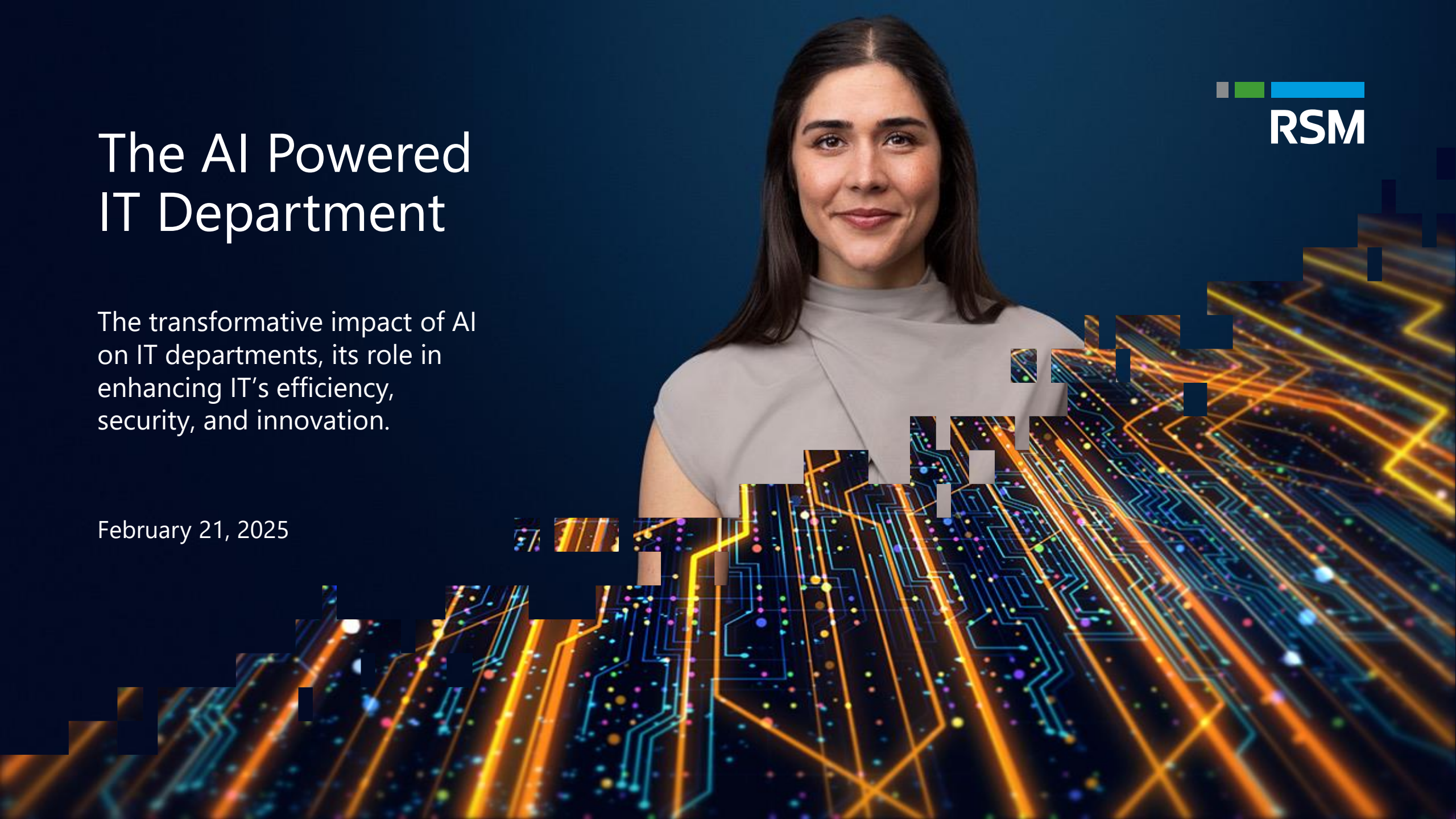


# The AI Powered IT Department

The transformative impact of AI on IT departments, its role in enhancing IT's efficiency, security, and innovation.

February 21, 2025





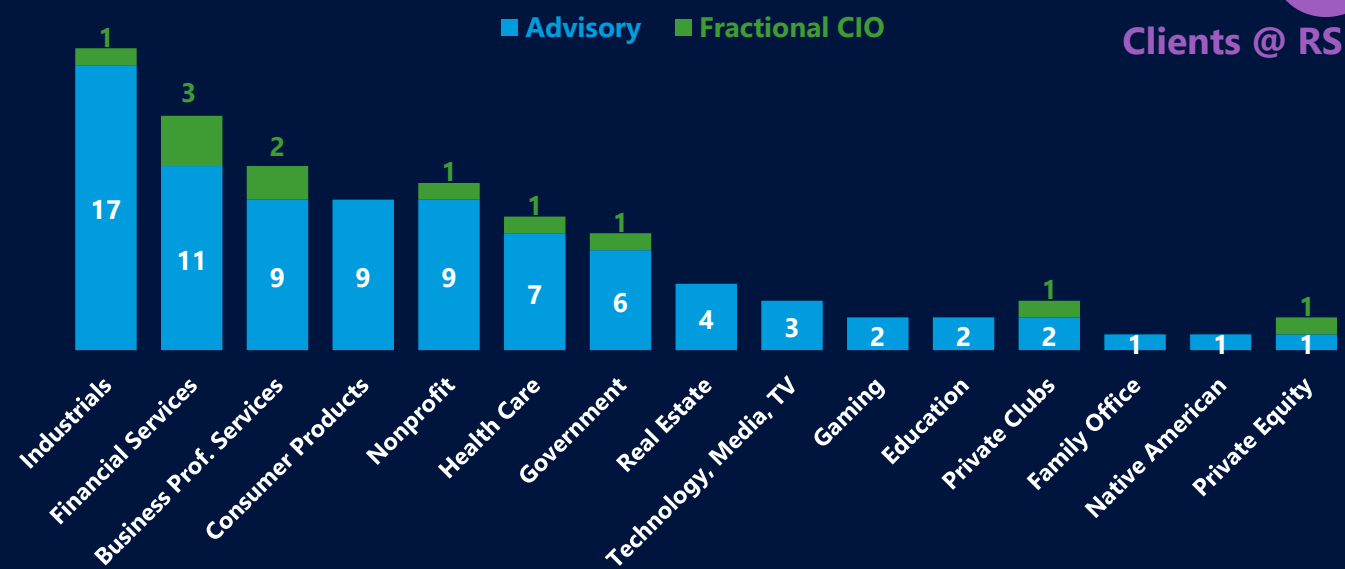
James A. Davis '04

Management Consultant

Fractional CIO & Technology Advisor



RSM Clients by Industry



84  
Clients @ RSM



# About Me



Basically, I do two things at RSM

## Technology Advisory

Advise small and middle market clients in how to best align IT departments and technology to organizational needs

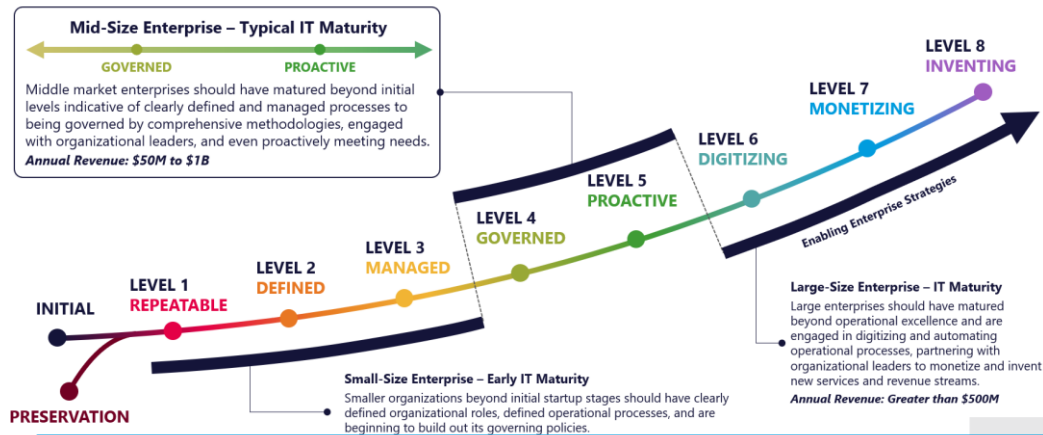
## Fractional Chief Information Officer

Lead small and middle market clients in aligning IT departments and technology to organizational needs

### IT Assessment Evaluation Maturity Model



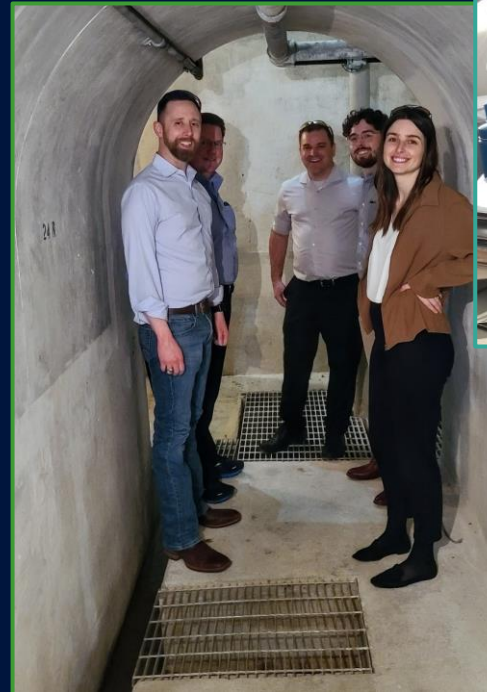
RSM's IT Maturity Model provides a path in which to evaluate the maturity of an organization's IT department.



