Quickly Build a Predictive Chatbot With
IBM **Cloud**

Watson Machine Learning   +   Watson Conversation
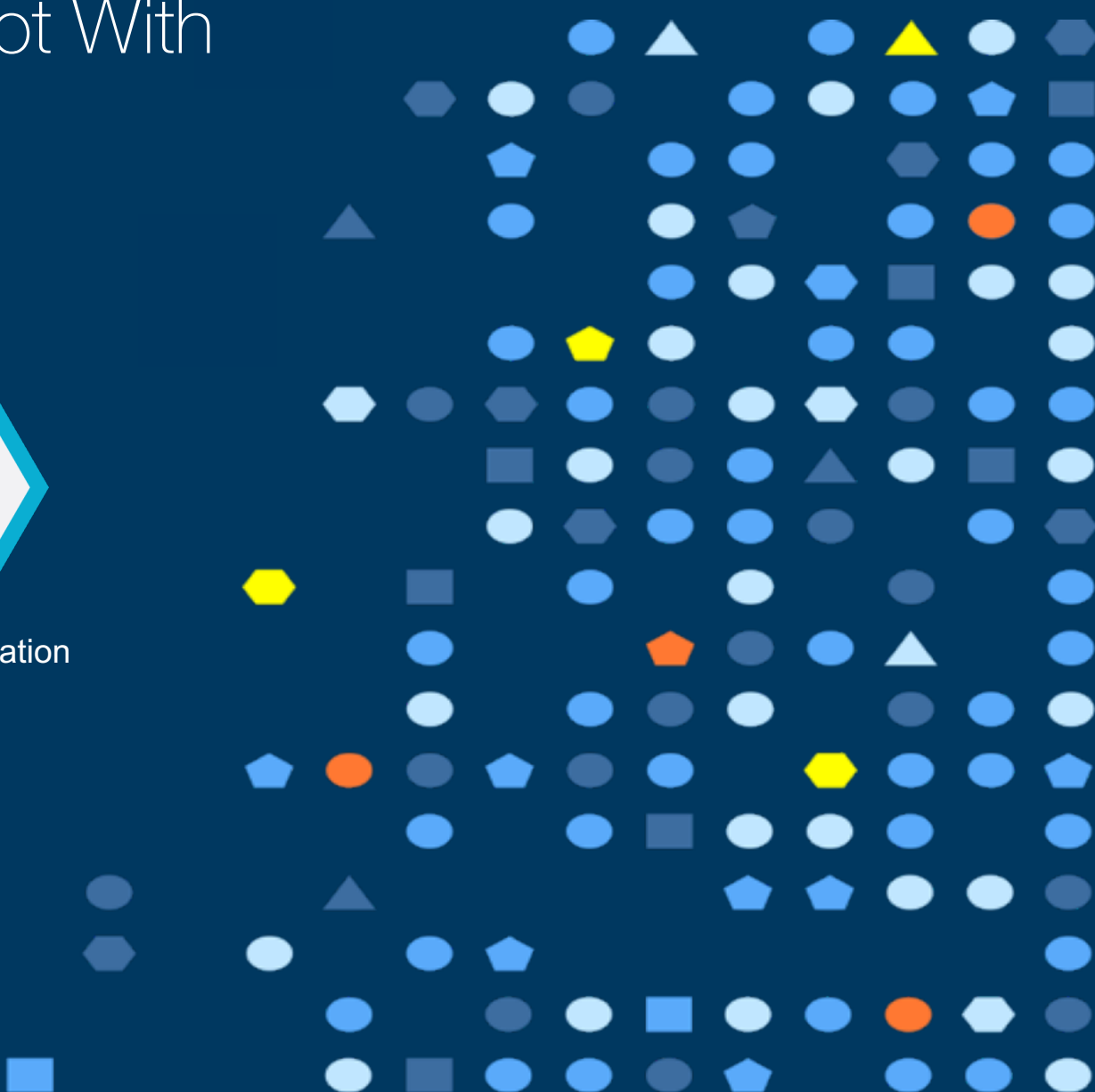
Sam Ennis
Client Technical Solutions Specialist
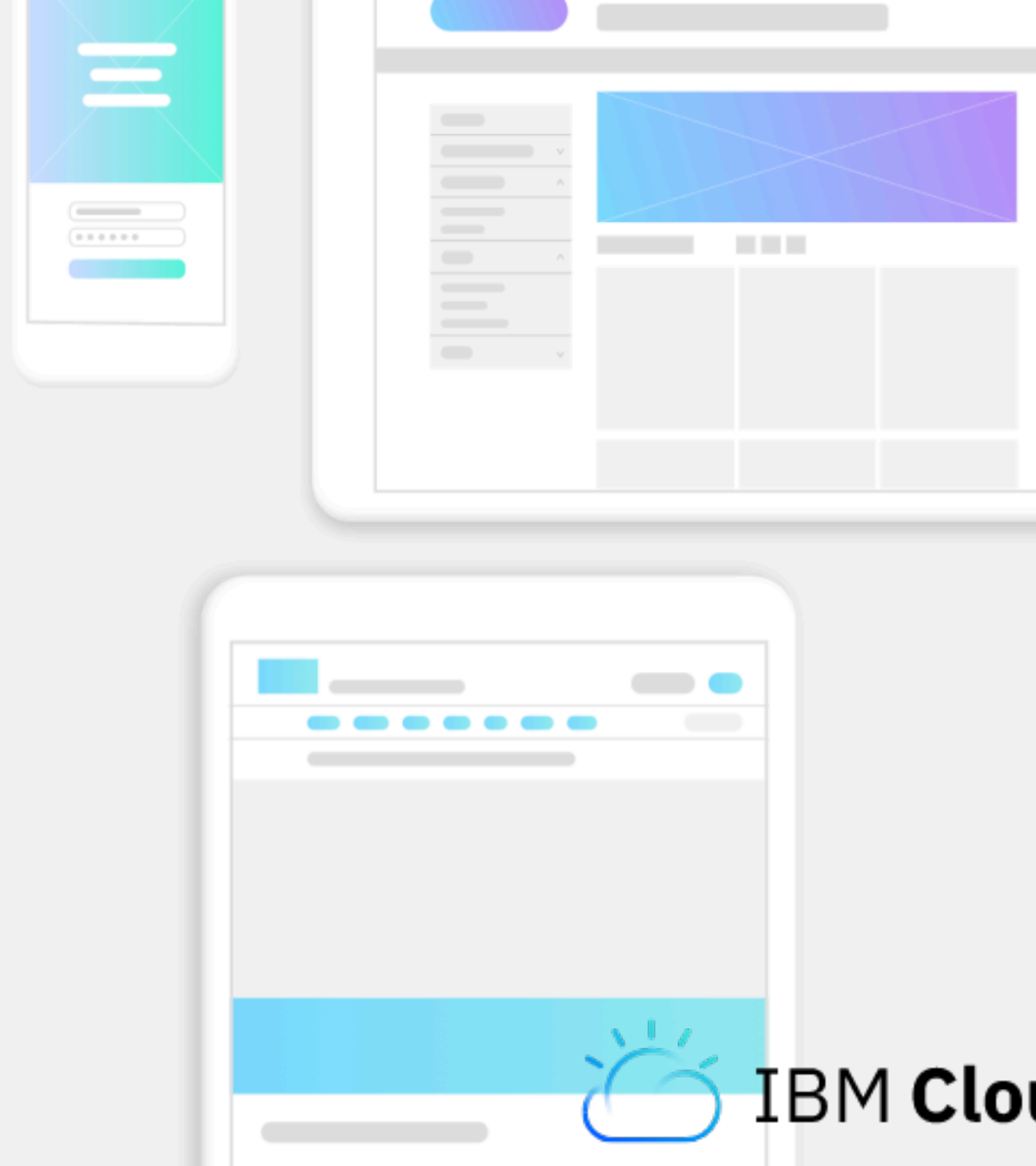Analytics Platform Cloud Offerings
Sam.Ennis@ibm.com

October 2017

The **real value** of data is being able to extract meaningful insight, to make more informed decisions, and to create differentiating, predictive business models.

