

# ALM with Azure DevOps

Enova Consulting - Webinar - April 15th, 2021

IT Made in Switzerland 

# ENOVA

## Who we are

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**Enova is a Swiss Consulting company** supporting her clients in generating more value through Strategic, Organizational, Operational, Change Management, Digital & IT Transformation projects.

**Enova is a young, agile company** working together with her clients. It is also a privately owned, independent and disruptive Swiss-Quality business partner.

**Enova is a human-oriented company** delivering a wide range of services & solutions from Innovation & Strategy to its technical implementation

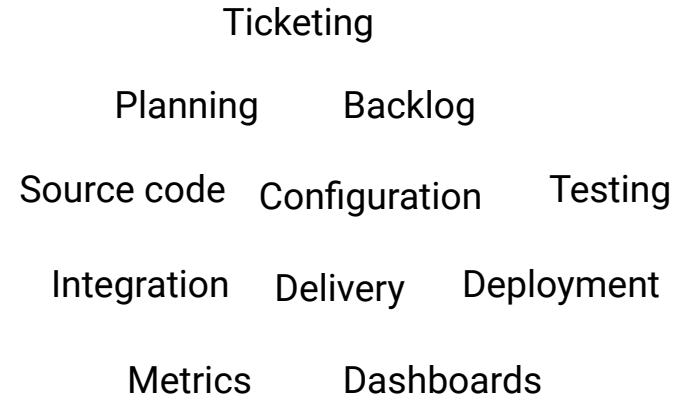


# Agenda

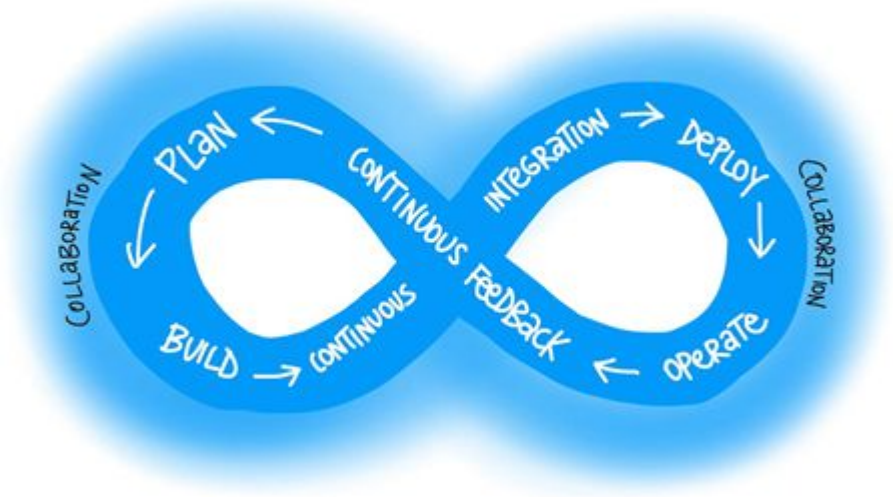
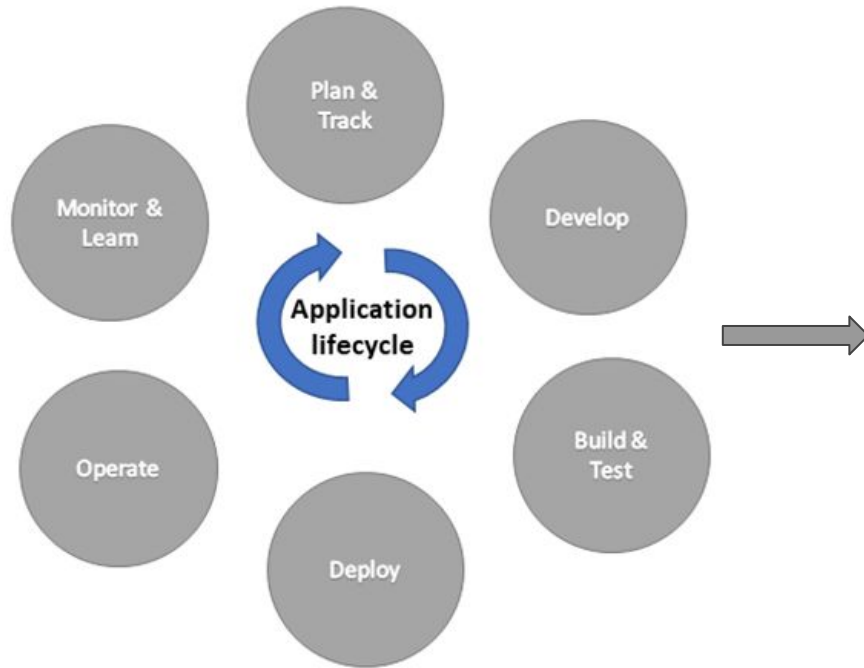
- Introduction 5 min Bertrand THOMAS  
Senior DevOps Consultant
- ALM 5 min
- Azure DevOps 15 min Julien GALAND  
Managing Partner
- Demo 15 min
- Getting started 5 min
- Q & A 15 min

