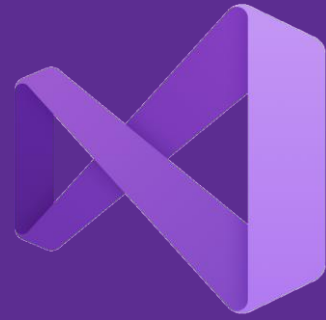


Visual Studio Licensing Review



Randy Pagels
Azure Specialist - Application Development
US Great Lakes Region

Topics

- What are the current products
- What are Visual Studio Subscriptions
- Subscriber Benefits
- Azure DevOps
- Azure DevOps Licensing
- Developer Tools Deployment Planning assessments

What are VS Subscriptions

Formerly Visual Studio with MSDN

They are a bundle of 2 things:

- The Developer IDE/Tool
- Installed like an Office product
- Licensed Per Person



+



- Includes many items to complement software development
- Like a “magazine subscription” – you have access to them while your subscription is active

- Key Subscription Items
 - Product Use Rights benefit to MSFT software for non-production use
 - Extends to usage in Azure
 - Software download site for past, present and future MSFT software
 - Other: Azure Monthly Credit, Pluralsight Training, Tech Support and more

Comparison Grid: <https://www.visualstudio.com/vs/pricing/>

The Visual Studio family

Visual Studio Enterprise, Professional

Visual Studio for Mac

Azure DevOps

MSDN Platforms

Visual Studio Test Professional

Azure DevOps

Visual Studio App Center

Visual Studio Marketplace – both MSFT & ISV

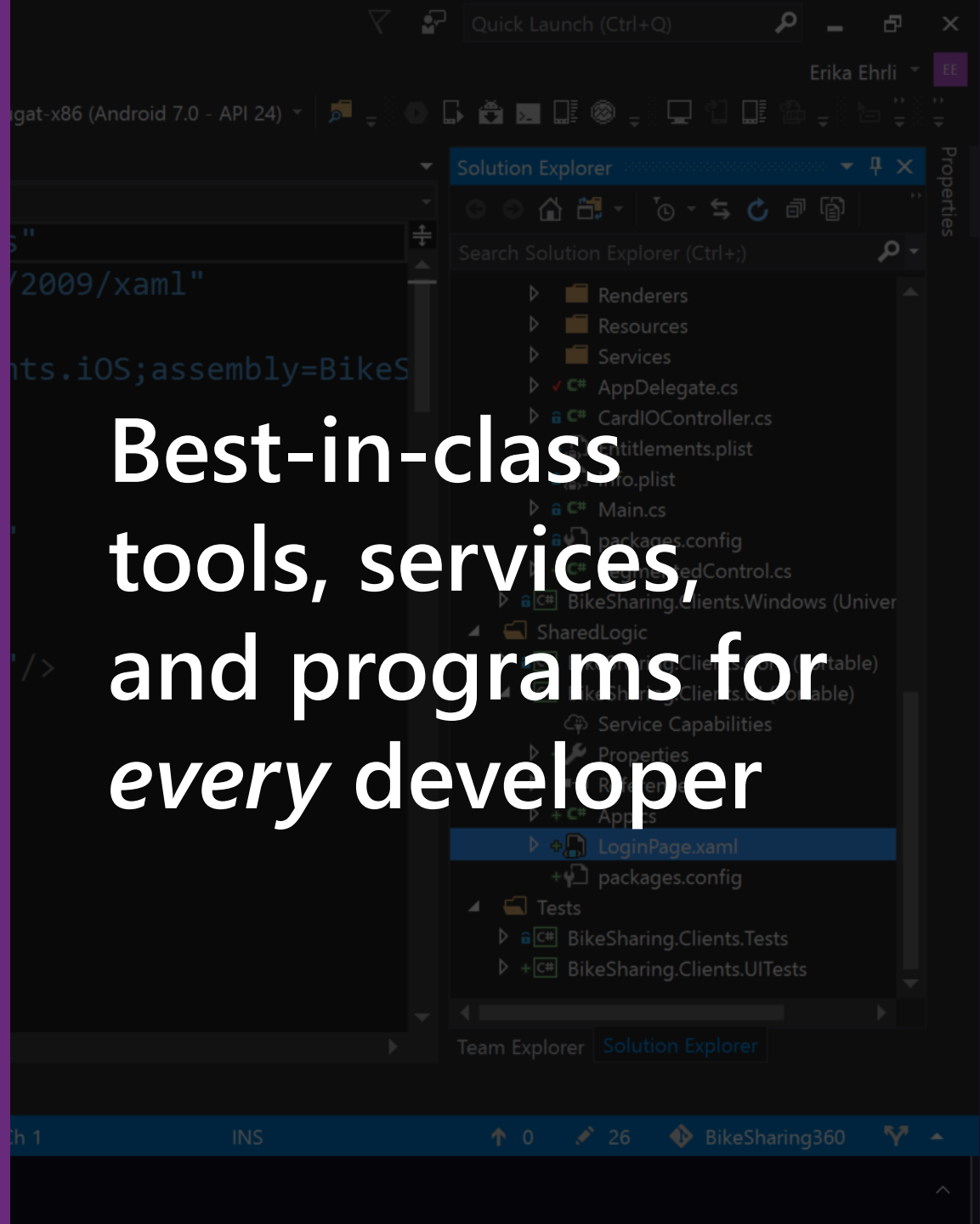
Visual Studio Community

Visual Studio Code

Developer
Tools

Azure

Free



**Best-in-class
tools, services,
and programs for
every developer**

THE VISUAL STUDIO FAMILY IS GROWING



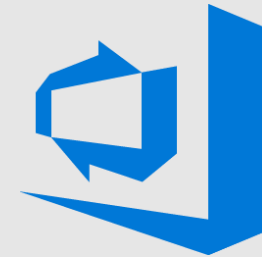
Visual Studio
6 million users



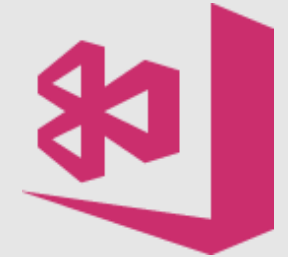
Visual Studio Code
2.6 million users



Visual Studio for Mac
Grew 230% since launch



Azure DevOps
Grew 40% YoY



Visual Studio App Center
General availability today!

Best-in-class tools for any developer

The Visual Studio Subscription Family

<https://www.visualstudio.com/vs/compare/>

Visual Studio Enterprise Subscription

Microsoft DevOps Solution for Productivity and Coordination Across Teams

- ✓ Advanced productivity features with real-time insights and feedback on code and quality.
- ✓ Full support across the DevOps lifecycle.
- ✓ Plan, execute and monitor your entire testing effort.
- ✓ Includes enhanced subscription benefits with access to most Microsoft software, cloud credits

Visual Studio Professional Subscription

Professional Developer Tools and Services for Small Teams

- ✓ Development of modern applications and services for Android, iOS, Windows, web, cloud and desktop.
- ✓ Fully extensible.
- ✓ Includes training, support and cloud credits as part of subscription benefits.
- ✓ No usage restrictions.

Visual Studio Test Professional Subscription

Specialized toolset for testers to plan, execute and track your testing efforts