Build on the cognitive platform for business

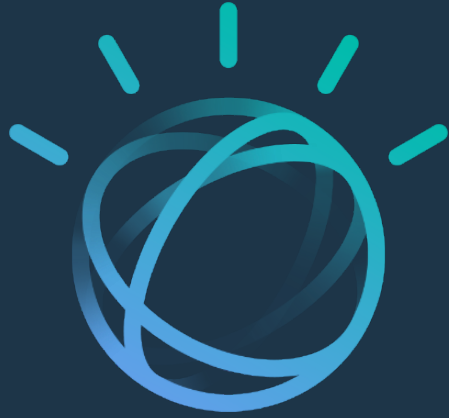IBM Cloud enables you to integrate powerful analytics and AI into your applications.

IBM Clou

Demo Scenario – Building a Predictive Chatbot

- Fitness Club USA is a national gym chain

- They want to get their members to sign up for more fitness classes (cross-sell opportunity) by offerings personalized recommendations

- They want to enhance customer experience by providing a personalized interface for customers across multiple channels of interaction

Fitness Club USA's new **cognitive** website…

IBM Cloud Services used to build **Fitness Club USA**'s app

Data Science Experience

Watson Machine Learning

HTTP (REST)

Flow-based programming on Node.js runtime

HTTP (REST)

Watson Conversation

Node-RED

HTTP (REST)
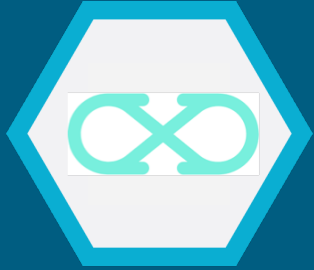
- Create ML models using a variety of tools and frameworks (Python, Spark, SPSS)
- Deploy ML models to RESTful endpoint for scoring
- Continuous monitoring and feedback of ML models in production

Cloudant

- API to build a chat bot from the ground up to be used across multiple channels
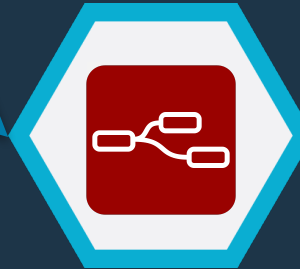- Understands natural-language and responds to customers in human-like conversation
- Integrated dialog builder to easily construct dialog flows

