

Université IBM i 2017

17 et 18 mai – IBM Client Center de Bois-Colombes

S20 – Que faire avec IBM Watson ?

Mercredi 17 mai – 16h50-17h30

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What is Watson ?

*“IBM **Watson** is a cognitive technology that can think like a human.”* (ibm.com)



Understand

With Watson, you can analyze and interpret all of your data, including unstructured text, images, audio and video.



Reason

With Watson, you can provide personalized recommendations by understanding a user's personality, tone, and emotion.



Learn

With Watson, you can utilize machine learning to grow the subject matter expertise in your apps and systems.



Interact

With Watson, you can create chat bots that can engage in dialog.

Watson is available as a set of open APIs and SaaS products

- Gain insights with Watson Products
 - We offer solutions and applications for a range of industries to gain insights from unstructured data and scale your employee's expertise.



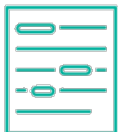
Watson Virtual Agent

Help your customers help themselves. Provide them with instantaneous, personalized support - wherever and whenever they need it.



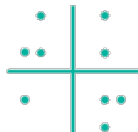
Watson Explorer (SaaS)

Combine the power of cloud-based enterprise search, content analysis and cognitive solutions to connect and view data insights across silos, for better outcomes.



Watson Knowledge Studio

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



Watson Analytics

Uncover new insights quickly and easily with automated data analysis, automatic visualization and predictive analytics.

What is Watson today?

Product &
SaaS Offerings

Watson Offerings

Watson Virtual Agent

Watson Analytics

Watson Explorer

Watson Knowledge Studio

Enable cognitive
computing
features in your
app using APIs.

Watson Developer Cloud

Language

Vision

Speech

Data Insights

IBM Watson Analytics



Existing “Desktop” solutions fall short



Still requires significant analytic skill



Not truly a “business user” solution

Data exploration only



Can only address simple business questions

No data refinement capabilities



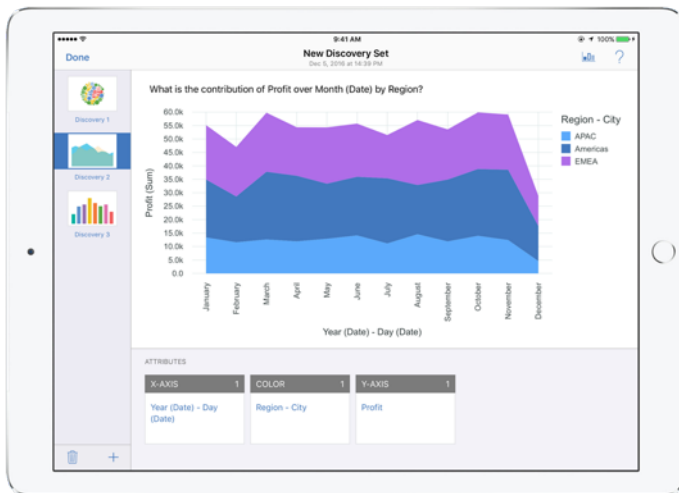
Data needs to be manually refined, an IT intensive task

Slower to deploy, requires a desktop installation



Creates data silos and maintenance tasks for IT

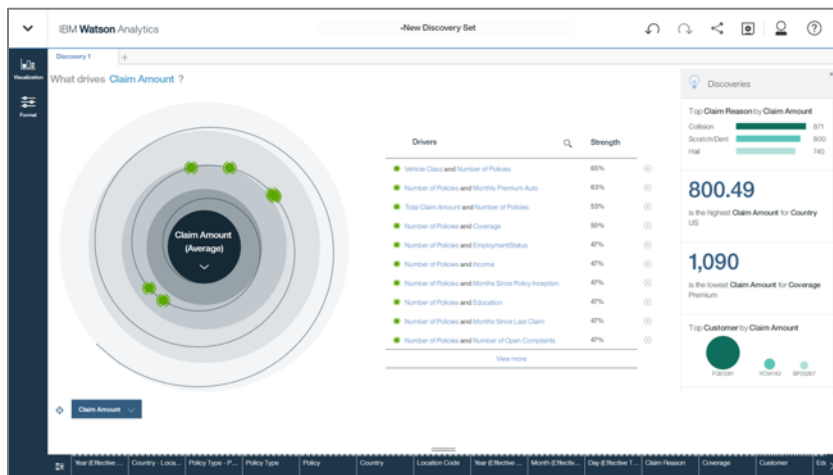
Watson Analytics: key features



Natural language dialogue

Engage with your data conversationally and discover new associations and insights. All you need is a desktop web browser or the mobile app for iPad.