- ✓ Optimized tools for testers that facilitates collaboration between test, development and operations.
- ✓ Streamline your release processes without sacrificing quality.
- ✓ Includes training, support and cloud credits as part of subscription benefits.

Visual Studio MSDN Platforms

Microsoft software & team collaboration for IT Pros and Testers

- ✓ Includes Dev & Test downloads for all Microsoft Server Software
- ✓ Excludes development IDE, to focus specifically on Testers & IT Pro needs
- ✓ Ideal for IT Ops and non-developers

Tech Support

Dev/Test Software

Technical Training

Dev Tools

Services

Cloud credits

Extensions

Visual Studio Professional vs Enterprise

Enterprise Edition

Request and manage Feedback

Code Coverage

IntelliTest

Fakes Framework

Code Clone

Code Map debugger integration

IntelliTrace

IntelliTrace in Production

IntelliTrace Performance Indicators

.NET Memory Dump Analysis

Architecture Validation

Layer Diagrams

UML Modeling

Test Case Management (inc Web)

Manual Testing

Test Case Fast Forward

Exploratory Testing

Coded UI Testing

Lab Management

Web Performance Testing

Load Testing (Inc cloud)

Professional Edition

Code Review

CodeLens

Unit Testing

Static Code Analysis

Peek Definition

Code Maps (Read Only)

Code Metrics

Task Suspend/Resume

Work Item Charting (Read only)

Team Rooms

Build automation

Sprint Planning

Agile Portfolio Management

Task and Kanban Boards

Backlog Management

TFVC or GIT Version Control

Extensible testing framework

Page Inspector

Web based test execution

Powerpoint Storyboarding

Android Emulator

Team Explorer

Team Explorer Everywhere

Blend for Visual Studio

Windows & Web Development

Office & SP Development

Windows App Store Dev

Browser Link

LightSwitch

Feature Comparison

	Professional	Enterprise
Build software for the web, PC, or devices	●	●
Support for agile development methodologies	●	●
Create mobile apps for Android, iOS, and Windows	●	●
Visual Studio App Center	●	●
Testing, quality assurance, release and lab management		●
Coded UI		●
Microsoft Fakes (Unit Test Isolation), Code Clone, Code Coverage		●
Live Unit Testing		●
IntelliTest (smart unit testing)		●
Architectural discovery, design, Code Mapping, and enforcement		●
IntelliTrace		●
Package Management		●
Private Pipelines		●
Unlimited load and performance testing		●
Redgate Data Tools		●
Xamarin embedded assemblies, live inspection, & profiler		●
Xamarin University	● for select videos only	● for select videos only
Pluralsight training	Full subscription for 3 months	Full subscription for 6 months
Office Professional Plus 2016 for Production and O365 Developer subscription (up to 25 seats)		●
Credit to use for dev/test services on Microsoft Azure	\$50/mo.	\$150/mo.
Azure Dev/Test pricing	●	●

