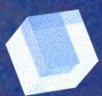# 使用Teams Toolkit创建基于.NET的 Teams App

张渝 Yu Zhang
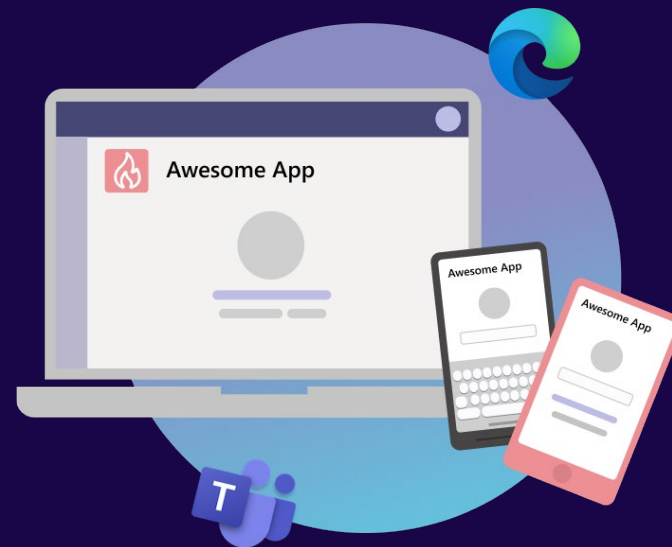
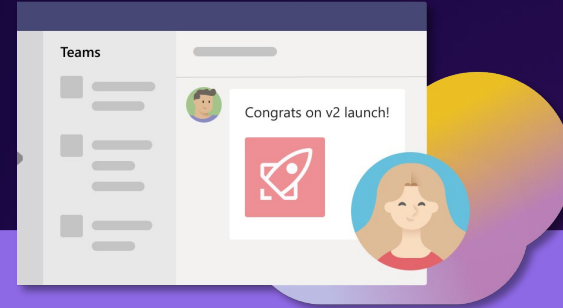Microsoft 365 DevX Product Manager

Agenda

- Microsoft Teams App 概述
- Microsoft Teams App 解决方案
- Teams Toolkit for Visual Studio
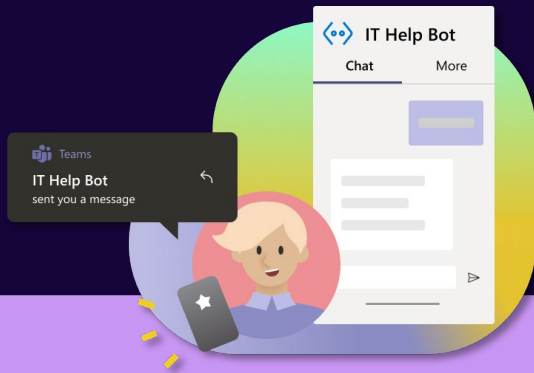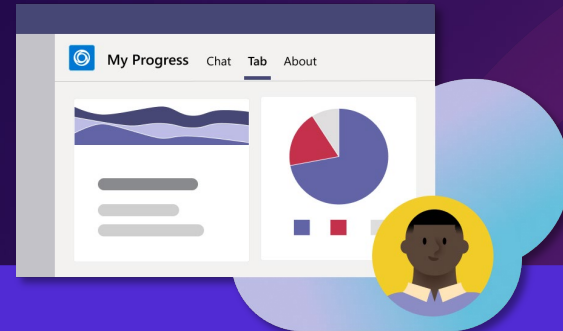- Demo
- 扩展阅读和示例应用

Why a Teams App?

