

# Real-World AI Use Cases and Agentic AI: – From Planning to Production

📞 +46 76 125 91 54

✉️ [ashpatol@cisco.com](mailto:ashpatol@cisco.com)

📅 [Book Meeting](#)

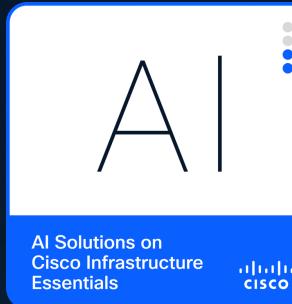
Albert Shpatollaj

AI & GTM Lead – EMEA North

AI Specialist team



*Albert  
Shpatollaj*



# Agenda

Why this session is valuable what are the top 13% doing with AI

Why Cisco?

AI Use cases + Internet of Agents

How we work to find and validate AI usecases

Results and ROI from AI workshops

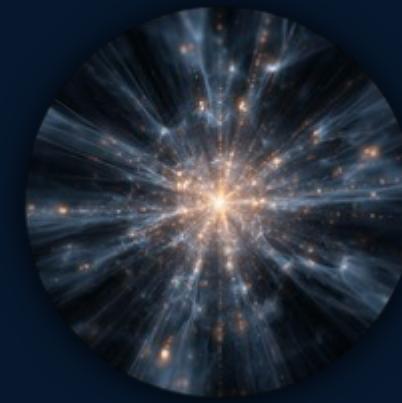
Next step

# Why is it so hard to get to fully agentic AI? And how we at Cisco solve it



## Chatbots

Humans talk to AI



## Agentic

Workflows get automated

Organizations face 3 challenges: **Security concerns, Complexity, Cost control.**



Compiled by MIT Technology Review Insights, based on data from Cisco, 2025



Evolving risks

Security risks across  
the AI lifecycle

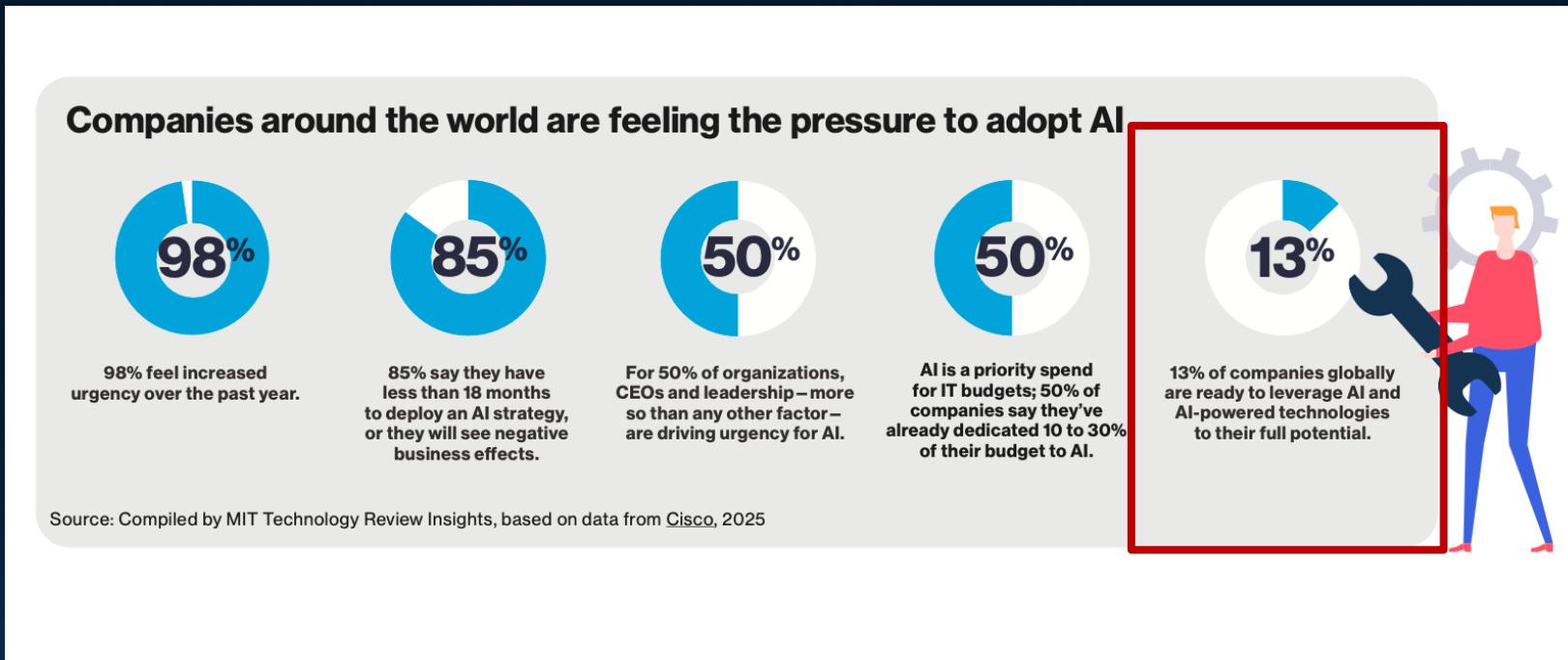


Integrations, How  
can we make  
different agents talk  
to each other?



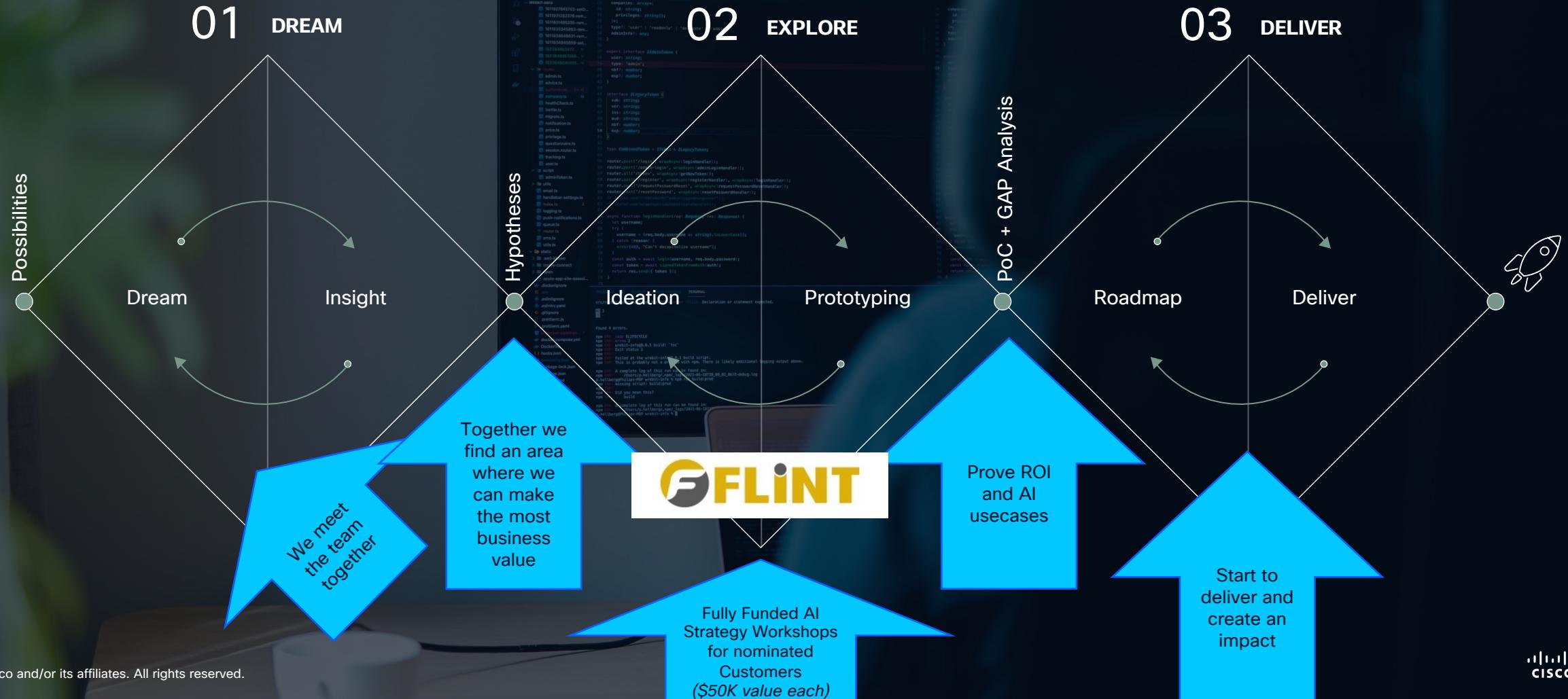
Cost control

Uncertain ROI to build  
AI-ready environments



Compiled by MIT Technology Review Insights, based on data from Cisco, 2025

# How we get to 13% Dream Explore Deliver



# Why Cisco?



50% faster code review process



Organizations face 3 challenges: complexity, fragmentation, and security concerns.



Compiled by MIT Technology Review Insights, based on data from Cisco, 2025

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Evolving risks

Security risks across the AI lifecycle



Integrations, How can we make different agents talk to each other?