Find these services and more in the…

IBM Cloud Catalog

https://console.bluemix.net/catalog/
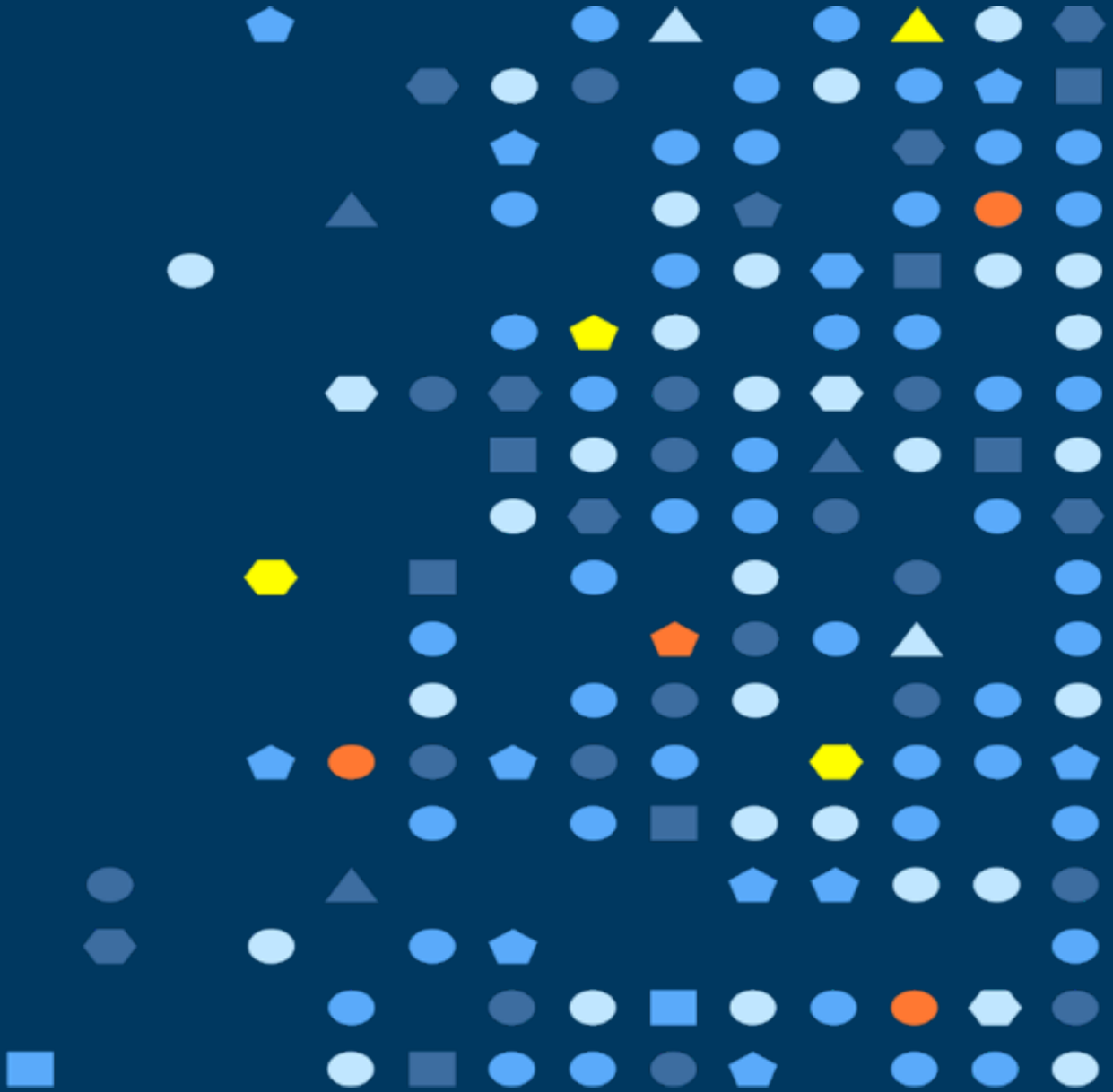
Demo Overview – Building a Predictive Chatbot

