CHATOPS

The creation of automatized workflow for services of Cisco Unified Communications

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Automation with the ChatOps solution is a very topical issue within the IT industry and automation development. The project deals with the implementation of ChatOps solution for configuration and operation support of Cisco Unified Communications Manager (CUCM) using the open source event-driven automation platform StackStorm and implementation of ChatBot module with the integration to Webex Teams.
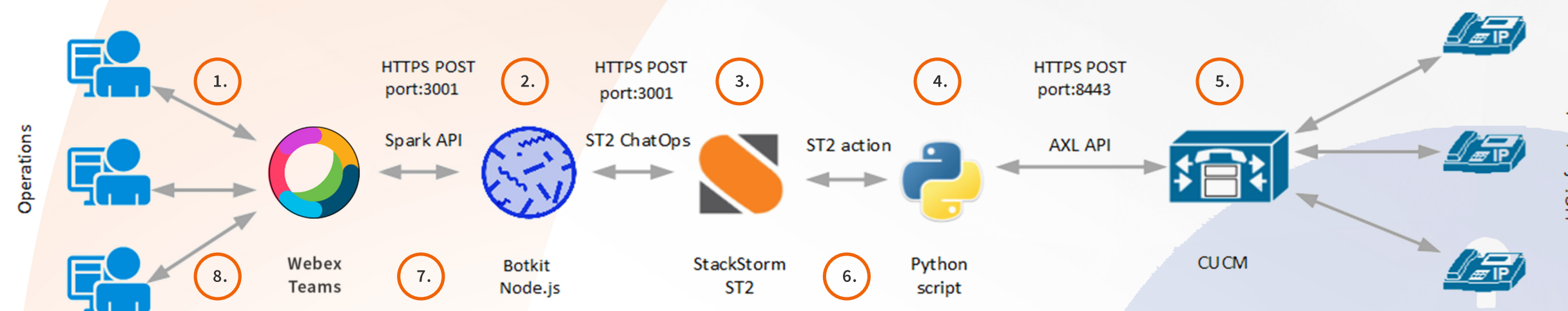
CHATOPS

Innovation tool connecting IT solutions:

for faster work • for easier work • **for cheaper development**

ARCHITECTURE

1. **Tools for collaboration (chat clients) – Webex Teams**
2. **ChatBot - Botkit**
3. **System integration – StackStorm + CUCM**

Thanks to miscellaneous use of StackStorm and wide application possibilities of Botkit can be logic and architecture of this proposed solution applicable to many different platforms.

Operations

1. HTTPS POST port:3001 — Spark API
2. HTTPS POST port:3001 — ST2 ChatOps
3. ST2 action
4. HTTPS POST port:8443 — AXL API
5. UC infrastructure

Webex Teams — Botkit Node.js — StackStorm ST2 — Python script — CUCM

8. 7. 6.

STEP BY STEP (AGENDA)

1. **Operator writes a message to the bot Ellie. Ellie identifies communi-cation and asks for required data.**
2. **Ellie (Botkit) sends the request to the Webhook endpoint (StackStorm).**
3. **When Webhook receives the request, Sensor (consisting of Trigger and Rule) triggers an ActionChain.**
4. **ActionChain is formed by many Actions (Python scripts) which make database query to the CUCM.**
5. **CUCM makes the query on physical devices and returns the results to the StackStorm.**
6. **StackStorm processes the results and sends them to Botkit.**
7. **Botkit sends results in readable form to Webex Teams.**
8. **The operator can now see what the ChatOps automation done.**