

INTUITIVE



DEVWKS-2074

Enhancing Meeting Rooms User Experience with xAPI and Macros

Workshop

Stève Sfartz – Developer Experience Manager
& API Design Lead at Cisco DevNet



INTUITIVE

/Cisco/DevNet/SteveSfartz

- Manager of a WW team of Developer Advocates
 - IoT, Collab, Cloud, DevOps
 - Application Developer Use Cases
- Technical lead for the Cisco « API Style Guide »
- API veteran, hobbyist coder, hands-On Architect
- Contributor to DevNet CodeExchange
 - Code samples, developer tools, postman collections, awesome-webex, awesome-xapi...
- Based in France, DevNet Europe point of contact



mailto: stsfartz@cisco.com
github: [ObjectIsAdvantag](#)
twitter: [@SteveSfartz](#)

“vision without
execution is
hallucination”

-- Thomas Edison

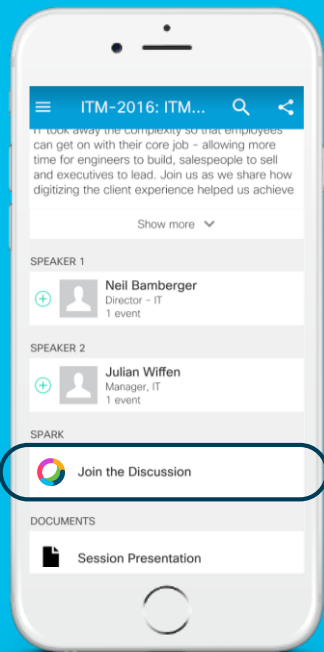
Agenda

- Meet your Sandbox'ed RoomKit
- Build a custom In-Room Control
- Listen to events via SSH
- Create your first Macro
- Post to a Webex Teams space with HttpClient

DEVWKS-2074

Continuing Education Credits for CCIEs

Please find an Ambassador to scan you in
to this DEVWKS workshop to ensure you
earn your Continuing Education Credit



cs.co/ciscolivebot#DEVWKS-2074

Cisco Webex Teams

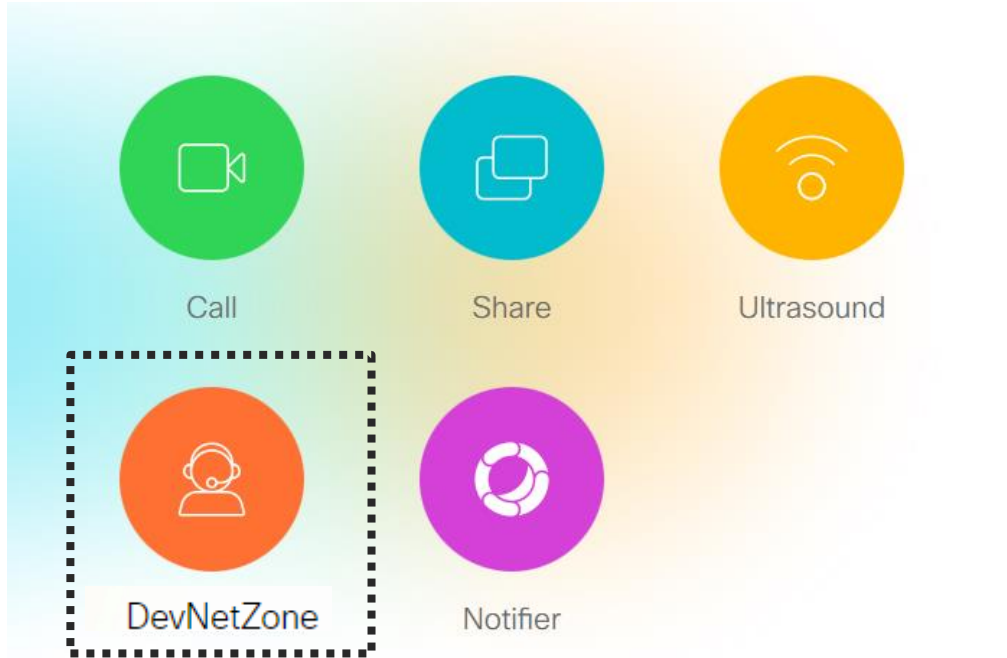
Questions?

Use Cisco Webex Teams (formerly Cisco Spark) to chat with the speaker after the session

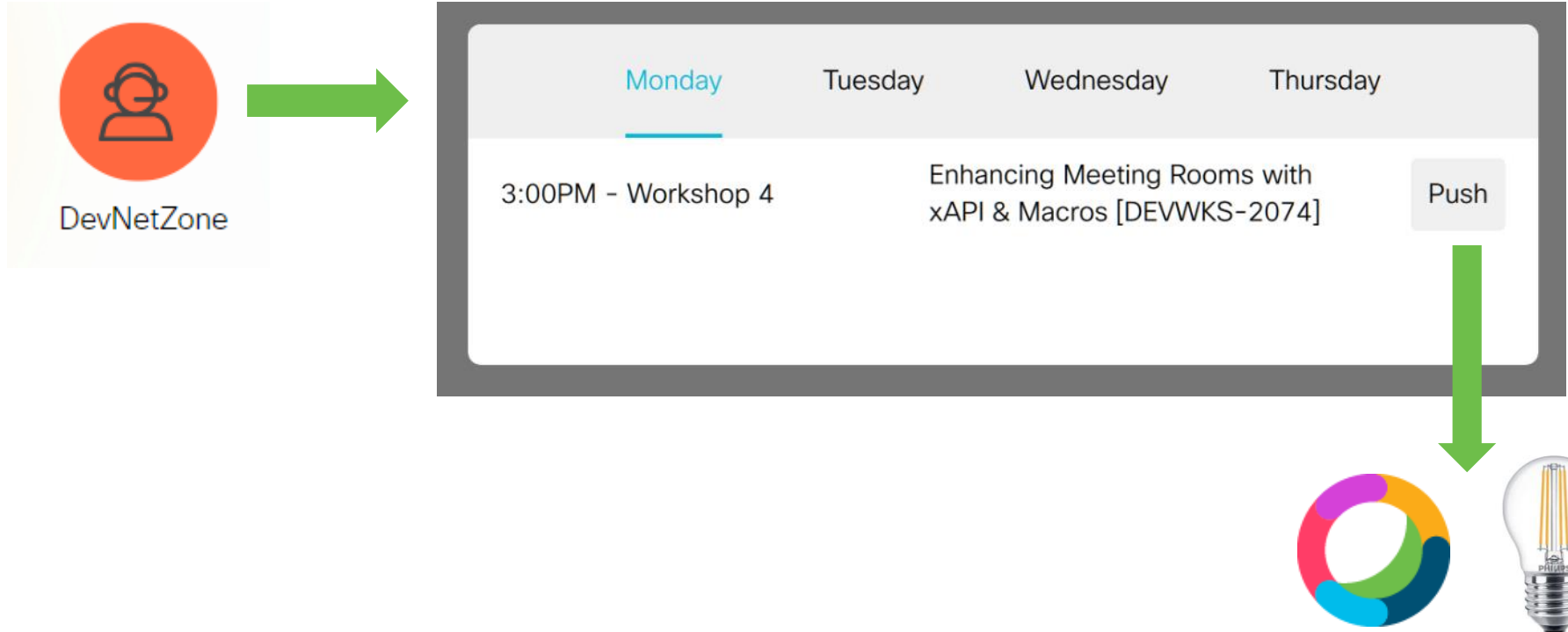
How

- 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

Our goal for today



Our goal for today



Our goal for today

POST /messages to a Webex Teams space



DevNetZoneLab 17:38

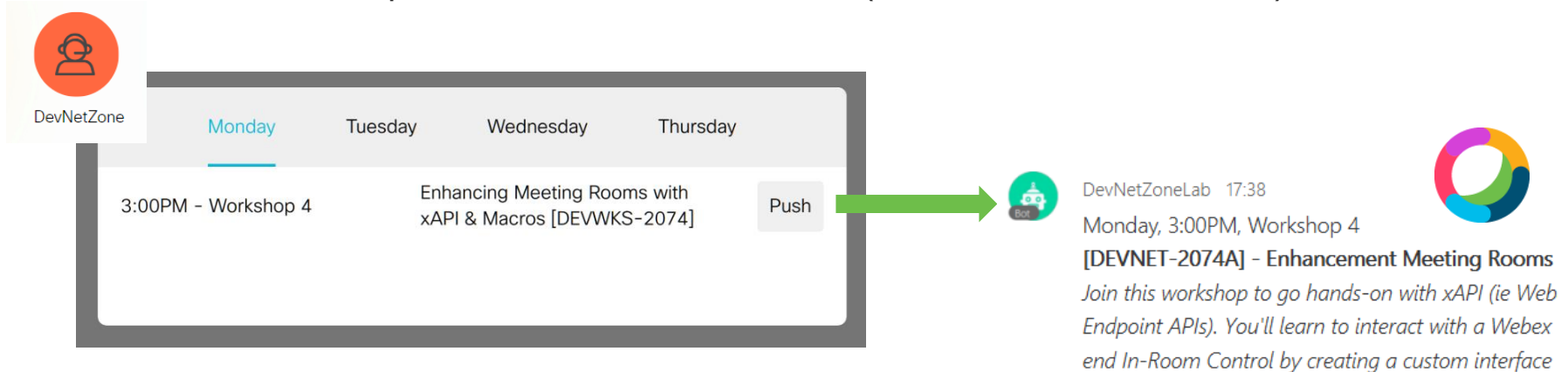
Monday, 3:00PM, Workshop 4

[DEVNET-2074A] - Enhancement Meeting Rooms User Experience with xAPI and Macros

Join this workshop to go hands-on with xAPI (ie Webex Devices APIs and Cisco Collaboration Endpoint APIs). You'll learn to interact with a Webex Device from code, and implement an end-to-end In-Room Control by creating a custom interface and deploying Macros onto your device

Our goal for today

- Connect to a CE 9.6 RoomKit from the DevNet Sandbox
- Build and deploy a custom In-Room Control (CE 9.2.1+)
- Create and run Javascript Macros (CE 9.2.1+)
- Learn the new HttpClient POST command (comes with CE 9.6.1)



The image shows a screenshot of the DevNetZone interface. On the left, there's a sidebar with a DevNetZone logo (a person with a headset) and the text "DevNetZone". The main area displays a calendar for the week of Monday to Thursday. The "Monday" tab is selected, showing a 3:00PM event titled "Workshop 4". The event details are "Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074]". A green arrow points from the "Push" button next to the event to a notification on the right. The notification is from "DevNetZoneLab" at 17:38, titled "Monday, 3:00PM, Workshop 4 [DEVNET-2074A] - Enhancement Meeting Rooms". The notification text reads: "Join this workshop to go hands-on with xAPI (ie Web Endpoint APIs). You'll learn to interact with a Webex end In-Room Control by creating a custom interface". A DevNetZoneLab logo is also visible on the right.

