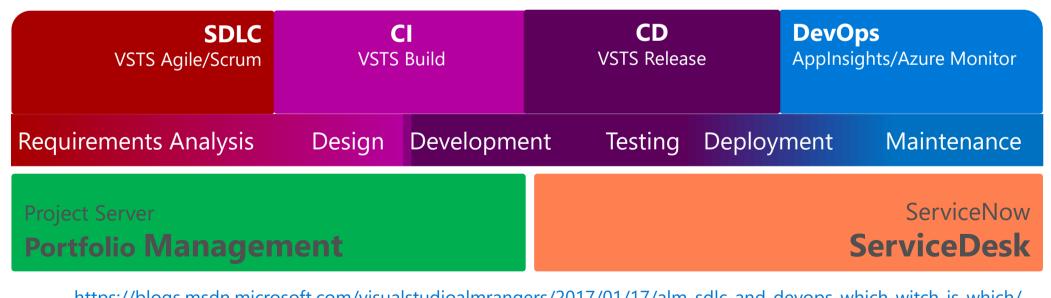


# What is Application Lifecycle Management?

- Everything from birth to death of a product
- Agile methods are Auckland Transports preferred SDLC
- Cl and CD tools help automate parts of the SDLC
- DevOps focus on the steps to get software built and deployed







# ALM at Auckland Transport

#### Plan & Manage

- VSTS Agile (Kanban)
- VSTS Scrum

## **Development**

#### **Monitor & Learn**

- Applnsights
- Azure Monitor
- New Relic

### **Continuous Integration**

- Source Control
- Build & Package
- Unit Test & Analyse quality

### **Production**



### **Continuous Delivery**

- Release Management
- Automated Regression Testing



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



DevOps is not just automation, its people following a process enabled by products to deliver value to our end users

# Business Technology Vision, Values and Mission



# Why is DevOps important to Auckland Transport?

- You can increase velocity
- Will reduce downtime
- Prevents human error
- Increases efficiency and reduces cost
- Supports Business Technologies Mission
  - "Sustainably faster delivery of solutions that add real value to our customers"





## Auckland Transport ALM Toolkit - VSTS



Source control Agile planning Test case management **Build automation** Continuous deployment Release management Load testing Feedback management Team collaboration Application telemetry Lab management





## <u>Auckland Transport ALM Guidance & Standards</u>

- VSTS standards for Managing Projects
  - Planning and Execution
  - Tracking Progress
  - Customisation
  - Security
- VSTS standards for Continuous Integration & Delivery
  - VSTS Branch Management Guidance
  - Continuous Integration Standards and Guidelines
  - Continuous Delivery Standards and Guidelines
  - Cl and CD Standard Operating Procedures
- AT Microsoft Azure Reference Architecture Documents

## AT Minimum Standards for Project Teams

### Managing Projects

• Prepare and agree a definition of done for each transition between Kanban states

### Branch Management Guidance

- Remove Completed Feature Branches
- Leverage pull requests to merge changes
- Merge Hotfixes to Master and Feature Branches

## Continuous Integration Guidance

- Leverage ARM service endpoints that have access only to the resource groups you need to deploy to
- Builds must include unit tests and code coverage

## AT Minimum Standards for Project Teams

### Continuous Delivery Guidance

- All components should adhere to naming conventions
- All solution components deployed to Azure should be done so via release definitions
- All release definitions to pre prod and prod must have approvals set assigned to service owner
- All release definitions to pre prod and prod must have ServiceNow change control integration configured
- Ideally releases should have integration tests
- All releases should include Secure DevOps Kit for Azure (AzSK) Security Verification Tests (SVTs) in VSTS pipeline



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