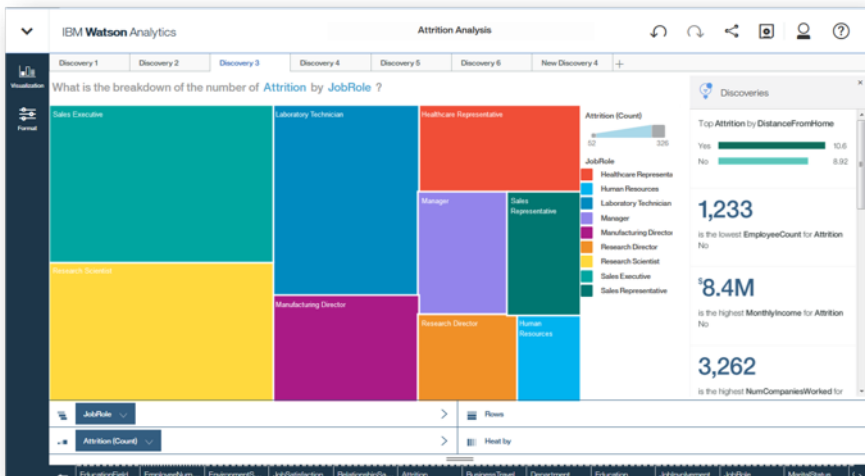
Watson Analytics: key features



Automated predictive analytics

Automatically surface what is likely driving outcomes.

Watson Analytics: key features



One-click analysis

Make sense of data discoveries in one click with automatic visualizations you can use in dashboards to tell more powerful stories.

Watson Analytics Editions

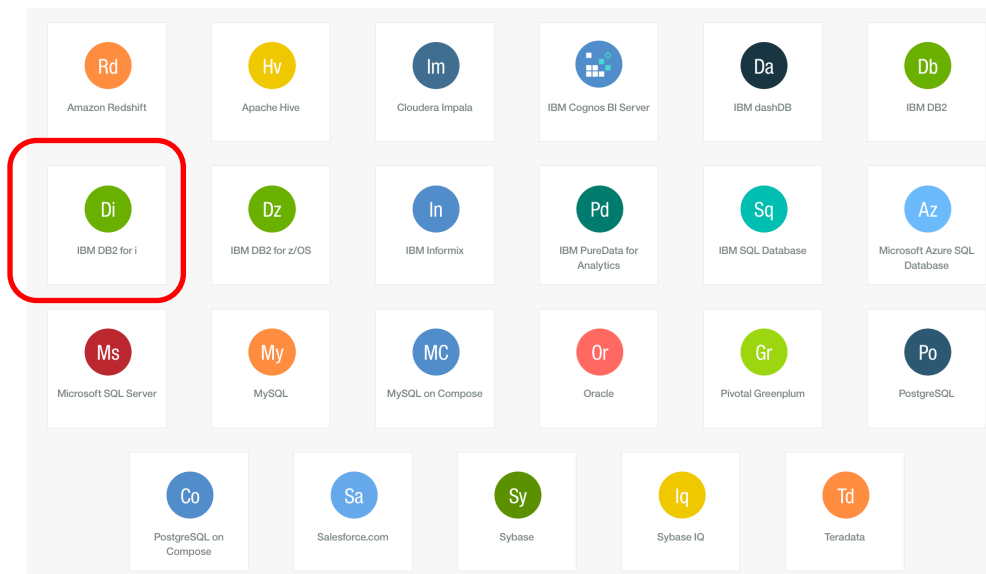
(March 2017)

Free	Plus	Professional
<p>Upload spreadsheets, get visualizations, discover insights and build dashboards—all on your own.</p> <p>Starting at \$ 0⁰⁰ USD</p> <p>Try free edition</p>	<p>Get all the features of Free plus more storage and data sources, including databases and Twitter.</p> <p>Starting at \$ 30⁰⁰ USD per month per user</p> <p>Purchase now</p>	<p>Get all the features of Plus plus a multi-user tenant to collaborate, more storage and more data.</p> <p>Starting at \$ 80⁰⁰ USD per month per user</p> <p>Purchase now</p>
1 user	1 user	1 or more users
1 MB of storage included	2 GB of storage included	100 GB of storage included
Professional single user trial for first 30 days	Add storage in 10GB increments for a minimal fee	Add storage in 50GB increments for a minimal fee
	Access relational databases, on prem and on cloud	Access relational databases, on prem and on cloud
	Access 18 data connectors	Access 19 data connectors including IBM Cognos reports
	Access Twitter data	Access Twitter data
Limited access to IBM Analytics Exchange offerings	Full access to IBM Analytics Exchange data & offerings	Full access to IBM Analytics Exchange data & offerings

Capabilities and Features for IBM Watson Analytics can change, italics represent access at a later date, please consult IBM.com for Watson Analytics editions and latest information

Extend Watson Analytics capacities

- Broader Data Source Support
 - Access your data sources from one place for quicker insights