Visual Studio Test Professional

Team Room

Manual Testing

Exploratory Testing

Test Case Management

Fast Forward on Manual Testing

TFVC or GIT Version Control

Build Automation

Agile Portfolio Management

Lab Management

Backlog Management

Sprint Planning

Task and Kanban Boards

Release Management

Work item tracking

Web based test execution

Web based test case management

PowerPoint Storyboarding

Request & Manage Feedback

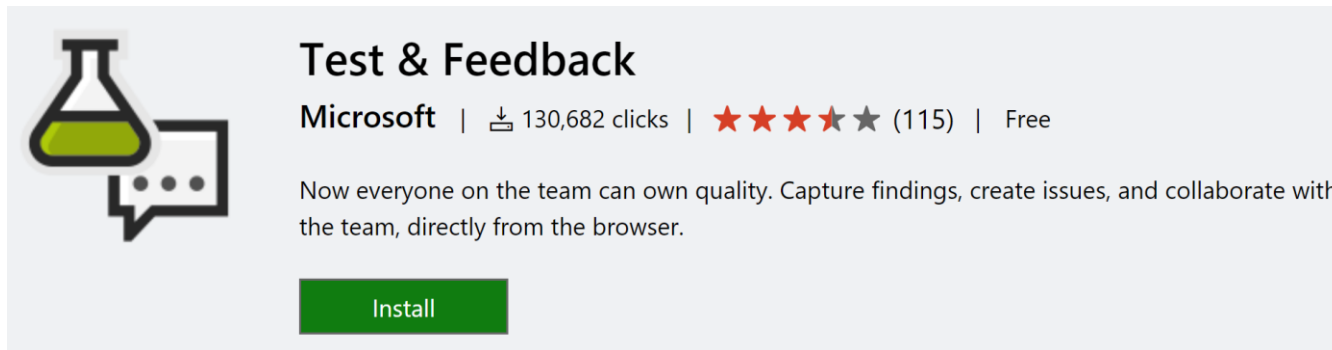
Team Explorer & TFS CAL

Work Item Charting

Team Explorer Everywhere

Test & Feedback extension

The Test & Feedback FREE extension is available from the Visual Studio Marketplace.



The screenshot shows the Visual Studio Marketplace listing for the 'Test & Feedback' extension by Microsoft. On the left is an icon of a flask with a speech bubble. The title 'Test & Feedback' is followed by 'Microsoft', '130,682 clicks', a 4.5-star rating from 115 reviews, and 'Free'. A description states: 'Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.' A green 'Install' button is at the bottom.

Capture findings, create issues, and collaborate with the team, directly from the browser.

Any platform: Windows, Mac, or Linux. Available for Google Chrome and Mozilla Firefox.

[Test & Feedback Extension](#)

Capture

- Screenshots
- Notes
- Screen Recordings
- Image action log
- Page load data

Create

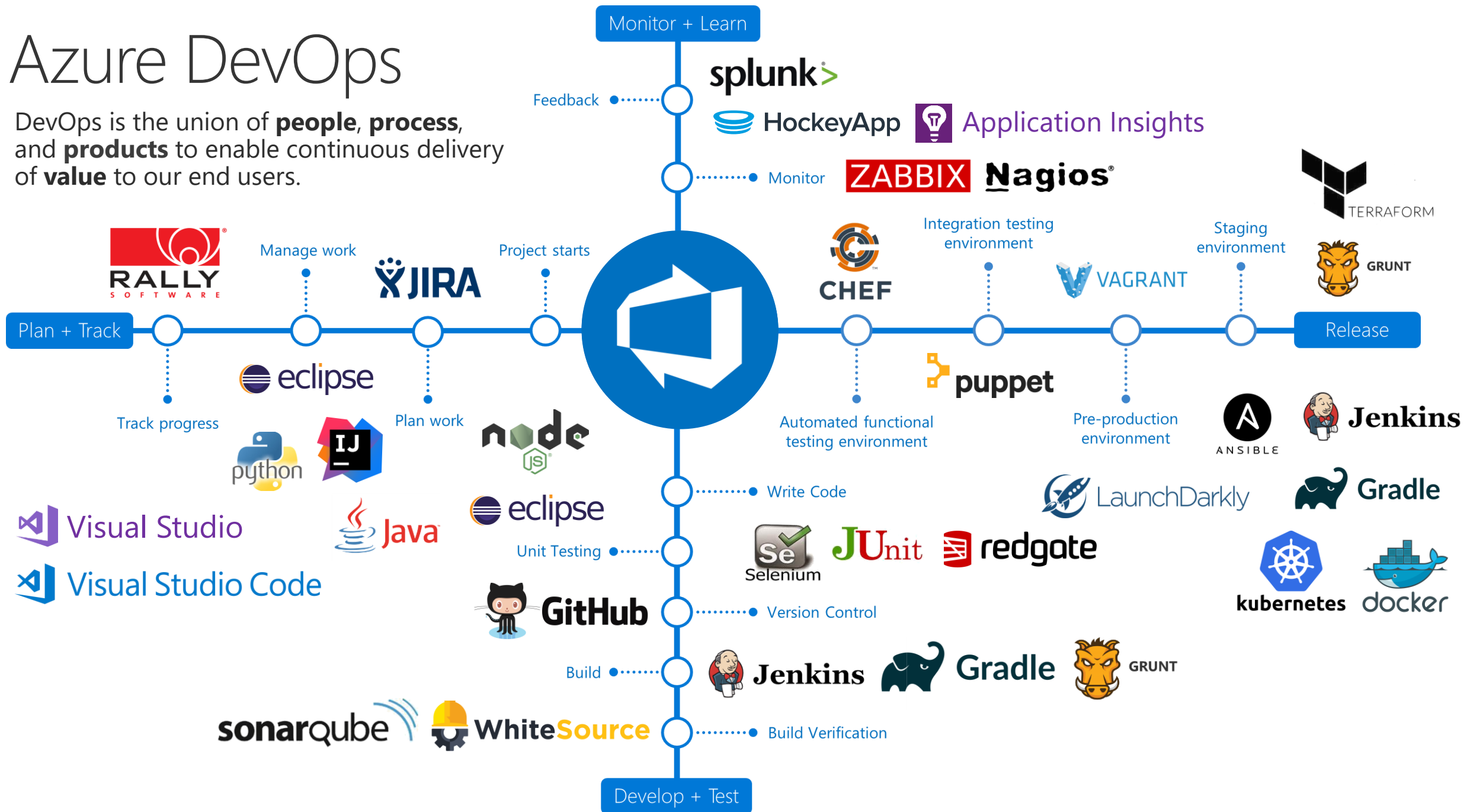
- Bugs
- Tasks
- Test cases
- Feedback responses

