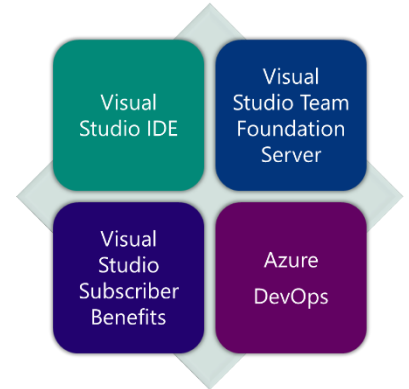


Licensing Visual Studio

Volume Licensing

This handout covers four key components of Visual Studio:

- ▶ Tools for the developer including the Visual Studio Integrated Development Environment (IDE) and Visual Studio subscriber benefits
- ▶ Tools for development teams including Visual Studio Team Foundation Server and Azure DevOps



VISUAL STUDIO IDE

- ▶ The Integrated Development Environment or IDE is where the developer creates their applications. It gives them access to the programming languages that they need to use, allows them to test and debug their programs, and to see what they will look like running on an iPhone for instance.
- ▶ Visual Studio Community is a free edition for individual developers to create their own free or paid apps in a business of less than 250 PCs. An unlimited number of users within an organization can use Visual Studio Community in a classroom learning environment, for academic research, or for contributing to open source projects
- ▶ The Visual Studio IDE is included in all Visual Studio Standard and Cloud Subscriptions below

VISUAL STUDIO SUBSCRIBER BENEFITS

Many of the paid-for Visual Studio subscriptions include rights to additional benefits:

Cloud Services

- ▶ \$50-\$150 credit for Azure services
- ▶ Access to special Azure dev/test pricing
- ▶ Licenses for Azure DevOps

Software for Dev/Test

- ▶ Rights to install Microsoft software on home or corporate device
- ▶ Software (excluding Windows client and Windows Server) may also be installed in Azure virtual machines
- ▶ Software may be used on mixed-use production and dev/test servers but the physical operating system environment and the production VMs must be licensed with Volume Licensing software licenses
- ▶ If System Center is used to manage a dev/test environment, this is considered normal use of the software and System Center must be licensed with Volume Licensing software licenses
- ▶ If members of an IT department assist in the setup/management of a dev/test environment then they must be licensed with a paid-for Visual Studio subscription
- ▶ End users testing an application as part of User Acceptance Testing (UAT) do not need to be licensed with a paid-for Visual Studio subscription

Software for Production Use

- ▶ Includes rights to Office Professional Plus 2016, and Visual Studio Team Foundation Server (Server and CAL)

Training and Education

- ▶ Access to e-learning and mobile training with Xamarin University

Support

- ▶ Access on online chat and priority support in forums

Partner Offers

- ▶ Subscriptions to Visual Studio partner offers

VISUAL STUDIO FOR DEVELOPERS

- ▶ A standalone license for Visual Studio Professional 2017 may be purchased for individual developers which includes the Visual Studio IDE but no subscriber benefits
- ▶ Visual Studio Professional and Enterprise subscriptions are available. These are assigned to individual users who then have access to the associated subscriber benefits. These subscriptions are available as Standard or Cloud subscriptions: see <http://bit.ly/2mPGlpr> for a comparison
- ▶ Licenses are assigned to developers by Visual Studio Subscriptions Administrators using this portal: <https://manage.visualstudio.com>

COMPARING STANDARD AND CLOUD SUBSCRIPTIONS

		Standard	Cloud
Purchasing	Mechanism	Acquired as a normal L&SA purchase in a Volume Licensing agreement	Acquired through the Visual Studio Marketplace, assigned to an Azure Subscription in a Volume Licensing agreement or Cloud Solution Provider (CSP) program
	Commitment	Agreement term (2 or 3 years)	Monthly or annual
	Pricing	First term (L&SA) more expensive than renewal (SA)	Same price each term
Benefits	Subscriber Benefits	Yes	Yes for annual No for monthly
	Perpetual use of IDE	Yes in perpetual agreements	No
Experience	Activation	Sign in or Product Key	Sign in
	License validation	No for Product Key Yes for sign in	Yes

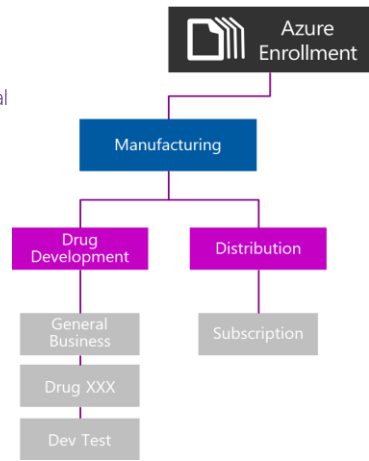
AZURE SUBSCRIPTIONS IN THE EA AND CSP

The Enterprise Agreement

Within the EA, Accounts (purple) are added to an Enrollment, and Subscriptions (grey) are defined within Accounts. Optional departments (blue) may be added for reporting purposes

