



Making WebEx Teams Interactive with ChatOps & ChatBots

Cisco DevNet Webinar Series

Speaker: David Staudt | DevNet Developer Evangelist, Principal Engineer

Hostess: Kara Sullivan | Cisco Networking Academy

21 June 2018

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- Use the Chat panel to communicate with attendees and panelists.
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Cisco DevNet Series

- 1 Intro to Software & Programmability
- 2 Intro to Coding
- 3 Intent Networks: How to be a Network Engineer in a Programmable Age
- 4 Fast Lane: Where Code (Apple) Meets Network Infrastructure (Cisco)
- 5 APIs with Cisco Spark
- 6 Network Programmability & APIC-EM
- 7 Network Programmability with YANG/NETCONF/RESTCONF
- 8 Automating Cisco Spark with Cloud Integration
- 9 Using Python to Automate Cisco Spark
- 9 Making Cisco Spark Interactive with ChatOps & ChatBots – **Today!**

Joining You
Today:



David Staudt

Developer Evangelist, Principal Engineer
DevNet, Cisco



Cisco DevNet + NetAcad Webinar Series



Cisco DevNet + NetAcad Webinar Series #4



INTUITIVE



Making Webex Teams Interactive with ChatOps and ChatBots

David Staudt

DevNet Developer Evangelist / Principal Engineer



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Agenda

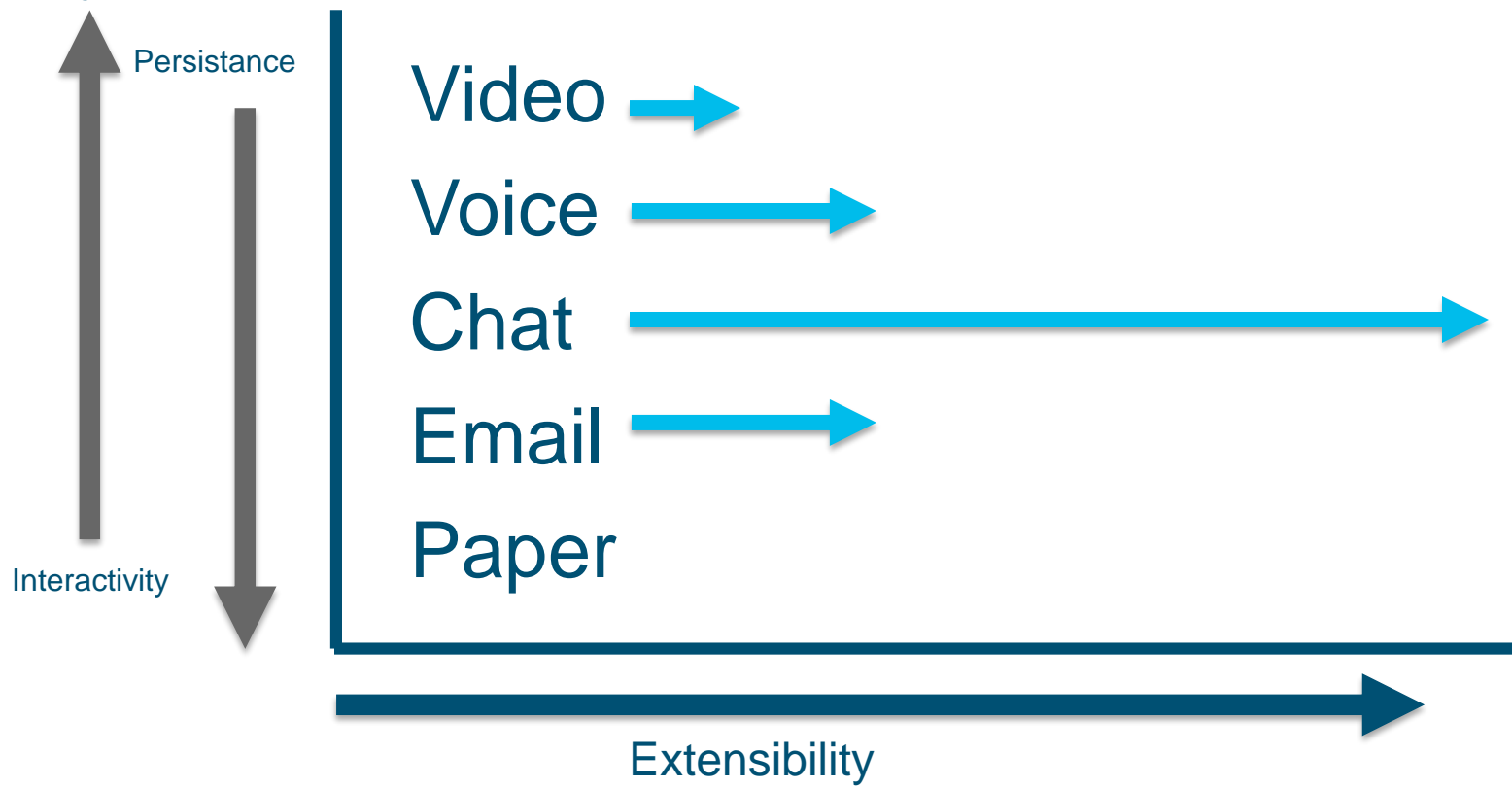
- Why Chat? Why Bots? Why Chat-Bots..?
- Notification Bots: Putting the 'Chat-Ops' in 'Dev-Ops'
- Controller Bots: The Next-Level CLI
- Bot Assistants: NLP, Sentiment, AI - Literally Star Trek
- Webex Teams Bots: Architectures and Tools