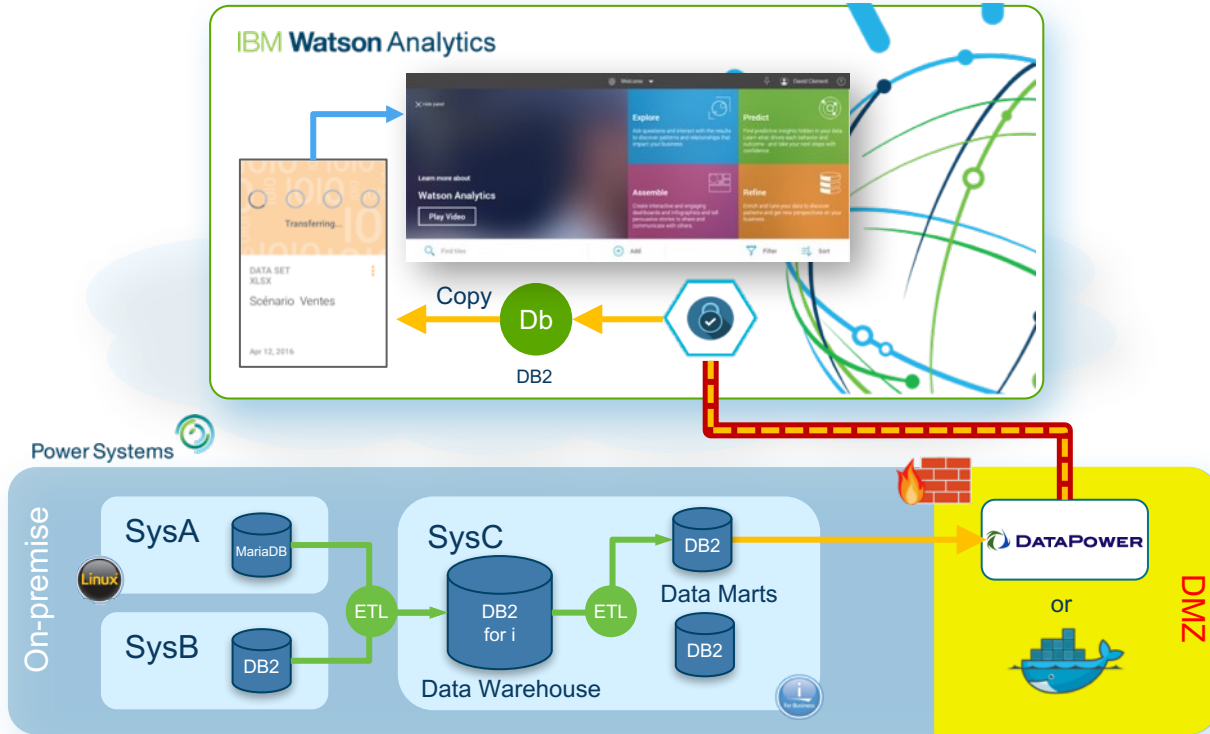
Demonstration: architecture overview

1

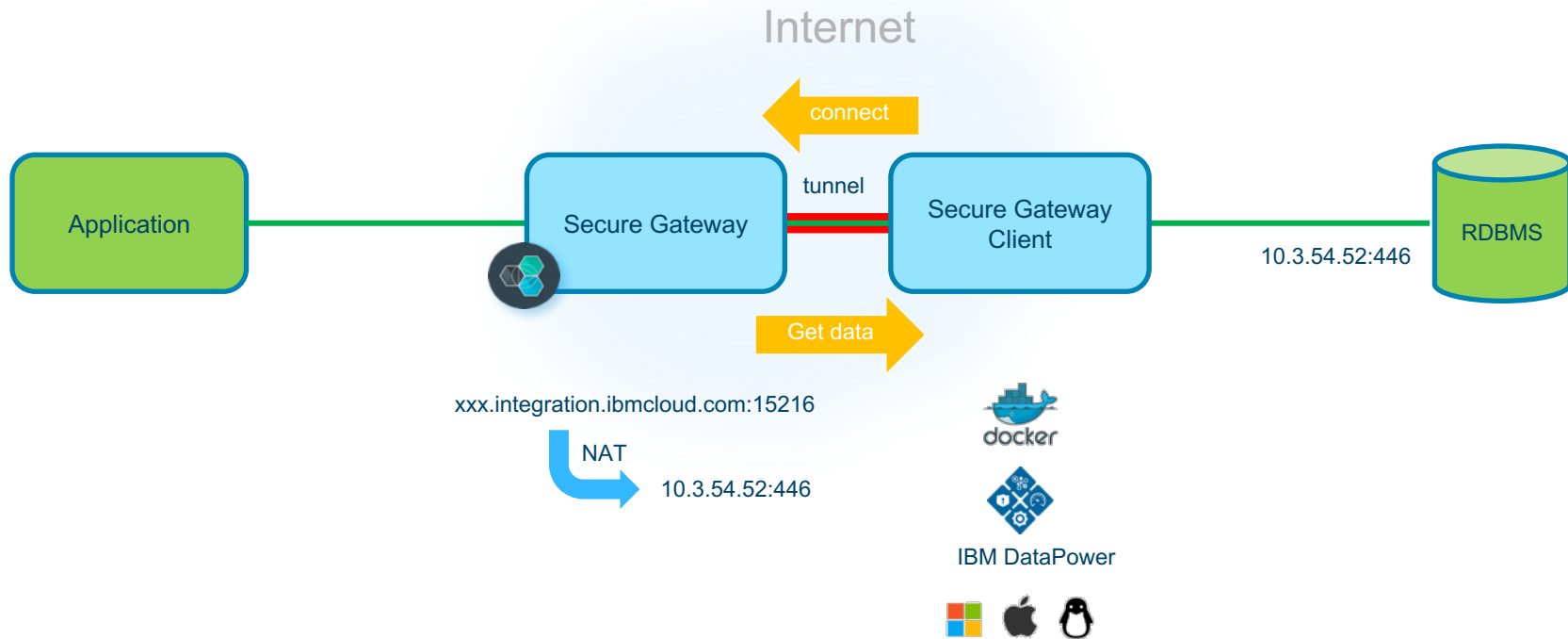
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3

