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WORK at LIGHTSPEED™

What IBM Watson can do for your ITSM Future

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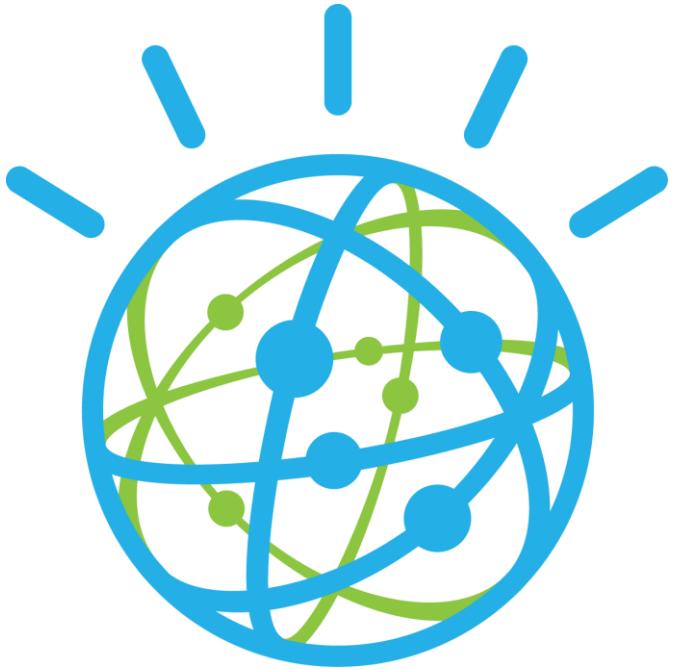
Forward-looking statements represent our management’s beliefs and assumptions only as of the date of this presentation. We undertake no obligation, and do not intend to update these forward-looking statements, to review or confirm analysts’ expectations, or to provide interim reports or updates on the progress of the current financial quarter. Further information on these and other factors that could affect our financial results are included our filings we make with the Securities and Exchange Commission.

This presentation includes certain non-GAAP financial measures as defined by SEC rules. We have provided a reconciliation of those measures to the most directly comparable GAAP measures in the Appendix.

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We are looking for Watson Early Adopters



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Agenda

- Overview IBM Watson Technology Partnership
- ServiceNow ITSM Watson Use Cases and Plan
- Early Adopter Panel
  - OhioHealth – David Lauer
  - CSC/DXC – Lauren Cotugno
  - Buildonme – Thomas Moewe
  - ServiceNow - Chris Collazo

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Session Overview



Objectives

- Understand ServiceNow / IBM Watson Landscape
- Guidance on where to start



What You Will Learn

- There is a rapidly growing list of partner solutions available
- ServiceNow's roadmap for a Watson enabled virtual agent
- Use cases early adopters are pursuing
- What you can start doing today to prepare for AI/ML

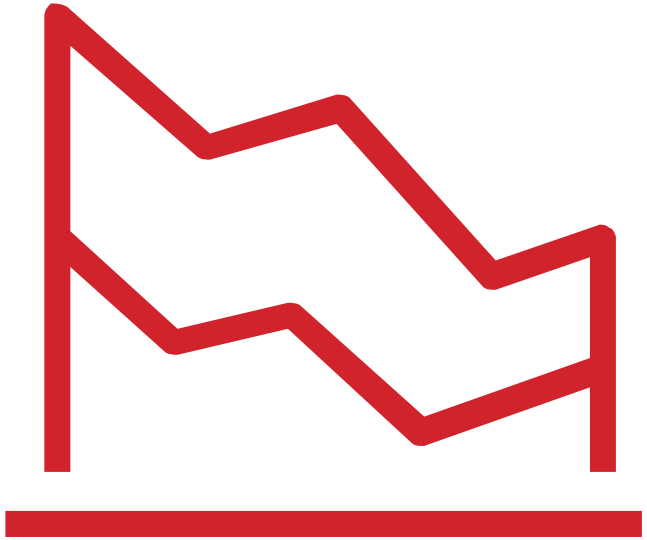
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Service Level



