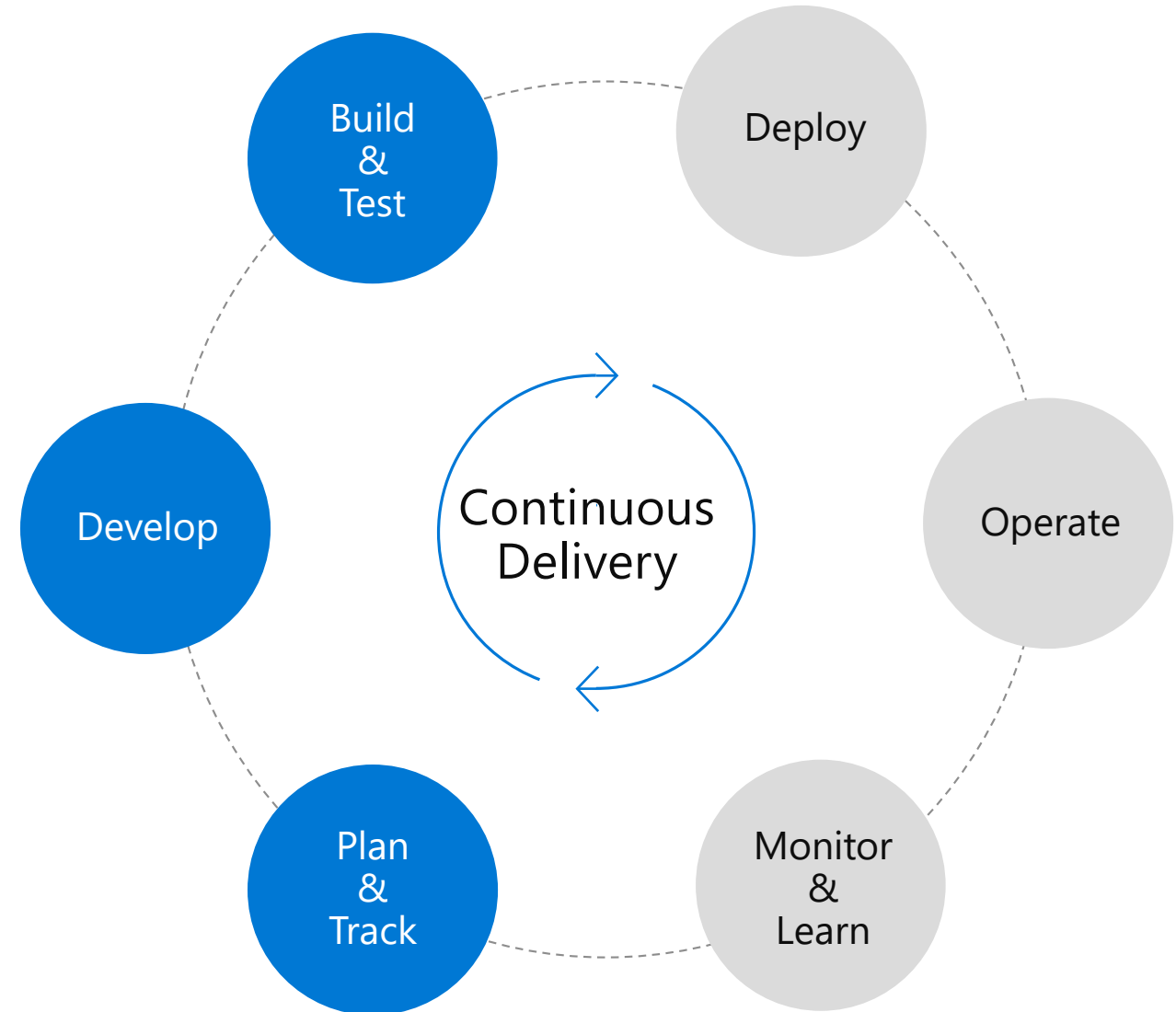


- Azure Monitor is best for Azure, and provides both APM & SIEM capabilities
- Open and extensible to continue using your favorite tools & solutions
- Integrate your existing APM/Monitoring solutions with Azure Monitor
- Route telemetry to your SIEM solutions for analytics & security management

