



Microsoft Teams Chalk Talks

# Do more with Apps in Teams

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Principal Solution Architect, Microsoft MVP

We will begin shortly.....

# Optimize your learning experience for today's workshop

Refresh your browser, refresh your experience

Chat with us during the workshop, see group announcements

Download class files (e.g. resource links)

Participate in poll questions, share your feedback and insights

No need to raise your hand, but instead chat in your comments

Audio will come through your computer headset or speakers





# Learning objectives

After this session, you will be able to:

- Understand common scenarios addressed by apps in Teams
- Identify suitable apps for your organization's needs
- Recognize common attributes of successful app deployment
- Determine the next steps to deploy an app to your environment
- Navigate security and compliance considerations for third-party apps

# Top 4 myths of using apps in Teams

1. Allowing third-party apps will create licensing headaches
2. Apps will access all my confidential files and conversations
3. Apps will access all my personal information and send spam
4. It's inconvenient and messy to uninstall an app after setting it up

# Top 4 myths of using apps in Teams

1. Allowing third-party apps will create licensing headaches
2. Apps will access all my confidential files and conversations
3. Apps will compromise my security
4. It's incompatible with my existing tools

A majority of apps used in Teams are free or leverage existing enterprise licenses

# Top 4 myths of using apps in Teams

1. Allowing third-party apps will create licensing headaches
2. Apps will access all my confidential files and conversations
3. Apps will...  
[REDACTED]
4. It's incorrect to say that...[REDACTED]

Apps can only access files that you explicitly send to that service and they can only read messages when the app is explicitly mentioned in a message.

# Top 4 myths of using apps in Teams

1. Allowing third-party apps will create licensing headaches
2. Apps will access all my confidential files and conversations
3. Apps will access all my personal information and send spam
4. It's incorrect.

App developers do get access to very basic personal information but sending spam violates our app store policies and will result in the app getting taken down.

# Top 4 myths of using apps in Teams

1. Allowing third-party apps will create licensing headaches
2. Apps will access all my confidential files and conversations
3. Apps will access all my personal information and send spam
4. It's inconvenient and messy to uninstall an app after setting it up

Users can uninstall an app personally with two clicks.  
Admins can uninstall an app tenant-wide with two clicks.

# Workshop Plan



Apps: What / How / Why

Security / Compliance / Policies

Custom Apps Lifecycle

# Part 1: Background on Apps

## CORE WORKLOADS

# Work better together

using powerful productivity tools

### Communicate

through chat, meetings & calls



### Collaborate

with deeply integrated Office 365 apps



EXTENSIBLE PLATFORM

# Get more work done

by connecting all your systems and processes

Communicate

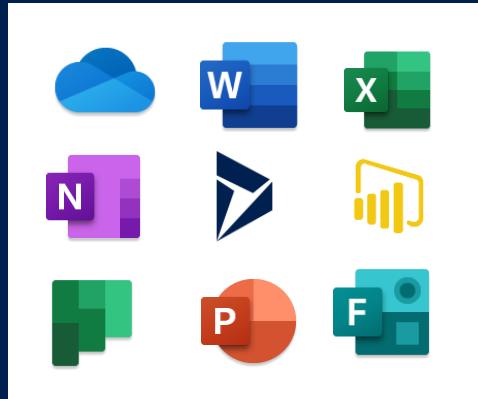
Collaborate

Do more



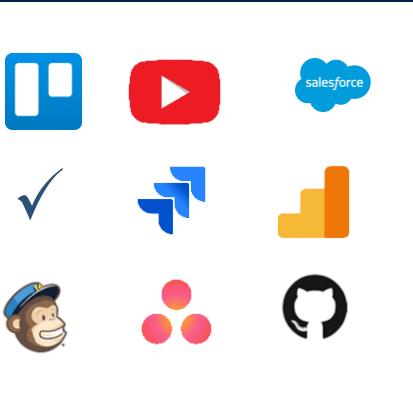
# Apps in Teams

## Microsoft apps



50 available

## Third party apps



450+ available

## Custom apps



Unlimited possibilities

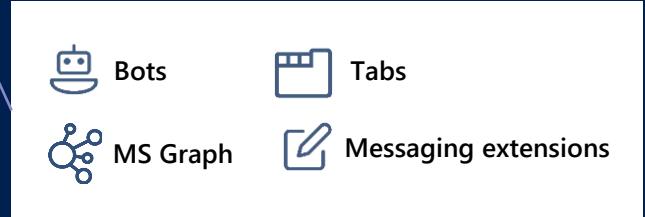
## Power Platform (low/no-code)



## App templates (low/no-code)



## Built from scratch

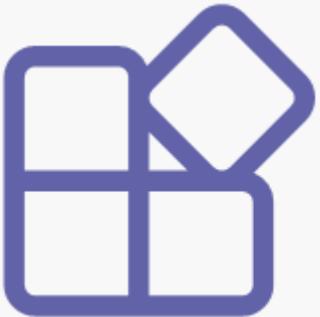


# Publishing Apps



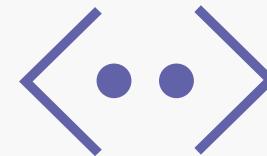
## To the store

Available for all Microsoft Teams customers to use



## To a tenant

Available for specific companies, controlled by tenant admins



## To a team

For testing purposes, or for apps designed for specific functions and teams



## Apps

Search all



All



Personal apps

Bots

Tabs

Connectors

Messaging

Top picks

Popular apps

What's new

Analytics and BI

Developer and IT

Education

Human resources

Productivity

Project management

Sales and support

Social and fun

Upload a custom app



## Browse available apps and services

Add your favorite app for yourself or for a team.

Learn about apps in Teams

## What's new

See all



DBit

Diamondsoft Solutions, LLC

DBit is a password management tool for small to large teams. With DBit, you can securely share passwords between team members. Th...



GoToMeeting

GoToMeeting by LogMeIn Inc.

With GoToMeeting you can easily start or join meetings within MS Teams.



GO1

GO1

Use the GO1 app to create a collaborative learning space within Teams. Automatically create new learning spaces based on your...



AgilePolly

Polly

AgilePolly automates standups and check-ins while enabling your teams to be more effective and engaged by tracking status updates and...

## All apps



Forms

Microsoft Corporation

Easily create surveys, quizzes and polls.



Polly

Polly

Gather real-time insights with simple polls that work where you work



Trello

Trello

Trello lets your team work more collaboratively and get more done. Trello's boards, lists, and cards enable you to organize and prioritize...



Planner

Microsoft Corporation

Planner makes it easy for your team to stay organized, assign tasks, and keep track of your progress. Create a new plan so you can start...



Flow

Microsoft Corporation

Automate time-consuming and repetitive tasks by integrating your favorite apps and services with Microsoft Flow.



Communities

Microsoft Corporation

Add a fully-interactive Yammer experience to Microsoft Teams. Yammer communities connect the organization, enabling you to...



Freehand by InVision

InVision app

Draw, plan, and collaborate on an infinite whiteboard—in real time. Powered by InVision, the Digital Product design platform powerin...