User Experience



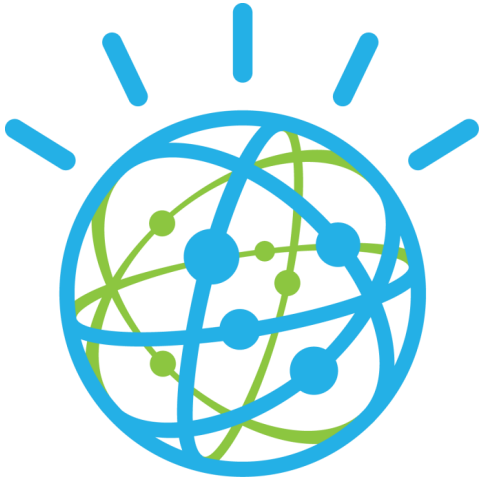
Service Cost

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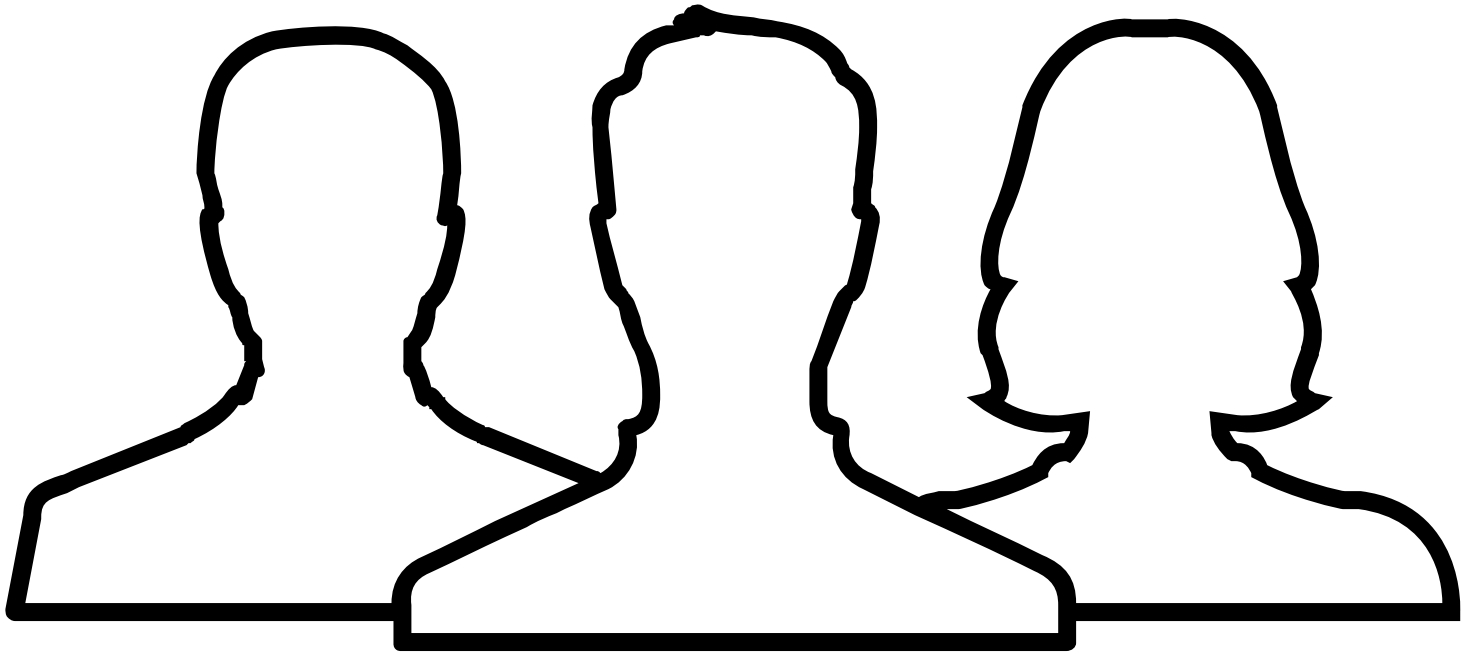
ServiceNow IBM Watson Strategic Partnership

- Data Rich Platform
- Intuitive UX
- Reporting & ROI
- SN's AI/ML Models
- Self Service Engagement
- Domain expertise

- Cognitive Intelligence
- Bluemix APIs
- NLP
- Retrieve and Rank
- Data normalization
- Supervised & Unsupervised Learning



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Best in Class Cognitive Partner Ecosystem

Partners with ServiceNow Integrated Virtual Agent Solutions

ISVs

BuildOn ME

NEVA

inbenta

(x) matters®

ushur

ooo

Systems Integrators

DXC.technology

fruition PARTNERS A DXC Technology Company

IBM

KPMG

ooo

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Best in Class Cognitive Partner Ecosystem

Partners with ServiceNow and Watson Integrated Virtual Agent Solutions

ISVs



Systems Integrators



OOO

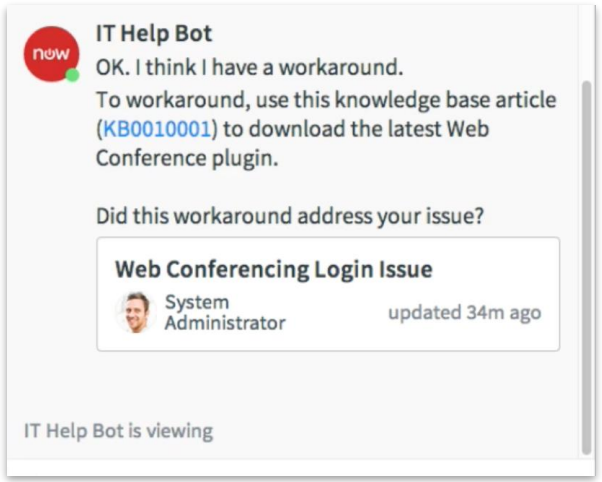
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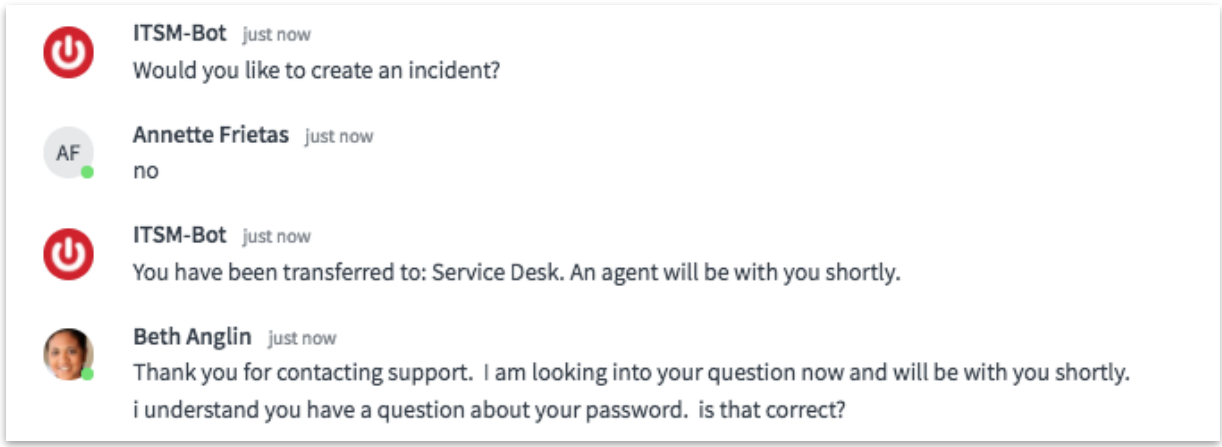
Where do you start?

