Beyond Bias

Unlocking AI with Domain Expertise

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Questions?

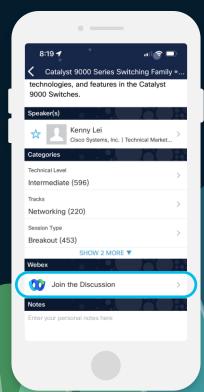
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- Introduction
- Lack of data and insight
- Who's who in the Zoo
- Working together Case Study
- Assessing Al Readiness
- Data Strategy
- Data Governance
- Trusted Data Use Case
- 4 Steps to unlocking power of AI

Lack of data and insight

Recall of autonomous vehicles

Air Canada's Lying Customer Service Al Bot

Al makes false accusations

NYC government chatbot that makes up laws.

Scotland's Willy Wonka Fail

Google Racechanging Al Car Dealership adds Chatbot that sells car for \$5

inappropriate polls

Meta Al falsely claims lawmakers were accused of sexual harassment



Who's who in the Zoo



'Al' the Albatross



'Dom' the Dragonfly



'Leo' the Lemur

All images are generated by Al



Personas,

High Performance Architecture

Al Practitioner

"Any sufficiently advanced technology is indistinguishable from magic." Arthur C Clark

Al driven Innovation

Game-Changing Al

Ethical Al

Domain Expert

"Data is a vast ocean, but without a domain expert as your captain, you'll never find the treasures you seek." Robert Schaffner

Cultural Al

"In God we trust. All others must bring data." Edward Deming

Leadership

"People don't resist change. They resist being changed." Peter Senge

AIHUB-1001



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Domain Expert Question

If you were a betting or handicap expert in horse racing, what would you ask?

Domain Expert Question

Can you provide the average 1st quarter and 2nd quarter times for E or EP horses in all races except for maiden races?

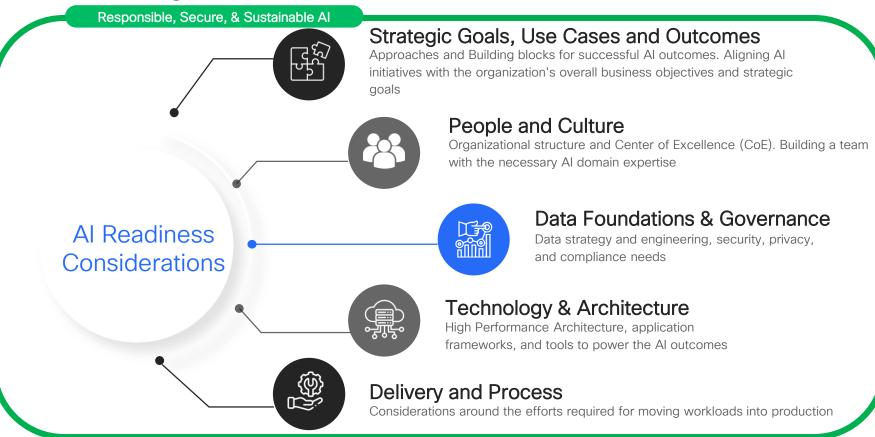


Al Response

The average 1st quarter time is approximately 23.8 seconds, and the average 2nd quarter time is approximately 47.8 seconds.



Assessing Al Readiness



Data Landscape - Statistics



Data silos

A survey found that **78% of companies** struggle with data silos, which can hinder collaboration, decision-making, and innovation

\$15 million/year



Data quality issues

According to Gartner, poor data quality costs organizations an average of \$15 million per year.



50%

Inefficient data access

A study by Accenture revealed that data professionals **spend 50%** of their time searching for and preparing data, rather than analyzing it



Developing a strong Al and Data strategy

Identifying the maturity of your data ecosystem





Al and Data Capabilities New York Capabilities

Invest in traditional Al capabilities





- No shared definitions and process, but the start of data-driven culture
- Experiment with Traditional Al

Isolated Data Projects



- Data warehouse / lake systems that are wellmanaged and governed
- Foundational system for reporting, data science, and key operational users
- Robust traditional Al capabilities across lines of business

Secure, Reliable Data Repository





3

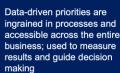
- Needs of power users, and data access based on level of expertise
- Reporting team focuses on operational analytics; business users run queries and extracts as needed
- Experiment with GenAl
 Robust data governance

Governed Self-Service Access



- Thought leadership in variety of areas driven by well-governed data environment and a high-functioning data science team
- GenAl capabilities accelerated
- Build Responsible Al guardrails (culture, policies, ESG)