### IT Assessment Approach



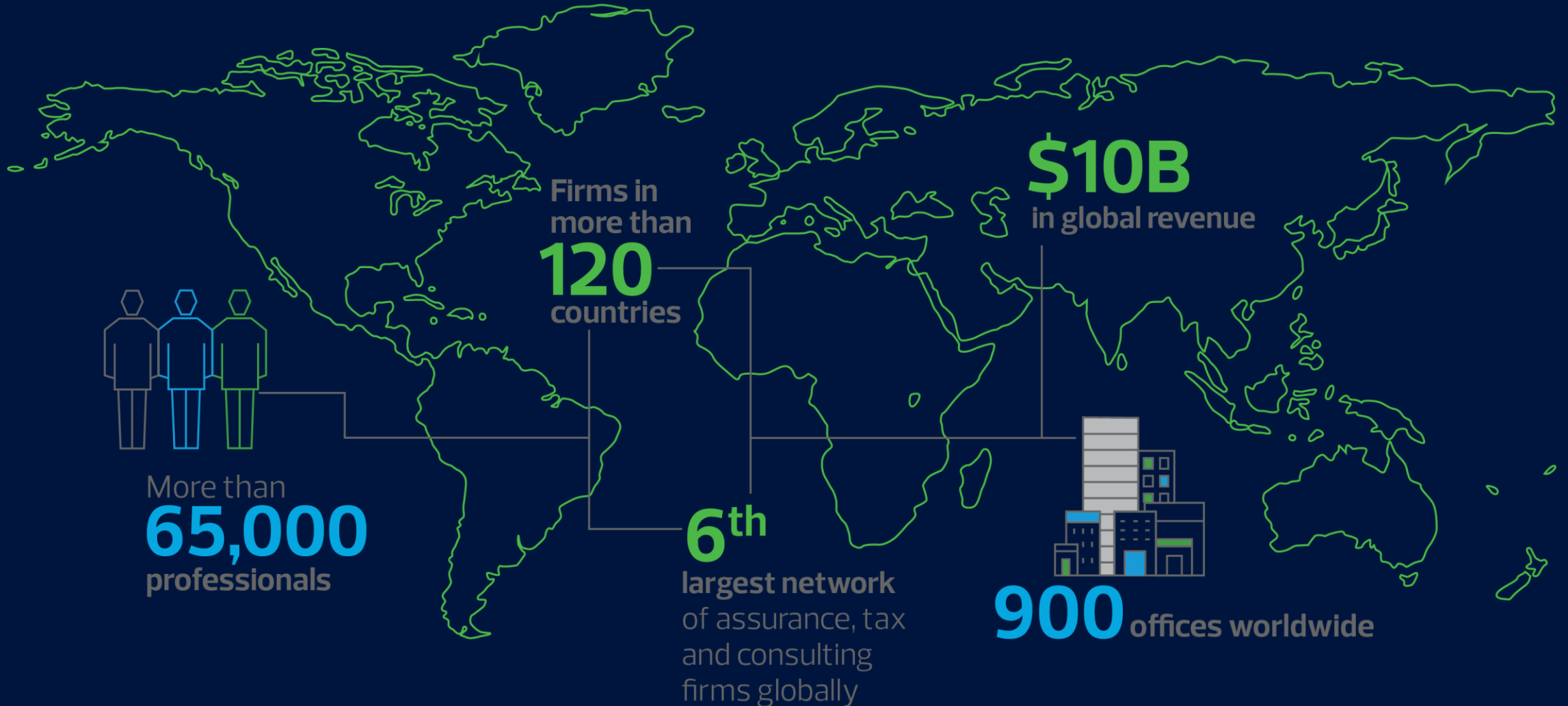
► Learn more about IT Assessments



# About RSM



**RSM International** is a global network of independent assurance, tax and consulting firms.



**First-choice advisor to middle market leaders globally**

# Focus on Middle Market



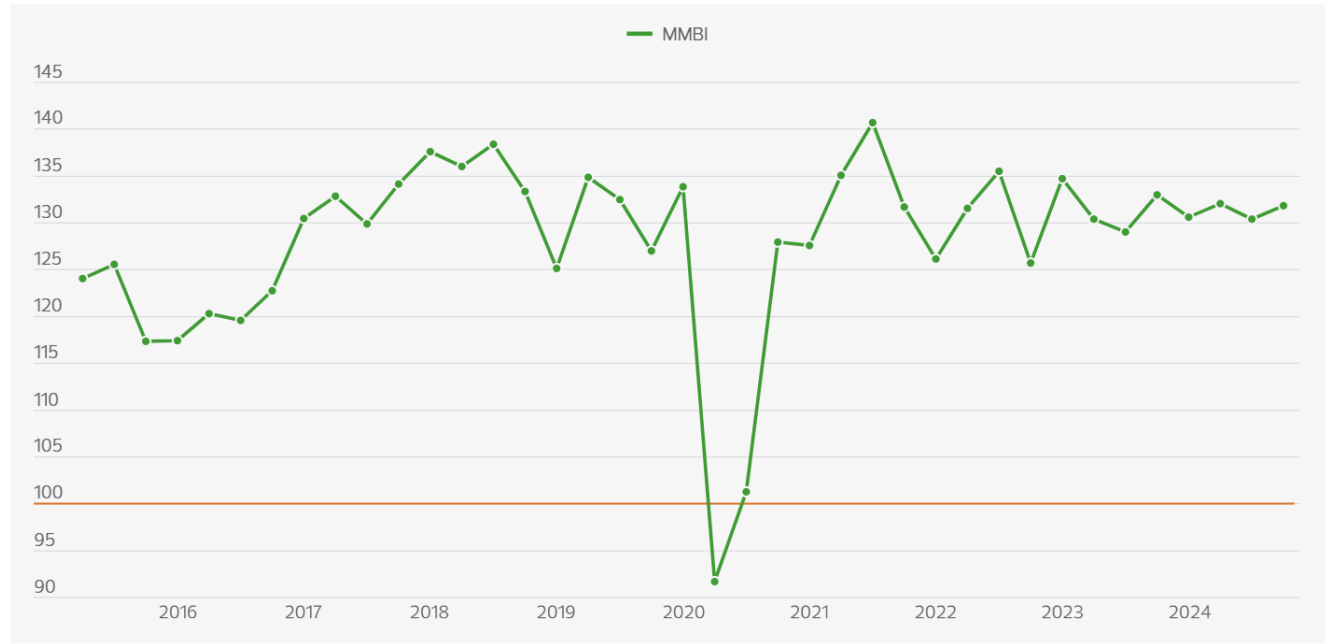
The **middle market** is the **backbone of the U.S. economy**, accounting for **one-third of total jobs** and **40% of GDP**.

Middle market organizations, which make up the “**real economy**,” are too big to be small and too small to be big. They have distinct challenges and opportunities around resources, labor, technology, innovation, regulation and more.

With proprietary research such as the **RSM US Middle Market Business Index**, economic insights including **The Real Economy**, a growing team of analysts dedicated to following trends important to your industry, and a policy arm on the ground in Washington, D.C., RSM does the legwork to keep your organization ahead of issues that affect your bottom line.

RSM US MIDDLE MARKET BUSINESS INDEX

SEASONALLY ADJUSTED—DIFFUSION INDEX WITH NEUTRAL = 100



Source: RSM US LLP



[RSM US Middle Market Business Index](#)

[The Real Economy](#)



**First-choice advisor to middle market leaders globally**

# Focus on Middle Market Artificial Intelligence



## RSM Middle Market AI Survey 2024: U.S. and Canada

78%

of middle market executives reported either formally or informally using AI.

77%

of respondents are formally or informally using generative AI within their operations.

85%

of respondents either somewhat or completely agreed that generative AI has had more of a positive impact than anticipated.

54%

of executives who use generative AI said it has been harder to implement than suggested.

67%

report they need outside help to get the most out of their generative AI solutions.



using AI



using generative AI



using AI



using generative AI

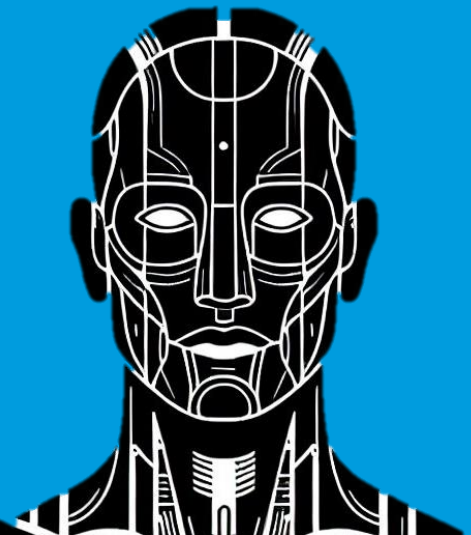
**Rhys Morgan**  
Principal  
RSM Canada LLP



*"Companies in the United States are increasing their budgets for generative AI solutions at a quicker pace than Canadian organizations, which influences the speed of implementation and integration. But the majority of companies in both countries appear poised to continue making significant operational improvements with emerging generative AI innovations."*



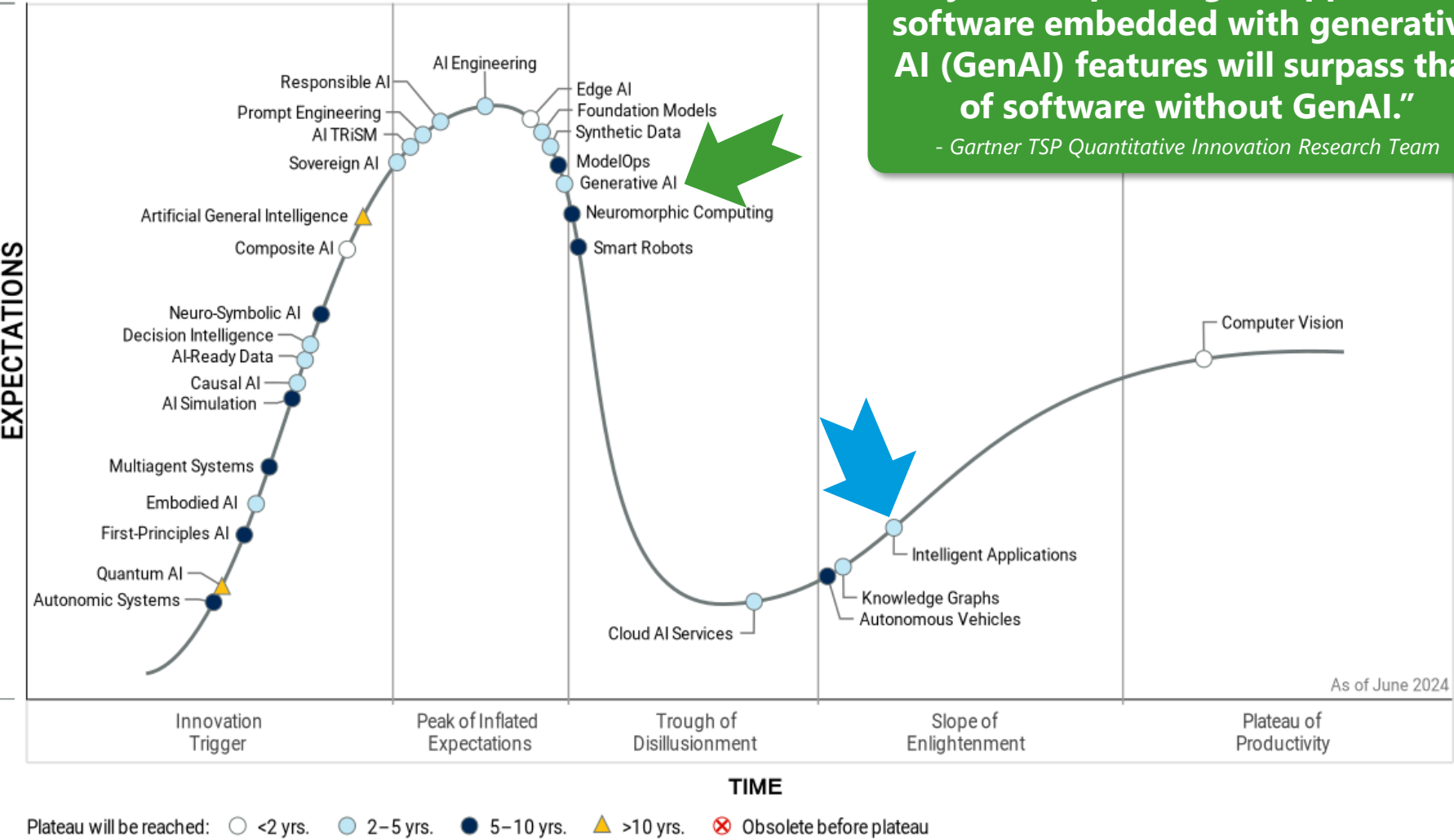
# AI Powered IT





# Mid-Market IT's Adoption of AI

Hype Cycle for Artificial Intelligence, 2024



**“By 2026, spending on application software embedded with generative AI (GenAI) features will surpass that of software without GenAI.”**  
- Gartner TSP Quantitative Innovation Research Team

**Intelligent Applications**  
“utilize learned adaptation to respond autonomously to people and machines. While applications can behave intelligently, intelligent applications are inherently smart/proactive.”

