

Hackathon 2018

HONG KONG • JAPAN • SINGAPORE
5 JUNE 2018

I AGENDA

1. Hackathon overview
2. Hackathon awards
3. Symphony platform overview
4. Accessing the build environment
5. Best practices for building & getting started
6. Next steps
7. Q&A



HACKATHON OVERVIEW

AGENDA & WHAT TO EXPECT

| AGENDA

8 AM Doors open

8 AM - 9 AM Breakfast

9 AM - 5 PM Hackathon

12 PM - 1 PM Lunch

5 PM - 6 PM Presentations

6 PM - 6:30 PM Awards

6:30 PM - 8 PM Cocktail hour

A photograph of two children racing go-karts on a paved road. The child in the foreground is wearing a red helmet and goggles, smiling, and waving their right hand. Their go-kart is red with a white star on the front. The child in the background is wearing a teal helmet and is also smiling. Their go-kart is yellow with the number 5 on the front. The background shows a paved road, some trees, and mountains under a clear sky.

HACKATHON AWARDS

WIN A JABRA HEADSET

| AWARD CATEGORIES

Two winners will be selected in the following categories:

1. **Most Cutting-Edge Development** for the most unique and technologically advanced project.
 1. Does your app or bot use Symphony APIs to enhance a workflow in a never-before-seen way?
 2. Is this the most original app or bot?
 3. Does your app or bot leverage cutting-edge technology such as AI or NLP?
2. **Most Impactful Automation Development** for the improvement of an existing business workflow using automation within Symphony in an innovative and compelling way.
 1. Does your app or bot streamline an inefficient process in a measurable way?
 2. Can your app or bot be used across multiple departments?
 3. Does your app or bot enhance someone's Symphony experience?



