



Dell Technologies is your innovation catalyst to

# Accelerate AI Innovation with The Dell AI Factory

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**DELL**Technologies



Dell Technologies is your innovation catalyst to  
**Accelerate**  
your AI  
strategy from  
Ideas  
to Innovation



Artificial  
Intelligence



Modern  
Data Center



Multicloud



Edge



Modern  
Workplace



Security




Sustainability

# AI use cases and models becoming targeted and specialized



There is no one-size-fits-all approach



LLMs of all sizes, across all industries



Smaller AI models efficient for POC/testing



Workloads run on-prem, in clouds and at the edge



AI models will be distributed to AI-ready PCs



# Accelerating AI adoption allows organizations to extract the full potential of their data

Leading to business outcomes that deliver unprecedented value creation



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DRIVE  
GROWTH



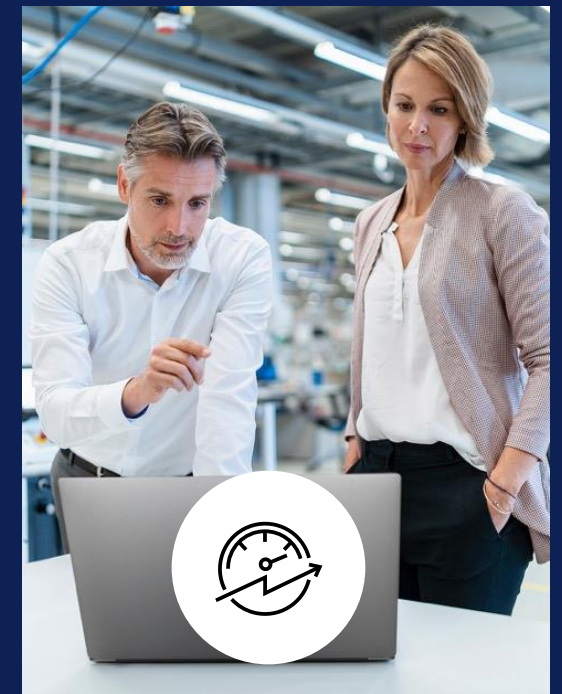
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ENHANCE  
EXPERIENCES



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OPTIMIZE  
PRODUCTIVITY



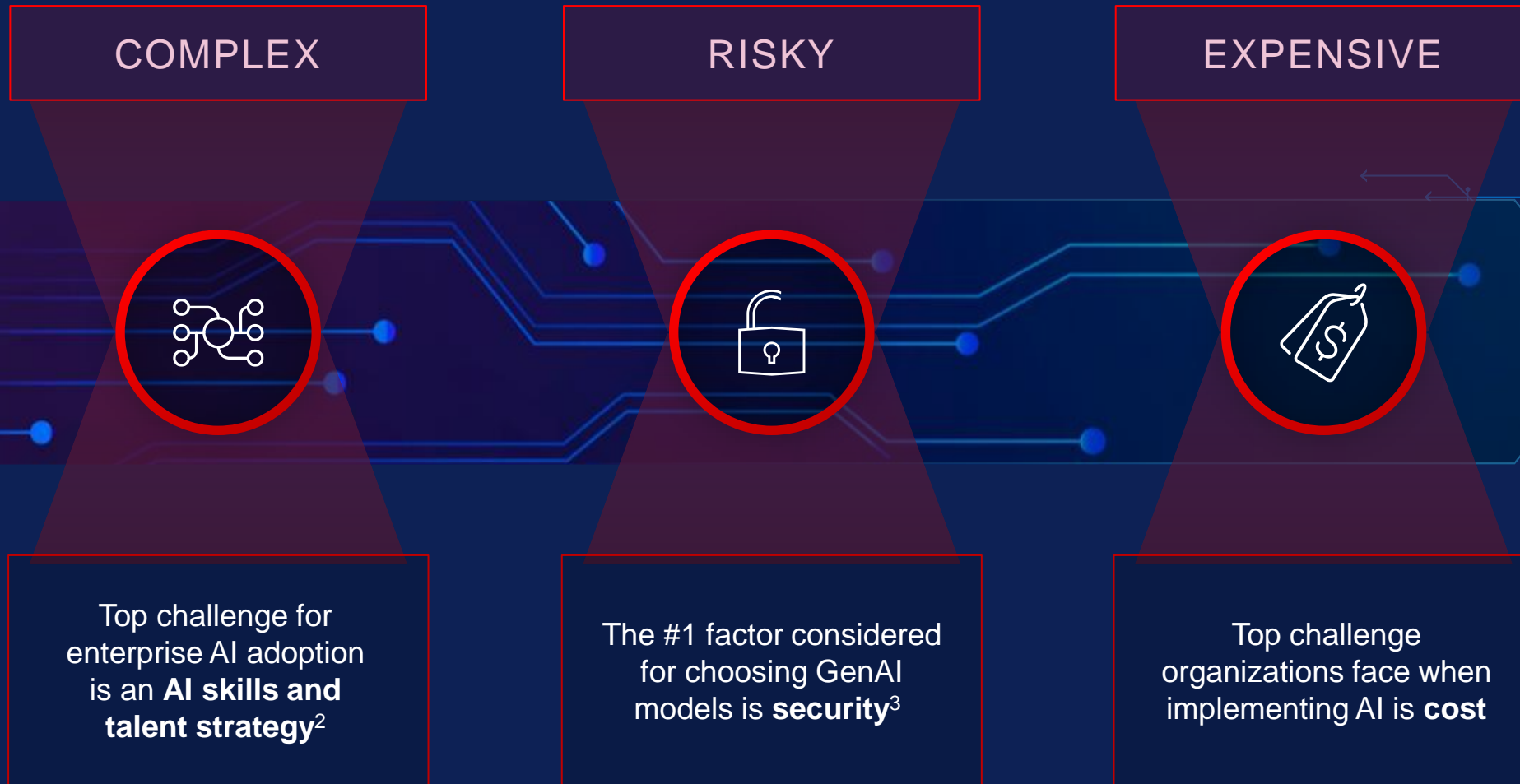
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ACCELERATE  
INNOVATION



# AI Headwinds Slowing Down AI Adoption

76% of IT and business leaders believe GenAI will deliver transformative value for their organization<sup>1</sup>