Cost control

Uncertain ROI to build AI-ready environments

# How can you trust AI agents?

AI AGENTS



AI APPS



AI at the Edge

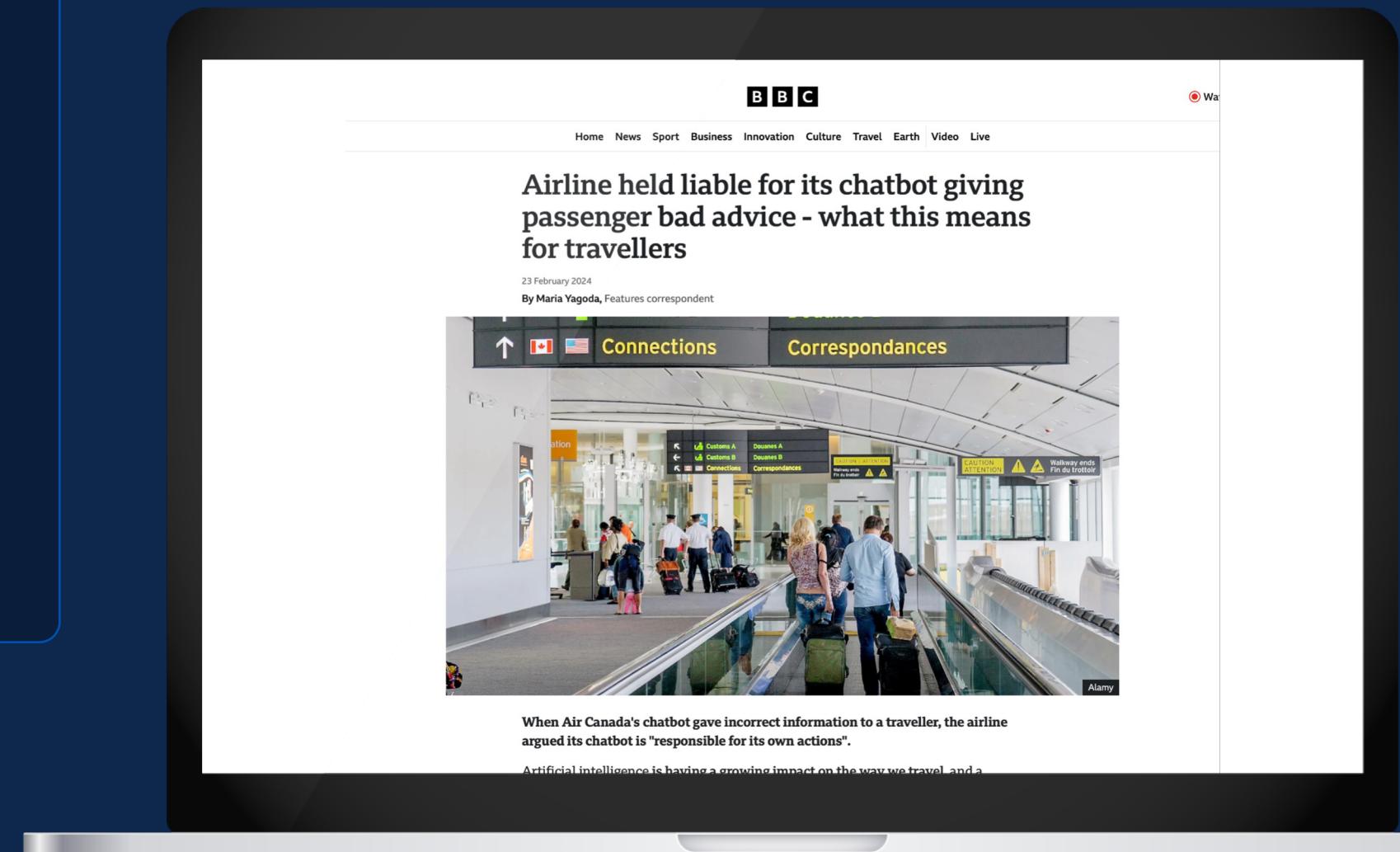


HUMANOIDS



# Major consequences of unmanaged AI Agents risk

- ⚠ Financial damage
- ⚠ Litigation risk
- ⚠ Reputational damage
- ⚠ Compliance risk
- ⚠ Security risk
- ⚠ IP leakage



**BBC**

Home News Sport Business Innovation Culture Travel Earth Video Live

## Airline held liable for its chatbot giving passenger bad advice - what this means for travellers

23 February 2024

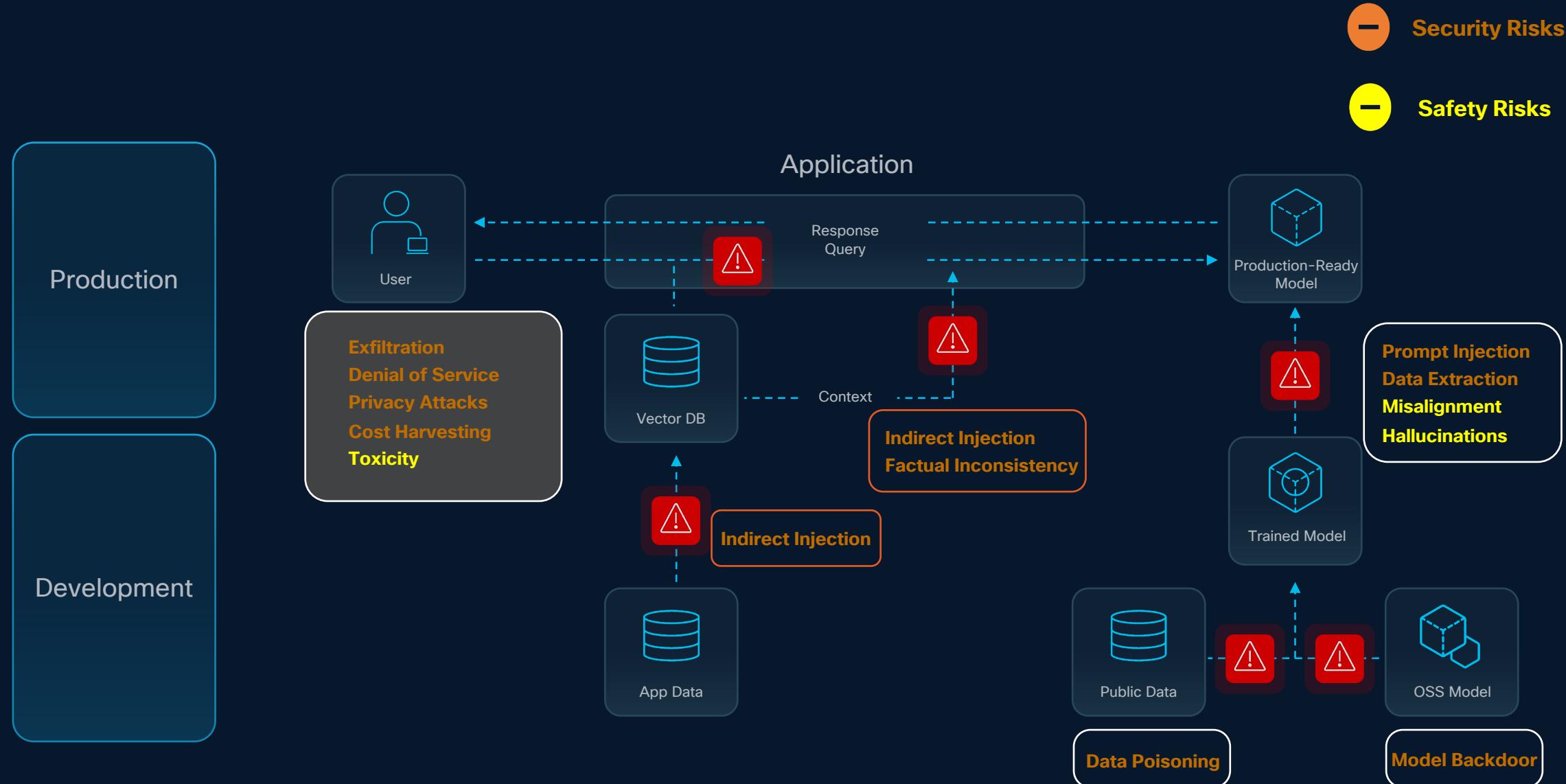
By Maria Yagoda, Features correspondent



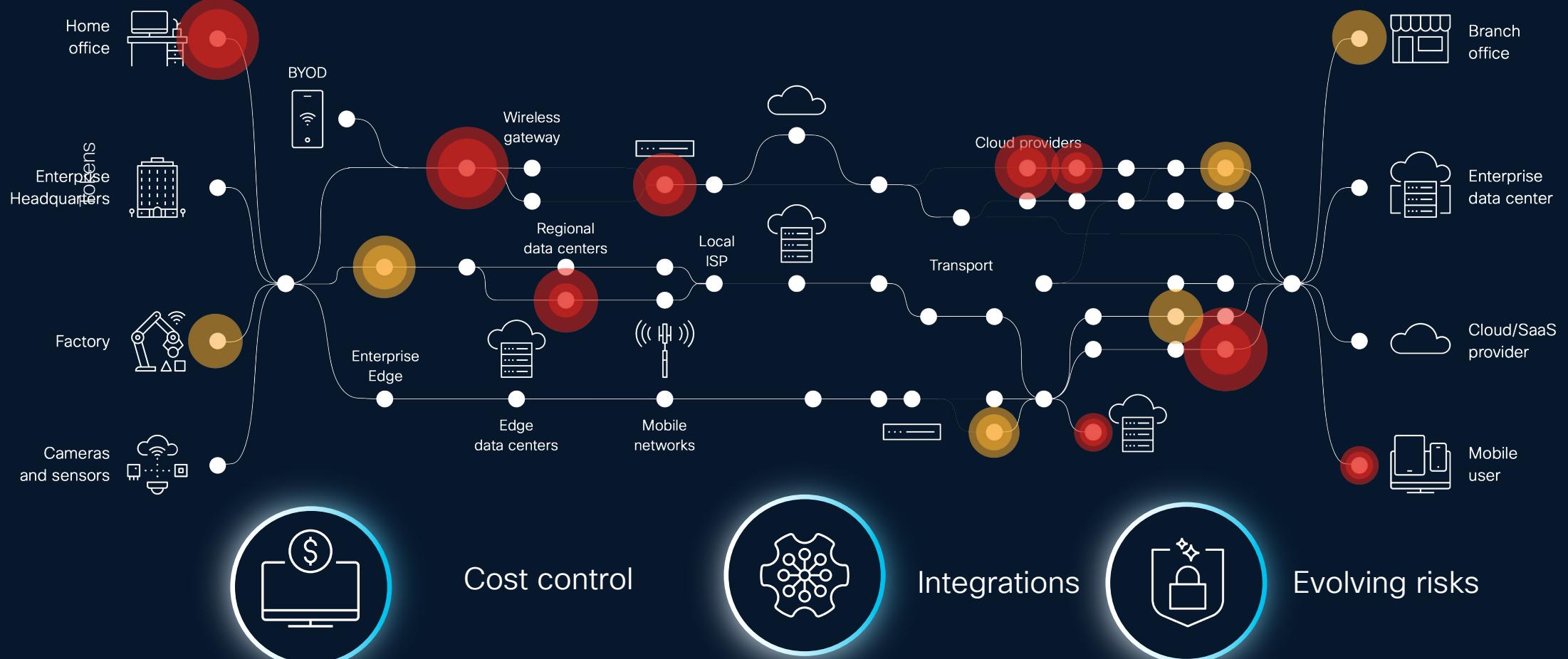
When Air Canada's chatbot gave incorrect information to a traveller, the airline argued its chatbot is "responsible for its own actions".