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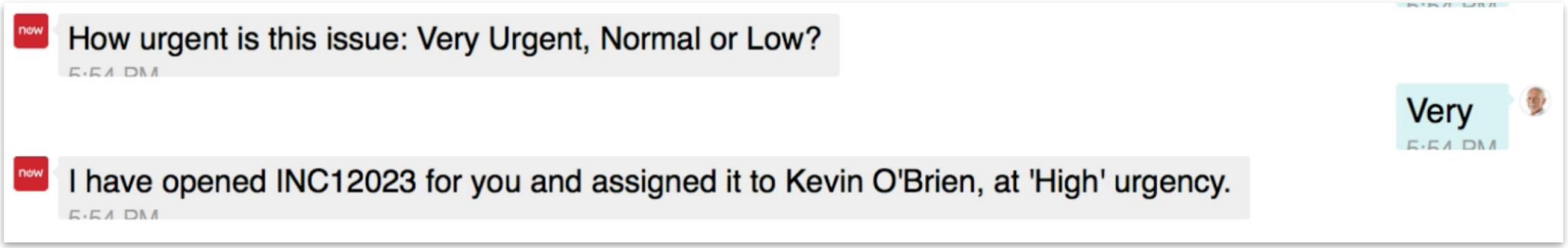
Deflection



Hand-off to agent



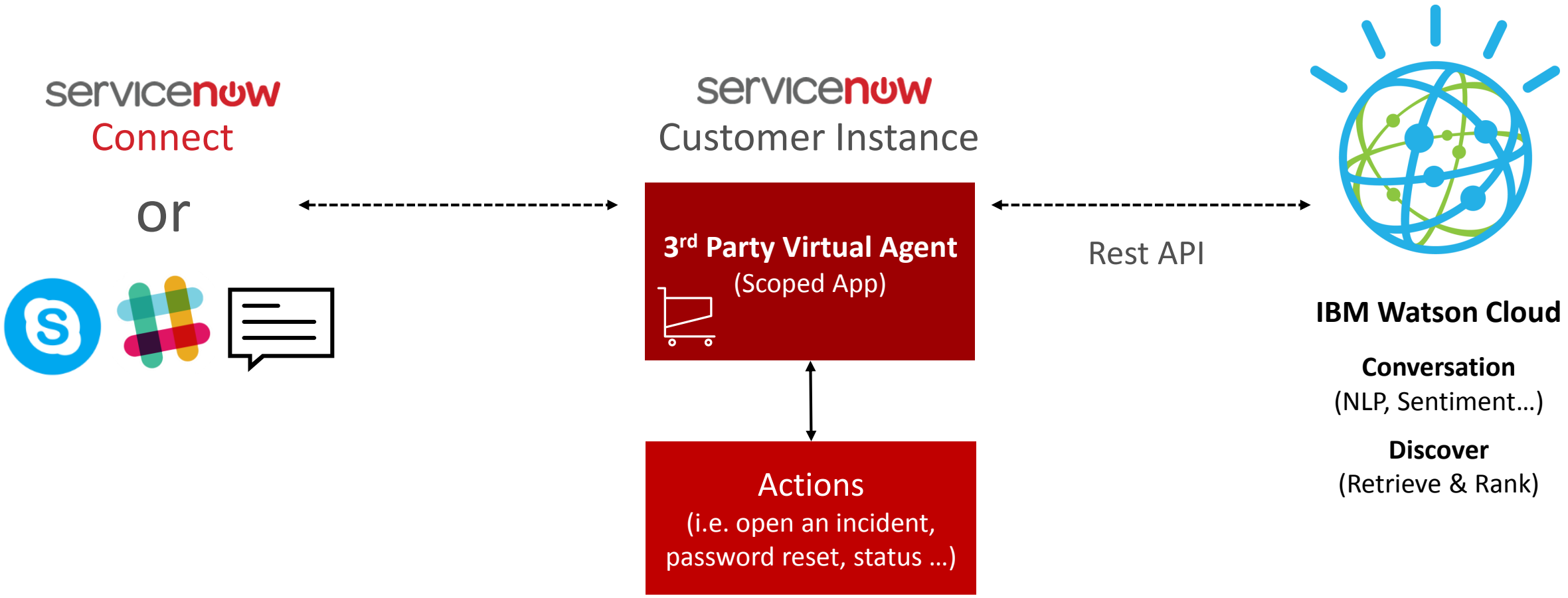
Incident creation



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How Virtual Agents Work Today

with Helsinki, Istanbul, & Jakarta … *generally speaking*



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Improvements Planned for Kingston

generally speaking

servicenow Connect

AND



Connect
Purpose built integration API

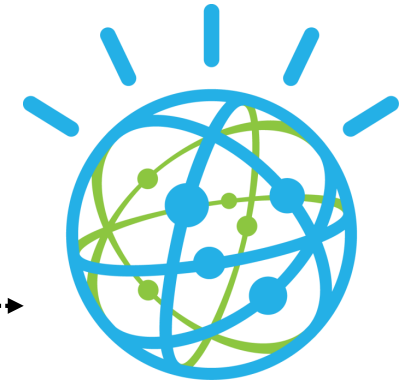
servicenow Customer Instance

Virtual Agent
Pre-built self-service use cases
Framework to take action

Actions
(i.e. open an incident, password reset, status …)

Rest API

GUI for Config



IBM Watson Cloud

Conversation
(NLP, Sentiment…)

Discover
(Retrieve & Rank)

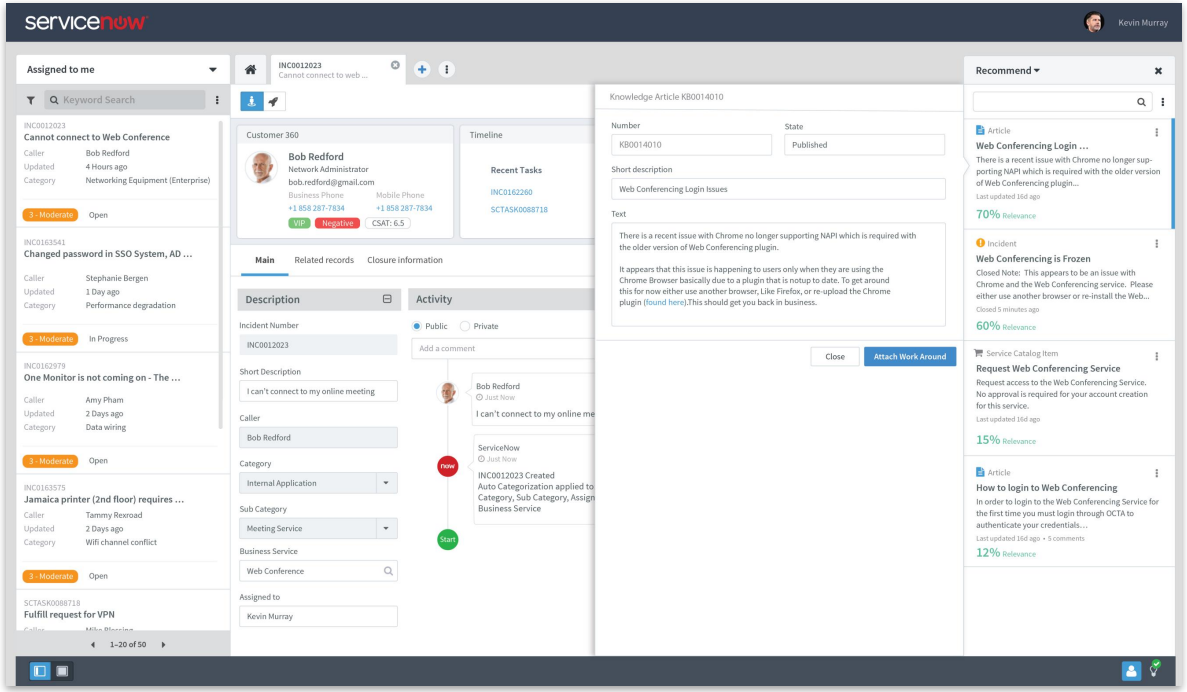
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Agent Assist