团队沟通和协作

推动组织目标

常见业务流程

集成已有的应用

Teams App 概述

Microsoft Teams平台提供了可扩展功能使用户能够提供应用来丰富Teams功能
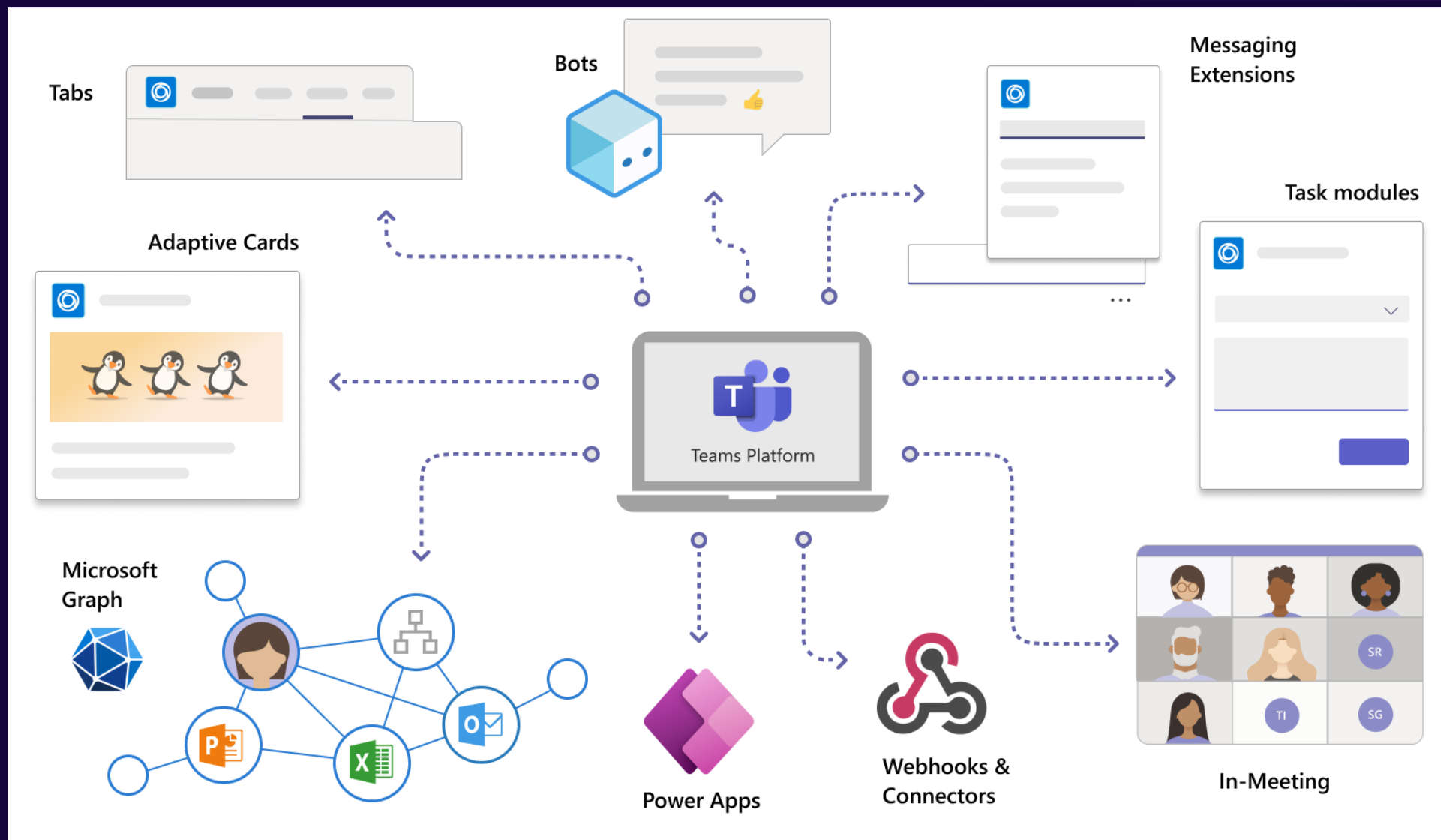
Teams app 可以是个人应用，也可以是共享应用

Teams app 是 web-based 应用程序

Self-hosted, surfaced in Teams

探索Microsoft Teams平台扩展功能

Teams App 定义

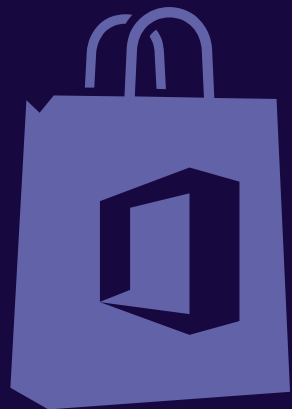- manifest.json

- color.png

- outline.png

```json
{
    "$schema": "https://developer.microsoft.com/json-
schemas/teams/v1.14/MicrosoftTeams.schema.json",
    "manifestVersion": "1.14",
    "version": "1.0.0",
    "id": "%MICROSOFT-APP-ID%",
    "localizationInfo": {
        "defaultLanguageTag": "en-us",
        "additionalLanguages": [
            {
                "languageTag": "es-es",
                "file": "en-us.json"
            }
        ]
    },
    "developer": {
        "name": "Publisher Name",
        "websiteUrl": "https://website.com/",
        "privacyUrl": "https://website.com/privacy",
        "termsOfUseUrl": "https://website.com/app-tos",
        "mpnId": "1234567890"
    },
    "name": {
        "short": "Name of your app (<=30 chars)",
        "full": "Full name of app, if longer than 30 characters (<=100 chars)"
    },
    "description": {
        "short": "Short description of your app (<= 80 chars)",
        "full": "Full description of your app (<= 4000 chars)"
    },
    "icons": {
        "outline": "A relative path to a transparent .png icon — 32px X 32px",
        "color": "A relative path to a full color .png icon — 192px X 192px"
    } …
```

