



You make **possible**



# Cutting edge collaboration apps with Webex APIs

Extending and Embedding Cisco Collaboration

JP Shipherd  
Product Manager  
Webex For Developers

DEVNET-2463

**CISCO** *Live!*

Barcelona | January 27-31, 2020



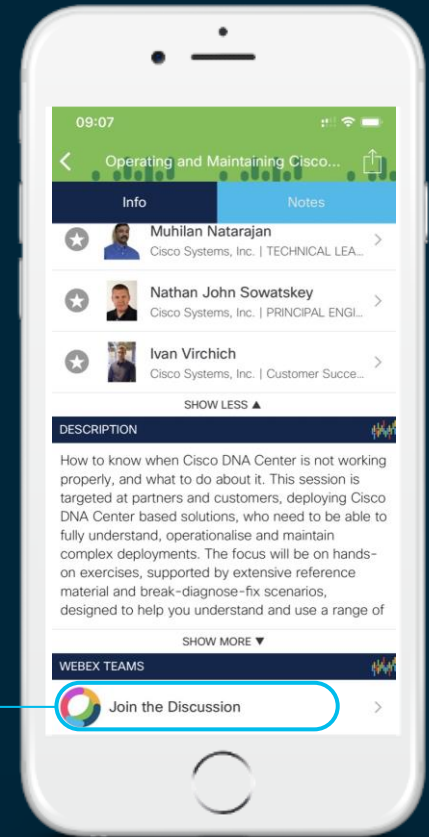
# Cisco Webex Teams

## Questions?

Use Cisco Webex Teams to chat with the speaker after the session

## How

- 1 Find this session in the Cisco Events Mobile App
- 2 Click “Join the Discussion”
- 3 Install Webex Teams or go directly to the team space
- 4 Enter messages/questions in the team space



# Imagine A world without apps



# Agenda

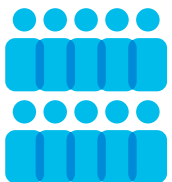
In this session, I'm hoping to help you answer two questions:

- Why would I build an application to work with Webex Collaboration?
- What APIs and interfaces are available for me to do it?

The world  
of work is  
changing



# Work is more complex



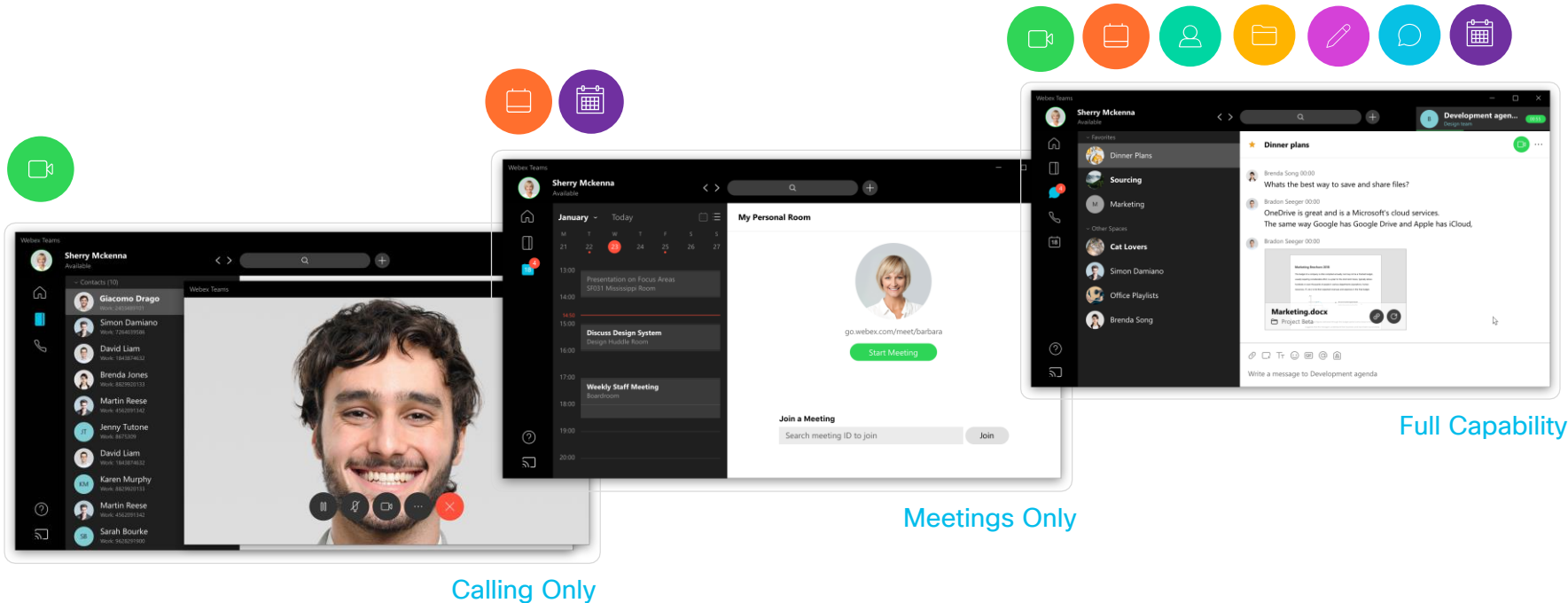
**10 or more** individuals  
typically collaborate daily