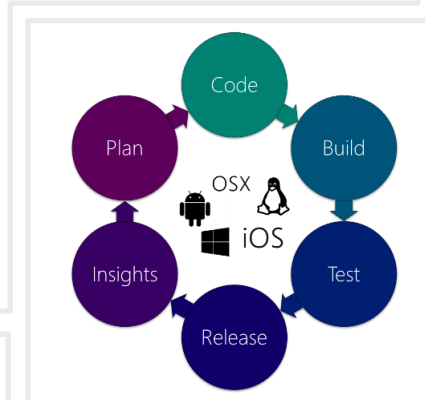
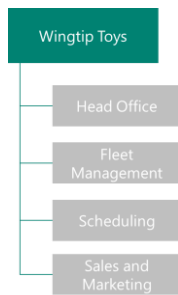
The diagram (right) shows Contoso's Enrollment and Subscriptions

- ▶ Subscriptions in an EA may be for either production (eg General Business above) or for dev/test (eg Dev Test above). Dev/Test Subscriptions are specified at time of Subscription creation and provide discounted rates on Windows virtual machines and access to exclusive images in the Azure Gallery
- ▶ Only users licensed with a Visual Studio subscription may access resources associated with a Dev/Test Subscription



The Cloud Solution Provider program

Within CSP as many Azure Subscriptions (shown right) may be created as required, but there is no notion of Accounts or Departments



VISUAL STUDIO TEAM FOUNDATION SERVER 2018

Application Lifecycle Management

An integrated on-premises server suite of developer tools for professional teams

Licensing

Licensed with a Server/CAL licensing model where a server license is assigned to the server, and Client Access Licenses (CALs) assigned to users and/or devices. If TFS is installed in multiple virtual machines then a license for each installation must be assigned to the server



- ▶ Visual Studio subscribers receive rights to install TFS and to be licensed with a CAL. That CAL may NOT be taken to another organization
- ▶ Organizations must license the server separately for Windows Server
- ▶ SQL Server is also required to run TFS but is downloadable as part of the TFS installation as long as it is used exclusively to support the installation of TFS. It may be installed on the same or a separate server

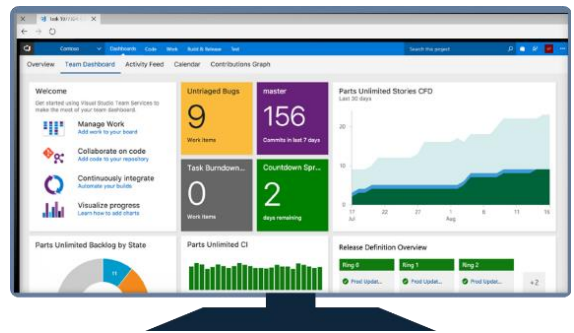
AZURE DEVOPS

Application Lifecycle Management

Cloud service allowing access by members of a development team across the world, with functionality updated regularly with the latest innovations

Licensing

- ▶ Use the Azure Pricing Calculator to view the licenses available and to estimate pricing: <http://bit.ly/AzurePricingCalculator>
- ▶ General access licensed by User Subscription Licenses for features in three main areas: work item tracking, build and release, and test
 - ▶ First 5 users are free and then tiered pricing is available
 - ▶ Access included in all Visual Studio Standard and Cloud subscriptions
 - ▶ Unlimited stakeholders may be licensed for a relevant subset of functionality
 - ▶ Licenses are acquired through the Azure Management portal by customers or their partners
- ▶ Azure DevOps extensions are available to extend functionality
 - ▶ Test Manager coordinates all test management activities, including test planning, authoring, execution and tracking from a central location, and is licensed per user per month
 - ▶ Package Management gives the facility to create, host and share packages with a team. The first 5 users are free, and there is tiered pricing for further users
 - ▶ Visual Studio Enterprise subscribers are already licensed for this functionality
- ▶ Azure DevOps additional services are also available for additional functionality. For example:
 - ▶ Pipelines enable developers to run multiple builds and/or deploy multiple releases simultaneously. Hosted pipelines are paid per pipeline and maintained by Microsoft. Private pipelines are included with Visual Studio Enterprise subscriptions or paid per pipeline and are run on-premises
 - ▶ Cloud-based load testing is used for performance and scale testing of an application by generating load from Azure. The first 20,000 virtual user minutes are free, and then there is tiered pricing for further user minutes
- ▶ Azure DevOps extensions and additional services are acquired through the Visual Studio Marketplace and are linked to an Azure Subscription for billing purposes



Further Microsoft Licensing handouts and exams: GetLicensingReady.com