<sup>1</sup> Dell Technologies Innovation Catalyst Study, February 2024

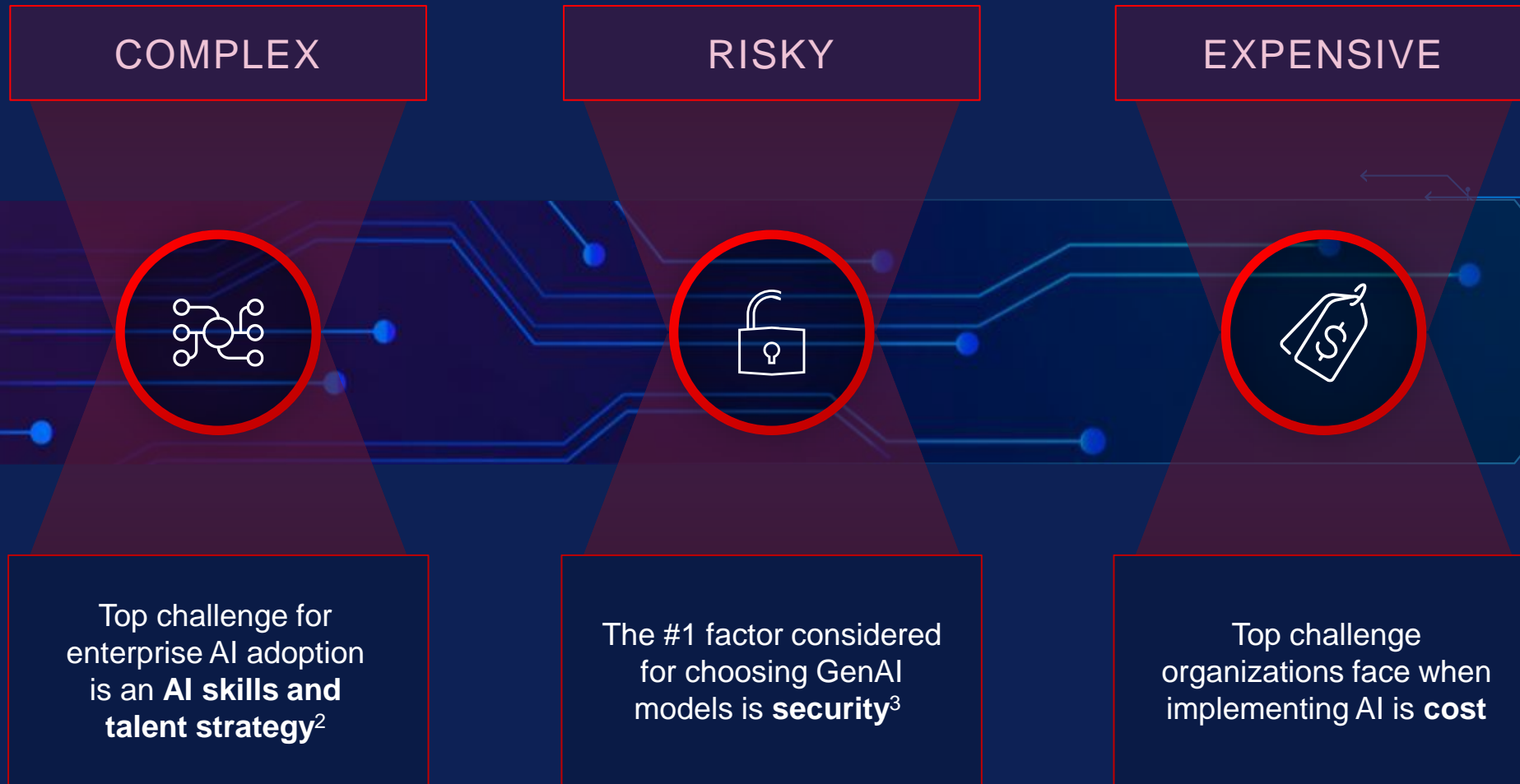
<sup>2</sup> IDC Report: From Breakthrough Innovation to Impact: Monetizing the AI Moment Philip Carter, Directions 2024

<sup>3</sup> Dell Technologies Generative AI Pulse Survey, August and September 2023, [www.dell.com/GenAIPulse](http://www.dell.com/GenAIPulse)

<sup>4</sup> IDC, Global AI Buyer Sentiment, Adoption and Business Value Survey, October 2023.

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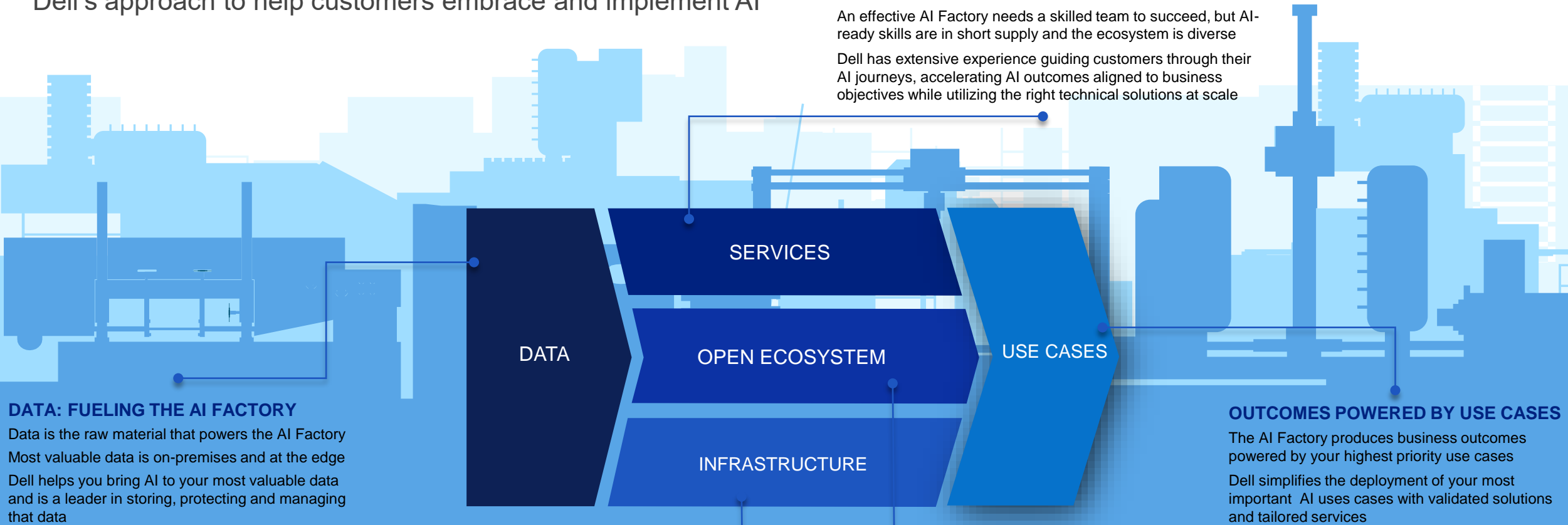
# The Dell AI Factory