“Applications will change from supporting business process execution into intelligent applications that work on behalf of employees.”

**Generative AI** “technologies can generate new derived versions of content, strategies, designs and methods by learning from large repositories of original source content. Generative AI has profound business impacts, including on content discovery, creation, authenticity and regulations; automation of human work; and customer and employee experiences.”



## 01 To Be More Efficient

# AI Powers IT Departments:

# AI Powers IT Departments: To Be More Efficient



## Automation of Routine Tasks

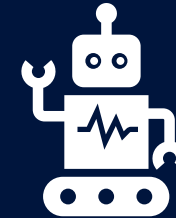
### Traditional IT Services

#### IT Service Desk

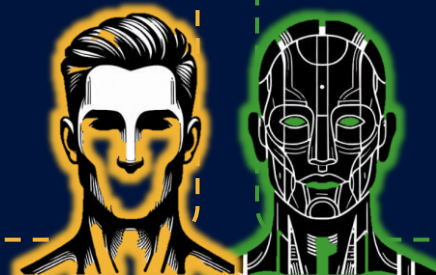
- Interacting with employees
- Triaging employee needs
- Gathering additional information
- Summarizing conversations
- Researching known solutions
- Orchestrating approval processes
- Updating employees on progress
- Provisioning permissions and privileges
- Training and educating employees
- On-call after hours support



### AI Solutions



**Conversational AI  
Chatbots or Agents**



# AI Powers IT Departments: To Be More Efficient

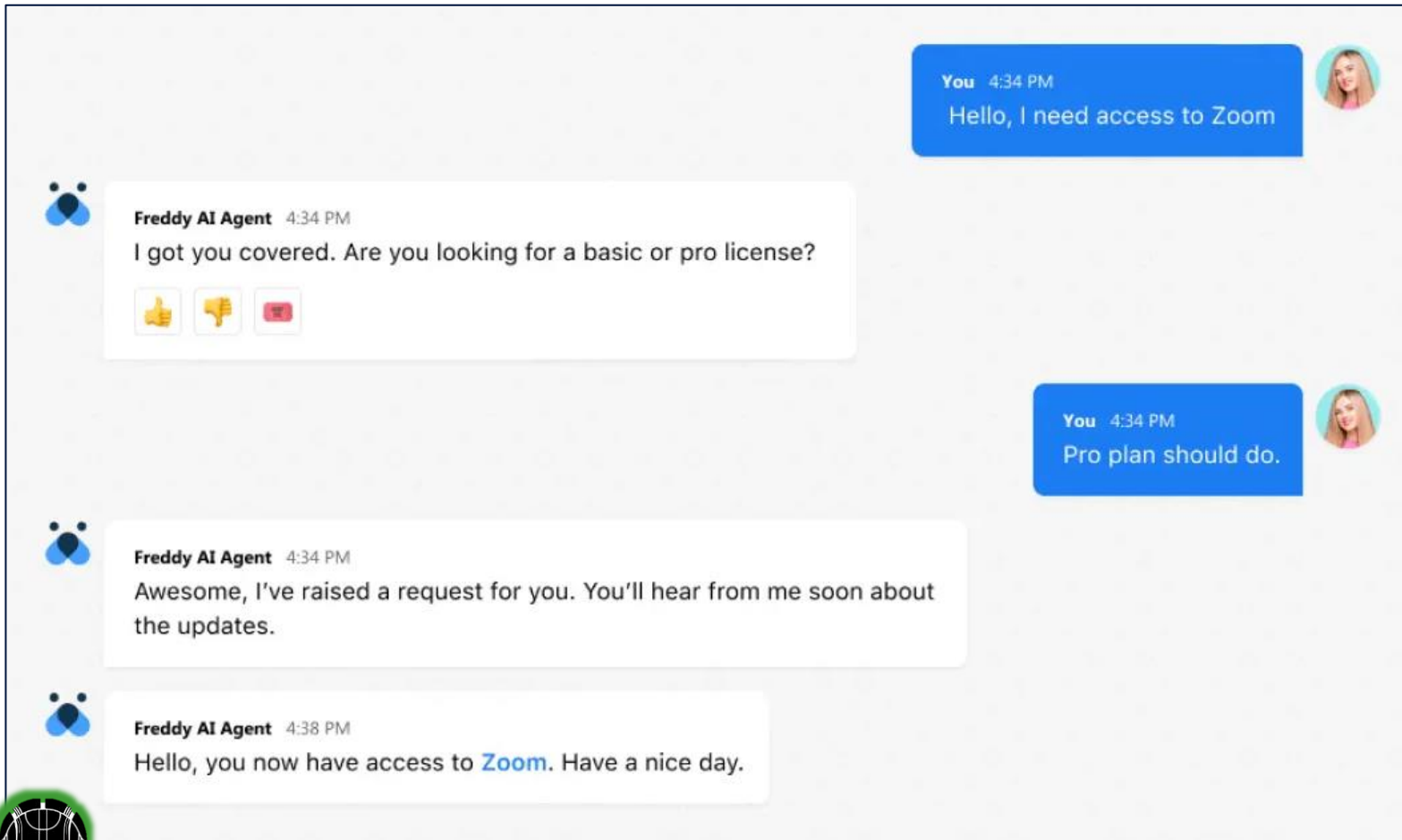


Automation of Routine Tasks

Assigning Application Permissions

IT Tool Highlight

 freshservice



**Your employees have better things to do than wait**

Freddy AI Agent delivers accurate answers and instant service, while agents focus on critical problems.

Freddy AI Agent makes it trustworthy, conversational, and convenient on collaboration channels like MS Teams and Slack.

With built-in AI agents, your employees and agents can get more done.





# AI Powers IT Departments: To Be More Efficient

RSM

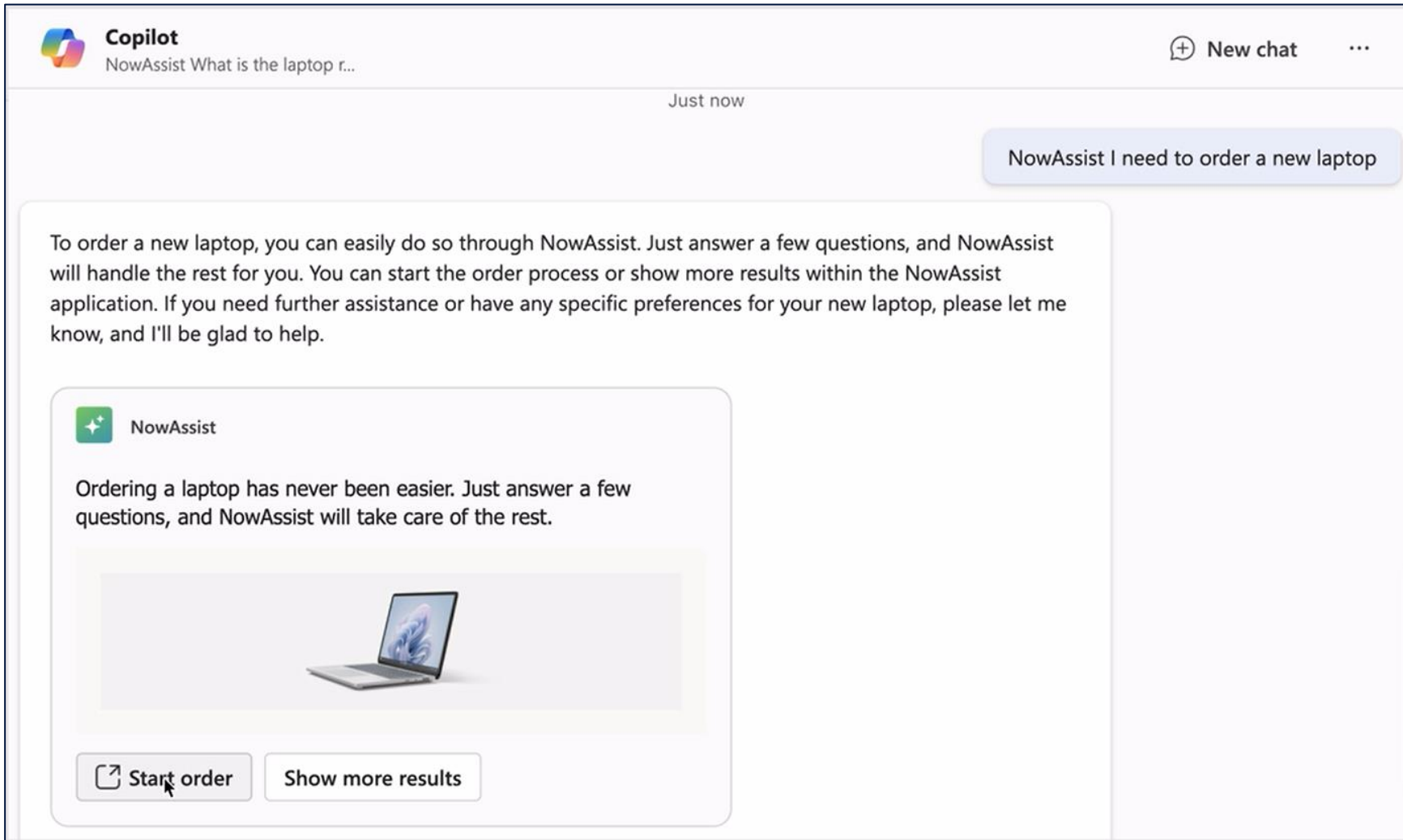


Automation of Routine Tasks

Ordering Equipment

IT Tool Highlight

servicenow Copilot



## ServiceNow's Now Assist

Thanks to an ever-expanding strategic alliance, ServiceNow and Microsoft have combined their industry-leading capabilities to enhance workforce choice and flexibility.

The integration of Now Assist from ServiceNow and Copilot from Microsoft brings the power of these two GenAI assistants into one seamless solution.