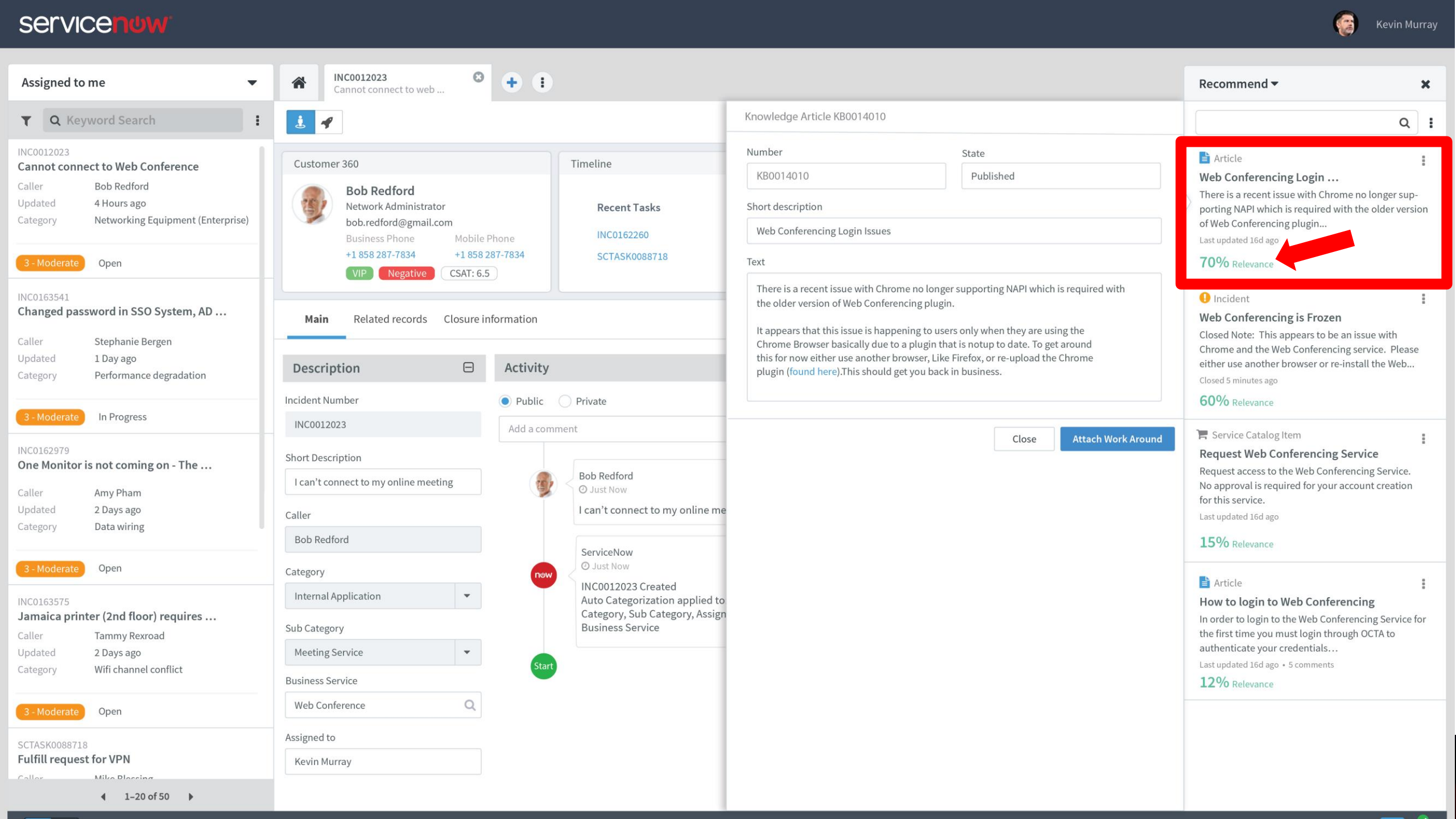
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Agent Assist – Recommend Answers

- Search for content related to an incident
- Predicts “confidence” for each result
- Learns over time as agents attach answers