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Secure Gateway: main concept



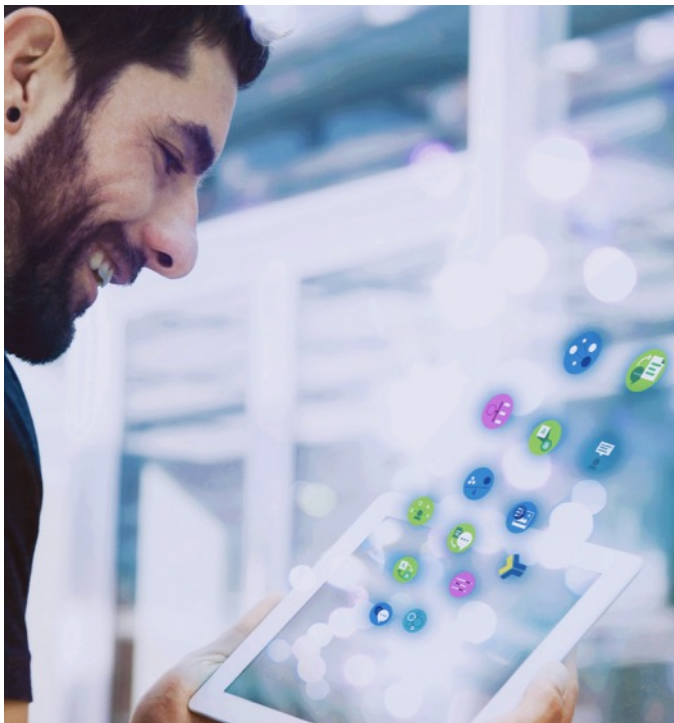
Demo



Watson Developer Cloud



Watson Developer Cloud: “Build with Watson”



Rapid Innovation in Cognitive Solutions



Make your apps Read, Hear, Talk, See & Learn

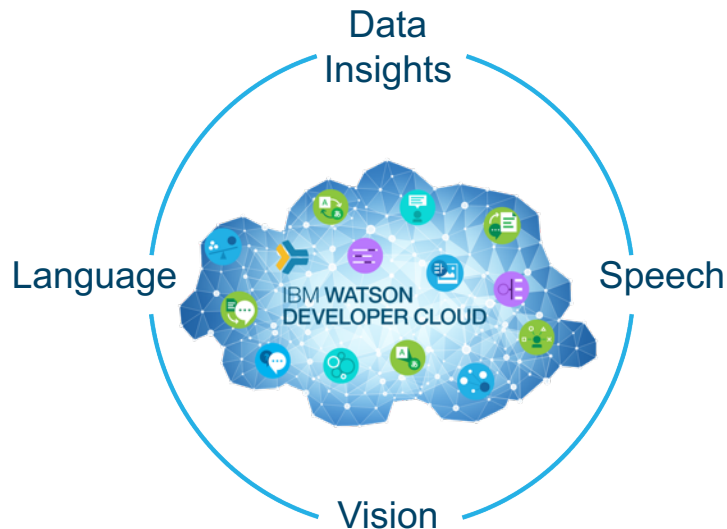


Self-Serve environment

- » Cloud access to API's
- » Developer environment
 - API's, SDK's, Demos, Code, App Gallery, Forum

Watson Developer Cloud provides developers easy access to cognitive building blocks

- Watson cognitive services are grouped into four categories :



Watson cognitive services are grouped into four categories



Conversation

Add a natural language interface to your application to automate interactions with your users.

IBM



Language Translator

Translate text from one language to another for specific domains.

IBM



Personality Insights

The Watson Personality Insights derives insights from transactional and social media content.

IBM



Text to Speech

Synthesizes natural-sounding speech from text.

IBM



Discovery

Add a cognitive search and content analytics engine to applications.

IBM



Natural Language Classifier

Natural Language Classifier performs natural language classification on question texts.

IBM



Retrieve and Rank

Add machine learning enhanced search capabilities to your application.

IBM



Tone Analyzer

Tone Analyzer uses linguistic analysis to detect three types of tones from text.

IBM



Document Conversion

Converts a HTML, PDF, or Microsoft Word™ document into a normalized HTML, plain text, or JSON document.

IBM



Natural Language Understanding

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

IBM



Speech to Text

Low-latency, streaming transcription.

