

# Provisioning Microsoft Teams Beyond the next-next-finish

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# About me



## Thomas Vochten

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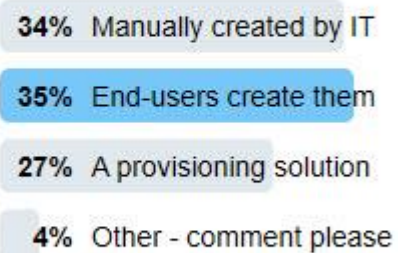
**BIWUG**





**Joanne Klein** @JoanneCKlein · Jul 9

SharePoint Team site/Microsoft Teams provisioning... What is your org \*currently\* doing in Office365?



155 votes • Final results

# What are we trying to solve here?

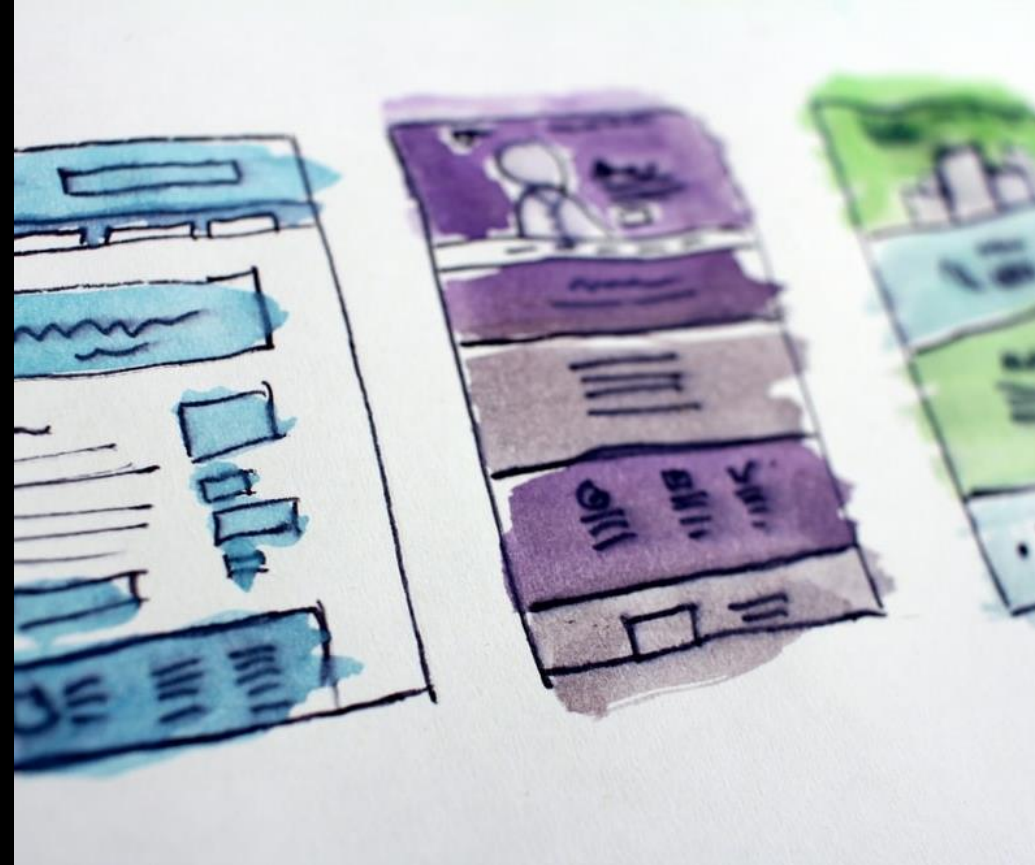
- Avoid Teams/Groups creation sprawl
- Reduce manual intervention
- Less mistakes and errors
- Enforce governance policies
- Consistency supports user adoption





# Built-in templates

- Adopt Office 365
- Manage a project
- Manage an event
- Onboard employees
- Organize help desk
- Collaborate on patient care
- Collaborate on global crisis or event
- Collaborate within a bank branch
- Coordinate incident response
- Hospital
- Organize a store
- Quality and safety
- Retail – manager collaboration