Praise

Microsoft Corporation

Send praise to people



OneNote

Microsoft Corporation



YouTube

Microsoft Teams Ecosystem



Calendar BOT

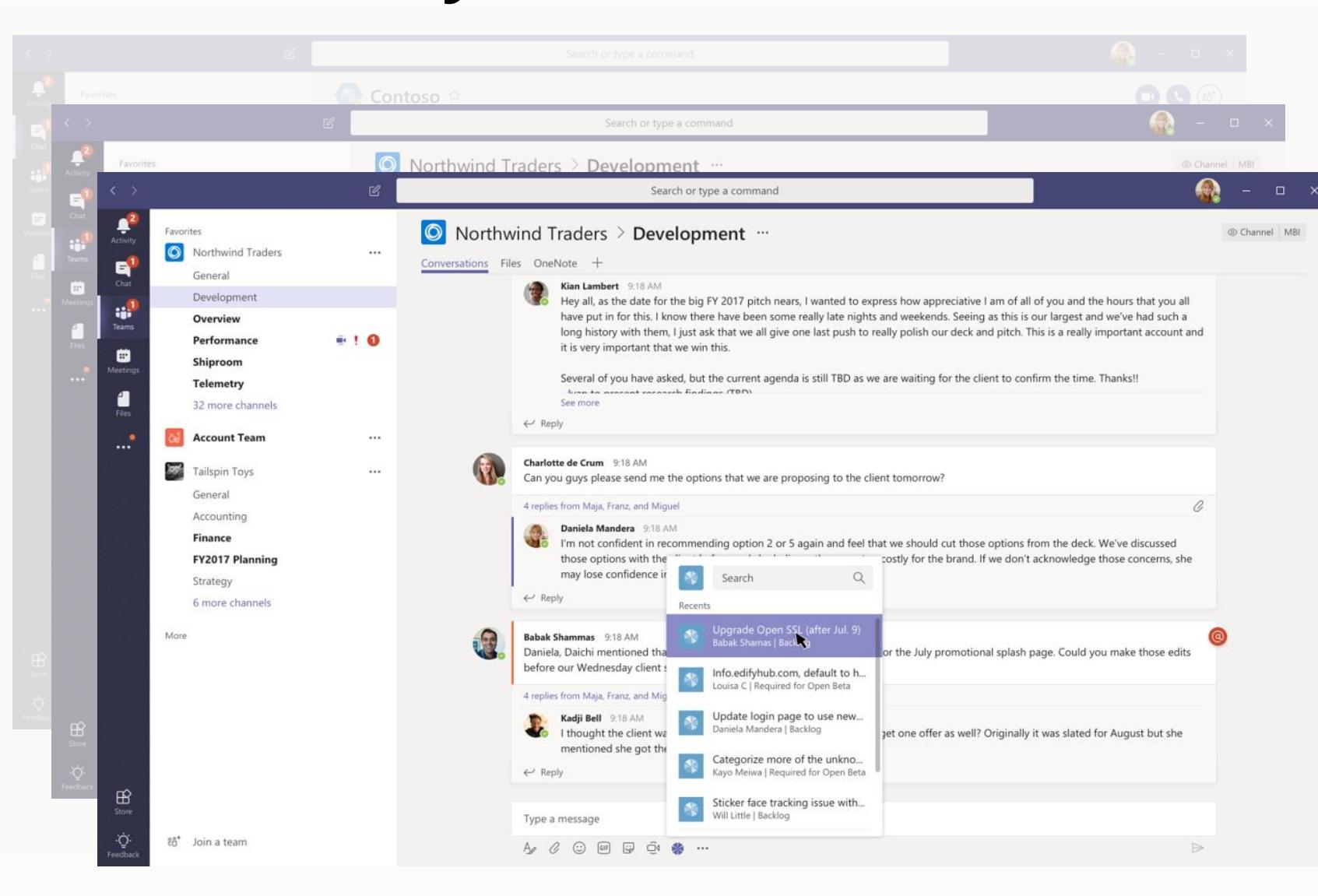
Approved Contact



Images

Microsoft Corporation

# Extensibility Points



## Bots

Help users get tasks done in conversations

## Tabs

Surface rich content within Teams

## Messaging Extensions

Allow users to query and share information as rich cards

# Extensibility Points

The screenshot shows three separate windows of the Microsoft Planner application, each displaying a list of tasks assigned to a user named Marie Beaudouin. The tasks are categorized into 'Due this week', 'In progress', and 'Completed'. Each task includes details such as the assignee, task name, description, due date, and a more options menu.

**Due this week**

Assigned by	Assigned to	Task name	Description	Due Date
Contoso > Designers	Marie Beaudouin	Marketing follow up letter	Write and send out thank you email	4/2
Contoso > Designers	Marie Beaudouin	Design prep	Write up completion plan	3/16

**In progress**

Assigned by	Assigned to	Task name	Description	Due Date
Contoso > Designers	Marie Beaudouin	Design work (home page)	Redline home page	4/1
Graphic Design Institute > Marketing	Marie Beaudouin	Invite new hire (contract)	Prep invitation	4/3
Graphic Design Institute > Marketing	Marie Beaudouin	Marketing meeting	Coordinate meeting	4/3

**Completed**

Assigned by	Assigned to	Task name	Description	Due Date
Contoso > Designers	Marie Beaudouin	Design style guide update	Update change log	4/4
Graphic Design Institute > Marketing	Marie Beaudouin	Marketing update	Change web strings	4/6

## Activity Feed

Engage users via activity feed notifications

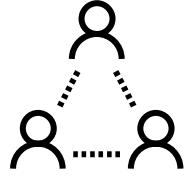
## Adaptive Cards

Allow users to take action within card updates

## Personal Apps

All content across all teams and channels in one place

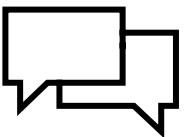
# App Scope



## Team and channel

Enable public collaboration and workflows with all team members

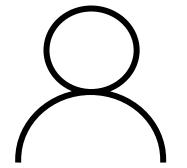
Example: share, discuss, and get notified about new service incidents



## Chat

Lightweight collaboration in 1:1 or group setting without complex permissions

Example: 1:1 topics between manager and direct report

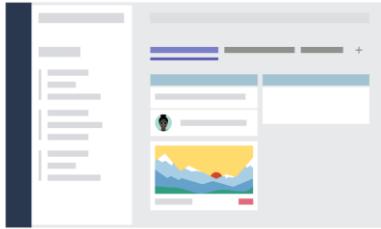


## Personal

User-centric view, showing aggregate content along with private bot chat

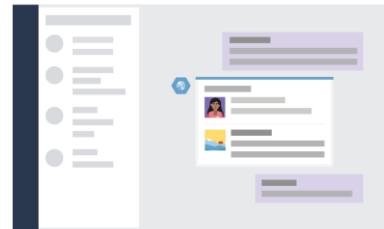
Example: list of all tasks assigned to me

