

Watson Services on IBM Cloud

Watson Assistant

Ehningen, 29. April 2020

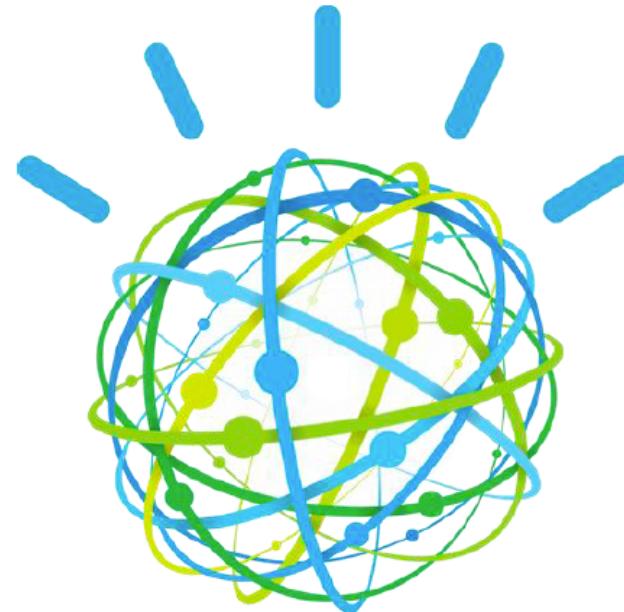
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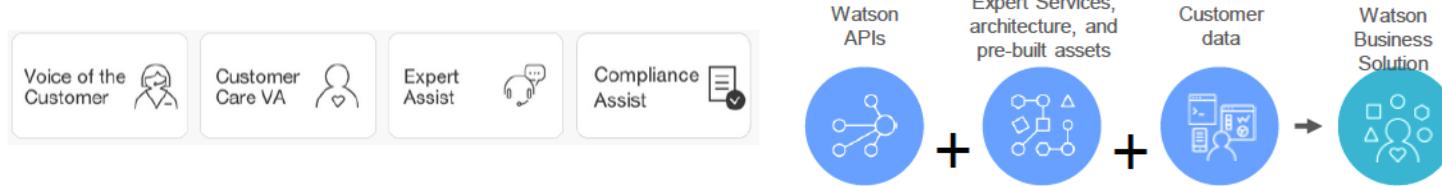
What is IBM Watson?

- An innovative AI-Platform for Enterprises
- Processes Information like a human - cognitive



Watson – Product Offerings

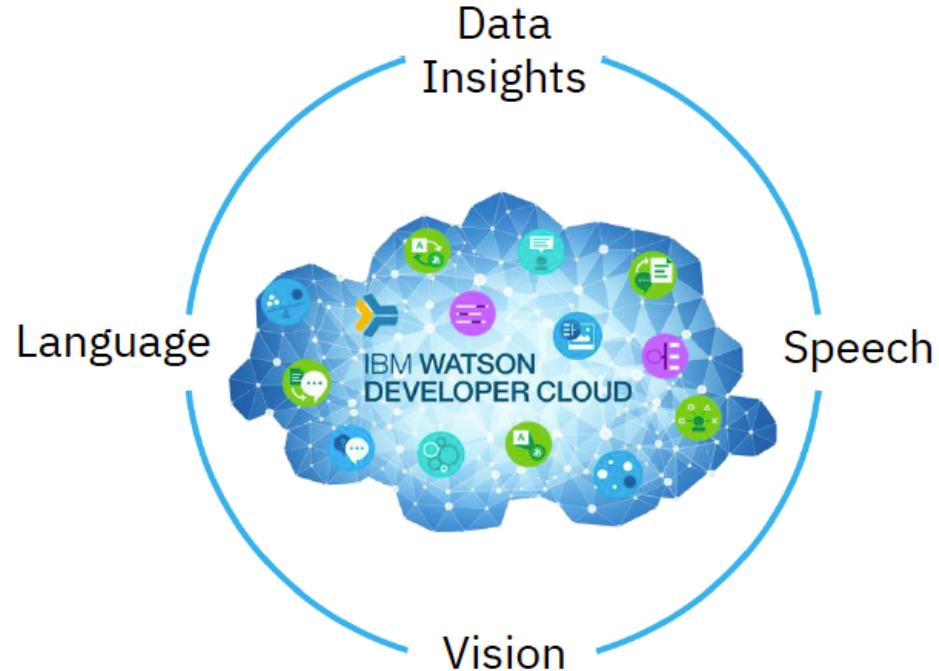
- IBM Cloud: SaaS-Produkte
 - [Industry Solutions](#) for Retail, Education, Finance, Healthcare, IoT, Marketing, Supply Chain, HR
- IBM Cloud: Open APIs (PaaS)
 - [Watson Services in the IBM Cloud](#), use cognitive capabilities in your applications
- Watson Business Solutions