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Kevin Murray
Assigned to me
Keyword Search
INC0012023
Cannot connect to Web Conference
Caller Bob Redford
Updated 4 Hours ago
Category Networking Equipment (Enterprise)
3 - Moderate Open
INC0163541
Changed password in SSO System, AD …
Caller Stephanie Bergen
Updated 1 Day ago
Category Performance degradation
3 - Moderate In Progress
INC0162979
One Monitor is not coming on - The …
Caller Amy Pham
Updated 2 Days ago
Category Data wiring
3 - Moderate Open
INC0163575
Jamaica printer (2nd floor) requires …
Caller Tammy Rexroad
Updated 2 Days ago
Category Wifi channel conflict
3 - Moderate Open
SCTASK0088718
Fulfill request for VPN
1–20 of 50
INC0012023
Cannot connect to web ...
Customer 360
Bob Redford
Network Administrator
bob.redford@gmail.com
Business Phone +1 858 287-7834
Mobile Phone +1 858 287-7834
VIP Negative CSAT: 6.5
Timeline
Recent Tasks
INC0162260
SCTASK0088718
Main
Related records
Closure information
Description
Incident Number
INC0012023
Short Description
I can't connect to my online meeting
Caller
Bob Redford
Category
Internal Application
Sub Category
Meeting Service
Business Service
Web Conference
Assigned to
Kevin Murray
Activity
Public
Private
Add a comment
Bob Redford
Just Now
I can't connect to my online me
ServiceNow
Just Now
INC0012023 Created
Auto Categorization applied to
Category, Sub Category, Assign
Business Service
Start
Knowledge Article KB0014010
Number
KB0014010
State
Published
Short description
Web Conferencing Login Issues
Text
There is a recent issue with Chrome no longer supporting NAPI which is required with the older version of Web Conferencing plugin.
It appears that this issue is happening to users only when they are using the Chrome Browser basically due to a plugin that is notup to date. To get around this for now either use another browser, Like Firefox, or re-upload the Chrome plugin (found here).This should get you back in business.
Close
Attach Work Around
Recommend
Article
Web Conferencing Login …
There is a recent issue with Chrome no longer supporting NAPI which is required with the older version of Web Conferencing plugin...
Last updated 16d ago
70% Relevance
Incident
Web Conferencing is Frozen
Closed Note: This appears to be an issue with Chrome and the Web Conferencing service. Please either use another browser or re-install the Web...
Closed 5 minutes ago
60% Relevance
Service Catalog Item
Request Web Conferencing Service
Request access to the Web Conferencing Service. No approval is required for your account creation for this service.
Last updated 16d ago
15% Relevance
Article
How to login to Web Conferencing
In order to login to the Web Conferencing Service for the first time you must login through OCTA to authenticate your credentials…
Last updated 16d ago • 5 comments
12% Relevance

Early Adopter Panel



David Lauer



Lauren Cotugno



Mike Peter



Chris Collazo

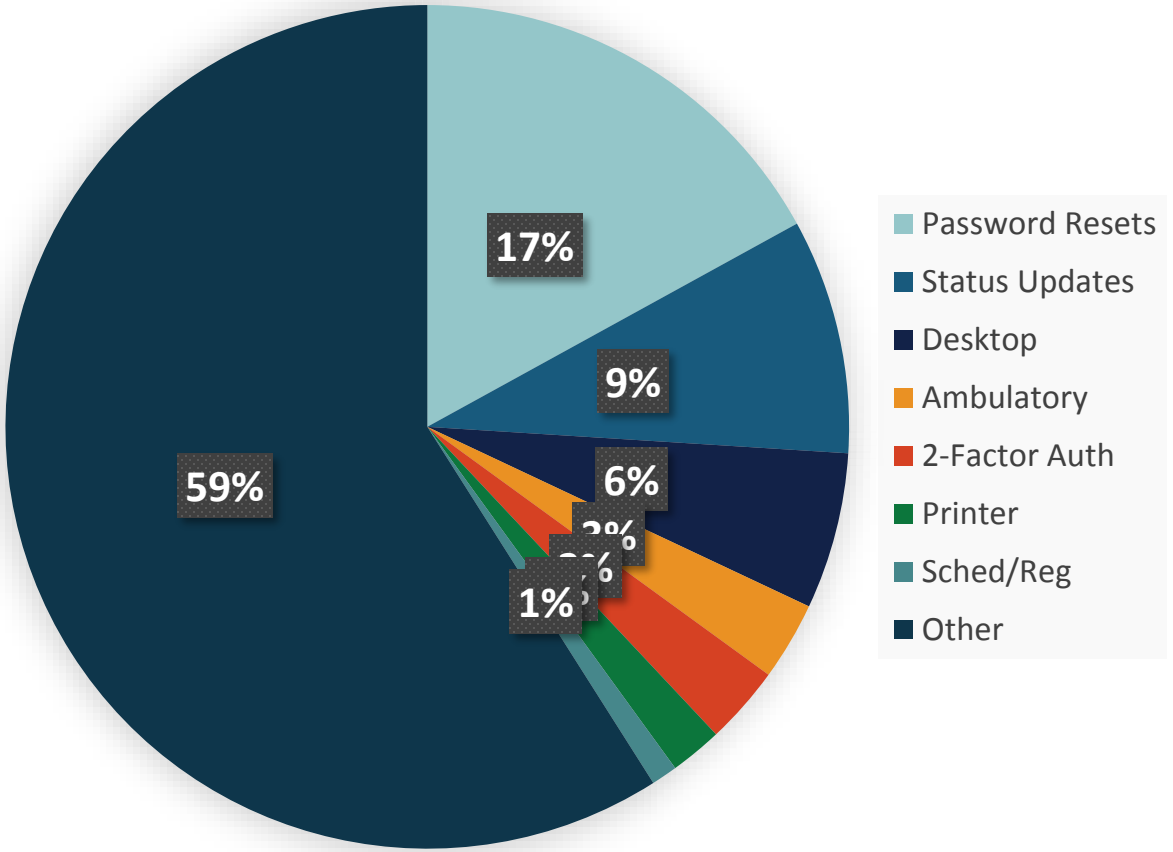
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OhioHealth