**45%** of innovators spend **half or more** of their day in meetings

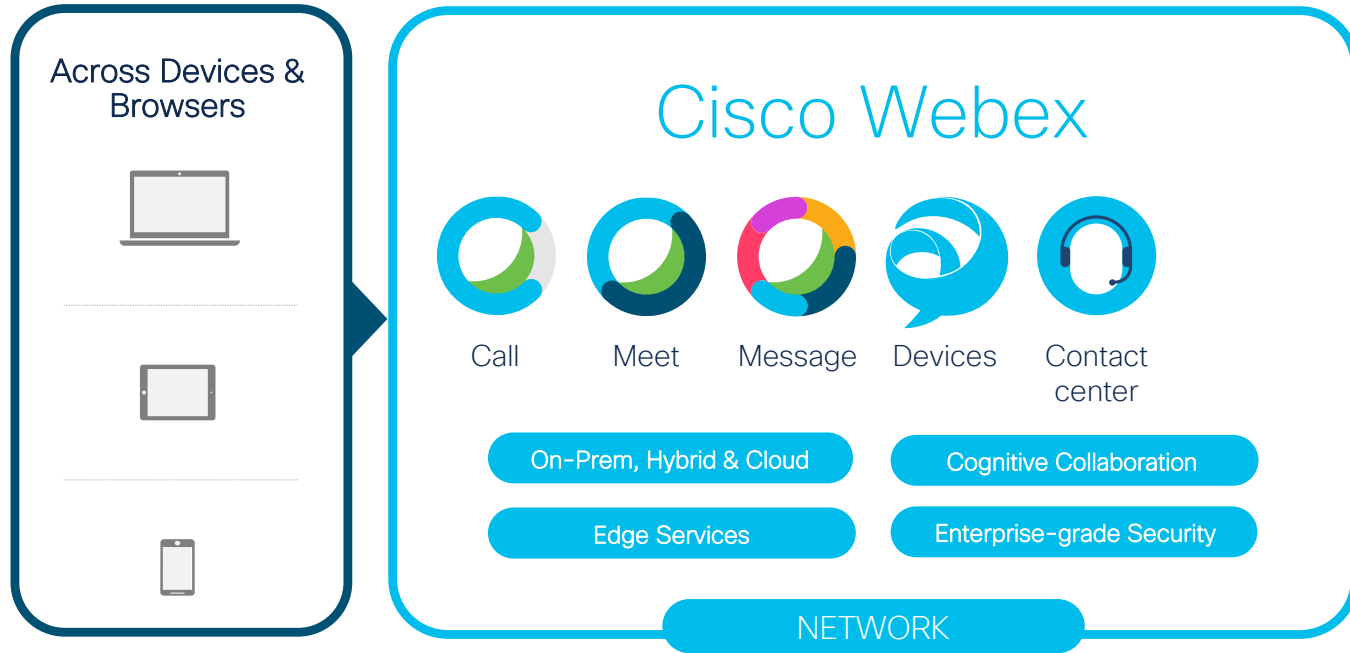
# Webex unified experience....

Any combination of Calling, Meeting and/or Messaging

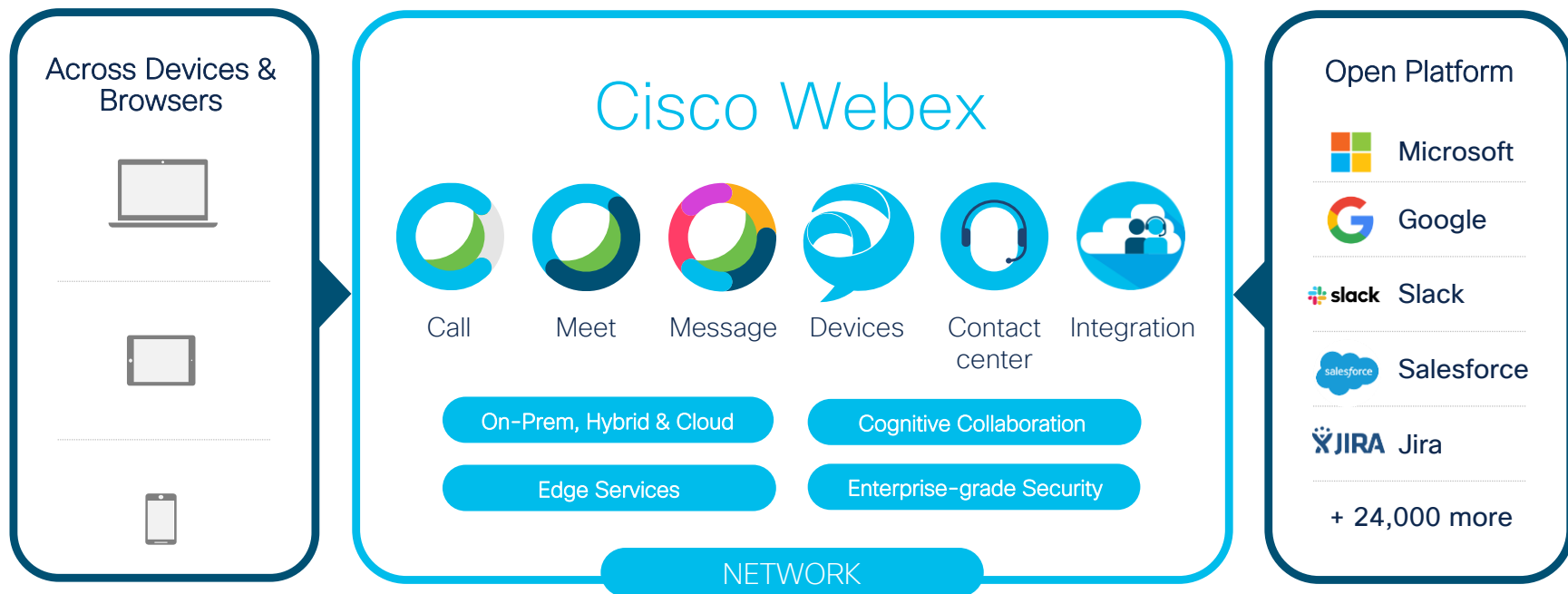




# ...supported by the Unified Webex Platform



# Collaboration is more effective when it works with the tools you are already using



# Open and Extensible Platform

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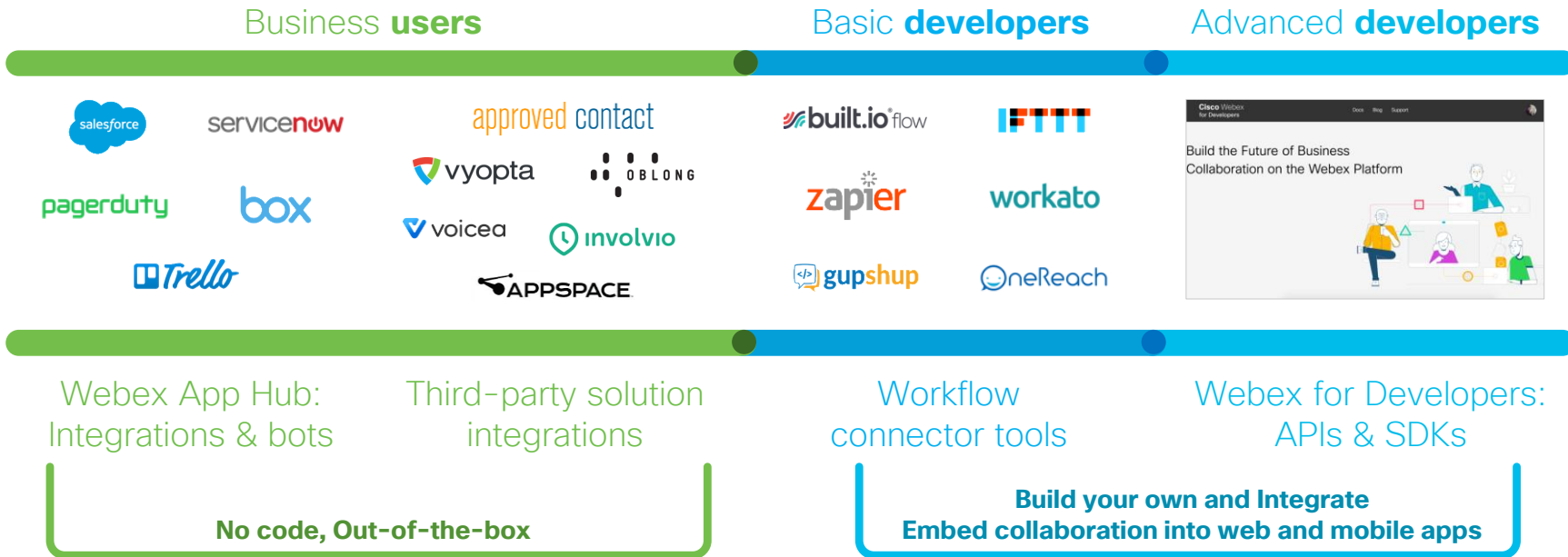