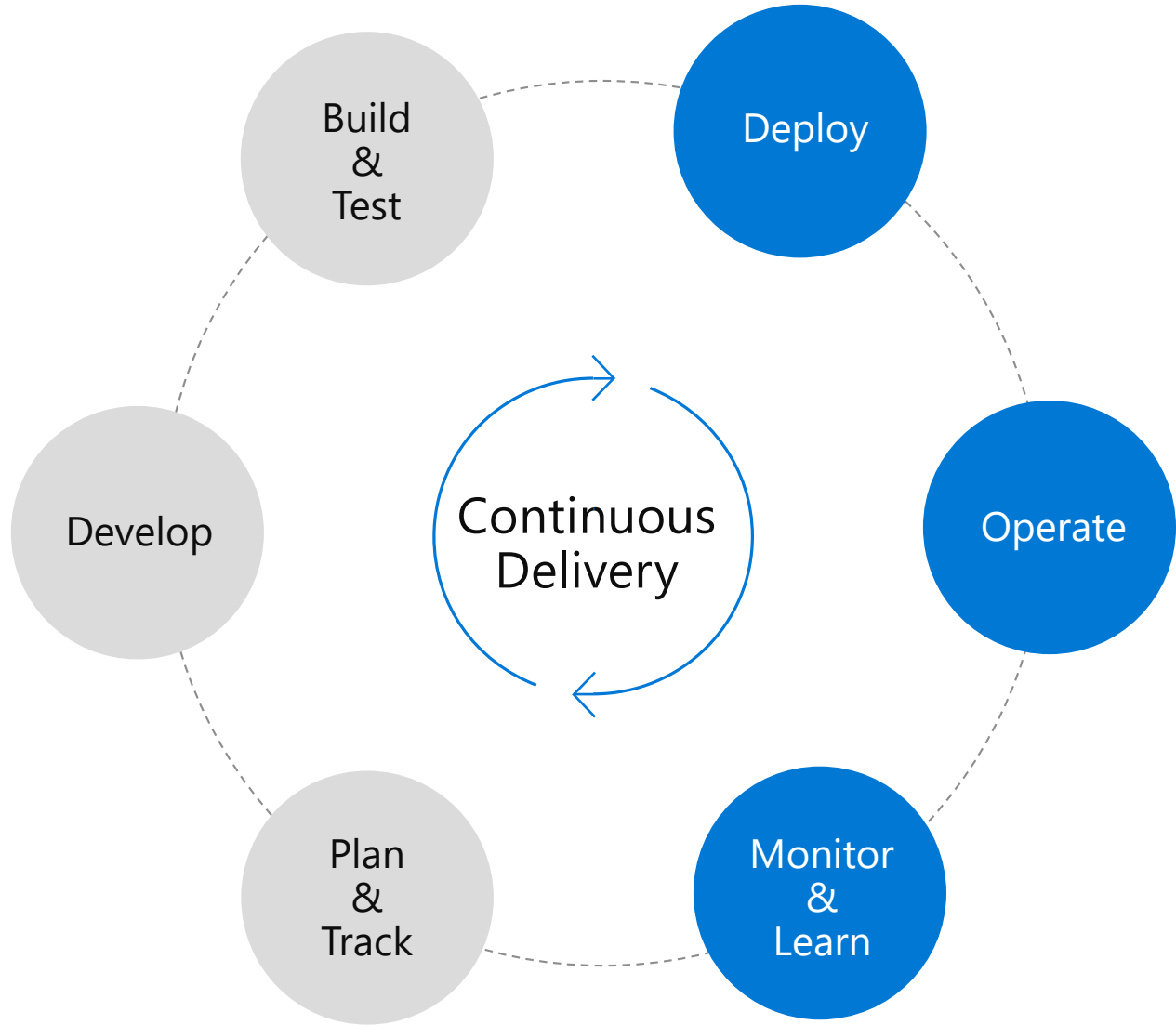


Continuous Monitoring – Development Phase

- ➔ Onboard through OSS SDKs, Packages or APIs
[Any App](#) | [Any Dev](#) | [Any Platform](#)
- ➔ Native [IDE integrations](#) in VS (.NET) and VS Code (Node.js)
- ➔ Track [production telemetry](#) in VS through CodeLens integration
- ➔ Local [debug session](#) Diagnostics & Performance Monitoring in VS
- ➔ Run [Load Tests](#) from Azure Test Plans & VS [Multi-Step Web Tests](#) for Synthetic Monitoring
- ➔ File & track [bugs/work items](#) in Azure Boards from Azure Monitor



Continuous Monitoring – Operations Phase



- ➔ Onboard through Azure Pipelines [Release Management](#) or [DevOps Projects](#)
- ➔ Setup Pre- or Post-Deployment [Quality Gates](#) with Azure Monitor Metrics/Alerts
- ➔ [Monitor & Manage](#) Health, Availability, Reliability & Performance of App & Infra
- ➔ Run [code-level analyses](#) in production with Snapshot Debugging & Profiling
- ➔ Setup Alerts & Notifications with [automated actions & remediations](#)
- ➔ Continuously optimize Perf & Usage metrics with ["Build Measure Learn"](#)