Source: <https://www.servicenow.com/premium/resource-center/full/ebook/genai-guide-ignite-productivity-across-it-with-now-assist.html#transform-with-ai>



# AI Powers IT Departments: To Be More Efficient

RSM

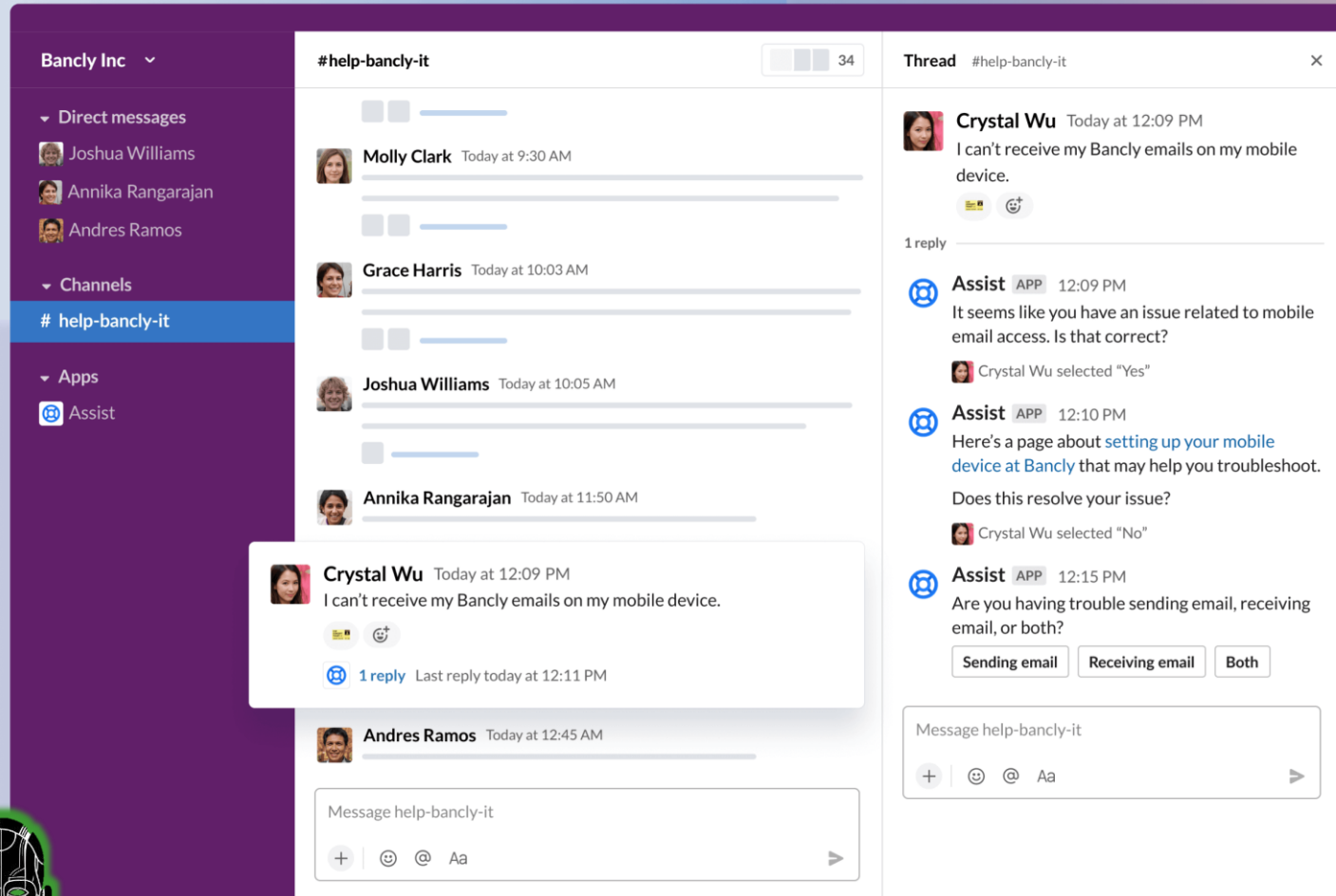


Automation of Routine Tasks

Real-Time Triaging of User Issues

IT Tool Highlight

⚡ Jira Service Management



**Free up agent time to focus on the work that matters**

Deflect repetitive requests and allow your team to focus on more important work. Create custom intents or tap into the power of your existing knowledge base to instantly automate Tier 1 support workflows.

For complex issues that need a human touch, route tickets to the right team with pre-gathered context.

# AI Powers IT Departments: To Be More Efficient



Automation of Routine Tasks

Incident & Actions Summarization

IT Tool Highlight

servicenow

The screenshot displays the ServiceNow 'Service Operations Workspace' interface. The main incident title is 'Zoom is slow and Mac keeps crashing when using the app' (INC034532). A pop-up window titled 'Incident summarized by Now Assist' provides a detailed summary:

**Issue**

- Users have reported a significant degradation in Zoom service performance, primarily centered around slow response times and intermittent connectivity issues. In addition, a recurring problem has been identified specifically for Mac users, where the Zoom application consistently crashes during usage.

**Actions taken:**

- An automated system health check on Zoom's servers has been initiated to monitor any potential server-side anomalies that could be contributing to the service degradation.
- Mac engineers are examining the application's compatibility with the latest macOS update and investigating whether recent changes have triggered the frequent crashes.
- User activity logs are being reviewed to identify any common patterns or triggers that could shed light on the root cause of the crashes.

**Recommendations**

- Update Zoom**: Zoom 5.0 is prone to crash frequently for some users. Updating to Zoom 6.0 can fix the issue.
- Troubleshooting slow Zoom...**: Sluggish performance whiling using Zoom for video conferencing and collaboration.

The interface also shows a 'Work notes (Private)' section with a note from Roberta Fox dated 2023-07-27 14:02:32, stating 'Assigning this case to myself.' The incident state is 'In progress' with a 'High' priority.

**ServiceNow's Now Assist** for ITSM provides context and streamlines work allowing IT staff to spend more time resolving complex issues.





# AI Powers IT Departments: To Be More Efficient



## Minimization of Human Error

### Traditional IT Services

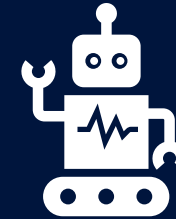
#### IT Service Desk

- Drafting support responses
- Recommending likely solutions

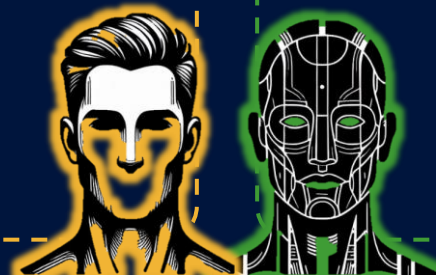
#### Communication & Collaboration

- Drafting departmental communications
- Drafting collaborative emails

### AI Solutions



#### Conversational AI Chatbots or Agents



# AI Powers IT Departments: To Be More Efficient



Minimization of Human Error

Support Response Drafting

IT Tool Highlight



The screenshot displays the Freshservice IT ticketing interface. At the top, a navigation bar shows 'Tickets > #INC-331920'. Below this, a ticket summary card contains the subject 'My Mac Turned off abruptly and after it started I am not able to launch any application.' and the description 'Tried multiple restarts, tried force restart as well. Need help.' The ticket is assigned to 'Marley Herwitz' and was reported 'a day ago (Thu, 09 Apr at 7:00 PM) via Portal'. The ticket status is 'Open', with a 'First Response Due' by Wednesday, August 12, 2020, at 04:48 PM (2h 50m remaining) and a 'Resolution Due' by the same date and time (4h remaining). The ticket is categorized as 'Low' priority, 'Open' status, 'Portal' source, 'Incident' type, 'Low' urgency, and 'Low' impact. It is assigned to the 'Database Team' group and the 'Johnson Edward' agent. The ticket is in the 'Design' department and has no category or tags. The 'Conversations' section shows a draft response from 'IT support <helpdesk@support.freshservice.com>' to 'marley.herwitz@freshworks.com'. The draft response text reads: 'Hi Marley, Certainly, I can provide assistance. You can use the below solution to resolve this issue. Try these solutions, whether or not your Mac has signs of power: • Press and hold the power button on your Mac for 10 seconds, then press it again. • Reset the System Management Controller (SMC). • Make sure that your display's brightness is turned up. Mac notebook computers have a Brightness Up key on the built-in keyboard.' The draft response is in English and has a 'Generate response' button. The bottom of the interface shows a 'Saved' status and 'Cancel' and 'Send' buttons.

**Focus where you're needed.  
Freddy AI Copilot does the rest.**

Hello, productivity. Freddy AI Copilot makes it easy for agents to standardize services, draft articles, improve messages, automate responses, and optimize processes.

With Freddy AI to help, agents can focus on service excellence.



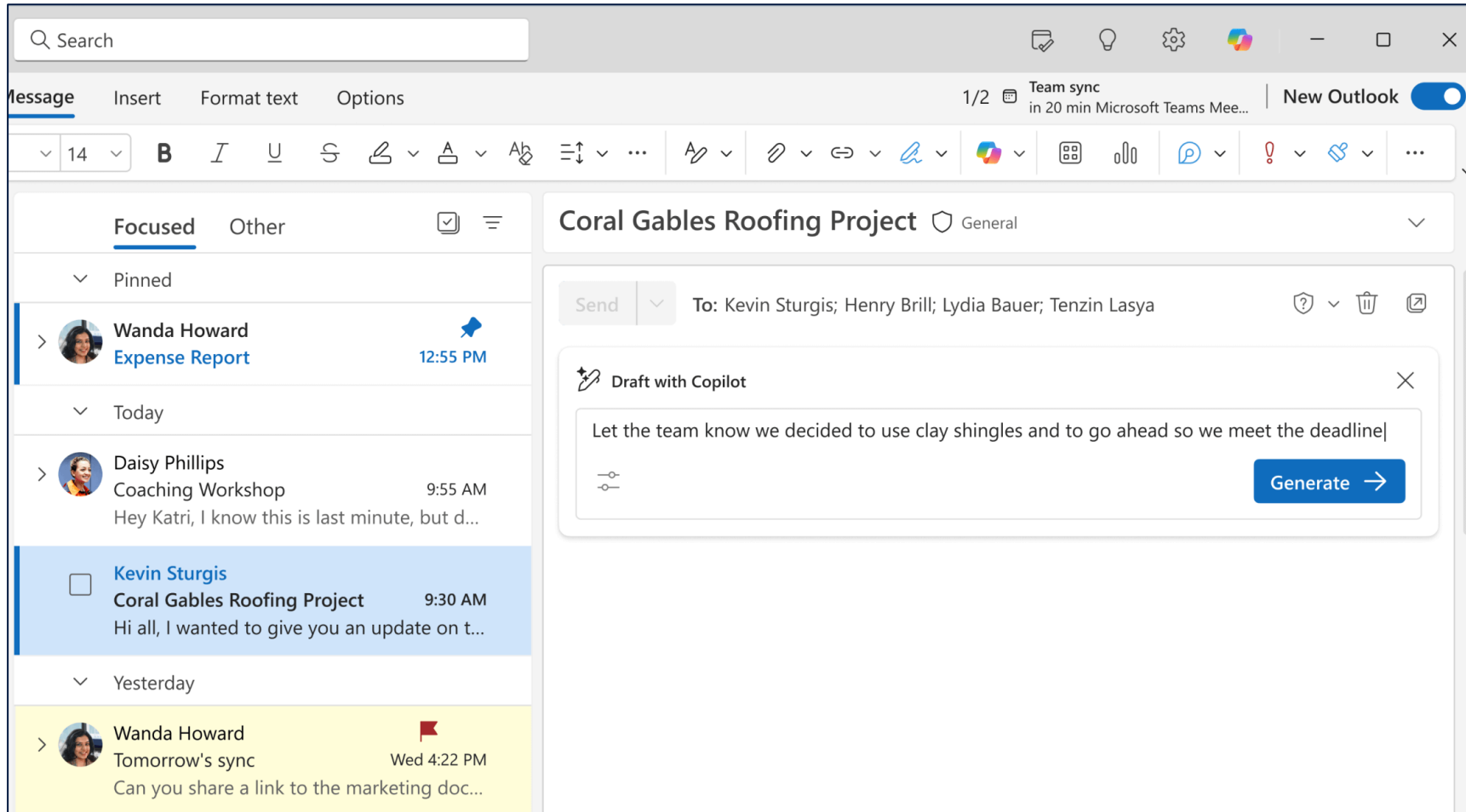
# AI Powers IT Departments: To Be More Efficient