Dell's approach to help customers embrace and implement AI

## EXPERT AI SERVICES

An effective AI Factory needs a skilled team to succeed, but AI-ready skills are in short supply and the ecosystem is diverse

Dell has extensive experience guiding customers through their AI journeys, accelerating AI outcomes aligned to business objectives while utilizing the right technical solutions at scale



### DATA: FUELING THE AI FACTORY

Data is the raw material that powers the AI Factory  
Most valuable data is on-premises and at the edge  
Dell helps you bring AI to your most valuable data and is a leader in storing, protecting and managing that data

### AI OPTIMIZED INFRASTRUCTURE

Infrastructure is the foundation of the AI Factory  
AI use cases are diverse and AI technologies are rapidly evolving  
Dell has the broadest AI portfolio from client to cloud allowing you to right size your AI investment and giving you the flexibility to run AI anywhere

### AI OPEN ECOSYSTEM

No single vendor can meet all your AI needs  
Dell has a proven history of nurturing open ecosystems and is committed to building a broad AI ecosystem giving customers greater access to innovation and flexibility

### OUTCOMES POWERED BY USE CASES

The AI Factory produces business outcomes powered by your highest priority use cases  
Dell simplifies the deployment of your most important AI uses cases with validated solutions and tailored services

# Dell AI Factory Accelerates AI Adoption

SIMPLE



Comprehensive AI services and validated, optimized solutions make AI easier, augmenting skills gaps and addressing data readiness

SECURE



Trusted infrastructure, full-stack solutions and services ensure valuable data is protected, managed and accessible

ECONOMICAL

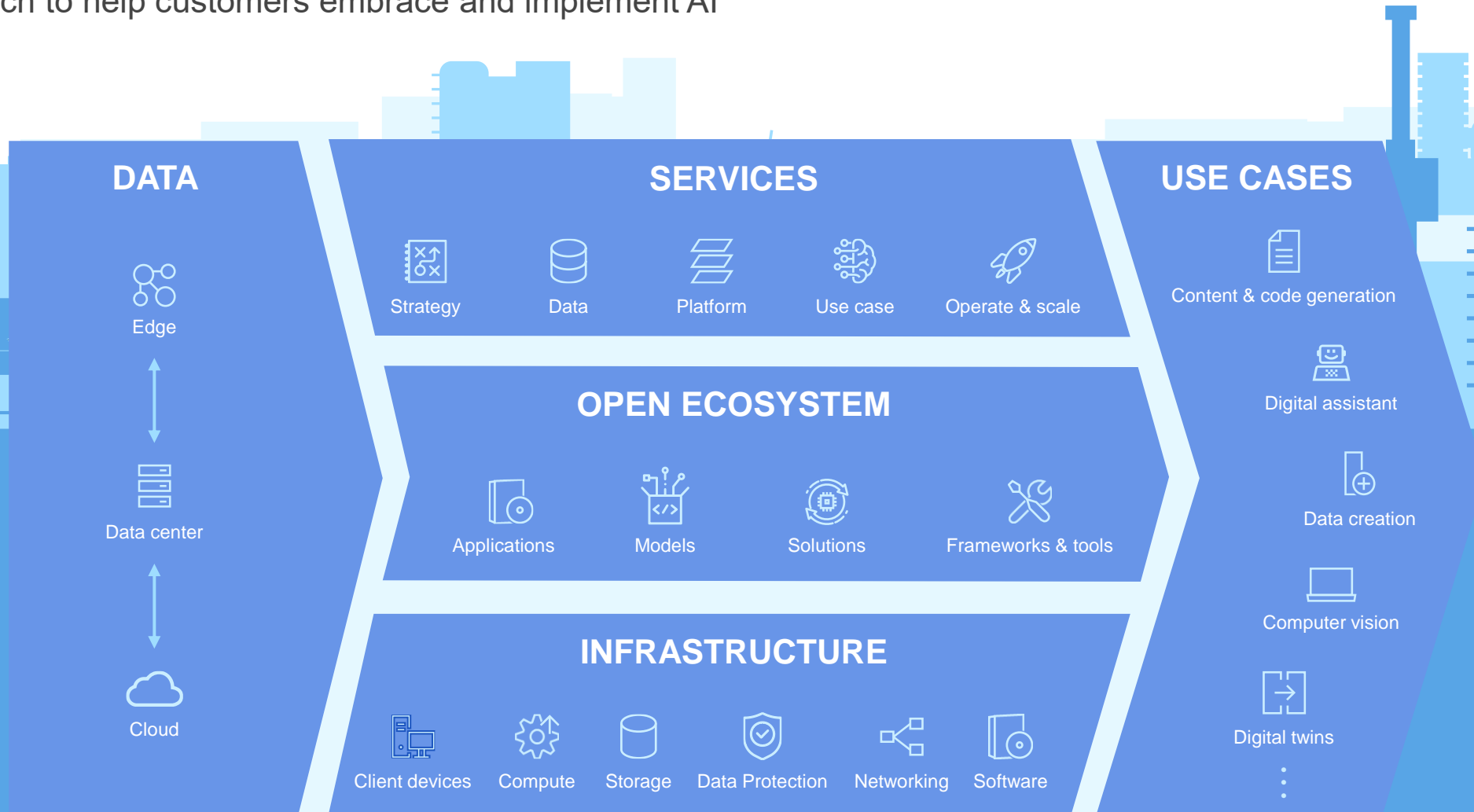


Industry's broadest AI solutions portfolio addresses "no one-size-fits all" approach



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# Hundreds of use cases – where do you begin?