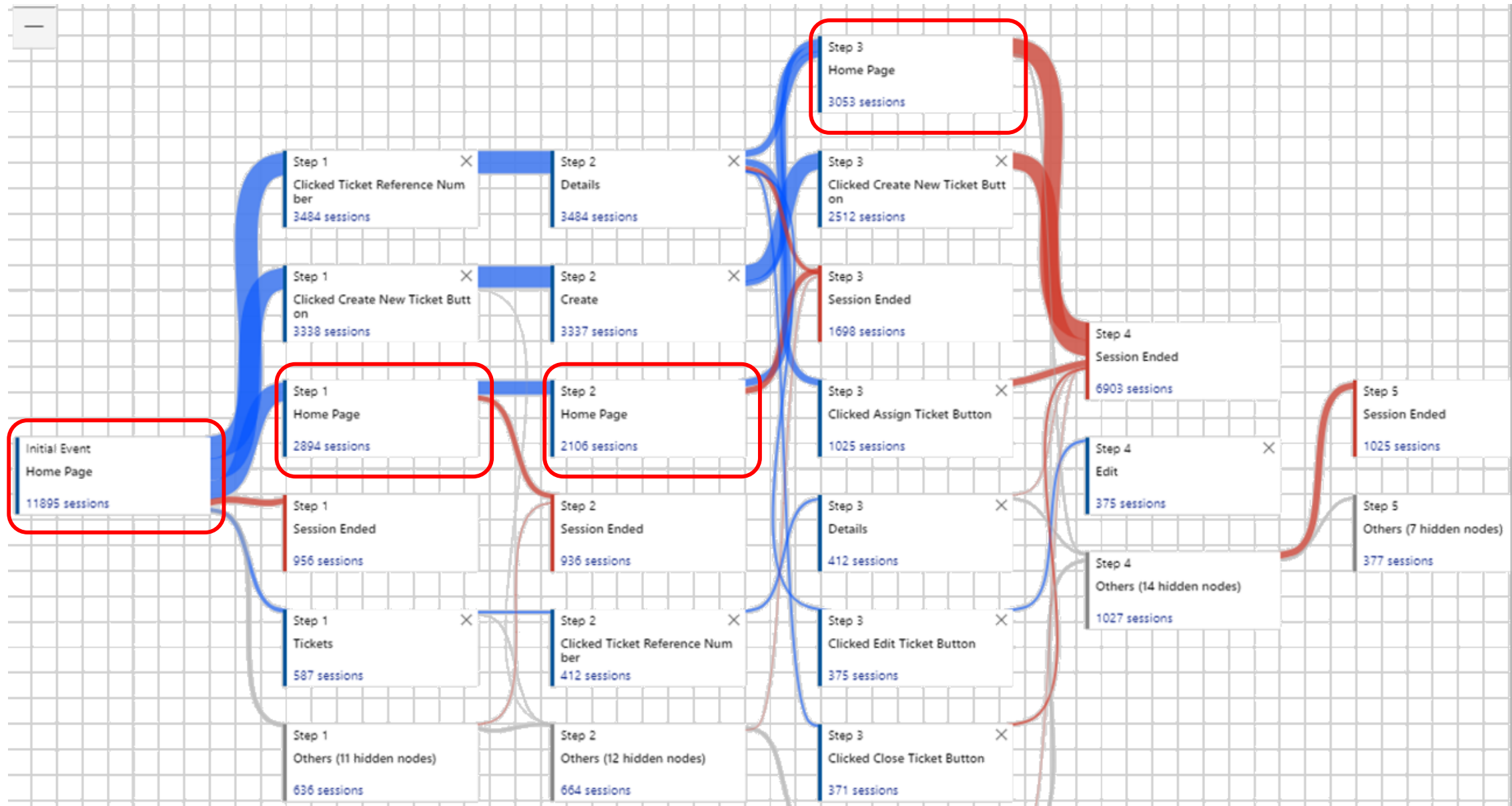
Demo

Continuous Monitoring

Visual Studio
Azure DevOps
Azure Monitor



Application Insights – User Flows



Application Insights – Quality Gates

Mercury Health-Release > Release 20190206.2-001

Pipeline Variables History | + Deploy Cancel Approve multiple Refresh Release (old view) Edit release ...