## Build the Future of Business Collaboration on the Webex Platform

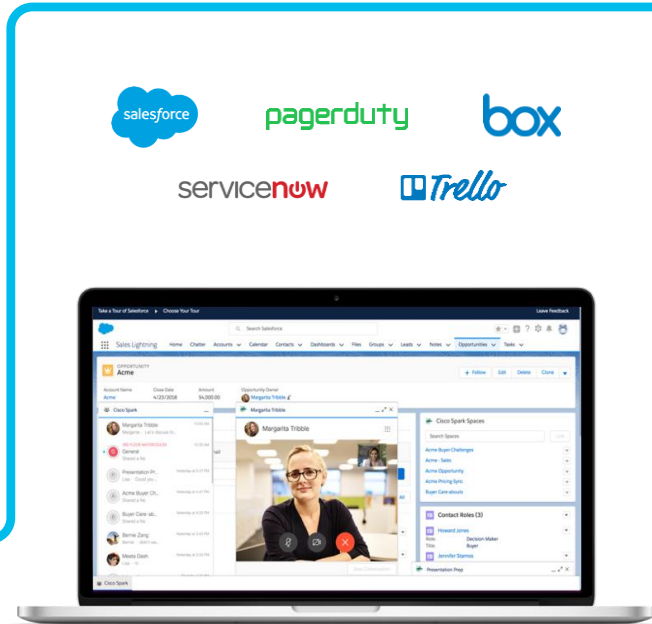


If you ever say “Hmm...Webex doesn’t do that”... don’t give up!

Webex is a PLATFORM and (if it make sense) we can make it work!



# Make collaboration more effective by connecting it to, and enabling it from, to tools we use



Within Webex, keep up to date with the work happening in other apps



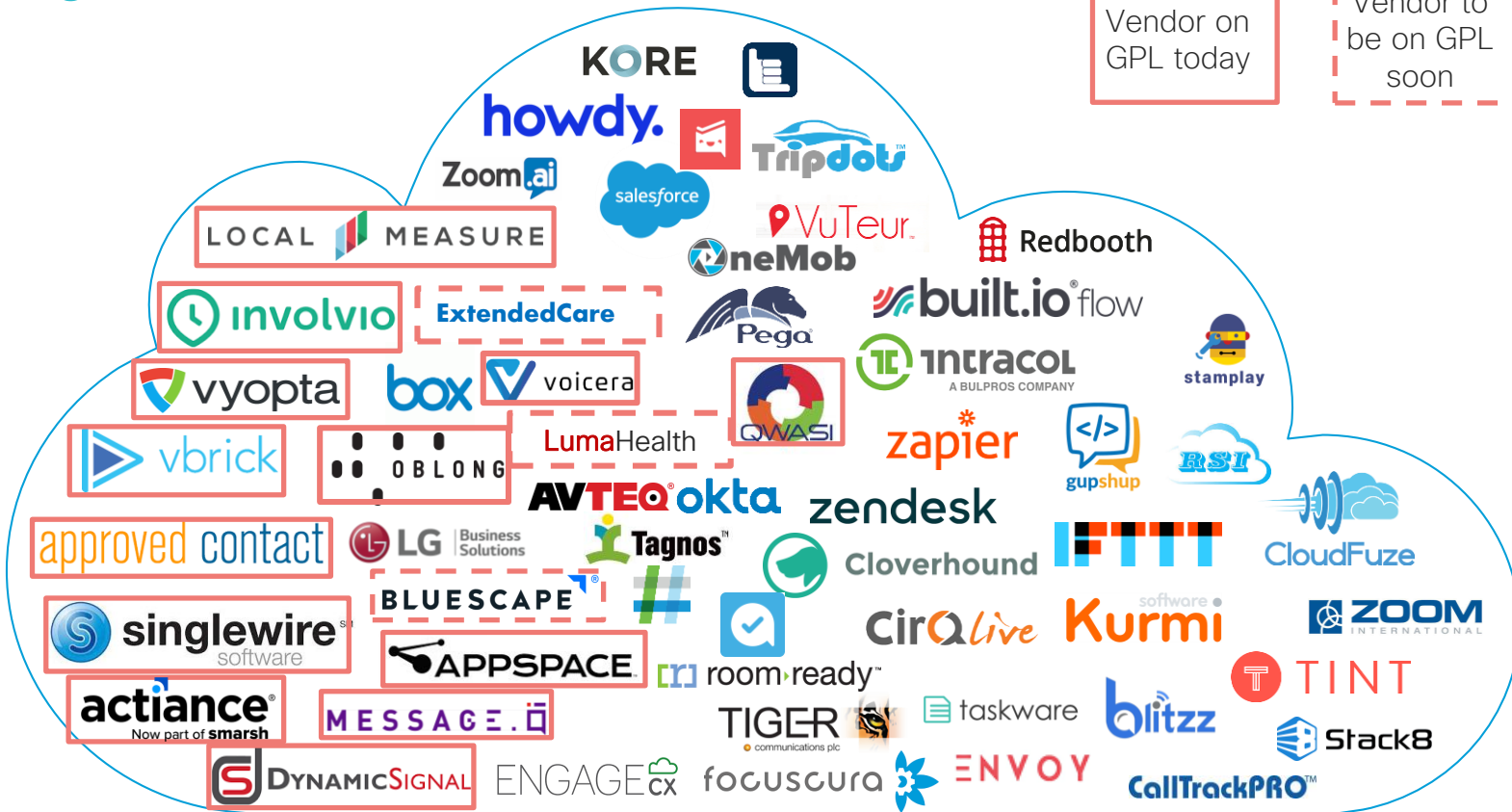
Bring rich audio, video and messaging capabilities to your own apps

