PowerShell Desired State Configuration (DSC)
Custom Resource Walkthrough

Visual Studio
ALM Rangers

1 Design your Resource

- **Shared** or **private**
- **Present** or **absent** state
- Module with one or more resources

2 Decompose

- Design **smallest** logical steps
- Design for **re-use**
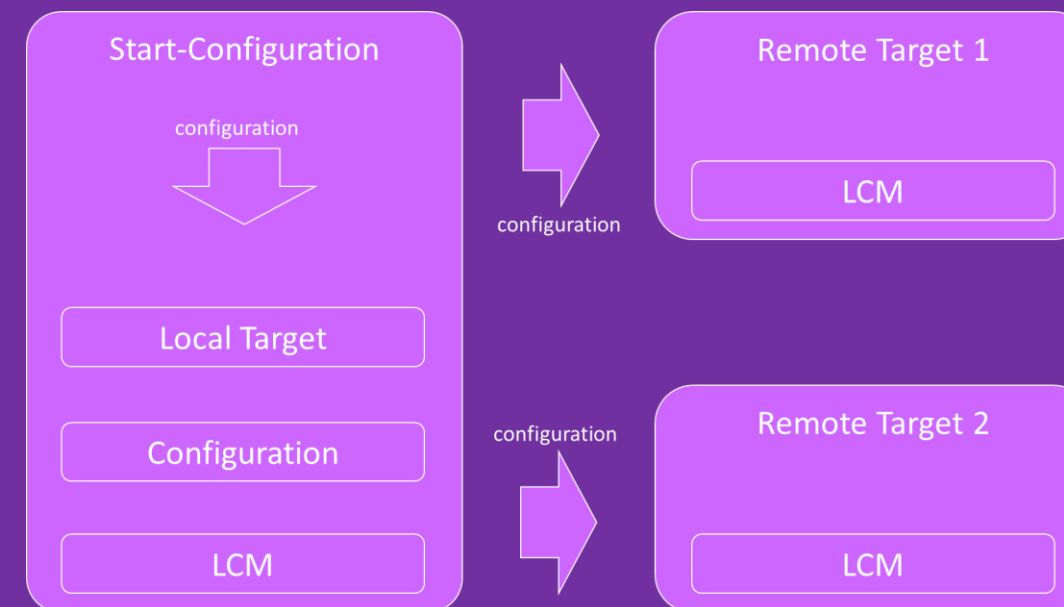- Determine useful PowerShell commands

9 Troubleshooting

- Use verbose mode for more details
- Review DSC command results
- Review Event Viewer – operational log
- Review Event Viewer – DSC ETW log
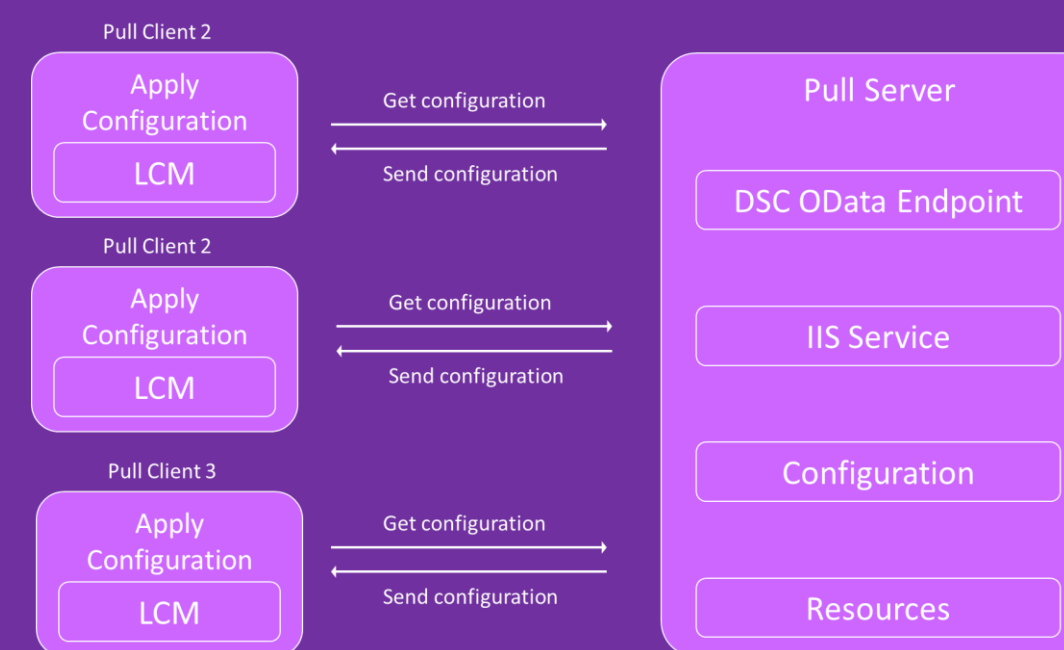- **Bing**! Someone else probably has a fix!

3 Generate Outline

- Create resource schema
- Use **xDscResourceDesigner** to generate folder and file structure

Push Server

Start-Configuration

configuration

Local Target

Configuration

LCM

configuration → Remote Target 1 — LCM

configuration → Remote Target 2 — LCM

Pull Server

Pull Client 2
Apply Configuration
LCM
Get configuration
Send configuration

Pull Client 2
Apply Configuration
LCM
Get configuration
Send configuration

Pull Client 3
Apply Configuration
LCM
Get configuration
Send configuration

Pull Server
DSC OData Endpoint
IIS Service
Configuration
Resources

8 Manual DSC Processing

- Force an update
- Invoke-CimMethod

4 Develop resource

- Get-TargetResource
- Set-TargetResource
- Test-TargetResource

7 Deploy resource

- Zip module
- Create checksum
- Copy resource to pull server

6 Create configuration

- Configuration {}
- Node specifies target
- Resource states

5 Unit Test Resources

- Each resource should have a separate unit test