DevNetZone

Monday Tuesday Wednesday Thursday

3:00PM - Workshop 4 Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074] Push









DevNetZoneLab 17:38



Monday, 3:00PM, Workshop 4

[DEVNET-2074A] - Enhancement Meeting Rooms

Join this workshop to go hands-on with xAPI (ie Web Endpoint APIs). You'll learn to interact with a Webex end In-Room Control by creating a custom interface

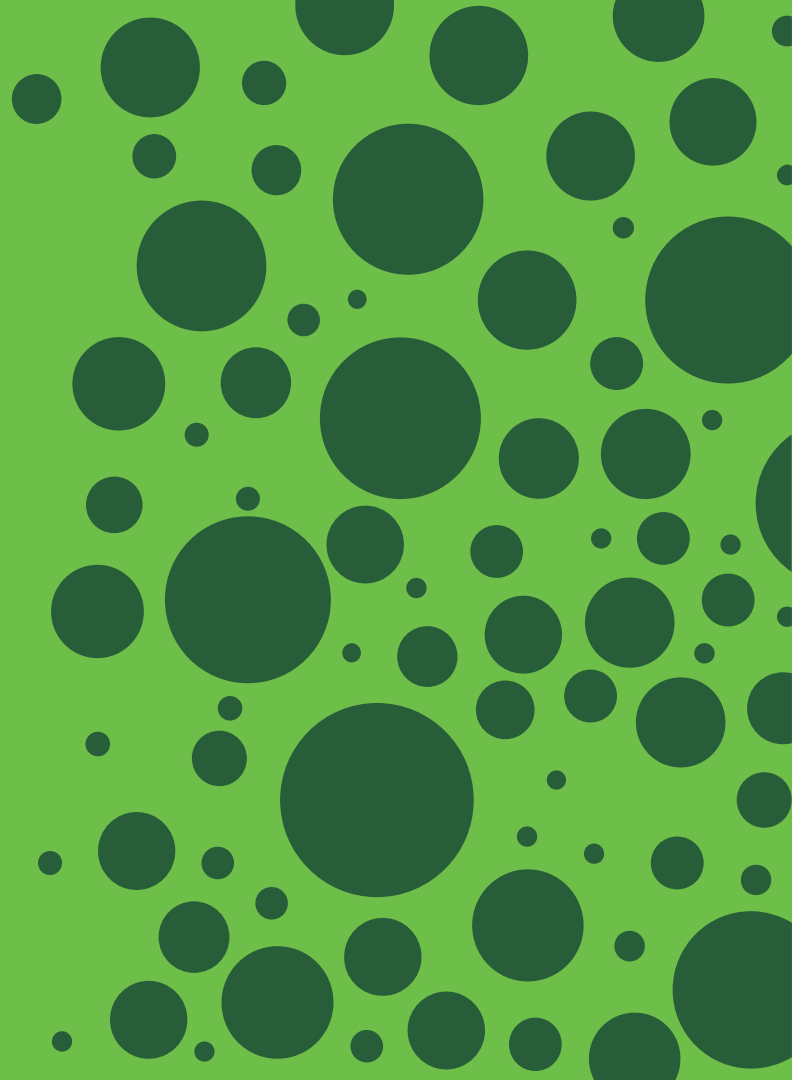
<https://github.com/ObjectIsAdvantag/devnetzone-workshop-2074>

 ObjectIsAdvantag init for CL19B		Latest commit c88362b 17 hours ago
 docs	init for CL19B	17 hours ago
 LICENSE	init for CL19B	17 hours ago
 README.md	init for CL19B	17 hours ago
 control.xml	init for CL19B	17 hours ago
 step1-listen.js	init for CL19B	17 hours ago
 step2-push.js	init for CL19B	17 hours ago
 step3-workshop.js	init for CL19B	17 hours ago

 README.md 

DEVWKS-2074 - Enhancement Meeting Rooms User Experience with xAPI and Macros

Meet your Cisco Collaboration Device





<https://projectworkplace.cisco.com>

Webex Room Kit

<https://projectworkplace.cisco.com/#/en-us/product/webexroomkit/0/0>





<https://developer.cisco.com/site/sandbox/>

Prototype with the RoomKit Sandboxes

SANDBOX ▾

Room Kit CE 9.3

(31 min left)

WINDOW: **i INSTRUCTIONS** ▶ COMMANDS **📄 ACTIVITY** ▶ OUTPUT **📍 NAVIGATOR** | STYLE: **🔍** **🔍** **🔍** | BEHAVIOUR: **🔍**

INSTRUCTIONS

Room Kit

DevBox

VPN

Overview:

This sandbox is provided for the purpose of discovering Cisco Collaboration Software - CE9.2+ programmability for Room Devices (MX, SX, DX and Room Kit series). It comes with a Room Kit device and a developer box.

Integrators, IT engineers and application developers can discover the extensibility of Cisco Collaboration Endpoints, and learn to code for Room Devices by getting hands-on with In-Room Controls and Macros, but also checking status, changing configuration and sending commands through xAPI.

Roomkit:

Once you have created a VPN session to the sandbox, you can:

- Discover the admin interface from your laptops Web browser
- Open a ssh session to the Room Kit and enter t-shell

Room Kit

WebEx Device

Room Kit CE 9.6

Remotely connect with a Room Kit running CE, and experiment with xAPI.

RESERVE

RoomKit-009 (Room...)

10.10.20.160

Room Kit

DevBox_f83c983d

10.10.20.150

Model DevBox Linux

VLAN 2003

Service

VLAN GWY RANGE1

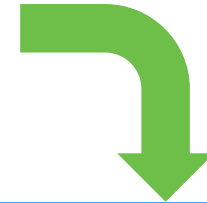
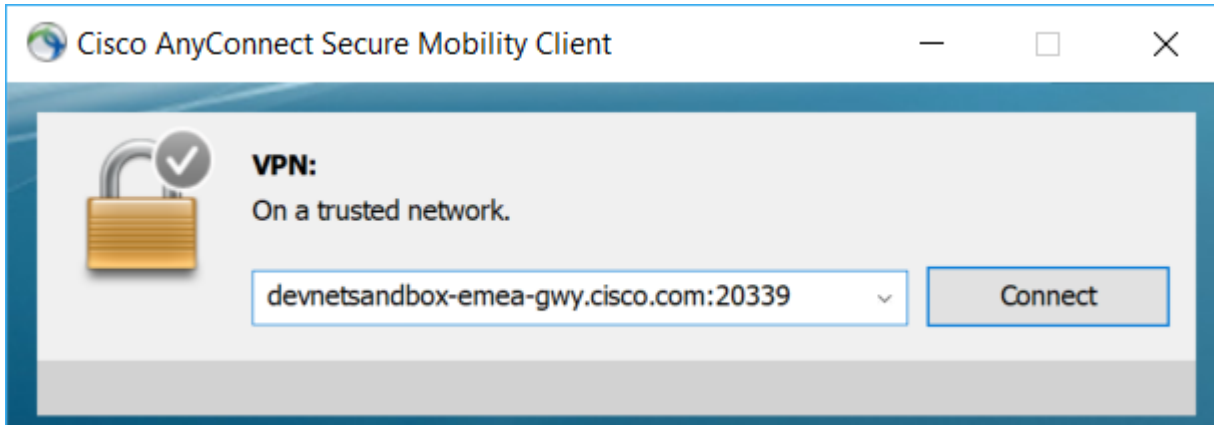
Cisco *live!*

DEVWKS-2074

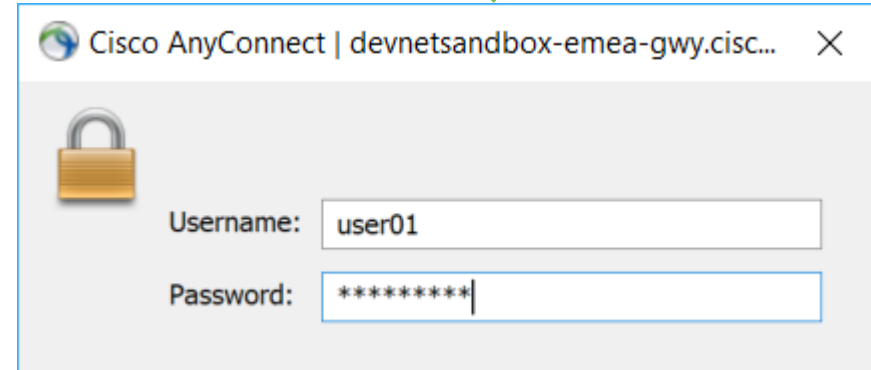
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Connect to the DevNet Sandbox



Username user01,02...
Password cisco1234



<https://10.10.20.171> => <https://10.10.20.180>



user: admin
password: ciscopsdt

Sandbox VPN: devnetsandbox-emea-gwy.cisco.com:20339

VPN user	passwd	RoomKit IP	user	passwd
user01	cisco1234	https://10.10.20.171	admin	ciscopsdt
user02	cisco1234	https://10.10.20.172	admin	ciscopsdt
user03	cisco1234	https://10.10.20.173	admin	ciscopsdt
user04	cisco1234	https://10.10.20.174	admin	ciscopsdt
user05	cisco1234	https://10.10.20.175	admin	ciscopsdt
user06	cisco1234	https://10.10.20.176	admin	ciscopsdt
user07	cisco1234	https://10.10.20.177	admin	ciscopsdt
user08	cisco1234	https://10.10.20.178	admin	ciscopsdt
user09	cisco1234	https://10.10.20.179	admin	ciscopsdt
user10	cisco1234	https://10.10.20.180	admin	ciscopsdt

System Information

There are 3 possible issues with your system. See [Diagnostics](#) for more info.

General

Product:	Cisco Webex Room Kit
System time:	19:41
Browser time:	12:33
Last boot:	yesterday at 13:34
Serial number:	FOC2204NYT2
Software version:	ce 9.6.0 8ea7f63e365 2018-11-20
Installed options:	Encryption
System name:	RoomKit-024
IPv4:	10.10.20.184
IPv6:	-
MAC address:	B0:26:80:36:F6:E7
Temperature:	19.2°C

