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May 31 – June 2, Oslo Spektrum

10th anniversary

Getting started with Microsoft Graph and PowerShell

Aleksandar Nikolić | Microsoft MVP

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PS> whoami

Aleksandar Nikolić

PowerShell and Azure trainer

Microsoft Azure MVP

Cloud and Datacenter Management MVP

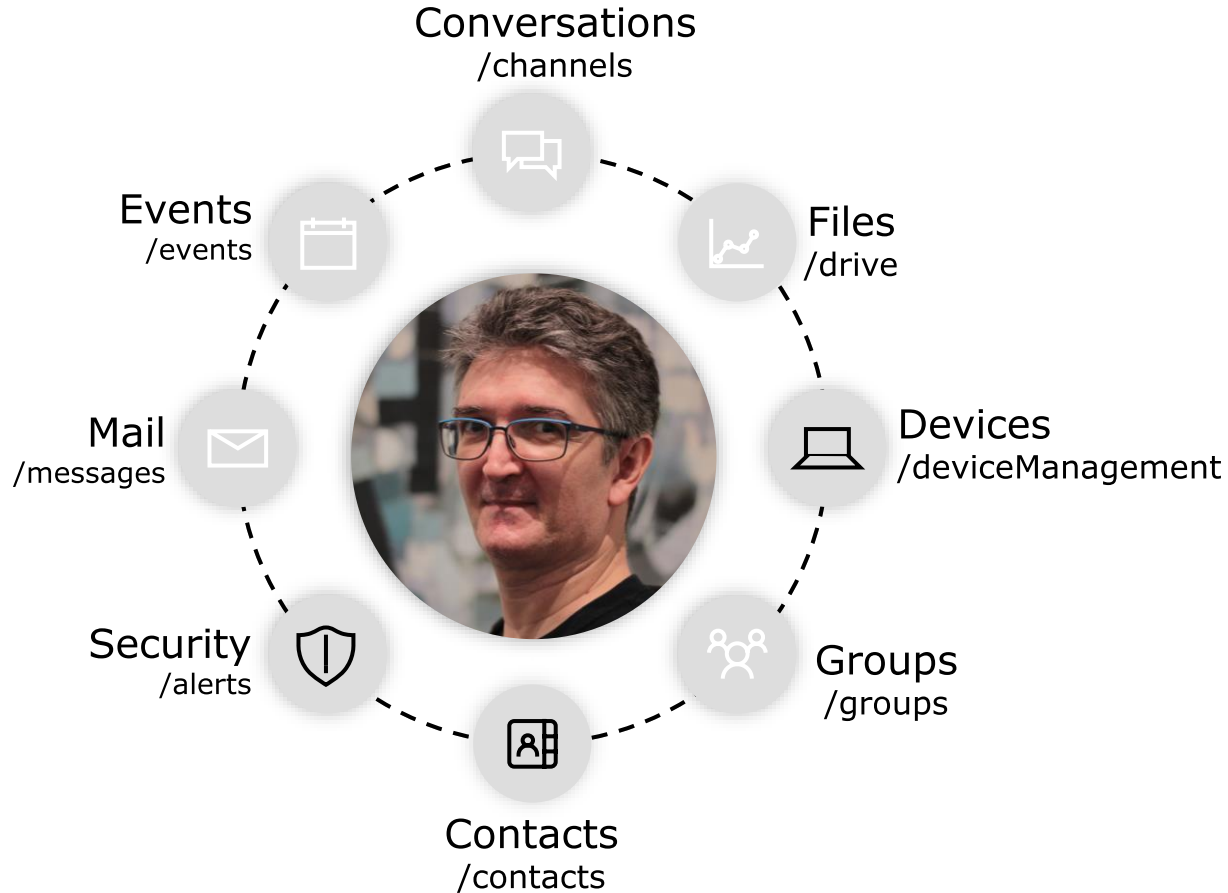Co-founder of PowerShellMagazine.com
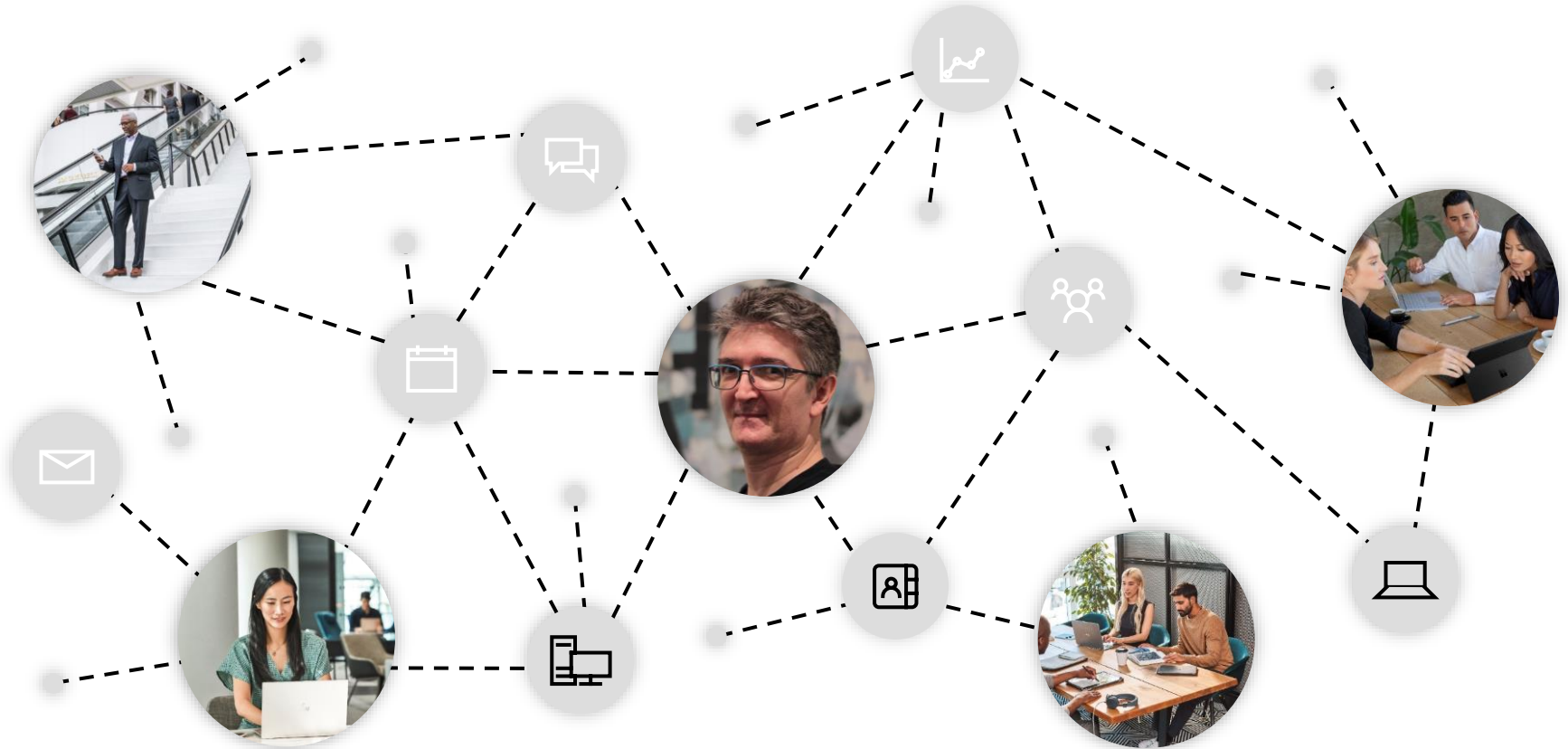
@alexandair

