

Cognitive Bots to enable
rapid Integration

Watson Conversation
meets App Connect

Watson

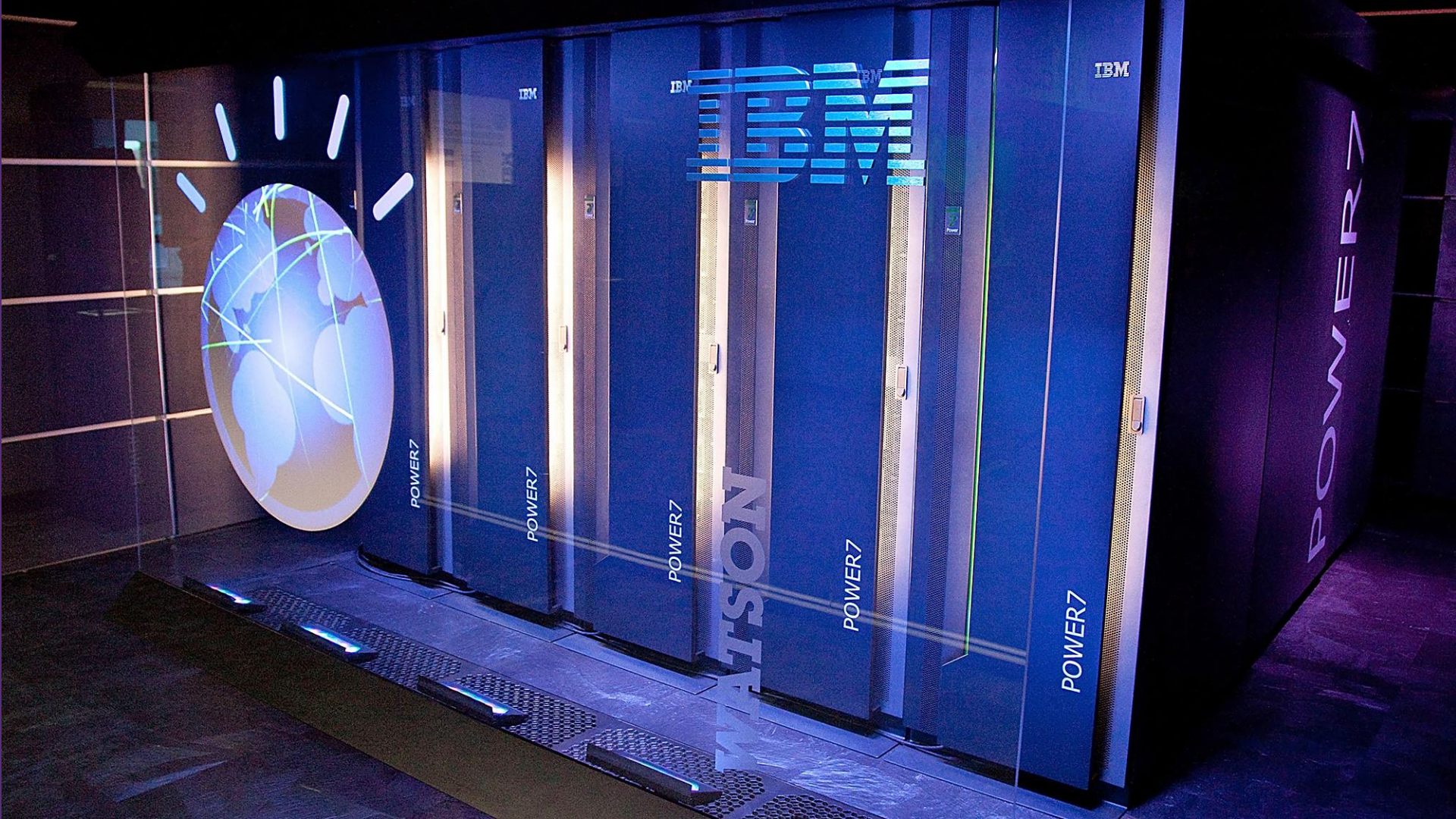
David George
Senior Software
Engineer

Watson Conversation
October 2017



IBM Watson is a cognitive platform that can **understand**, **reason**, **learn** and **interact** across the entire data universe, helping businesses and organizations scale expertise to meet new and evolving challenges.