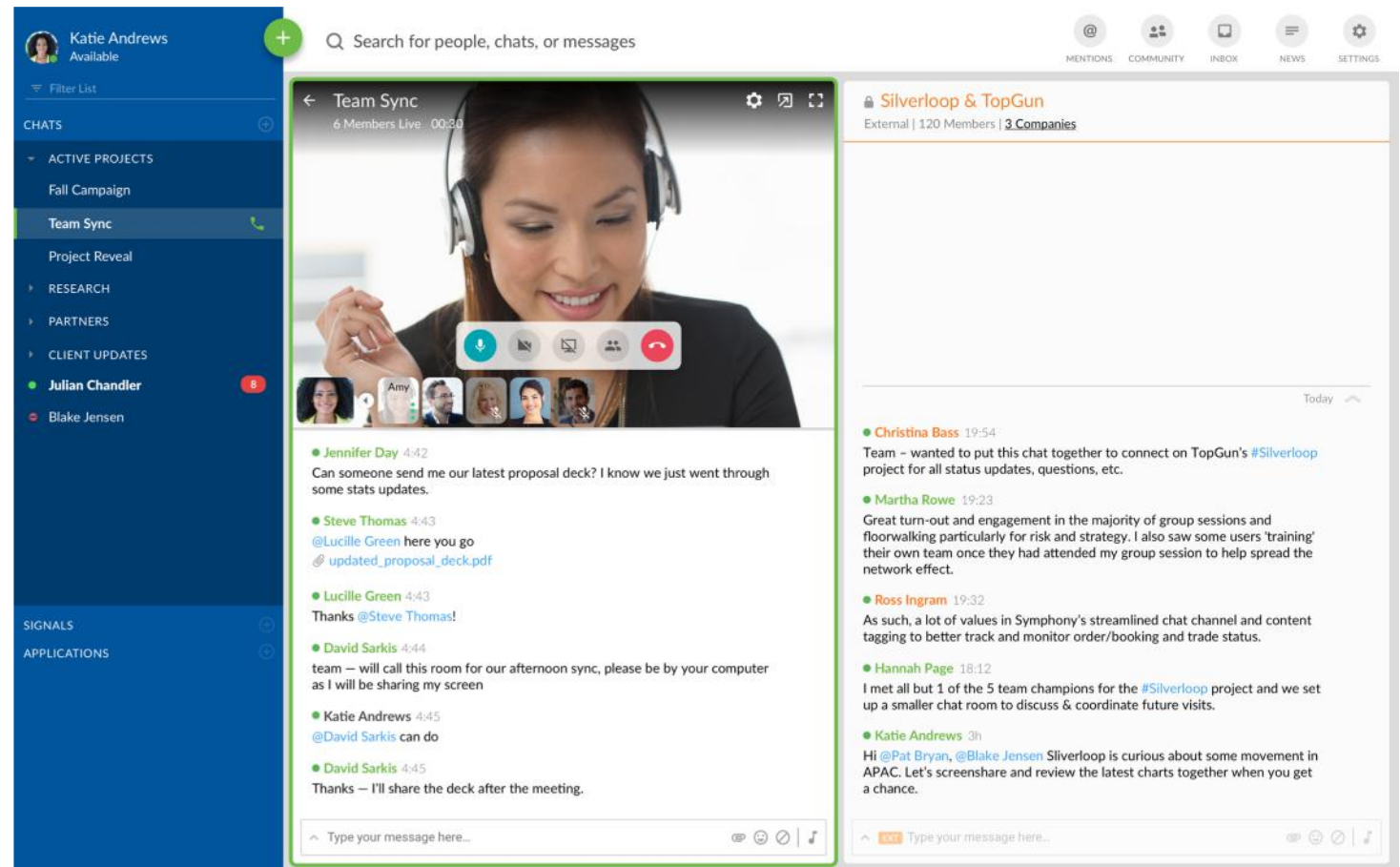
SYMPHONY PLATFORM OVERVIEW

THE BASICS

THE UI

Key Features:

- Plus Sign
- Left Hand Navigation
- Search
- Conversation Grid



CHAT ROOMS & IMS

Conversation Types

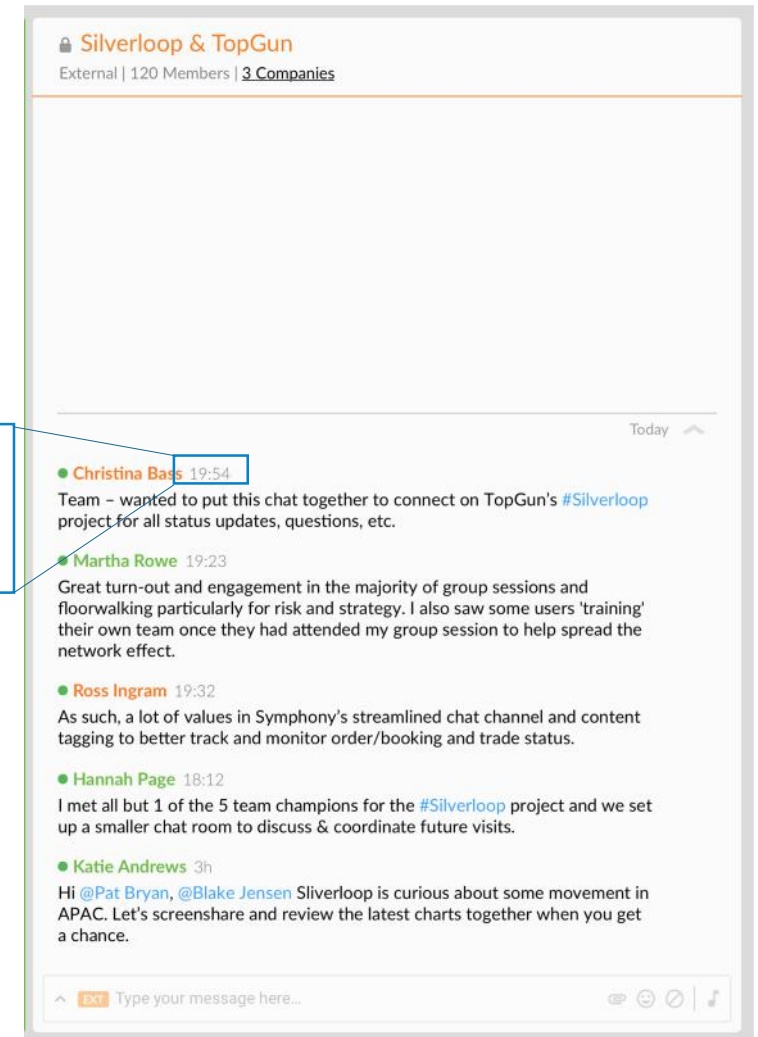
- IM – This is referred to as 1:1
- Chat rooms – Can be internal or external