IBM



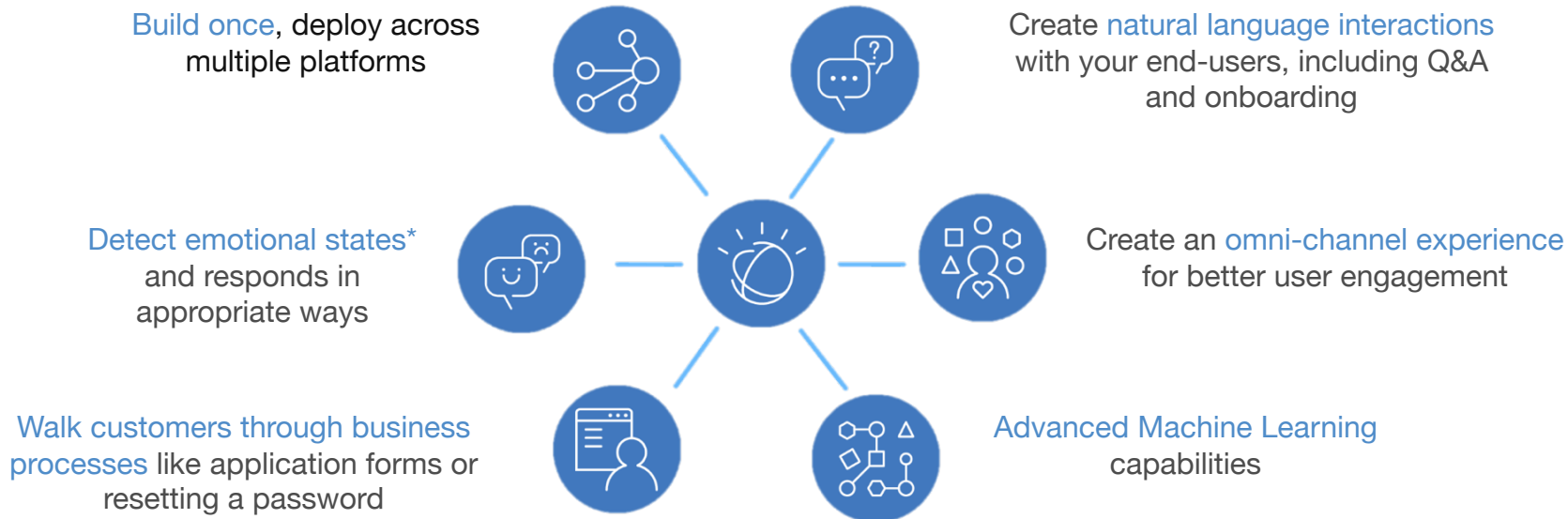
Visual Recognition

Find meaning in visual content! Analyze images for scenes, objects, faces, and other content.

IBM

Watson as the Center of Customer Engagement

- Flexible, cost-effective solutions for building chat bots and virtual agents
- Build from the ground up or buy pre-built capabilities



Combine Watson APIs for higher value apps

- Example: Interactive Q&A with greater understanding and personality

Speech to Text,
Text to Speech



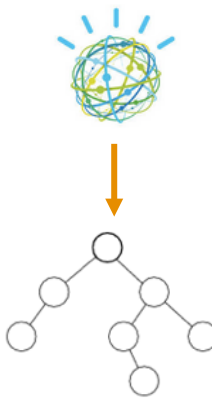
"How many t-shirts remain in stock?"
Convert Speech to Text

Identify Intent

- Intent = "Check_Stock_Level"
- Confidence: 0.876655900

Conversation

- + Natural Language Understanding?
- + ...

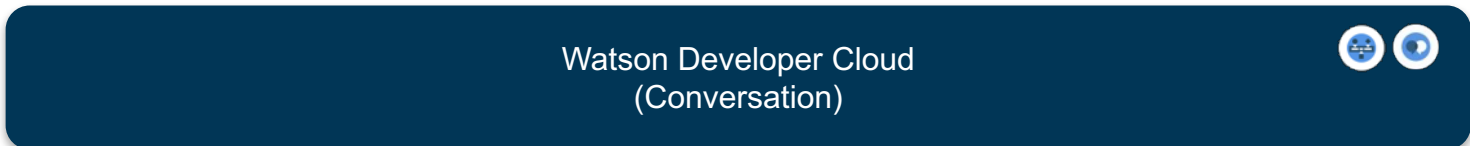


Dialog tree walks user to desired outcome

- Intent="Check_Stock_Level"
- Context = "store, color, size, ..."