Customer Data

Data Science Experience

Fitness Class Recommendation Model

Watson Machine Learning

RESTful Web Service

Watson Conversation

Trained Chatbot

RESTful Web Service

Node-RED Web Application
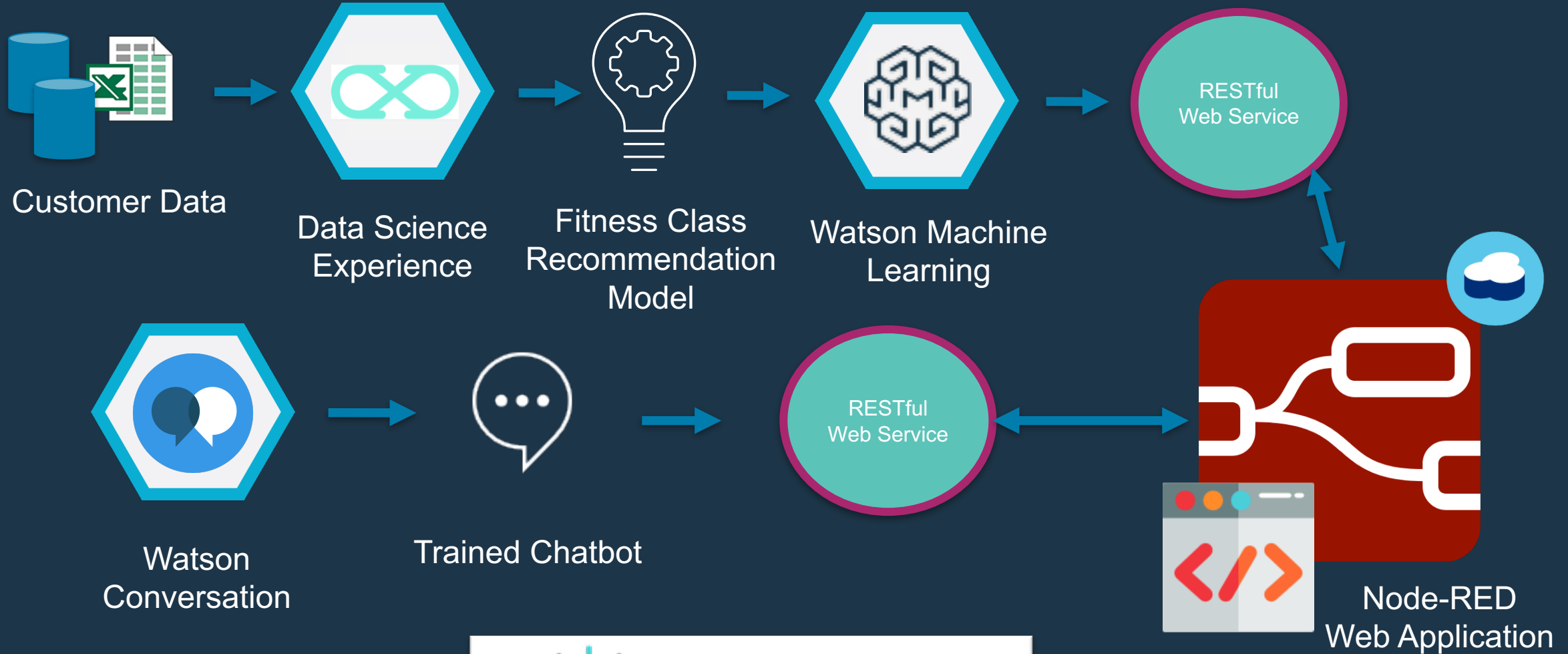
IBM Cloud

Step #1 – Create & Deploy ML Model

Customer Data → Data Science Experience → Fitness Class Recommendation Model → Watson Machine Learning → RESTful Web Service
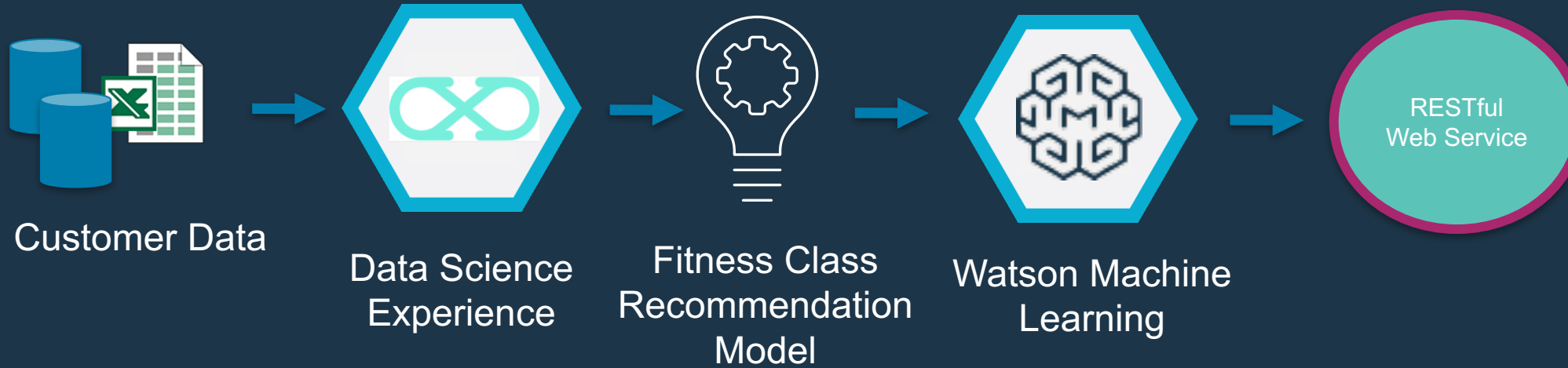
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Step #2 – Train Chatbot