# Example: “Manage an event”

## Channels

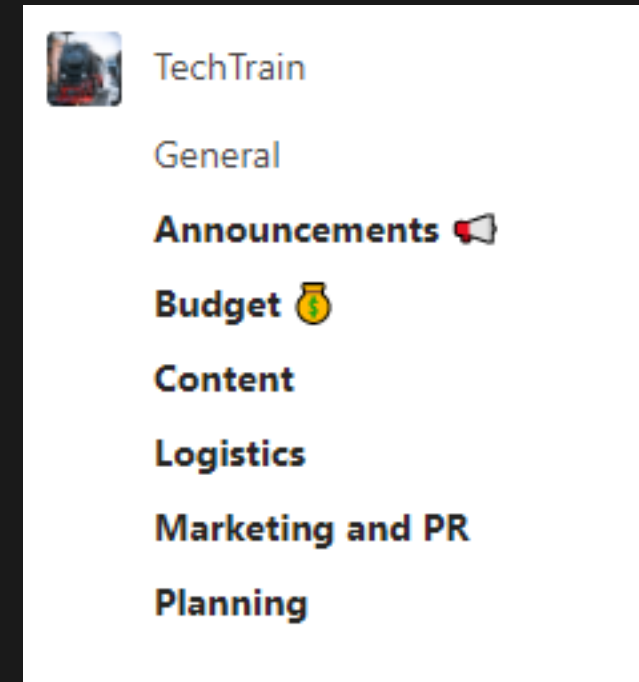
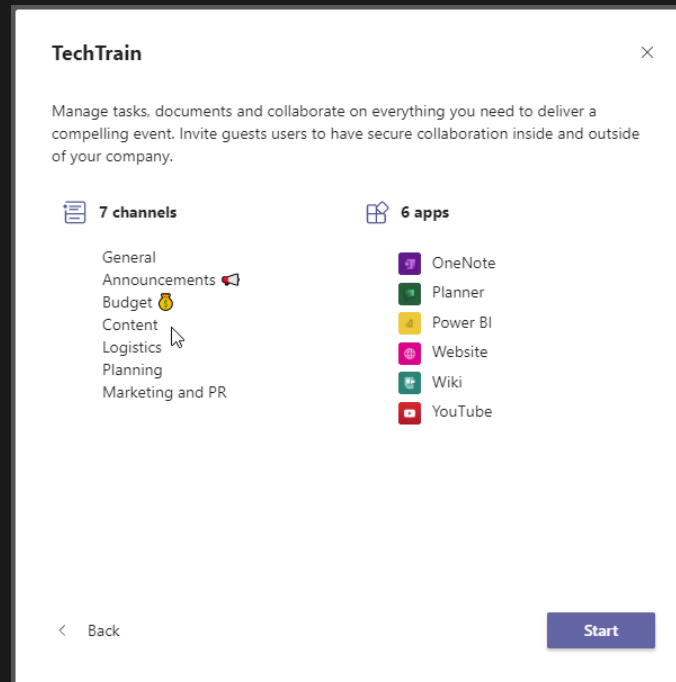
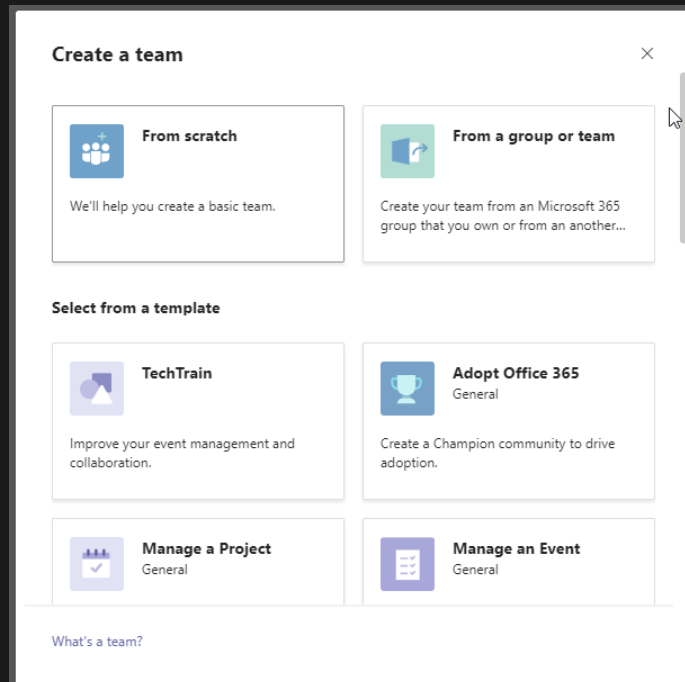
- General
- Announcements
- Budget
- Content
- Logistics
- Planning
- Marketing & PR