Artificial intelligence is having a growing impact on the way we travel, and a

# How are enterprises using AI applications?

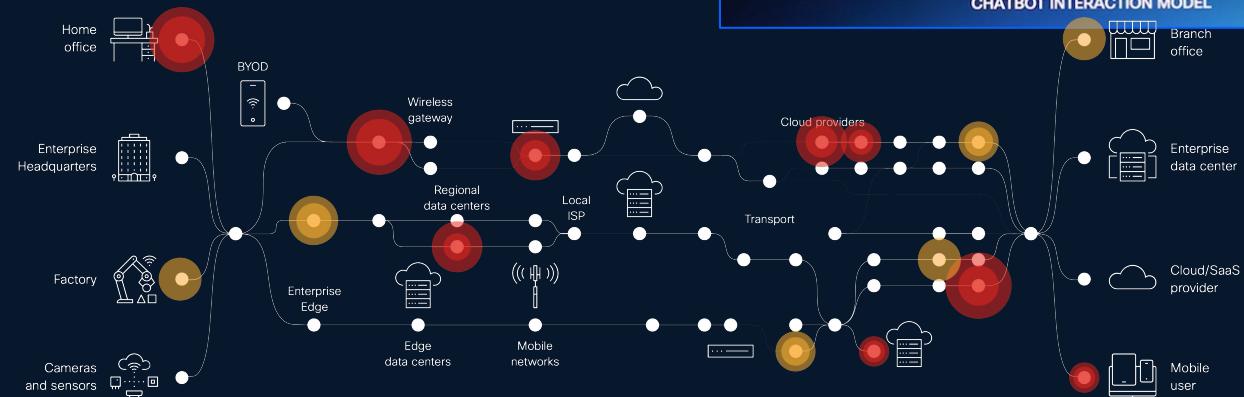
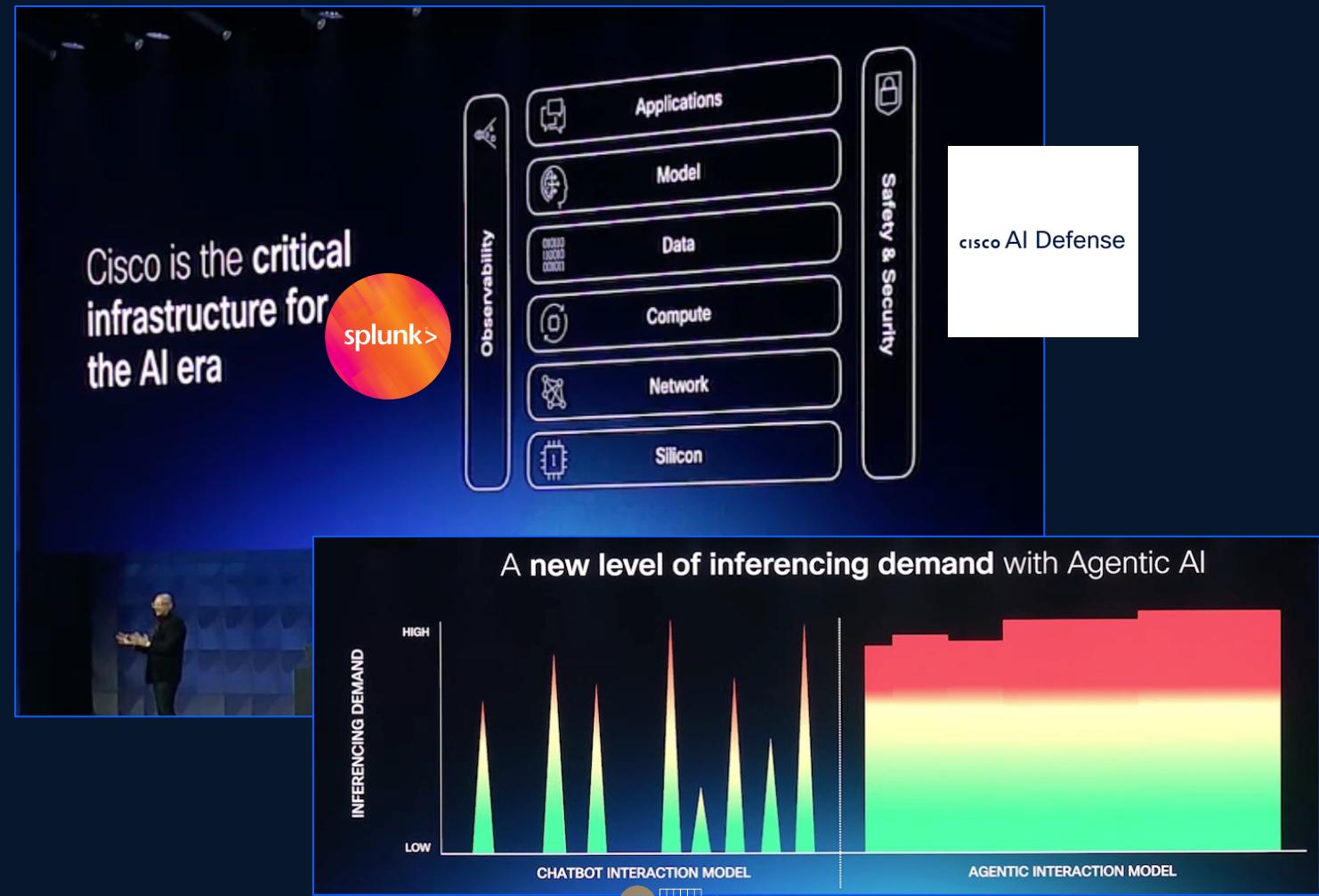


# Why AI projects don't scale: Complexity creates risk How can we unleash fully automated agents and trust them?



“Cisco is the only company in the world who can fully secure AI itself, thanks to the global network we built for 40 years.”

-Jeetu Patel CPO Cisco



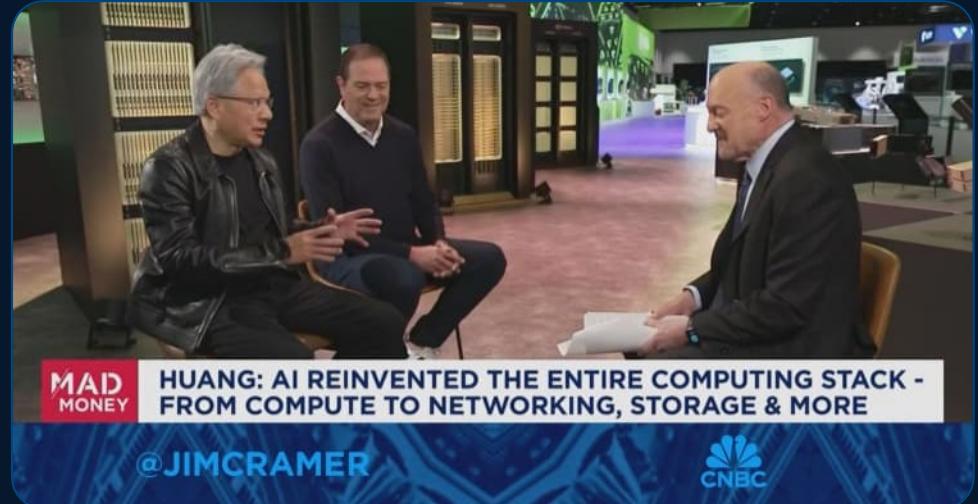


Ecosystem  
Partners

“

This is why we are  
partnering up with Nvidia to  
secure AI end-to end

– Chuck Robbins CEO Cisco



“

You can't partner with a  
company with more might  
and more domain expertise.

– Jensen Huang CEO Nvidia

# We can secure AI itself by Monitoring the AI agents in real time, thanks to the network

The screenshot displays the Security Cloud Control dashboard for the 'Acme Corp' organization. The main interface is divided into several sections: an 'Overview' section with a central circular chart showing 89K Events (37K Blocked, 52K Monitored), and five sub-sections for Applications, Data, Models, User Access, and Agents. The 'Dashboard' icon in the left sidebar is currently selected. The top right corner shows the user 'Admin Acme Corp' and a search bar.

**Overview**

- Applications (32)**  
PROTECTION: 4 None, 12 Partial, 16 Full
- Data (34)**  
PROTECTION: 4 None, 12 Partly, 18 Full
- Models (534)**  
VALIDATION: 230 Unvalidated, 304 Validated
- User Access (168 apps)**  
USE CASES: Video, Image, Code, Conversational
- Agents (476)**  
PROTECTION: 300 Unprotected, 146 Protected

**Recommended Actions**

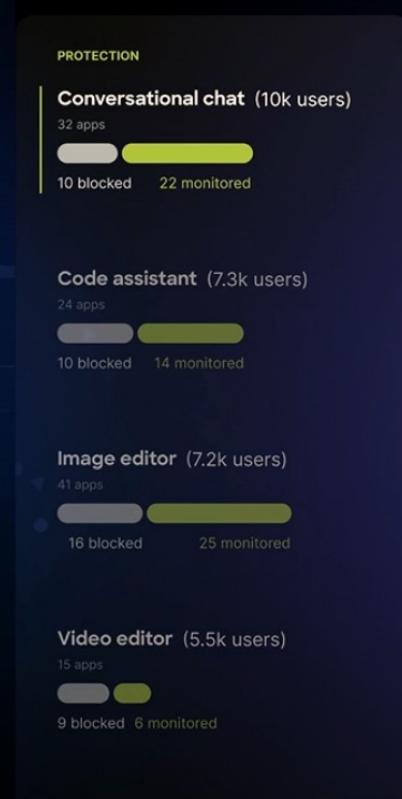
- Protect applications (16)**  
Secures sensitive data, prevents unauthorized access, and protects proprietary algorithms from theft or misuse.  
[View →](#)
- Review increased app usage** 3 days ago  
Review sudden spikes in blocked events to avoid security risks.
- ExternalChatBot Application**  
45MB +7%  

1 week ago

[View →](#)
- Review third party apps (168)** 3 days ago  
Safeguards user privacy, prevents data breaches, and ensures compliance with security and regulatory standards.  
[View →](#)

Updated 2 min ago

# Using AI apps



Conversational chat			Sort by: date, cloud ac...	Filters 32 results
	<b>Chat GPT</b>	34 identities	High-risk	→
	<b>DALL-E</b>	34 identities	High-risk	→
	<b>Copilot</b>	34 identities	High-risk	→
	<b>Jasper</b>	34 identities	High-risk	→
	<b>Perplexity AI</b>	34 identities	High-risk	→
	<b>Claude</b>	34 identities	High-risk	→
	<b>Poe</b>	34 identities	High-risk	→

Visibility into  
3rd party AI apps

Enforce policies  
to ensure compliance

Works seamlessly with  
Cisco Secure Access

# Model security is inconsistent



Model A



Model B



Model C



Model D

Built-in guardrails are **different** for each model, optimized for **performance over security**, and **easily broken** when changing the model.

# Model security is inconsistent

## Enterprise Guardrails



Enterprise guardrails provide a **common layer of security** across models, allowing AI teams to focus fully on development.