Build on the AI platform for business

Watson on the IBM Cloud allows you to integrate the world's most powerful AI into your applications and store, train and manage your data in the most secure cloud.

[Get started free](#)[View all services](#)

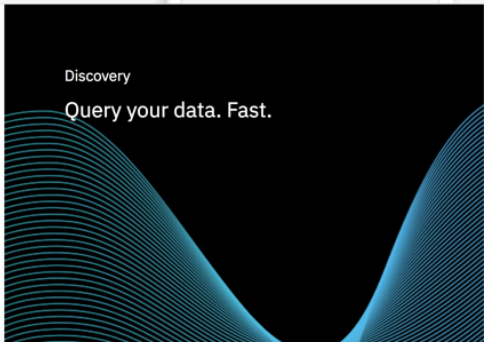
Already using Watson? [Sign in](#)

Visual Recognition
Understand image content

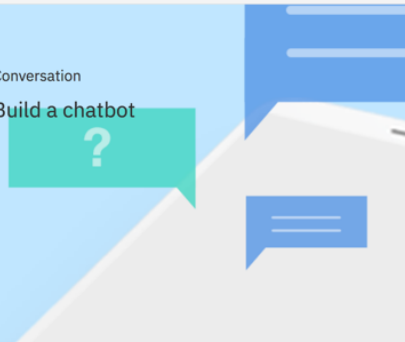


BASIL
LEAF
HERB
PLANT STEM

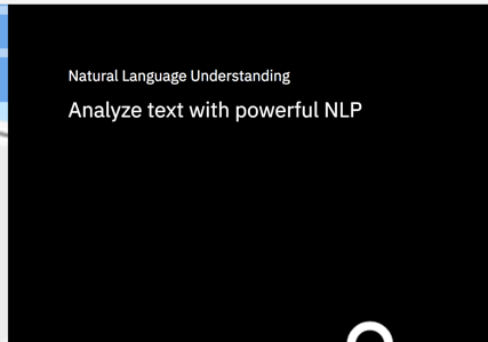
Discovery
Query your data. Fast.



Conversation
Build a chatbot



Natural Language Understanding
Analyze text with powerful NLP



Conversation



Conversation

Quickly build and deploy chatbots and virtual agents across a variety of channels, including mobile devices, messaging platforms, and even robots.



Virtual Agent

Build a chatbot for customer service - no machine learning experience required.

Vision



Visual Recognition

Tag, classify and search visual content using machine learning.

Discovery



Discovery

Unlock hidden value in data to find answers, monitor trends and surface patterns with the world's most advanced cloud-native insight engine.



Natural Language Understanding

Analyze text to extract meta-data from content such as concepts, entities, keywords and more.



Discovery News

Infuse dynamic news content into every app you build.



Knowledge Studio

Teach Watson to discover meaningful insights in unstructured text without writing any code.

Speech



Speech to Text

Convert audio and voice into written text for quick understanding of content.



Text to Speech

Convert written text into natural sounding audio in a variety of languages and voices.

Empathy



Personality Insights

Predict personality characteristics, needs and values through written text.



Tone Analyzer

Understand emotions, social tendencies and perceived writing style.

Language



Language Translator

Translate text from one language to another.



Natural Language Classifier

Interpret and classify natural language with confidence.



Retrieve and Rank

Retrieve and Rank has evolved into Watson Discovery and is deprecated as a stand-alone service.

API

API

Application Programming Interface

Watson Conversation



- Quickly build Chatbots and virtual agents
- Test and deploy to a variety of channels and messaging platforms
- Improve by reviewing your logs and getting tailored recommendations

Are Chatbots the new Apps?