| Business strategy and operations management  | Product innovation and R&D   | Manufacturing and supply chain  | Marketing, sales, and customer service  | IT, HR, and finance  |
|--|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Project management resource/task scheduling, budgeting, optimization and alerts</li> <li>• Resource utilization and sustainability optimization</li> <li>• Partner insights, optimization and contract compliance/recommendations</li> <li>• Identify and understand regulatory changes and impacts</li> <li>• Predict consequences and outcomes, anticipate workloads and demand</li> <li>• Facilities management optimization (smart buildings)</li> <li>• Automated meeting transcription, summarized notes and follow-up assignment</li> <li>• Meeting scheduling automation (bot)</li> <li>• Infectious disease screening of employees and customers (health and safety surveillance)</li> <li>• Predictive and adaptive environmental safety screening</li> </ul> | <ul style="list-style-type: none"> <li>• Design idea brainstorming and image generation</li> <li>• Scientific data and literature search and summarization</li> <li>• Fast-fail candidate screening</li> <li>• Identify unmet needs, underserved constituencies and unintended consequences</li> <li>• Identify new product/service opportunities</li> <li>• Medical/imaging diagnostics and personalized medicine</li> <li>• Population/public health analysis and campaigns</li> </ul> | <ul style="list-style-type: none"> <li>• Inventory and supply chain logistics, routing, scheduling, budget optimization, and alerts</li> <li>• Traffic management, optimization and emergency response adaptation</li> <li>• Manufacturing process quality control and alerts</li> <li>• Reduce material waste (materials and equipment tracking, utilization, forecasting, optimization)</li> <li>• Sales floor/display/site optimization</li> <li>• Video/sensor surveillance, risk assessment, and mitigation</li> <li>• Sound/light/air/water pollution compliance and minimization</li> <li>• Fleet, plant and equipment utilization/ productivity optimization</li> <li>• Predictive maintenance for fleet and equipment</li> </ul> | <ul style="list-style-type: none"> <li>• Draft copywriting (campaign messaging, customer personalization, translation)</li> <li>• Sentiment analysis, customer scoring and next best offer</li> <li>• SEO/keyword optimization/automation</li> <li>• Sales training/coaching</li> <li>• Customer support content screening, learning, search, and summarization</li> <li>• Customer service chatbot/digital human</li> <li>• Automated customer review responses</li> <li>• Derived market trends from unstructured data sources</li> <li>• Lead identification, qualification, ranking, and targeting</li> <li>• Customer churn risk assessment and alerts</li> <li>• Validate and protect customer/patient data</li> <li>• Identity verification</li> </ul> | <ul style="list-style-type: none"> <li>• AI coding and documentation assistant</li> <li>• Code QA and testing, synthetic data creation</li> <li>• Log screening and early warning system</li> <li>• Network engineering resiliency, optimization, and self-healing</li> <li>• Metadata extraction and synthesis (NLP, GraphQL-readable tagging)</li> <li>• Intelligent search</li> <li>• Predictive maintenance for network, compute, and storage hardware</li> <li>• Automated penetration testing</li> <li>• Candidate resume screening</li> <li>• Employee performance screening</li> <li>• Personalized training (content and delivery)</li> <li>• Employee churn risk assessment and alerts</li> <li>• Fraud/waste/abuse detection and prevention</li> <li>• Human and financial resource forecasting, and budgeting</li> </ul> |

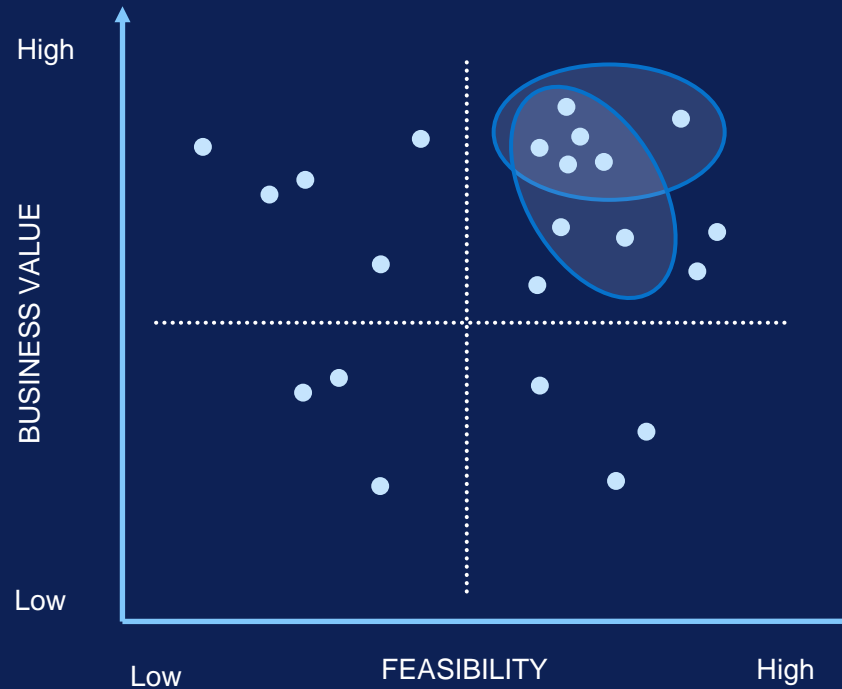
**Most organizations have more than 200 use cases**