Cisco Spark is becoming Cisco Webex Teams.

Webex Teams is an app for continuous teamwork with video meetings, messaging, file sharing and white boarding.



Why Chat?



Why Chat Bots?

- Extend chat with application interaction
- Automation integrated where users work / live / play
- Information, control and assistance when / where needed
- Rapidly expanding automation paradigm across markets
- Easy-to-use open / free tools – quick wins

Notification Bots

- One-way communication: systems -> chat rooms
- Simple architecture: anything that can HTTP POST
- DevOps: GitHub, Jenkins, Ant, Maven
- SysAdmin: alerts, status, tickets
- Fabian: announcement bot (fabian@sparkbot.io)
- ChatOps Sample: chatops.py

Controller Bots

- Two-Way Communication: Systems <-> Chat Rooms
- Requires an Internet Accessible Application
- DevOps: Request Reports, View Issue Details
- SysAdmin: Execute Scripts, Dig Into Alert Data
- MemeBot: (memebot@sparkbot.io)
- ToGerman: translator (togerman@sparkbot.io)

Assistant Bots

- Two-way communication: assist bot <-> chat room
- Augment with additional APIs, external services
- Requires an internet accessible application
- Natural language processing: e.g. Google NLP
- Sentiment analysis
- Artificial intelligence: IBM Watson, API.ai