Reach customers in the apps
they already use

Increase engagement
through personalised
experiences



Building a Chatbot using Watson Conversation

Building a Chatbot

- Identify Intents using Examples
- Identify Entities (optional)
- Create a Dialog
- Start simple, then Iterate

This screenshot shows the 'Intents' tab in the Watson Conversation interface. The breadcrumb path is 'Watson Conversation / Watson IT Helpdesk / Build'. The left sidebar contains navigation icons for intents, entities, and dialog. The main area has tabs for 'Intents', 'Entities', and 'Dialog', with 'Intents' selected. Below the tabs are buttons for 'Create new', 'Import', 'Export', and 'Delete'. On the right, it shows '10 intents' and a 'Sort by: Newest' dropdown. The list of intents includes:

Intent Name	Example	Count
#RequestAccess	Where do I create a GHE account?	13
#AntiVirus	Have I got a Virus?	6
#Connectivity	The Wifi isn't working on my PC	15

This screenshot shows the 'Dialog' tab in the Watson Conversation interface. The breadcrumb path is 'Watson Conversation / Watson IT Helpdesk / Build'. The left sidebar is the same as the previous screenshot. The main area has tabs for 'Intents', 'Entities', and 'Dialog', with 'Dialog' selected. Below the tabs is an 'Add node' button. The dialog flow is visualized as a series of nodes connected by arrows. The first node is 'conversation_start' with '1 Response / 0 Context set'. An arrow leads to a second node, '#RequestAccess', with '0 Responses / 0 Context set / Jump to'. From this node, an arrow leads to a third node, '@System:Email', with the label 'Jump to @System:Email (Evaluate condition)'.

App Connect

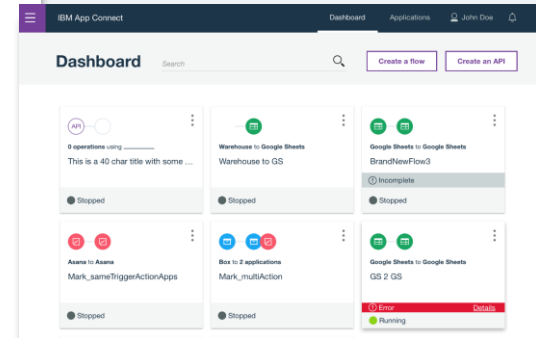
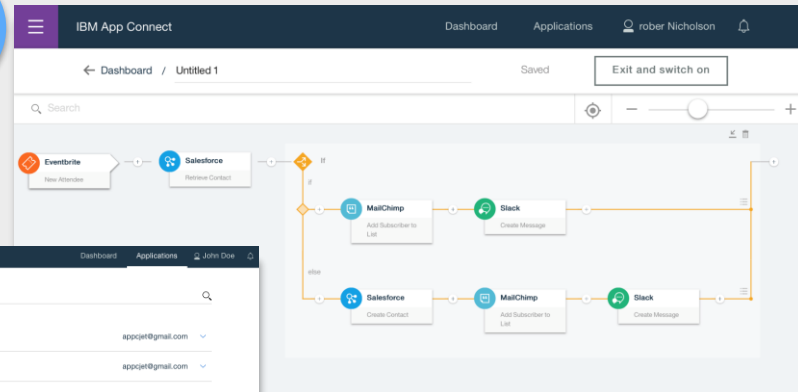
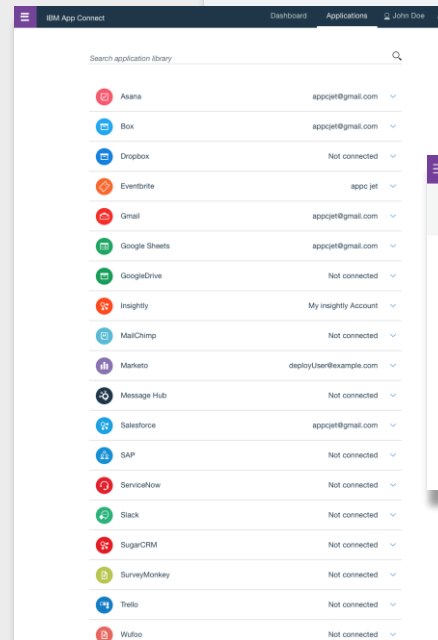
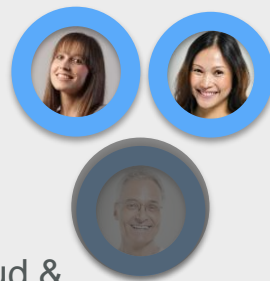
What is App Connect?

Business friendly integration that connects cloud & enterprise apps as flows and APIs

A next generation, cloud native iPaaS.

What does App Connect provide today?