# Ecosystem partners help on your journey to productivity

## Meetings/Teams/Devices

Vendor on  
GPL today

Vendor to  
be on GPL  
soon



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# Webex and S+ Partners



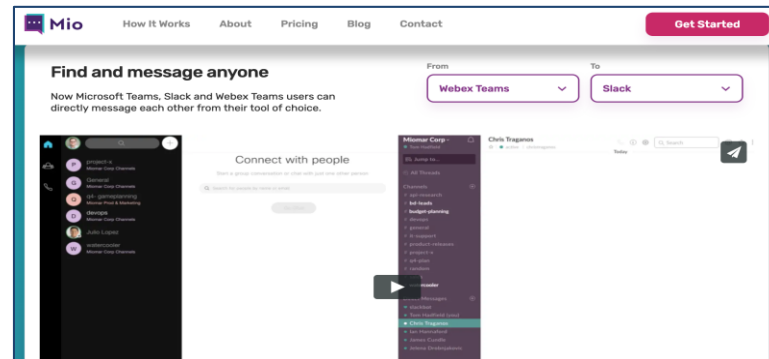
The screenshot shows the Smarsh website's page for Webex Teams. The header includes navigation links for Solutions, Products, Resources, Support & Services, and Company, along with a LOGIN button and a WATCH IT WORK button. The main content area features the Webex Teams logo, a 'Standard' and 'Control' toggle, and a paragraph describing Webex Teams as Cisco's next generation collaboration platform. A 'GET STARTED' button is prominently displayed.

**Webex Teams**

Standard Control

Webex Teams is Cisco's next generation collaboration platform powering more than 80 billion meeting minutes every month. It's the one-stop shop for enterprise communications including 1:1 chat, team collaboration, calls, meetings, chatbots, room and phone systems. However, companies with electronic communications retention and oversight requirements need to ensure that Webex Teams content is effectively retained and reviewed. Give your teams the freedom to be productive from anywhere while maintaining compliance with capture and archiving solutions from Smarsh.

GET STARTED



The screenshot shows the Mio website's landing page. The header includes navigation links for How It Works, About, Pricing, Blog, and Contact, along with a 'Get Started' button. The main content area features the heading 'Find and message anyone' and a subheading 'Now Microsoft Teams, Slack and Webex Teams users can directly message each other from their tool of choice.' Below this, there are dropdown menus for 'From' (Webex Teams) and 'To' (Slack). A video player is embedded in the center, showing a person using the Mio interface.

**Mio**

How It Works About Pricing Blog Contact

Get Started

**Find and message anyone**

Now Microsoft Teams, Slack and Webex Teams users can directly message each other from their tool of choice.

From Webex Teams To Slack

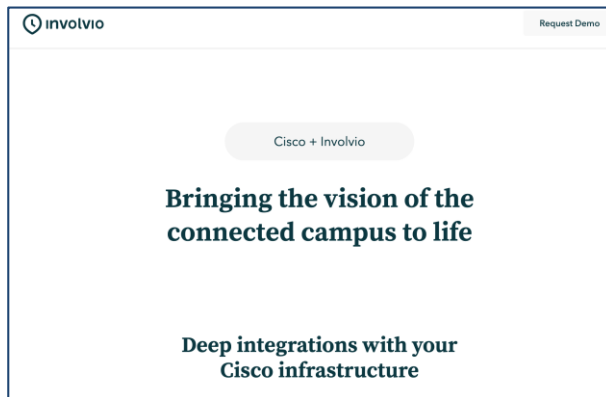
Connect with people

Search for people to connect with

Video player showing Mio interface



Find Available Meeting  
Slots Across Orgs



The screenshot shows the Involvio website's landing page. The header includes the Involvio logo and a 'Request Demo' button. The main content area features a 'Cisco + Involvio' button, a paragraph about bringing the vision of the connected campus to life, and a paragraph about deep integrations with Cisco infrastructure.

**involvio**

Request Demo

Cisco + Involvio

**Bringing the vision of the  
connected campus to life**

**Deep integrations with your  
Cisco infrastructure**

**For list of S+ partners and  
more info:**

<https://apphub.webex.com/resale>

**cisco** *Live!*



# Agenda

- Why would I build an application to work with Webex Collaboration?
  - Collaboration is more effective when your collaboration tools integrate with the other tools that you use
  - Make your own collaboration more effective
  - Make your company's employees' collaboration more effective
  - Make money selling solutions that make Webex users' collaboration more effective
- What APIs and interfaces are available for me to do it?

# What Developer Interfaces are Available?

# Webex Messaging APIs



/People	/Rooms	/Memberships (room)	/Messages	/Webhooks	/Teams	/Team Memberships
List People	List Rooms	List Membership	List Messages	List Webhooks	List Teams	List Team Membership
	Create a Room	Create a Membership	Create a Message	Create a Webhook	Create a Team	Create a Team Membership
Get Person Details	Get Room Details	Get Membership Details	Get Message Details	Get Webhook Details	Get Team Details	Get Team Membership Details
	Update a Room	Update a Membership		Update a Webhook	Update a Team	Update a Team Membership
	Delete a Room	Delete a Membership	Delete a Message	Delete a Webhook	Delete a Team	Delete a Team Membership
Get My Details						

# Webex Admin APIs



/People	/AdminAudit	/Events	/Licenses	/hybrid Connectors & Clusters	/Roles	/Resource Groups
List People	List Control Hub Admin Activity	List Webex Teams Activity	List Licenses	List Hybrid Clusters and Connectors	List Roles	List Resource Groups
Create a Person						
Get Person Details	List Control Hub Activity Detail	Get Activity Detail	Get License Details	Get Hybrid Cluster and Connector Details	Get Role Details	Get Resource Group Details
Update a Person						
Delete a Person						
Get My Details						

● Get
● Post
● Put
● Delete

# Webex SDK – Specifications



## iOS SDK

- iOS 10 - 12
- iPhone & iPad
- Swift 4+
- XCode 9+
- **iOS 13 - NEW**



## Browser WebRTC JS SDK

- Firefox desktop - latest
- Chrome desktop - latest
- **Safari desktop - NEW**
- **Safari for iOS - soon**
- **Chrome for Android - soon**