Microsoft Graph

Microsoft 365 data that describes the patterns of productivity in an organization, accessed through a unified API endpoint.

For individual users

Conversations
/channels

Files
/drive

Devices
/deviceManagement

Groups
/groups

Contacts
/contacts

Security
/alerts

Mail
/messages

Events
/events

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...and all the organization

2000 APIs in Microsoft Graph, 50 service teams

Activities
Attachments
Audits
Calendar
Categories
Charts
Classes
Contacts
Conversations
Cross-device experiences
Customer booking
Device configuration
Device management
Domains

Education
Events
Files
Financials
Groups
Identity
Lists
Mail
Messages
Notes
Notifications
Pages
Places
Plans

Reports
Schools
Search
Secure score
Security alerts
Sites
Social
Subscriptions
Tasks
Teams
Threat intelligence
Users
Workbooks

▪ ▪ ▪ and many, many more

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Another one, but why?

Displaying results 1 - 20 of 74 (Page 1 of 4)

Sort By Popularity ▾

Microsoft.Graph.Intune
By: intunepsadm | 26,038 downloads | Last Updated: 7/11/2019 | Latest Version: 6.1907.1.0
PowerShell SDK for Microsoft Intune Graph API
Tags: Microsoft Graph Intune PowerShell SDK

Az.ResourceGraph
By: azure-sdk | 7,110 downloads | Last Updated: 9/11/2019 | Latest Version: 0.7.6
Microsoft Azure PowerShell - Azure Resource Graph cmdlets in Windows PowerShell and PowerShell Core.
Allows querying resources with a powerful query language. For more information on Resource Graph, please
visit the following: https://docs.microsoft.com/azure/governance/resource-graph/
Tags: Azure ResourceManager ARM Provider Resource Graph

PSGraph
By: KevinMarquette | 6,532 downloads | Last Updated: 3/16/2019 | Latest Version: 2.1.38.27
Builds graphs using GraphViz
Tags:

Avanade Azure AD Graph REST Helper
By: cspeers | 2,052 downloads | Last Updated: 8/4/2017 | Latest Version: 1.2.2
Helper functions for working with the Azure Active Directory Graph API
Tags: AAD GraphAPI OAuth2

AzureRM.ResourceGraph
By: azure-sdk | 1,209 downloads | Last Updated: 10/1/2018 | Latest Version: 0.1.1-preview
Microsoft Azure PowerShell - Azure Resource Graph cmdlets. Allows querying resources with a powerful
query language.
Tags: ResourceManager ARM Provider Resource Graph

psmsgraph
By: MarkEKraus | 5,184 downloads | Last Updated: 5/4/2019 | Latest Version: 1.0.27.60
Provides Connectivity and access to Microsoft Graph API
Tags: Graph GraphAPI MSGraph MSGraphAPI PSMSGraph PSMSGraphAPI +6 More

AzureGraphCmdlets
By: alexmarshall | 1,392 downloads | Last Updated: 7/27/2016 | Latest Version: 1.0.727.1
Cmdlets for performing operations against Azure Graph that are not otherwise provided by Microsoft

MicrosoftGraphAPI
By: JakobGSvendsen | 1,149 downloads | Last Updated: 2/28/2018 | Latest Version: 0.2.0
Module for accessing Microsoft Graph API

Cayosoft.Graph
By: Andy-Cayosoft GeorgeS-Cayosoft | 295 downloads | Last Updated: 7/18/2019 | Latest Version: 6.2.0.84
The Cayosoft Graph (cGraph) Module for Microsoft PowerShell is a FREE SOLUTION that allows
administrators to use PowerShell to call the Microsoft Graph API to manage any Graph accessible resource
such as, Azure AD, Office 365, Outlook, OneDrive, Intune and more...
Tags: Azure AzureAD AAD ActiveDirectory AD AzureGraph Graph O365 +9
More

Office365GraphAPI
By: chenxizhang | 518 downloads | Last Updated: 6/12/2017 | Latest Version: 1.0.5
Office 365 Graph API Module (Both support WW AND Gallatin)

PSQuickGraph
By: Andrey.Vernigora | 453 downloads | Last Updated: 8/7/2017 | Latest Version: 1.1
This module is a wrapper for QuickGraph library.

MsftGraph
By: jamesone | 388 downloads | Last Updated: 7/30/2019 | Latest Version: 1.0.1
Module to work the Microsoft Graph API with both Office 365 and Microsoft accounts it contains over 80
functions to * Navigate, upload to and download from OneDrive * Navigate, manipulate pages and sections
in OneNote Notebooks * Create and manage groups and teams, and Post to Teams and their channels *
Create, read and write plans... More info
Tags: MicrosoftGraph MSGraph Office365 AzureAD OneNote OneDrive +3 More

MicrosoftGraph
By: remcovn | 213 downloads | Last Updated: 7/5/2019 | Latest Version: 1.1.3
A PowerShell wrapper around commonly used Microsoft Graph API calls.
Tags: Office365 MSGraph Graph