## Apps

- Wiki
- Website
- YouTube
- Planner
- OneNote
- Employee Ideas
- Issue Reporter

# If all you need is a template...

## Congratulations, you're done!



# Creating templates

## Easy: Teams Admin Center

- From scratch
- From an existing Team
- Clone an existing template

## Manually: Graph

template definition (json)

```
{
  "template@odata.bind": "https://graph.microsoft.com/beta/teamsTemplates('standard')",
  "displayName": "Finance",
  "description": "Finance Team",
  "channels": [
    {
      "displayName": "Private",
      "isFavoriteByDefault": true,
      "description": "Invite a more select audience for specific topics.",
      "tabs": [
        {
          "teamsApp@odata.bind": "https://graph.microsoft.com/v1.0/appCatalogs/teamsApps('0d820ecd-def2-4297-a",
          "name": "OneNote"
        },
        {
          "teamsApp@odata.bind": "https://graph.microsoft.com/v1.0/appCatalogs/teamsApps('com.microsoft.teamspace.tab",
          "name": "Planner"
        }
      ]
    }
  ],
  "memberSettings": {
    "allowCreateUpdateChannels": true,
    "allowDeleteChannels": true,
    "allowAddRemoveApps": true,
    "allowCreateUpdateRemoveTabs": true,
    "allowCreateUpdateRemoveConnectors": true
  },
  "guestSettings": {
    "allowCreateUpdateChannels": false,
    "allowDeleteChannels": false
  },
  "funSettings": {
    "allowGiphy": true,
    "giphyContentRating": "Moderate",
    "allowStickersAndMemes": true,
    "allowCustomMemes": true
  },
  "messagingSettings": {
    "allowUserEditMessages": true,
    "allowUserDeleteMessages": true,
    "allowOwnerDeleteMessages": true,
    "allowTeamMentions": true,
    "allowChannelMentions": true
  },
  "discoverySettings": {
    "showInTeamsSearchAndSuggestions": true
  },
  "installedApps": [
    {
      "teamsApp@odata.bind": "https://graph.microsoft.com/v1.0/appCatalogs/teamsApps('0d820ecd-def2-4297-adad-7805",
    },
    {
      "teamsApp@odata.bind": "https://graph.microsoft.com/v1.0/appCatalogs/teamsApps('com.microsoft.teamspace.tab",
    }
  ]
}
```



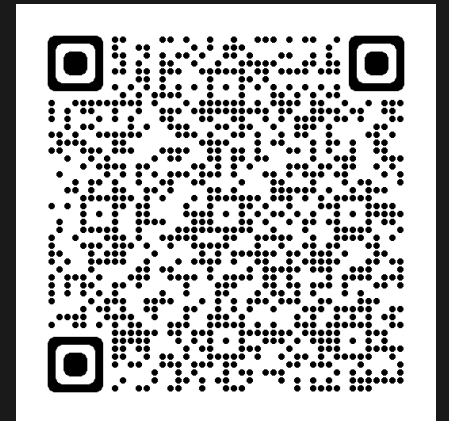
# Disable group / team creation



- Create a group for users that should still be able to create groups
- Run some PowerShell to set the following property:

GroupCreationAllowedGroupId

<https://docs.microsoft.com/en-us/microsoft-365/solutions/manage-creation-of-groups>





## Choices...

- Custom web app
- Power Automate
- Power Apps
- Azure Automation
- Azure Functions
- Teams apps, tabs, bots,...
- Azure Logic Apps
- PowerShell
- SharePoint
- PnP Provisioning Engine

# When to use what?

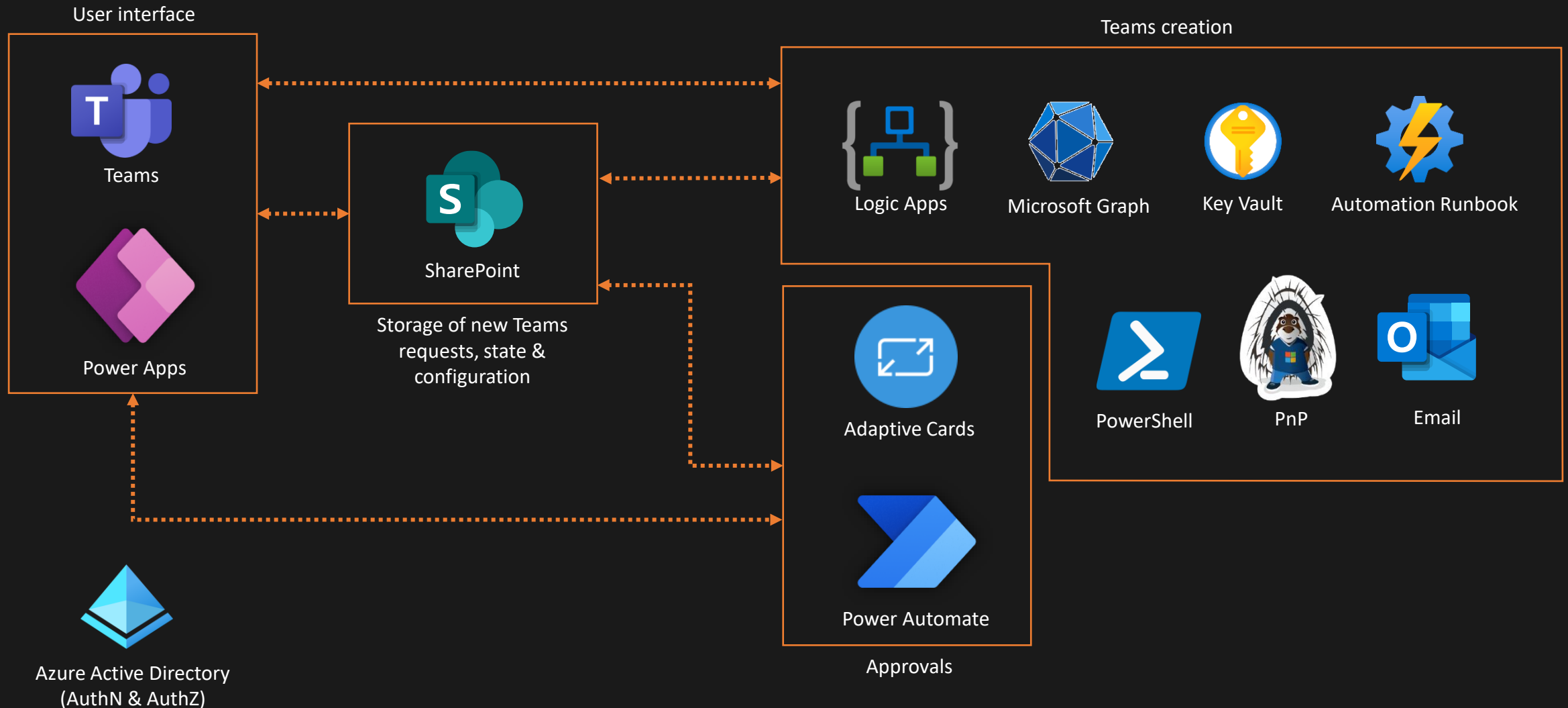
flexibility • cost • complexity •  
resilience • orchestration •  
security • triggers • scaling •  
maturity level • ...