H323

Status	Inactive
Gatekeeper	-
Number	-
ID	-

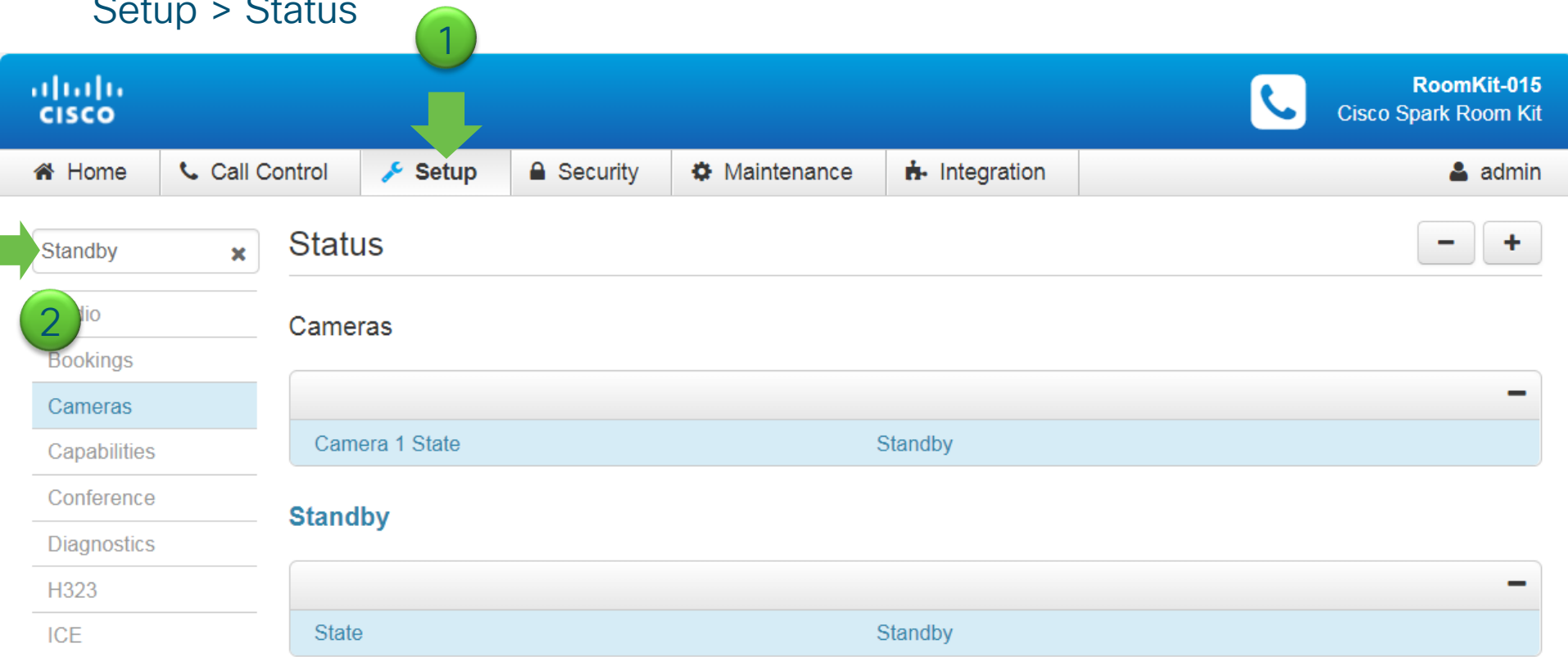
SIP

Status	Inactive
Proxy	-

<https://10.10.20.17X/web>

Check your device's Standby State

Setup > Status



The screenshot shows the Cisco RoomKit-015 web interface. The top navigation bar is blue with the Cisco logo on the left and the device name 'RoomKit-015' and 'Cisco Spark Room Kit' on the right. Below the navigation bar is a menu with icons for Home, Call Control, Setup, Security, Maintenance, and Integration. The 'Setup' menu item is highlighted with a green circle containing the number 1 and a green arrow pointing down to it. On the left side of the interface is a sidebar with a list of items: Standby, Audio, Bookings, Cameras, Capabilities, Conference, Diagnostics, H323, and ICE. The 'Standby' item is highlighted with a green circle containing the number 2 and a green arrow pointing to it. The main content area is titled 'Status' and contains two sections: 'Cameras' and 'Standby'. The 'Cameras' section shows a table with one row: 'Camera 1 State' with a value of 'Standby'. The 'Standby' section shows a table with one row: 'State' with a value of 'Standby'.

RoomKit-015
Cisco Spark Room Kit

Home Call Control **Setup** Security Maintenance Integration admin

Standby x

2 Audio
Bookings
Cameras
Capabilities
Conference
Diagnostics
H323
ICE

Status

Cameras

Camera 1 State	Standby
----------------	---------

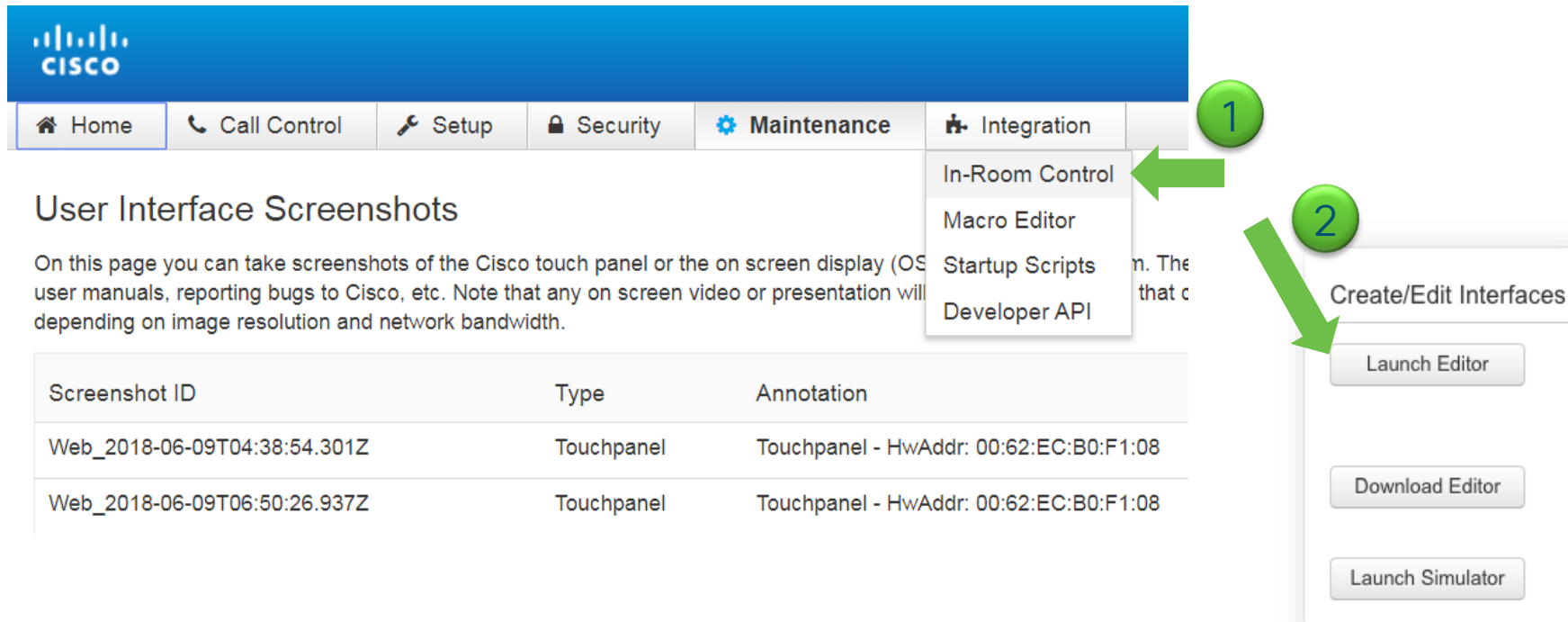
Standby

State	Standby
-------	---------

Build a custom In-Room control

Launch the In-Room Control Editor

<https://10.10.20.17X/web>



The screenshot shows the Cisco In-Room Control Editor web interface. At the top is a blue header with the Cisco logo. Below it is a navigation bar with tabs: Home, Call Control, Setup, Security, Maintenance, and Integration. The 'Integration' tab is selected, and a dropdown menu is open, showing options: In-Room Control, Macro Editor, Startup Scripts, and Developer API. A green circle with the number '1' and an arrow points to the 'In-Room Control' option. Below the navigation bar is a section titled 'User Interface Screenshots' with a paragraph of text. Below that is a table with three columns: Screenshot ID, Type, and Annotation. To the right of the table, a green circle with the number '2' and an arrow points to a 'Create/Edit Interfaces' panel. This panel contains three buttons: 'Launch Editor', 'Download Editor', and 'Launch Simulator'.

User Interface Screenshots

On this page you can take screenshots of the Cisco touch panel or the on screen display (OSD) of the touch panel. The user interface screenshots can be used for documentation, training, or troubleshooting. The screenshots can be taken from the touch panel or the on screen display (OSD) of the touch panel. Note that any on screen video or presentation will not be captured in the screenshot. The screenshot will be taken depending on image resolution and network bandwidth.

Screenshot ID	Type	Annotation
Web_2018-06-09T04:38:54.301Z	Touchpanel	Touchpanel - HwAddr: 00:62:EC:B0:F1:08
Web_2018-06-09T06:50:26.937Z	Touchpanel	Touchpanel - HwAddr: 00:62:EC:B0:F1:08

Create/Edit Interfaces

- Launch Editor
- Download Editor
- Launch Simulator

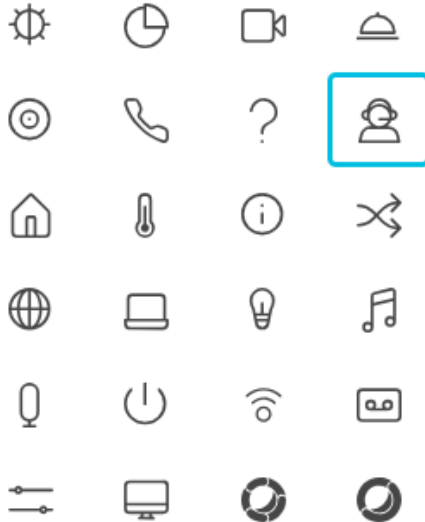
Create a new Panel

<https://10.10.20.17x/web/roomcontrol/editor>

The screenshot shows the Cisco In-Room configuration editor interface. On the left, a 'Panels' sidebar lists existing panels: Ultrasound (Out of call), StevNetZone (Always), Notifier (Always), and Workshop (Always). A green arrow points to a '+' icon at the top of this list. The main workspace displays a grid with a 'Page' header, a 'Row' label, and a '+' icon for adding new elements. A green arrow points from this '+' icon to the 'Properties' tab on the right. The 'Properties' tab is active and shows configuration options for a panel: 'Panel id' (panel_4), 'Panel name' (Workshop), 'Panel position' (4), and 'Panel is available:' (Always, which is selected with a blue dot). The top of the interface includes the Cisco logo, the title 'In-Room configuration for My System - Edited', and navigation icons (eye, back, forward, up, and menu).

Customize the activity

Icon



Panel button color



Add a button with id: DEVWKS-2074

In-Room configuration

Monday Tuesday Wednesday Thursday +

3:00PM - Workshop 4	Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074]	push
5:30PM - DevNet Zone	Take Over	

+

Widgets Properties

Widget id

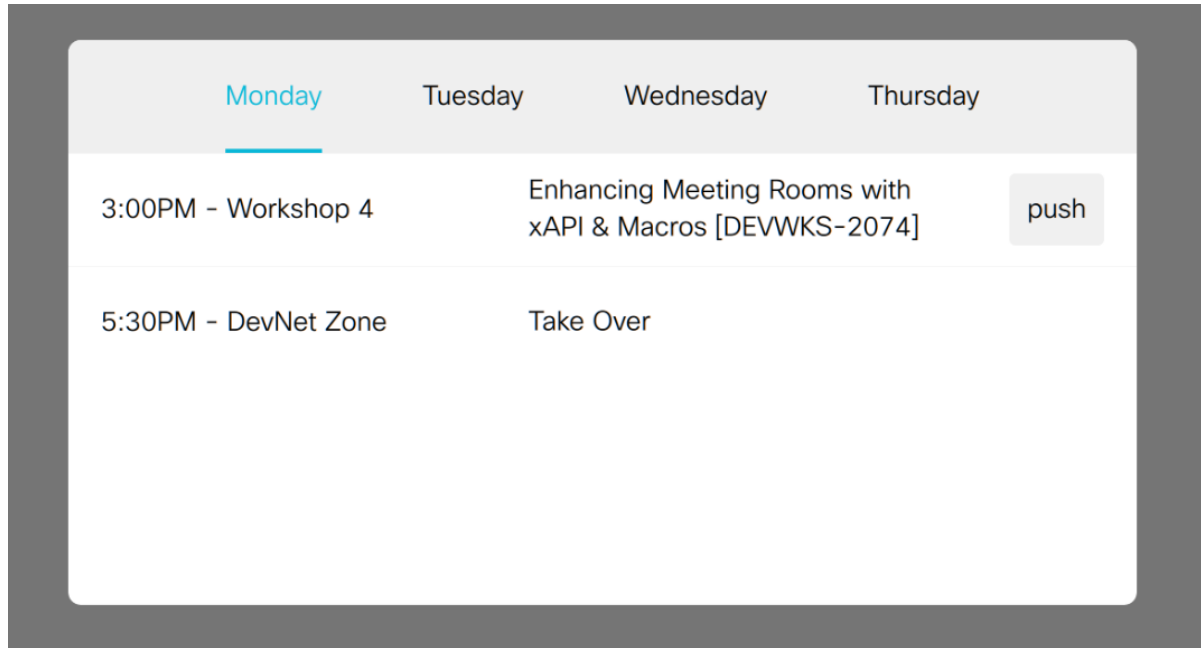
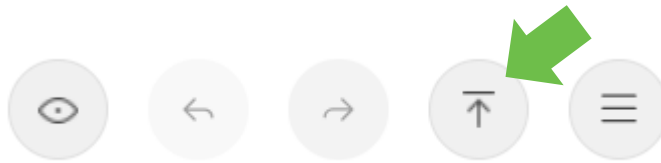
DEVWKS-2074