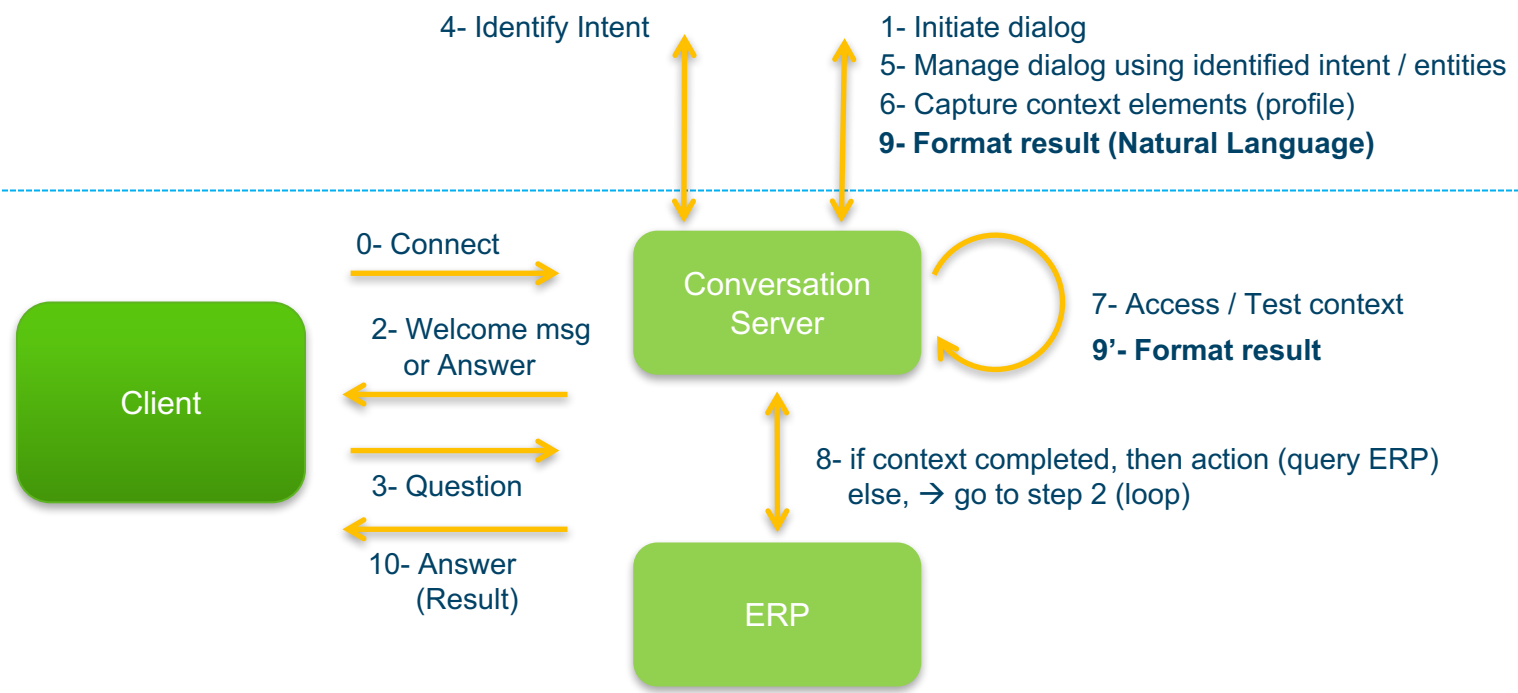
Action: Query DB or RMS

Principe

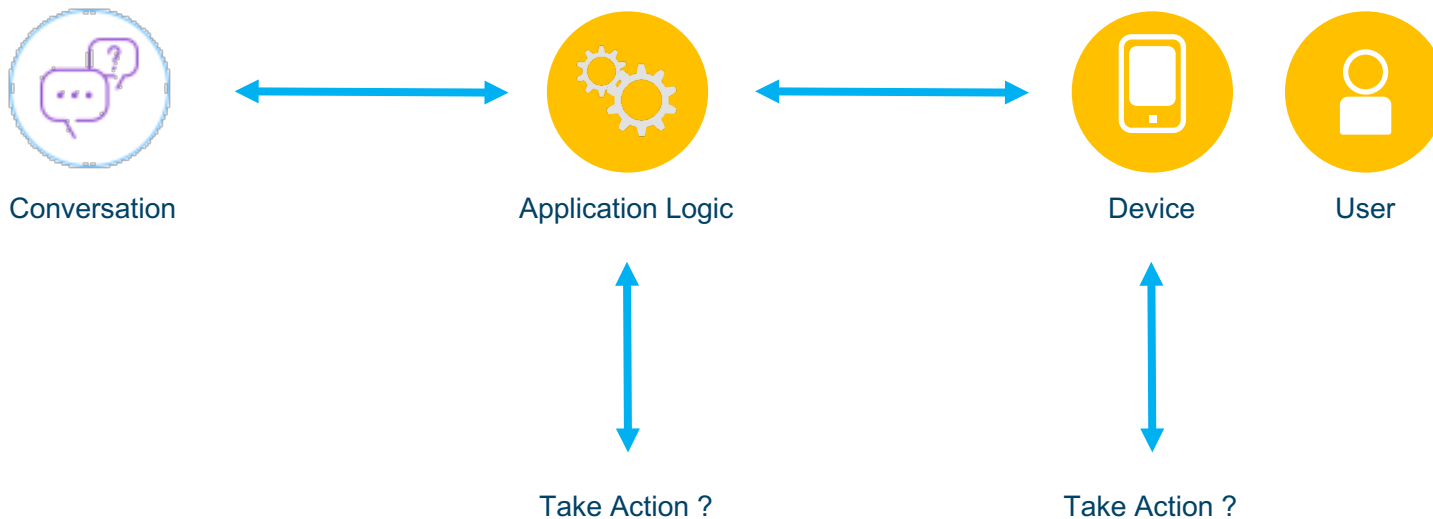


Off-prems

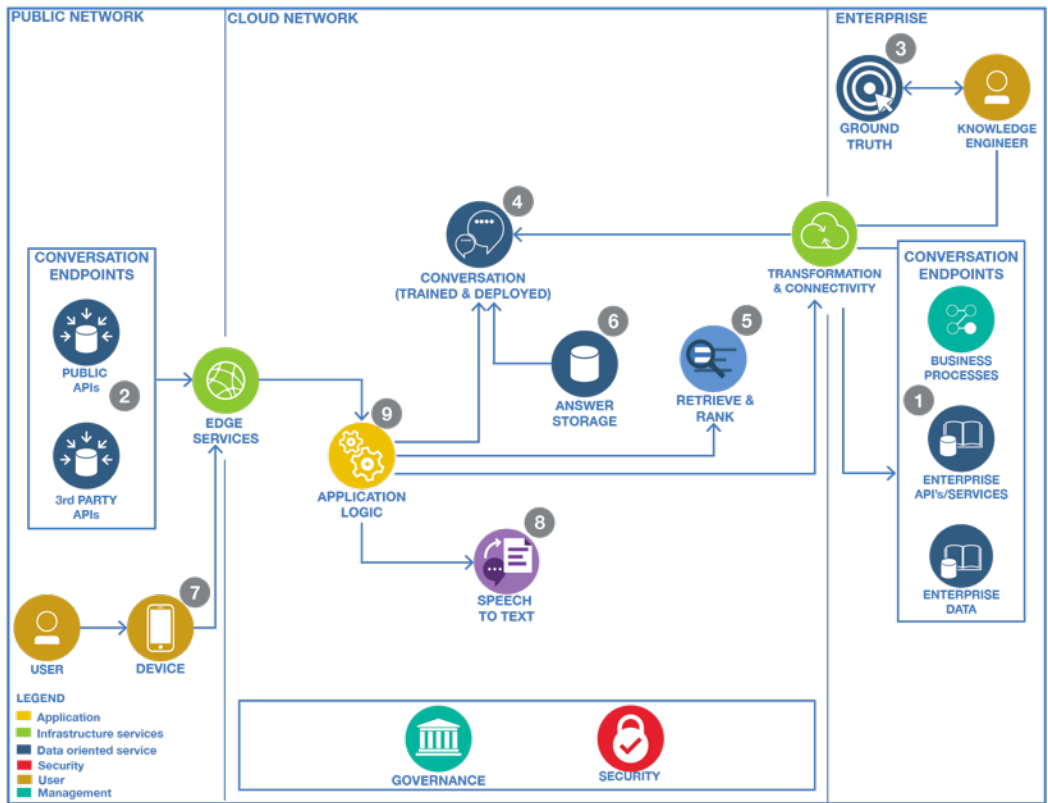
On-prems



“Take Action”: where?