# Solution requirements

- Request a new Team from within Teams
- New teams have to be approved from within Teams
- We want to see which teams have been requested by whom
- Created teams should adhere to our governance plan
- We want a fully configurable solution, no black boxes

# “Request a Team” design elements



# “Request a Team” flow



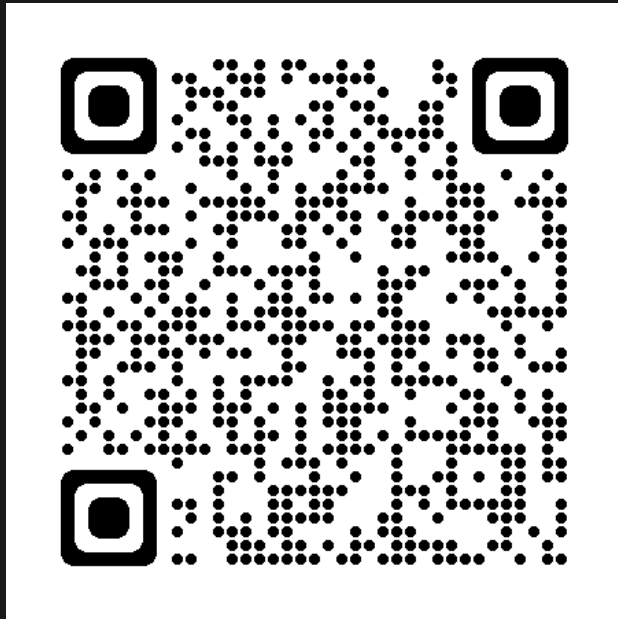




# Demo

Teams provisioning engine

# It's free!



## Request-a-team App Template

<https://github.com/OfficeDev/microsoft-teams-apps-requestateam>

- Scripts & assets
- Documentation
- Troubleshooting

# One API to rule them all



<https://docs.microsoft.com/en-us/graph>

# Teams and the Microsoft Graph

A typical workflow



# Register your app in Azure AD



Authentication



Authorization

API / Permissions name	Type	Description	Admin consent req...	Status	
▼ Microsoft Graph (8)					
<a href="#">Directory.ReadWrite.All</a>	Application	Read and write directory data	Yes	✔ Granted for thvo.net	...
<a href="#">Group.ReadWrite.All</a>	Application	Read and write all groups	Yes	✔ Granted for thvo.net	...
<a href="#">Team.Create</a>	Application	Create teams	Yes	✔ Granted for thvo.net	...
<a href="#">Team.ReadBasic.All</a>	Application	Get a list of all teams	Yes	✔ Granted for thvo.net	...
<a href="#">TeamMember.ReadWrite.All</a>	Application	Add and remove members from all teams	Yes	✔ Granted for thvo.net	...
<a href="#">TeamSettings.ReadWrite.All</a>	Application	Read and change all teams' settings	Yes	✔ Granted for thvo.net	...
<a href="#">User.Read</a>	Delegated	Sign in and read user profile	-	✔ Granted for thvo.net	...
<a href="#">User.ReadWrite.All</a>	Application	Read and write all users' full profiles	Yes	✔ Granted for thvo.net	...

# Teams creation through the Microsoft Graph

```
POST https://graph.microsoft.com/v1.0/teams
Content-Type: application/json

{
  "template@odata.bind": "https://graph.microsoft.com/v1.0/teamsTemplates('standard')",
  "displayName": "My Sample Team",
  "description": "My Sample Team's Description",
  "members@odata.bind": [
    {
      "@odata.type": "#microsoft.graph.aadUserConversationMember",
      "roles": [
        "owner"
      ],
      "userId": "0040b377-61d8-43db-94f5-81374122dc7e"
    }
  ]
}
```

Minimal request to create a team based on a template,  
with application permissions.