Widget width

- 1 +

Delete widget

Deploy



Preview



Preview



From Touch	From Control system
DEVWKS-2074 /pressed /	
DEVWKS-2074 /released /	
DEVWKS-2074 /clicked /	

Monday Tuesday Wednesday Thursday

3:00PM - Workshop 4

Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074]

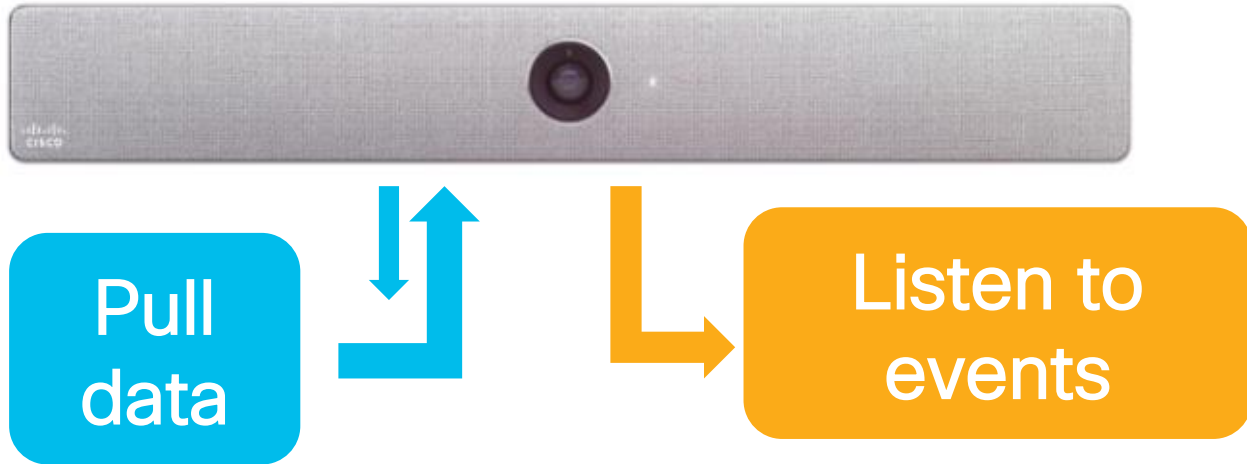
push

5:30PM - DevNet Zone

Take Over

Events fired by custom In-Room Controls

Webex Room Kit capabilities



Pull data (ssh): show widgets

- ssh admin@10.10.20.17x (admin/ciscopsdt)

```
xstatus UserInterface Extensions
```

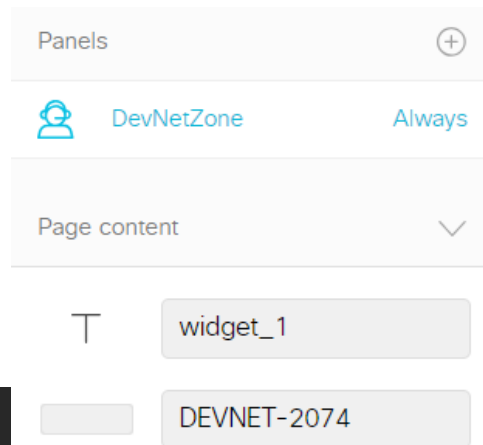
```
*s UserInterface Extensions Widget 1 Value: ""
```

```
*s UserInterface Extensions Widget 1 WidgetId: "widget_1"
```

```
*s UserInterface Extensions Widget 2 Value: ""
```

```
*s UserInterface Extensions Widget 2 WidgetId: "DEVWKS-2074"
```

```
** end
```



Listen (ssh): show clicked events

ssh admin@10.10.20.17x

```
xfeedback register /Event/UserInterface/Extensions/Event/Clicked
** end

OK

*e UserInterface Extensions Event Clicked Signal: "DEVWKS-2074"
** end
```


Listen to events in Javascript

- From a Javascript Macro

```
const xapi = require('xapi')

xapi.event.on('UserInterface Extensions Event Clicked Signal', (widgetId) => {
  console.log(`new event from widget: ${widgetId}`)

  // Add your custom logic
})
```

- From the 'jsxapi' Node.js module

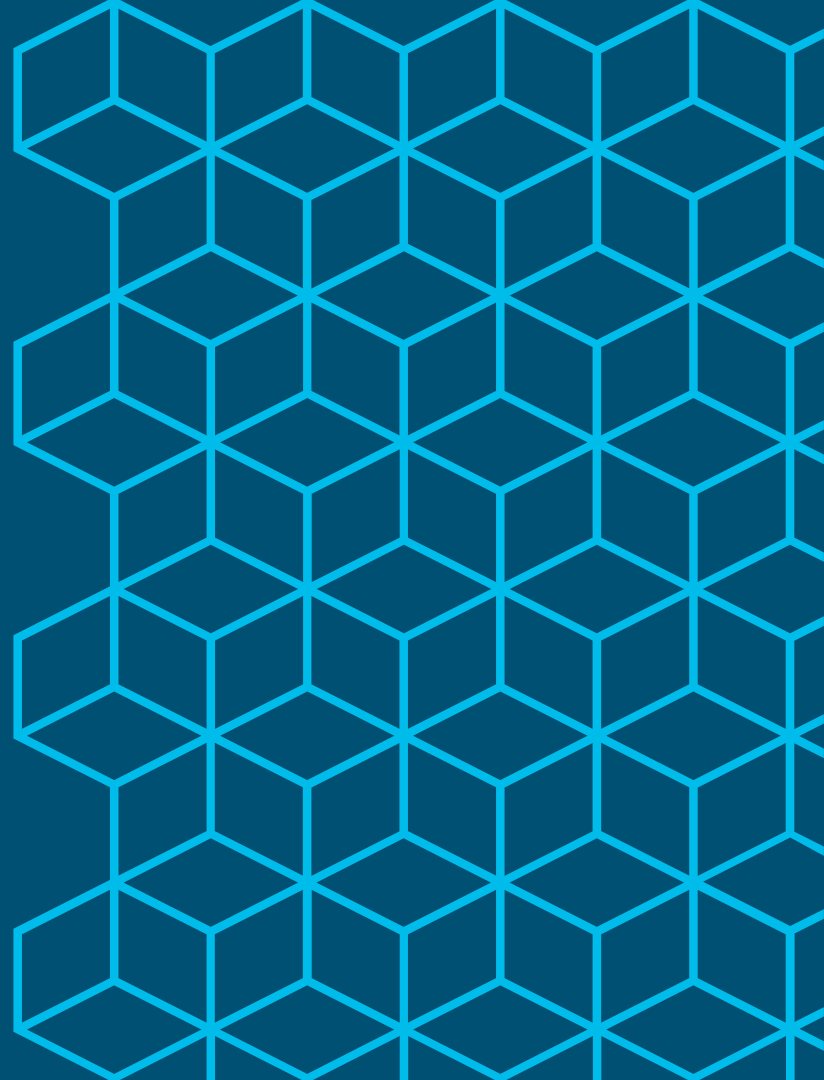
<https://github.com/ObjectsAdvantag/xapi-samples/tree/master/jsxapi>

/!\ don't forget to deregister

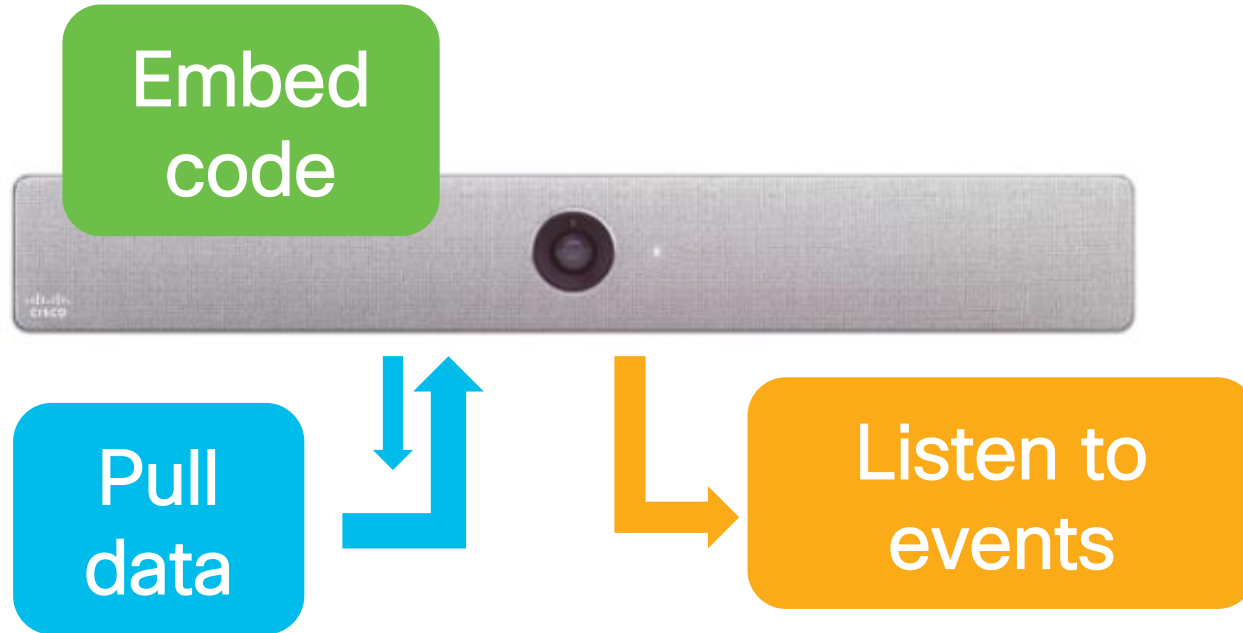
- ssh 10.10.20.17x

```
xfeedback deregisterall
```

Listening to events from a JavaScript Macro



Webex Room Kit capabilities



Listening to event clicks via a Macro

```
const xapi = require('xapi')

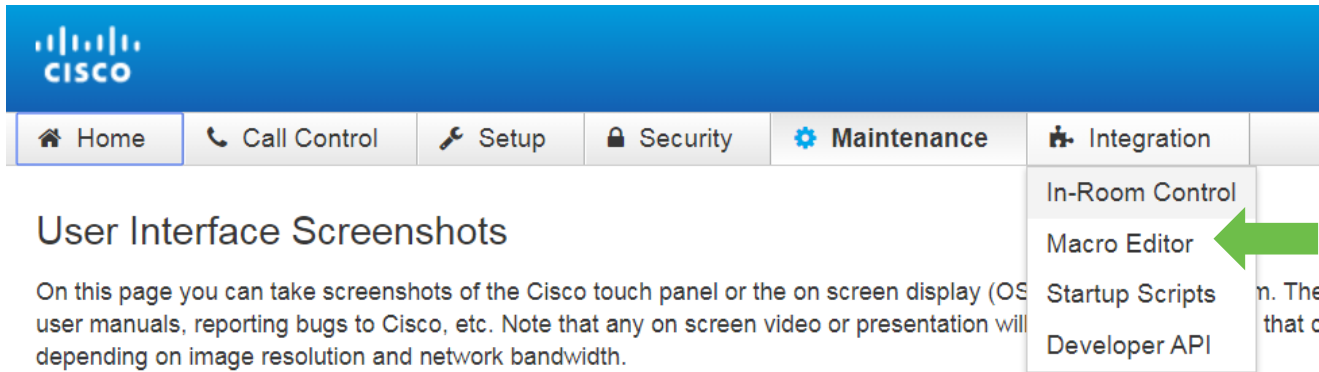
xapi.event.on('UserInterface Extensions Event Clicked Signal', (widgetId) => {
  console.log(`new event from widget: ${widgetId}`)

  // Add your custom logic
})

console.log('listening...')
```