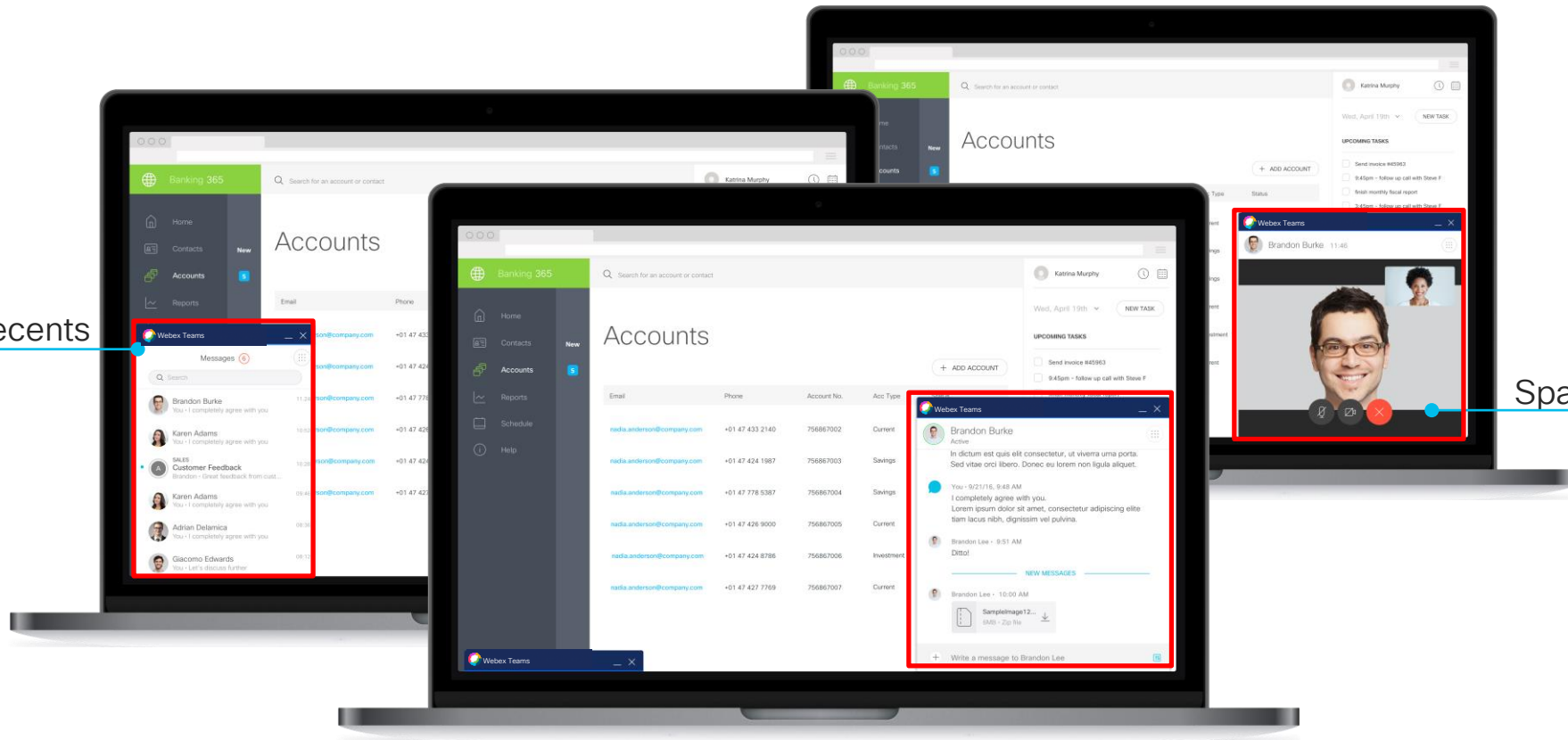
## Android SDK

- Android 5.0+
- Android Studio 2.3+
- Android SDK Tools 25+
- Android API Level 21+
- Java JDK 8+

# Webex Teams client to Widget

Recents

Space



# Persistent Guest

Connects consumers / non-Cisco enterprise users with Webex Teams paid users via voice and video using Webex SDKs

- Use cases:
- Patient to tele-doctor healthcare mobile app.
- Consumer support helpline on retail website.



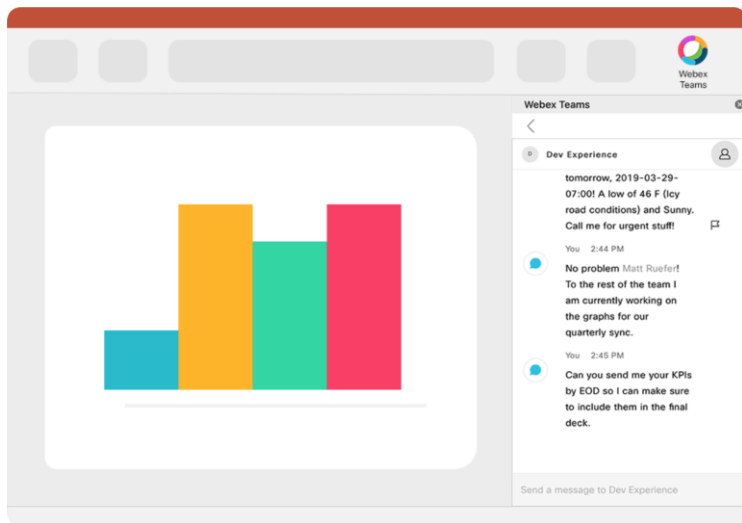
- Terms of service:
- Guests offer is included in all Webex Teams paid offers. No additional cost.
- Guest can reach only paid Webex Teams users
- Guest to Guest is not supported
- Guest issuers are created by developers who are part of a paid Org

# What's New(ish)?



# Webex Teams add-in for Office 365

**Deliver secure team collaboration right inside business productivity apps**



## Add-in capabilities

- Persistent messaging
- Add or remove people to group spaces
- Create a space
- Search for space names
- Automatically view last selected space when re-opening a file

## Availability

- Admins and/or users can install from Microsoft AppSource
- Support for PowerPoint, Word, Excel online and/or desktop apps