Minimization of Human Error

Email Communication Drafting

IT Tool Highlight



## Start Emails Quickly

Save time and eliminate common grammatical mistakes preparing emails with Copilot for Outlook





# AI Powers IT Departments: To Be More Efficient

RSM

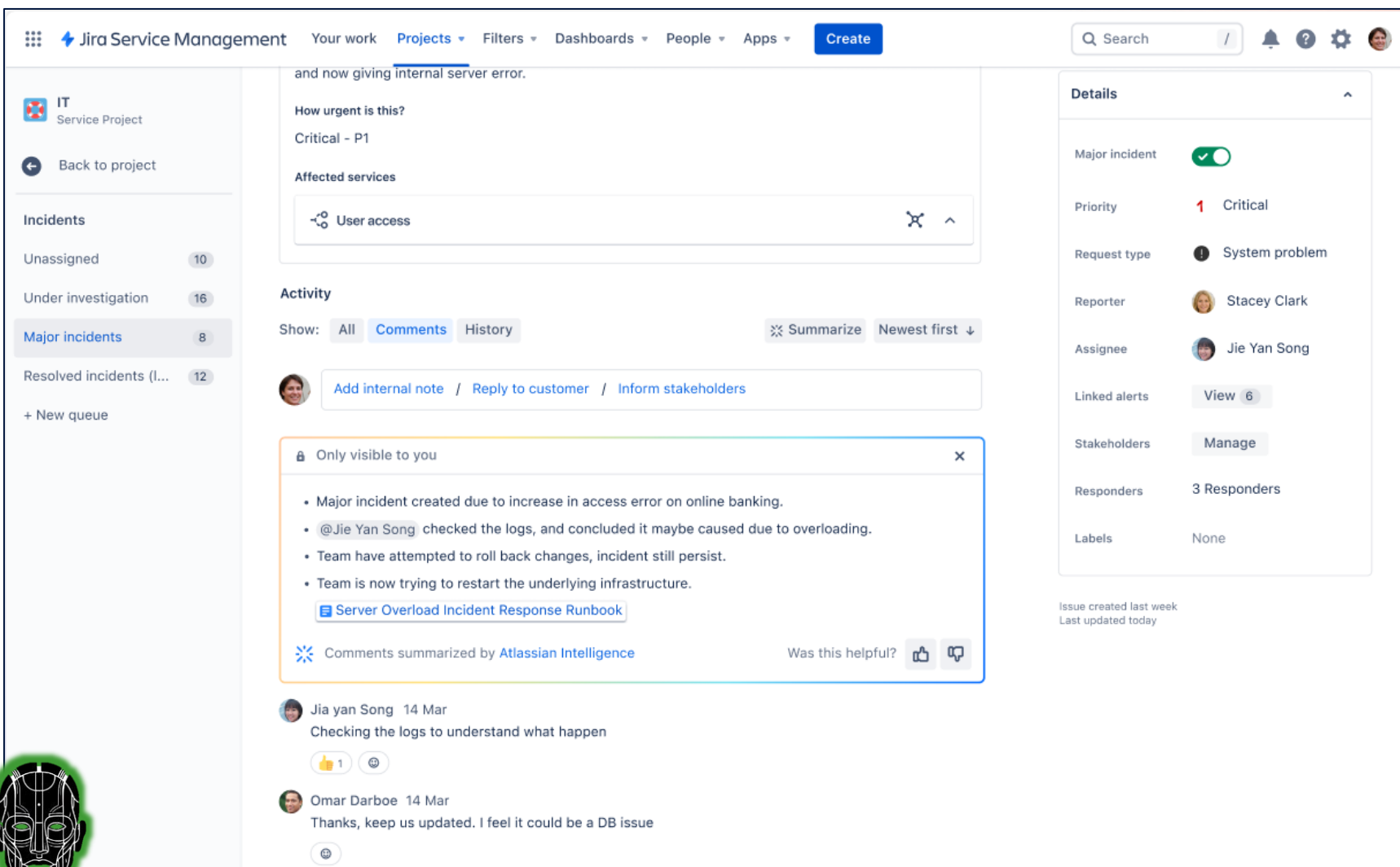


Minimization of Human Error

Next Step Recommendation

IT Tool Highlight

 Jira Service Management



The screenshot displays the Jira Service Management interface for an IT Service Project. The main view shows a major incident titled 'User access' with a critical priority (P1). The incident description mentions an internal server error. The 'Activity' section shows a summary of the incident, generated by Atlassian Intelligence, which states: 'Major incident created due to increase in access error on online banking. @Jie Yan Song checked the logs, and concluded it maybe caused due to overloading. Team have attempted to roll back changes, incident still persist. Team is now trying to restart the underlying infrastructure.' The summary also includes a link to the 'Server Overload Incident Response Runbook'. Below the summary, there are two comments: one from Jia yan Song (14 Mar) stating 'Checking the logs to understand what happen' and another from Omar Darboe (14 Mar) stating 'Thanks, keep us updated. I feel it could be a DB issue'.

**Triage and respond to requests faster**

Accelerate agent workflows from triaging to resolution.

Get AI-powered recommendations to prioritize, assign, and take action on tickets.

Summarize ticket descriptions and comments to bring stakeholders up to speed, and transform your writing to ensure fast, clear communication.

Source: <https://www.atlassian.com/software/jira/service-management/features/itsm/ai>

# AI Powers IT Departments: To Be More Efficient



Minimization of Human Error

Guided Runbook Walkthroughs

IT Tool Highlight

servicenow

The screenshot displays the ServiceNow interface for incident management, highlighting AI-powered features. The main window shows an incident titled "Issues logging into CRM" with a summary generated by "Now Assist". The summary states: "Issue: Multiple employees aren't able to access the CRM system. Actions taken: 15 additional similar incidents came in on CRM in the past 20 minutes. A major incident was proposed because it is an issue affecting users on a critical service. Related information: A recent change was applied on the CRM system 2 days ago." Below the summary, the incident ID "INCO007461" is shown, along with a short description and a detailed description: "Multiple employees have submitted tickets with issues accessing their CRM accounts. This is impeding employees from getting their work done."

Overlaid on the main window are three panels illustrating AI-guided resolution steps:

- MI resolution**: A vertical list of steps: "Review situation" (0/1), "Communicate" (Pending), "Collaborate" (Pending), and "Resolve" (Pending). A cursor points to "Review situation".
- Review Situation**: A detailed view of the "Review situation" step, marked "In progress". It includes a "Promote or reject candidate" section with instructions to "Review the work notes and business impact of this candidate." Below this, the "Reason" is stated: "There are several similar high priority incidents related to the CRM, which is a critical service." The "Business impact" is described: "Customers and internal users are unable to use the CRM, which is hurting productivity both internally and externally." At the bottom, there are "Reject" and "Promote" buttons, with a cursor pointing to "Promote".
- Collaboration**: A panel showing "Pending (1)" collaboration. It includes a "Resolution discussion" section with details: "Plan: Technical collaboration", "Status: Not started", "Due in: 00:58:00", and "Channel: Zoom". A "Start" button is visible at the bottom.

Source: <https://www.servicenow.com/now-platform/now-assist.html>



# AI Powers IT Departments: To Be More Efficient



## Incident Detection Automation

### Traditional IT Services

#### Incident Management

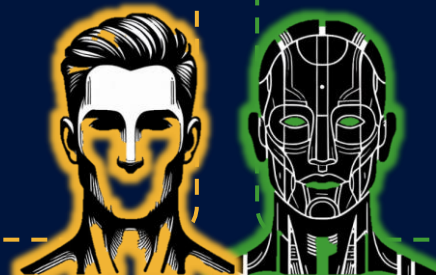
- Grouping similar alerts
- Recognizing incident in progress
- Communicating with and engaging incident response team



### AI Solutions



**Semantic Similarity  
Comparison within  
Natural Language  
Processing**



# AI Powers IT Departments: To Be More Efficient

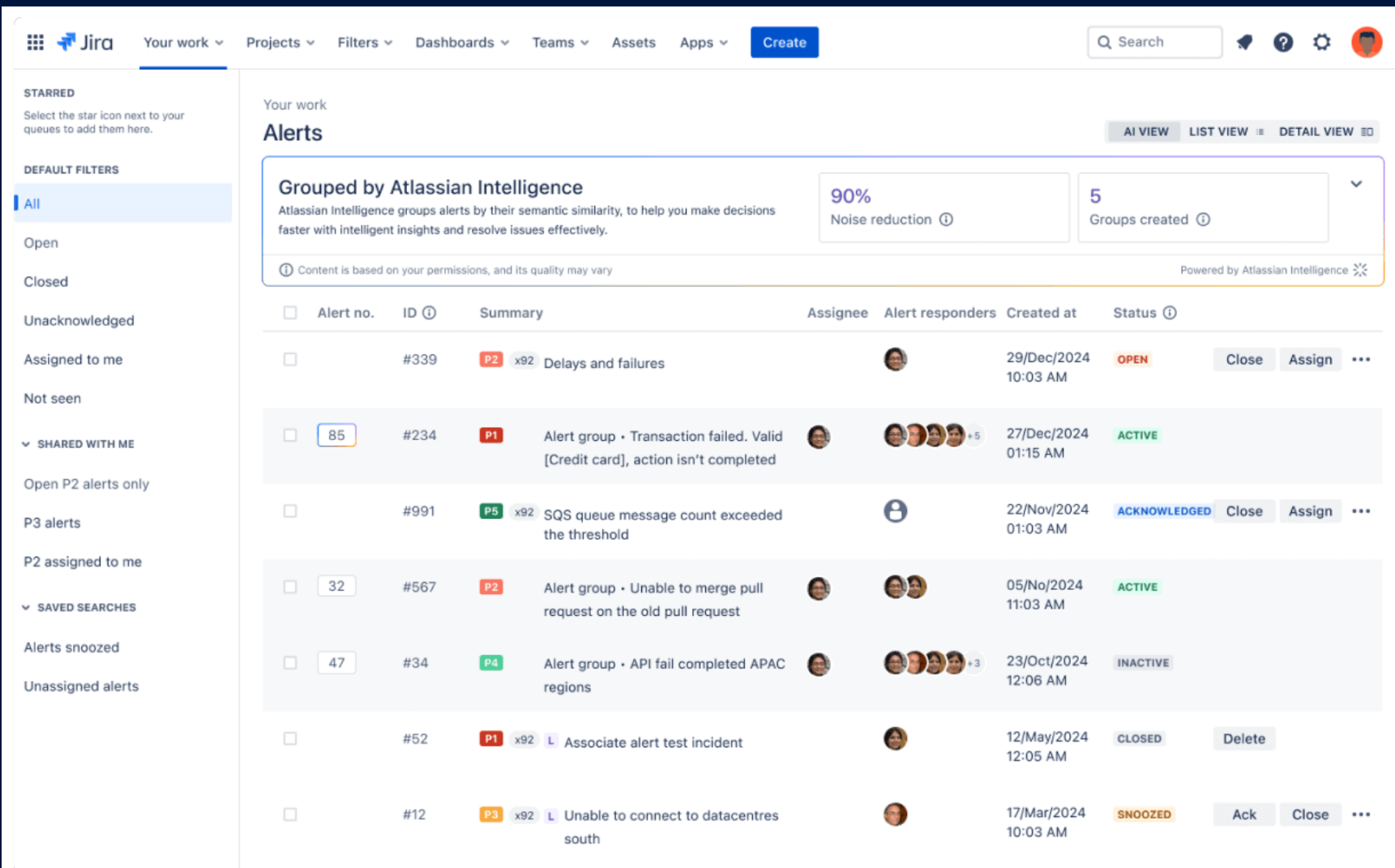


Incident Detection Automation

Alert Analysis & Aggregation

IT Tool Highlight

 Jira Service Management



The screenshot displays the Jira Service Management interface, specifically the 'Alerts' section. The left sidebar shows navigation options like 'Your work', 'Projects', 'Filters', 'Dashboards', 'Teams', 'Assets', and 'Apps'. The main content area is titled 'Alerts' and features a summary box indicating '90% Noise reduction' and '5 Groups created'. Below this, a table lists several alerts with columns for 'Alert no.', 'ID', 'Summary', 'Assignee', 'Alert responders', 'Created at', and 'Status'. The alerts are grouped by Atlassian Intelligence, showing semantic similarity and providing insights to help make decisions faster.