Launch the Macro Editor

<https://10.10.20.17X/web>



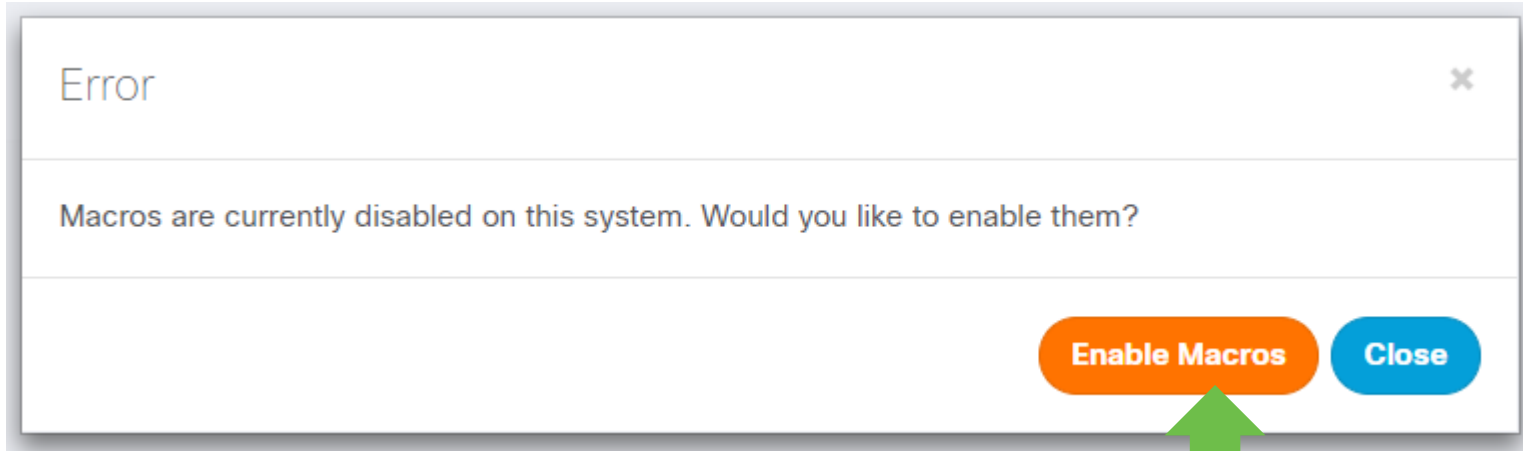
The screenshot shows the Cisco web interface with a blue header bar containing the Cisco logo. Below the header is a navigation bar with tabs: Home, Call Control, Setup, Security, Maintenance, and Integration. The Maintenance tab is selected, and a dropdown menu is open, showing options: In-Room Control, Macro Editor, Startup Scripts, and Developer API. A green arrow points to the Macro Editor option.

User Interface Screenshots

On this page you can take screenshots of the Cisco touch panel or the on screen display (OSD) of the user interface, reporting bugs to Cisco, etc. Note that any on screen video or presentation will be captured depending on image resolution and network bandwidth.

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Web_2018-06-09T04:38:54.301Z	Touchpanel	Touchpanel - HwAddr: 00:62:EC:B0:F1:08
Web_2018-06-09T06:50:26.937Z	Touchpanel	Touchpanel - HwAddr: 00:62:EC:B0:F1:08

Listening with a Macro





Runtime ▾

Preferences

Import from file...

1 Create new macro

listen



3

```
1 const xapi = require('xapi');
2
3 xapi.event.on('UserInterface Extensions Event Clicked Signal', (widgetId) => {
4   console.log(widgetId)
5 })
```

2

Severity ▾

Enter filter

☐ Show history

2019-01-11 04:32:43 listen > Loading...

2019-01-11 04:32:43 [system] > Starting macros...

2019-01-11 04:32:43 [system] > Macros ready.

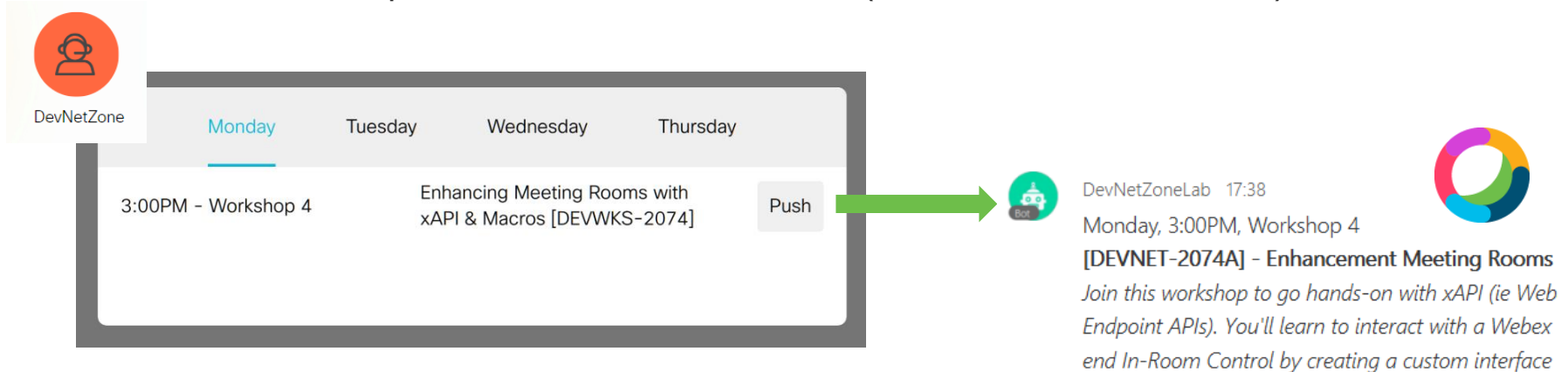
2019-01-11 04:33:09 listen > 'DEVNET-2074'

4

HttpClient example:
pushing messages to a
Webex Teams space

Our goal for today

- Connect to a CE 9.6 RoomKit from the DevNet Sandbox
- Build and deploy a custom In-Room Control (CE 9.2.1+)
- Create and run Javascript Macros (CE 9.2.1+)
- Learn the new HttpClient POST command (comes with CE 9.6.1)



The image shows a screenshot of the DevNetZone calendar interface. On the left, there is a DevNetZone logo. The calendar header shows the days of the week: Monday, Tuesday, Wednesday, and Thursday. The Monday column is highlighted, showing a 3:00PM - Workshop 4 event. The event details are: Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074]. A green arrow points from the event to a notification on the right. The notification is from DevNetZoneLab at 17:38, titled 'Monday, 3:00PM, Workshop 4 [DEVNET-2074A] - Enhancement Meeting Rooms'. The notification text reads: 'Join this workshop to go hands-on with xAPI (ie Web Endpoint APIs). You'll learn to interact with a Webex end In-Room Control by creating a custom interface'.

DevNetZone

Monday Tuesday Wednesday Thursday

3:00PM - Workshop 4 Enhancing Meeting Rooms with xAPI & Macros [DEVWKS-2074] Push

DevNetZoneLab 17:38

Monday, 3:00PM, Workshop 4

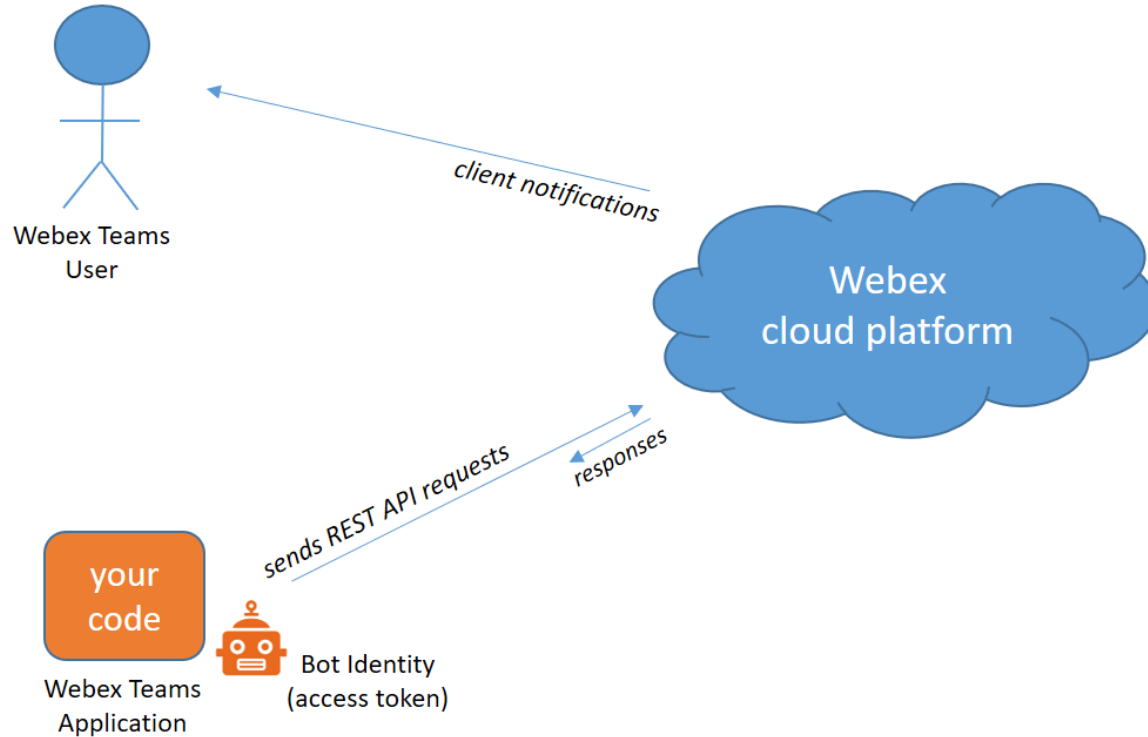
[DEVNET-2074A] - Enhancement Meeting Rooms

Join this workshop to go hands-on with xAPI (ie Web Endpoint APIs). You'll learn to interact with a Webex end In-Room Control by creating a custom interface

Webex Teams REST API v1

/People	/Rooms	/Membership	/Messages	/Teams	/Webhooks
GET List People	GET List Rooms	GET List Memberships	GET List Messages	GET List Teams	GET List Webhooks
	POST Create a Room	POST Create a Membership	POST Create a Message	POST Create a Team	POST Create a Webhook
GET Get Person Details	GET Get Room details	GET Get Membership details	GET Get Message details	GET Get Team details	GET Get Webhook details
	PUT Update a Room	PUT Update a Membership		PUT Update a Team	PUT Update a Webhook
	DELETE Delete a Room	DELETE Delete a Membership	DELETE Delete a Message	DELETE Delete a Team	DELETE Delete a Webhook