# Immersive Experiences



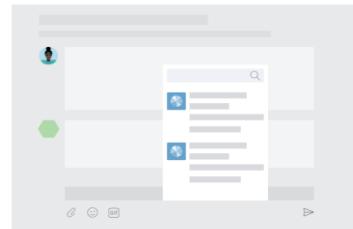
## Tabs

Surface rich content within Teams



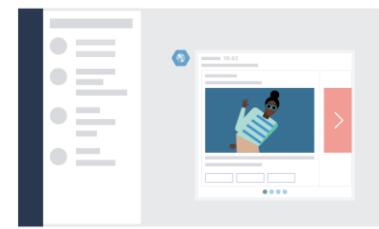
## Bots

Help users get tasks done in conversations



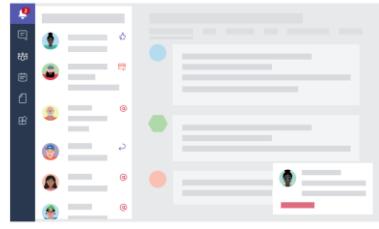
## Messaging Extensions

Allow users to query and share information as rich cards



## Adaptive Cards

Add rich interaction to your connector cards



## Activity Feed

Engage users via feed notifications

**Microsoft Graph**  
API gateway for Microsoft 365

**Line of Business Systems**  
Services and content you own and manage

**Microsoft AI**  
Power conversations with intelligence using pre-built or custom models

# Demo #1

Trello

# Part 2: Managing Apps

- [Dashboard](#)
- [Teams](#)
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- [Users](#)
- [Meetings](#)
- [Messaging policies](#)
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- [Policy packages](#)
- [Analytics & reports](#)
- [Org-wide settings](#)
- [Planning](#)
- [Legacy portal](#)
- [Call quality dashboard](#)

## Dashboard

### MICROSOFT TEAMS UPGRADE

#### Planning your upgrade to Teams

We are bringing the capabilities of Skype for Business Online into Microsoft Teams to deliver a single hub for teamwork with built-in, fully-integrated voice and video. We have resources and tools available to assist you in planning and upgrading some or all of your users to Teams.

[Learn more](#)

### DEPLOYING TEAMS WORKLOAD

Use the Start button to create a Teams service management team for the workloads you want to roll out. We'll provide you with your organization's assessment, task-driven Planner plan and other resources to streamline the roll out.

[Start](#)

### USER SEARCH



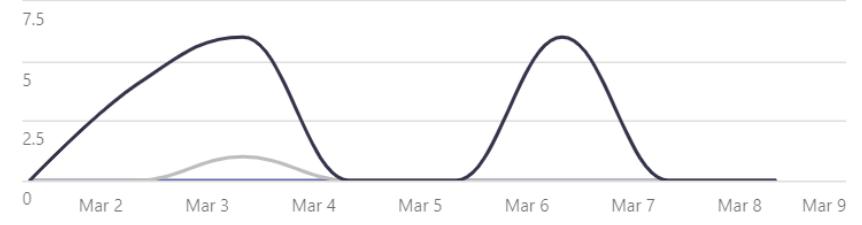
Recent searches will show up here.

[View users →](#)

### TEAMS USAGE

[LAST 7 DAYS](#)[LAST 28 DAYS](#)

### TEAMS USER ACTIVITY

[LAST 7 DAYS](#)[LAST 28 DAYS](#)

[View details →](#)

### TEAMS DEVICE USAGE

[LAST 7 DAYS](#)[LAST 28 DAYS](#)



- Dashboard
- Teams
- Devices
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- Messaging policies
- Teams apps
  - Manage apps**
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## Manage apps

When you are managing apps for your organization, you are controlling what apps are available to users in your organization's app store. You can then use app permission and app setup policies to configure what apps will be available to specific users. [Learn more](#)

<a href="#">+ Upload new app</a> <span style="color: green;">✓</span> Allow <span style="color: grey;">✗</span> Block   499 Items				
<span style="color: green;">✓</span>	Name	Certification	Categories	Publisher
	Zoho CRM	Publisher attestation	Communication, Customer & conta...	Zoho CRM
	Pickit	--	Content management, Productivity	Pickit
	Lobbipad Bot	--	Human resources & recruiting	The Office
	Beesy	--	Communication, Productivity +1 More	BeesyApp
	MeetingRoomMap	--	Data visualization & BI, Human res...	TNSCloud
	365-QA	--	Training & tutorial	Advanced
	Fuze	--	Communication, Productivity +1 More	Fuze
	ServiceDesk Plus Clo	Publisher attestation	IT/admin, Productivity +1 More	Zoho CRM
	Wrike	Microsoft 365 certified	Productivity, Project management	Wrike
	SignEasy	--	Productivity, Sales & marketing	Glykka
	Invoicely	--	Productivity, Education	Invoicely

## Org-wide app settings

### Third party apps

You can control which third party apps can be installed for your organization. [Learn more](#)

Allow third party apps [\(i\)](#)

 On

Allow any new third party apps published to the store by default [\(i\)](#)

 On

### Custom apps

If your organization requires apps other than those available in the Teams Apps store, custom apps can be developed as app packages and uploaded. [Learn more](#)

Allow interaction with custom apps [\(i\)](#)

 On



Dashboard

Teams

Devices

Locations

Users

Meetings

Messaging policies

Teams apps

## Manage apps

## Permission policies

## Setup policies

Voice

Policy packages

Analytics &amp; reports

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## Manage apps

Org-wide app settings

When you are managing apps for your organization, you are controlling what apps are available to users in your organization's app store. You can then use app permission and app setup policies to configure what apps will be available for specific users.  
[Learn more](#)

## Pending approval

0

Submitted custom apps

0

Updated custom apps

[+ Upload](#) [✓ Allow](#) [🚫 Block](#) | 749 items

Search by name



Name	Certification	Publisher	Publishing status	Status	Custom app	Permissions
Confluence Cloud	Publisher attestation	SoftServe, Inc.	--	Allowed	No	<a href="#">View details</a>
Jira Server	--	SoftServe, Inc.	--	Allowed	No	<a href="#">View details</a>
Voice Panel by SIPPIO	--	SIPPIO - Voice inTeams	--	Allowed	No	<a href="#">View details</a>
Zapier	--	Zapier Team	--	Allowed	No	<a href="#">View details</a>
MeetingPro	--	MeetingPro Pty Ltd	--	Allowed	No	<a href="#">View details</a>
Brasoftware Help Me	--	Brasoftware Informatica Lt...	--	Allowed	No	<a href="#">View details</a>
Hays Learning	--	GO1	--	Allowed	No	<a href="#">View details</a>
Template Chooser	Microsoft 365 certified	officeatwork	--	Allowed	No	<a href="#">View details</a>
Planet eStream	--	Planet eStream	--	Allowed	No	<a href="#">View details</a>

[Need help?](#)[Give feedback](#)

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Manage apps \ Template Chooser

## Template Chooser

officeatwork

Status Allowed

Version **3.0.1**

By using this app, you agree to the [Privacy policy](#) and [Terms of use](#).

[About](#) [Permissions](#) [Plans and pricing](#)

### Org-wide permissions

This app has been granted consent for some permissions. Go to [Azure Active Directory](#) to view details.