Top Cisco Spark API Horizontal Use Cases



Incident
Management



HR
Onboarding



Task
Management



Sales
Pipeline



Finance
Operations



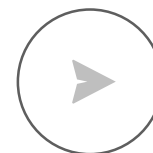
Polling



Scheduling

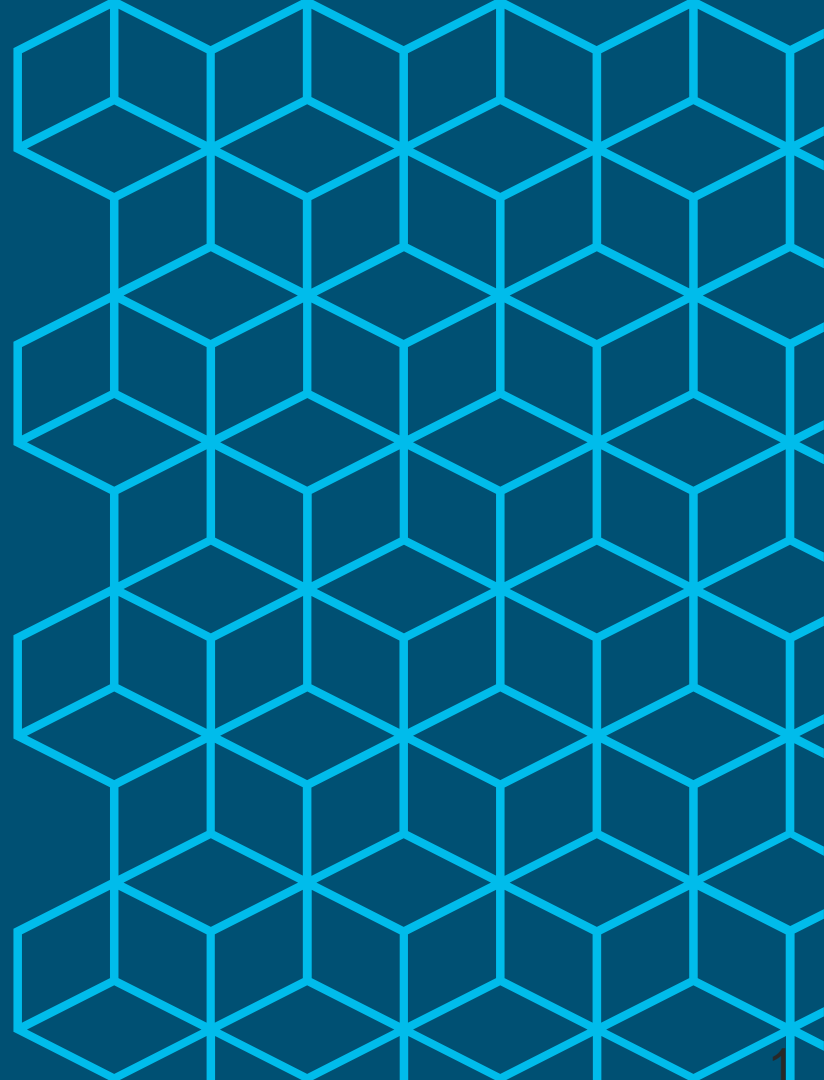


Content
Management




Network
Operations

Webex Teams Bots – Architecture and Tools









Open Source Starter Kits

<https://ciscowebexteamsambassadors.github.io/StarterKits/>






Broadcast 

by: [Altus Consulting](#)
A Multi-topic Cisco Webex Teams Notification Bot

OnBoarding 


by: [Bitmaker Software](#)
Create user OnBoarding Flows for Cisco Webex Teams




Cisco Infrastructure Chat ... 

by: [Josh Anderson](#)
ChatOps that bridges Meraki, Umbrella and Cisco Webex Teams

Webex Goggles 

by: [PromptWorks](#)
'You See What I See' Remote Expert App for Android powered AR headsets

and many more...

Build-a-Bot Basic Instructions

- Create a bot account
- Write bot code to listen for incoming webhooks
- Make your bot server accessible to the internet
- Define a webhook / filter – event notifications

Create a Bot Account

New App



Integration

Create an integration to customize how teams on Spark interact with other applications.

[Learn More](#)

[Create an Integration](#)



Bot

Create rich messaging experiences on Spark with your intelligent Bots.

[Learn More](#)

[Create a Bot](#)

<https://developer.webex.com/apps.html>

Write Bot Code to Listen for Incoming Webhooks

- Integration platforms (iPaaS): Built.io, Stamplay, Zapier, node-red
- Bot hosting service: Gupshup.io, Zenbot.org
- Bot framework: Botkit, flint
- Sample / example code:
<https://github.com/CiscoDevNet/awesome-webex>
- Build Your Own: Node.js+Express, Python+Flask – or build from scratch

Make your Bot Server Accessible to the Internet

- Integration platforms (iPaaS): Built.io, Stamplay, Zapier, IFTTT
- Bot hosting service: Gupshup.io, Zenbot.org
- Cloud hosting service: AWS, Azure, App Engine, Glitch
- Host it yourself: Domain, DNS, CA Cert, Firewall, NAT Traverse, H/A, etc.