Click on the Timestamp

- Conversation ID (Stream ID)
- Message Details (Message ID)

Conversation ID
TAKSMh4+BIM6AIDo0Aw1s3///qCBpkDBdA==

Message ID
Wnj7DzTo7miY/DWrlvRuk3///p1ugfN2bQ==



APPLICATIONS

Symphony Market

- Partner Applications
- Considered Extension Applications – Symphony provides a JS package to include in your front end

The screenshot displays the Symphony Market application interface. On the left is a dark blue sidebar with a 'Filter List' at the top. Below it are sections for 'CHATS' (50+), 'SIGNALS', and 'APPLICATIONS'. The 'APPLICATIONS' section is expanded, showing a list of applications: 'Symphony Market' (highlighted), 'ipushpull - premium', 'Selerity Context', 'EarlyBird Twitter', 'Koyfin', 'MDXT Connect', 'Notes', 'TheStreet', 'Symphony News', 'Smartkarma', and 'S&P Global Market Intel...'. The main content area on the right is titled 'Symphony Market' and shows details for two applications. The first is 'EarlyBird Twitter' by MarketEarlyBird.com, with a description of its features and a 'REMOVE' button. The second is 'Eikon' by Thomson Reuters, with a description of its features and an 'ADD' button.

Symphony Market

EarlyBird Twitter
Created by MarketEarlyBird.com
EarlyBird is the fully compliant Twitter app for finance professionals. Follow anybody on Twitter with complete anonymity to maintain your competitive edge, stay informed with our financial, economic and political collections, or use our artificial-intelligence powered financial SmartTracks to deep-dive into any asset when other news sources aren't giving you the full story. There's no Tweeting, no direct messaging, and all received Tweets are recorded for MiFID II compliance.

Eikon
Created by Thomson Reuters
Thomson Reuters Eikon delivers unparalleled and easy access to trusted news, data, and analytics; instant connection to new and emerging markets, deep and varied pools of liquidity and professional networks. Eikon subscribers can now share its world leading content as part

| SPECIAL FEATURES

- @ Mentions – Assign or notify a person directly
- Community – Accept/Reject Connection Requests
- Inbox – Get a stream of all messages
- News – Find out what's new with Symphony
- Settings – Adjust display settings, alerts, permissions, and theme





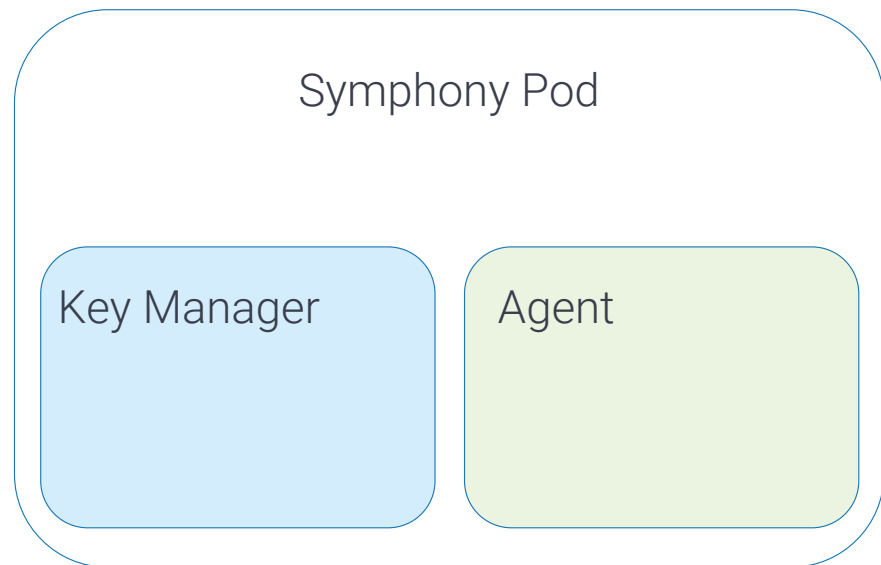
TOPOLOGY AND DEVELOPMENT REQUIREMENTS

ACCESSING THE BUILD ENVIRONMENT

I SYMPHONY TOPOLOGY

Symphony Developers need to know:

- **Pod** - This is the main instance of the Symphony Software
- **Key Manager** - Provides the authorization to encrypt and decrypt messages
- **Agent** - Provides the Messaging APIs