Cognitive - Reference Architecture



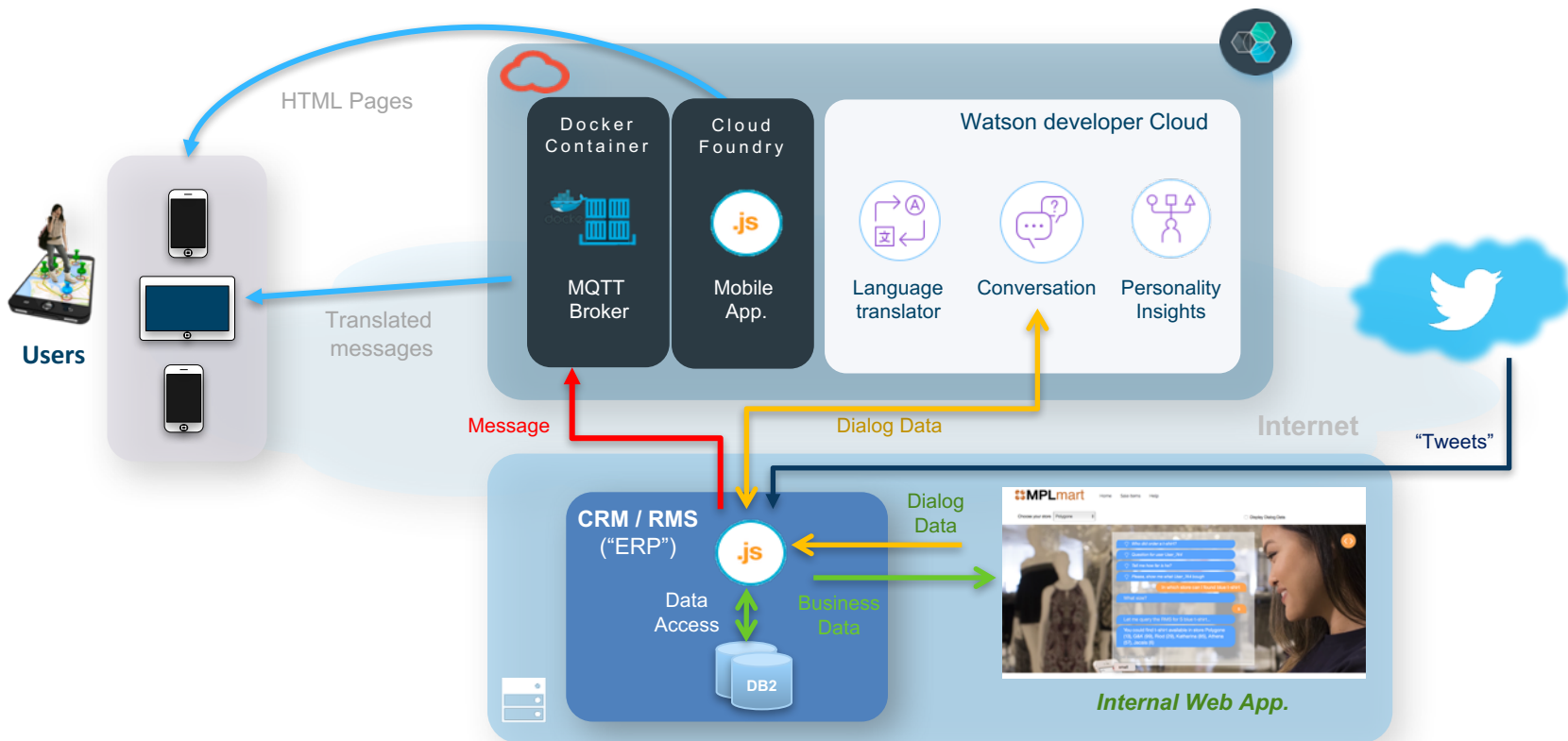
This is the runtime architecture which showcases the components that are involved in the usage of a trained and deployed Cognitive Engagement System

