|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Method** | **Scopes** | **Client ID** | **Unattended** | **AAD App configuration** | **Token refresh** |
| Device-code logon (default) | Selected via -Scopes parameter,  or via Set-GraphConnectionOptions  (in AuthSettings.PS1). Consent dialog. | Always Microsoft Graph PowerShell | No | Always uses Microsoft Graph PowerShell. (Consent may be pre-approved) | Inside. Authentication module  (refresh token saved) |
| Username/Password  (-Credential) | Must be assigned to app  (scopes option ignored) | From App | Yes (if credentials & app secret available) | Required including secret (consent must be granted) | Inside PlusPlus module  (refresh token not saved) |
| As App (-AsApp)  (using app secret) | Must be assigned to app (scopes option ignored) | From App | Yes | Required, including secret (consent must be granted) | Inside PlusPlus module  (refresh token not saved) |
| As App (-Certxxx) (using app certificate) | Must be assigned to app (scopes option ignored) | From App | Yes (if certificate & private key available) | Required, including certificate (consent must be granted) | Inside. Authentication module (no refresh token) |
| Existing Azure Session (-FromAzureSesion) | Fixed | Always Microsoft Azure PowerShell | Yes (if Azure logon is unattended) | None | Inside PlusPlus module.  (no refresh token) |
| Custom Token (-Token) | Grant method dependent | Grant method dependent | Grant method dependent | Grant method dependent | Manual |

For details of certificate configuration see <https://docs.microsoft.com/en-us/graph/powershell/agpp-only>.   
This page also gives a useful guide to creating the app for use with secrets, simply skip the creation of the certificate and at the step “Select Certificates & secrets under Manage, select ….“ select the add secret button instead of the Upload certificate button”.

Using the Connect-Graph from the Microsoft.Graph.PlusPlus module adds the following over using Connect-MgGraph in the Microsoft.Graph.Authentication module.

* Automatic requesting of the same set of scopes for each session
* Logging on with user credentials
* Logging on as the app using a secret
* Using an existing Azure PowerShell session (with the Az.Accounts module)
* Caching of extra account information for performance
* Confirmation of the account used to logon.

Connect-Graph calls using the Connect-MgGraph and therefore if only interactive device-code logon or app logon using certificates are required or you create a token in your own code , you are free to bypass it and go directly to Connect-MgGraph.