# Prioritizing Generative AI use cases






Criteria for consistently evaluating use cases

## Business value criteria

-  More
-  Better
-  Faster
-  Cheaper




## Feasibility criteria

-  Data
-  AI model
-  Process
-  People
-  Platform


 Content creation

 Digital assistant

 Natural language search

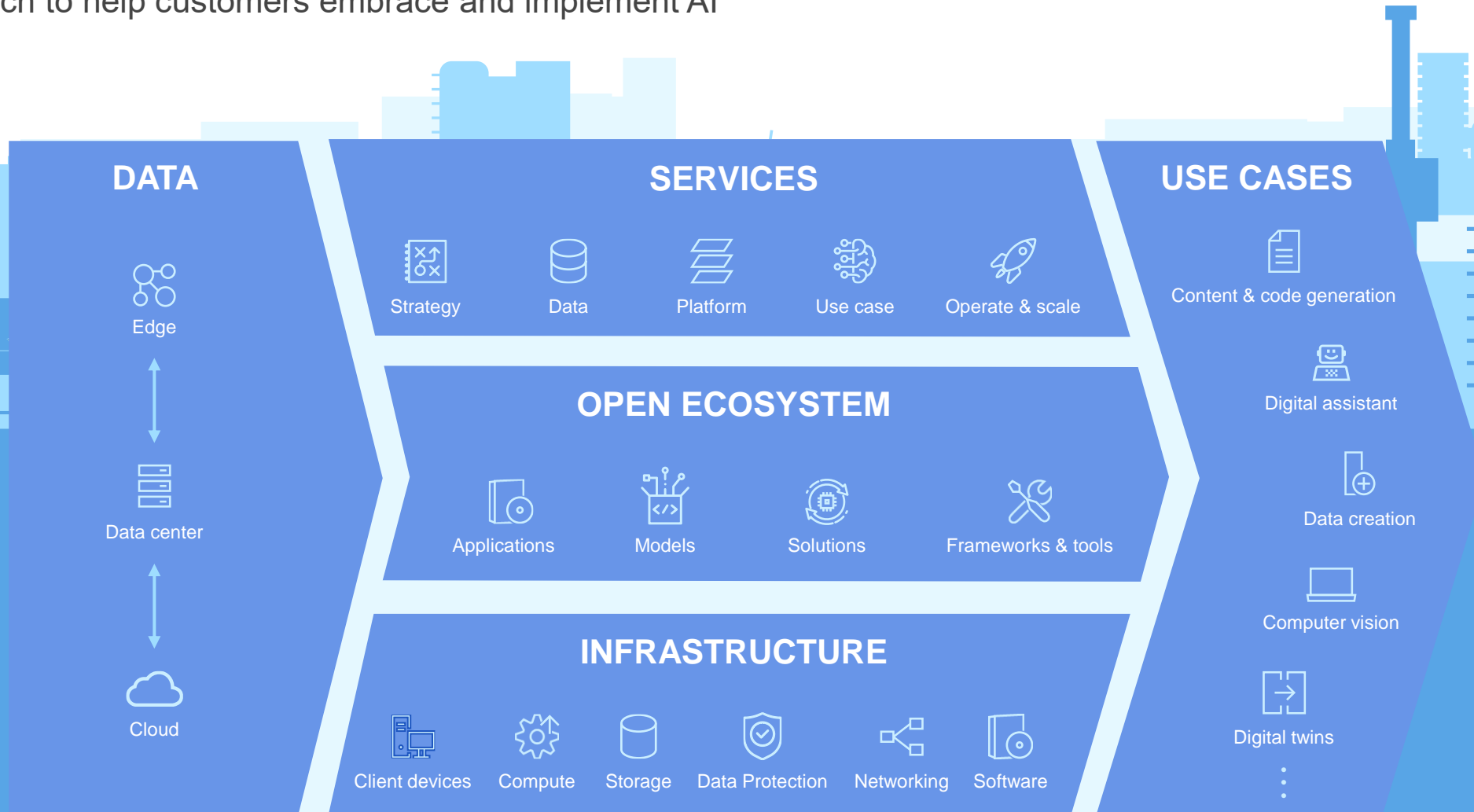
 Design and data creation

 Code generation

 Document automation

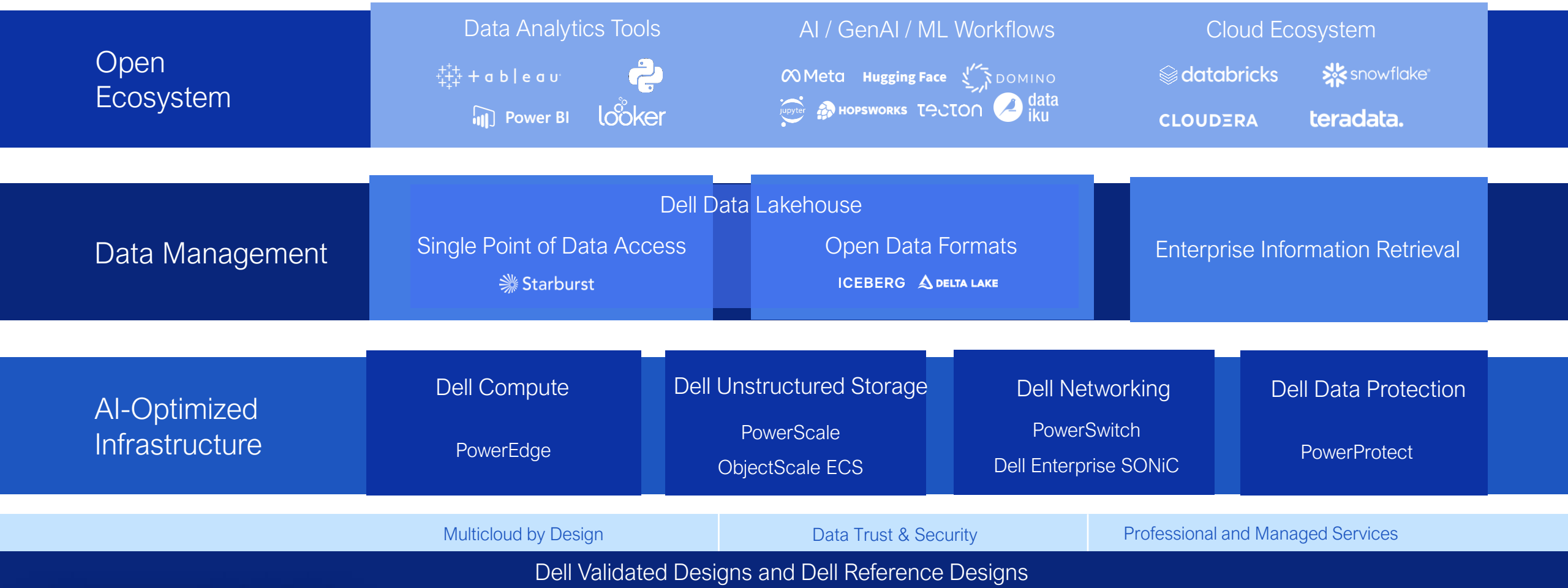
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# AI starts with better data management and preparation

Dell AI-Ready Data Platform





# Why bring AI on-prem to your data?

Data sovereignty is key to sustained success



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Deliver secure  
access to  
valuable data



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Increase  
visibility into  
data & models



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Maintain  
control over  
how AI is used

73% say data and intellectual property are too valuable to be placed in a GenAI tool where a 3rd party may have access.\*

*\*Source: Innovation Catalyst study, Dell Technologies, February 2024*

Data

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# Cost is a major consideration for LLM inferencing

Dell commissioned a study with Enterprise Strategy Group (ESG) comparing the expected costs to inference LLMs on-prem with Dell infrastructure vs. **public cloud IaaS** and **API services**<sup>1</sup>.