ChatOps: real-time notifications



Big picture



DevNetZoneLab 11:20 AM

Hello World

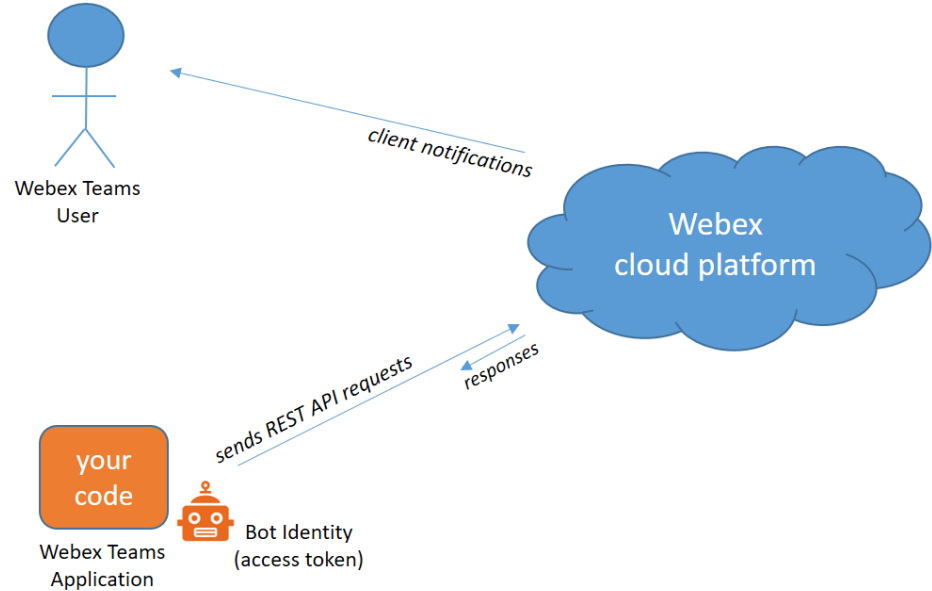
JS Macro



48

```
i 49 push('Hello World', console.log)
```

50



```

function push(msg, cb) {
    // Replace with your bot token
    const token = "MzlkMDU2NzktZWY0OC00MjExLTlhNjItZTFjZDMzMjEzZWU5OTRlODZmZDktZGY2_Pf84_adfd15eb-
    // replace with a space your bot is part of
    const roomId = "Y2lzY29zcGFyYzovL3VzL1JPT00vYzg0NjlkZDAtMWVmNi0xMWU5LWI1MWYtOTUyNzFiZGM2ZTIz"

    // Post message
    let payload = {
        "markdown": msg,
        "roomId": roomId
    }
    xapi.command(
        'HttpClient Post',
        {
            Header: ["Content-Type: application/json", "Authorization: Bearer " + token],
            Url: "https://api.ciscospark.com/v1/messages",
            AllowInsecureHTTPS: "True"
        },
        JSON.stringify(payload))
        .then((response) => {
            if (response.StatusCode == 200) {
                console.log("message pushed to Webex Teams")
                if (cb) cb(null, response.StatusCode)
                return
            }
        })
}

```

HttpClient command

- Configuring the HttpClient command via ssh:

```
xConfiguration HttpClient Mode: On  
** end
```

OK

```
xConfiguration HttpClient AllowInsecureHTTPS: True  
** end
```


OK


Create the 'push' Macro

Import from file...

Create new macro

complete 

listen 

push 

```
10
11 const xapi = require('xapi');
12
13 function push(msg, cb) {
14
15     // Replace with your bot token
16     const token = "MzlkMDU2NzktZWY0OC00MjExLTlhNjItZTFjZDMzMjEzZWU5OTRlODZmZDktZGY2_LPF84_adfd15eb-84e9-4906-b553-94182dee9ade"
17     // replace with a space your bot is part of
18     const roomId = "Y2lzY29zcGFyazovL3VzL1JPT00vYzg0NjlkZDAtMwVmNi0xMWU5LWI1MWYtOTUyNzFiZGM2ZTIz"
19
20     // Post message
21     let payload = {
22         "markdown": msg,
23         "roomId": roomId
24     }
25     xapi.command(
26         'HttpClient Post',
27         {
28             Header: ["Content-Type: application/json", "Authorization: Bearer " + token],
29             Url: "https://api.ciscospark.com/v1/messages",
30             AllowInsecureHTTPS: "True"
31         },
32         JSON.stringify(payload))
33     .then((response) => {
34         if (response.StatusCode == 200) {
35             console.log("message pushed to Webex Teams")
36             if (cb) cb(null, response.StatusCode)
37             return
38         }
39
40         console.log("failed with status code: " + response.StatusCode)
41         if (cb) cb("failed with status code: " + response.StatusCode, response.StatusCode)
42     })
43     .catch((err) => {
44         console.log("failed with err: " + err.message)
45         if (cb) cb("Could not post message to Webex Teams")
46     })
47 }
48
49 push('Hello World', console.log)
50
```


Testing time!



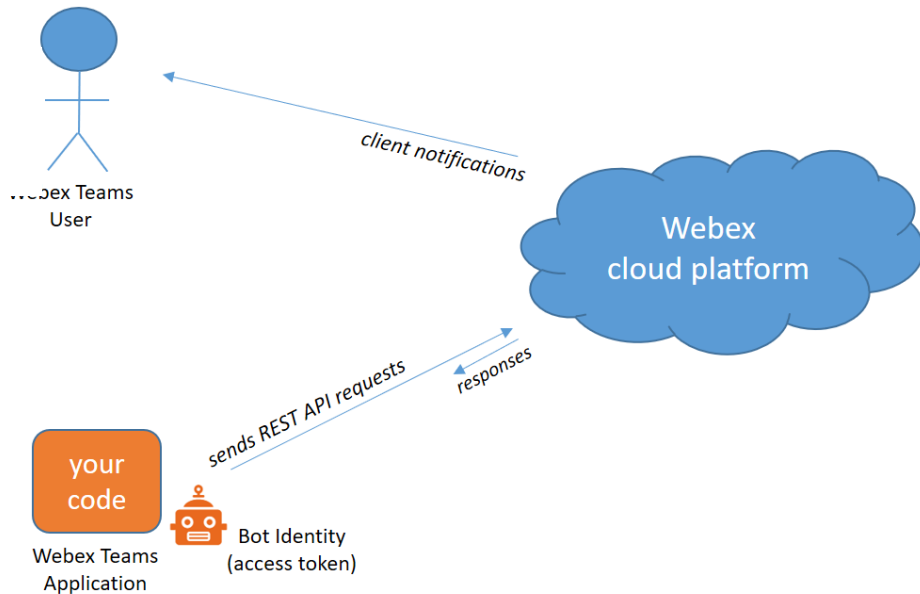
DevNetZoneLab 11:29 AM

Hey, this is Steve from a Javascript Macro

JS Macro



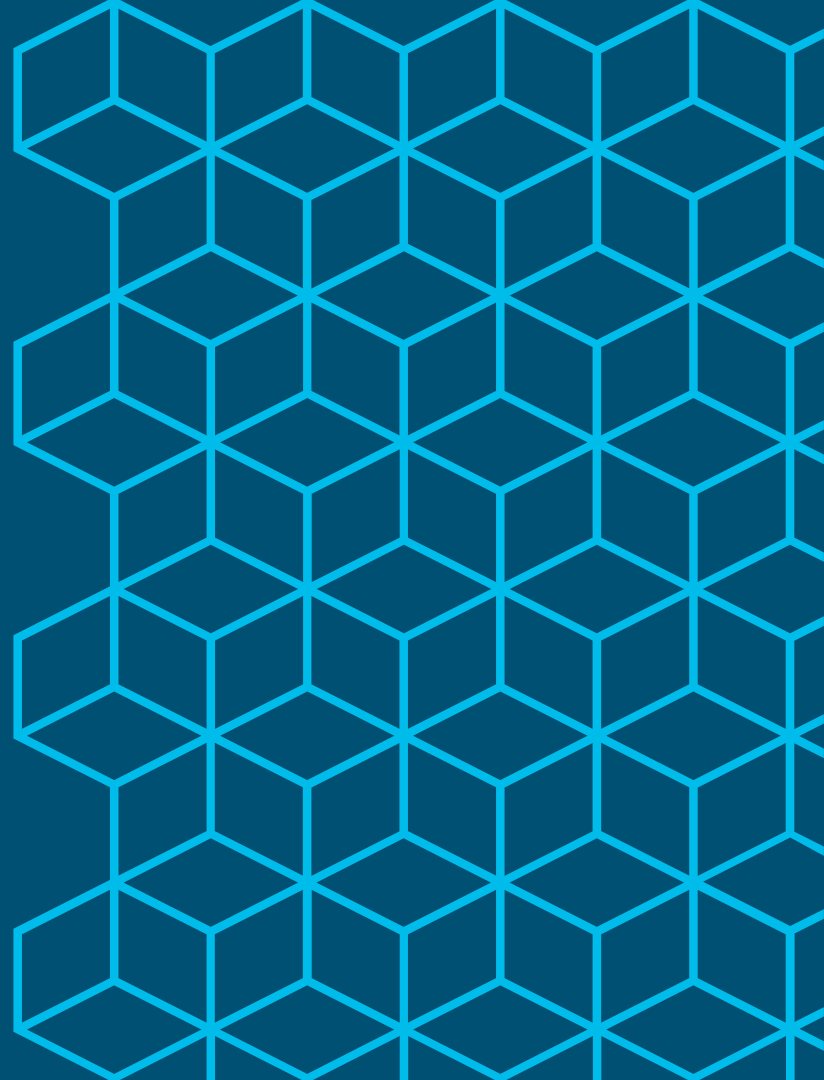
```
48  
49 push('Hey, this is Steve from a Javascript Macro', console.log)  
50
```



To go further: create your own space

- Create a Bot account for ChatOps purposes
- Copy the bot's access token
- Create a Webex Teams space
- Add the 'roomId@webex.bot' bot to fetch the space identifier
- Add your ChatOps bot to the space
- Update the 'push' Macro with the bot token and space id
- [Optional] Post a message from Postman to check everything looks good

Connecting the dots



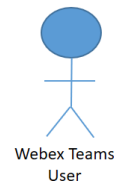
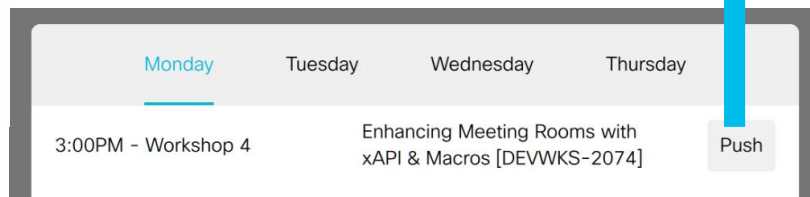
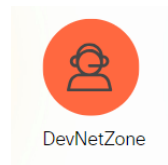


DevNetZoneLab 12:14 PM

Monday, 3:00PM, Workshop 4

[DEVWKS-2074] - Enhancement Meeting Rooms User Experience with xAPI and Macros

Join this workshop to go hands-on with xAPI (ie Webex Devices APIs and Cisco Collaboration APIs). You'll learn to interact with a Webex Device from code, and implement an end-to-end Control by creating a custom interface and deploying Macros onto your device



client notifications



sends REST API requests
responses



Bot Identity
(access token)



```

xapi.event.on('UserInterface Extensions Event Clicked Signal', (widgetId) => {
  console.log(`new event from widget: ${widgetId}`)

  let markdown = buildMarkdownForSession(widgetId)
  push(markdown)
})

```

```

function buildMarkdownForSession(widgetId) {


  let markdown = `no session found for widget identifier: ${widgetId}`
  let session = sessions[widgetId]
  if (session) {
    console.log(`found session with id: ${widgetId}`)
    markdown = `${session.day}, ${session.time}, ${session.location}`
    markdown += `  
**\[ ${session.id}\] - ${session.title}**`
    markdown += `  
_${session.description}_`
  }


  return markdown
}


```

Import from file...