Teams App 定义

- manifest.json
- color.png
- outline.png

```json
"staticTabs": [
        {
            "entityId": "unique Id for the page entity",
            "scopes": [
                "personal"
            ],
            "context": [
                "personalTab",
                "channelTab"
            ],
            "name": "Display name of tab",
            "contentUrl": "https://contoso.com/content (displayed in Teams
canvas)",
            "websiteUrl": "https://contoso.com/content (displayed in web browser)",
            "searchUrl": "https://contoso.com/content (displayed in web browser)"
        }
    ],
    "bots": [
        {
            "botId": "%MICROSOFT-APP-ID-REGISTERED-WITH-BOT-FRAMEWORK%",
            "scopes": [
                "team",
                "personal",
                "groupchat"
            ],
            "needsChannelSelector": false,
            "isNotificationOnly": false,
            "supportsFiles": true,
            "supportsCalling": false,
            "supportsVideo": true,
            "commandLists": [
                {
                    "scopes": [
                            "team",
                            "groupchat"
…
```

发布 Teams App

发布到Teams 应用商店

全球数百万Teams用户可以访问该应用

发布到组织

特定组织中的用户可以访问该应用，需要获得特定组织IT admin的批准从而发布

上传到Teams客户端

无需发布即可在Teams客户端中使用应用，通常用于开发人员测试或是一小部分用户使用该应用

Teams应用商店
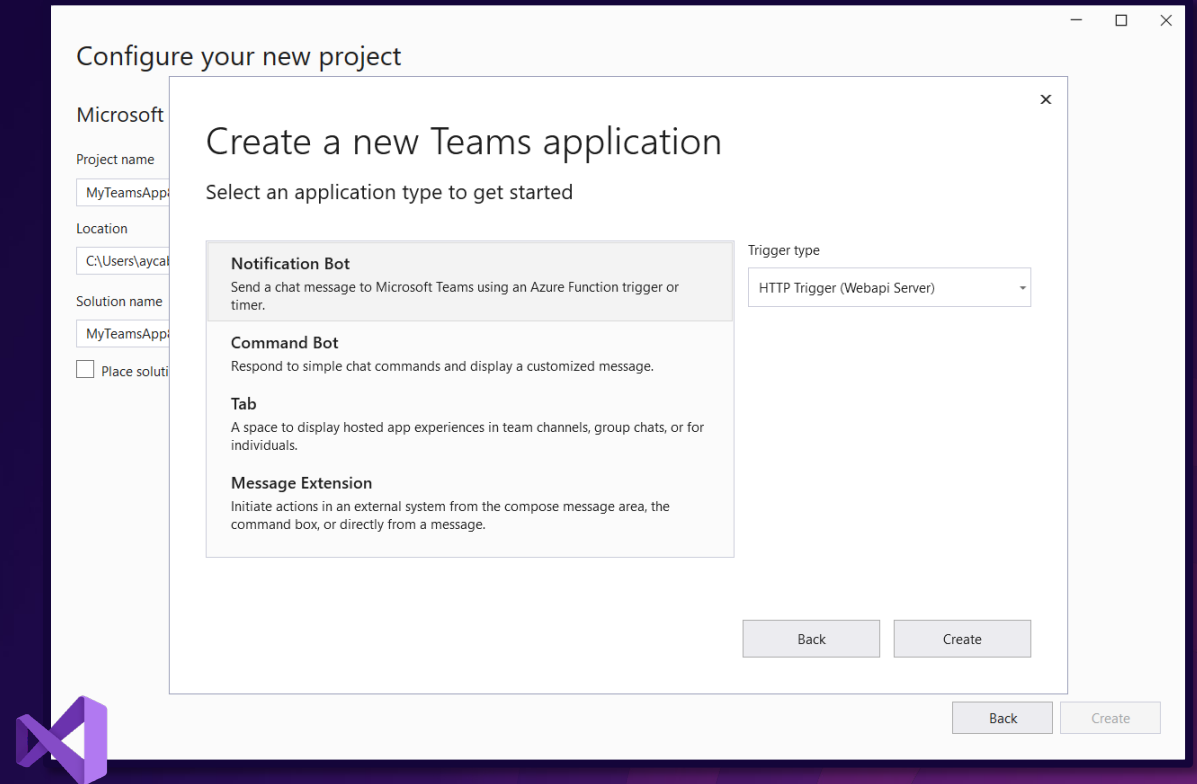
Demo – 创建一个Teams bot应用

Teams Toolkit for Visual Studio and .NET

Teams Toolkit for Visual Studio

- 简单易上手
- 常用的应用模板
- 无需人工注册Teams app
- 智慧集成Azure云端主机
- 基于 .NET框架的web 应用

TeamsFx .NET SDK

TeamsFx .NET SDK可以有效帮助开发者简化源代码
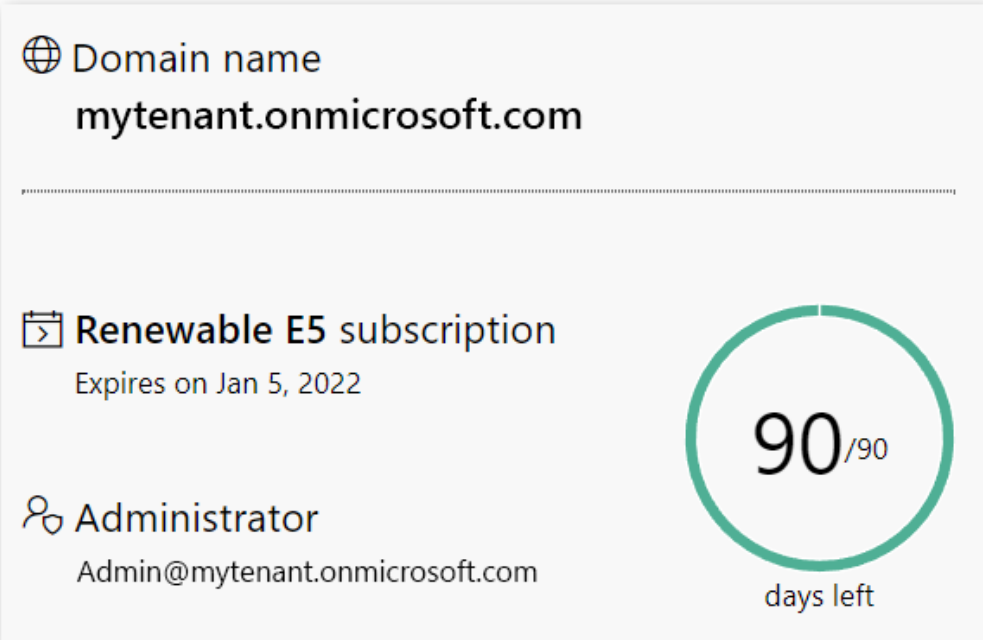
辅助开发Microsoft Teams单点登录，访问Bot服务，或访问Azure云资源等

发布于NuGet

```csharp
public void ConfigureServices(IServiceCollection services)
{
    ...

    services.AddTeamsFx(Configuration.GetSection("TeamsFx"));
}

...


await teamsUserCredential.GetTokenAsync(
        new TokenRequestContext(new string[] { "User.Read" }),
        new System.Threading.CancellationToken());
```

Microsoft 365 developer program

加入开发人员计划，以获取免费的Microsoft 365 E5 开发人员订阅, 可以用于创建sandbox环境，以构建独立于生产环境的Team App或任何Microsoft 365 解决方案。

扩展阅读

Teams Toolkit for Visual Studio 开发人员文档:
https://aka.ms/teams-toolkit-vs/docs

TeamsFx GitHub:
https://aka.ms/github/teamsfx

TeamsFx 示例应用:
https://aka.ms/github/teamsfx-samples

[教程🚀]

使用Teams Toolkit for Visual Studio构建用于获取股票价格浮动通知的Teams Bot App:
https://aka.ms/teams-toolkit-vs/bot-tutorial

.NET 开发人员,

让我们听到你的声音!

分享你的想法 🔖

https://aka.ms/teams-toolkit-vs/feedback