# Application Lifecycle Management

- “ALM is the product lifecycle management (governance, development, and maintenance) of computer programs” [Wikipedia](#)
- “ALM is the people, tools, and processes that manage the life cycle of an application from conception to end of life” [Red Hat](#)
- “ALM is the lifecycle management of applications, which includes governance, development, and maintenance” [Microsoft](#)



# From ALM to DevOps



# ALM potential outcome

## Reduced costs

- Increase efficiency
- Enable traceability
- Reduce maintenance
- Prevent data loss
- Strengthen security
- Oversee technical debt

## Higher turnover

- Deliver on time
- Decrease time to market
- Shorten customer feedback loop
- Enable innovation
- Guarantee quality

## Improved work life

- Switch to virtuous cycle
- Keep & attract talented people
- Make work visible
- Focus on real value
- Help collaboration

# ALM tools

Common solutions

- Atlassian (Jira, BitBucket, Confluence, Bamboo)
  - Azure DevOps
  - Digital.ai
  - GitHub
  - GitLab
  - Tuleap
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# Azure DevOps

- Solution provided and used by **Microsoft**
- Covers all ALM functionalities in **one web application**
- Previously named **VSTS** (Visual Studio Team Services)
- Successor of **TFS** (Team Foundation Server)
- Designed for the Cloud but available on-premises
- Works well for any type of language & system