- App-aware smart connectors
- Automation of manual tasks: event driven flows
- Integration flow powered APIs
- Simple but powerful data mapping
- Secure on-prem and cloud connectivity.
- Easy to understand dashboard and error reporting.



Blueberry

Watson Conversation meets App Connect



**Make your
enterprise applications
work for you.**

Blueberry automatically generates chatbots **personalised** to your needs, so you can trigger **integration** tasks across your multiple applications through **conversation**. Now you can **connect** your applications to get the data you need at your fingertips, so you can enhance your **productivity** and deliver more **value** to your clients.



Problem Statement

A Software Sales Person needs to meet with clients and create tickets for those customers following meetings

- Customer details are stored in Salesforce
- Support tickets are created in a system called ServiceNow

They wish that they could create tickets whilst with their customers, and avoid hopping between applications, by just speaking an instruction to their mobile phone.

Mark the Sales Person

- Ambitious young software sales person
- Meets with clients every day
- Interacts with many systems of record in order to prepare for meetings

Mark spends only a third of his day actually meeting with clients. Around a third is spent on preparation, and a fifth on administrative tasks.



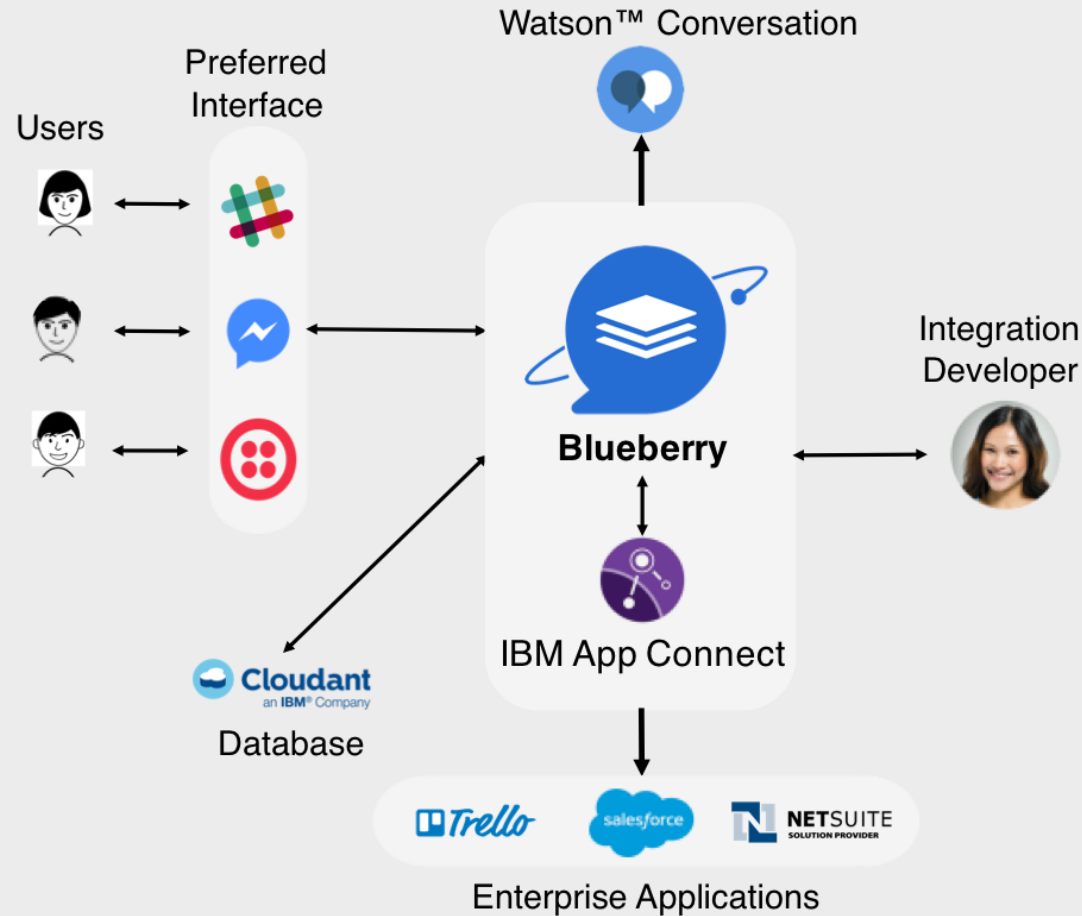
Tia the Integration Developer

- Part of IT support organisation
- Uses an iPaaS software each day
- Responds to move, clean, update, sync or integrate data