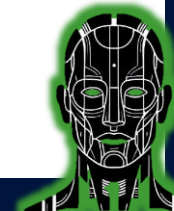
| Alert no. | ID     | Summary   | Assignee | Alert responders | Created at           | Status       |
|-----------|--------|---|----------|------------------|----------------------|--------------|
| #339      | P2 x92 | Delays and failures   | [Avatar] | [Avatar]         | 29/Dec/2024 10:03 AM | OPEN         |
| 85        | #234   | Alert group • Transaction failed. Valid [Credit card], action isn't completed | [Avatar] | [Avatar] +5      | 27/Dec/2024 01:15 AM | ACTIVE       |
| #991      | P5 x92 | SQS queue message count exceeded the threshold                                | [Avatar] | [Avatar]         | 22/Nov/2024 01:03 AM | ACKNOWLEDGED |
| 32        | #567   | Alert group • Unable to merge pull request on the old pull request            | [Avatar] | [Avatar]         | 05/Nov/2024 11:03 AM | ACTIVE       |
| 47        | #34    | Alert group • API fail completed APAC regions                                 | [Avatar] | [Avatar] +3      | 23/Oct/2024 12:06 AM | INACTIVE     |
| #52       | P1 x92 | Associate alert test incident   | [Avatar] | [Avatar]         | 12/May/2024 12:05 AM | CLOSED       |
| #12       | P3 x92 | Unable to connect to datacentres south  | [Avatar] | [Avatar]         | 17/Mar/2024 10:03 AM | SNOOZED      |

**Detect, prevent, and resolve incidents faster**

Accelerate incident management workflows with AIOps capabilities.

Cut through the noise to surface the alerts that matter, quickly loop in the right stakeholders, and automate action for fast resolution.

Source: <https://www.atlassian.com/software/jira/service-management/features/itsm/ai>





# AI Powers IT Departments: To Be More Efficient

RSM



## Plan Projects

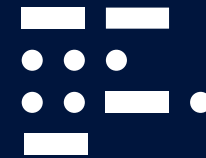
### Traditional IT Services

#### Project Planning

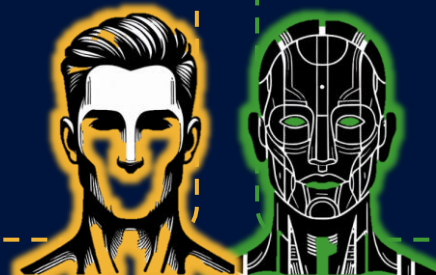
- Building work breakdown structures of phases, tasks, and sub-tasks
- Sequencing tasks to optimize timelines
- Allocating personnel based on availability



### AI Solutions



**Machine Learning  
and Natural  
Language Processing**



# AI Powers IT Departments: To Be More Efficient



Plan Projects

Work Item & Subtask Recommendations

IT Tool Highlight

 Jira Software

## Child issues

Order by ▾ + ➤

Suggest child issues **BETA**

- ☒ ▾ Design Search Filters
- ☒ ▾ Implement Real-Time Search Updates
- ☒ ▾ Develop Advanced Search Capabilities
- ▾ Design User-Friendly Search Interface

... Generating issue suggestions

ⓘ Content quality may vary

Powered by

## Move projects forward

Let Atlassian Intelligence recommend subtasks and relevant work items with a click.



# AI Powers IT Departments: To Be More Efficient



## Find Information & Answers

### Traditional IT Services

#### Knowledge Management

- Find solutions and documentation
- Answer questions about IT systems
- Summarize information
- Streamline workflows and human tasks

#### Technical Training & Research

- Step-by-step technical instruction
- Apprenticing and teaching

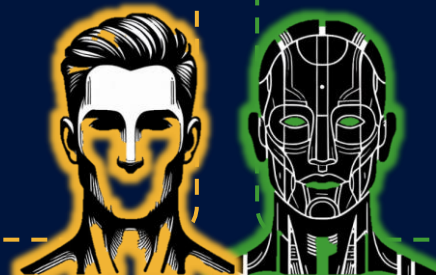
### AI Solutions



**Natural Language Processing**



**AI Vision**



# AI Powers IT Departments: To Be More Efficient

RSM



Find Information & Answers

Information Analysis & Curation

IT Tool Highlight



Copilot



SharePoint

**Product Maintenance** Home Documents Pages Site contents Edit

Home Documents Pages Site contents Recycle bin Edit

+ New Edit in grid view Share Copy link Delete Create an agent

**Documents**

| Name                                     | Modified             | Modified By   |
|--|----------------------|---------------|
| Current Deployments                      | Monday at 3:31 PM    | Mona Kane     |
| Parts & Inventory                        | Monday at 3:31 PM    | Mona Kane     |
| Product Failure Reports                  | Monday at 4:30 PM    | Kat Larson    |
| Service Manuals & Documentation          | Wednesday at 8:30 PM | Kat Larson    |
| City ordinances checklist.docx           | July 27              | Lee Gu        |
| PSE regional cost analysis.xlsx          | Yesterday at 1:40 PM | Adele Vance   |
| RMC 21.40.030 - EV Charging Stations.pdf | August 20            | Pradeep Gupta |

## Find Answers with SharePoint Agents

Every SharePoint site comes with a "ready-made-agent", automatically scoped to the content on that site.

Site visitors can chat with this agent to understand content on this site, ask specific questions, and analyze documents.



# AI Powers IT Departments: To Be More Efficient

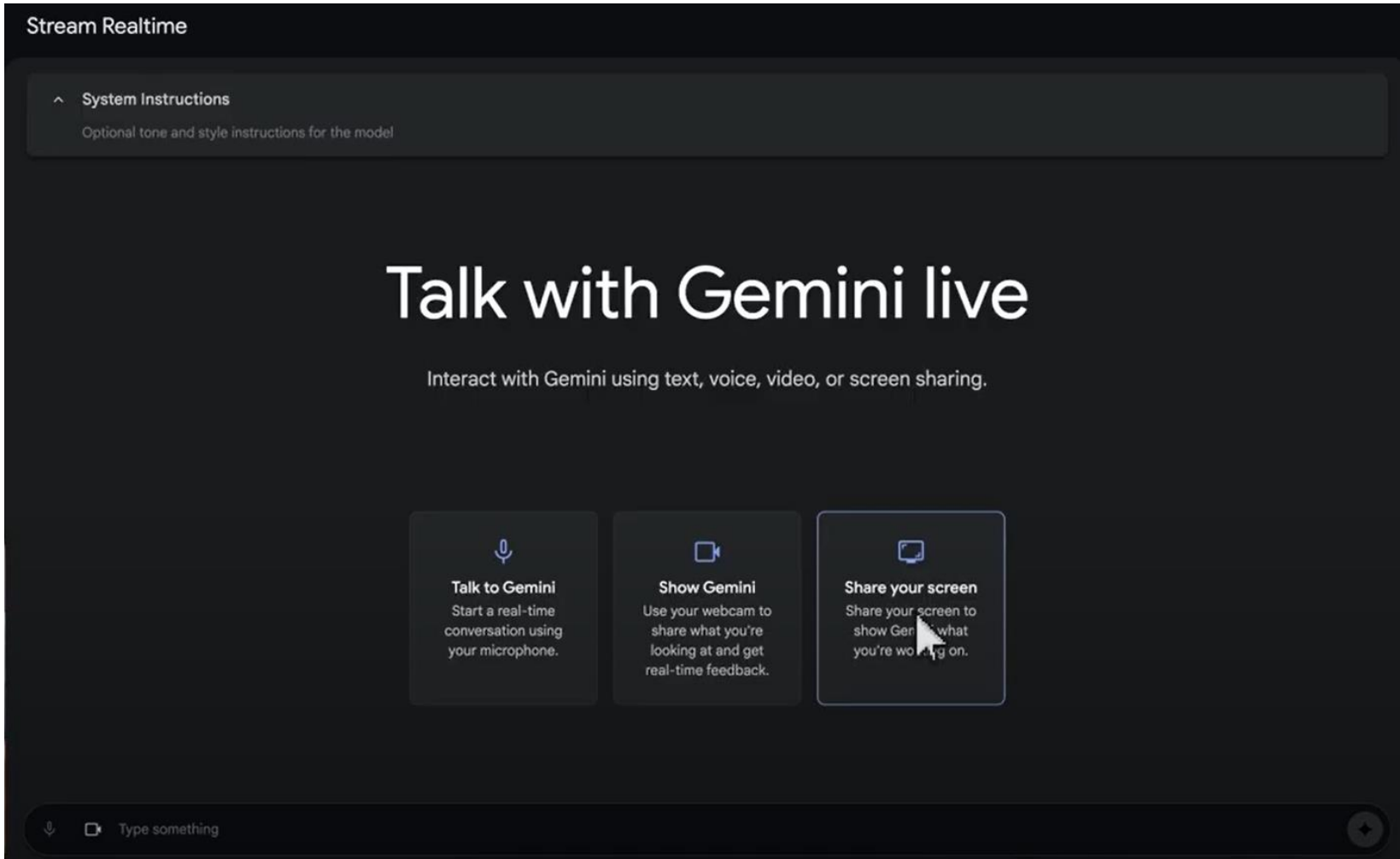


Find Information & Answers

Step-By-Step Technical Training

*IT Tool Highlight*

Google AI Studio



Source: <https://aistudio.google.com/welcome>



# AI Powers IT Departments:

**01 To Be More Efficient**

**02 To Be More Secure**



# AI Powers IT Departments: To Be More Secure



## Secure IT Systems

### Traditional IT Services

#### Threat Detection & Response

- Reviewing system alerts and event logs
- Eliminating false positives
- Recognizing cyber attacks
- Investigating and stopping attacks