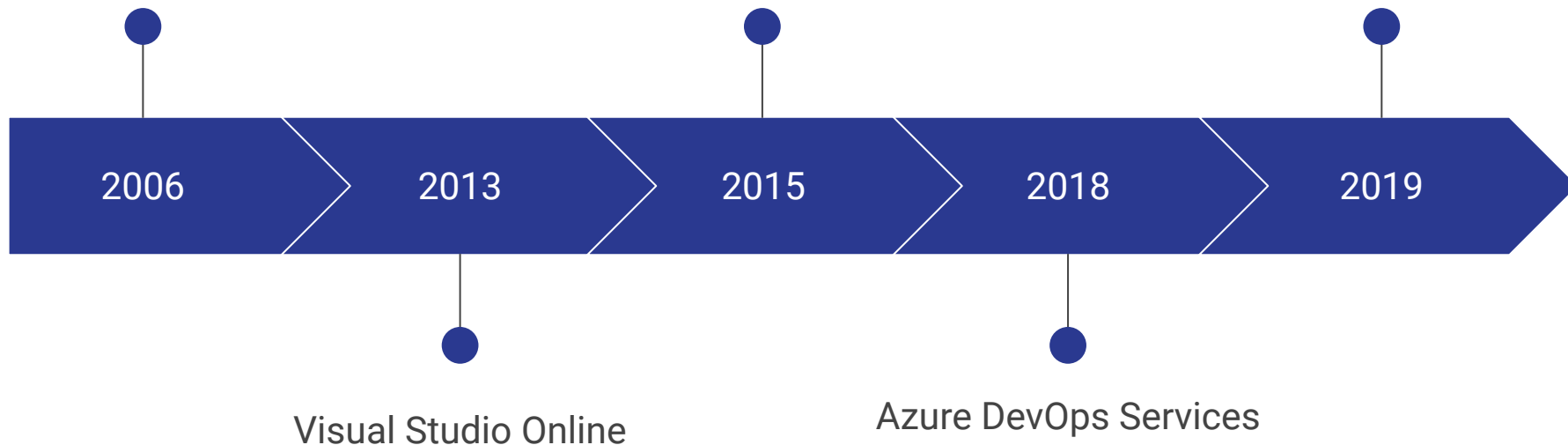


# Azure DevOps history

Visual Studio 2005  
Team System

Visual Studio Team Services

Azure DevOps Server 2019



# Application lifecycle with Azure DevOps

Plan & document

**Azure Wiki**

**Azure Dashboards**

**Azure Boards**

- Agile methodologies
- Backlog
- Planning

Build

**Azure Repos**

- GitFlow

**Azure Build Pipelines**

- Continuous Integration & Delivery
- Automated testing

**Azure Artifacts** (NPM, Nuget)

Run

**Azure Release Pipelines**

- Continuous Deployment
- Infrastructure as Code

# Pricing

- Free tier
  - 5 developers
  - 1 Microsoft hosted agent (up to 1800 min)
  - 1 self-hosted agent
- \$6/month per technical user (“Basic”)
- \$40/month per Microsoft hosted agent
- \$15/month per self-hosted agent

Limits do not apply for:

- Non-technical users (“Stakeholders”)
- Users with Visual Studio license (Enterprise gives additional benefits)
- Open source (public) projects

# Azure DevOps deployment typologies

## Cloud services

- Region can be selected
- No installation
- No maintenance + Microsoft hosted agents
- Scalable (with a price)

## On-premises server

- Country / data center can be selected
- Eased installation
- Manual maintenance + SQL Server admin
- Limited scalability

## Self-hosted agents

- Any type of OS, part of Agent Pools, can be selected based on capabilities

# Security

- Security by design
  - **Authentication:** Azure Active Directory (Azure AD), Microsoft account (MSA), Active Directory (AD)
  - **Authorization:** checked before any access to a feature or function
  - External integration: Personal access tokens, OAuth, SSH
- Organization > Project
  - Built-in roles & teams
  - Management with groups
  - Fine tuning of permissions

# Differentiators

- Active development by Microsoft
- Strong community and communication
- Efficient documentation and user interface
- Complete REST API
- Customization (data + UI + workflow)
- Full-text search
- Market leader (latest features)
- Pipeline on all OS (Linux, Mac, Windows)
- .NET, NPM, Azure, AD fast integration
- VM or container pipeline runtime
- Extension through the marketplace
- Integration with most used tools (GitHub, Docker, Terraform, Ansible, Sonar, etc.)
- Native connection with Excel, PowerBI

# Demo

Azure DevOps in action

[enova-webinars/alm-demo](https://enova-webinars/alm-demo)

-> wiki, boards, repos, pipelines

[devprofr/open-source](https://devprofr/open-source)

-> pipelines

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# Getting started

Ensure quick ROI

- DevOps maturity assessment
  - POC (Proof of Concept)
  - Trainings
  - Support (consulting)
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# Q & A

Any questions?

