

# WORKSHOP PowerShell and MS Graph API Advanced, from Zero to Hero

























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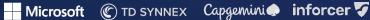
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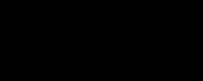






### WORKSHOP BASICS







- 6 points
- 1. DEMO TENANT 4. LENGTH
- 2. BREAKS 5. HANDS ON
- 3. CONTENT NOT TYPING

























### WORKSHOP DETAILS





- Graph Basics
  Filter/Search
- 2. Authentication 5. Select
- 3. Paging

6. Batch

















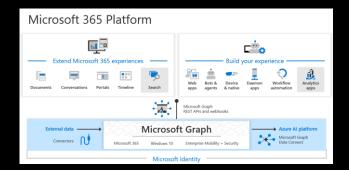


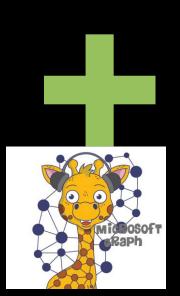






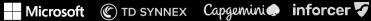
### ONE API to the CLOUD



























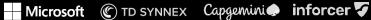




### WHY use MS GRAPH API

- No PowerShell Module
- OnPrem/Cloud
- More Functionality over PS-Module (delay)
- Easy language
- **Unlimited Platforms**
- One API to all Cloud Services (Future)

























### HOW to use MS GRAPH API

- REST Call, HTTPS, WEB URL
- https://graph.microsoft.com/v1.0/
  - Users | Groups | Teams | ToDo | Azure App ...
  - GET, POST, PUT, PATCH, DELETE
- **Graph Explorer**
- **JSON**







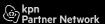
















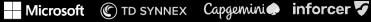


### + HOW to AUTHENTICATE

- **Azure APP Registration** 
  - **Client Secret or Certificate**
  - **Delegate or Application Permission**
- System / User Assigned Identity























### **HOW to AUTHENTICATE**





- Signed In User
- Effective permission
- **User/Admin Consent**

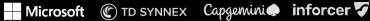


#### **APPLICATIOM**

- No User
- App Permissions only
- Admin Consent only













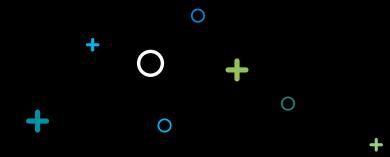












# DOWNLOAD SCRIPT

https://click.au2mator.com/ELNL25







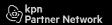






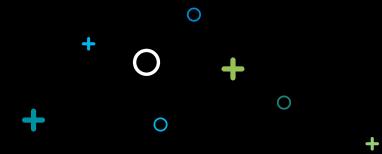












### AUTHENTICATION





















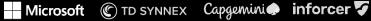




### **PAGING**

- Subset of Result
- **Performance and Load**
- Implement Paging from the Beginning











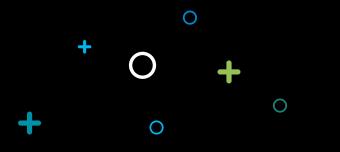












## PAGING























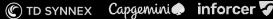


### + FILTER & SEARCH

- **SEARCH**
- **ENDPOINTS**
- Outlook: Mail or Event
- SharePoint: OneDrive, driveItem, list, site, drive...
- Person: mainly User Object
- **Graph Connector Content**
- Admin Search
- More Properties at once

- **FILTER** •
- Know the property  $\circ$
- All Endpoints ullet





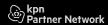






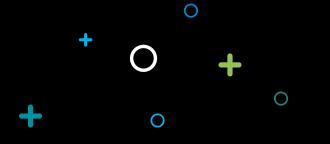












### FILTER & SEARCH





















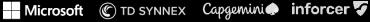




## + SELECT

- Get what you want and need
- Performance and Load
- Additional Properties











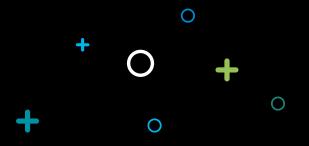












# **SELECT**

























### **BATCH**

- Superpower of Performance, Read and Write
- Buy 1, get 20
  - Combine 20 Requests in a single Call
- Sequence
- Throttling and Limits











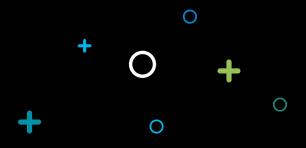












### **BATCH**

