App Connect allows Tia to create new integration flows quickly, but often spends a great deal of time building custom interfaces to expose them



Blueberry Architecture





Lead Chatbot

[New API](#)[Add existing API](#)[Deploy Chatbot](#)

Properties

[Edit](#)

Chatbot Name

Lead Chatbot

ChatBot Description

Slack Token

xoxb-235160487940-
aDbU649d0sZLKXocfZhUhD7C[Approve user examples](#)

Associated APIs

API Name	API Model	Applications			
Prepare lead	Leads		Define Conversation	Edit	Delete
Get Contact By Name	Leads		Define Conversation	Edit	Delete



x

Get Contact By Name

Enter a description for Get Contact By Name

Enter calls for Get Contact By Name

Example 1

Get contact

Example 2

How do I contact

Example 3

Call

Example 4

Email

Example 5

Find contact

Intents and entities

Full_name ☒ ?

Email ☐ ?

Phone ☐ ?

Full_name in plain/readable text Email in plain/readable text Phone in plain/readable text

name

Example 1

Example 1

Example 2

Example 2

Example 3

Example 3

Example 4

Example 4

Example 5

Example 5

User-contributed Examples

The screenshot displays a Slack interface. On the left is a dark sidebar with a list of items: 'IBM Front End' (selected), 'Matthew Kempa', 'All Threads', 'Channels' (with a plus icon), '# angularjs', '# general', '# taas-artifactory-help', 'Direct Messages' (with a plus icon), 'slackbot', 'Matthew Kempa...', 'Aaquib Naved', 'Alex Ross', 'Ashley Harrison', 'Giacomo Chiarella', 'Keira Hopkins', 'Scott Cooper', 'scott_couper', 'Tony Curcio', 'Vivek Shah', 'Vivek, Andy, Shaun', 'Apps', and 'Sales Bot' (highlighted in green). The main area shows a chat window with 'Sales Bot'. The chat header includes 'Sales Bot' with a star icon, 'Messages', and 'About'. The chat history shows a series of messages: 'hi' from Sales Bot, 'hi' from Matthew Kempa, 'Hello there! How can I help?' from Sales Bot, 'add an example' from Matthew Kempa, 'You can select one of these tasks: This flow creates a card on Trello Gets invoices from leads' from Sales Bot, 'gets invoices from leads' from Matthew Kempa, 'Type in the example:' from Sales Bot, 'Blueberry is the best app ever' from Matthew Kempa, and 'Thanks! I have added that as an example.' from Sales Bot. At the bottom is a text input field with a plus icon on the left, the placeholder text 'Message Sales Bot', and a smiley face icon on the right.

IBM Front End
Matthew Kempa

All Threads

Channels

- # angularjs
- # general
- # taas-artifactory-help

Direct Messages

- slackbot
- Matthew Kempa...
- Aaquib Naved
- Alex Ross
- Ashley Harrison
- Giacomo Chiarella
- Keira Hopkins
- Scott Cooper
- scott_couper
- Tony Curcio
- Vivek Shah
- Vivek, Andy, Shaun

Apps

- Sales Bot

Sales Bot

Messages About

hi

Sales Bot 9:29 PM
Watson is still training the chatbot

Matthew Kempa 9:31 PM
hi

Sales Bot 9:31 PM
Hello there! How can I help?

Matthew Kempa 9:31 PM
add an example

Sales Bot 9:31 PM
You can select one of these tasks:
This flow creates a card on Trello
Gets invoices from leads

Matthew Kempa 9:31 PM
gets invoices from leads

Sales Bot 9:31 PM
Type in the example:

Matthew Kempa 9:31 PM
Blueberry is the best app ever

Sales Bot 9:31 PM
Thanks! I have added that as an example.

+ Message Sales Bot

Outcomes

For Tia

- Generate interfaces for integration flow
- Automated deployment

For Mark

- Access information from multiple channels in one place
- Less time performing admin tasks
- Faster turnaround of information requests

IBM Watson®