# Awarded no1 Cisco Secure Air gapped AI Factory

Accelerate AI adoption with integrated AI infrastructure and software

Secure AI

Security First AI

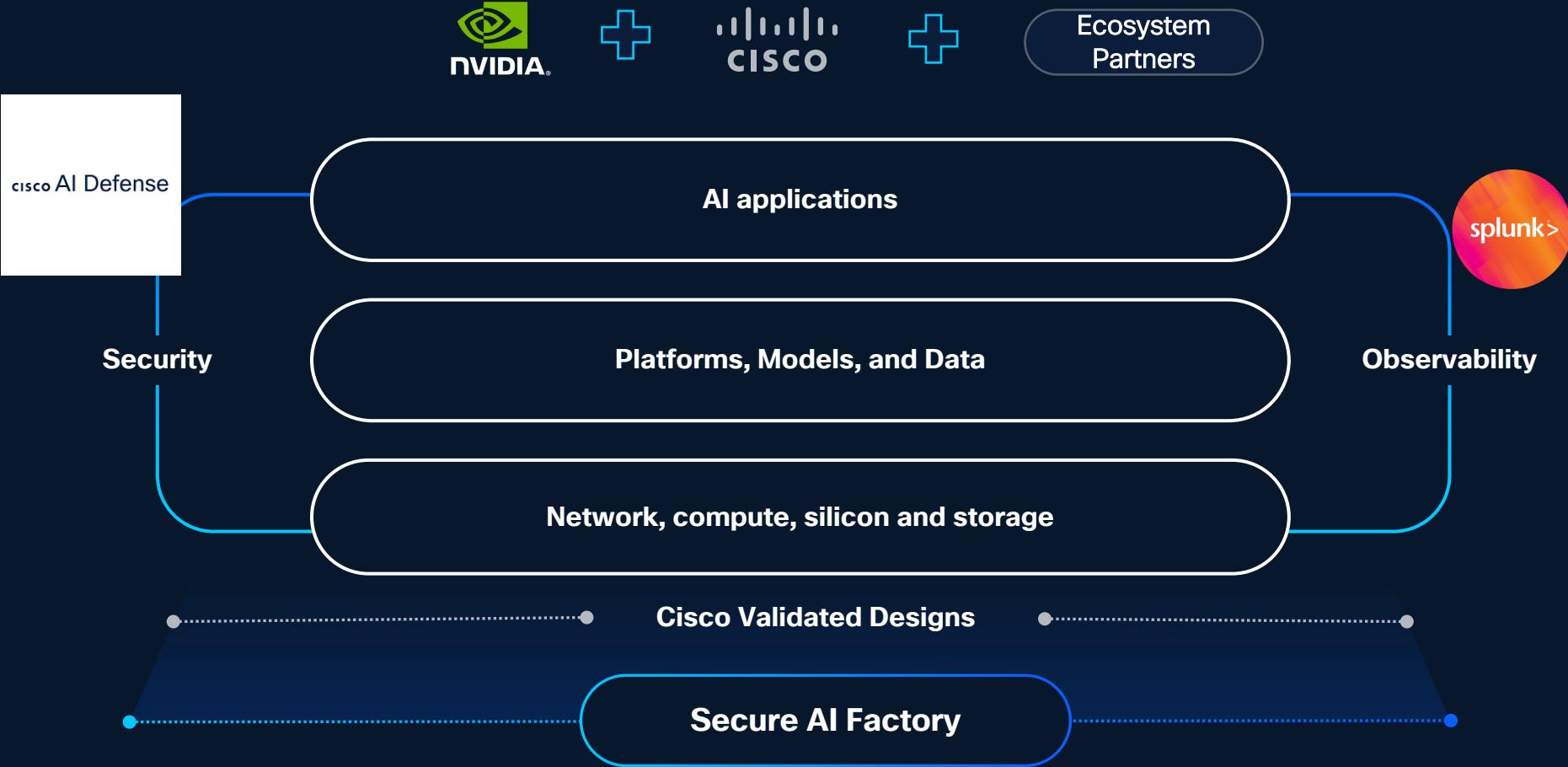
Embedded security at every layer ensures the models you build, or use are compliant and protected

High Performance

High performance networking, compute, storage and security delivered as vertically integrated or modular stacks

Pre-validated

Reduce risk and accelerate deployment with certified Nvidia Enterprise reference architecture (ERA) and Cisco validated designs (CVD)



< Government & Private Sector />

# Best Cybersecurity Team 2025

CISCO





# Sovereign Critical Infrastructure designed for Europe

Comprehensive  
hardware and software

Customizable  
infrastructure

Compliance-  
ready

On-premises  
operation



What are customers  
building now when they  
can trust AI itself?

# Cisco strongest AI Use Cases

## Manufacturing & Telco

Asset Visibility & Control

Digital Twin

Inventory Management

Industrial Automation

## Government & Military

Citizen Experience

Transportation

Public Safety

Security Resilience

## Education

Personalized Experiences

Hybrid Teaching

Research Computing

Smart & Secure Facilities

## Financial Services & Government

Fraud Detection

Anti-Money Laundering

Digital Experience Assurance

Digital Journey

## Healthcare

Image Analysis

AI Ready Infrastructure

Patient Monitoring

Patient Engagement

## Retail

Loss & Fraud Detection

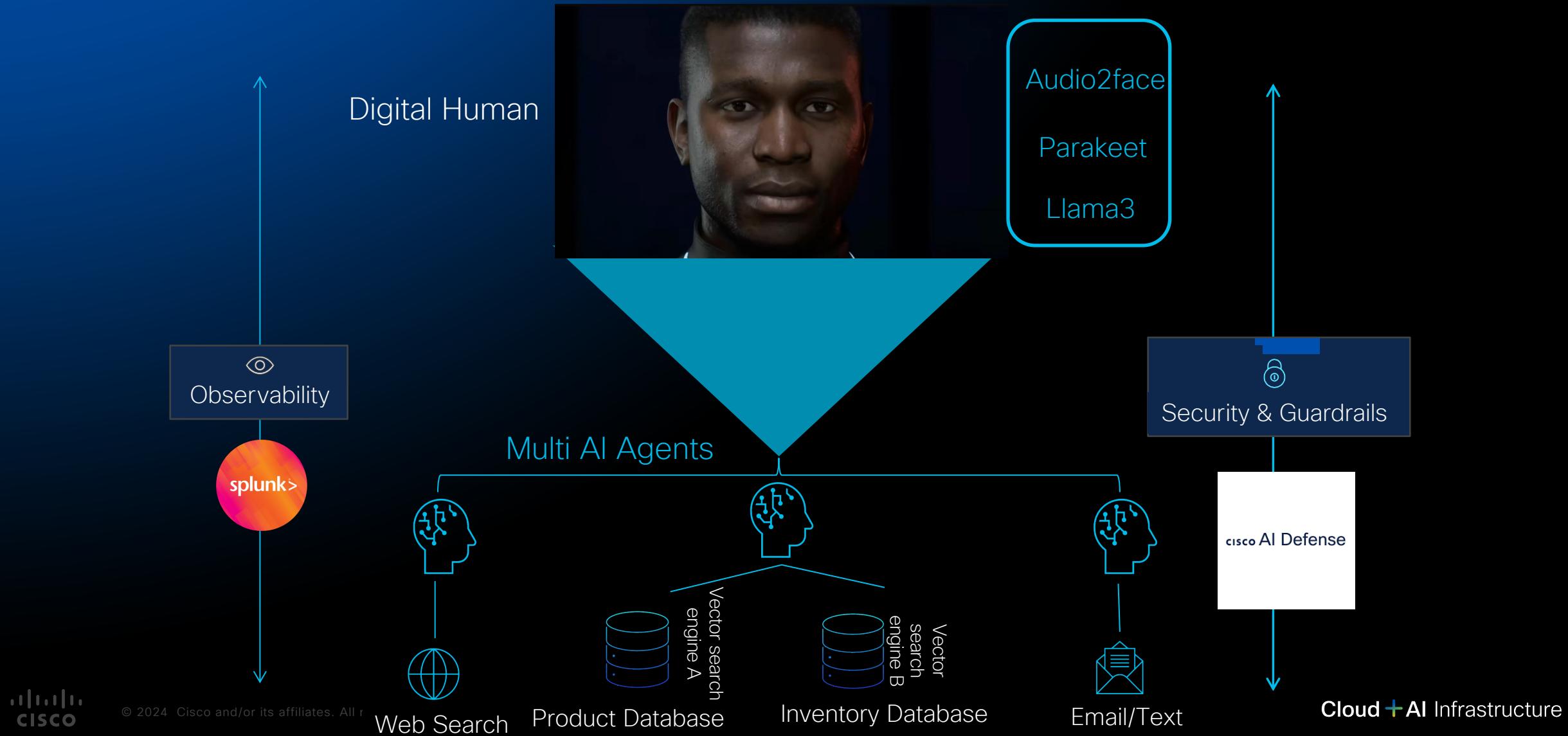
Safety & Surveillance

Digital Merchandising

Drive-thru Optimization



# Example Agentic + Digital Human Use Case



# Example Multi Agent Use Case

**Meet James**, our interactive digital human when powered by the NVIDIA Product knowledge base, understands NVIDIA product context. James uses a collection of NVIDIA NIM inference microservices, NVIDIA ACE, and ElevenLabs digital human technologies to provide natural and immersive responses



## Nvidia Digital Human

<https://build.nvidia.com/nvidia/digital-humans-for-customer-service>

### AI Infrastructure

#### NVIDIA NIM



#### audi2face

Converts streamed audio to facial blend shapes for real-Talke lip-syncing and facial performance



