nimble works

Intune → Configuration as Code (CaC)

Why CaC as opposed to clicking everything together?

- **Consistency:**
  - With configuration as code, configurations are always consistent because the **same code** is used to apply them **every time**.

- **Version control system (Git):**
  - Configuration as code allows for the use of version control tools, which enables teams to **manage changes** to configuration settings **and track who made them**.

- **Scalability:**
  - Configuration as code makes it easier to **deploy consistent** configurations **across multiple environments** as service provider or organization with multiple tenants.

- **Reproducibility:**
  - Configuration as code enables the easy reproduction of environments, which is particularly useful in **testing and development**.

- **Faster recovery:**
  - In the event of a system failure, configuration as code makes it **easier to recover** because the configurations can be automatically applied.

- **Security:**
  - Configuration as code enables configuration to be defined and applied automatically, reducing the risk of **human error**.

- **Cost savings:**
  - Configuration as code can help reduce costs associated with manual configuration, as it requires **fewer resources to manage and faster implementations**.

- **CI/CD (continuous integration (CI) and continuous delivery (CD) pipelines**
  - the ability to **deploy frequently** through **test & deployment** pipelines

Intune → Configuration as Code (CaC)

What are the options?

- **Own development**
- **M365 DSC**
- **IntuneCD**
- ...

Desired State Configuration is more then CaC

CI/CD (continuous integration (CI) and continuous delivery (CD) pipelines → the ability to deploy frequently through test & deployment pipelines.

Mitigate **configuration drift**, desired state is automatically detected, alerted and possibly remediated.

Desired state is defined and enforced as code, any **changes** to the desired state (blueprint) can be **tracked and audited**.
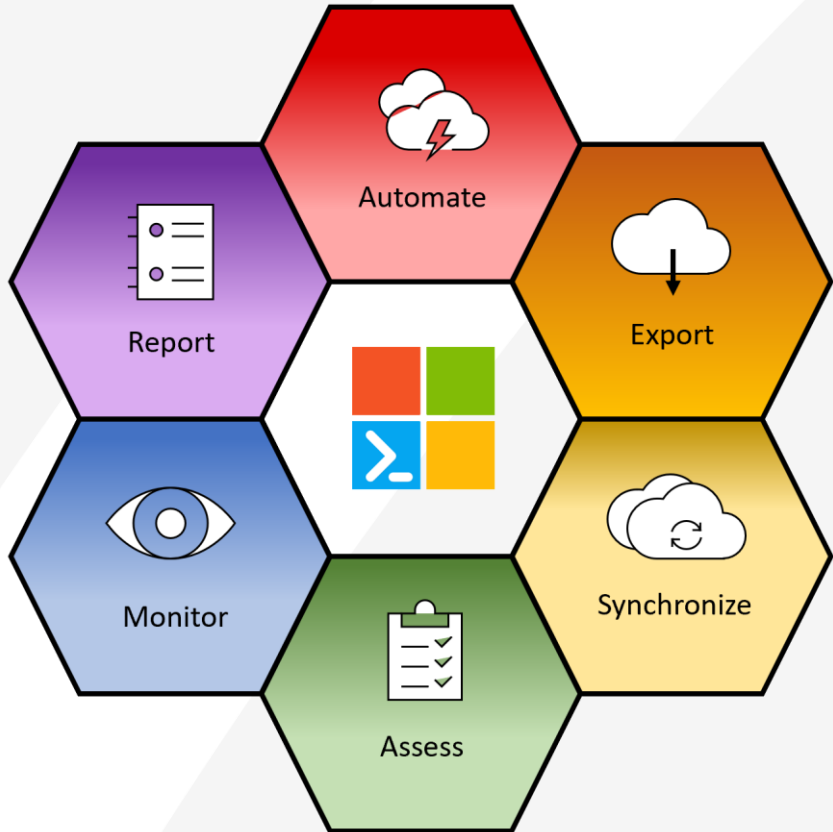
Change management is enforced, as the desired state – blueprint - needs to be adapted.

