Registering JEA Configurations

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In this article

Once you have your role capabilities and session configuration file created, the last step is to register the JEA endpoint. Registering the JEA endpoint with the system makes the endpoint available for use by users and automation engines.

Single machine configuration

For small environments, you can deploy JEA by registering the session configuration file using theRegister-PSSessionConfiguration cmdlet.

Before you begin, ensure that the following prerequisites have been met:

- One or more roles has been created and placed in the **RoleCapabilities** folder of a PowerShell module.
- A session configuration file has been created and tested.
- The user registering the JEA configuration has administrator rights on the system.
- You've selected a name for your JEA endpoint.

The name of the JEA endpoint is required when users connect to the system using JEA. The Get-PSSessionConfiguration cmdlet

lists the names of the endpoints on a system. Endpoints that start with `microsoft` are typically shipped with Windows. The `microsoft.powershell` endpoint is the default endpoint used when connecting to a remote PowerShell endpoint.

PowerShell Copy

```
Get-PSSessionConfiguration | Select-Object
Name
```

Output Copy

```
Name
----
microsoft.powershell
microsoft.powershell.workflow
microsoft.powershell32
```

Run the following command to register the endpoint.

PowerShell Copy

```
Register-PSSessionConfiguration -Path .\My-
JEAConfig.pssc -Name 'JEAMaintenance' -Force
```

Warning

The previous command restarts the WinRM service on the system. This terminates all PowerShell remoting sessions and any ongoing DSC configurations. We recommended you take production machines offline before running the command to avoid disrupting business operations.

After registration, you're ready to use JEA. You may delete the session configuration file at any time. The configuration file isn't used after registration of the endpoint.

Multi-machine configuration with DSC

When deploying JEA on multiple machines, the simplest deployment model uses the JEA Desired State Configuration (DSC) resource to quickly and consistently deploy JEA on each machine.

To deploy JEA with DSC, ensure the following prerequisites are met:

- One or more role capabilities have been authored and added to a PowerShell module.
- The PowerShell module containing the roles is stored on a (read-only) file share accessible by each machine.
- Settings for the session configuration have been determined. You don't need to create a session configuration file when using the JEA DSC resource.
- You have credentials that allow administrative actions on each machine or access to the DSC pull server used to manage the machines.
- You've downloaded the JEA DSC resource.

Create a DSC configuration for your JEA endpoint on a target machine or pull server. In this configuration, the **JustEnoughAdministration** DSC resource defines the session configuration file and the **File** resource copies the role capabilities from the file share.

The following properties are configurable using the DSC resource:

- Role Definitions

- Virtual account groups
- Group-managed service account name
- Transcript directory
- User drive
- Conditional access rules
- Startup scripts for the JEA session

The syntax for each of these properties in a DSC configuration is consistent with the PowerShell session configuration file.

Below is a sample DSC configuration for a general server maintenance module. It assumes that a valid PowerShell module containing role capabilities is located on the `\\myfileshare\JEA` file share.

PowerShell

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```
Configuration JEAMaintenance
{
    Import-DscResource -Module JustEnoughAd-
ministration, PSDesiredStateConfiguration

    File MaintenanceModule
    {
        SourcePath = "\\myfileshare\JEA\Con-
tosoMaintenance"
        DestinationPath = "C:\Program
Files\WindowsPowerShell\Modules\ContosoMain-
tenance"
        Checksum = "SHA-256"
        Ensure = "Present"
        Type = "Directory"
        Recurse = $true
    }

    JeaEndpoint JEAMaintenanceEndpoint
    {
        EndpointName = "JEAMaintenance"
```

```
        RoleDefinitions = "@{ 'CONTOSO\JEA-
MaintenanceAuditors' = @{ RoleCapabilities =
'GeneralServerMaintenance-Audit' };
'CONTOSO\JEAMaintenanceAdmins' = @{ RoleCapa-
bilities = 'GeneralServerMaintenance-Audit',
'GeneralServerMaintenance-Admin' } }"
        TranscriptDirectory = 'C:\ProgramDa-
ta\JEAConfiguration\Transcripts'
        DependsOn = '[File]MaintenanceModule'
    }
}
```

Next, the configuration is applied on a system by directly invoking the Local Configuration Manager or updating the pull server configuration.

The DSC resource also allows you to replace the default **Microsoft.PowerShell** endpoint. When replaced, the resource automatically registers a backup endpoint named **Microsoft.PowerShell.Restricted**. The backup endpoint has the default WinRM ACL that allows Remote Management Users and local Administrators group members to access it.

Unregistering JEA configurations

The Unregister-PSSessionConfiguration cmdlet removes a JEA endpoint. Unregistering a JEA endpoint prevents new users from creating new JEA sessions on the system. It also allows you to update a JEA configuration by re-registering an updated session configuration file using the same endpoint name.

PowerShell

Copy

```
# Unregister the JEA endpoint called "Conto-
soMaintenance"
```

```
Unregister-PSSessionConfiguration -Name 'Con-
tosoMaintenance' -Force
```

Warning

Unregistering a JEA endpoint causes the WinRM service to restart. This interrupts most remote management operations in progress, including other PowerShell sessions, WMI invocations, and some management tools. Only unregister PowerShell endpoints during planned maintenance windows.