Customer Data → Data Science Experience → Fitness Class Recommendation Model → Watson Machine Learning → RESTful Web Service

Watson Conversation → Trained Chatbot → RESTful Web Service
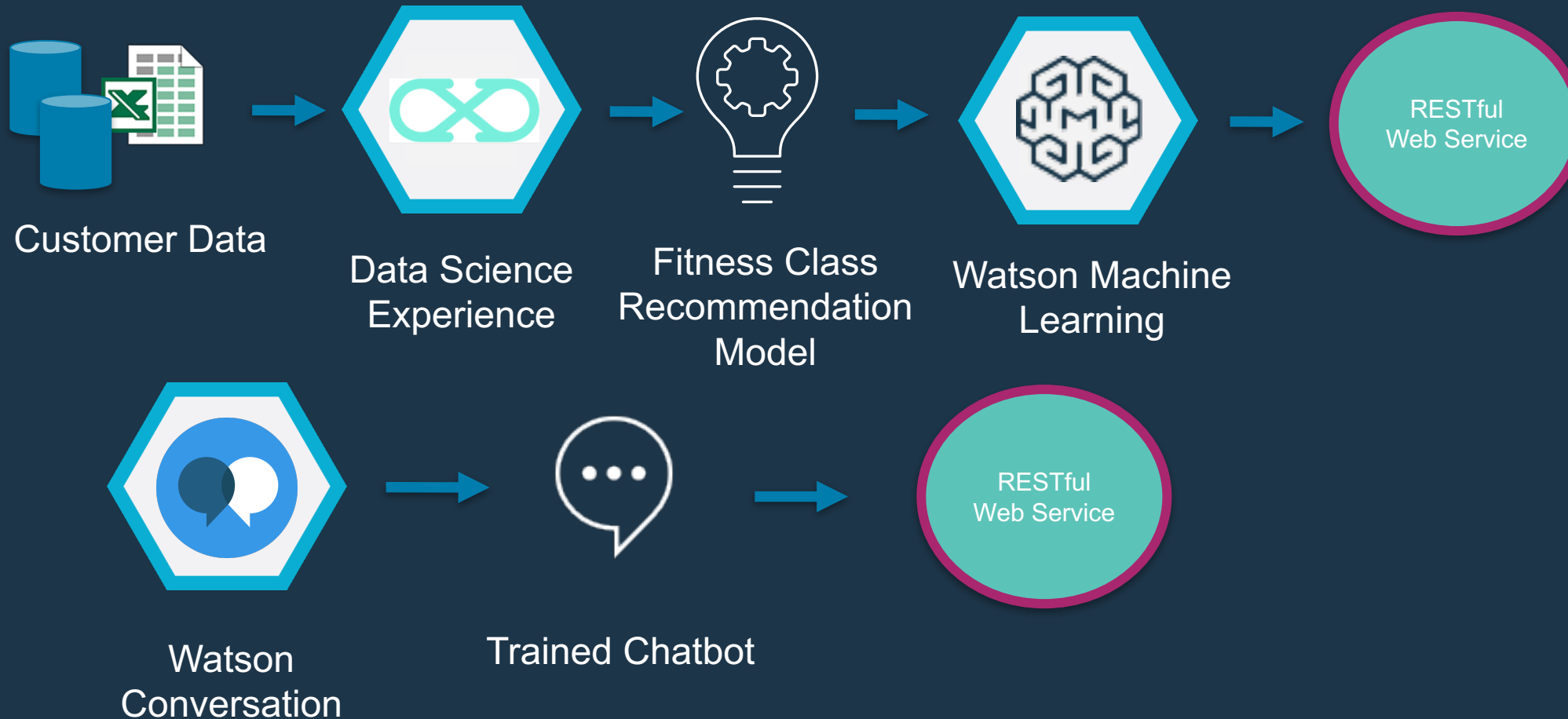
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Step #3 – Put it together with Node-RED