Release

Continuous deployment

for Randy Pagels
2/6/2019, 11:34 AM

Artifacts



MercuryHealth-CI
20190206.2
master

Stages

Dev

✓ Succeeded

2 warnings
on 2/6/2019, 11:36 AM

100%

Staging

✓ Succeeded

4 warnings
on 2/6/2019, 12:05 PM

100%

Load Testing

✓ Succeeded

3 warnings
on 2/6/2019, 12:02 PM

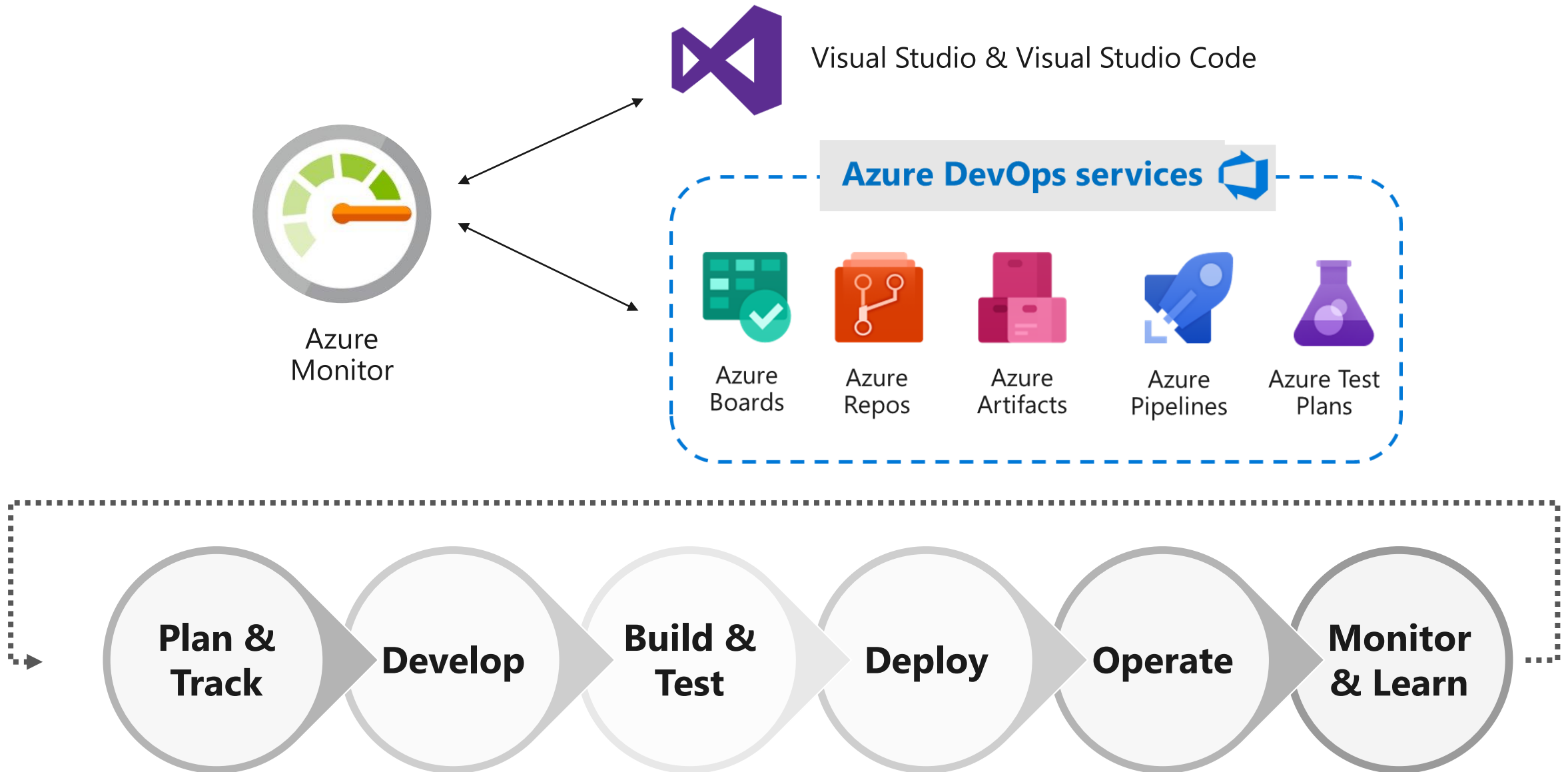
Production

⌚ Pending approval

On Randy Pagels
for 5 days

✓ Approve

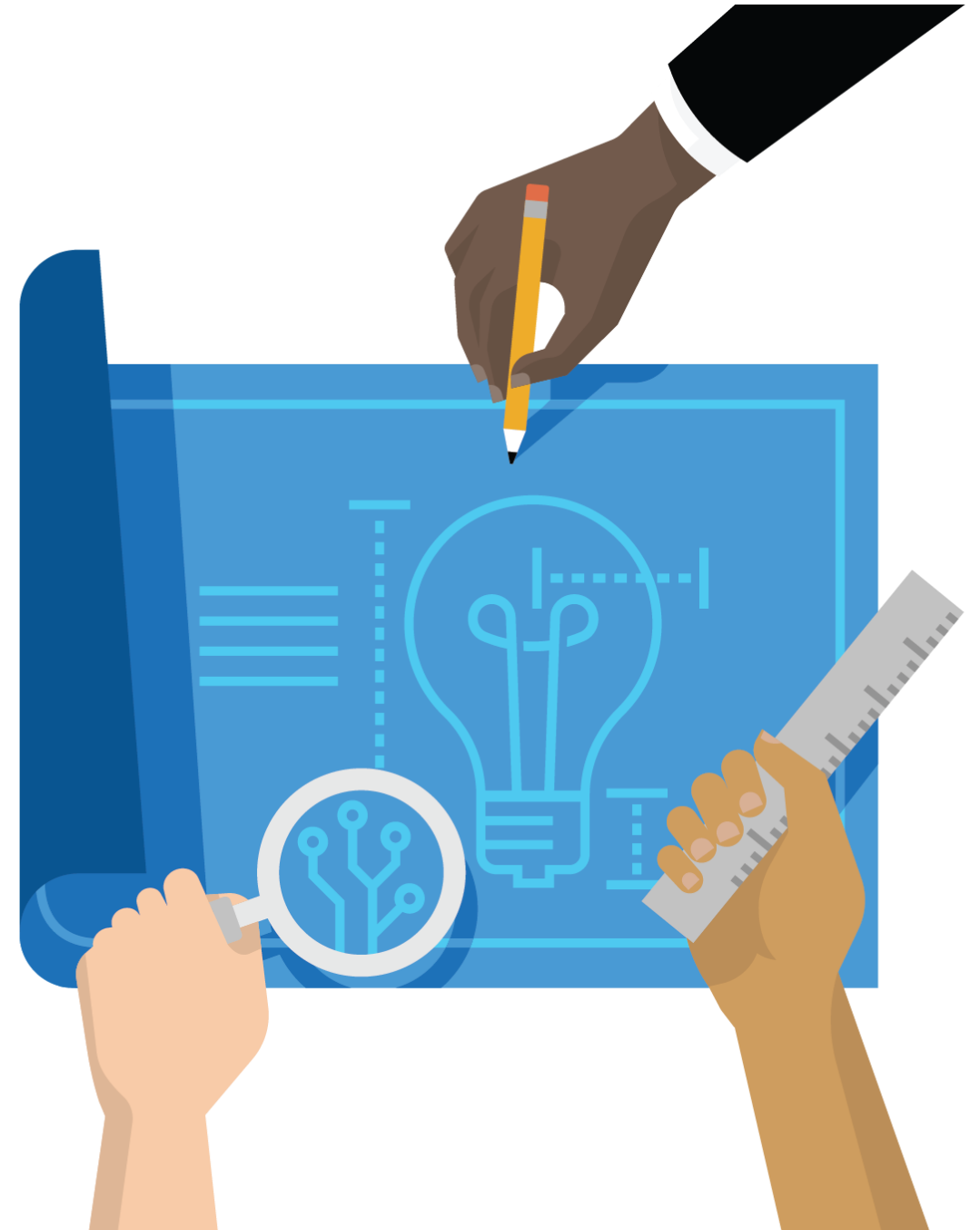
Continuous Monitoring (CM) for DevOps



Better practices

- Ensure apps have monitoring enabled via SDKs, Azure Pipelines, DevOps Projects, or VM Extensions
- Ensure your infrastructure (VMs, Containers, Network) also has monitoring enabled with metrics & diagnostics logs
- Augment your release pipelines with continuous monitoring
- Bucket Azure resources in Resource Groups for full visibility
- Setup actionable alerts with notifications and/or remediations
- Shares dashboards & workbooks with RBAC
- Use 'Infrastructure as Code' to monitor/configure at scale
- Continuously optimize with 'Build Measure Learn'

Learn More: <http://aka.ms/AzMonOverview>



Resources

The MTC Transformation Academy – <https://aka.ms/mtcacademy>

Download Visual Studio 2019 Preview

<https://visualstudio.microsoft.com/vs/preview/>

Learn more about Visual Studio – <https://visualstudio.microsoft.com/>

Learn more about Azure Monitor – <https://aka.ms/AzureMonitor>

Learn more about Azure DevOps – <https://azure.com/DevOps>

Monitoring Documentation – <https://aka.ms/MonitoringDocs>

Thank you!