I DEVELOPMENT REQUIREMENTS

Needed Before the Build:

- System Account
- User Certificate with a CN Matching the username of the System Account
- Symphony URL Information for the Hackathon Pod
 - Pod <https://develop2.symphony.com/>
 - Session authentication <https://develop2-api.symphony.com:8444/sessionauth/v1/authenticate>
 - Key Manager authentication <https://develop2-api.symphony.com:8444/keyauth/v1/authenticate>
 - Agent <https://develop2.symphony.com/>

Basic Information	
Username*	bot.user1
Display Name*	Bot User
Email*	bot.user1@example.com
Additional Information	
Division	Technology Division
Department	Symphony Bots
Company Name	Symphony Preview Pod (default) ⌵

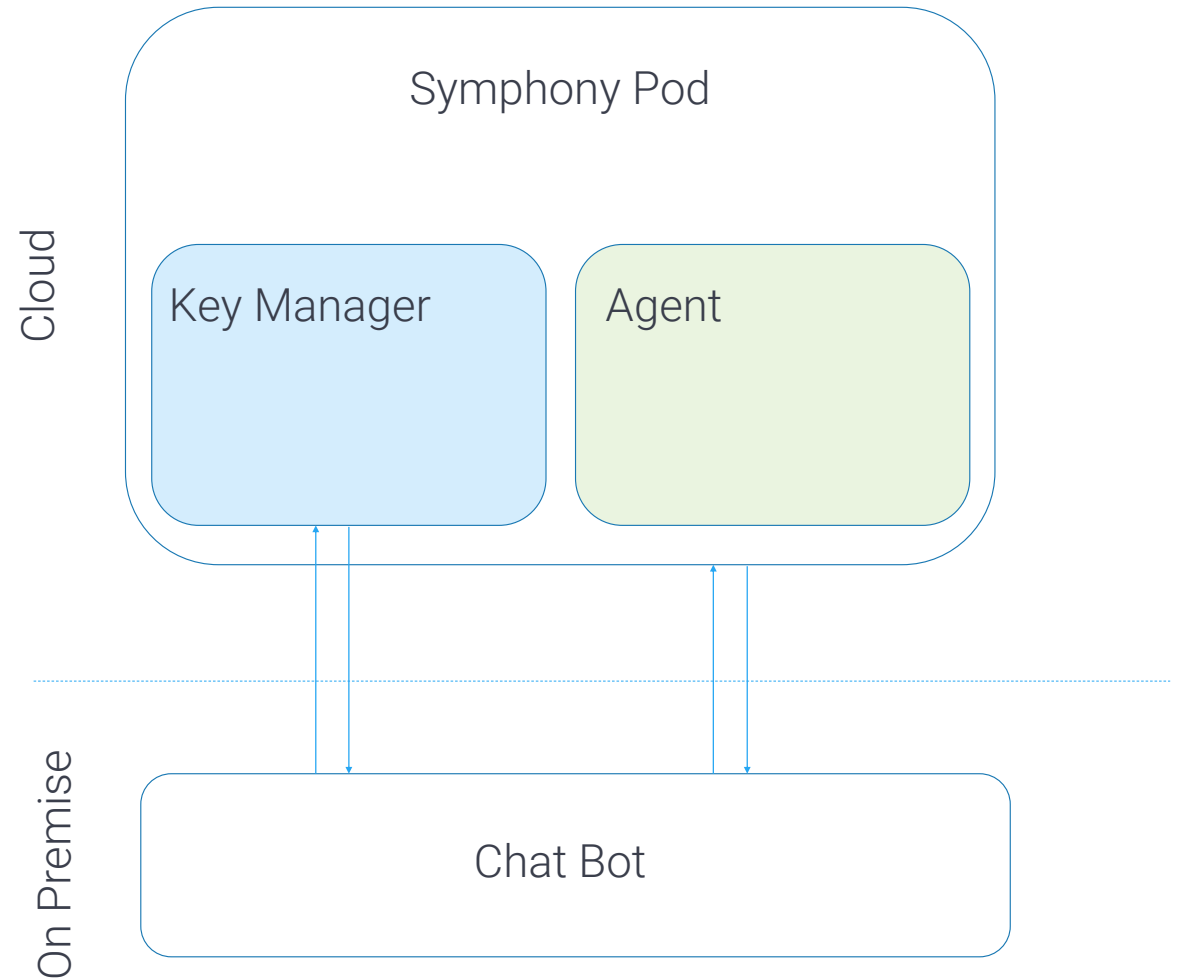
| AUTHENTICATION BASICS

Session Authentication

- Session url + /sessionauth/v1/authenticate

Key Manager Authentication

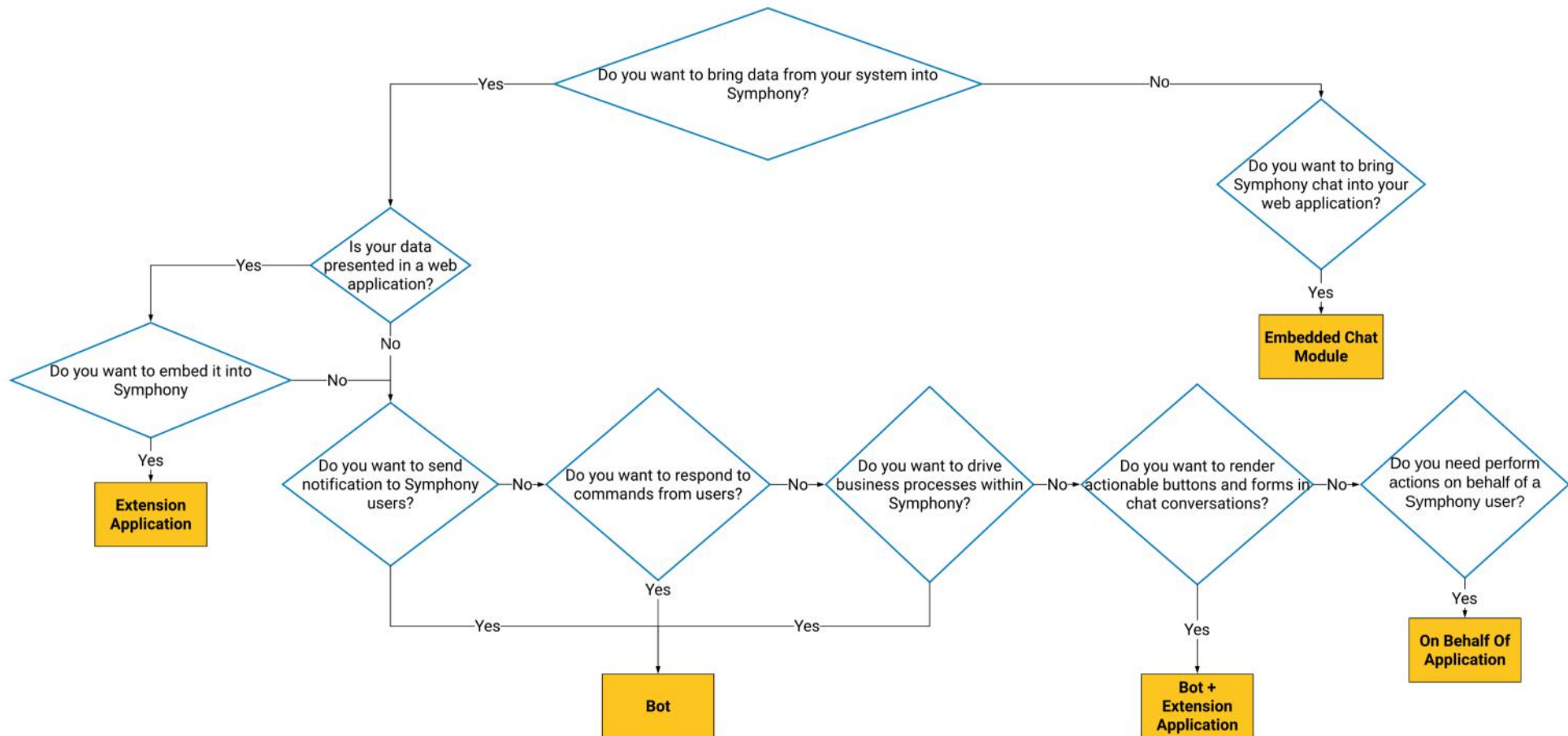
- KM url + /keyauth/v1/authenticate



START DEVELOPING CHAT BOTS



DETERMINING WHAT TO BUILD



I PRE REQUIREMENTS

- Install npm and Yeoman Generator
- Install the Symphony Generator

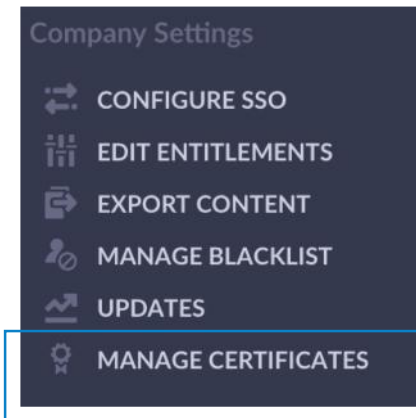
```
PS C:\Users\ivana.polim\Documents\demo> npm install -g generator-symphony --cli
```

- <https://symphony-developers.symphony.com/docs>

I GENERATING A BOT

- Create and navigate to a working directory
 - Ex. mkdir test
- Invoke the Symphony Generator