Collaborate

- Feedback Requests
- Session Insights
- Session Reports

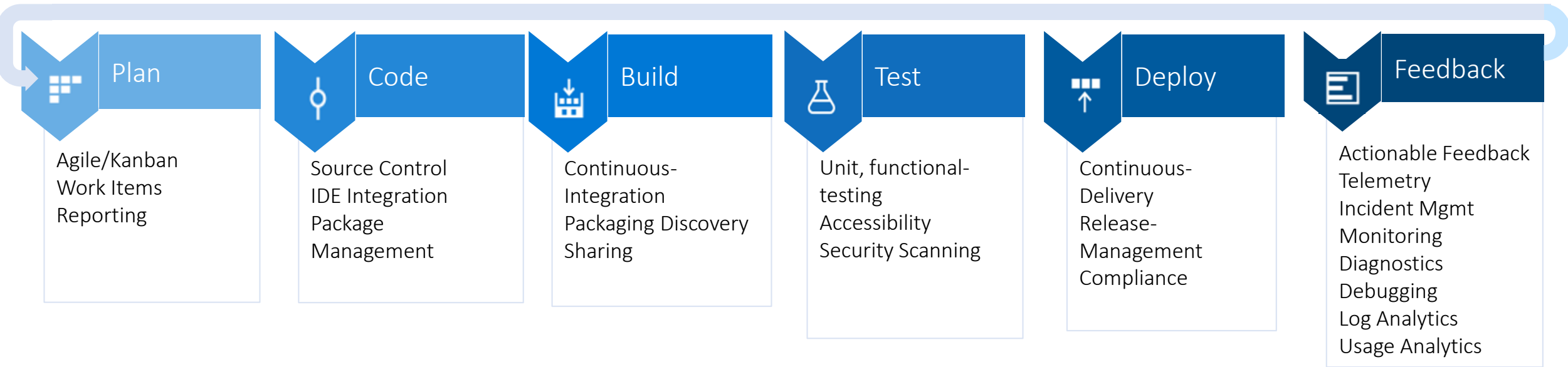
Azure DevOps

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



Azure DevOps

- Complete and Feature Rich End-to-End DevOps Solution
- Open with strong 3rd Party and OSS marketplace
- Traceability for each step along the way



Open, Flexible



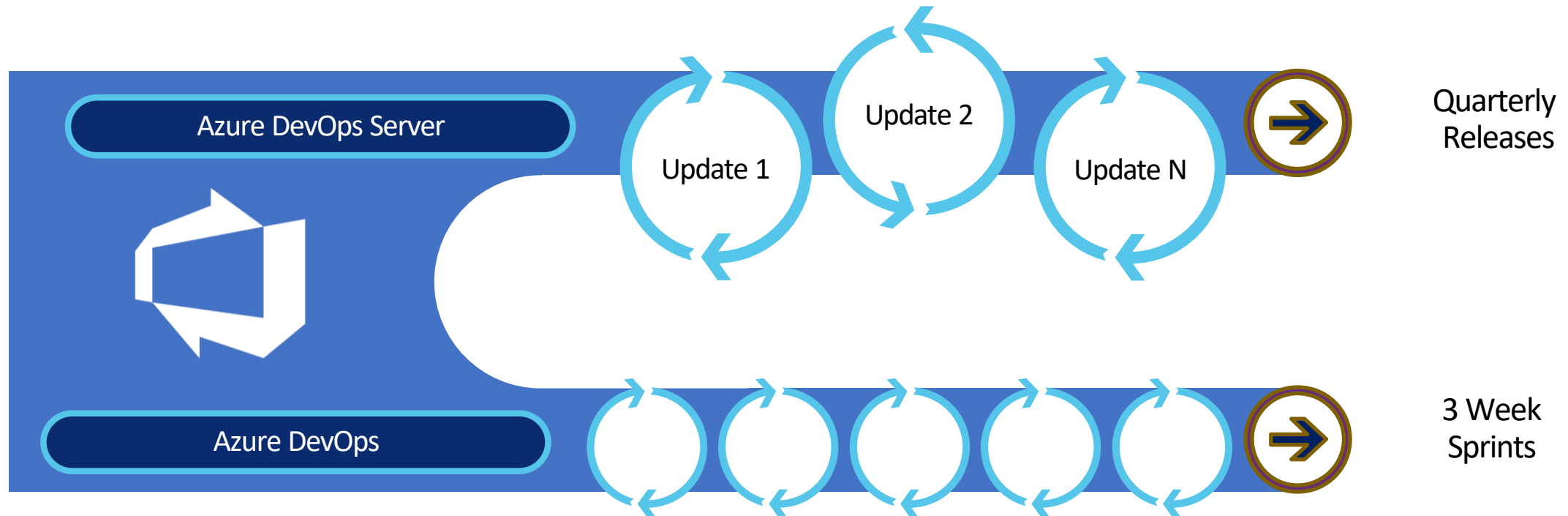
Increase flow of value

Shorten cycle times

Reduce re-work costs

Release Cadence

- Hybrid Solution with One Code Base
- Cloud first, then on-premises
- Azure DevOps – 3 Week Sprint
- Azure DevOps Server – Quarterly Releases



