# How can I use Microsoft Desired State Configuration to track configuration drift in Sharepoint Online?

Microsoft Desired State Configuration (DSC) is a powerful management tool that can help you maintain the desired state of your infrastructure, including SharePoint environments. While DSC is traditionally used for on-premises environments, you can leverage it for SharePoint Online to some extent by using it to snapshot and track the configuration of your Microsoft 365 tenant.

Here’s a high-level overview of how you might use DSC with SharePoint Online:

1. **Snapshot Your Configuration**: Use DSC to take a “snapshot” of your current Microsoft 365 tenant configuration. [This involves scripting the DSC configuration to capture the desired state of your tenant1](https://practical365.com/dsc-snapshot-microsoft365-tenant/).
2. **Track Configuration Drift**: Regularly compare the current state of your tenant against the snapshot to detect any drifts or changes. [This can be done manually or automated through scripts1](https://practical365.com/dsc-snapshot-microsoft365-tenant/).
3. [**Remediate Drift**: If drift is detected, use DSC to reapply the desired state or to alert administrators to the changes that need to be reviewed1](https://practical365.com/dsc-snapshot-microsoft365-tenant/).

For SharePoint Online, you would focus on configurations that are relevant to SharePoint but may impact other Microsoft 365 services, such as Teams. Since SharePoint Online is part of the broader Microsoft 365 ecosystem, you’ll need to consider the entire tenant’s configuration.

To get started, you may need to:

* **Register an Azure AD App**: Secure authentication to resources by registering a new Azure AD app. [This is necessary for the DSC module to interact with your tenant1](https://practical365.com/dsc-snapshot-microsoft365-tenant/).
* [**Set Permissions**: Grant the necessary permissions to the Azure AD app for the resources you want to include in your DSC configuration1](https://practical365.com/dsc-snapshot-microsoft365-tenant/).
* [**Create DSC Configuration Files**: Write the DSC configuration and data files to define the desired state of your tenant2](https://techcommunity.microsoft.com/t5/core-infrastructure-and-security/working-with-dsc-and-sharepoint/ba-p/571606).

It’s important to note that while DSC can help with configuration tracking, SharePoint Online does not support the traditional DSC model due to its nature as a managed service. Therefore, the approach would be more about using DSC principles and scripts to manage and monitor your tenant’s configuration rather than applying DSC directly as you would with an on-premises SharePoint farm.

[For detailed steps and scripts, you can refer to resources provided by the Microsoft Community Hub2](https://techcommunity.microsoft.com/t5/core-infrastructure-and-security/working-with-dsc-and-sharepoint/ba-p/571606)[and other educational content3](https://learn.microsoft.com/en-us/shows/sharepoint-automation-with-dsc/video-introduction-to-powershell-dsc)[4](https://www.quest.com/video/microsoft-365-dsc-how-to-set-up-an-office-365-tenant-from-scratch-and-stop-configuration-drift/). These resources will guide you through setting up your DSC server, configuring DSC for SharePoint, and deploying the configuration files.

# Can Microsoft DSC be used to compare 2 snapshots and report on the differences?

Yes, Microsoft Desired State Configuration (DSC) can be used to compare two configuration snapshots and report on the differences. This process is known as **configuration drift detection**. Here’s how you can approach it:

1. **Take Initial Snapshot**: Use DSC to capture the initial desired state configuration of your SharePoint Online environment or any other configuration you wish to track.
2. **Take Secondary Snapshot**: At a later date, take another snapshot of the current state.
3. **Compare Snapshots**: Use DSC’s built-in functionality to compare the two snapshots. The Test-DscConfiguration cmdlet can be particularly useful here, as it will test whether the current environment matches the desired state defined in your DSC configuration.
4. **Report Differences**: If there are discrepancies between the initial and secondary snapshots, DSC will report them. You can then review these differences to determine if they are authorized changes or if they need to be remediated.

The comparison and reporting can be automated through PowerShell scripts, which can be scheduled to run at regular intervals to ensure continuous monitoring. This way, you can maintain oversight of your SharePoint Online configuration and ensure it remains consistent with your organization’s compliance standards and operational requirements.

Remember, while DSC is a powerful tool, its direct application is more suited to on-premises environments. For SharePoint Online, you’ll be using the principles and scripting capabilities of DSC rather than the full feature set that would be used in an on-premises scenario.

# Is there any cost associated with using Microsoft Desired State configuration to monitor and track Sharepoint Online?

Using Microsoft Desired State Configuration (DSC) itself does not typically incur direct costs, as it is a management tool built into Windows PowerShell. However, there may be indirect costs associated with the infrastructure and resources needed to support DSC operations, especially if you’re using it in a complex environment like SharePoint Online within Microsoft 365.

For SharePoint Online, the costs would be more related to the overall Microsoft 365 subscription rather than DSC specifically. [SharePoint Online pricing has different tiers with varying features and price points1](https://www.centricminds.com/articles/sharepoint-costs). The costs would depend on the plan you choose for your organization.

If you’re using Azure services or additional tools in conjunction with DSC for monitoring and tracking, you might incur costs related to those services. For example, if you set up an Azure Automation Account to hold your DSC configurations and to automate the application of those configurations, you would be billed for the Azure resources consumed.

It’s also worth considering the development and maintenance time required to create and manage DSC scripts and configurations, which can translate to labor costs.

For a detailed understanding of any potential costs, you should review the specific services and resources you plan to use alongside DSC and consult the pricing information provided by Microsoft for those services. [Remember to also consider any costs associated with Azure AD app registrations and permissions if they are part of your DSC strategy for SharePoint Online2](https://practical365.com/dsc-snapshot-microsoft365-tenant/).