- On-premise Lösung: [Watson Explorer](#)

Watson Services in der IBM Cloud

- Cloud-Services to develop cognitive solutions
- Available in the IBM Cloud and in IBM Cloud Packs
- Accessible as RESTful APIs
- Custom training possible



AI-Ecosystem – Watson Services in the IBM Cloud

<https://cloud.ibm.com/catalog/?category=ai>

Understanding:

Watson Assistant

Tone Analyzer

Visual Recognition

Knowledge Studio

Knowledge Management and Search

Discovery

Natural Language Understanding

Natural Language Classifier

Basic cognitive skills

Speech to Text / Text to Speech

Personality Insights

Language Translation

Data Science

Watson Studio

Machine Learning

Knowledge Catalog

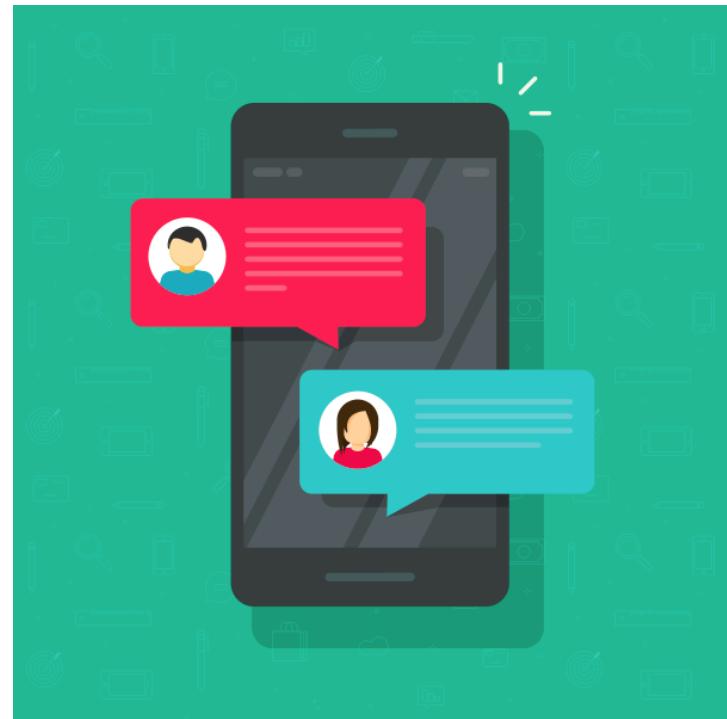
The image displays a grid of 14 service cards, each representing a different Watson service. The services are arranged in four rows: Row 1 contains Watson Assistant (formerly Conversation), AI OpenScale, Compare Comply, and Discovery; Row 2 contains Knowledge Catalog, Knowledge Studio, Language Translator, and Machine Learning; Row 3 contains Natural Language Classifier, Natural Language Understanding, Personality Insights, and Speech to Text; Row 4 contains Text to Speech, Tone Analyzer, Visual Recognition, and Watson Studio. Each card includes the service name, a small icon, the provider (Lite or IBM), and a brief description.

Watson Assistant (formerly Conversation) Lite • IBM Add a natural language interface to your application to automate interactions with your end users. Common applications include virtual agents.	AI OpenScale Lite • IBM IBM AI OpenScale operationalizes your AI with trust and transparency by giving your business the tools and confidence to deploy AI into their most...	Compare Comply IBM • Beta Process governing documents to convert, identify, classify, and compare important elements	Discovery Lite • IBM Add a cognitive search and content analytics engine to applications.
Knowledge Catalog Lite • IBM Discover, catalog, and securely share enterprise data.	Knowledge Studio Lite • IBM Teach Watson the language of your domain.	Language Translator Lite • IBM Translate text, documents, and websites from one language to another. Create industry or region-specific translations via the service's...	Machine Learning Lite • IBM IBM Watson Machine Learning - make smarter decisions, solve tough problems, and improve user outcomes.
Natural Language Classifier IBM Natural Language Classifier performs natural language classification on question texts. A user would be able to train their data and the predict...	Natural Language Understanding Lite • IBM Analyze text to extract meta-data from content such as concepts, entities, emotion, relations, sentiment and more.	Personality Insights Lite • IBM The Watson Personality Insights derives insights from transactional and social media data to identify psychological traits	Speech to Text Lite • IBM Low-latency, streaming transcription
Text to Speech Lite • IBM Synthesizes natural-sounding speech from text.	Tone Analyzer Lite • IBM Tone Analyzer uses linguistic analysis to detect three types of tones from communications: emotion, social, and language. This insight can...	Visual Recognition Lite • IBM Find meaning in visual content! Analyze images for scenes, objects, faces, and other content. Choose a default model off the shelf, or create your own...	Watson Studio Lite • IBM Embed AI and machine learning into your business. Create custom models using your own data.