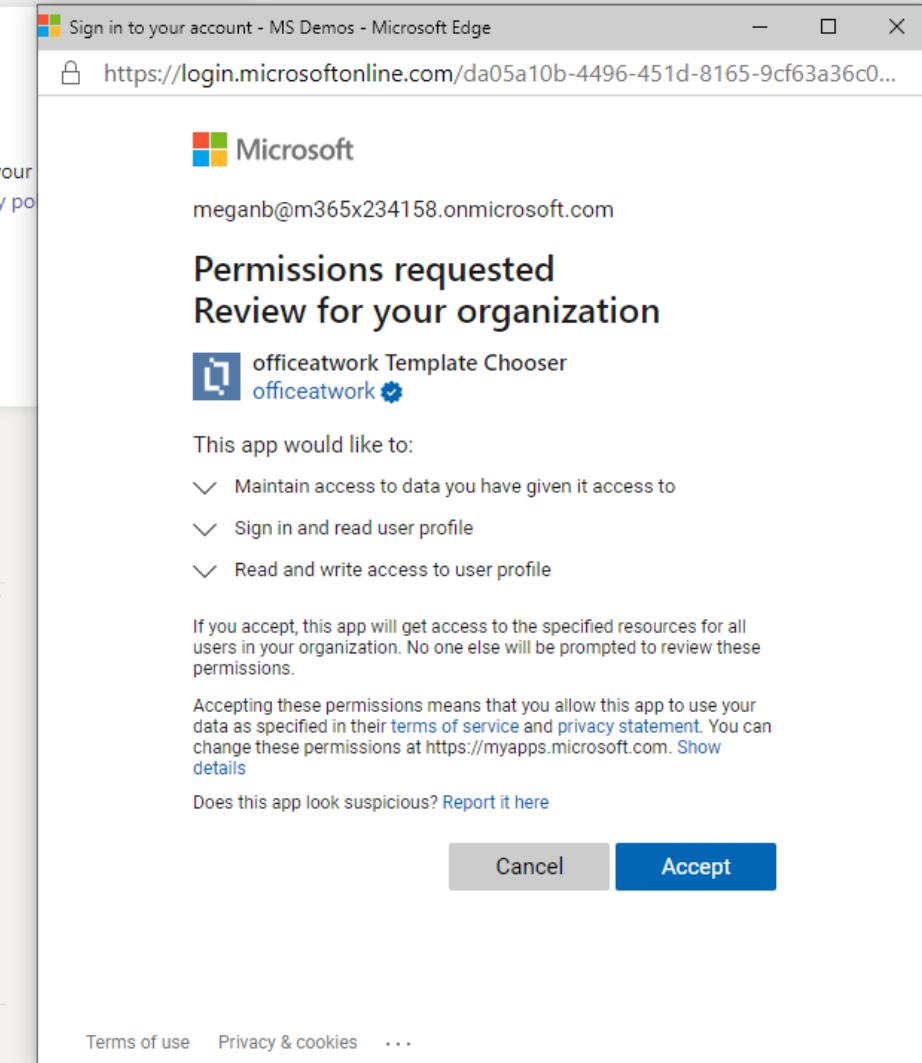
As an admin you can review and accept the permissions that this app requires for all of your users in your organization. You would do this so users won't have to review and accept the permissions for the app individually when the app is started.

Use the below button to grant admin consent. [Learn more](#)

[Review permissions and consent](#)

### Microsoft Graph resource-specific consent (RSC) permissions

--



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Manage apps \ Team O'clock

## Team O'clock

Team O'clock



Status ⓘ **Allowed**

Version **1.3.0**

By using this app, your users agree to the [Privacy policy](#) and [Terms of use](#).

About Permissions Plans and pricing

### Org-wide permissions

As an admin you can review and accept the permissions that this app requires for all of your users in your organization. You would do this so users won't have to review and accept the permissions for the app individually when the app is started.

Use the below button to grant admin consent. [Learn more](#)

**Review permissions and consent**

### Microsoft Graph resource-specific consent (RSC) permissions

RSC permissions model enables team owners and admins to grant consent for an app to access and modify a team's data. RSC permissions are granted consent when an app is added to a team. [Learn more](#)

- Read the names, descriptions, and settings of this team's channels.
- Read this team's members.
- Read this team's owners.
- Read this team's settings.

# Visibility: M365 Publisher Attestation

Developer provided security, data handling  
and compliance info about the app

- A single location
- Consistent format
- Across 90+ vectors

**Integrated with Microsoft's CASB solution**  
Microsoft Cloud App Security  
(Now a leader in Gartner's Magic Quadrant)

Available for

- Word
- Excel
- PowerPoint
- Outlook
- Web apps that leverage Graph APIs

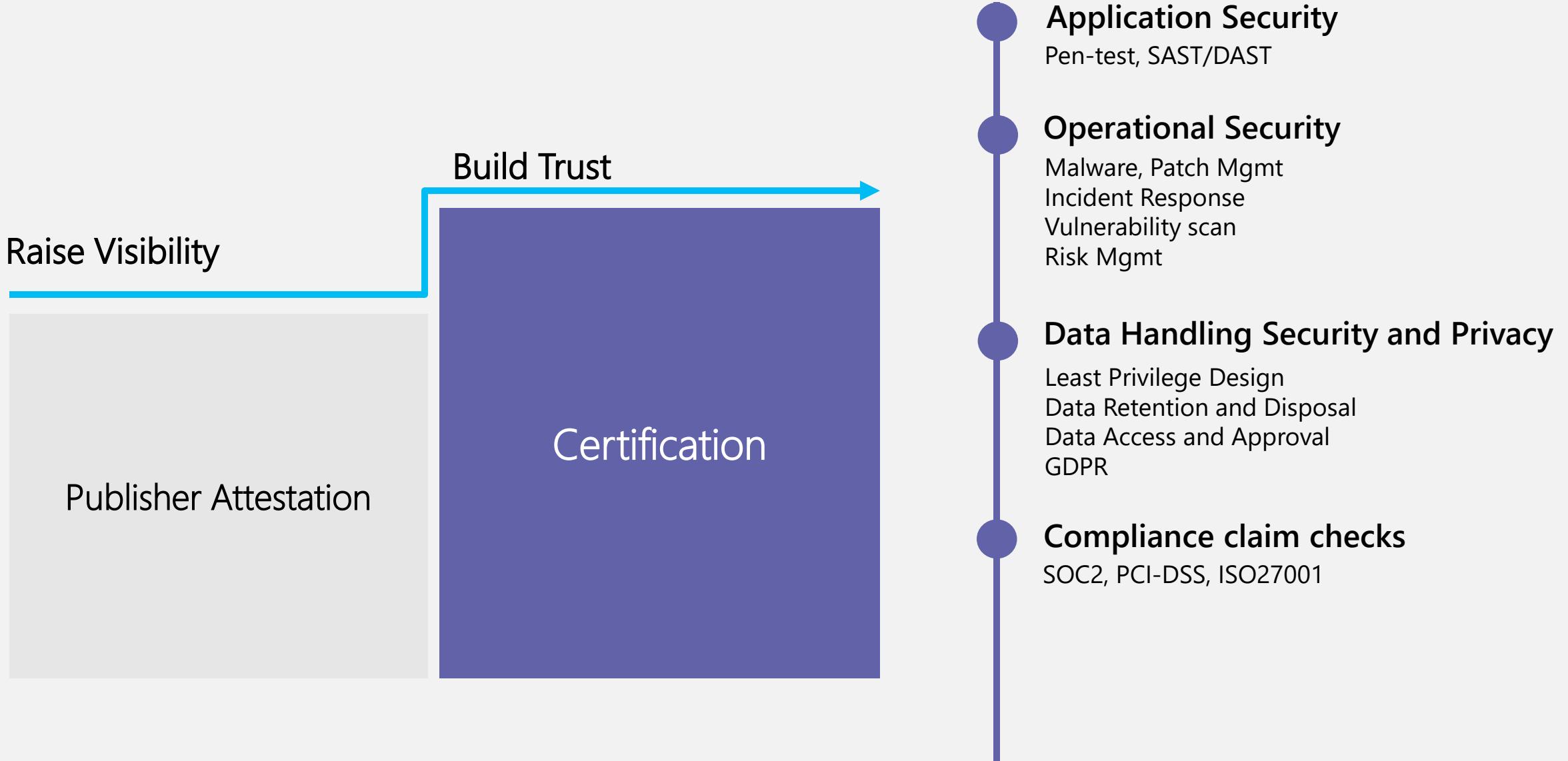
Raise Visibility

Publisher Attestation

Build Trust

Certification

# Trust: Microsoft 365 Certification (*Teams only*)



# ADP Virtual Assistant

08/25/2019 • 2 minutes to read •  • Applies to: Microsoft Teams

## General information

Information provided by ADP to Microsoft:

Information	Response
App name	ADP Virtual Assistant
ID	2405e655-76fa-4104-b4b8-e4fb525d0f1a
Capabilities	Bot, Tab
Partner company name	ADP
URL of partner website	<a href="https://www.adp.com">https://www.adp.com</a>
URL of Teams application info page	<a href="https://www.adp.com/contact-us/customer-service.aspx">https://www.adp.com/contact-us/customer-service.aspx</a>
URL of Privacy Policy	<a href="https://www.adp.com/privacy.aspx">https://www.adp.com/privacy.aspx</a>
URL of Terms of Use	<a href="https://www.adp.com/legal.aspx">https://www.adp.com/legal.aspx</a>

GENERAL	
Category: Human-resource management	Headquarters: US
Data center: US	Hosting company: Automatic Data Proc...
Founded: 1949	Holding: Public
Domain:  <a href="http://adp.com">adp.com</a> , <a href="http://adp-ar.com">adp-ar.com</a> , <a href="http://adpp...">adpp...</a>	Terms of service: <a href="http://adp.com/legal.aspx">http://adp.com/legal.as...</a>
SECURITY	
Latest breach: 12/3/2013	 Data-at-rest encryption method
 Multi-factor authentication	 IP address restriction
 User audit trail	 Admin audit trail
 Data audit trail	 User can upload data
 Data classification	 Remember password
 User-roles support	 File sharing
 Valid certificate name	 Trusted certificate
Encryption protocol: TLS 1.2	HTTP security headers: 
 Supports SAML	 Penetration Testing
 Requires user authentication	 Password policy
COMPLIANCE	
 FINRA	 FISMA
 GAAP	 HIPAA
 ISAE 3402	 ISO 27001
 Admin audit trail	 ITAR
 SOC 1	 SOC 2
 SOC 3	 SOX
 SP 800-53	 SSAE 16
 PCI DSS version	 ISO 27018
 GLBA	FedRAMP level: Not supported
 CSA STAR level	 Privacy Shield
 ISO 27017	 FFIEC
LEGAL	
 Data ownership	 DMCA

[aka.ms/TeamsAppCertification](https://aka.ms/TeamsAppCertification)



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## PERMISSION POLICIES:

Control what apps are available  
to individuals or groups of users

## Global

### Description

#### Microsoft apps

Choose which Teams apps published by Microsoft or its partners can be installed by your users.

Allow all apps



#### Third-party apps

Choose which Teams apps published by a third-party that can be installed by your users.

Allow all apps



#### Custom apps

Choose which custom apps can be installed by your users.

Allow all apps



#### Allow all apps

Users can install and use any app published by third parties in the Teams App store.

#### Allow specific apps and block all others

Allow specific apps you want to allow from the store and all other ones would be blocked.

#### Block specific apps and allow all others

Add which apps you want to block from the store and all the other ones would be allowed.

#### Block all apps

Users can't install any apps published by third parties in the Teams Apps store.

Save

Cancel

# Sales Team Permission Policy

## Description

### Microsoft apps

Choose which Teams apps published by Microsoft or its partners can be installed by your users.

Allow all apps

### Third-party apps

Choose which Teams apps published by a third-party that can be installed by your users.

Allow specific apps and block all others

[+ Add apps](#) [X Remove](#) | 4 items

Allowed apps	App ID	Publisher
 Adobe Sign	0f56a9d1-f502-40f9-a9e8-816d7adbb68b	Adobe Systems Inc.
 Salesforce (Legacy)	3b08b627-1279-4d42-9409-329d321fda94	Microsoft Teams Ecosystem
 Freshdesk	86ce8ab3-7472-47ef-9cf5-7225ff0c77d5	Freshworks INC
 Asana	f0e33e18-08fc-4511-a2a7-c6bdff367263	Asana

### Custom apps

Choose which custom apps can be installed by your users.

Allow all apps

## Manage users

IT Admin Test Policy

Search by display or username



### Users to add (3)

 Megan Bowen	X
 Alex Wilber	X
 Christie Cline IT Admin Test Policy	X

## App permission policies

App permissions policies control what apps you want to make available to Teams users in your organization. You can use the default policy that we created for you and customize it, or you can create one or more policies to meet the needs of your organization. [Learn more](#)

+ Add Edit Duplicate Delete Reset Global policy

Manage users

Name ↑

Description

Custom policy

Global (Org-wide default)

No

IT Admin Test Policy

Yes

Sales Team Permission Policy

This policy is for anyone wi...