Customer Data

Data Science Experience

Fitness Class Recommendation Model

Watson Machine Learning

RESTful Web Service

Watson Conversation

Trained Chatbot

RESTful Web Service

Node-RED Web Application
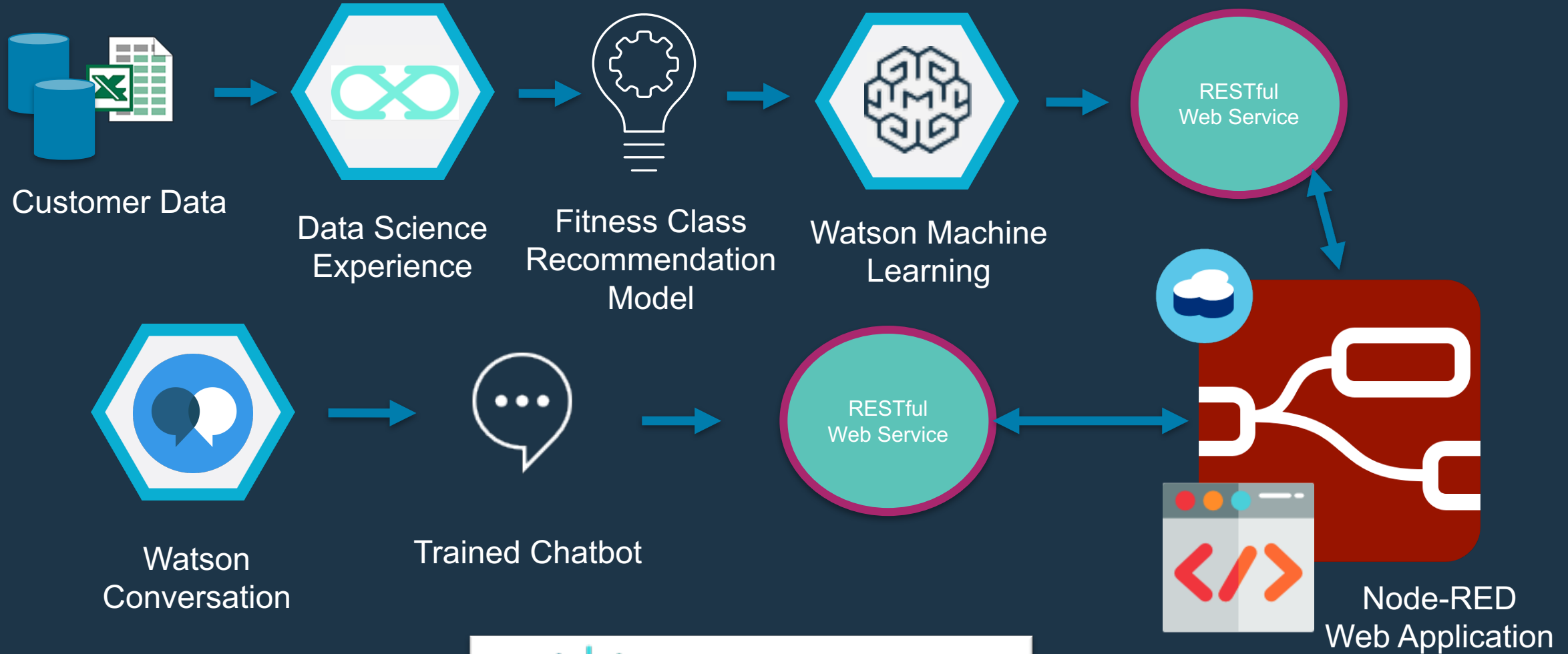
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Bonus Step – Augment With Additional Services

Customer Data

Data Science Experience

Fitness Class Recommendation Model

Watson Machine Learning

RESTful Web Service

Watson Tone Analyzer

Twilio (3rd Party)