- Follow all the steps in the Generator including generating of certificate. You will need to deploy this certificate to the Admin and Compliance portal.

```
> yo symphony
```



I GENERATING A BOT (CONTINUED)

- Install dependencies
 - Ex. For Node.js you will have to run `npm install`
- Run the bot
 - Ex. For Node.js you will have to run `npm start`

API CLIENTS

- We have API Client in Java, node.js, and .NET
 - Available in maven, npm and nuget
- All client use the same configuration
 - Clients can be used to add Symphony functionality to an existing project
 - To use in your company, it is key to find out if you have the Agent and KM running on premise.

```
{  
  "sessionAuthHost": "develop2-api.symphony.com",  
  "sessionAuthPort": 8444,  
  "keyAuthHost": "develop2-api.symphony.com",  
  "keyAuthPort": 8444,  
  "podHost": "develop2.symphony.com",  
  "podPort": 443,  
  "agentHost": "develop2.symphony.com",  
  "agentPort": 443,  
  "botCertPath": "/Users/pf/Documents/sy-dev/Add-users-to-room/Certificates/",  
  "botCertName": "bot.user150-all.pem",  
  "botCertPassword": "changeit",  
  "botEmailAddress": "bot.user150@example.com",  
  "appCertPath": "",  
  "appCertName": "",  
  "appCertPassword": "",  
  "proxyURL": "",  
  "proxyUsername": "",  
  "proxyPassword": "",  
  "authTokenRefreshPeriod": "30"  
}
```

I BOT EXAMPLES & IDEAS

Existing Symphony Chat Bots:

- **Google Translate Bot** - Translate chat and respond in real time
- **Help Desk Bot** - Migrate from a group email inbox to secure chat rooms to manage internal and external help desk scenarios
- **Message Suppression Bot** - Automatically and permanently suppress messages while maintaining a full record of the message in your audit trail
- **Research Distribution Bot** - Filter research to receive articles and reports from publications you trust

View more at workflow.symphony.com



A hand is shown placing a wooden block on a staircase made of wooden blocks. The staircase is built from several rectangular wooden blocks of varying lengths, arranged in a step-like pattern. The hand is positioned at the top right, with the thumb and index finger holding the block. The background is a plain, light-colored surface.

NEXT STEPS

HOW TO PREPARE FOR THE HACKATHON

I NEXT STEPS

1. After this Webinar you will receive an email with your credentials and the certificates for the Service account assigned to your team

Log into your user account at: <https://develop2.symphony.com/>

username: the email @ you registered with

password: please use the password reset functionality

2. Be sure to log in and test your credentials *prior* to the Hackathon
3. Email pf@symphony.com if you have any issues accessing your account
4. You will receive an email with event details and reminders a few days before the Hackathon on 5 June 2018
5. You can post questions about the Symphony clients and related matters on **stackoverflow** tagging it with **symphony-chat**