# Webex Cloud Connected Device APIs



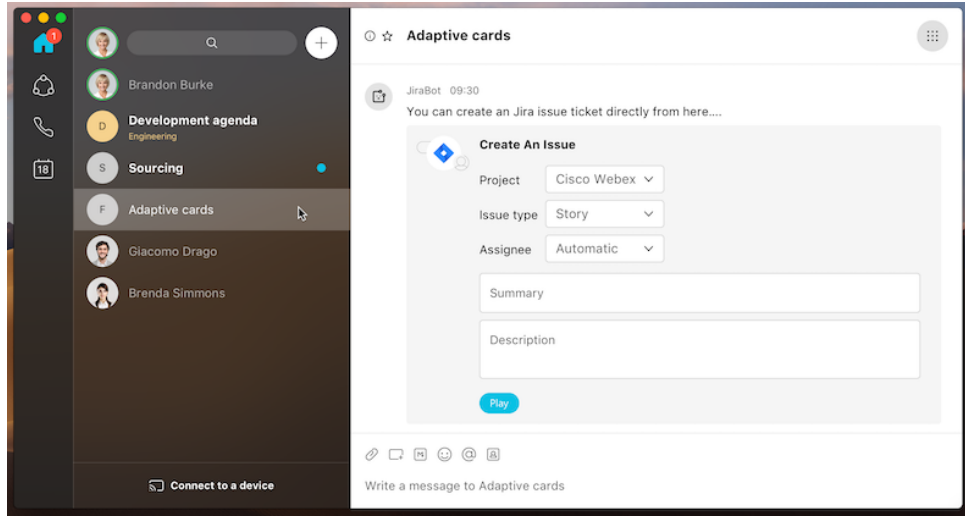
/Places	/Devices	/xAPI
List Places	List Devices	Get Device Info
Create a Place	Create a Device Activation Code	Send Device Commands
Get Device Details	Get Device Details	
Update a Place	Update a Device	
Delete a Place	Delete a Device	

# Existing API Improvements

- Messaging – with Meetings!
  - Get Webex Space meeting info -- /rooms/{id}/meetingInfo
    - Enables automated scheduling of Webex Teams backed meetings
- Administration
  - Partner Managed Org Admin can now use all Admin APIs
  - Integration Management to allow/deny integrations available in Control Hub

# Buttons and Cards

Add the simplicity of a GUI to your Bot Interactions!



- Developers can write cards with Adaptive Cards format
- Format gives developers common and consistent UI
- Cards can include text, buttons, links and images
- Create cards to approve receipts, raise issues, etc.

# Example Use Cases

## Cisco Orders



CCW BOT 11/7/19, 3:15 PM

CommerceBOT here 🤖

### Welcome

I can help you stay informed for your Deal/Orders and help accelerate turnaround time.

Here are a few actions I understand:

show deal status 12345  
show order status 12345  
follow deal 12345

If this is a group space, to interact with me, mention me by typing @ and selecting the CCW BOT.

**TIP:** Type help anytime to view list of all features/commands.

Here are few quick action buttons to get you started:

Deal Lookup ▾

Share Deal ▾

Re-Assign AM ▾

SalesOrder No.

OR

WebOrderID

Get Details

Expedite Order

cisco *Live!*

## Trello

Hello! 🖐️

I'm here to help you use Trello within Webex Teams. I understand the following typed commands:

**@trello manage** Set up or edit notifications workflows.

**@trello add** Add new cards, lists or comments.

**@trello update** Make a quick change to card or list.

**@trello get** Get a list of your boards, lists or cards.

Need further  
devsupport@

What would

Manage No

Get

### Add new ...

What would you like to add in Trello?

Card ▾

List ▾

Comment ▾

### Add a new card to Board Name

New Card Name:

Select a list to add your new card:

Things To Do ▾

Add description:

Set Due Date in (mm/dd/yyyy):

Add Card

## SFDC



Salesforce Alerts (@webex.bot) 9:26 AM

Hello! 🖐️

I'm here to help you use Salesforce within Webex Teams. I understand the following typed commands:

**@Salesforce manage:** Create and edit notifications

**@Salesforce create:** New commonly used records

**@Salesforce update:** Update commonly used records

**@Salesforce get:** Retrieve records for reference

Need further  
devsupport@

To get s

Link A

### Create a record

What kind of Salesforce record do you want to create?

Opportunity ▾

Contact ▾

Task ▾

### Add Test Record1 details for New Opportunity

Opportunity Name: New Opportunity

\* Close Date in (mm/dd/yyyy):

\* Stage :

1 - Prospecting ▾

Description:

Save Opportunity

# Buttons and Cards School Bot



CardSchool 12:56 PM

**Welcome to Buttons and Cards School**



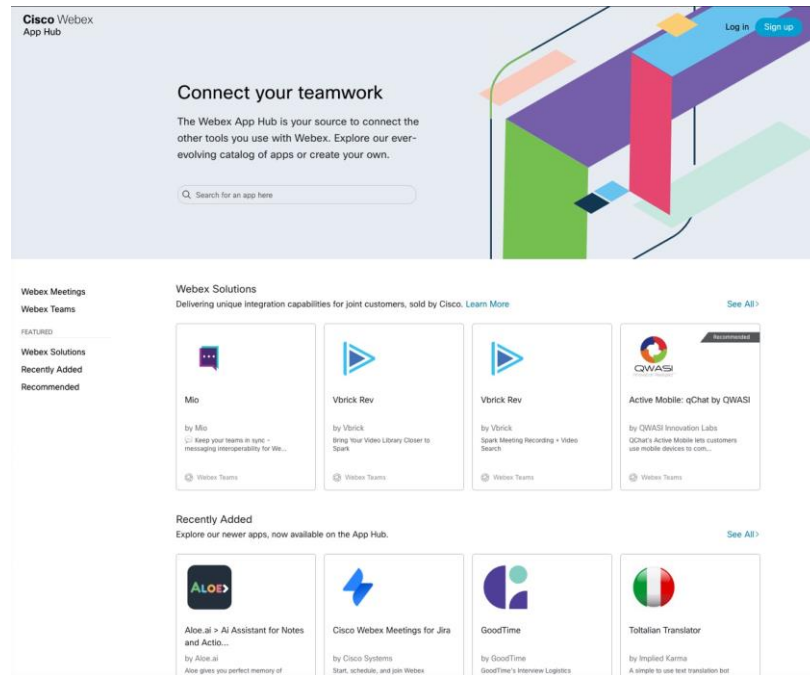
This is an open source Webex Teams Bot that helps users and developers become familiar with Webex Teams Buttons and Cards.

A bot to teach developers about Buttons and Cards using Buttons and Cards!

Try it yourself by adding [cardSchool@webex.bot](https://cardSchool@webex.bot) to a space.