BELIEVE IN *WE*™

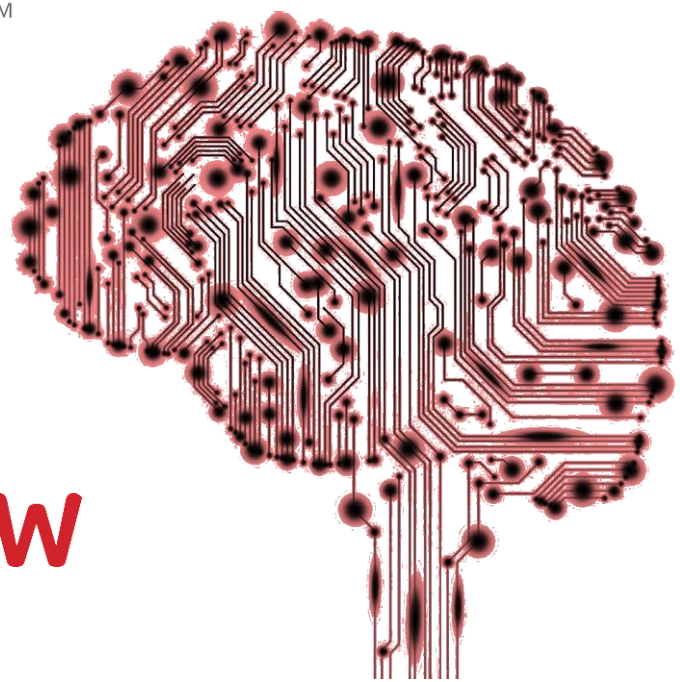
Calls to Service Desk - 2016



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DXC Fruition Virtual Assistant

IBM Bluemix™



IBM Watson

servicenow

Skype for Business

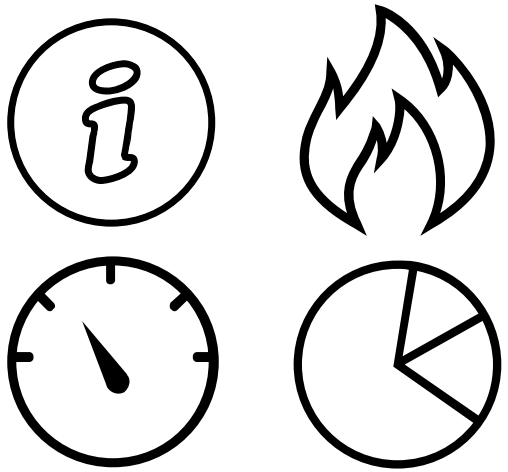
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Data Quality



“Ground Truth”

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David Lauer Lauren Cotugno Mike Peter Chris Collazo

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To learn more @ Knowledge17

1

Watson Demos @ Booths

Future of Now – ITSM Pod
ServiceNow Pavilion

Buildonme

DXC / Fruition

IBM

2

IT+ Keynote Farrell Hough, GM ITSM

Wed @10:20

ITSM powered by Analytics & Machine Learning

Wed @ 3:50 BRE4153

3

Financial Services & AI Table Talk

Wed @ 12:30
TT132216

IBM: Transforming End-User Support with Cognitive Technology

Wed @ 4:30 TheatreNow

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Thank You!

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Backup

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Data is key to success

Data Quality

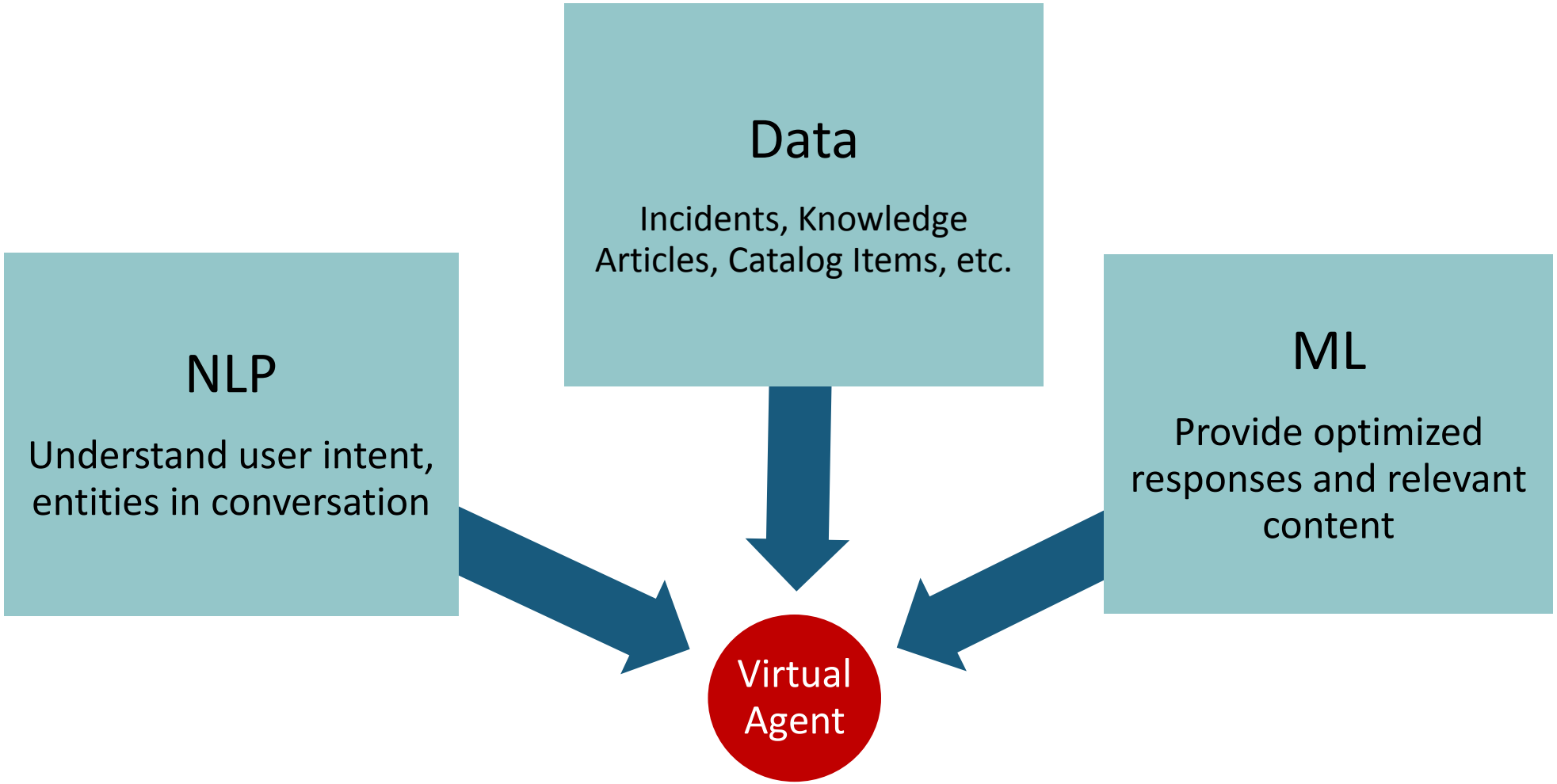
1. Use PA for KPIs like distribution of assignment group or distribution of categorization to capture overuse of “default” categories and put in plan to address category usage or set real data
2. Data Certification for validating core data
3. Take advantage of CMDB Health concept to ensure completeness and correctness

Ground Truth

1. Use Knowledge Used and Viewed to link articles to Incidents
2. Use Metrics to capture key events in a ticket that you’d like to train against
3. Ensure you capture the resolving team, correct assignment, correct categorization

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What Powers a Virtual Agent?