Create new macro

complete 

listen 

push 

```

1  const xapi = require('xapi')
2
3  xapi.event.on('UserInterface Extensions Event Clicked Signal', (widgetId) => {
4      console.log(`new event from widget: ${widgetId}`)
5
6      let markdown = buildMarkdownForSession(widgetId)
7      push(markdown)
8  })
9
10
11 function buildMarkdownForSession(widgetId) {
12
13     let markdown = `no session found for widget identifier: ${widgetId}`
14     let session = sessions[widgetId]
15     if (session) {
16         console.log(`found session with id: ${widgetId}`)
17         markdown = `${session.day}, ${session.time}, ${session.location}`
18         markdown += `  
**[${session.id}] - ${session.title}**`
19         markdown += `  
_${session.description}_`
20     }
21
22     return markdown
23 }
24
25 const sessions = {}
26 sessions['DEVWKS-2074'] = {
27     id: 'DEVWKS-2074',
28     title: "Enhancement Meeting Rooms User Experience with xAPI and Macros",
29     description: "Join this workshop to go hands-on with xAPI (ie Webex Devices APIs and Cisco Collaboration Endpoint APIs). You will learn how to use xAPI to create macros that can be used to automate tasks in the Webex Teams interface.",
30     location: "Workshop 4",
31     type: "workshop",
32     day: "Monday"
33 }

```

Severity ▾ Enter filter ☐ Show history

12:16:25 complete > Loading...

12:16:25 [system] > Starting macros...

12:16:25 [system] > Macros ready.

12:16:30 complete > 'new event from widget: DEVWKS-2074'

12:16:30 complete > 'found session with id: DEVWKS-2074'

12:16:31 complete > 'message pushed to Webex Teams'

Congrats!!!



DevNetZoneLab 12:16 PM

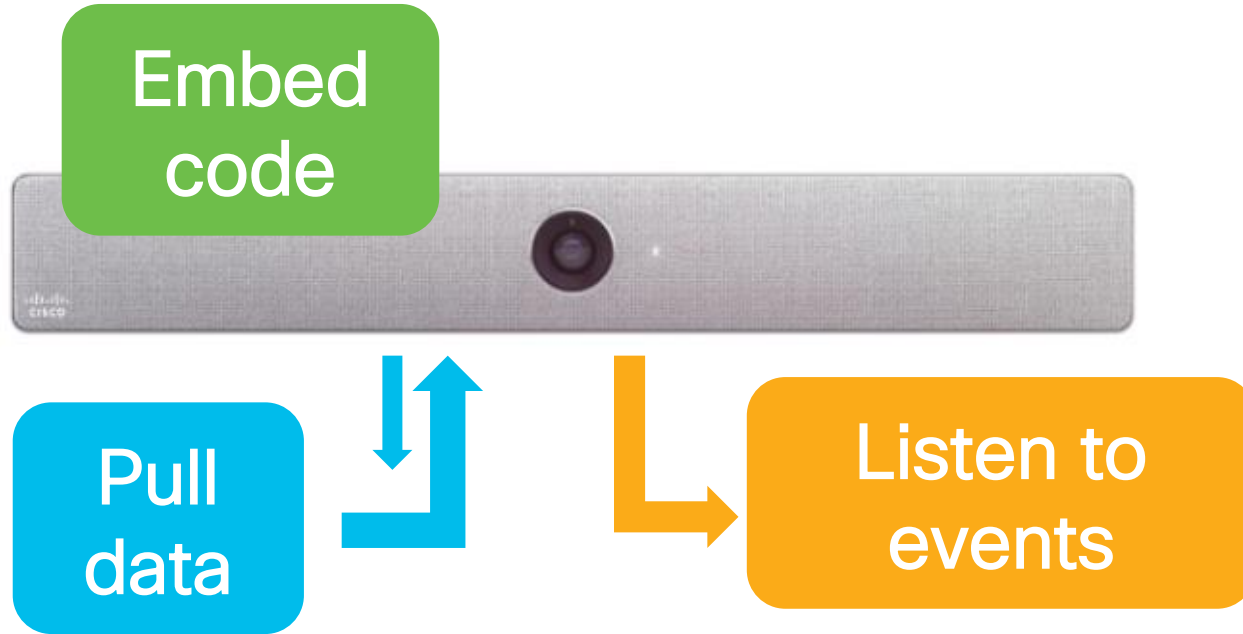
Monday, 3:00PM, Workshop 4

[DEVWKS-2074] - Enhancement Meeting Rooms User Experience with xAPI and Macros

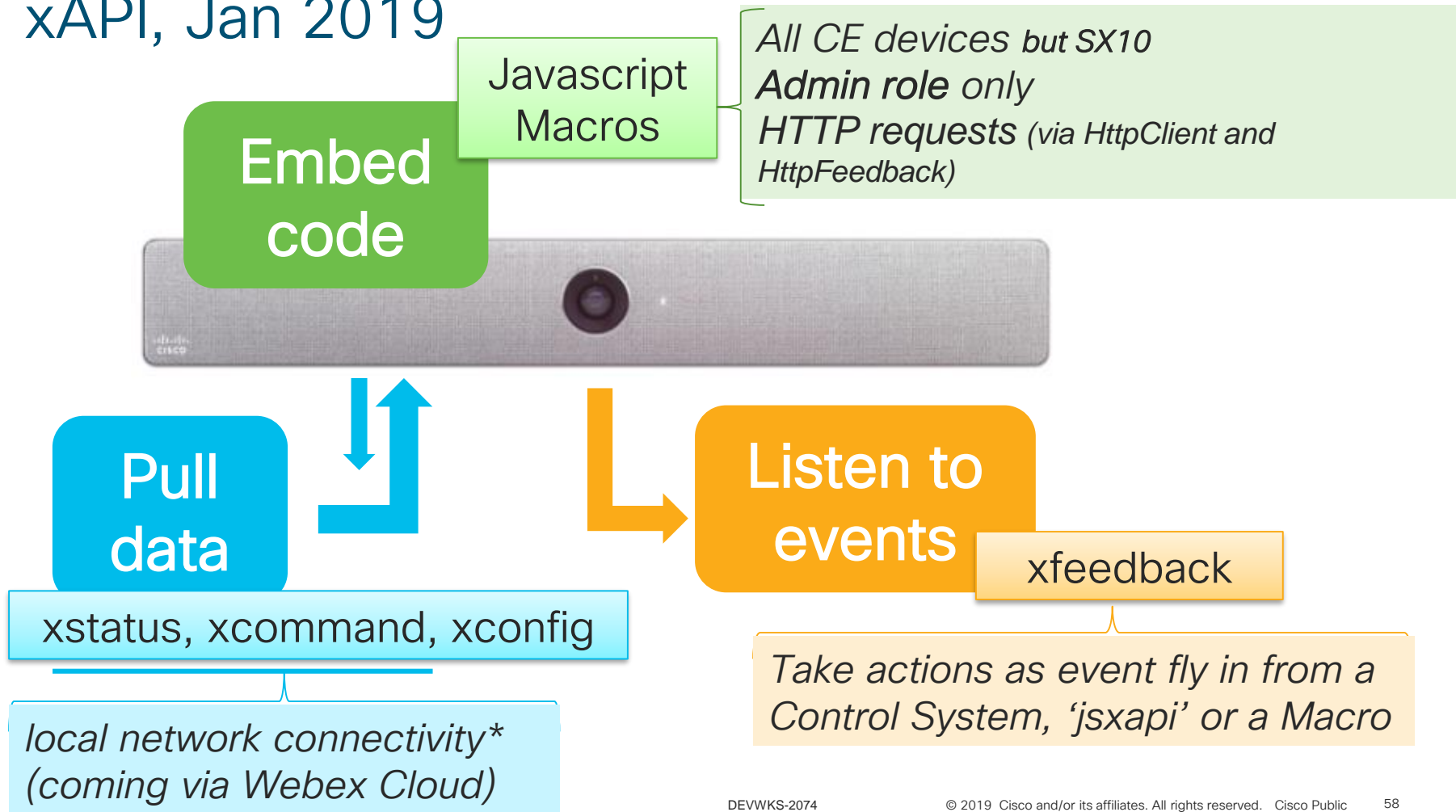
Join this workshop to go hands-on with xAPI (ie Webex Devices APIs and Cisco Collaboration Endpoint APIs). You'll learn to interact with a Webex Device from code, and implement an end-to-end In-Room Control by creating a custom interface and deploying Macros onto your device

Wrapup

Cisco Collaboration Devices Programmability



xAPI, Jan 2019



Inspired? let's continue your journey!

<https://github.com/ObjectIsAdvantag/xapi-samples/tree/master/controls>

- CLUS Agenda
- User Notifier
- Ultrasound Control
- Maze Game
- In-Room Simulator
- Interactive map

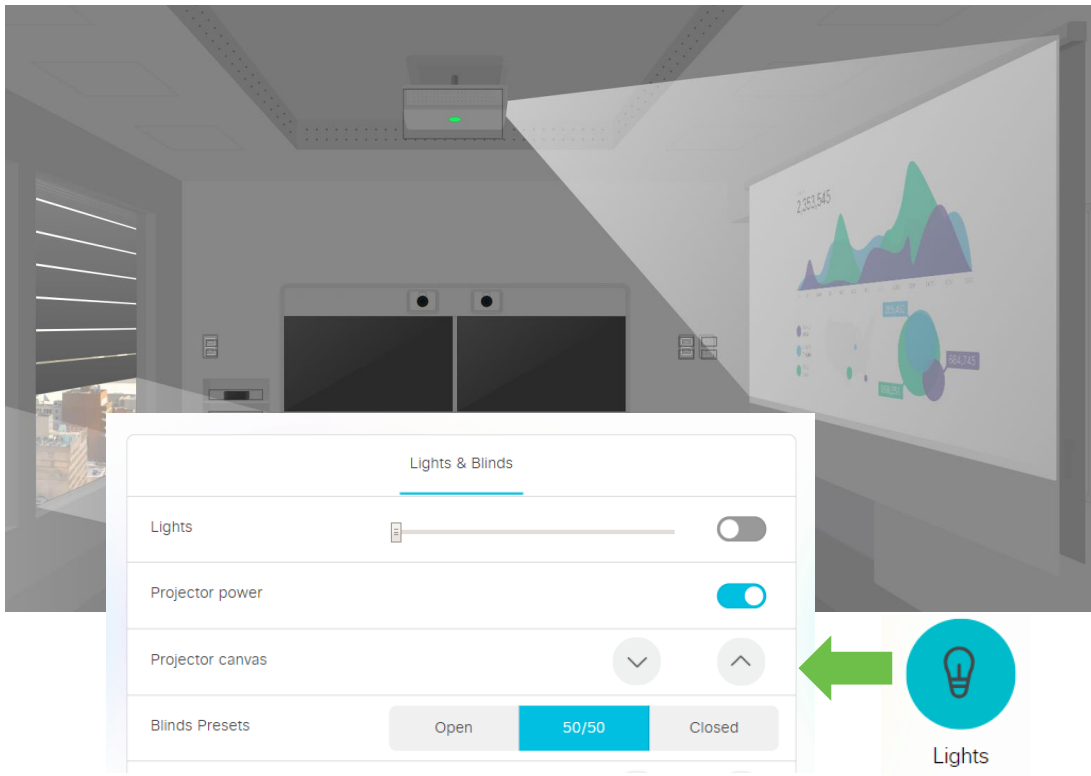
In-Room Simulator

<https://controls-editor.herokuapp.com/playground.html?virtualroom>

*End-to-end enriched
User Experience for
Meeting Rooms*

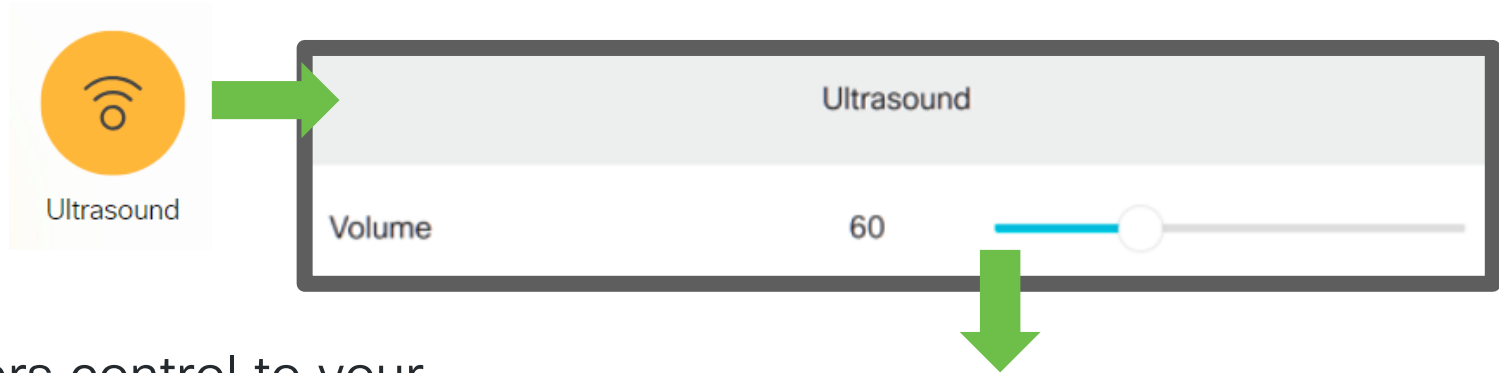
- In-Room Control
- Node.js jsxapi

Note: requires Google Chrome



Ultrasound

<https://github.com/ObjectIsAdvantag/xapi-samples/tree/master/controls/ultrasound>