#### Parakeet-1.1b-asr

Record-setting accuracy and performance for English transcription



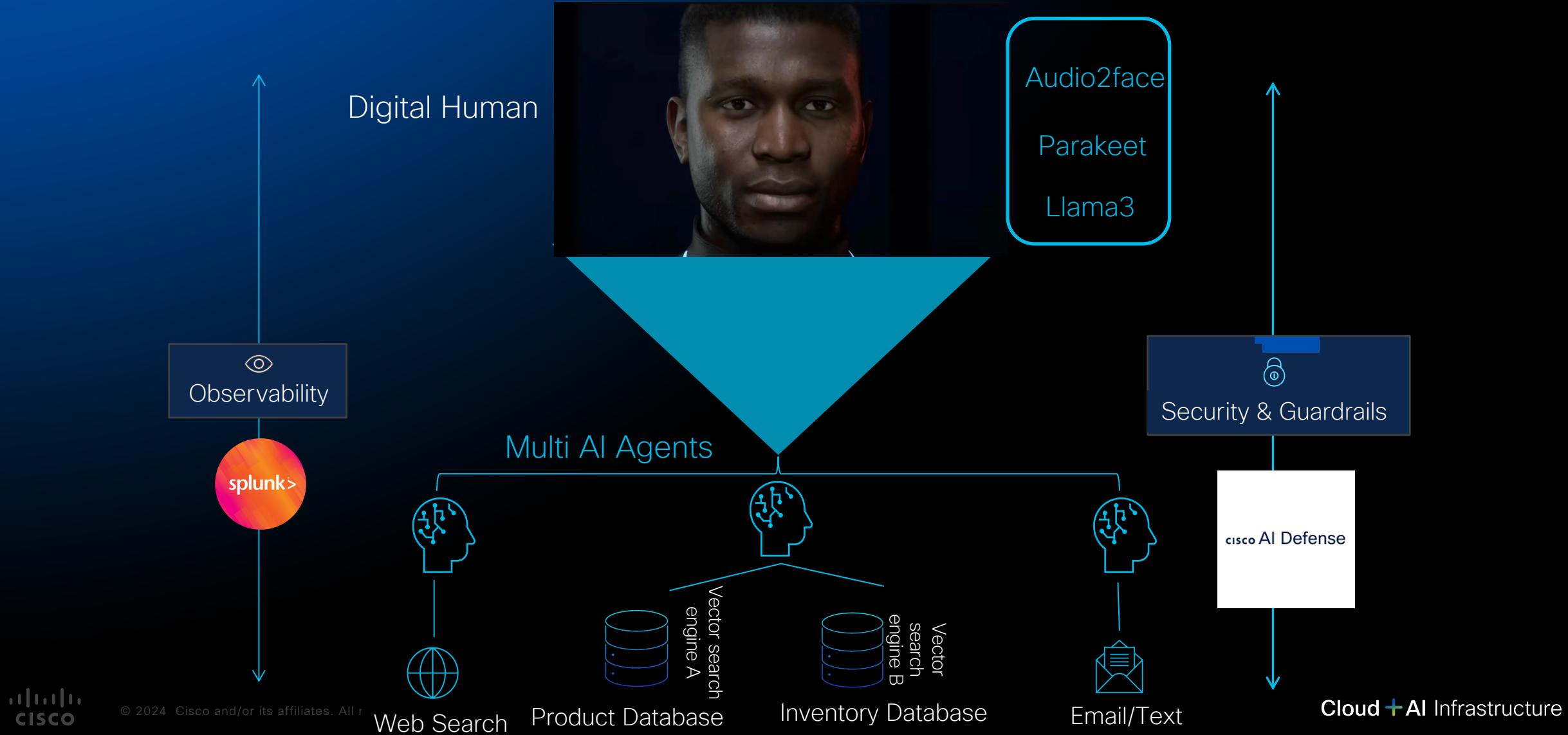
#### Llama3-8b-instruct

Advanced state of the art LLM with superior reasoning and text generation



NETWORK | COMPUTE | STORAGE | KUBERNETES | NVIDIA

# Example Agentic + Digital Human Use Case



# We can secure AI itself by Monitoring the AI agents in real time, thanks to the network

The screenshot displays the Security Cloud Control dashboard for the 'Acme Corp' organization. The main interface is divided into several sections: an 'Overview' section with a central circular chart showing 89K Events (37K Blocked, 52K Monitored), and five sub-sections for Applications, Data, Models, User Access, and Agents. The 'Dashboard' icon in the sidebar is currently selected. The 'Recommended Actions' sidebar on the right lists three items: 'Protect applications (16)', 'Review increased app usage', and 'Review third party apps (168)'. The 'Updated 2 min ago' timestamp is visible at the bottom right.

Security Cloud Control

Search Admin Acme Corp

Overview

**Applications (32)**  
PROTECTION  
4 None 12 Partial 16 Full

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**89K Events**  
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Recommended Actions

**Protect applications (16)**  
Secures sensitive data, prevents unauthorized access, and protects proprietary algorithms from theft or misuse.  
Hide View →

**Review increased app usage** 3 days ago  
Review sudden spikes in blocked events to avoid security risks.

**ExternalChatBot Application**  
45MB +7%  
1 week ago  
Hide View →

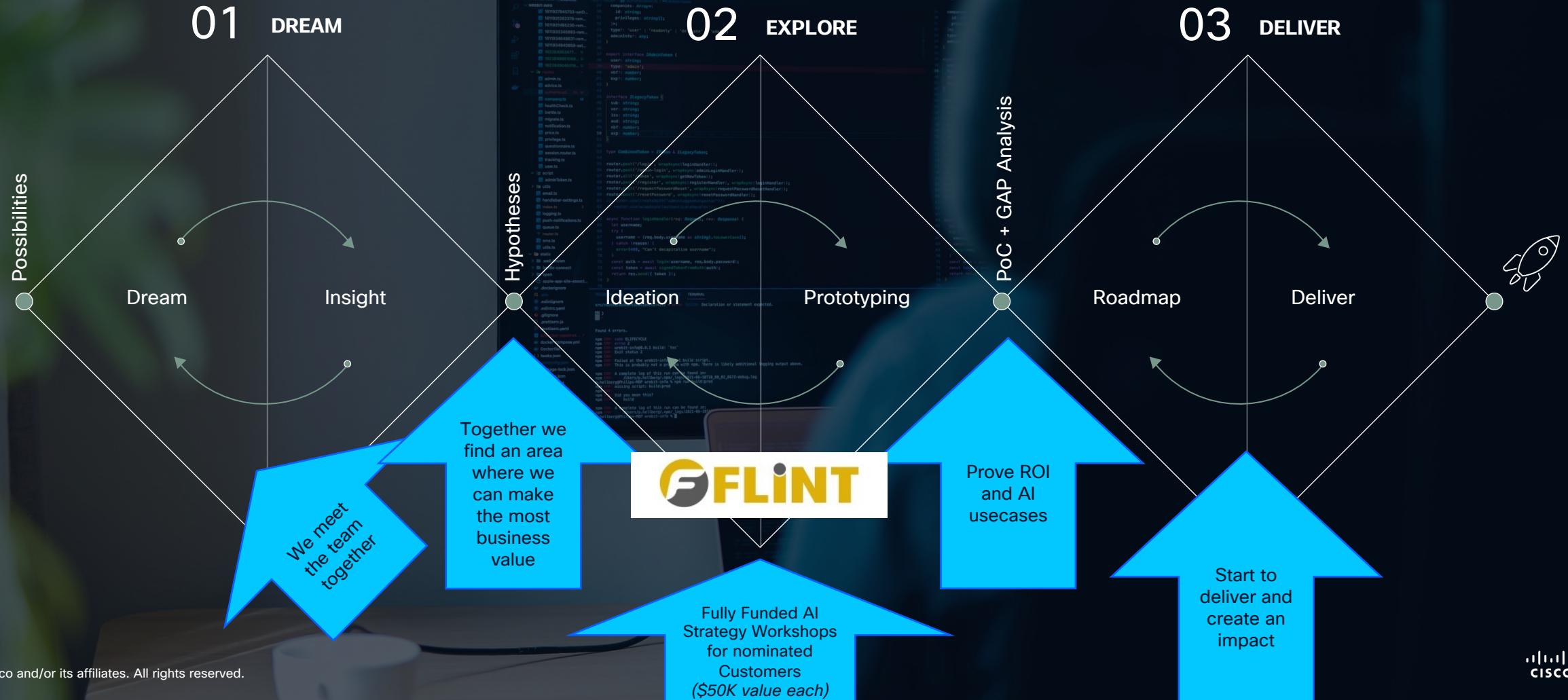
**Review third party apps (168)** 3 days ago  
Safeguards user privacy, prevents data breaches, and ensures compliance with security and regulatory standards.  
Hide View →

Updated 2 min ago

CISC

# Recap

# Dream Explore Deliver



# How does the pre workshop assessment work? It takes 20-30 min to complete

**Step 1** **Step 2** **Step 3** **Step 4** **Step 5**

## Identify a High-Value Use Case

Tell us about the use case you believe has the greatest potential for AI and ML impact.

*Provide as much detail as possible—perfection isn't necessary. This helps our AI generate more valuable insights for you.*

If the company gave you approval to invest in **one use case** that would really benefit from AI (Artificial Intelligence) and ML (Machine Learning) tech to create value, what would you choose? Please explain what it's about and why you choose it.

Type your answer here... 0/600

Choose the PRIMARY **business function/group** you work in:

<input type="radio"/> Sales	<input type="radio"/> Compliance
<input type="radio"/> Customer service	<input type="radio"/> Operations
<input type="radio"/> Product	<input type="radio"/> Marketing

**Step 1** **Step 2** **Step 3** **Step 4** **Step 5**

## Evaluate the Value

Outline the financial and business value of your chosen use case to understand its potential ROI.

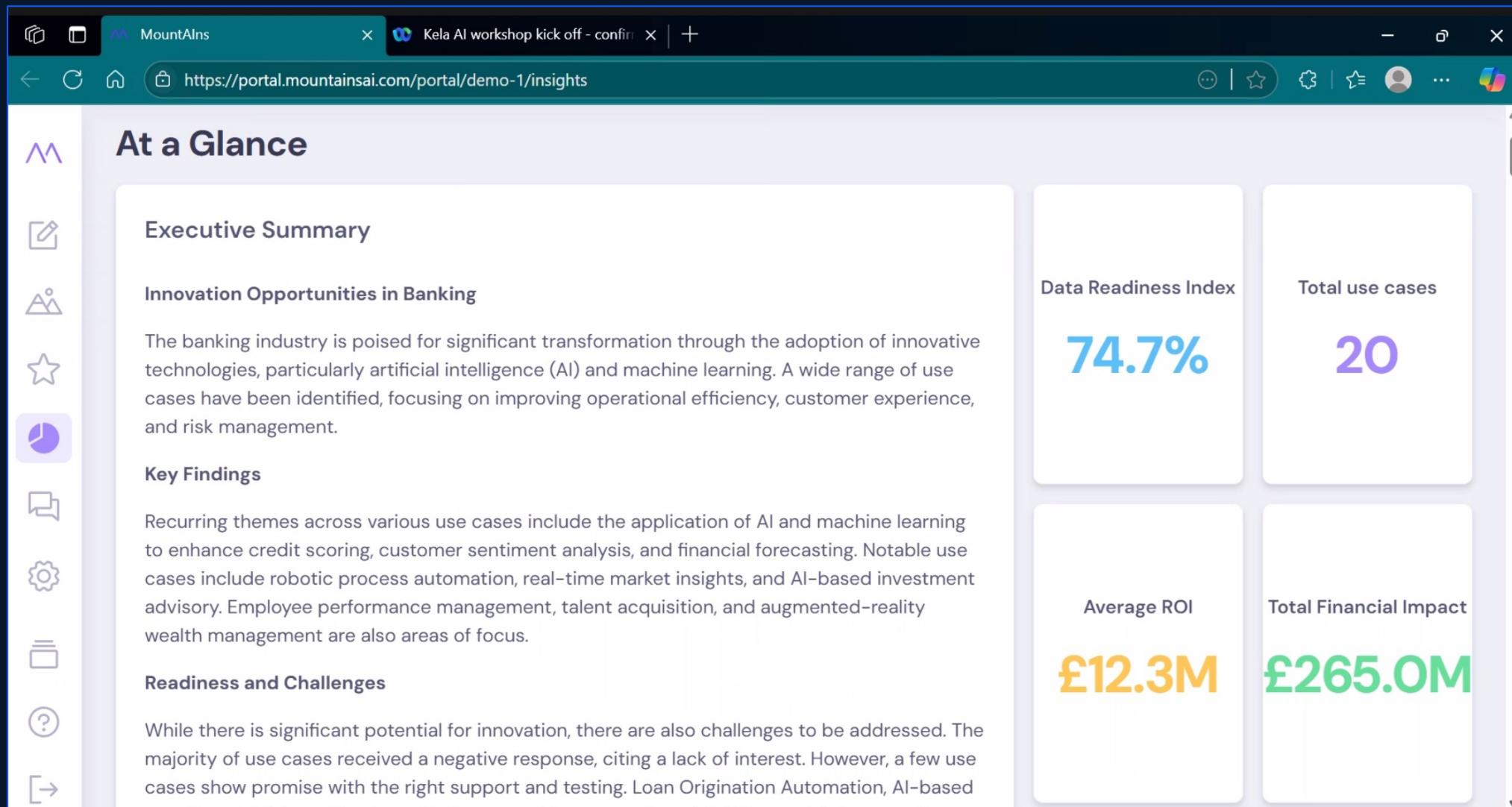
What is the main **financial benefit**?