Improved **compliance**

Microsoft 365 Desired State Configuratio

Microsoft365DSC is an **Open-Source initiative** lead by Microsoft engineers and maintained by the community.

The tool covers all major Microsoft 365 workloads such as Exchange Online, Teams, SharePoint, OneDrive, Security and Compliance, Power Platforms, **Intune** and Planner.
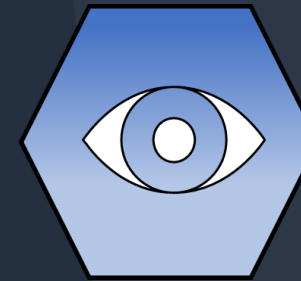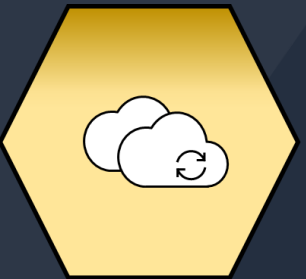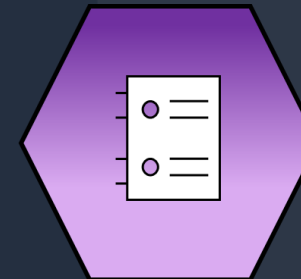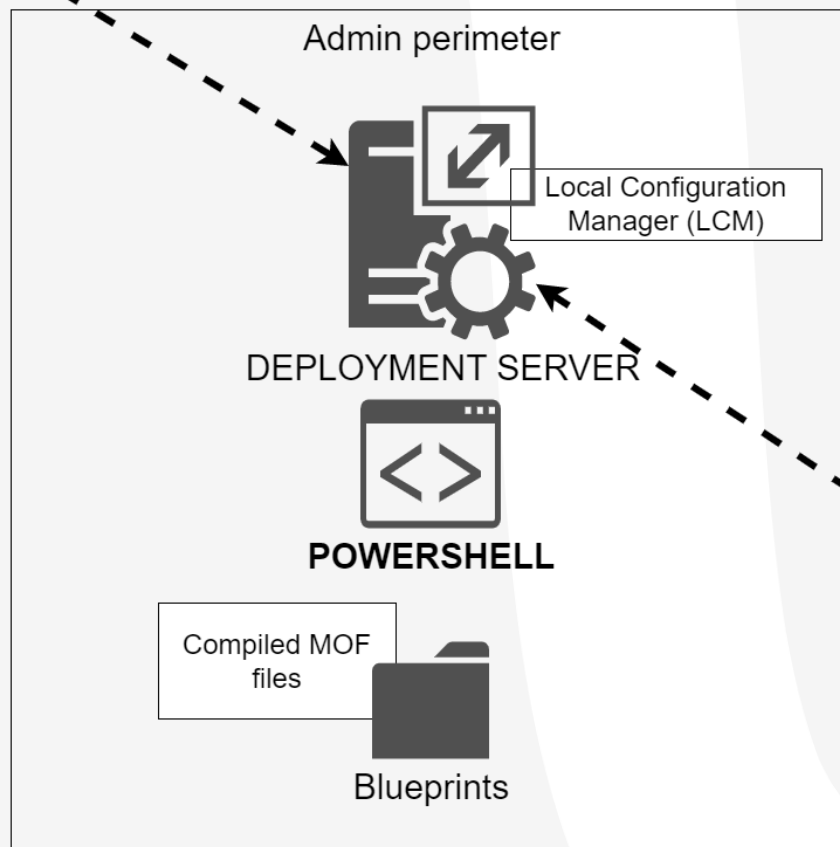
PowerShell

Assess

Export

Monitor

Synchronize

Report

MICROSOFT 365 DSC

Source Tenant

Admin perimeter

Local Configuration Manager (LCM)

DEPLOYMENT SERVER

POWERSHELL

Compiled MOF files

Blueprints

Target Tenant

Managed Object Format (MOF)

Managed Object Format (MOF) is the language used to describe *Common Information Model (CIM)* classes.