# Enhanced Webex App Hub

Revised UI with search experience to easily find integrations with Webex



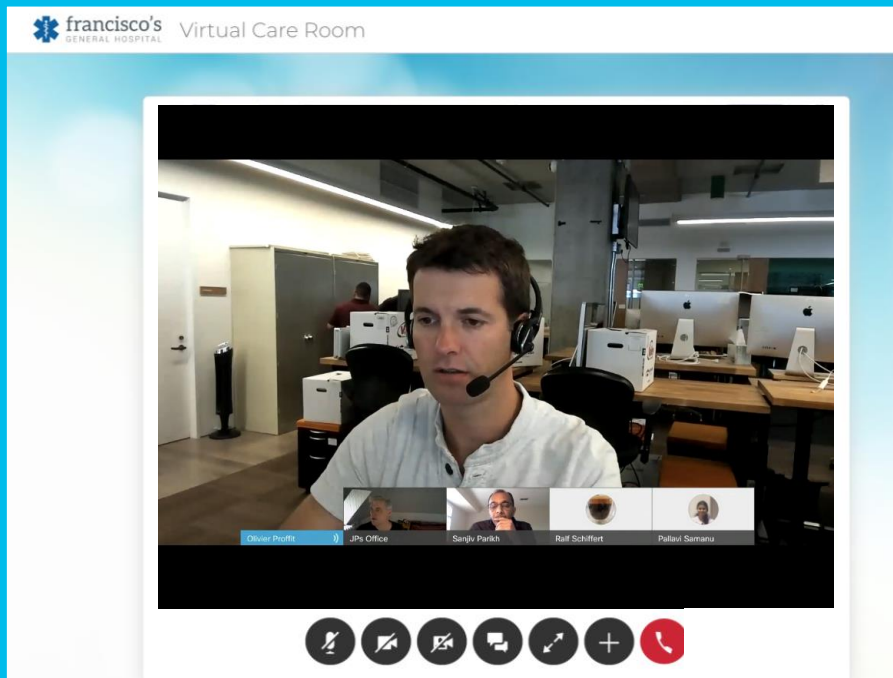
# Widget Overlay view

Main video layout

Active speaker shown full screen.

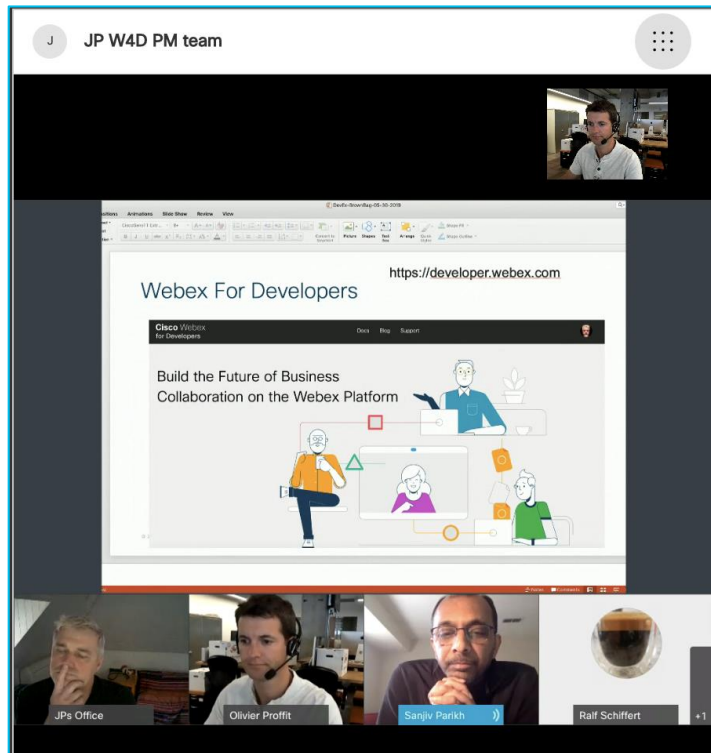
Additional participants overlaid on top of main pane at smaller scale “filmstrip” with name labels.

One PiP left empty as active speaker placeholder.



# Prominent view

Content layout



Content takes up a majority but not all the screen.

Smaller panes representing participants including the active speaker.



# Messaging events over Websocket

JS SDK - June 2019

- Receive messaging events directly in browser – parity with mobile SDK
- Consistent with webhook events
- Secured and easy – No need for server-side event handler, no need for NGROK, etc
- Simple – demo app – available now!

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The screenshot shows a web browser window with the URL <https://js.samples.s4d.io/browser-socket/>. The page title is "Socket". Below the title, it says "Listen to socket events in the browser." and "Initialize the SDK with Your Personal Access Token." There is a text input field for the "Your Personal Access Token" containing "N2EyMzNiYzgtODMwYy00MmY5LWFhZi" and an "Initialize" button. Below the input field, it says "initialized". Underneath, it says "Open this browser's inspection tools to view the console." and "Open Webex Teams and create rooms, memberships or messages. These activities will generate an event which will fire and display in the console." There is a link to "See the Webex Webhook Documentation for more information on the payloads of the membership, message and room events. In general the SDK events closely match the payload of the webhooks, except in cases where the information in a traditional webhook envelope doesn't make sense, for example there is no name, targetUrl, or secret field in the SDK event envelopes." Below this, it says "The SDK adds one event which is not yet supported in the webhooks. A memberships:seen event is generated when a Webex client sends a 'read receipt'. The memberships:seen event will include a lastSeenId field with the id of the last message read by the user." There is a link to "View the source for this app". At the bottom, there is a browser's developer console showing a log of events. The log includes "Listening to message events", "Listening to membership events", "membership deleted event", "membership created event", "memberships:seen event", "message created event", and "message deleted event". The log also shows the SDK version "1.0.0" and the SDK name "webex-js-sdk".

<https://js.samples.s4d.io/browser-socket/>  
<https://developer.webex.com/blog/using-websockets-with-the-webex-javascript-sdk>

# What's Coming?

# More API Access Across Webex Capabilities

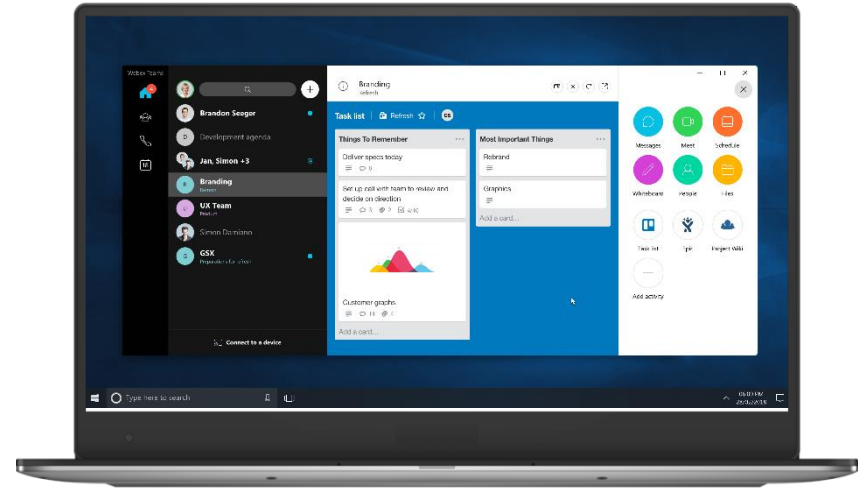
- Meetings!
- Schedule a meeting (EFT now)
- Access Recordings (EFT now)
- Set User Preferences (EFT now)
- In Meeting Controls
- In Meeting Events
- Post Meeting Details (attendees, transcription, etc)