Over a three-year period, Dell can provide inferencing that is up to:

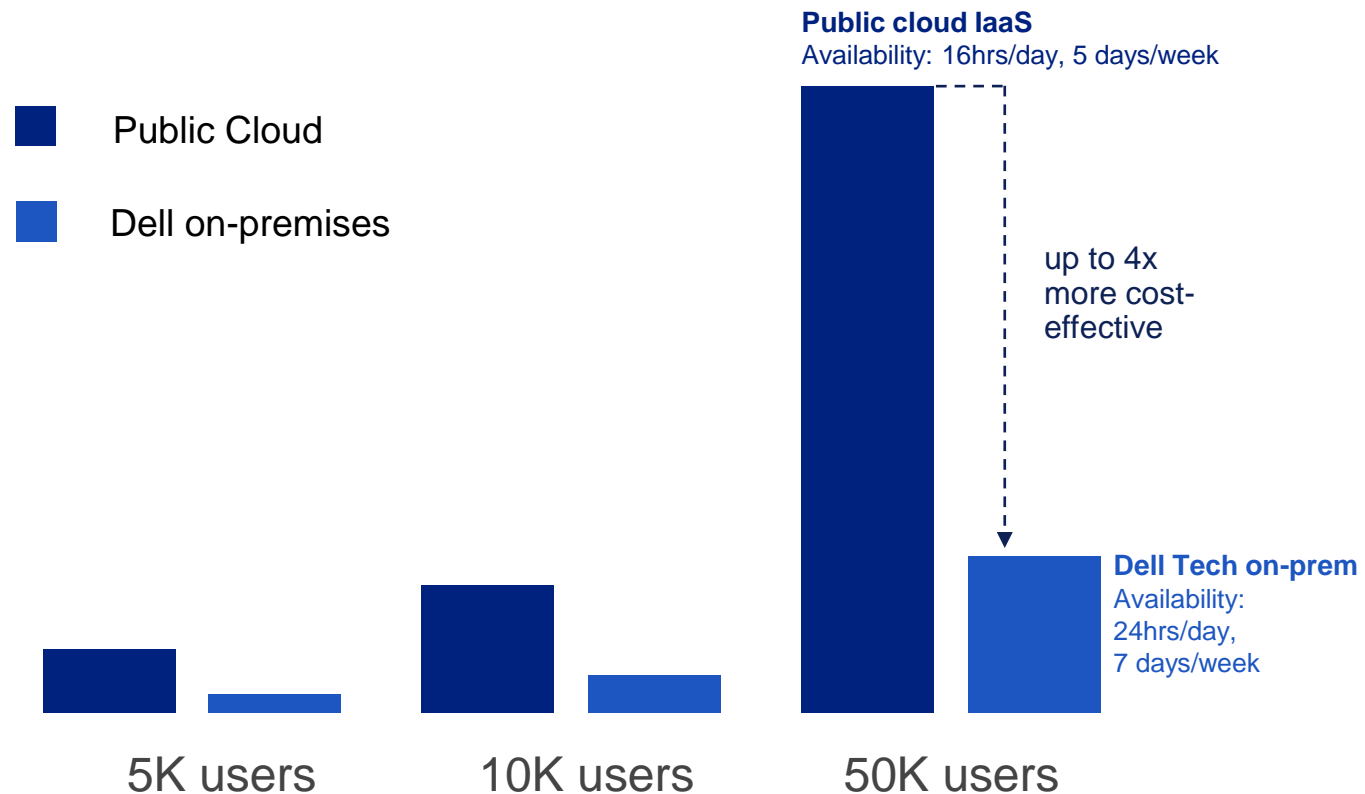
# 4x

more cost-effective than public cloud IaaS

# 8x

more cost-effective than token-based API services

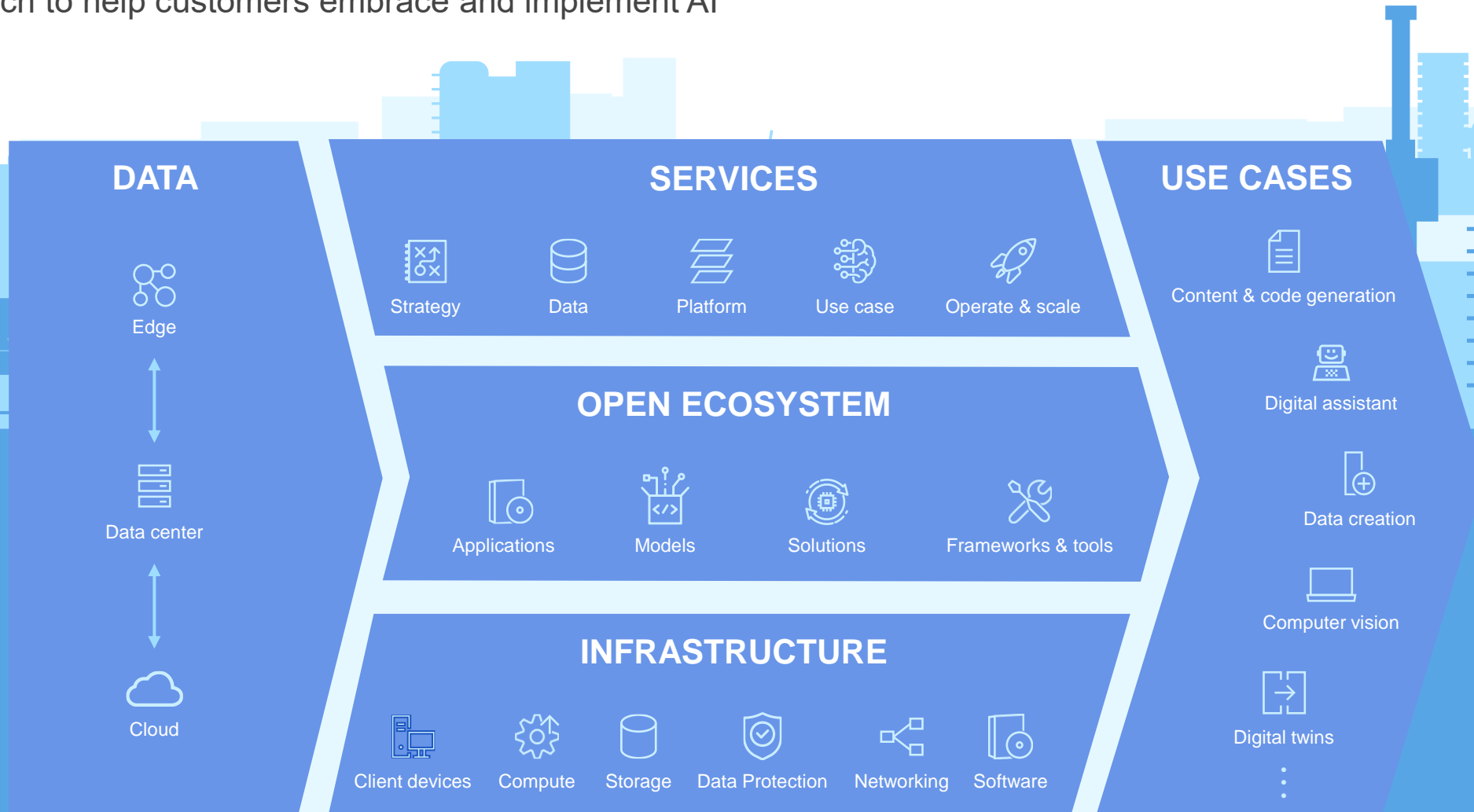
## Expected Cost to Deliver Inferencing for 70B Parameter Llama 2 LLM Using RAG