 IBM Architecture Center
<https://developer.ibm.com/architecture>

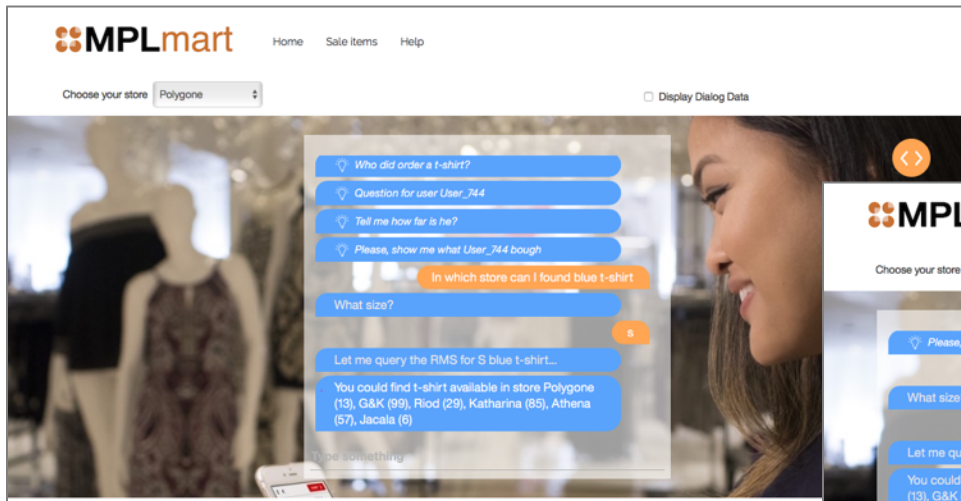


Demo

Demo: architecture overview



Demo: Seller dialog with RMS on Power IBM i



MPLmart Home Sale Items Help

Choose your store: Polygone Display Dialog Data

Who did order a t-shirt?

Question for user User_744

Tell me how far is he?

Please, show me what User_744 bough

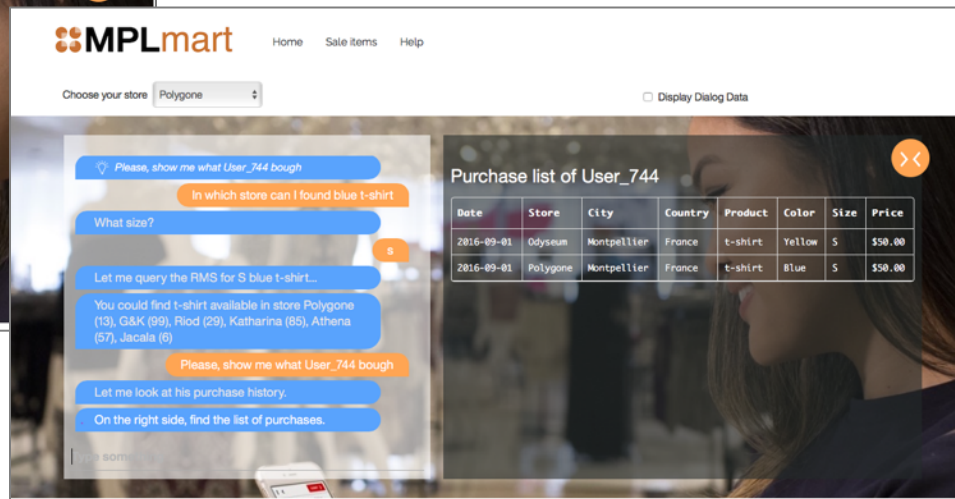
In which store can I found blue t-shirt

What size?

Let me query the RMS for S blue t-shirt...

You could find t-shirt available in store Polygone (13), G&K (99), Riод (29), Katharina (85), Athena (57), Jacala (6)

Be something



MPLmart Home Sale Items Help

Choose your store: Polygone Display Dialog Data

Please, show me what User_744 bough

In which store can I found blue t-shirt

What size?

Let me query the RMS for S blue t-shirt...

You could find t-shirt available in store Polygone (13), G&K (99), Riод (29), Katharina (85), Athena (57), Jacala (6)

Please, show me what User_744 bough

Let me look at his purchase history.

On the right side, find the list of purchases.

Purchase list of User_744

Date	Store	City	Country	Product	Color	Size	Price
2016-09-01	Odysseum	Montpellier	France	t-shirt	Yellow	S	\$50.00
2016-09-01	Polygone	Montpellier	France	t-shirt	Blue	S	\$50.00

Be something



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