Get 3rd Party Extensions in the VS Marketplace

The screenshot shows the Visual Studio Marketplace interface. At the top, there are navigation tabs for 'Visual Studio', 'Visual Studio Code', 'Azure DevOps' (which is highlighted in pink), and 'Subscriptions'. On the right, there are links for 'Build your own' and 'Publish extensions', along with a 'Sign in' button. A search bar contains the text 'Jenkins AWS Chief TerraForm RedGate'. Below the search bar, it indicates '18 Results' and provides filters for 'Showing: All categories', 'Hosted On: Any', 'Price: Any', 'Certification: Any', and 'Sort By: Relevance'. The search results are displayed in a grid of 12 cards, each representing an extension. Each card includes the extension's icon, name, author, download count, a brief description, a star rating, and the price (all are 'FREE').

Extension Name	Author	Downloads	Rating	Price
Terraform	Peter Groenewegen	5K	4.5 stars	FREE
Terraform	Microsoft DevLabs	950	5 stars	FREE
Terraform	Jamie Phillips	393	5 stars	FREE
Terraform	Tyler Evert	480	3.5 stars	FREE
Redgate ReadyRoll	Redgate Software	3.8K	5 stars	FREE
Jenkins Integration	Microsoft	6.8K	4.5 stars	FREE
Terraform Build & Release	Charles Zipp	2K	5 stars	FREE
AWS Tools for Microservices	Amazon Web Services	13.8K	4.5 stars	FREE
AWS S3 Upload	Marcus Felling	1.2K	5 stars	FREE
Setup AWS IAM Authentication	enkelwill	33	5 stars	FREE
AWS Beanstalk Deployment	SPIRIT 21	304	5 stars	FREE
Jenkins OpenShift Integration	LEANSOFT TECH (B...)	23	4 stars	FREE

Azure DevOps Services Pricing

INDIVIDUAL SERVICES

Azure Pipelines



1 Free Microsoft-hosted CI/CD
1 Free Self-Hosted CI/CD

Start free >

- 1 hosted job with 1,800 minutes per month for CI/CD and 1 self-hosted job with unlimited minutes per month
- Then \$40 per extra Microsoft-hosted CI/CD parallel job and \$15 per extra self-hosted CI/CD parallel job with unlimited minutes

Azure Artifacts



2 GB free,
then starting at \$2 per GB

Start free >

- Industry-leading NuGet Server
- Support for Maven, npm, and Python packages
- Upstream sources to help protect open-source dependencies
- Integrated with Azure Pipelines
- Sophisticated access controls

USER LICENSES

Basic Plan



First 5 users free,
then \$6 per user per month

Start free >

- **Azure Pipelines:** Includes the free offer from INDIVIDUAL SERVICES
- **Azure Boards:** Work item tracking and Kanban boards
- **Azure Repos:** Unlimited private Git repos
- **Azure Artifacts:** 2 GB free
- Load testing (20,000 VUMs/month)

Basic + Test Plans



\$52 per user
per month

30 day free trial >

- Includes all Basic plan features
- Test planning, tracking & execution
- Browser-based tests with annotation
- Rich-client test execution
- User acceptance testing
- Centralized reporting



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

Cloud, hybrid or on-premises

Cloud build

Azure DevOps provides hosted build agents to start building your projects immediately, as well as a flexible build system that allows you to install your own agents. Our hosted build agents are pre-configured and flexible and can run custom build activities as well as your own build process templates or custom scripts.

Hybrid infrastructure

If your build process requires resources outside of the hosted build agents' capabilities, then you can connect on-premises build agents to your hosted team project collection. Or, quickly scale out your on-premises build infrastructure easily by adding hosted build agents.



Enterprise DevOps Accelerator Offer

Everything you need to accelerate your transformation to DevOps

- Limited time offer for teams looking to modernize their tool chains
- Targeted at mid-sized to large development teams
- Combines client tools & team based DevOps cloud services
- For both .Net and non .Net teams.
- FastTrack engagement:
 - a dedicated, high-touch engagement focused on planning for DevOps environment including the people, process and tools.
- Cost is over 50% off regular pricing.