<input type="radio"/> Cost savings	<input type="radio"/> Revenue increase
<input type="radio"/> Market share increase	<input type="radio"/> Sales increase
<input type="radio"/> Improved pricing strategy	<input type="radio"/> Other

What is the **organisational benefit**?

<input type="radio"/> Time saver on manual reports
<input type="radio"/> More time for actions on insights

# Results of the first AI assessment (This is being used as the foundation for the upcoming Workshop)



The screenshot shows a web browser window with the title 'MountAIns' and the tab 'Kela AI workshop kick off - confir'. The URL is <https://portal.mountainsai.com/portal/demo-1/insights>. The page is titled 'At a Glance' and includes a sidebar with icons for various sections: Executive Summary, Innovation Opportunities in Banking, Key Findings, Readiness and Challenges, Data Readiness Index, Total use cases, Average ROI, and Total Financial Impact. The 'Innovation Opportunities in Banking' section contains text about AI and machine learning in banking, mentioning operational efficiency, customer experience, and risk management. The 'Key Findings' section discusses recurring themes like AI in credit scoring, customer sentiment analysis, and financial forecasting. The 'Readiness and Challenges' section notes challenges related to lack of interest and negative responses. The 'Data Readiness Index' is 74.7%, 'Total use cases' is 20, 'Average ROI' is £12.3M, and 'Total Financial Impact' is £265.0M.

**At a Glance**

**Executive Summary**

**Innovation Opportunities in Banking**

The banking industry is poised for significant transformation through the adoption of innovative technologies, particularly artificial intelligence (AI) and machine learning. A wide range of use cases have been identified, focusing on improving operational efficiency, customer experience, and risk management.

**Key Findings**

Recurring themes across various use cases include the application of AI and machine learning to enhance credit scoring, customer sentiment analysis, and financial forecasting. Notable use cases include robotic process automation, real-time market insights, and AI-based investment advisory. Employee performance management, talent acquisition, and augmented-reality wealth management are also areas of focus.

**Readiness and Challenges**

While there is significant potential for innovation, there are also challenges to be addressed. The majority of use cases received a negative response, citing a lack of interest. However, a few use cases show promise with the right support and testing. Loan Origination Automation, AI-based

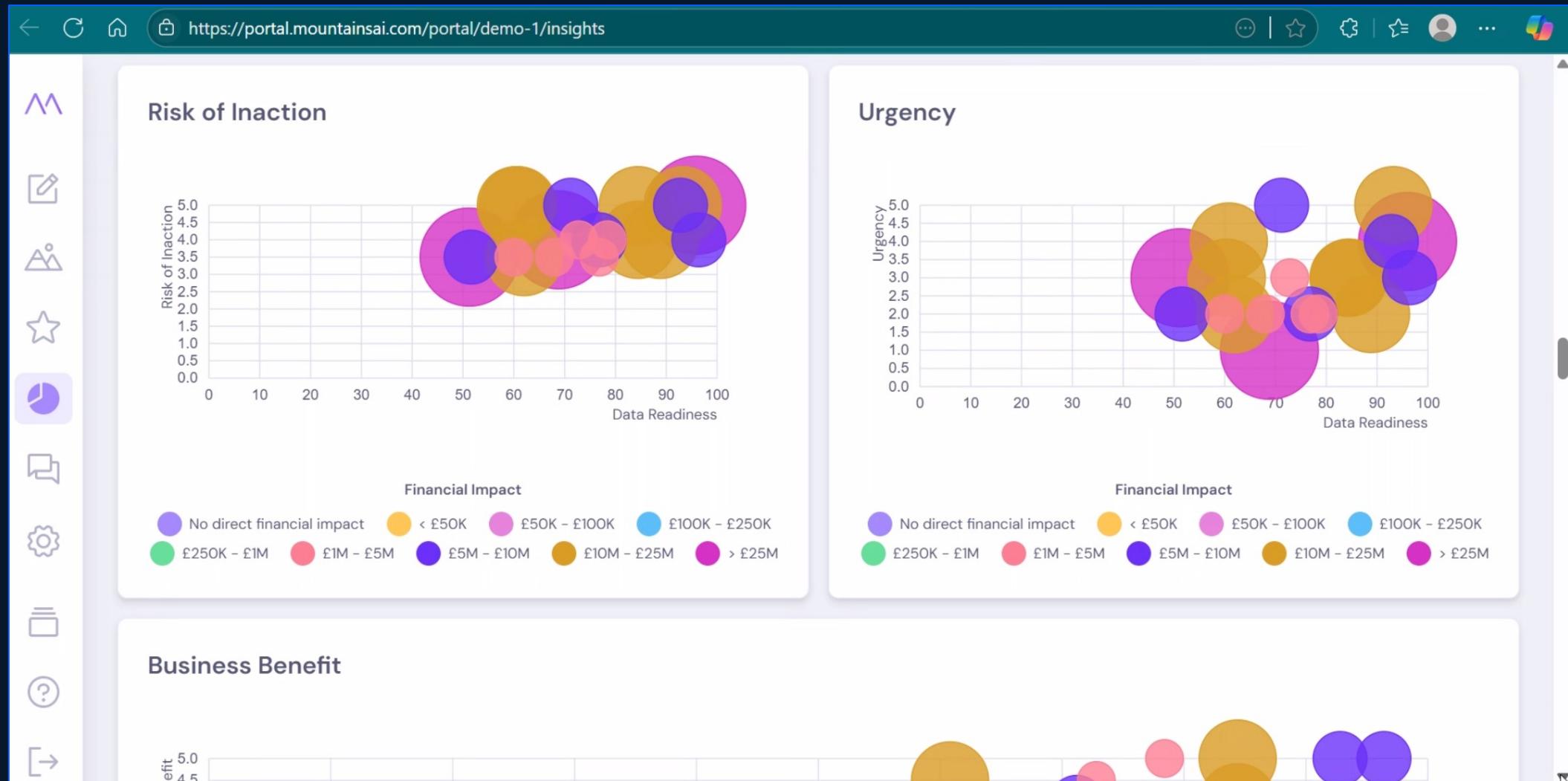
**Data Readiness Index**  
**74.7%**

**Total use cases**  
**20**

**Average ROI**  
**£12.3M**

**Total Financial Impact**  
**£265.0M**

# Results of the first AI assessment (This is being used as the foundation for the upcoming Workshop)



# Results of the first AI assessment (This is being used as the foundation for the upcoming Workshop)

## Data Readiness

### Summary of Data Readiness

Here is a summary of the use cases focusing on data readiness and ethical concerns: The use cases highlight various applications of AI in the banking sector, with a strong focus on leveraging technology to improve operational efficiency, customer experience, and risk management. However, there are concerns around data readiness, with a wide range of potential financial impacts across various use cases. Some use cases, such as loan origination automation and AI-based investment advisory, show promise but require further testing and support. The use cases with the most significant gaps in data readiness include those related to employee performance management and AI-enhanced cybersecurity, which require executive sponsorship and strategic initiative. The primary risks associated with not acting on the identified use cases include missing opportunities to improve operational efficiency, customer experience, and risk management, which could lead to competitive disadvantage and reputational damage. On the other hand, taking action on these use cases could lead to improved financial outcomes, enhanced customer satisfaction, and reduced operational costs.

### Data Attribute Ratings

Attribute	Rating Range
Data Availability	£1M - £5M
Data Quality	£10M - £25M
Platform Grade	> £25M
Use of Access	£5M - £10M

# Example on the identified AI Use cases

## Top Use Cases

The following summary highlights the top five use cases, ranked by our Net Prioritization Score. A full list of all use cases and their respective scores is available for download.

### 1. AI-driven Drug Discovery

The implementation of AI-driven drug discovery can significantly reduce the time and costs associated with discovering new drug candidates. By analyzing large datasets of molecular and clinical information, AI can predict efficacy and toxicity early in the process, leading to faster development timelines, reduced R&D costs, and higher probabilities of clinical trial success. This can result in cost savings of up to £30 million annually and revenue generation of £150 million over 5 years.

Financial impact: > £25M

Total cost of ownership: > £1M

ROI: £28.75M

Data Readiness Index: 74.8%

Use Case Rating		NPS (Net Prioritization Score) over 100
#	Use Case Name	
1.	AI-driven Drug Discovery	93.7
2.	Personalised Medicine Development	90.9
3.	Sales Lead Conversion	88.7
4.	Epidemiology Forecasting	84.6
5.	Smart Inventory Management	82.8
6.	Clinical Trials	82.1
7.	Fraud Detection	72.8
8.	Talent Acquisition	72.8
9.	Financial Forecasting	72.1
10.	Personalised Marketing	71
11.	Automated Patient Support	69.8
12.	Clinical Trial Recruitment	68.8
13.	Tax Compliance Automation	67.7
14.	Adverse Event Detection	66.8
15.	Employee onboarding revolution	66.3
16.	AI-enhanced Biomarker Discovery	61.6

# Your team vote for what AI project to focus on. And we sponsor a workshop on site to deep dive



## Kinderspital Frame Workshop - proposed approach and agenda

Delivering a high-impact, half-day AI use case workshop requires a structured approach that aligns AI opportunities with Kinderspital's business objectives, technical landscape, and organisational readiness. The goal is to collaboratively develop a single, high-value AI use case and produce two key outputs following the workshop:

1. A detailed technical design for the selected AI use case.
2. A comprehensive Return on Investment (ROI) and Total Cost of Ownership (TCO) analysis for its deployment.