- ALM?
  - DevOps?
  - Azure DevOps?
  - Getting started?
  - Other?
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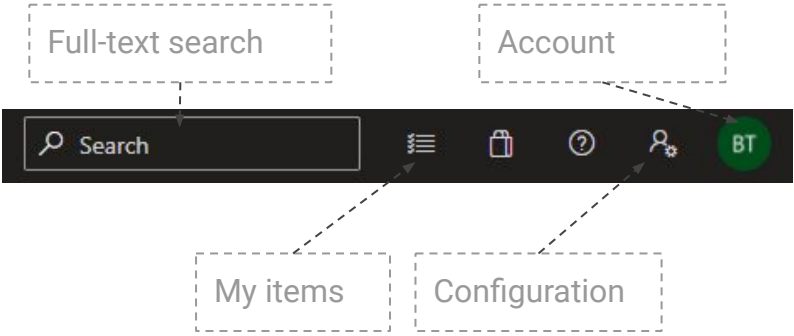
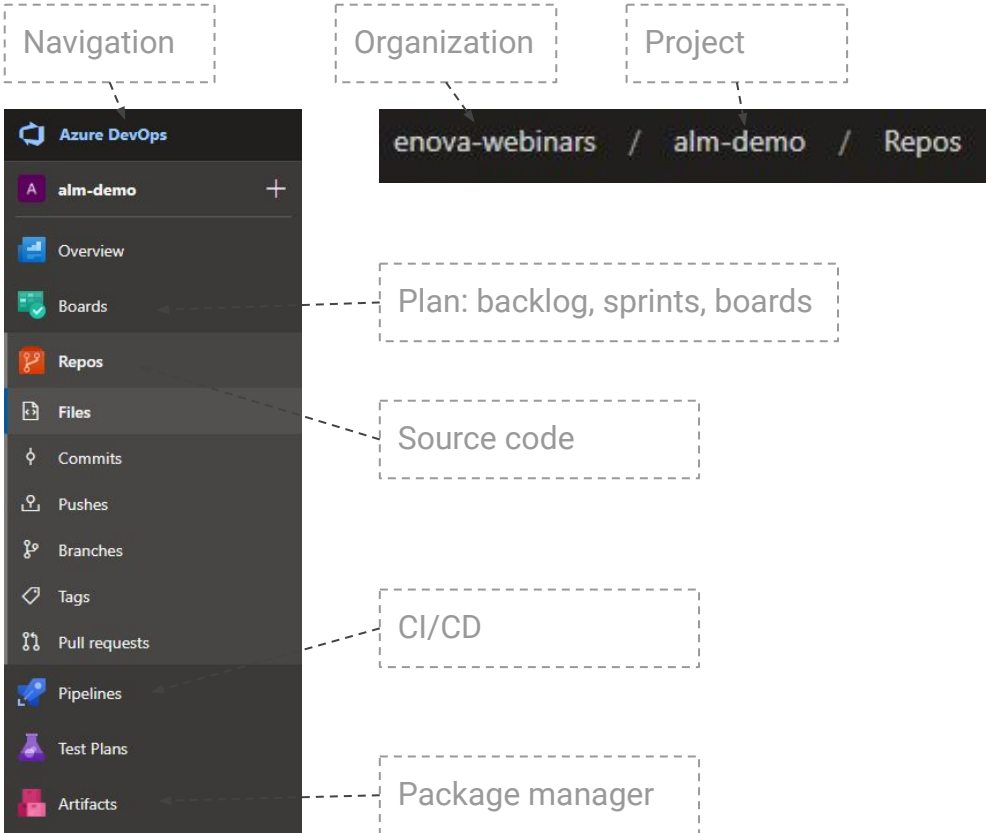
# Thank you!

Find more about us at [www.enova-consulting.ch](http://www.enova-consulting.ch)

# Appendix: Additional readings

- [Azure DevOps services page](#)
- [Azure DevOps Cloud organization page](#)
- [Pricing for Azure DevOps](#)
- [About security, authentication, and authorization](#)
- [Overview of Azure DevOps by Juan Fabian \(slides\)](#)

# Appendix: Web UI layout



Plan: backlog, sprints, boards

Source code

CI/CD

Package manager