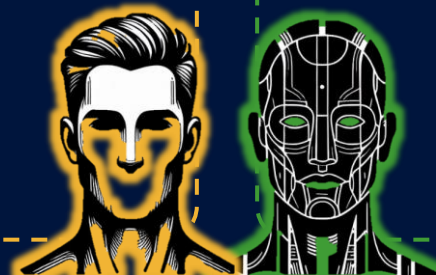
#### Threat Prevention

- Malware detection and removal
- Identifying and blocking phishing websites
- Vulnerability prediction

### AI Solutions



**Advanced Machine Learning Trained on Vast Amounts of Security Data**



# AI Powers IT Departments: To Be More Secure



Secure IT Systems

Threat Detection / Prevention

IT Tool Highlight



## Featured Threat Prevention Engines

| Engine Name   | Security value  | Method      | Technology       |
|---|---|-------------|------------------|
| DeepTunnel  | DNS Tunneling   | AI          | Deep Learning    |
| Ditto – Detect Malware & phishing (DeepPDF)         | Detect Malware according to PDF layout                                  | AI          | Machine Learning |
| Brand spoofing detection                            | Detect Phishing websites using image similarity                         | AI          | Machine Learning |
| Mobile Zero-Phishing detection engine               | Mobile Zero-Phishing detection engine                                   | AI          | Machine Learning |
| Zero-Phishing                                       | Detection of zero-day Phishing websites based on page content           | AI          | Machine Learning |
| Memdiver  | Dynamically extract the hidden malicious payloads out of process memory | AI          |                  |
| ThreatCloud graph                                   | Deciphers complex attack patterns                                       | AI          |                  |
| TEX – Exploitable content Disarm and reconstruction | Remove Active Content from Documents                                    | Traditional | Traditional      |
| IPFS  | Scans the URL and detects suspicious IPFS patterns                      | Traditional | Traditional      |





# AI Powers IT Departments: To Be More Secure

RSM



Secure IT Systems

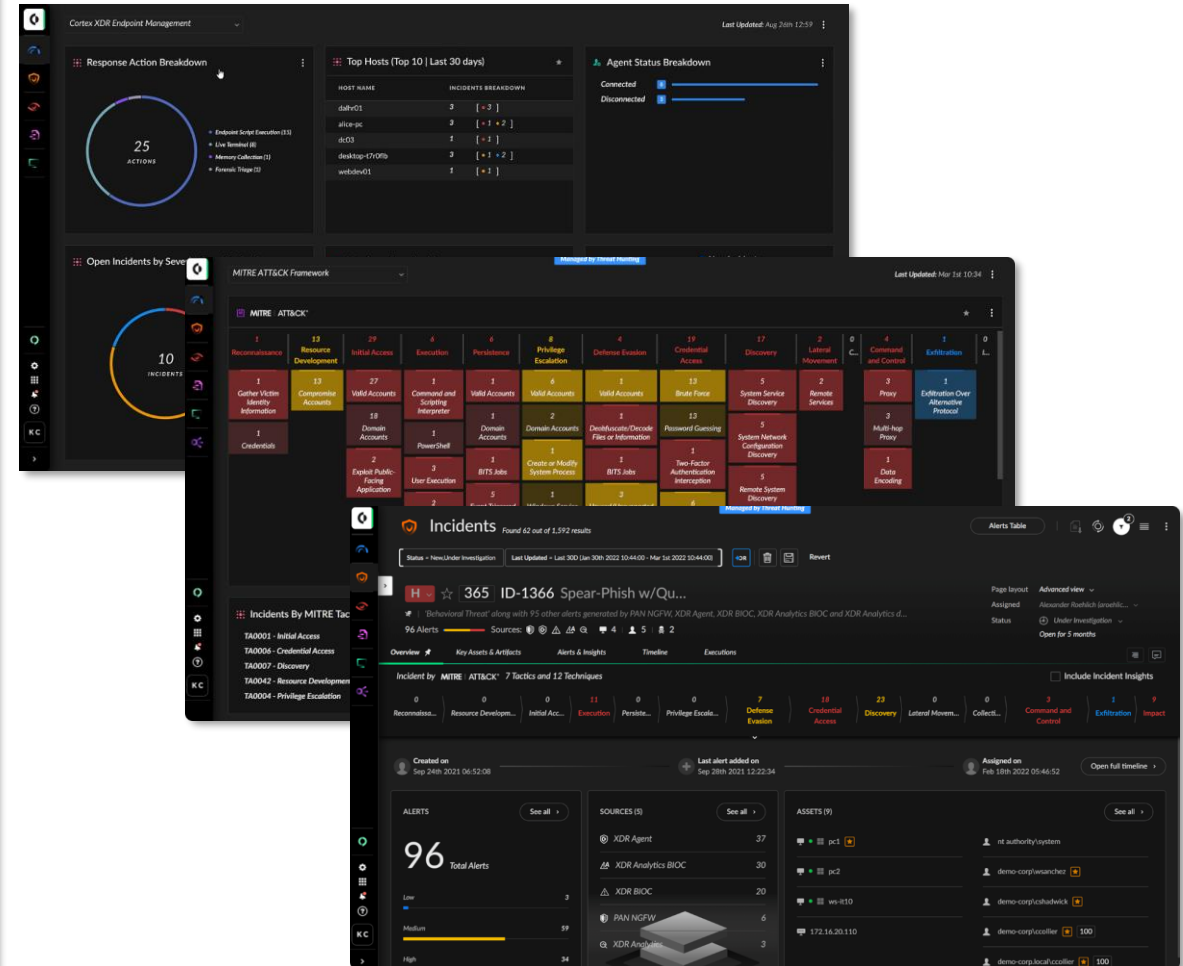
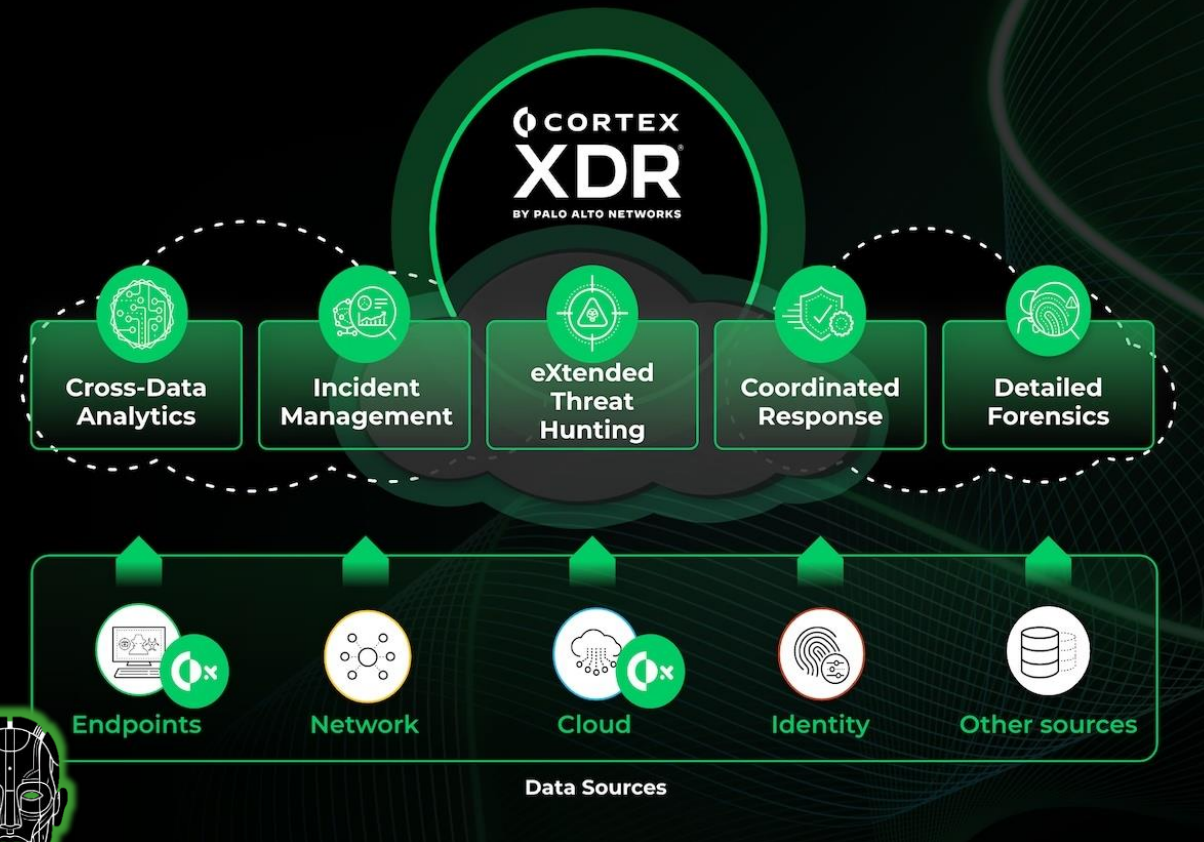
Threat Detection / Prevention

IT Tool Highlight



## Cortex XDR

Advanced Threat Prevention, Detection & Response



Source: <https://www.paloaltonetworks.com/cortex/cortex-xdr>

# AI Powers IT Departments: To Be More Secure



Secure IT Systems

AI Tooled Managed Services

IT Service Highlight



## Industry Leader CrowdStrike offers 2 Managed Services

### **CrowdStrike Falcon Complete Next-Gen MDR**

A fully managed detection and response (MDR) service offering 24/7 expert management and monitoring of the CrowdStrike Falcon platform.

### **CrowdStrike Falcon Cloud Detection and Response (CDR)**

An integrated, comprehensive cloud protection solution that brings effective and comprehensive CDR including cloud native application protection platform capabilities



# AI Powers IT Departments:

**01 To Be More Efficient**

**02 To Be More Secure**

**03 To be More Innovative**



# AI Powers IT Departments: To Be More Innovative



## Contextually Evaluate & Generate Code

### Traditional IT Services

#### Software Development & Testing

- Code Generation & Debugging
- Comment & Commit Message Generation
- Peer Code Reviews
- Quality Assurance Testing

#### Data Analysis & Analytics

- Analyzing Data
- Report Generation
- Analytical Dashboard Generation
- KPI Trending and Analysis

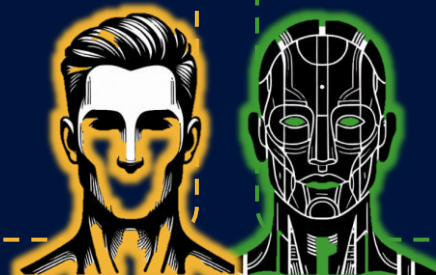
### AI Solutions



**Natural Language Processing**



**Generative AI**





# AI Powers IT Departments: To Be More Innovative



Contextually Evaluate & Generate Code

Code Analysis / Review

IT Tool Highlight



GitHub  
Copilot



Rovo

**jajajade**  
@atlassian-rovo what are the edge cases I need to consider for my issue?

**GitHub Copilot** using @atlassian-rovo

4 sources >

Looks like you're working on [STK-122](#), updating the color picker component in stackies-frontend.