## Calling!

- Configure users for Webex calling
- Oauth Access to legacy Broadsoft XSAPI
- In Call Controls
- In Call Events
- Post Call Details for reporting and analytics

# Embedded Apps

- Simplify workflows by having third party apps embedded directly in Teams
- Add web-based integrations to spaces, such as Trello, Jira, PowerApps
- Bookmark websites in spaces for fast access, including wikis, dashboards



# Buttons and Cards – Phase 2

**Cisco Webex for Developers** Documentation Blog Support

**Card Elements**

- Containers
  - Container
  - ImageSet
  - FactSet
  - ColumnSet
- Elements
  - TextBlock
  - RichTextBlock
  - Image
  - ActionSet
- Inputs
  - Input.Text
  - Input.Date
  - Input.Time
  - Input.Number
  - Input.ChoiceSet
  - Input.Toggle

**Buttons and Cards Release**

Release Date: Aug 6, 2019  
Product: Webex Teams  
OS: Mac, Windows, Web

We're making it easier for you to interact with bots and integrations in Webex Teams. When your bot sends information in a space that includes a card with buttons, you can now easily interact with it.

Buttons and Cards Resources:

- [Developer Portal Buttons and Cards Guide](#)
- [Subscribe to Release Notes](#)

**Card Structure**

- AdaptiveCard
  - ColumnSet [2 columns]
    - Column [Automatic]
      - Image
    - Column [Stretch]
      - TextBlock [Cisco Webex Teams]
      - TextBlock [Buttons and Cards Release]
    - ColumnSet [2 columns]
      - Column [Weight: 35]
        - TextBlock [Release Date:]
        - TextBlock [Product:]
        - TextBlock [OS:]

**Element Properties**

**Image**

Id: (not set)  
Initially visible: ☒  
Uri: /images/webex-teams-logo.png  
Alternate text: (not set)

**Layout**

Spacing: Default  
Separator: ☐  
Horizontal alignment: (not set)  
Height: Automatic  
Size: Medium

**Card Payload Editor**

```
1 {  
2   "type": "AdaptiveCard",  
3   "body": [  
4     {  
5       "type": "ColumnSet",  
6       "columns": [  
7         {  
8           "type": "Image",  
9           "items": [  
10            {  
11              "type": "Image",  
12              "url": "/images/webex-teams-logo.png",  
13              "alt": "Cisco Webex Teams logo"  
14            },  
15            {  
16              "type": "TextBlock",  
17              "text": "Buttons and Cards Release"  
18            },  
19            {  
20              "type": "TextBlock",  
21              "text": "Release Date: Aug 6, 2019"  
22            },  
23            {  
24              "type": "TextBlock",  
25              "text": "Product: Webex Teams"  
26            },  
27            {  
28              "type": "TextBlock",  
29              "text": "OS: Mac, Windows, Web"  
30            }  
31          ]  
32        },  
33        {  
34          "type": "TextBlock",  
35          "text": "Buttons and Cards Release"  
36        },  
37        {  
38          "type": "TextBlock",  
39          "text": "Release Date: Aug 6, 2019"  
40        },  
41        {  
42          "type": "TextBlock",  
43          "text": "Product: Webex Teams"  
44        },  
45        {  
46          "type": "TextBlock",  
47          "text": "OS: Mac, Windows, Web"  
48        }  
49      ]  
50    }  
51  ]  
52 }
```

- Buttons and Cards on Mobile Clients -- now available!
- Support for (most of) the Adaptive Card Schema 1.2
- Our own Buttons and Cards Designer!
- JS and Java SDK support
- AttachmentAction events via JSSDK Websocket interface
- Buttons and Cards in Widget

# Other Cool Stuff..

- Policies for Bots (as well as integrations)
- Threaded messaging via API (EFT now)
- Edit message via API
- CUCM Calling SDK
- Finer grained “widget components” to enable custom branding and skins when using widgets
- Refactored SDKs based on the same UCF (Unified Common Framework) Webex Clients are built on. This should result in faster delivery of new features in our SDKs

# Agenda

- Why would I build an application to work with Webex Collaboration?
- What APIs and interfaces are available for me to do it?
  - An ever growing set of interfaces that span more and more of the Cisco Collaboration Platform
  - SDKs and Widgets allow you to embed Webex collaboration into the mobile and web applications that your population is already using
  - APIs allow you to create the glue that connect Webex messaging, meeting, devices and more to other critical applications that make your business go!

# Call to Action!

## 1. Explore our Developer Resources

[Webex For Developers](#)

[Webex App Hub](#)

[Open Source Starter Kits](#)

[Webex Dev Community Resources](#)

## 2. Attend or Download more Cisco Live Collaboration Developer Content:

Create compelling collaboration workflows with the latest Webex Teams SDK features - DEVNET-1461

Building browser applications in JavaScript with the Webex Teams SDK - DEVWKS-3273

Coding 1001 - Intro to APIs and REST - DEVNET-1897

Webex APIs for Administrators - DEVNET-2610

Integrate and automate apps and workflows with the Webex Meetings APIs - DEVWKS-2490

Webex Room Device APIs: The power of automated, integrated, immersive collaboration - DEVNET-1462

Cutting edge collaboration apps with Webex Teams APIs - latest features - DEVNET-2463 (This talk)



3) Come see us in  
the DevNet Zone!



# Complete your online session survey



- Please complete your session survey after each session. Your feedback is very important.
- Complete a minimum of 4 session surveys and the Overall Conference survey (starting on Thursday) to receive your Cisco Live t-shirt.
- All surveys can be taken in the Cisco Events Mobile App or by logging in to the Content Catalog on [ciscolive.com/emea](https://ciscolive.com/emea).

Cisco Live sessions will be available for viewing on demand after the event at [ciscolive.com](https://ciscolive.com).

# Continue your education



Demos in the  
Cisco Showcase



Walk-In Labs



Meet the Engineer  
1:1 meetings



Related sessions



Thank you





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