Watson Conversation

Trained Chatbot

RESTful Web Service

Node-RED Web Application
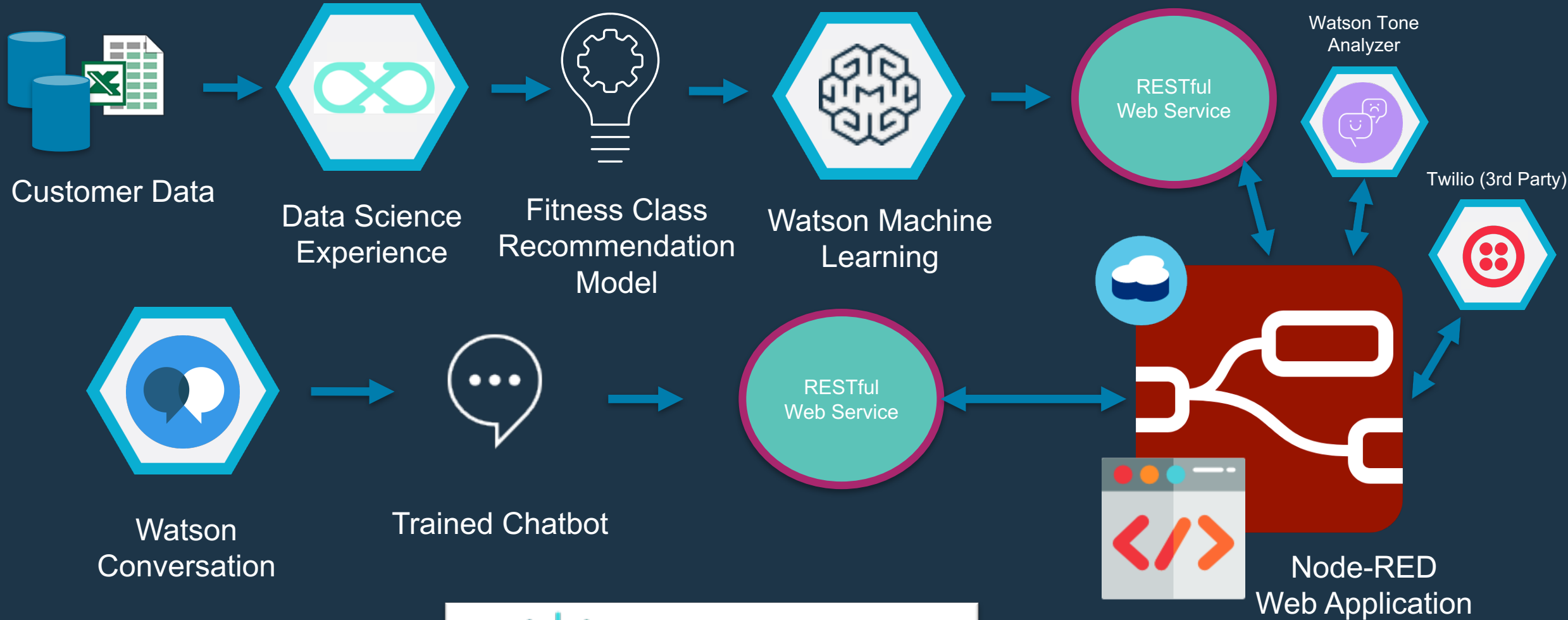
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Solution: **IBM Watson**   Industry: **Computer Services**

Autodesk Inc.

Speeding customer response times by 99 percent with IBM Watson

Using the IBM® Watson™ Conversation service, Autodesk developed a virtual agent that interacts with customers. The solution returns answers quickly by applying natural language processing (NLP) and deep learning techniques to recognize and extract the intent, context and meaning behind inquiries.

Share this

http://ecc.ibm.com/case-study/us-en/ECCF-WUC12544USEN

Build on the cognitive platform for business

with IBM **Cloud**

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Analytics Platform Cloud Offerings

Sign up for IBM Cloud:
https://console.bluemix.net/registration/

Instructions to set up this app yourself:
https://github.com/samcennis/Watson-Conversation-ML-Demo