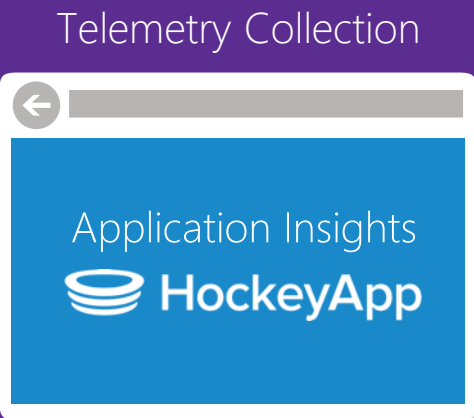
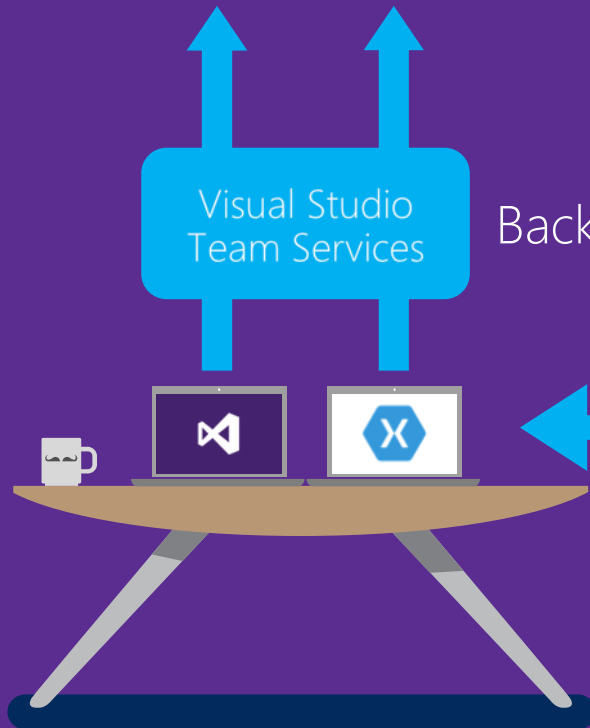
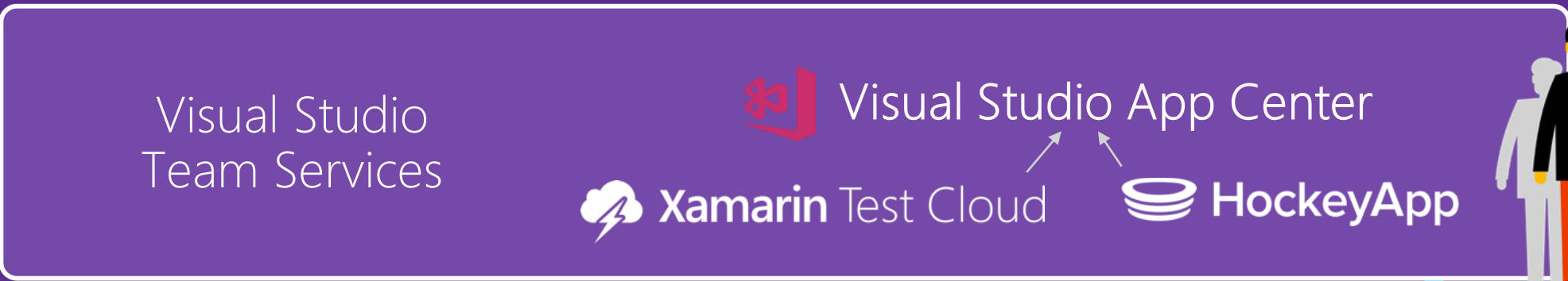
		Level 1	Level 2	Level 3
DevOps services for your team	Team Services users (Basic/Core Features)	50 users	100 users	250 users
	Package Management users	50 users	100 users	250 users
	Test Manager users	50 users	100 users	250 users
	Build & Release Hosted Pipelines (concurrent builds/releases)	10 pipelines	20 pipelines	50 pipelines
	Build & Release Private Pipelines (concurrent builds/releases)	25 pipelines	50 pipelines	125 pipelines
	WhiteSource Bolt (first year only)	50 projects	100 projects	250 projects
	Cloud-based Load Testing virtual user minutes per month	1,000,000	2,000,000	1,000,000
	VS App Center Test run tests on real iOS and Android devices	6 concurrent devices	12 concurrent devices	30 concurrent devices
	HockeyApp beta distribution, crash reporting, and analytics on your mobile device apps	Included in App Center	Included in App Center	Included in App Center
Cloud Labs	Enterprise Dev/Test offer , offering discounts on VMs from 40-90%	100 users	200 users	500 users
Developer training and support	Tech support (4 incidents per VS Enterprise subscriber)	50 users	100 users	250 users
	Pluralsight online training (6 months/for each VS Enterprise subscriber)	50 users	100 users	250 users
	LinkedIn Learning subscription (6 months)	50 users	100 users	250 users
Tools	Visual Studio Enterprise subscription (includes virtually all Microsoft software for dev/test)	50 users	100 users	250 users
	Additional dev/test software licenses, equal to MSDN Platforms —use with Visual Studio Code or your own IDE	50 users	100 users	250 users
DevOps FastTrack Consulting	On-site consulting engagement for DevOps and/or Visual Studio Team Services migration	2 weeks	2 weeks	2 weeks