Give users control to your devices' Ultrasound MaxVolume

- In-Room Control
- Macro-compatible

/!\ Pairing is disabled

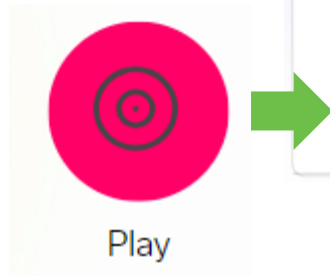
custom message pushed to your devices' Touch10/DX interface as pairing is enabled / disabled.

Maze Game

<https://github.com/ObjectIsAdvantag/xapi-samples/tree/master/controls/maze-scores>

End-to-end enriched User Experience for Meeting Rooms

- In-Room Control
- Macro



	Play the Maze	Rules	Options
Score	1050	<button>restart</button>	
Instructions	nothing here, let's continue exploring.		
Pick a direction	<div><div><</div><div>help</div><div>></div><div>^</div><div>v</div></div>		

xAPI module at DevNet

<https://learninglabs.cisco.com/modules/xapi-intro>

Introduction to Webex Devices Programmability

Discover how to customize and extend Webex Devices through xAPI – the API exposed by Cisco Collaboration Endpoint CE software. Learn to configure your device, start video calls from code, add Branding but also how to create custom In-Room Controls and deploy Macros on your devices. Go hands-on with a CE-capable device or a provided RoomKit sandbox. This module assumes you have some basic programming experience.

🕒 1 Hour 20 Minutes



💡 Introduction to xAPI for Cisco Collaboration Devices

Explore the programmability of Cisco Collaboration Devices and understand xAPI – the API exposed by Cisco TelePresence CE software.

💡 Creating Custom In-Room Controls and Macros

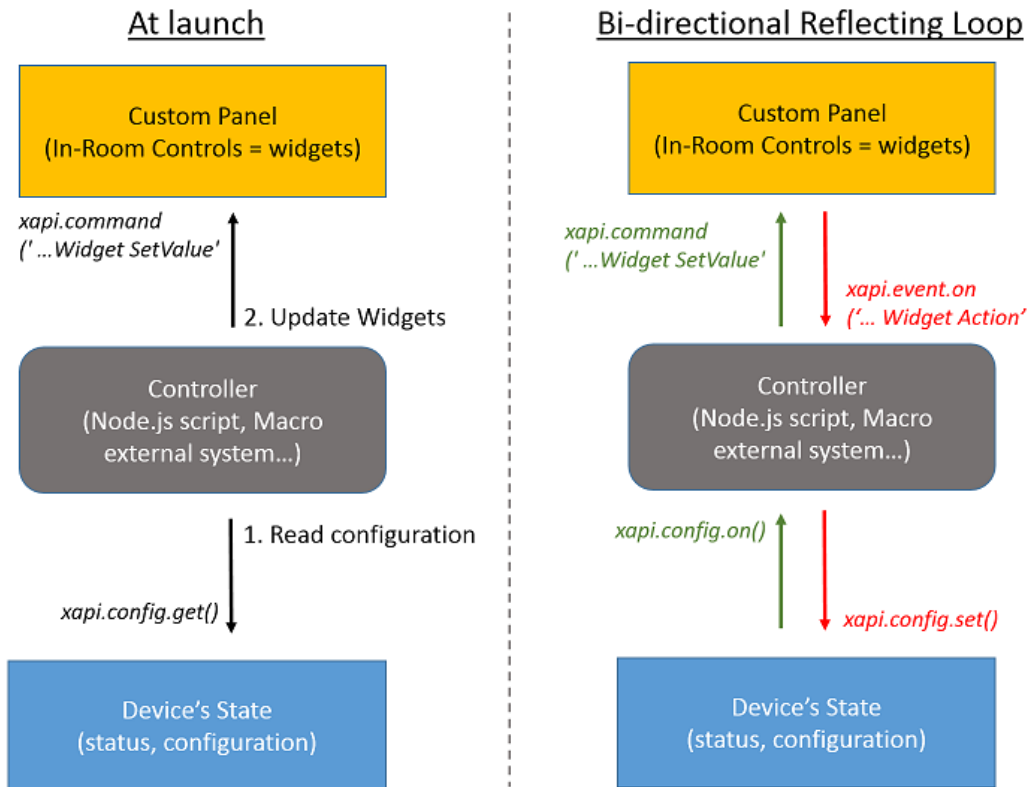
Learn how to create custom controls for Cisco Collaboration Devices, using the on-board control simulator tool and the in-room control editor. Then make those controls interactive via a server-based Node.js script, or an on-board JavaScript macro.

💡 Customizing Collaboration Devices from Code

Learn to customize display logos, signage and custom messages for Cisco Collaboration Devices via SSH, HTTP and Node.js/JavaScript.

In-Room Control state management

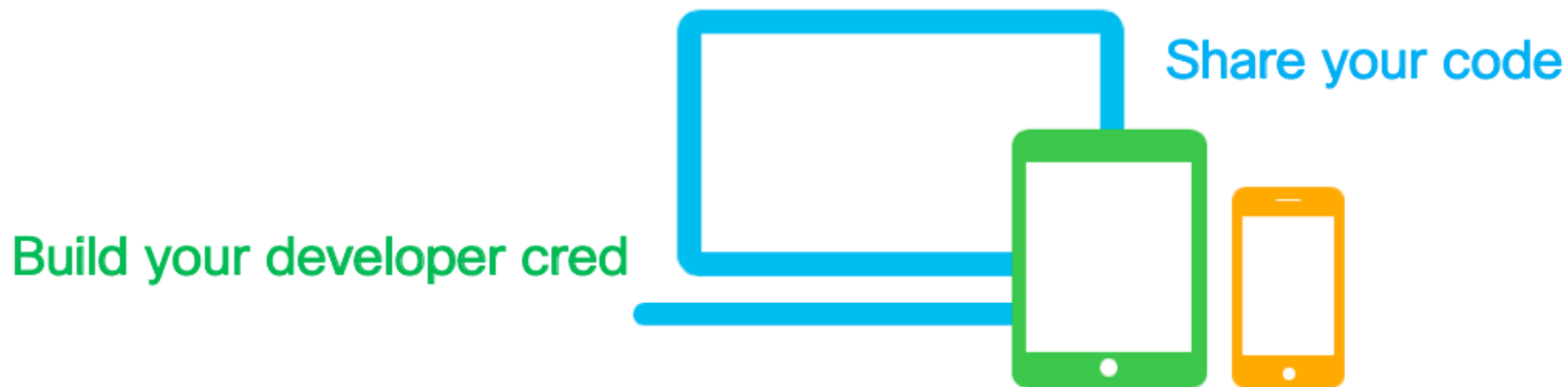
<https://learninglabs.cisco.com/lab/collab-xapi-controls/step/6>



Developer Resources

- xAPI learning module
 - <https://learninglabs.cisco.com/modules/xapi-intro>
- xAPI samples
 - <https://github.com/ObjectIsAdvantage/xapi-samples>
- 'xAPI devs' community space
 - <http://bit.ly/join-xapi-devs>
- awesome-xapi: curated list of developer resources
 - code samples, sandboxes, labs...
 - <https://github.com/CiscoDevNet/awesome-xapi>

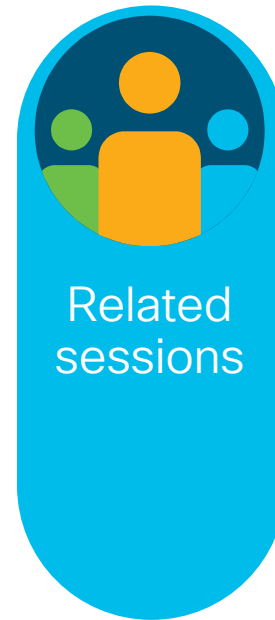
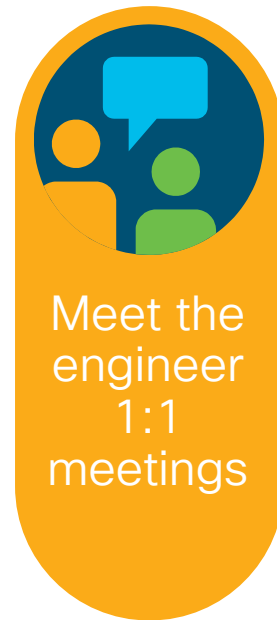
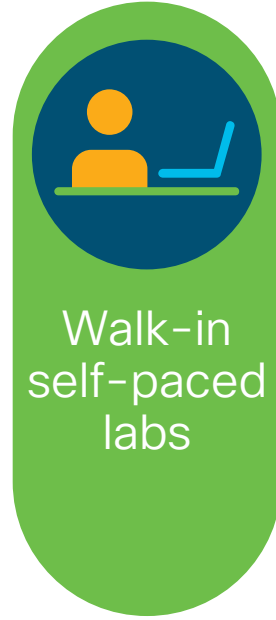
Cisco DevNet Code Exchange



Get your code in front of the DevNet Community

developer.cisco.com/codeexchange

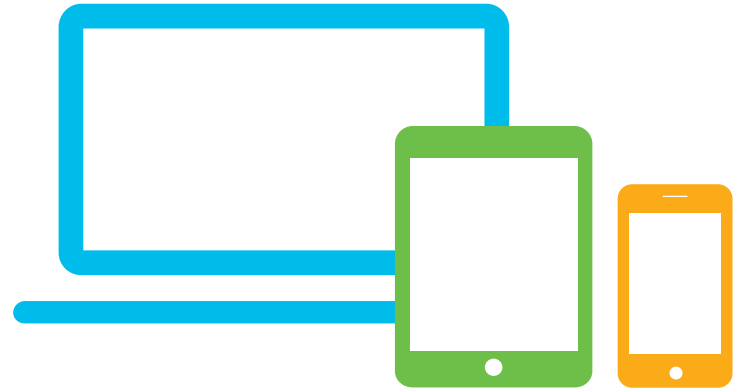
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Thank you



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