The recommended way for WMI providers to implement new WMI classes is in MOF files which are compiled using **Mofcomp.exe** into the *WMI repository*. It is also possible to create and manipulate CIM classes and instances using the COM API for WMI.

A WMI provider normally consists of a MOF file, which defines the data and event classes for which the provider returns data, and a DLL file which contains the code that supplies data. For more information, see Providing Data to WMI.

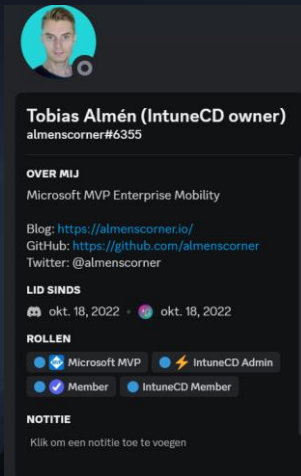# Characteristics of the M365 DSC **Intune workload**

- Intune features (new) need to be added as M365 DSC resource:

  - Applications

  - Proactive Remediations

  - Powershell scripts

  - Setting Catalog profile types

  - Filters
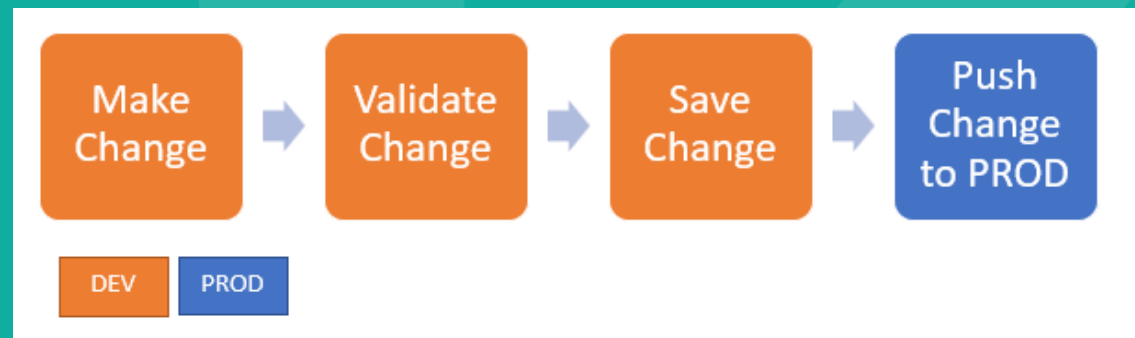
IntuneCD or, Intune Continuous Delivery is a **Python package** that is used to **back up and update configurations in Intune**.

It was created with running it from a pipeline in mind. Using this approach, we get complete history of which configurations have been changed and what setting has been changed.