# Teams creation through the Microsoft Graph

- Programmatically
- PowerShell

or leverage Graph support in:

- Power Automate
- Power Virtual Agents
- Power Apps
- Logic Apps

# PowerShell to the rescue!

A good alternative to “real” development  
Can be leveraged with:

- Azure Automation
- Azure Functions

Microsoft Graph PowerShell SDK

```
Install-Module Microsoft.Graph
```



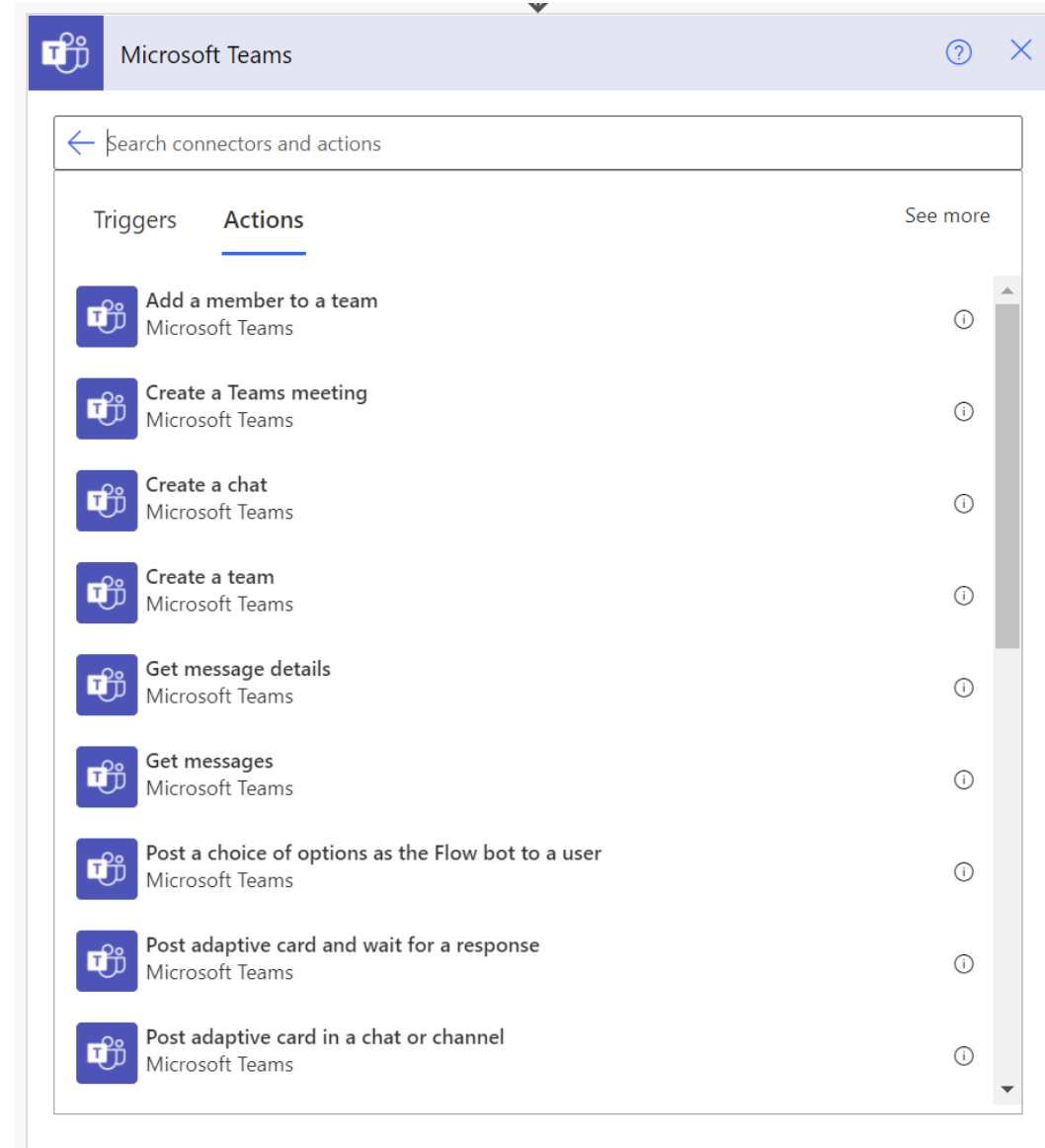
# All PowerShell options

- MicrosoftTeams
  - `New-Team`
- PnP.PowerShell
  - `New-PnPTeamsTeam`
- Microsoft.Graph
  - `New-MgTeam`





# Power Platform


You can use the Teams connector





# More community goodness!


 ProvisionGenie





 Welcome

 Teams

 Channels


 Libraries

 Lists


 Checkout

Welcome


New to Teams? Learn how to master four challenges of modern collaboration




**Stay on track**  
Learn how to focus on what matters most to you



**Conversations**  
We gotta talk



**Better meetings**  
Make the most out of the precious time together



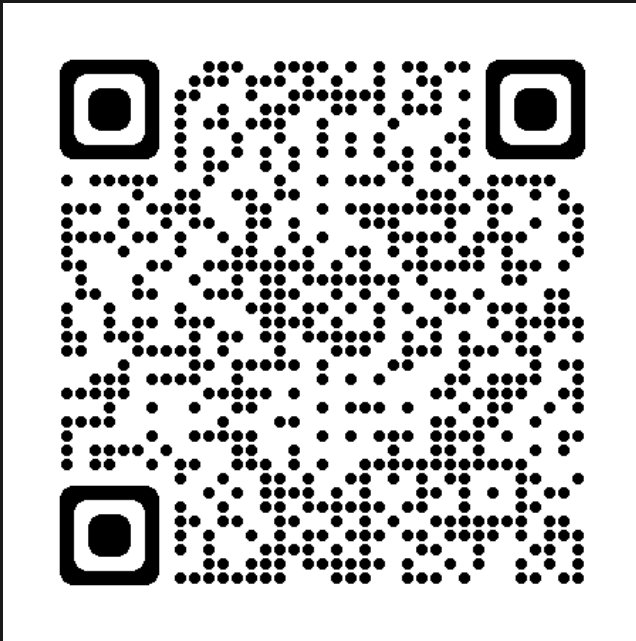
**Organize content**  
Learn how to make sense of your documents

[Start Provisioning Process](#)

**Details** [About](#)

- \* We will guide you through the process of creating a Microsoft Teams team, that works for you from day one.
- \* We will educate you about modern working behavior and the art of collaboration, which assets of Microsoft 365 are available for you in Teams, and how to make best use of them.
- \* Find detailed instructions on how to use ProvisionGenie on the Details tab on each screen. If you want to learn more, you can select the Resources tab, where we provide additional links and videos
- \* We will ask you some questions about working behavior and structure of the Team of your dreams - which you can then request.
- \* Your new team will then be provisioned for you - including channels, lists & libraries.
- \* New to Teams? Check out our learning content where we introduce you to some best practices!

# It's free!



Provision Genie

<https://provisiongenie.com/>

- Scripts & assets
- Documentation
- Troubleshooting



# Key takeaways

- There's no one size fits all
- Leverage Teams as a platform to build your solution
- Get to know the Microsoft Graph
- Choose your weapons wisely, there's a lot of choice
- Dive into the Power Platform and its built-in connectors
- Don't dismiss PowerShell
- Start building and experimenting!

# Some useful reading

[Request a team app on GitHub](#)



[Joanne Klein](#)

[Laura Kokkarinen](#) (also: [30 questions to ask](#))

[Yannick Reekmans](#)

[Bob German](#)

[Microsoft Graph Teams documentation](#)

Thank you

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