- Can be combined with more than 150 other cloud services

Watson Assistant – Develop Chatbots

- Answer Questions – **Customer service**
- Any time, any where
 - ✓ Service support – **Around the clock**
 - ✓ **Omnichannel:** Integrate in Social Media, Messaging Platforms, Websites, mobile Apps, Roboter
- Operate Applications in **natural language**
- **Analysis**-Dashboard: Get to know your customers better



Watson Assistant – find key information

„I‘m frustrated, I was not able to log in to your online billing system.“

Intent	Passwort zurücksetzen
Entity	Online billing system
Emotion*	Annoyance
Context	Mike Miller, 47, Gold Member
Context	Mobile

*Emotion: Watson Tone Analyzer

Watson Assistant - Training

Training with web tool oder API

- **Intents** (what...)

- change password
- Give a complaint
- Directions
- Weather
- ...

- **Entities** (variable Infos)

- Persons
- Places
- Time
- ...

- **Dialog-Tool**

- Definition of the dialog flow

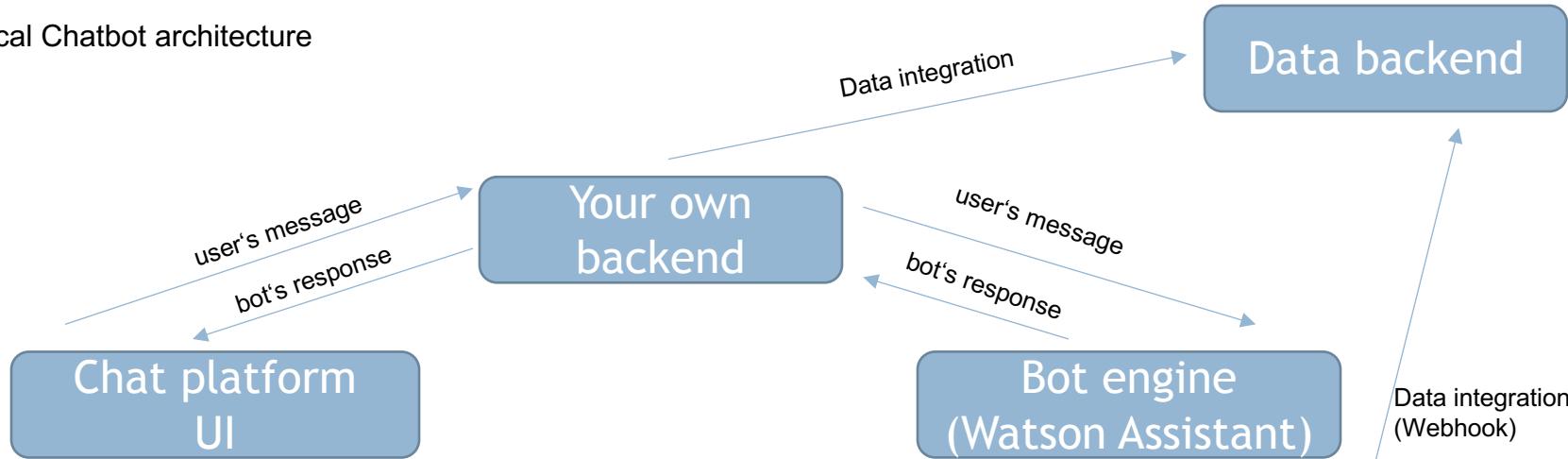
The screenshot shows the IBM Watson Assistant interface for training. It includes three main sections:

- #greetings**: A list of user examples for the "greetings" intent, each with an input field:
 - 'Ello Miss
 - Hello
 - Hello?
 - hey there!
 - Hi!
 - Howdy
- @returnItems**: A list of entity values for the "@returnItems" intent, each with an input field:

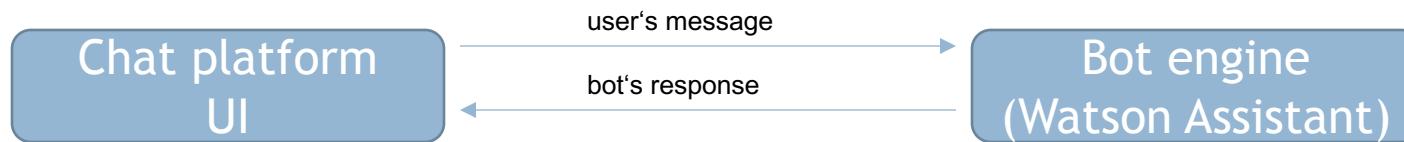
text	tome
book	
parrot	bird macaw Norwegian Blue
video cassette	movie tape
- Dialog Flow (Bottom):** A visual representation of the conversation flow:
 - A node labeled "bleh" connects to a "Welcome" node.
 - The "Welcome" node has a response "welcome" and is part of a "Context set".
 - The "Welcome" node connects to a "Greeting response" node.
 - The "Greeting response" node has an intent "#greetings" and is part of a "Context set".
 - The "Greeting response" node connects to a "#complaint" node.
 - The "#complaint" node has a response "Sorry to hear that, what can I help you with?" and is part of a "Context set".

Watson Assistant Architecture

Typical Chatbot architecture



Simple Chatbot architecture



Watson Assistant Support Pläne <https://www.ibm.com/cloud/watson-assistant>

IBM Watson Assistant Overview Features Pricing Docs & Resources Get Started

Recommended

Lite	Standard	Plus	Premium	IBM Cloud Private
Free	\$0.0025USD/message	Contact sales for a 30-day trial	Custom pricing	Custom pricing
<ul style="list-style-type: none">— 10,000 messages/month— 5 skills— 100 dialog nodes	<ul style="list-style-type: none">— Unlimited messages/month— 20 skills— 10 versions per skill— Unlimited dialog nodes	<ul style="list-style-type: none">— Unlimited messages/month— 50 skills— 10 versions per skill— Unlimited dialog nodes— Service desk integrations	<ul style="list-style-type: none">— Unlimited messages/month— 50 skills— 50 versions per skill— Unlimited dialog nodes— Service desk integrations— Data isolation	<ul style="list-style-type: none">— Unlimited messages/month— 50 skills— Unlimited dialog nodes— Data resides onsite

Lite
Free

- 10,000 messages/month
- 5 skills
- 100 dialog nodes

[Get started free](#)

Standard
\$0.0025USD/message

- Unlimited messages/month
- 20 skills
- 10 versions per skill
- Unlimited dialog nodes

[Get started](#)

Plus
Contact sales for a 30-day trial

- Unlimited messages/month
- 50 skills
- 10 versions per skill
- Unlimited dialog nodes
- Service desk integrations

[Contact for Plus](#)

Premium
Custom pricing

- Unlimited messages/month
- 50 skills
- 50 versions per skill
- Unlimited dialog nodes
- Service desk integrations
- Data isolation

[Contact for Premium](#)

IBM Cloud Private
Custom pricing

- Unlimited messages/month
- 50 skills
- Unlimited dialog nodes
- Data resides onsite

[Contact for Private](#)

Demo – ibm.biz/eagdach_lab



Meetup powered by IBM

Ideation & Workshops in cooperation with the Call for Code competition to find technical solutions on COVID-19 and Climate Change.

Session: Watson Assistant

[Presentation](#)

[Register your cloud Account](#)

Lab 3a - Watson Assistant with Webhook/Webchat

An IBM Watson Assistant cloud service - Webhook/Cloud Function, UI via Webchat

[Instructions](#) [Cloud Function](#)



Lab 4 - Natural Language Understanding

A simple Node.js application that uses IBM Watson Natural Language Understanding service

[Instructions](#) [Github repository](#)

Lab 5a - Watson Discovery

Sample Watson Discovery Collection that extends Lab 3a - Integration via Webhook/Cloud Function, UI via Webchat

[Instructions](#) [Cloud Function](#) [HTML Page](#)

Thank you!

<https://cloud.ibm.com>