The main function is to **back up configurations from Intune to a Git repository from a DEV environment and if any configurations has changed, push them to PROD Intune environment**.
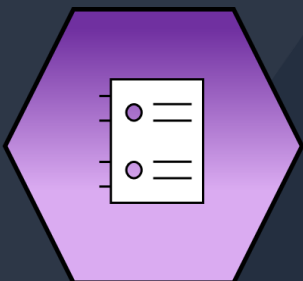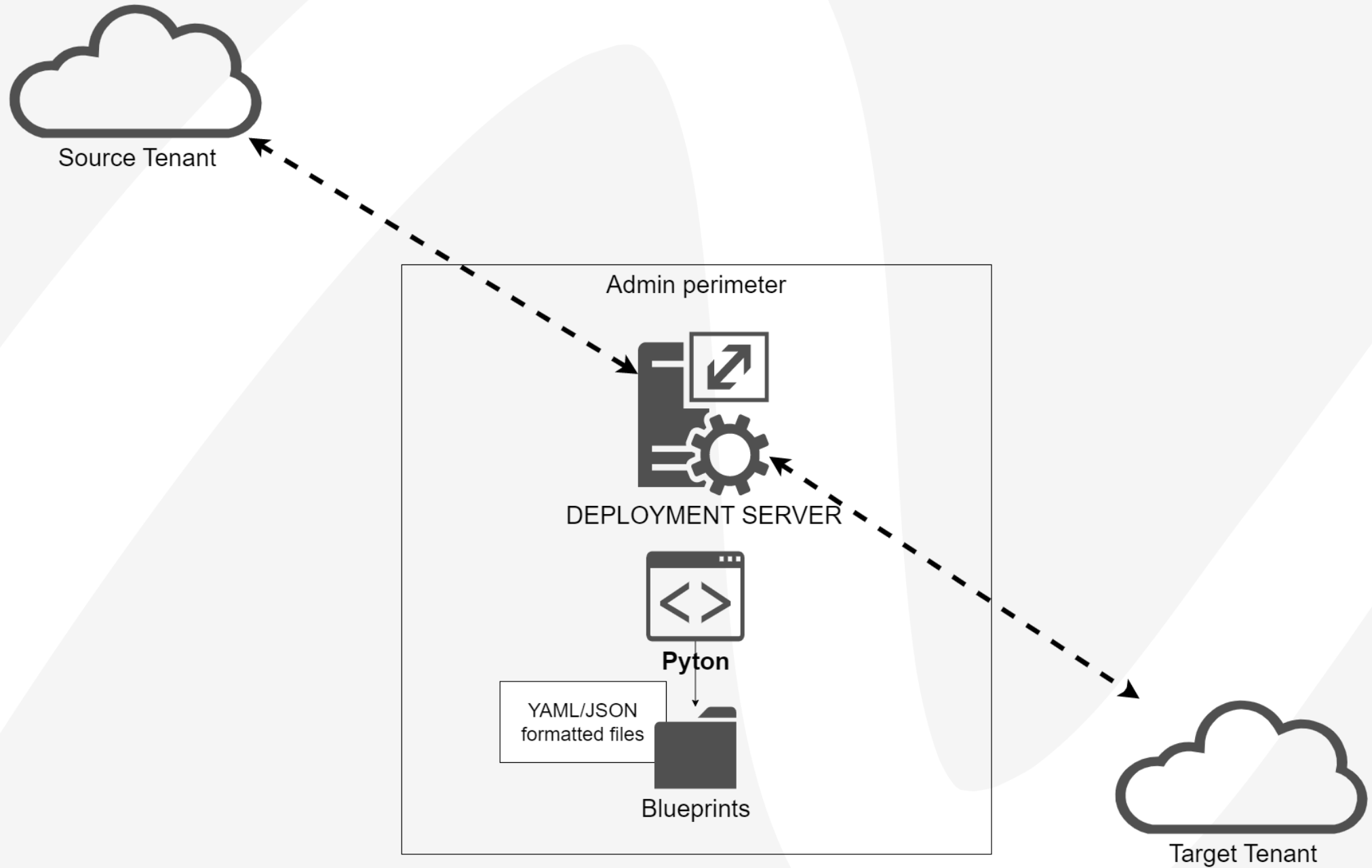
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ROLLEN
Microsoft MVP   IntuneCD Admin
Member   IntuneCD Member

NOTITIE
Klik om een notitie toe te voegen

IntuneCD
Intune as code

Jonas Bøgvad (MVP)
@JonasBogvad   ...

Why should you sign up for the Microsoft Enterprise Mobility + Security community on Discord?

#community #MEMPowered #MSIntune #Security

discord.gg/9eujqRT3AB

Make Change → Validate Change → Save Change → Push Change to PROD

DEV   PROD

Python

Backup & Update

Document

INTUNECD

Properties for IntuneCD

- **It's not DSC:**

    - monitoring of the configuration drift (in beta → kind of)

    - No assesment vs blueprint (tenant)

    - …

- Intune, conditional access & azure active directory

- Nimble developed automation for app registration, encryption of the app secret & client id and none assigned AAD groups

Thank you

You can find us at