



Building Apps with Microsoft Graph and Visual Studio

Robert Green

Program Manager, CSE

Microsoft

rogreen@microsoft.com

@rogreen_ms

<https://channel9.msdn.com/Shows/Visual-Studio-Toolbox>

Agenda

- Introduction
- What is the Microsoft Graph
- How could you use the Microsoft Graph
- Learn more



Evolution of the Office Platform

1990s PC



VBA

2000s PC + Servers



Com Add-ins
VSTO
FTC



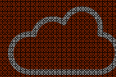
2010s Devices + Cloud



Open standards
Decoupled services
Mobile SDK's

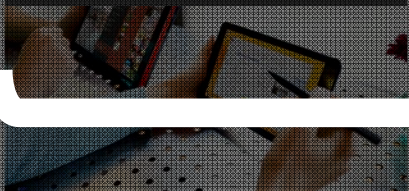
Office Platform

WHAT CAN I BUILD?



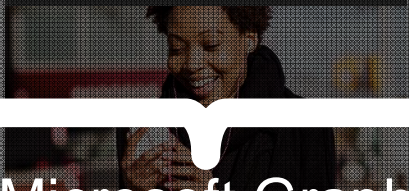
ADD-INS AND WEB PARTS:

Make your solution a native part of the modern Office



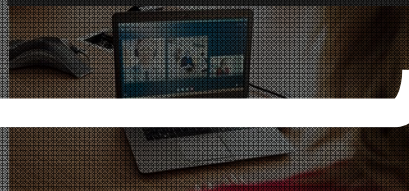
WEB AND DEVICES APPS:

Build smarter apps by connecting to Office services



VOICE, VIDEO, CONNECTORS, AND BOTS:

Create the next generation of productivity solutions



Microsoft Graph

Microsoft Graph, gateway to Microsoft Services

[HTTPS://GRAPH.MICROSOFT.COM/](https://graph.microsoft.com/)



- **Single resource** that proxies multiple Microsoft cloud services
- Allows for **easy traversal** of objects and relationships
- **Eliminates** the need to discover endpoints
- Only **one OAuth** access token needed
- **For both** personal and work and school accounts
- Available as a **public API**



Building integration with Office 365

Solution

Development Environment

Authentication and Authorization

Data

YOUR APP

Windows, Apple, Android
Your choice of technology (.NET, JS, HTML, Ruby, etc.)

Microsoft Azure Other hosting (IIS, LAMP, etc.)

XCode Eclipse or Android Studio Visual Studio REST

iOS Microsoft Graph API SDK Android Microsoft Graph API SDK Visual Studio Microsoft Graph API SDK



OpenID Connect and OAuth 2.0



Microsoft Graph

<https://graph.microsoft.com/>

Users Groups Files Mail Calendar Personal Contacts Notes Tasks Org Contacts People Excel Notes...

Insights and relationships from Office graphs

Microsoft Graph



- > Build smarter more intelligent apps
- > Empower individuals and teams to do & achieve more
- > Transform your business for the digital age



Build Smarter, Intelligent Apps

The core data that drives a business is accessible through the Microsoft Graph

Rich Context

- Is this person out of the office?
- Who is their manager?
- Where do they need to be next?
- What documents have they been working on recently?

Deep Insights

- What documents are most interesting to this person?
- What's the best time for this group of people to meet?
- Who should this person contact for info on this topic?

Real-time Updates

- Reschedule meeting when a conflict appears
- Notify owner when a file is modified
- Continue a process immediately after approval mail is received

Imagine what Microsoft Graph can do for you



Empower individuals
and teams to achieve
more with
Office 365



Smart Meetings



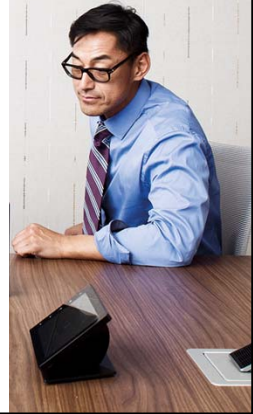
Organizational analytics



Custom Dashboards



Smart Workflows



Transform your business for the digital age

Partner with the best, the experts in hyper scale SaaS apps...



Build on the true
productivity
platform



Move your business
to the cloud



Leverage best in
class SaaS solutions



Built in security
& protection

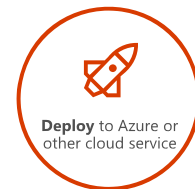
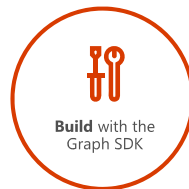
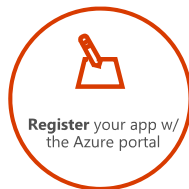


DEMO: GRAPH EXPLORER GRAPH .NET CLIENT SDK

Visual Studio **LIVE!**
EXPERT SOLUTIONS FOR .NET DEVELOPERS

Getting Started with Microsoft Graph

Try it out...



... use your Platform of choice

 PHP


 Xamarin

 .Net

 UWP


 JavaScript

 Python

 Android

 Ruby

 iOS

 AngularJS

Stay Connected

<https://developer.microsoft.com/graph>



Twitter

#MicrosoftGraph



GitHub

/MicrosoftGraph



StackOverflow

[MicrosoftGraph]

Resources

- Microsoft Graph
 - <https://developer.microsoft.com/en-us/graph/>
 - <https://developer.microsoft.com/en-us/graph/graph-explorer>
 - <https://developer.microsoft.com/en-us/graph/docs/concepts/overview>
 - <https://developer.microsoft.com/en-us/graph/code-samples-and-sdks>
- Graph SDK Demo
<https://github.com/rogreen/GraphSDK>