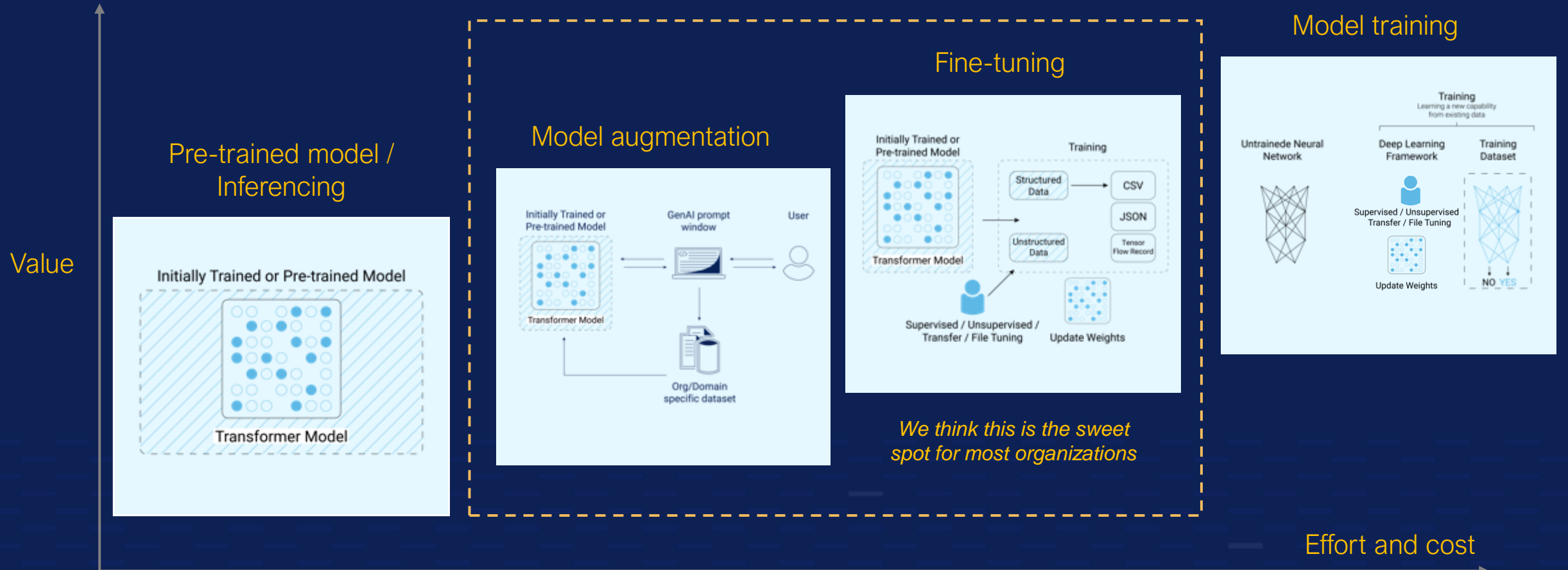
1. Based on Enterprise Strategy Group research commissioned by Dell, comparing on-premises Dell infrastructure versus native public cloud infrastructure as a service, April, 2024. Analyzed models show a 7B parameter LLM leveraging RAG for an organization of 5k users being up to 38% more cost effective while a 70B parameter LLM leveraging RAG for an organization of 50k users being up to 75% more cost effective. Actual results may vary.

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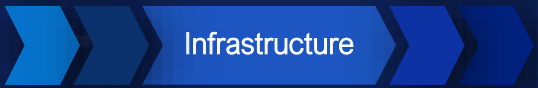