Yes

Apply

Cancel

# Policy Precedence

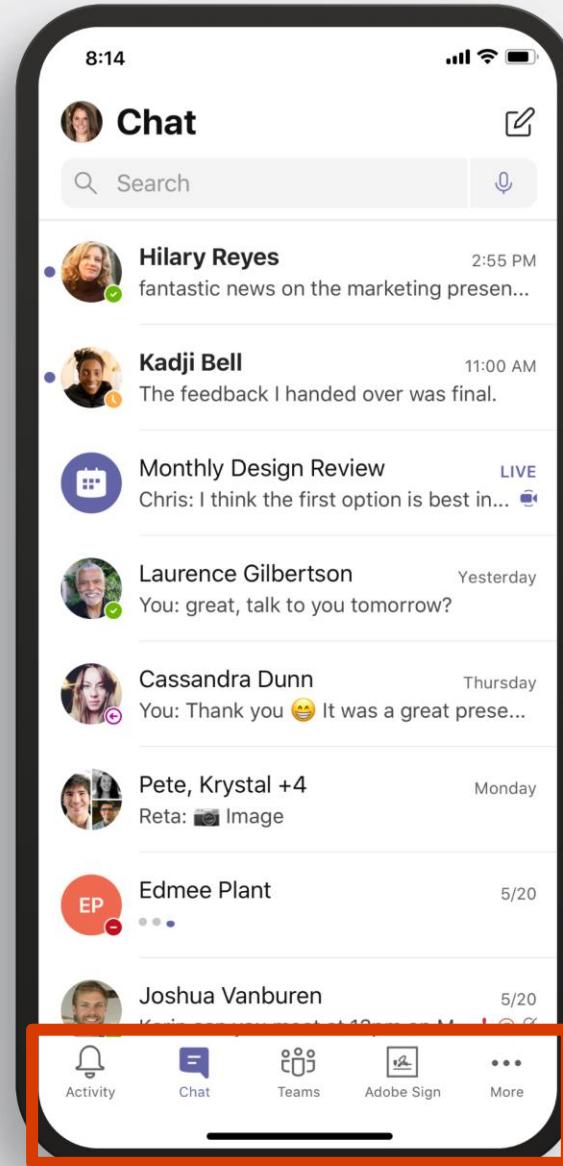
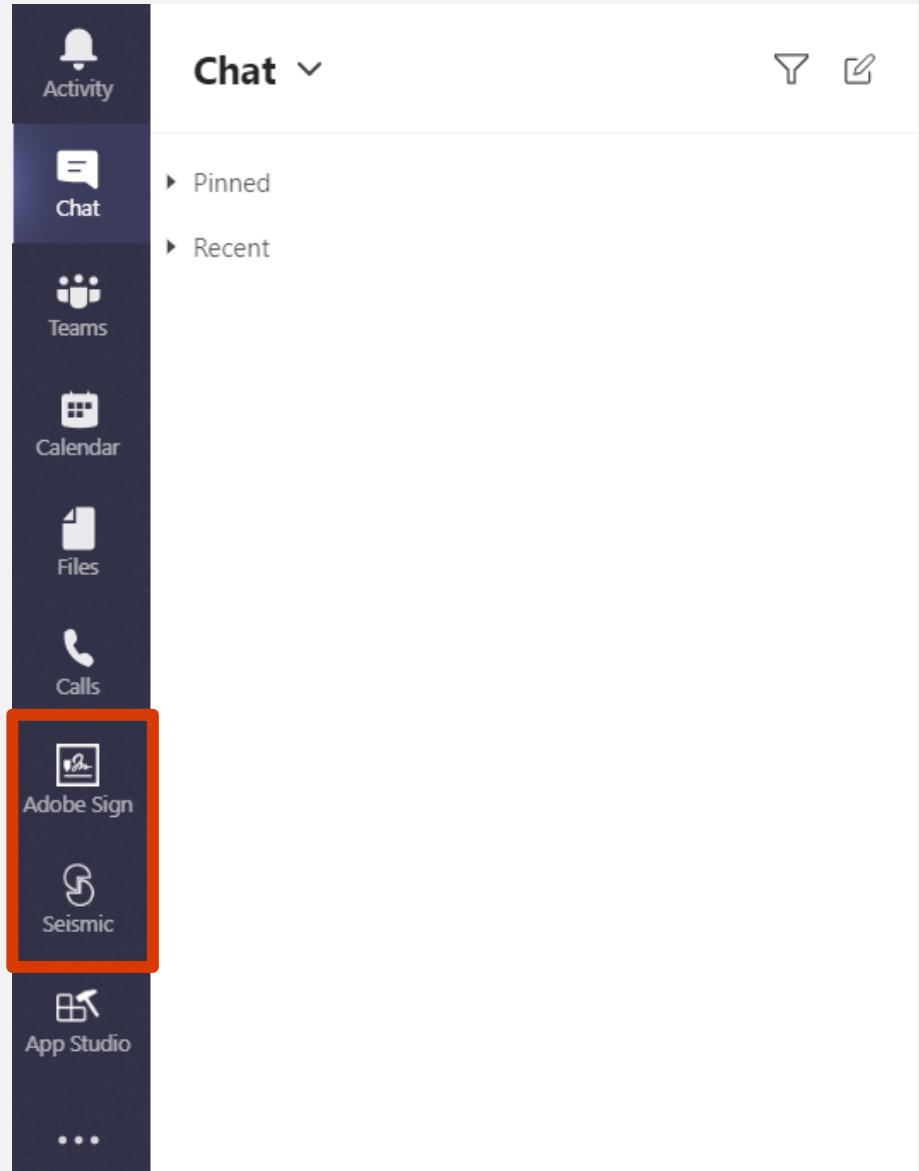
1. Org-wide app settings
2. Custom permission policy
3. Default permission policy



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## SETUP POLICIES:

Customize Teams so that the apps that are most important for your users are more visible



# FAQs

## **How long does it take for a policy to propagate?**

Several hours.

## **Can I apply policies to groups?**

Currently you cannot apply policies to distribution groups or security groups in the admin center. You must use scripts in PowerShell to apply policies in bulk.

## **How many apps can be pinned with setup policies?**

A minimum of two apps must be pinned. An unlimited amount can be pinned, but the average screen can only show about 11-12. Any apps that can't fit in the screen move to the overflow (ellipsis on desktop, overflow tray on mobile).



Dashboard

Teams

Locations

Users

Devices

Teams Apps

Messaging policies

Voice

Meetings

Policy packages

Planning

Analytics &amp; Reports

## Usage reports

Call quality reports

Notifications &amp; alerts

Other settings

Provide feedback

## Analytics &amp; reports

View reports

Report downloads

Report

Date range

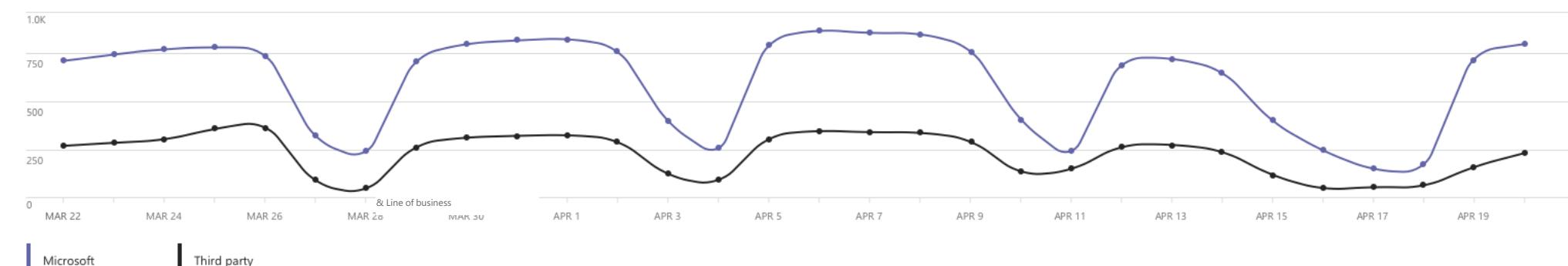
Apps usage

Last 30 days

Run report

## Apps usage

APR 21, 2020 11:59 AM (PT) | Date range: Last 30 days (MAR 22, 2020 - APR 21, 2020)



## App name ↓

## App type

## Active users

## Active Teams



Azure DevOps

Microsoft



124



Flow

Microsoft



51



Freehand by InVision

Third party



79



Planner

Microsoft



147



Power BI

Microsoft



93

26

# Microsoft Teams apps permissions and considerations

06/26/2019 • 7 minutes to read •  +7 • Applies to: Microsoft Teams

Microsoft Teams apps are a way to aggregate one or more capabilities into an *app package* that can be installed, upgraded, and uninstalled. The capabilities include:

- Bots
- Messaging extensions
- Tabs
- Connectors

Apps are consented to by users and managed by IT from a policy perspective. An app's permissions and risk profile are defined by the permissions and risk profile of the app itself. Therefore, this article focuses on permissions and considerations.

The permissions listed below in capital letters, for example RECEIVE\_MESSAGE, may not appear anywhere in the [Microsoft Teams developer documentation](#) or the Microsoft App Catalog. They're simply a descriptive shorthand for the purpose of this article.

## Considerations

- Bots only have access to teams to which they've been added or to users who have installed them.
- Bots only receive messages in which they're explicitly mentioned by users. This data leaves the corporate network.
- Bots can only reply to conversations in which they're mentioned.
- After a user has conversed with a bot, if the bot stores that user's ID, it can send that user direct messages at any time.
- It is theoretically possible for bot messages to contain links to phishing or malware sites, but bots can be blocked by the user, the tenant admin, or globally by Microsoft.
- A bot can retrieve (and might store) very basic identity information for the team members the app has been added to, or for individual users in personal or group chats. To get further information about these users, the bot must require them to sign in to Azure Active Directory (Azure AD)

“

**Bots** only receive messages in which they're explicitly mentioned by users. This data leaves the corporate network.

Bots can retrieve (and might store) the list of channels in a team; this data leaves the corporate network.