Bot Hosting Services – Gupshup.io & Zenbot.org



Hosted Code Callback URL

sohan.js

Deploy

```
13     context.simpledb.doPut("putby", event.sender);
14   }
15   else {
16     context.sendResponse('No keyword found : '+event.message);
17   }
18 }
19
20 //Called when bot is added to group or bot is mapped
21 function EventHandler(context, event) {
22   if(! context.simpledb.botleveldata.numinstance)
23     context.simpledb.botleveldata.numinstance = 0;
24   numinstances = context.simpledb.botleveldata.numinstance + 1;
25   context.simpledb.botleveldata.numinstance = numinstances;
26   context.sendResponse("Bot mapped event..You are:" + numinstances);
27 };
28
29 //Handler for http request
30 function HttpResponder(context, event) {
31   if(event.geturl === "http://ip-api.com/json")
32     context.sendResponse(event.getresp);
33 };
34
35 //Handler for db get request
36 function DbGetHandler(context, event) {
```

Preview

Console

Emulator

Type your message here...



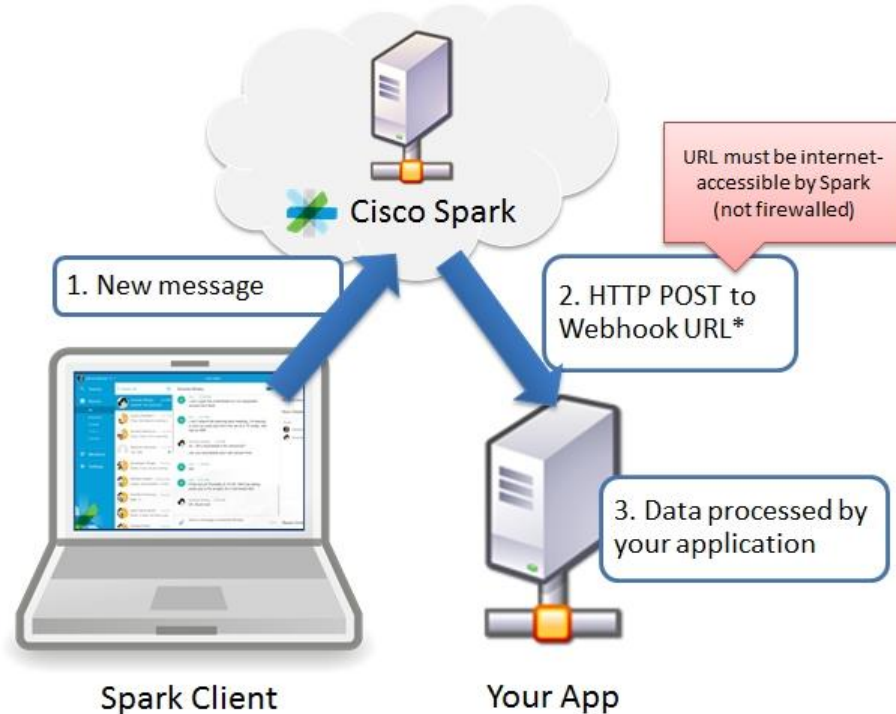
Define a Webhook – Event Notifications

Method		Description
GET	<code>https://api.ciscospark.com/v1/webhooks</code>	List Webhooks
POST	<code>https://api.ciscospark.com/v1/webhooks</code>	Create a Webhook
GET	<code>https://api.ciscospark.com/v1/webhooks/{webhookId}</code>	Get Webhook Details
PUT	<code>https://api.ciscospark.com/v1/webhooks/{webhookId}</code>	Update a Webhook
DELETE	<code>https://api.ciscospark.com/v1/webhooks/{webhookId}</code>	Delete a Webhook