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Self-Service Requestor

VIRTUAL AGENT: Watson cognitive dialogue allows end-users to conduct interactions in natural language on their own devices.

- Enable Incident Deflection
- Increase customer satisfaction
- Increase Agent Utilization

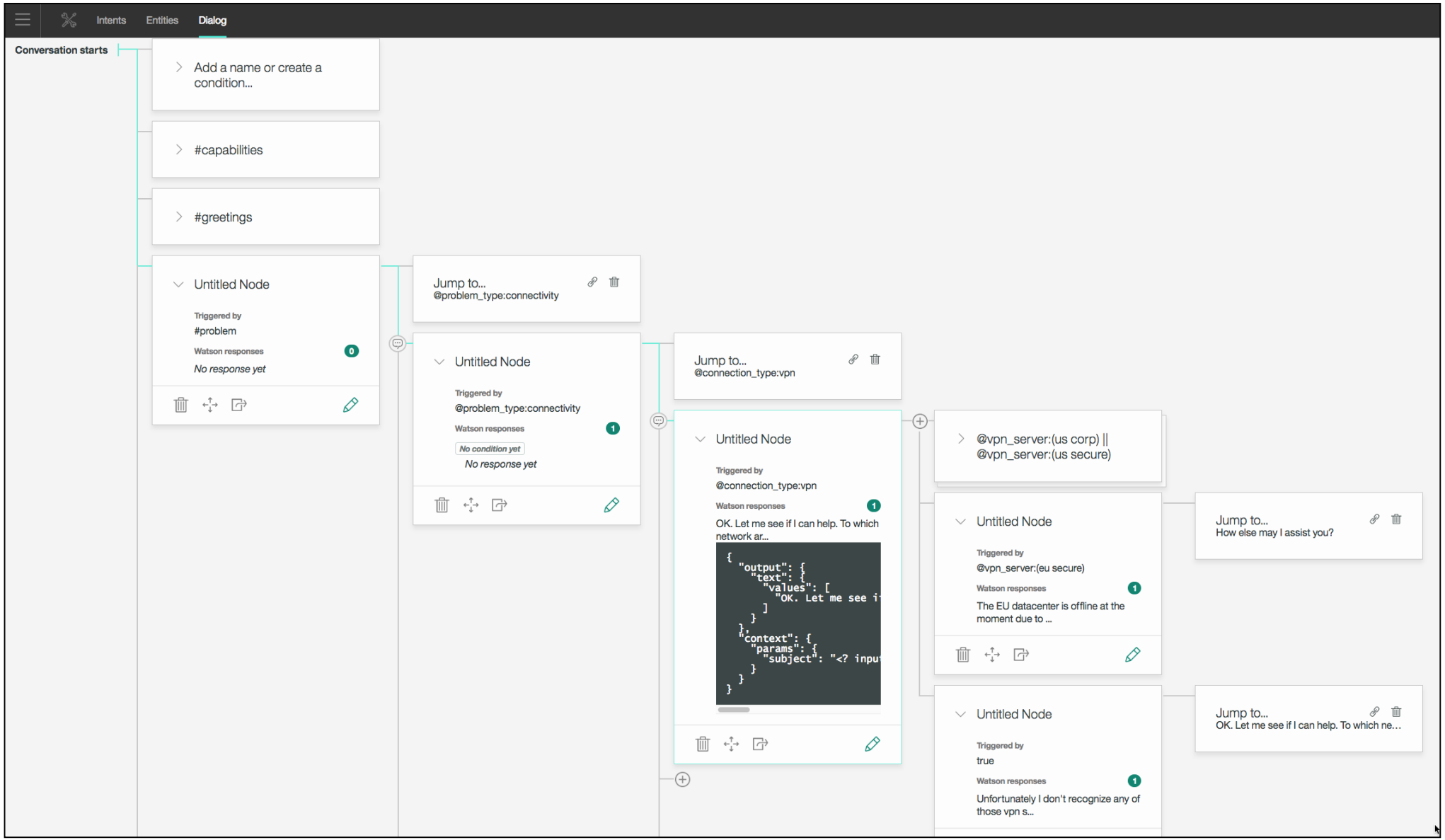


Agent Assist

AGENT ASSIST: Watson rank and retrieve services help IT surface relevant information within their internal knowledge bases, incidents and intranet.

- Improve MTTR
- Accelerate Access to Information
- Increase Agent Utilization

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Terms



Term	Description
Entity	Identify “Who, what, where” from the text input
Intent	“What are they trying to do?” For the text input “I want to reset password” the intent is “reset password”. Intents have a specific predefined next step, for example: ask “Which application?”
NLP	Natural Language Processing to find entities and intents
NLU	Natural Language Understanding = NLP + advanced understanding including emotion
IVR	Integrated Voice Response allows computers to interact via telephone using voice and keypad tones

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ServiceNow and IBM Watson



Term	Example
IBM Conversation Service	Provides NLP to identify entities and intents and to traverse a conversation tree for the virtual agent
IBM Natural Language Understanding	Analyzes semantic features of text input: categories, emotion, entitles, keywords, relations, semantic roles and sentiment for the virtual agent
IBM Text to Speech and Speech to Text	*Being investigated as a way to allow the requester to speak to and listen with the virtual agent as opposed to using a keyboard to text chat*
IBM Retrieve & Rank	Search for a relevant document to help answer or deflect an incident

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What is a Virtual Agent?