Scientific Hub for Data Insights



- Company leadership has the ability to seamlessly integrate data and insights into new business policies, processes, and strategies
- GenAl capabilities at scale
- Robust Responsible Al practice (culture, policies, ESG)

Insight Driven Culture

Al and Data Maturity



collected and stored for

- Manually captured with

significant errors

Lack Data for

Analytics Projects

analysis

Key Elements of an Effective Data Strategy





Data Governance drives value and outcomes

Enabling engineering, data science and insights, placing business at the center of data

Data built around company



- Older company with legacy systems and manual processes
- Data-rich, insight-poor
- Data used for apps and basic, siloed reporting, but no discovery or AI/ML
- Limited organizational structure and resources focused on data ecosystem

Accelerated through Data Governance

Company built around data



- Heavy digital / internet presence
- Strong governance and resource support of the data ecosystem
- Ability to leverage data for Al/ML and discovery
- Sophisticated data pipelines to drive consumption
- Improved bi-directional data exchange with enterprise applications

Deliberate business oversight and guidance within data processes and environments

Establishment of durable and deliberate policies for data usage, sharing and compliance

Curation of consistent definitions, documented data lineage, established critical data elements



Data-related questions to consider when approaching generative AI solutions include:

Does your organization have a data governance policy or data management strategy?



- Are the principles of ethical impact, governance, stewardship being considered?
- Are teams and stakeholders aligned on the critical role of clean, consistent and accurate data in advancing sustainability initiatives?



- Are the data being analyzed of high-quality and trustworthy?
- > Is the data representative of the real world or the specific domain we're targeting?



- How will we ensure the quality of the generated outputs?
- Does your organization have the appropriate data infrastructure to support the data environment?





Financial Services Industry Case Study

Case Study

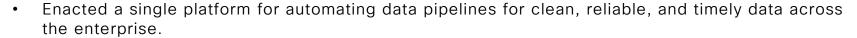
Machine Learning to Reduce Call Volume at Call Centers

CHALLENGE

- Poor visibility into the transaction process and associated data due to limited data governance and documentation
- Limited client experience in building cutting edge AI/ML necessary for complex estimation
- Inadequate data platforms to compile and process data and models

SOLUTION

- Strained data real-time into a modern data warehouse solution
- AI/ML models that predict transaction completion times in real time



Integrated predictions from AI/ML models into associates' digital experience

BUSINESS OUTCOMES

2 ensemble AI/ML models for real time prediction

Faster model development and deployment by automating data preparation, feature engineering, and model training Reduced operational costs by automating routine tasks and streamlining processes

Increased collaboration by providing tools and processes for sharing code, data, and models in a controlled and secure manner

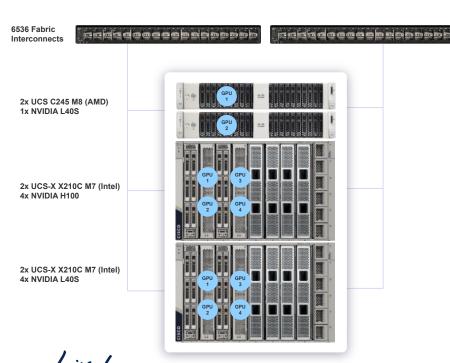


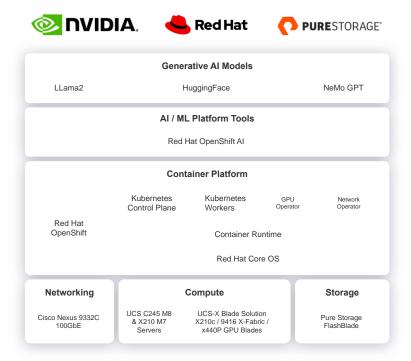






AIPG: Cisco UCS Reference Architecture for Generative AI with NVIDIA





Unlocking the power of Al in your organization

4-step approach



Establish and Communicate organizational Shared Vision and Goals

- Identifying the use cases and business outcomes you want Al to achieve.
- Goal: Priority given to solutions that help achieve critical business objectives & best return on investment



Establish a Governance and Management strategy Framework, governing policies and data capabilities to bolster data as an asset



Get your data Al-ready

- Integrate and automate Intelligent Data Pipelines
- Goal: Business units will work with data throughout the enterprise in a coordinated fashion



Build a High Performance Architecture (HPA) that is Al-ready

- Traditional architecture is ill-equipped for Al workloads
- Goal: Purpose built, Performant, Scalable, and Modular



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- Expand your knowledge https://blogs.cisco.com/tag/trusted-ai www.CiscoLive.com/on-demand



Thank you