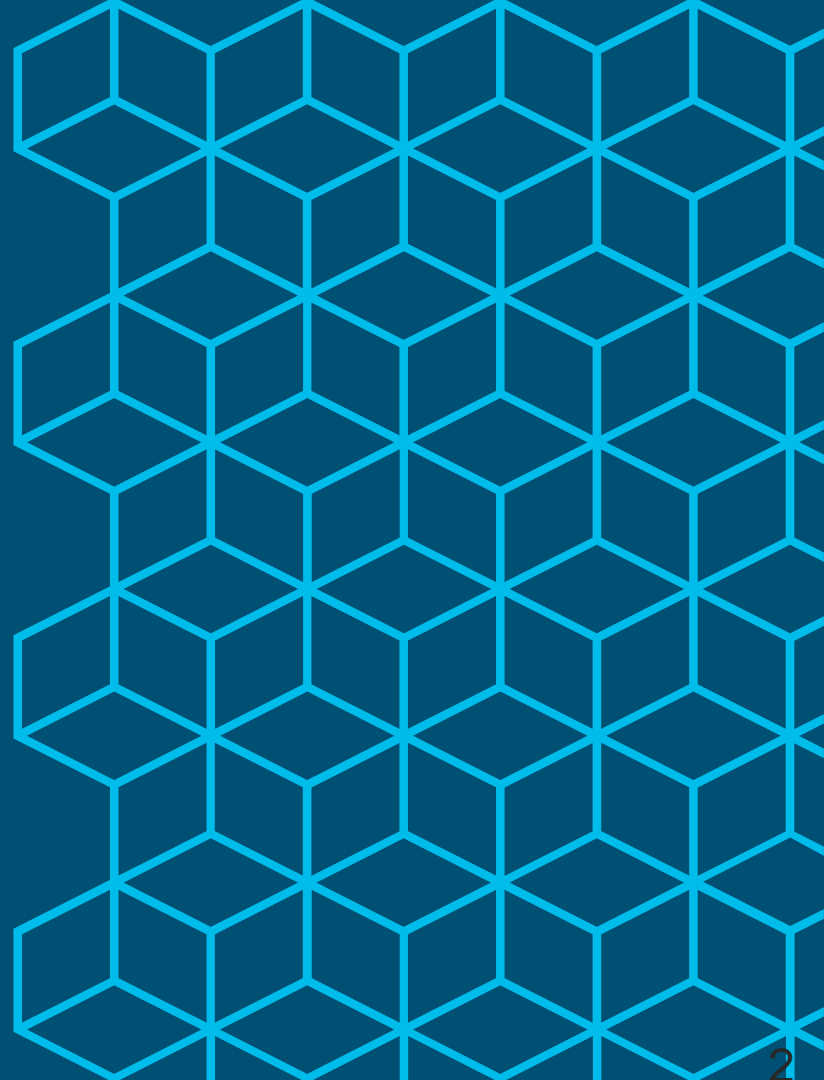
Webhooks Explained:

<https://developer.webex.com/webhooks-explained.html>

Spark Bot Assembly



Developer Resources



Webex Teams Developer Resources

- Webex Teams API / SDK Docs:
 - <https://developer.webex.com>
- Cisco DevNet Webex Teams Resources:
 - <https://developer.cisco.com/site/spark/>
 - <https://learninglabs.cisco.com/labs/tags/Spark,Webex+Teams/page/1>
- GitHub Resources:
 - <https://github.com/CiscoDevNet/awesome-webex>
- Cisco Spark Developer Support:
 - <https://developer.webex.com/support.html>



Thank you

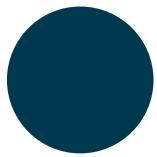


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Q&A



Qualifications for Certificate of Participation



Must Participate in at least 5 of the 10 sessions of the Cisco DevNet webinar series – whether through recordings or live sessions



Opportunity to earn a certificate will stay open for one month – until 23 July



Request certificate @ <http://www.cvent.com/d/75qs9b>

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English ▾



Kara ▾

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Programming

PCAP: Programming Essentials in Python

By Cisco Networking Academy in collaboration with OpenEDG Python Institute



Learn More at: <http://bit.ly/pythonessentials>