“

No data leaves the corporate network when **connector** messages are posted to a channel.

“

The risk profile for a **tab** is almost identical to that same website running in a browser tab. A tab gets the sign-in name and UPN of the current user, the Azure AD Object ID for the current user, the ID of the Office 365 Group in which it resides (if it's a team), the tenant ID, and the current locale of the user.

[aka.ms/TeamsAppPermissions](https://aka.ms/TeamsAppPermissions)



## Asana

Communication, Productivity, Workflow + business management

Add

About

### Permissions

#### Tabs

Use in a tab at the top of a chat or channel

#### Bots

Chat with the app to ask questions and find info

#### Messages

Insert content from the app directly into messages

Created by: [Asana](#)

Version 1.1.0

## Capabilities

### Permissions

This app will have permission to:

- Receive messages and data that I provide to it.
- Send me messages and notifications.
- Access my profile information such as my name, email address, company name, and preferred language.
- Receive messages and data that team members provide to it in a channel.
- Send messages and notifications in a channel.
- Access this team's information such as team name, channel list and roster (including team member's names and email addresses) - and use this to contact them.

## Permissions

By using Asana, you agree to the [privacy policy](#) and [terms of use](#).

Azure Ava provides efficiency gains for Support teams where Support Engineers leverage Teams for assistance on Support...



askSpoke  
Townsend Street Labs, Inc.

Join hundreds of other modern workplaces getting employees in a positive way. askSpoke is an...



MSApprovals  
Microsoft Corporation

MSApprovals app helps you manage all approval requests from multiple Microsoft Line of Business applications.



Josh Bersin Academy  
Nomadic Learning

The Josh Bersin Academy is the world's only professional development academy and on-the-job resource for HR. Right from Teams,...



ADP Virtual Assistant



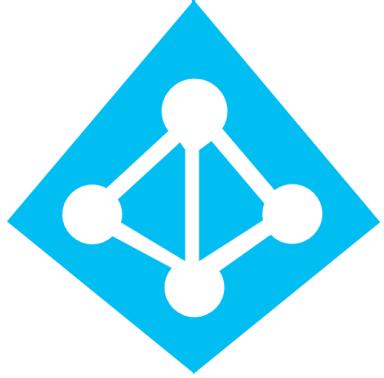
ASC Recording Insights



Dynatrace Davis Assistant



Zoom ai Meeting Assistant



## Apps used in browser

Azure Portal > Azure Active Directory



## Apps available in Teams

Teams Admin Center > Manage Apps page

# Managing Third-Party Apps in Teams

What apps do my users rely on?

Apps used within the organization

What do I know about the app developer?

App developer security & compliance

Internal-approved apps  
(procurement & infosec)

What can the app do in Teams?

App capabilities

(bot, tab, message extension)

App scope

(team/channel, chat, personal)

App permissions

(access to information)

What is the app architecture in Teams?

Microsoft 365 privacy, security, & compliance

# Part 3: Custom Apps Lifecycle

# Teams customers are building...



## Retail

- Supply chain real time collaboration
- Shift, pricing, and inventory management



## Financial Services

- Proposal manager for commercial banking
- Content sharing with compliance



## Manufacturing

- Key accounts inventory and logistics
- Change order services



## Health

- Patient care coordination
- Telemedicine



## Energy

- Electricity, mining, oil and gas
- Location development and quality monitoring



## Education

- Learning management systems
- Track, deliver and manage courses



## Government

- Emergency/disaster response and recovery
- Citizen service: permitting and licensing