### Kinderspital Recommended Workshop Agenda

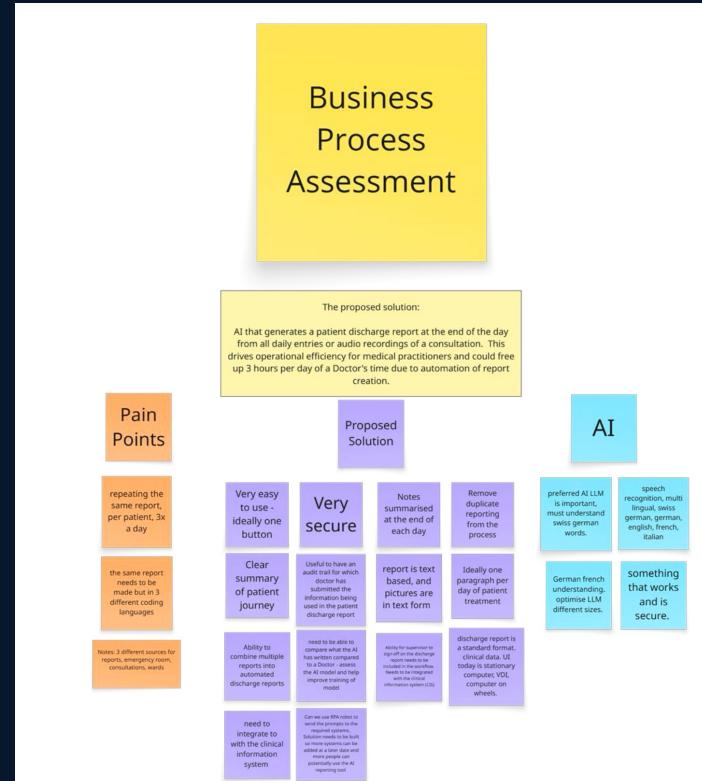
During the workshop, for certain activities, the participants will join either the Blue Group or Green Group to consider different elements of the chosen AI use case. The agendas for both groups are summarised below:

#### Blue Group – Medical Practitioners

Time	Module
13:00 - 13:15	Introduction and Objectives
13:15 - 14:00	Use Case Introduction and Business Process Assessment
14:00 - 14:30	Stakeholder Analysis
14:30 - 14:45	Break
14:45 - 15:30	People and Change Management Considerations
15:30 - 16:00	Blue and Green Team Summary Presentations
16:00 - 16:45	AI Use Case Definition and ROI/TCO Analysis
16:45 - 17:00	Wrap-up and Next Steps

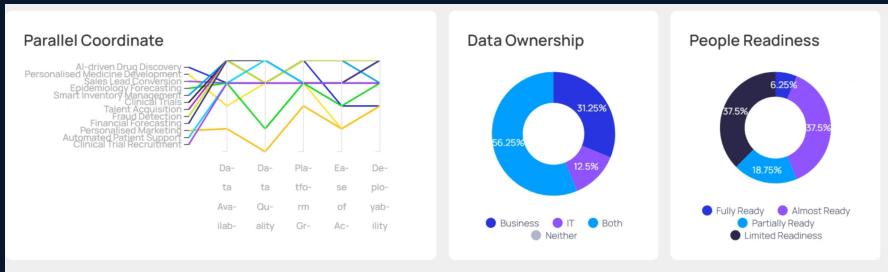
#### Green Group – Technical Team

Time	Module
13:00 - 13:15	Introduction and Objectives
13:15 - 14:00	Use Case Introduction and Business Process Assessment
14:00 - 14:30	Technical and Infrastructure Review
14:30 - 14:45	Break
14:45 - 15:30	Technical and Infrastructure Review – part 2
15:30 - 16:00	Blue and Green Team Summary Presentations
16:00 - 16:45	AI Use Case Definition and ROI/TCO Analysis
16:45 - 17:00	Wrap-up and Next Steps



Use Case Rating		NPS (Net Prioritization Score) over 100
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# We address risk and pitfalls and how to avoid them



https://portal.mountainsai.com/portal/demo-1/insights-v2

## Use Case Rating

#	Use Case Rating	Financial Impact
1	Customer Service Chatbots	£500K - £1M
2	AI Enhanced Cybersecurity	> £1M
3	Regulatory Compliance Monitoring	£100K - £500K
4	Robotic Process Automation	£50K - £100K
5	Financial Forecasting & Planning	£100K - £500K

### Impact / Effort Matrix

Business Impact

Something went wrong! We can't retrieve the data right now.

### Data Ownership

Category	Percentage
Business	31.25%
IT	31.25%
Both	37.5%

Both: Shared responsibility; more work can be done by both.  
IT: More work is required on the ETL and Data Quality processes.  
The business: They can fix issues at the source. IT has already applied significant labor and technology resources to address these issues.  
Neither: The data quality issues are largely outside of business or IT control.

### People Readiness

Category	Percentage
Almost Ready	50%
Partially Ready	35%
Limited Readiness	15%

Use case #1  
**Customer Service Chatbots**

The implementation of AI-powered chatbots in customer service is expected to bring significant financial benefits, including potential savings of \$5M-\$10M annually, and a return on investment (ROI) through reduced operational costs and improved customer satisfaction. The chatbots will handle a wide range of customer inquiries, reducing the need for human intervention, and provide 24/7 service, improving customer satisfaction and lowering the cost per interaction. This will also enable faster resolution of customer inquiries and increase the percentage of calls handled by bots.

Financial impact: £5M - £10M  
Total cost of ownership: £100 - £500K  
Return on Investment: £7.20M  
Data Readiness Index: 96.4%

AI chatbots provide 24/7 service, improving customer satisfaction and lowering the cost per interaction.

# The report will also address common AI Pitfalls

**Skills & Talent Gap**

**People & Process requirements**

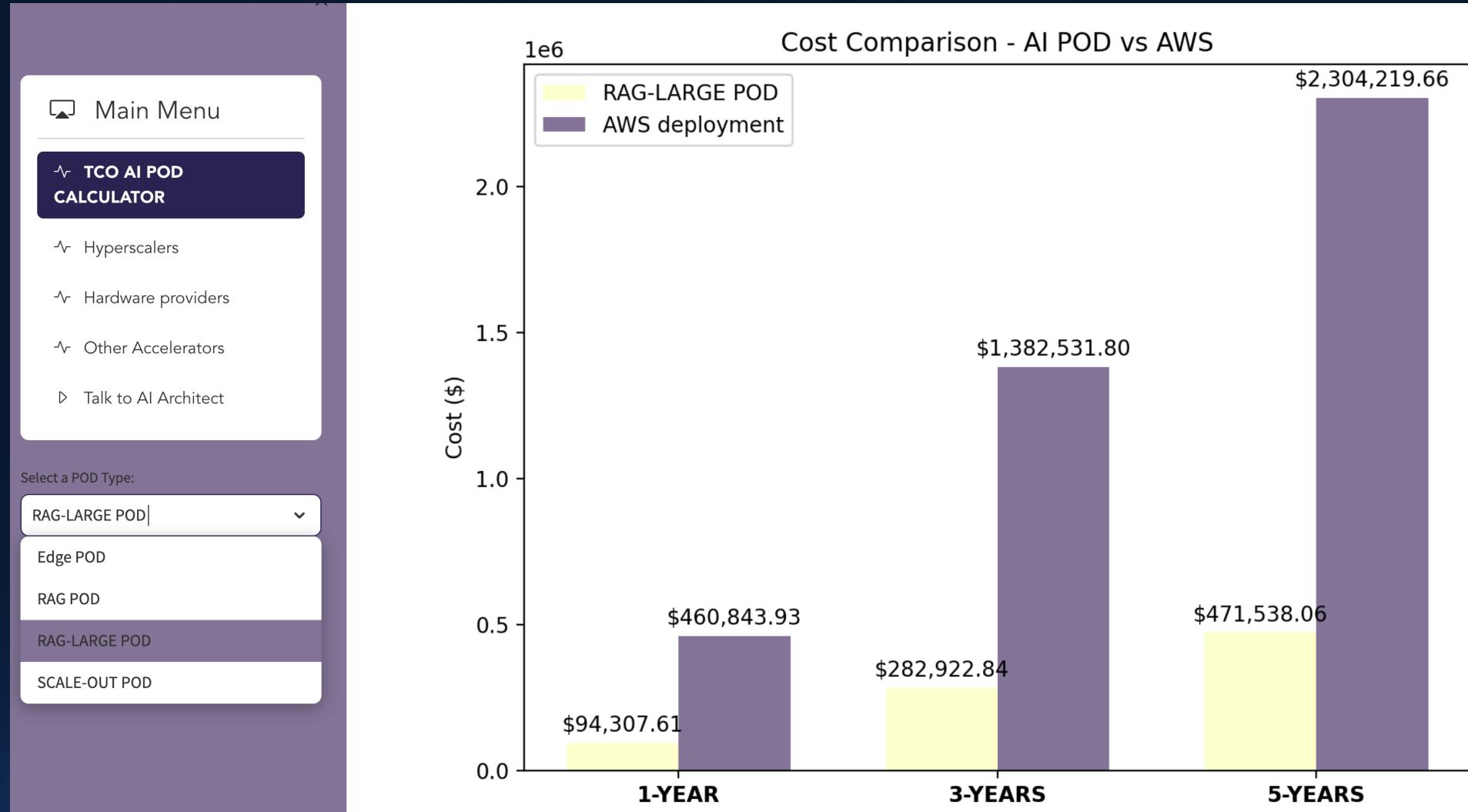
**Infrastructure Planning  
Neglect for Scaling AI**

**Undefined Use Cases  
& Data Readiness**

**Public AI Tool Usage -  
Data Security & Governance  
Risks**

**Blind Investment in AI  
Technology**

# We provide the right comparison tools, that are tailored to your specific AI use case



# We provide the right comparison tools, that are tailored to your specific AI use case

Main Menu

- TCO AI POD CALCULATOR
- Hyperscalers**
- Hardware providers
- Other Accelerators
- Talk to AI Architect

## Hyperscalers

**Data Source:** Programmatically collected via web scraping  
**AI Insights:** Visit the *Talk to AI Architect* section for intelligent trend analysis

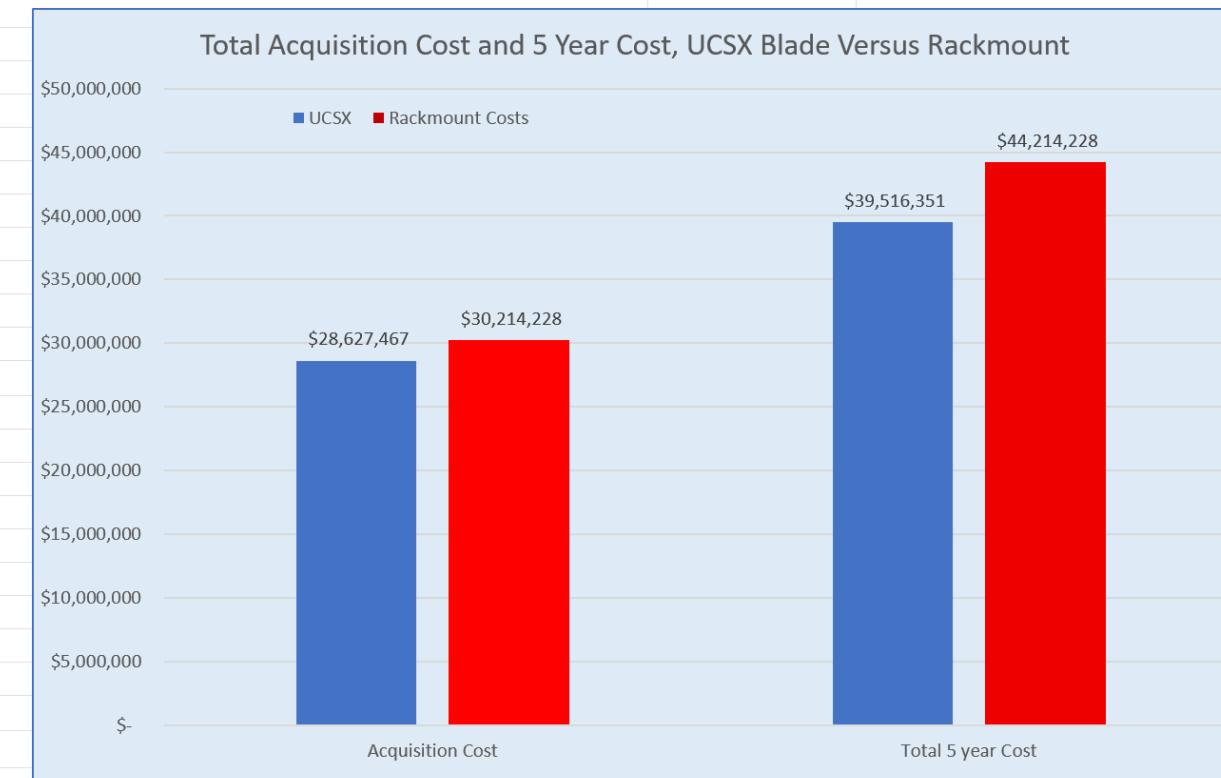
Provider	Instance	GPU	GPU Count	Price (\$/hr)	Region
GCP	a3-megagpu-8g	H100	8	41.98	us-east4
Azure	Standard_ND H100 v5	H100	8	45.14	East US
AWS	p5.24xlarge	H100	4	49.163	us-east-1
AWS	p5.48xlarge	H100	8	98.326	us-east-1
AWS	p5.48xlarge	H100	8	98.326	us-west-2
AWS	g6.xlarge	L40S	1	1.99	us-east-1
Azure	Standard_NV48ads A10 v5	L40S	4	16.32	West Europe
AWS	g6.12xlarge	L40S	4	18.76	eu-west-1
GCP	g2-standard-96	L40S	8	22.67	us-central1