Here are some edge cases to consider when updating this component:

- Invalid hex code (handle cases where the user enters an invalid hex like #GGG)
- Out-of-gamut colors (restrict to in-gamut colors or warn the user)
- Browser support (some older browsers don't support the latest CSS color methods)
- Default color (which color to default to on component load)

```
40 const DisabledColorBox = styled
41   filter: grayscale(100%);
42   border: 1px solid gray;
43 `;
44
45 const Button = styled.button`
46   margin-top: 20px;
47 `;
48
49 function ColorPicker({ colors }
50   const [selectedColor, setSele
51   color.disabled).color);
52
53   const settings = {
54     dots: true,
55     infinite: false,
56     speed: 500,
57     slidesToShow: 3,
58     slidesToScroll: 1,
59     initialSlide: 0,
60     centerMode: true,
61     focusOnSelect: true,
62     beforeChange: (current, nex
63   };
```

Bring context to code by integrating the GitHub Copilot extension with Atlassian.

Get instant code suggestions tailored to your team's design rules, Jira tasks, and more all within the IDE.



# AI Powers IT Departments: To Be More Innovative



Contextually Evaluate & Generate Code

Code Generation

IT Tool Highlight



U User

Can you write the code to download a dataset from S3 and read it using Pandas?



Sure, here's an example Python code to download a dataset from Amazon S3 and read it using Pandas: [1]

```
import os
import boto3
import pandas as pd

# Set up AWS credentials and S3 client
aws_access_key_id = os.environ.get('AWS_ACCESS_KEY_ID')
aws_secret_access_key = os.environ.get('AWS_SECRET_ACCESS_KEY')

s3 = boto3.client('s3',
                  aws_access_key_id=aws_access_key_id,
                  aws_secret_access_key=aws_secret_access_key)

# Specify the S3 bucket and file name
bucket_name = 'XXXXXXXXXXXXXXXXXX'
file_name = 'your-file-name.csv'

# Download the file from S3
s3.download_file(bucket_name, file_name, file_name)

# Read the downloaded file into a Pandas DataFrame
df = pd.read_csv(file_name)

# Print the first few rows of the DataFrame
print(df.head())
```

Amazon Q Developer in SageMaker Studio is a generative AI-powered assistant built natively into the SageMaker JupyterLab experience. This assistant takes your natural language inputs and crafts a tailored execution plan for your ML development lifecycle by recommending the best tools for each task, providing step-by-step guidance, generating code to get started, and offering troubleshooting assistance when you encounter errors.

Here's how the code works:

1. First, we import the required libraries: `os` for accessing environment variables, `boto3` for interacting with AWS services, and `pandas` for data manipulation.
2. We set up the AWS credentials by fetching the `AWS_ACCESS_KEY_ID` and `AWS_SECRET_ACCESS_KEY` from environment variables. It's recommended to use environment variables or a secure credentials store instead of hardcoding credentials in your code.
3. We create an S3 client using the `boto3.client` function and pass the AWS credentials.
4. We specify the S3 bucket name and the file name we want to download. [2]
5. We use the `download_file` method of the S3 client to download the file from the S3 bucket to the local file system.
6. We use `pd.read_csv` to read the downloaded file into a Pandas DataFrame.
7. Finally, we print the first few rows of the DataFrame using the `head()` method.

Make sure to replace `'your-bucket-name'` and `'your-file-name.csv'` with the actual bucket name and file name of your dataset in S3.

Note: This code assumes that you have the necessary permissions to access the S3 bucket and download the file. If you encounter any issues, please check your AWS credentials permissions.



# AI Powers IT Departments: To Be More Innovative



Contextually Evaluate & Generate Code

Analytics Generation

IT Tool Highlight

servicenow

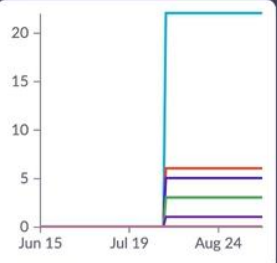
Create a Data Visualization

Certainly. What would you like to visualize? For better results, please review the [guidelines for analytics generation](#).

3 minutes ago

Show me the number of open incidents by assignment group

This is a line chart visualization from an analytics source named Number of open incidents, grouped by Assignment Group, showing the daily frequency. Data visualization created by Now Assist. Check it and edit for accuracy.

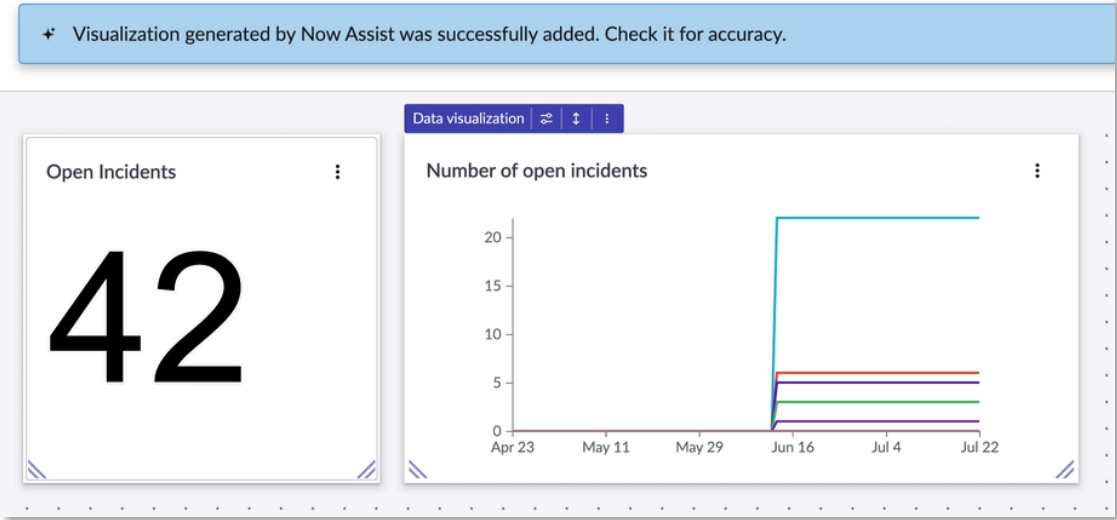


View details

Add to dashboard

Edit visualization

Ask Now Assist to...



Configuration

Visualization type

Vertical bar

Header and border

Data

Data sources

Number of open incidents

+ Add data source

Metric

DAILY Number of open incidents

Format values

Add

Group by

Assignment Group

Add alternative group by (0)

Sorting

Date range

Data update

No data message

Presentation

Display settings

Configuration

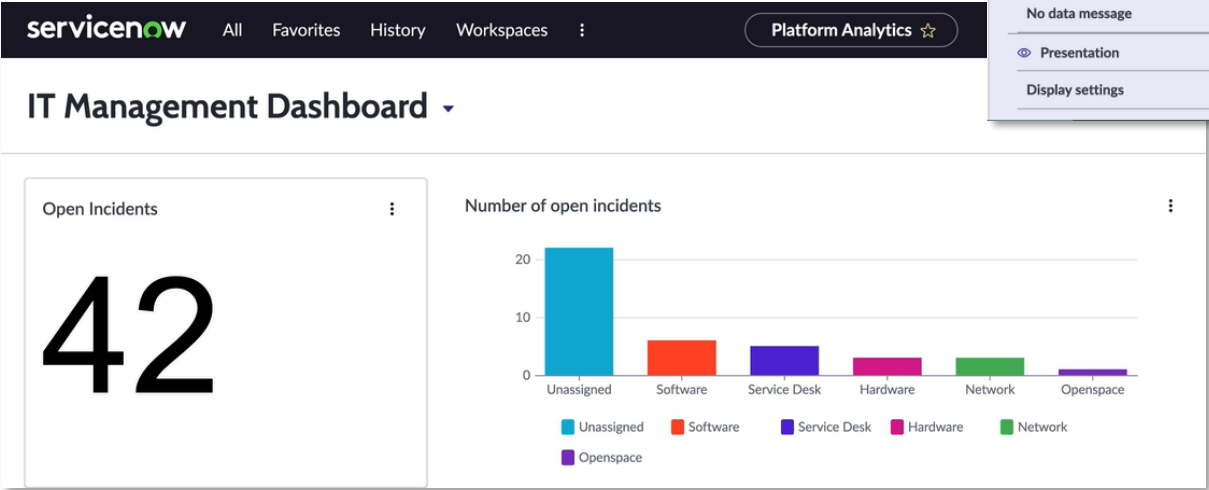
Visualization type

Line

bar

Horizontal bar

Vertical bar



# AI Powers IT Departments:

**01 To Be More Efficient**

**02 To Be More Secure**

**03 To be More Innovative**

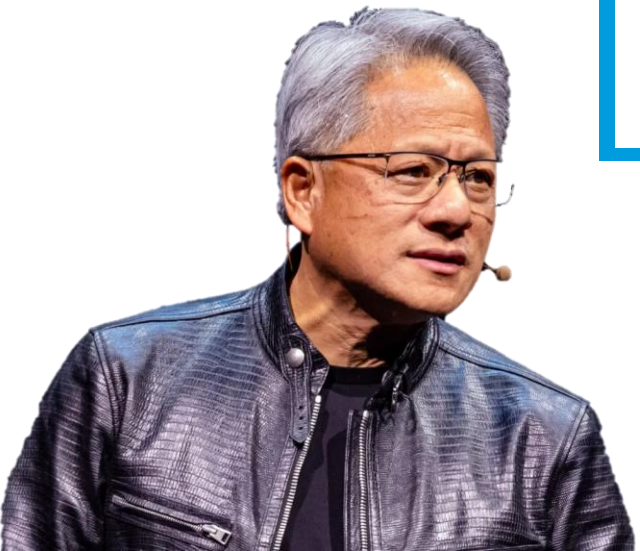


“

**IT departments will be  
the HR department of  
AI Agents**

**Jensen Huang, Nvidia CEO**

”





# Thanks, and *Gig 'Em, Aggies!*



**James A. Davis '04**  
*james.davis@rsmus.com*



THE POWER OF BEING UNDERSTOOD  
ASSURANCE | TAX | CONSULTING



RSM US LLP

[rsmus.com](https://rsmus.com)

This document contains general information, may be based on authorities that are subject to change, and is not a substitute for professional advice or services. This document does not constitute assurance, tax, consulting, business, financial, investment, legal or other professional advice, and you should consult a qualified professional advisor before taking any action based on the information herein. RSM US LLP, its affiliates and related entities are not responsible for any loss resulting from or relating to reliance on this document by any person. Internal Revenue Service rules require us to inform you that this communication may be deemed a solicitation to provide tax services. This communication is being sent to individuals who have subscribed to receive it or who we believe would have an interest in the topics discussed.

RSM US LLP is a limited liability partnership and the U.S. member firm of RSM International, a global network of independent assurance, tax and consulting firms. The member firms of RSM International collaborate to provide services to global clients, but are separate and distinct legal entities that cannot obligate each other. Each member firm is responsible only for its own acts and omissions, and not those of any other party. Visit [rsmus.com/aboutus](https://rsmus.com/aboutus) for more information regarding RSM US LLP and RSM International.

RSM®, the RSM logo and *the power of being understood* are registered trademarks of RSM International Association.

© 2025 RSM US LLP. All Rights Reserved.