Microsoft's end-to-end mobile DevOps solution

Code Repository | Build + Deploy

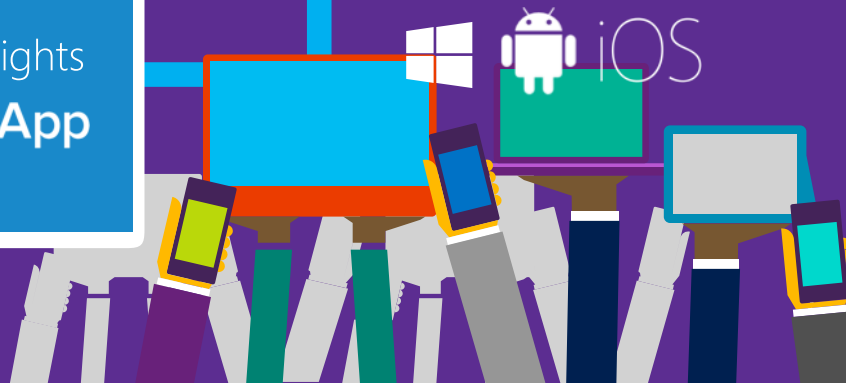
App Testing

Beta Testing



Monitor and improve

Users and customers install and use app



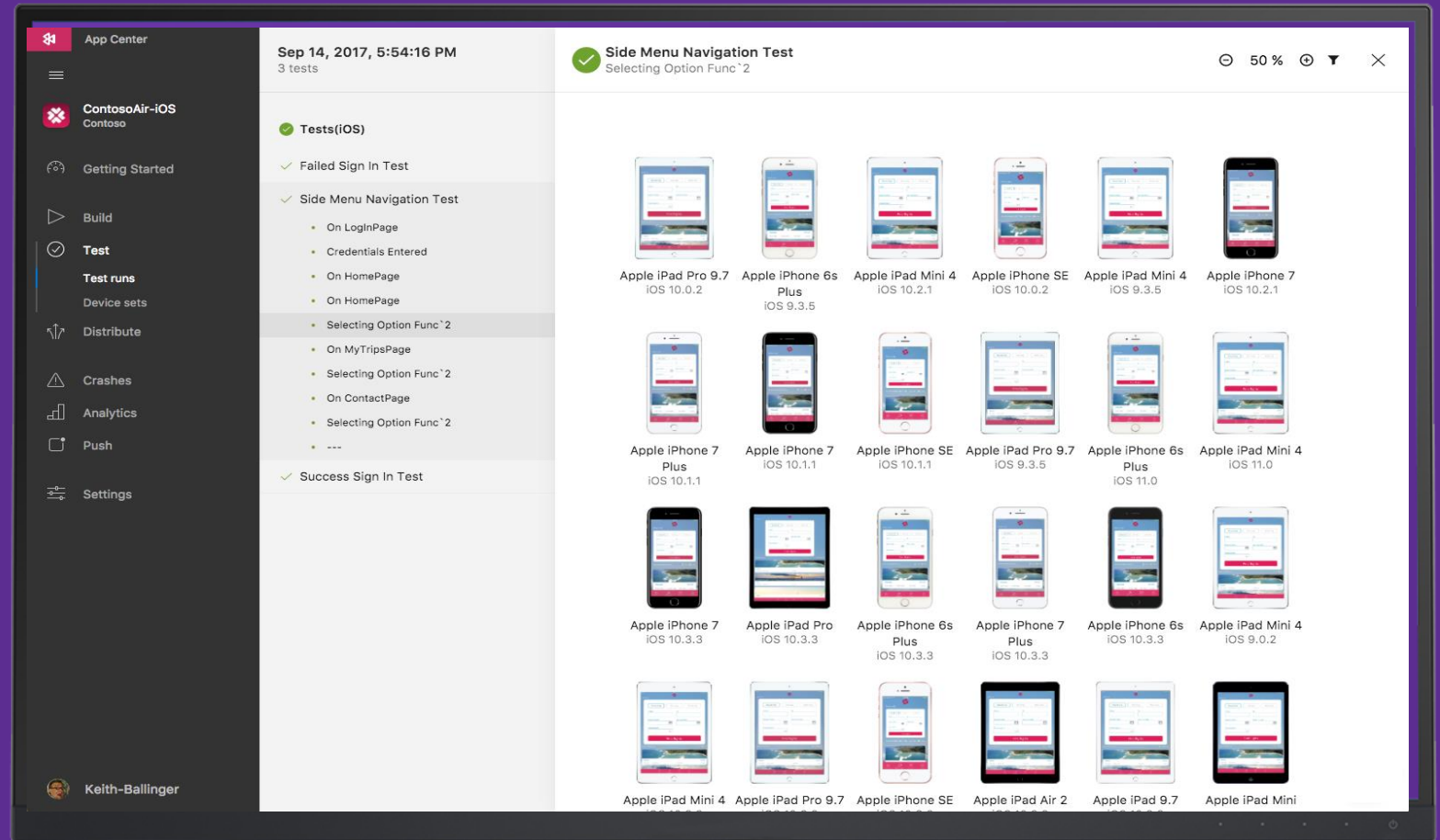
Visual Studio App Center

aka.ms/vsappcenter

Predefined for Mobile Apps

➔ Combines powerful tools into one experience

- HockeyApp
 - Distribution, crashes & Analytics
- Xamarin Test Cloud
 - Device Testing
- Xamarin Insights
 - Crashes & Analytics
- Azure Mobile Engagements
 - Targeting Analytics
- Azure App Service
 - Tables, Auth, Push
- CodePush
 - Distribution





Visual Studio Product Changes

- Summer 2015, MSFT reduced the number of developers SKUs from 3 to 2
- Ultimate & Premium became Enterprise, Professional remained the same
- The price for Enterprise was reset closer to the price of Premium

Visual Studio
Ultimate
with MSDN

- Historical Debugging
- IntelliTrace in Production
- Web Performance Testing
- Unlimited Load Testing
- Visual Debugging with Code Maps
- CodeLens
- And more



Visual Studio
Premium
with MSDN

- Code Metrics
- Code Coverage
- Coded UI Testing
- Code Clone
- Code Review
- Task Suspend/Resume
- Microsoft Fakes
- And more



Visual Studio
Enterprise
with MSDN

- IntelliTest **NEW**
- Performance & Diagnostics Hub
- IntelliTrace Viewer
- And more

- Historical Debugging
- IntelliTrace in Production
- Web Performance Testing
- Unlimited Load Testing
- Visual Debugging with Code Maps
- CodeLens
- And more

- Code Metrics
- Code Coverage
- Coded UI Testing
- Code Clone
- Code Review
- Task Suspend/Resume
- Microsoft Fakes
- And more

Understanding Subscription Benefits

Subscription Benefits act as a lifeline for software developers, testers, architects, IT professionals, database engineers, and others. It provides priority access to new and earlier versions of Microsoft products, including developer tools, operating systems, server software, and productivity applications.