I KEY INFO

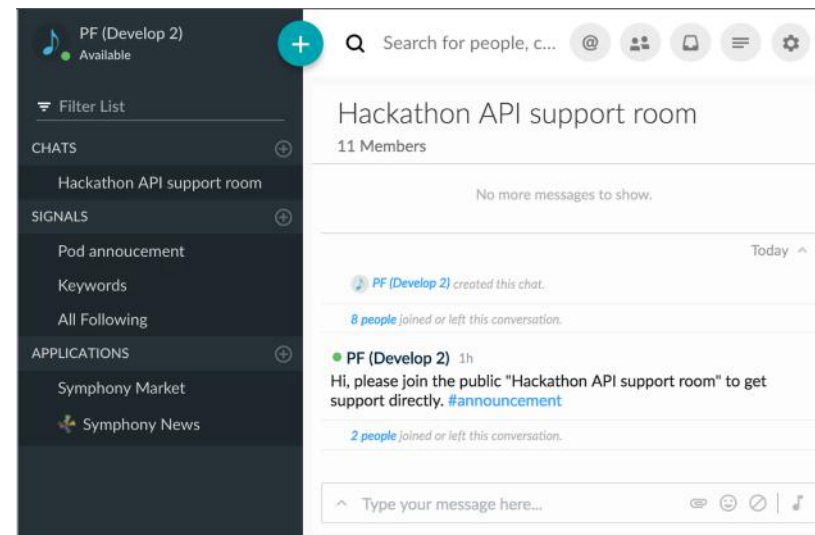
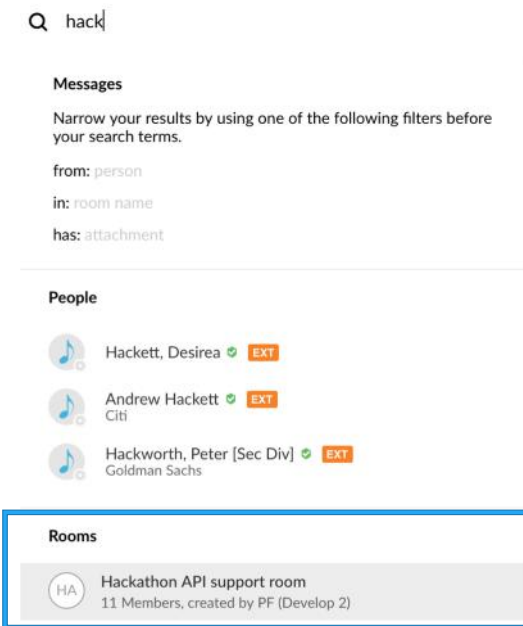
- Pod <https://develop2.symphony.com/>
- Session authentication <https://develop2-api.symphony.com:8444/sessionauth/v1/authenticate>
- Key Manager <https://develop2-api.symphony.com:8444/keyauth/v1/authenticate>
- Agent <https://develop2.symphony.com/>
- Service Account username: bot.userXX for example bot.user99
- You will receive 3 files associated to your service account:
 - bot.userXX.p12
 - bot.user-cert.pem (the certificate only)
 - bot.user-key.pem (private key only, passphrase: *changeit*)

GETTING HELP

- 1- Join the “Hackathon API Support room” on Develop2
- 2- You can post questions about the Symphony clients and related matters on **stackoverflow** tagging it with **symphony-chat**
- 3- Connect to “pf vilquin” on Symphony if you are externally enabled on Symphony

If everything else fails :

- 4- email pf@symphony.com or platformsolutions@symphony.com



I ADDITIONAL INFO

- Web RTC (audio/video/screensharing) has been enabled on the pod, so you can have remote team meetings too!
- You can also point the Android or iOS apps (free to download) to this pod
- Let us know if you would like also to use the new Electron Desktop client (MacOS, win 32, win64) - currently in BETA
- Otherwise you need chrome version 61 or above
- You have access to all APIs (REST, Extension, Integration, Embedded)

I ADDITIONAL RESOURCES

- API docs: <https://developer-docs.symphony.com>
- Yaml: <https://github.com/symphonyoss/symphony-api-spec/tree/rc-current-r51>
- GitHub repos:
 - <https://github.com/symphonyoss> (python client and examples)
 - <https://github.com/symphonysa>
 - <https://github.com/symphonyplatformsolutions>
- SY clients (C#, Java, Node.js), bot generator, Getting Started: <https://symphony-developers.symphony.com/docs>
- How to test your MessageML and see it rendered in PresentationML or markdown (Mobile) without coding. Examples of complex formatting <https://renderer-tool.app.symphony.com/>
Note: This is a tool in beta, you may face a prompt about the certificate not trusted (make sure you enter https://) just go head and accept/trust the cert.
- Bot ideas/examples with demo & link to the repo: <https://workflow.symphony.com/#/>



QUESTIONS?

WEBINAR RECORDING & SLIDES WILL BE PROVIDED