## Real estate and Construction

- Leasing office tenant management
- Real estate customer engagement



## Airlines, Transportation

- Flight/route crew communication hub
- Local crew shift management



## Human resources



## Firstline workers



## Analytics & BI



## Marketing



## Sales



## Content Management



## Calling & Meetings



## Customer service

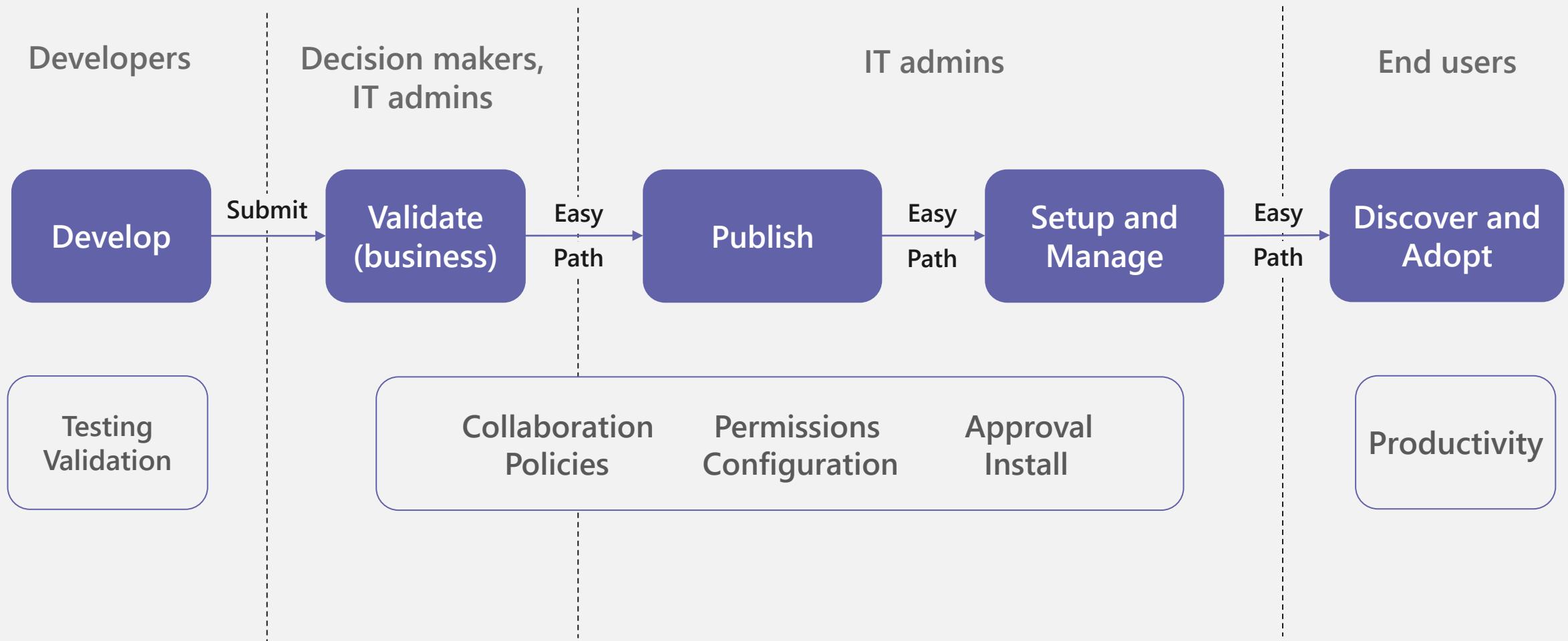


## DevOps

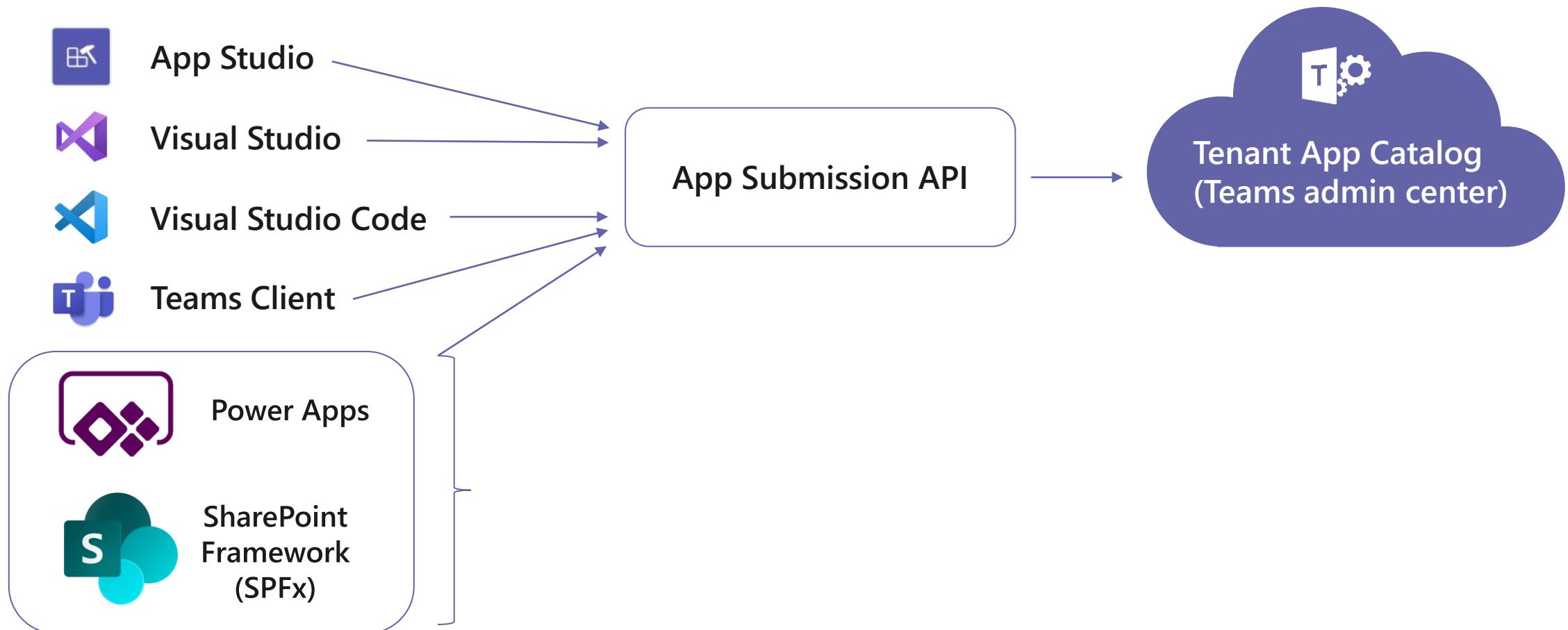


## Project management

# Teams app lifecycle



# New submission service



Screenshot of Microsoft Visual Studio showing the "HR Tools" project in the Solution Explorer.

The main window displays the "Publish" step of the publishing process. A modal dialog titled "Publish to Contoso app store" is open, prompting the user to select where to publish the app. The "Publish to Contoso" option is selected, showing details for the "Employee Pulse" app (Version 1.0.0) which publishes company news articles and shows user engagement.

The "Notes for your IT administrator:" section contains the text: "This is the tool we are working with HR team in the past few weeks."

Buttons at the bottom of the modal are "Cancel" and "Submit request".

The Solution Explorer on the right shows the project structure:

- HR Tools (selected)
- HR Tools-Tab
- HR Tools-Bot
- HR Tools-Service
- manifest.json

The Properties window on the right shows the following settings for the "General" tab:

File Name	General
Full Path	C:\Users\sage\source\repos\Blazor-CRU
Project Folder	C:\Users\sage\source\repos\Blazor-CRU

The status bar at the bottom indicates "Ready" and shows system icons like battery, signal, and network.

- Dashboard
- Teams
- Locations
- Users
- Devices
- Teams Apps
- Manage apps**
- Permission policies
- Setup policies
- Messaging policies
- Voice
- Meetings
- Policy packages
- Planning
- Analytics & Reports
- Other settings
- Provide feedback

Requires consent to graph RSC permissions

## Onboard

Contoso

Download manifest  
Update application

App status: Blocked

App publishing status: Submitted

Last updated: FEB 02, 2020 04:23:00 PST

Version: 1.0

Submitted by: Hilary Reyes

Actions: [Download manifest](#) [Update application](#)

App status dropdown: Submitted, Rejected, Published (highlighted)

Permissions tab selected

User Activity chart: 7 DAYS, 30 DAYS, 60 DAYS. Y-axis 00 to 30K. X-axis AUG 01 to AUG 30. Legend: Active users.

App Statistics: 16 App installs, 35 App in teams, 182 Time in app

### Graph permissions (requires consent in Azure AD)

Note: This app may also be requesting other Graph permissions not listed above. Go to Azure AD to review those permissions and grant consent.

[Open Azure AD](#)

### Graph resource-specific consent (RSC) permissions

- Read messages in this team.
- Read this team's members.
- Maintain access to the team's data.

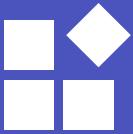
### Device permissions

- Permission to use the camera, microphone and speakers
- Permission to return the user's location

### Privacy and permissions

- Receive messages and data that I provide to it.
- Send me messages and notifications.
- Access my profile information such as my name, email address, company name, and preferred language.
- Receive messages and data that team members provide to it in a channel.
- Access this team's information such as a team name, channel list and roster (including team member's names and email addresses) – and use this to contact them.

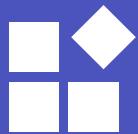
Where do you go from here?



## Key takeaways

In this workshop, you learned about:

- Common scenarios addressed by apps in Teams
- Considerations to enabling apps for your users
- Deploying an app in Teams
- Security and compliance considerations for your enabled app(s)



# Explore more resources



End-user training about apps: <http://aka.ms/LearnTeamsApps>



Overview of apps in Teams: <http://aka.ms/OverviewAppsInTeams>



Custom apps in Microsoft Teams: <https://aka.ms/teamsdev>



Additional Chalk Talks: <https://aka.ms/TeamsChalkTalks>



Deployment best practices: <https://aka.ms/SuccesswithTeams>

Link to handout: <https://aka.ms/DoMoreWithApps>

New!

# Open Q&A



Share your feedback  
[TeamsIT@Microsoft.com](mailto:TeamsIT@Microsoft.com)

Thank you for attending!

# Resources

- [Manage your apps in the Microsoft Teams admin center](#)
- [Manage your custom apps in Microsoft Teams](#)
- [Manage app permission policies in Microsoft Teams](#)
- [Manage app setup policies in Microsoft Teams](#)
- [Microsoft 365 App Certification Program](#)
- [Manifest schema for Microsoft Teams](#)
- [How to build a great app details page](#)
- [Validation policies for apps and add-ins submitted to Microsoft AppSource](#)
- [Make your solutions available in Microsoft AppSource and within Office](#)
- [Permissions and consent in the Microsoft identity platform endpoint](#)