"A VIRTUAL AGENT is an … artificial intelligence virtual character that serves as an ONLINE CUSTOMER SERVICE REPRESENTATIVE. It leads a INTELLIGENT CONVERSATION with users, RESPONDS TO THEIR QUESTIONS and performs adequate NON-VERBAL BEHAVIOR" [1]

A smarter ITSM solution consists of virtual agents that can help achieve:

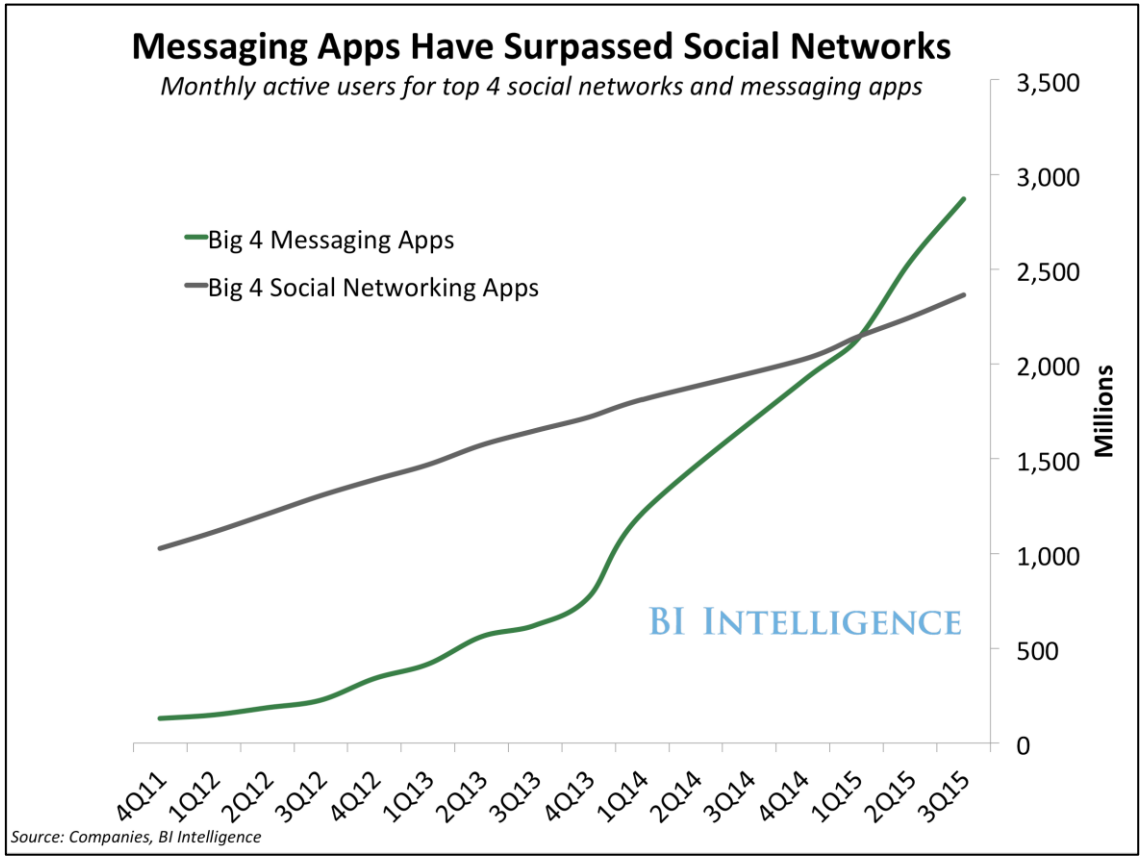
HIGHER CUSTOMER SATISFACTION by:	REDUCING COST OF SERVICE by:
• Reducing time to resolution • Reducing reassignment counts • Reducing P4 or question type incident volume • Increasing first contact resolutions	• Increasing automated deflections of low level incidents with relevant KB articles or orchestration • Improving quality of information with auto classification and proactive questions

[1] https://www.chatbots.org/virtual_agent/

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The Rise of Messaging & Chat

- 79% preferring live chat said they did so because of fast time to response.
  Source: Econsultancy
- CHAT VOLUME is predicted to grow at a CAGR of 24% from 2014 to 2018.
  Source: Contact Babel
- CHAT is the LEADING CONTACT SOURCE online. 42% of customers use chat vs. other channels (email, social media).
  Source: J.D. Power
- 53% of customers would PREFER TO USE ONLINE CHAT before calling a company for support.
  Source: Harris Research



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Commonly Deployed ChatBot Classifications



Core ChatBots	Virtual Assistants	Virtual Agents
• Task execution through conversational interface • Responds to 'matched' intent with defined content • Usually not using natural language & is simply a decision tree based on narrow use cases • Example: Airline Bot	• Integrate & manage third party services for consumer • Utilizes natural language and context • Link single user to multiple enterprise services (unbounded) • Example: Alexa, Cortana	• Customer service context • Web, mobile chat, or IVR • Integrates enterprise system & knowledgebase through natural language • Answers simple questions • Linked to one enterprise to navigate services (bounded)

Tool → Platform

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Analyst Look Ahead – Bots



"By 2018, more than 3 million workers globally will be supervised by a "robo-boss."
Source: Gartner Predicts our Digital Future, Gartner, October 6th, 2015

By 2018, Gartner expects most of the world's largest 200 companies to exploit intelligent apps and utilize the full toolkit of big data.
Source: http://www.gartner.com/smarterwithgartner/gartners-top-10-technology-trends-2017/

The usage of virtual customer assistants will grow by 300% through 2019 as enterprises seek to increase satisfaction and reduce costs.
Source: "Seven Decision Points for Success with Virtual Customer Assistants," Gartner, July 26, 2016.

"By 2020, 85% of customer interactions will be handled by a machine"
Source: Gartner Summits. "Gartner Customer 360 Summit: CRM Strategies and Technologies to Understand, Grow and Manage Customer Experiences." Gartner, Inc. 2011

"By 2020, smart agents will facilitate 40 percent of mobile interactions, and the post-app era will begin to dominate."
Source: Gartner Predicts our Digital Future, Gartner, October 6th, 2015

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