One person can use the software to design, develop, test, or demonstrate his or her programs on any number of devices. An MSDN subscription also allows the licensed user to evaluate the software and to simulate customer environments in order to diagnose issues related to his or her programs. Subscribers can use the software on as many PCs and devices as needed, which saves a great deal of expenses on software license costs during development.

Additionally, activated subscribers can run their MSDN software in Windows Azure Virtual Machines, providing greater flexibility for developing and testing apps. This cloud use right applies to all software included in the MSDN subscription, except Windows client and Windows Server.

Subscriptions can include Windows Azure, technical support incidents, Store developer accounts, Microsoft E-Learning, priority support in MSDN Forums, MSDN Magazine, and more.

Licensing information

Visual Studio subscriptions are **licensed on a per-user basis**. One person can use the software to design, develop, test, or demonstrate programs on any number of devices. Any current active subscriber who has activated their subscription is licensed to run the subscriber software (except for Windows and Windows Server) on Windows Azure Virtual Machines, providing greater flexibility for developing and testing their applications. Each person who uses the software this way needs a license. More information is available in the [Visual Studio licensing white paper](http://aka.ms/vslicensing). <http://aka.ms/vslicensing>

Overview of Active Subscription benefits¹

Comprehensive offering for software development: Active subscriptions provide access to virtually all Microsoft software for development and test purposes. By being able to test on everything Microsoft has to offer, you help reduce the cost of your development environment and reduce the risks of custom development projects.

Simple, cost-effective, per-user licensing: Active subscriptions are easy to license – one license per user is all that is needed. The alternative – which is to purchase individual licenses for operating systems, servers, and tools – is less cost-efficient and harder to manage.

One-stop shop: By having access to all the software, support, and information they need in one location, developers can be more productive and deliver higher-quality code.

Past, present, and future: Subscription benefits provide the latest editions of Microsoft products, many versions dating back for more than a decade, and prerelease versions to try out so that subscribers are always prepared for what's next.

Connect across your team – on premise or in the cloud: Active subscriptions include Visual Studio Team Foundation Server and one Client Access License, providing the solid communication, collaboration, and application lifecycle management tools your developers need to ensure that software gets built fast and gets built right. Or take your ALM solution to the cloud with Visual Studio Team Services, an end-to-end solution that handles the critical elements of lifecycle management. It's kept up-to-date with the latest tools, including traditional version control and Git repositories, enterprise agile portfolio management, and team room collaboration.

Cloud development: Develop and test applications faster, at reduced cost, and with the flexibility to deploy in the cloud or on-premises. Active subscribers receive up to \$150 in monthly credit to use on any Windows Azure service.

Store access: Active subscriptions include developer accounts for Windows, Windows Phone and Office Stores so your developers can post their free or paid apps for the world to try and buy.

Training: Active subscriptions include training resources that can be used to expand your development teams' skills, while reducing your training costs.

Help & Support: With tech support incidents, priority support in MSDN Forums and online concierge, your developers will have all the help & support they need at their fingertips.

Subscription Comparison

		VS Enterprise	VS Professional	VS Test Professional	MSDN Platforms
Tools	Visual Studio IDE edition	Enterprise	Professional	Test Professional	
	Visual Studio for Mac	•	•		
	Visual Studio Team Foundation Server 2013 and one CAL	•••	•	•••	••
	Visual Studio Team Services	Basic	Basic	Basic	Basic
	Microsoft Azure dev/test subscription with monthly credit	\$150/month	\$50/month	\$50/month	\$100/month
	Microsoft Azure pay-as-you-go dev/test subscriptions	•	•	•	•
	EMS / PowerBI	• / •			
	Windows Store and Windows Phone developer account	•	•	•	
	Office 365 Developer Subscription	•			
Software	Windows, Windows Server, SQL Server	•	•	•	•
	Microsoft Dynamics, all other servers (including R, SharePoint and Exchange)	•			•
	Microsoft Office Professional Plus 2016 (dev/test & production use-1 device)	•			
Education	Pluralsight training	Full catalog 6 months	Full catalog 3 months	Full catalog 3 months	Full catalog 3 months
	Xamarin University (select on-demand courses) / MSDN Magazine	•	•	•	•
	Opsgility – Microsoft Cloud-focused training	Full Subscription 12 months	Full Subscription 6 months		
	Microsoft E-Learning course collections	2	1	1	2
Support	Technical support incidents	4	2	2	2
	Priority support in select MSDN Forums / MSDN Online Chat	• / •	• / •	• / •	• / •
	Priority support in select TechNet Forums				•
Extensions	Package Management	•			
	Code Search, Exploratory Testing, Test Manager	•		•	•
3 rd Party Benefits	Exclusive offers from Visual Studio Industry Partners	•	•	•	•
	Redgate Data tools	•			
	Pluralsight – 10% off annual price of full subscription	•	•	•	•
	eDev – 6 month subscription to SmartOffice4TFS / InteGREAT4TFS	•			
	WhiteSource – 6 month subscription to Bolt extension	•			
	Parasoft – 6 month subscription to Virtualize / SOAtest Desktop	•			