Download data as CSV

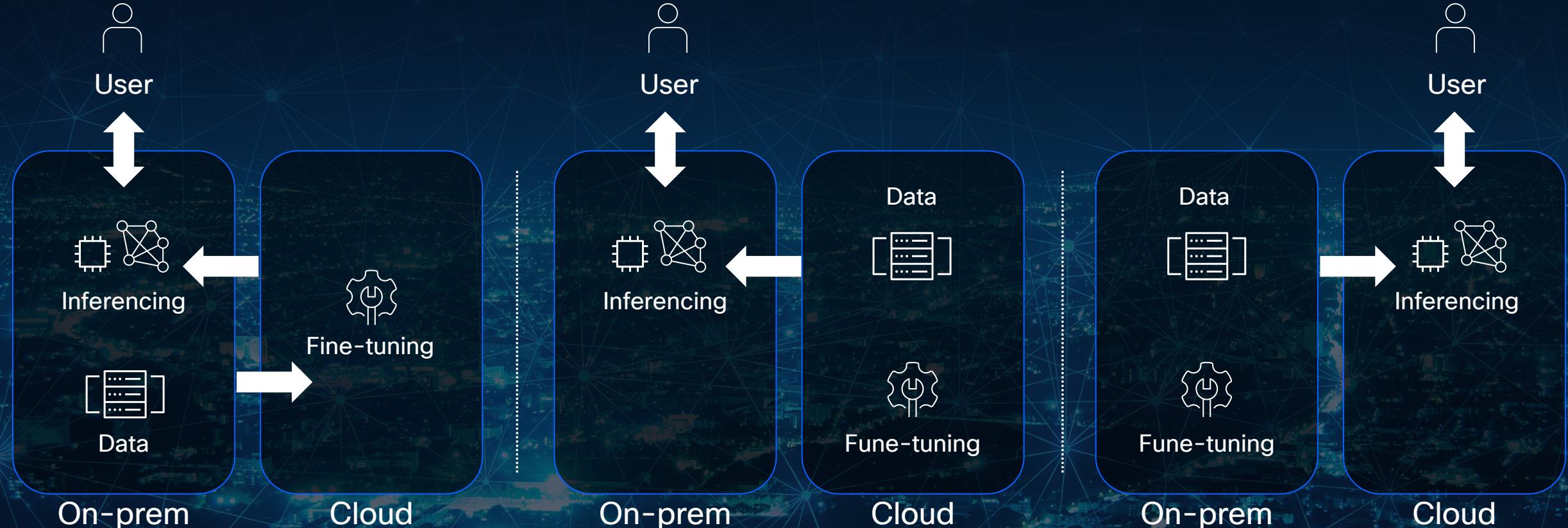
# We give you a detailed TCO

Example below

Acquisition and Setup Costs.	Cisco	Rackmount	Delta
Total Servers Installed	700	700	
Server hardware	\$ 27,578,152	\$ 23,285,566	\$ (4,292,586)
Network Hardware	\$ 144,416	\$ 1,375,328	\$ 1,230,912
San Hardware	\$ 254,805	\$ 1,706,476	\$ 1,451,671
OOB/Mgmt Hardware	\$ 2,398	\$ 83,939	\$ 81,541
Optics	\$ 549,696	\$ 3,202,920	\$ 2,653,224
Fiber and Mgmt Cabling	\$ 98,000	\$ 560,000	\$ 462,000
Total Server Cost to put into Service	\$ 28,627,467	\$ 30,214,228	\$ 1,586,761
Upstream Costs to Operate			
Per Rack Monthly Usage Charges	\$ 4,000	\$ 4,000	-
Racks Required	\$ 50	\$ 58	8
Expected Useful Life (months)	\$ 60	\$ 60	
Total DC Costs	\$ 12,000,000	\$ 14,000,000	\$ 2,000,000
<b>Total Cost</b>	<b>\$ 40,627,467</b>	<b>\$ 44,214,228</b>	<b>\$ 3,586,761</b>
Residual Value at Refresh	\$ 1,111,116	\$ -	
<b>Total Cost Less Residual</b>	<b>\$ 39,516,351</b>	<b>\$ 44,214,228</b>	<b>\$ 4,697,878</b>



# Given your current architecture, we help you find the optimal AI-architecture with thanks to Cisco Validated design



## Scenario 1

- ✓ On-prem inferencing
- ✓ Cloud fine-tuning
- ✓ Data on-prem

## Scenario 2

- ✓ On-prem inferencing
- ✓ Cloud fine-tuning
- ✓ Data in cloud

## Scenario 3

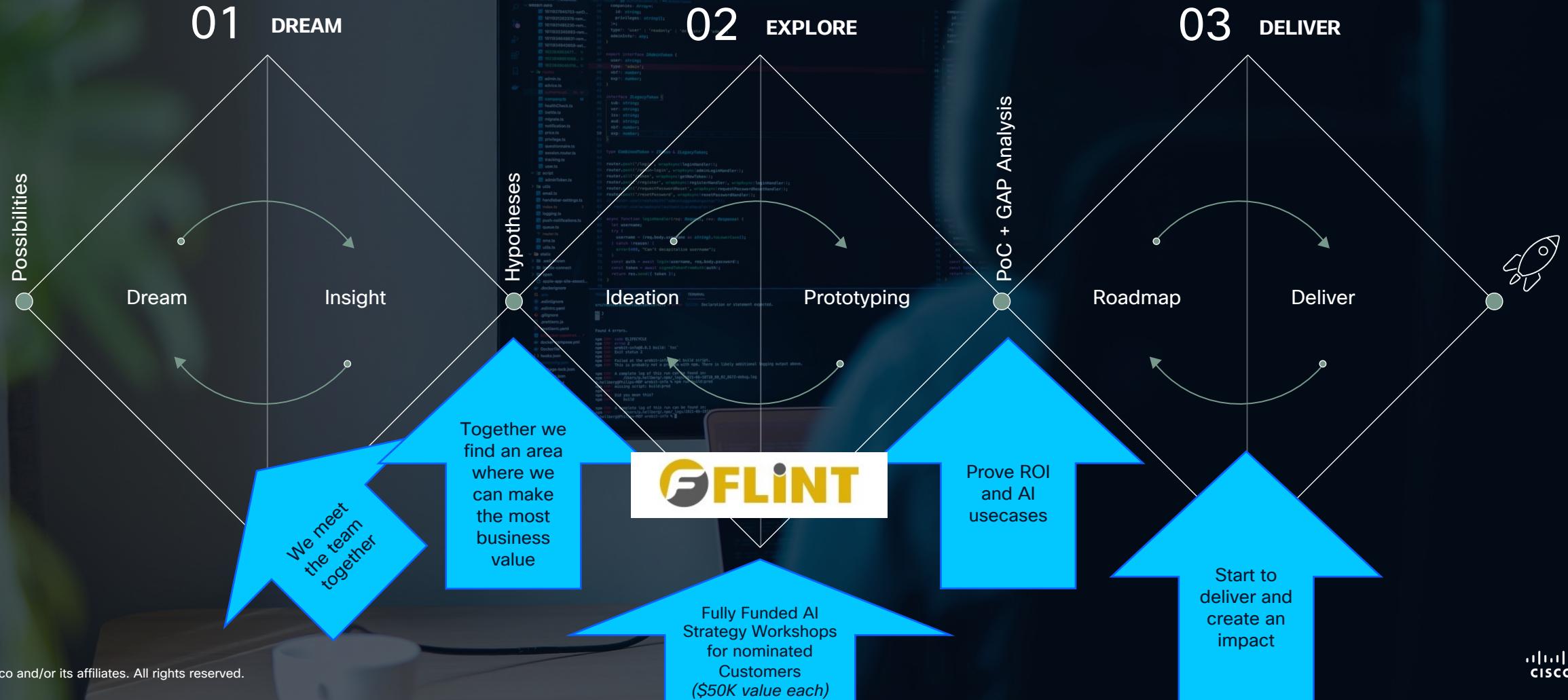
- ✓ Cloud inferencing
- ✓ On-prem fine-tuning
- ✓ Data on-prem

**After the workshop, you will receive a 30-page executive report including:**

- ROI analysis
- Key pitfalls and recommendations
- Cisco Validated Design
- Detailed implementation roadmap

# Recap

# Dream Explore Deliver



# After delivery, Governance model



# We involve you in round table discussions with partners and customers with similar challenges

## Roundtable Discussion



VIMC

James Crawshaw  
Head of SP Transformation



CISCO

Guillaume De Saint Marc  
VP, Outshift Engineering



Red Hat

David Szegedi  
Chief Architect, Field CTO



VAST

Dan Chester  
Regional Director, CSP



accenture

Cédric Sidier  
Managing Director, Communications



NVIDIA

Franck Jonas  
Regional Manager, France



# We only have a limited number of sponsored workshops slots left for 2025.



## Next step: Reach out to your Cisco contact to book a meeting where we can deep-dive into your industry with relevant usecases and ROI:S.

📞 +46 76 125 91 54

✉️ [ashpatol@cisco.com](mailto:ashpatol@cisco.com)

📅 [Book Meeting](#)

Albert Shpatollaj

AI & GTM Lead – EMEA North

AI Specialist team

*Albert  
Shpatollaj*