MSGraphFunctions
By: jseerden | 842 downloads | Last Updated: 6/29/2019 | Latest Version: 2.4.1
PowerShell Functions to query the Microsoft Graph API
Tags: Graph Intune PowerShell

MicrosoftGraphSecurity
By: ani6gup | 356 downloads | Last Updated: 4/3/2019 | Latest Version: 1.0.0
Powershell interface for Microsoft Graph Security API

Microsoft Graph PowerShell

Graph metadata

OpenAPI / AutoREST

Scenario Cmdlets

Graph PowerShell Modules

Microsoft Graph Core .NET SDK

MSAL.NET

Microsoft.Graph

Microsoft.Graph.Beta

PowerShell Gallery

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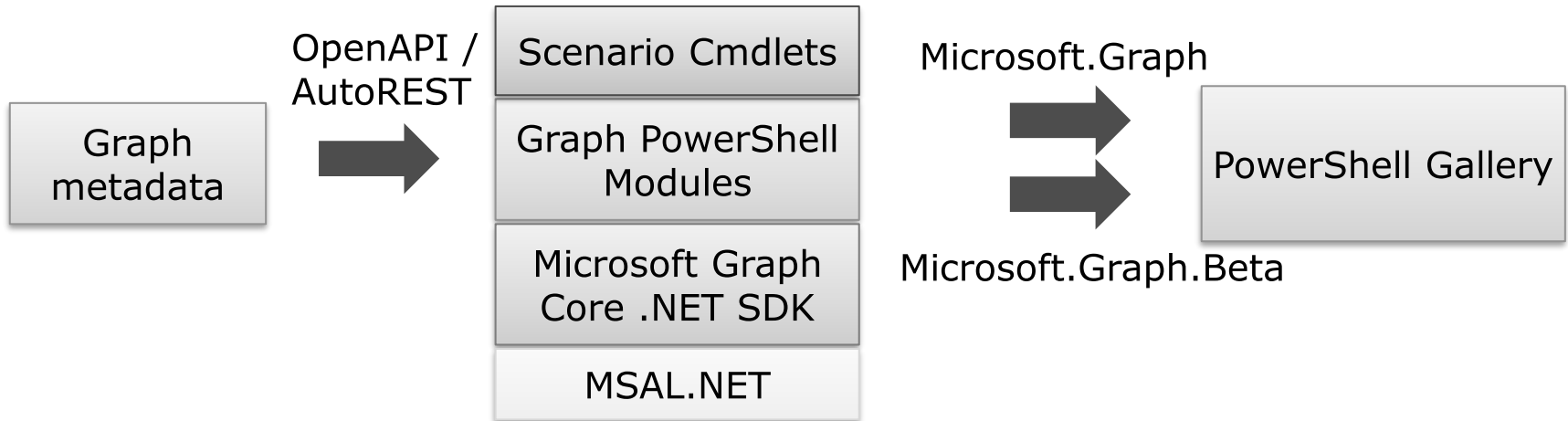
Supported PowerShell versions

- PowerShell 7 and later is the recommended PowerShell version for use with the Microsoft Graph PowerShell SDK on all platforms.
- There are no additional prerequisites to use the SDK with PowerShell 7 or later.

- The following prerequisites must be met to use the Microsoft Graph PowerShell SDK with Windows PowerShell.
    - Upgrade to PowerShell 5.1 or later
    - Install .NET Framework 4.7.2 or later
    - Update PowerShellGet to the latest version using Install-Module PowerShellGet -Force

Authentication

- The PowerShell SDK supports two types of authentication: delegated access and app-only access.

- Delegated access: Log in as a user, grant consent to the SDK to act on our behalf, and call the Microsoft Graph.

- App-only access: Grants permissions directly to an application, and requires an administrator to consent to the required permission scopes.

Configuration of app-only access

- Before you can use app-only access with the SDK, you need the following:

- A certificate to use as a credential for the application.
- This can be a self-signed certificate or a certificate from an authority.

- Register an application in Azure AD, configure it with the permission scopes your scenario requires, and share the public key for your certificate.

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Thank you.

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Slides and demos from the conference will be available at

https://github.com/nordicinfrastructureconference/2022