# AI deployment patterns and their implications



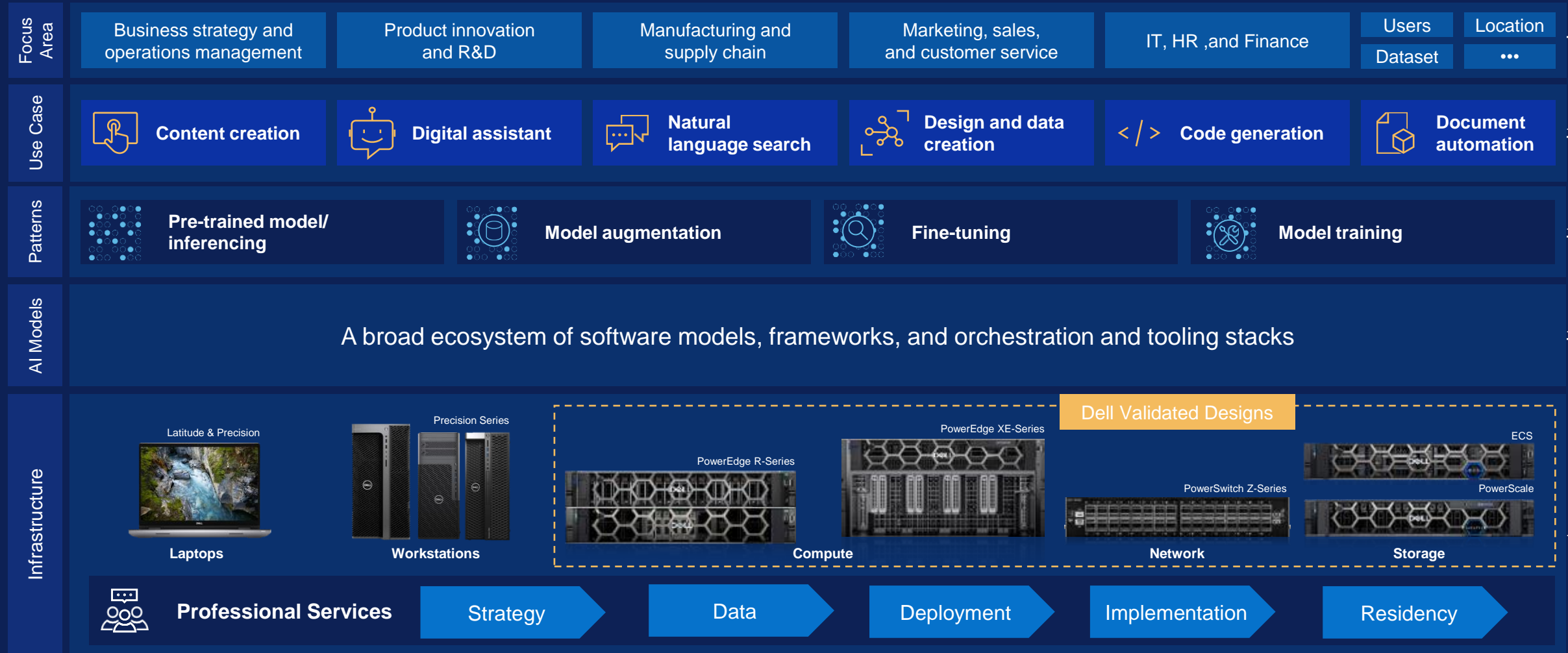
Developer(s) required

Data scientist(s) required



Infrastructure

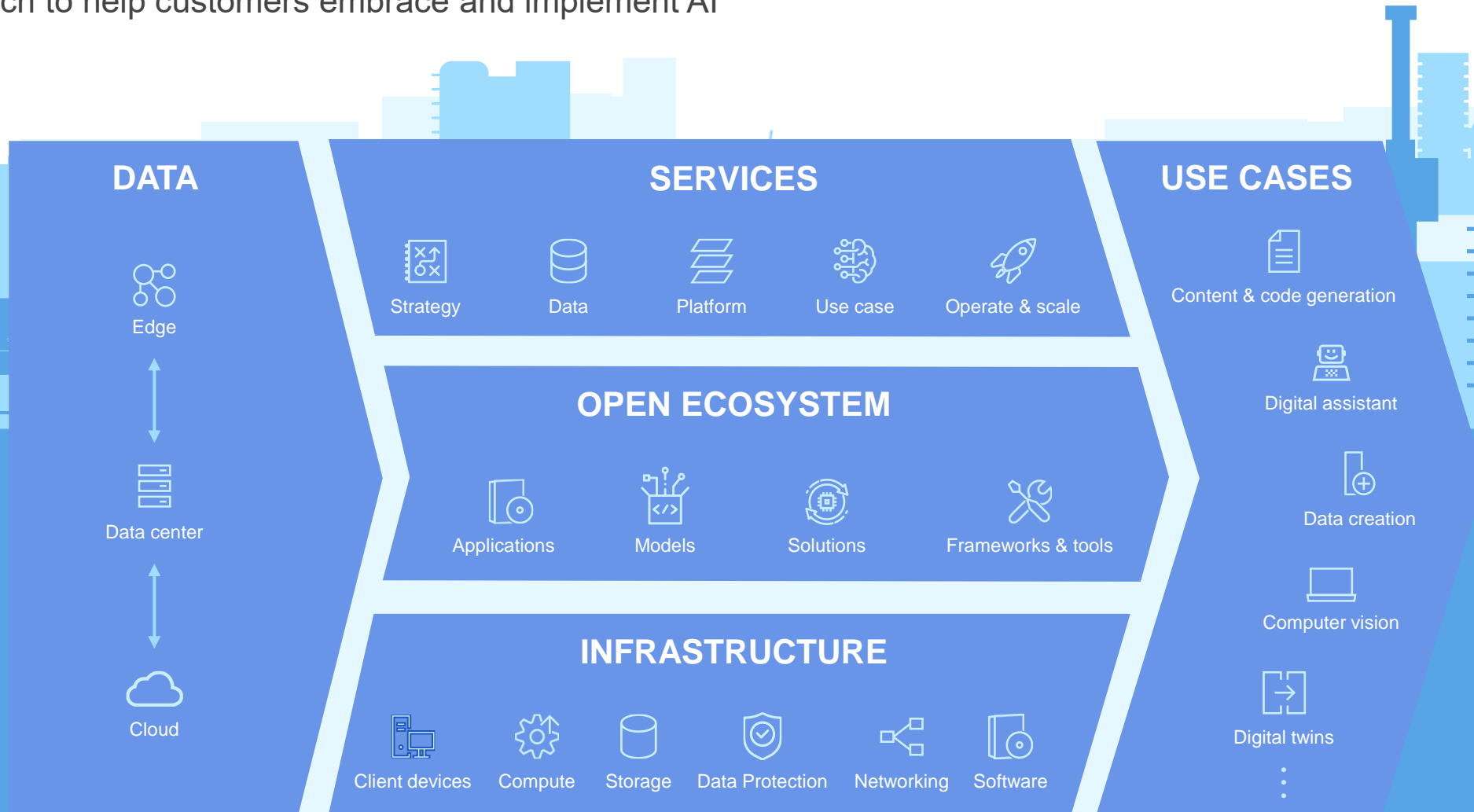
# Right-sizing your AI investment



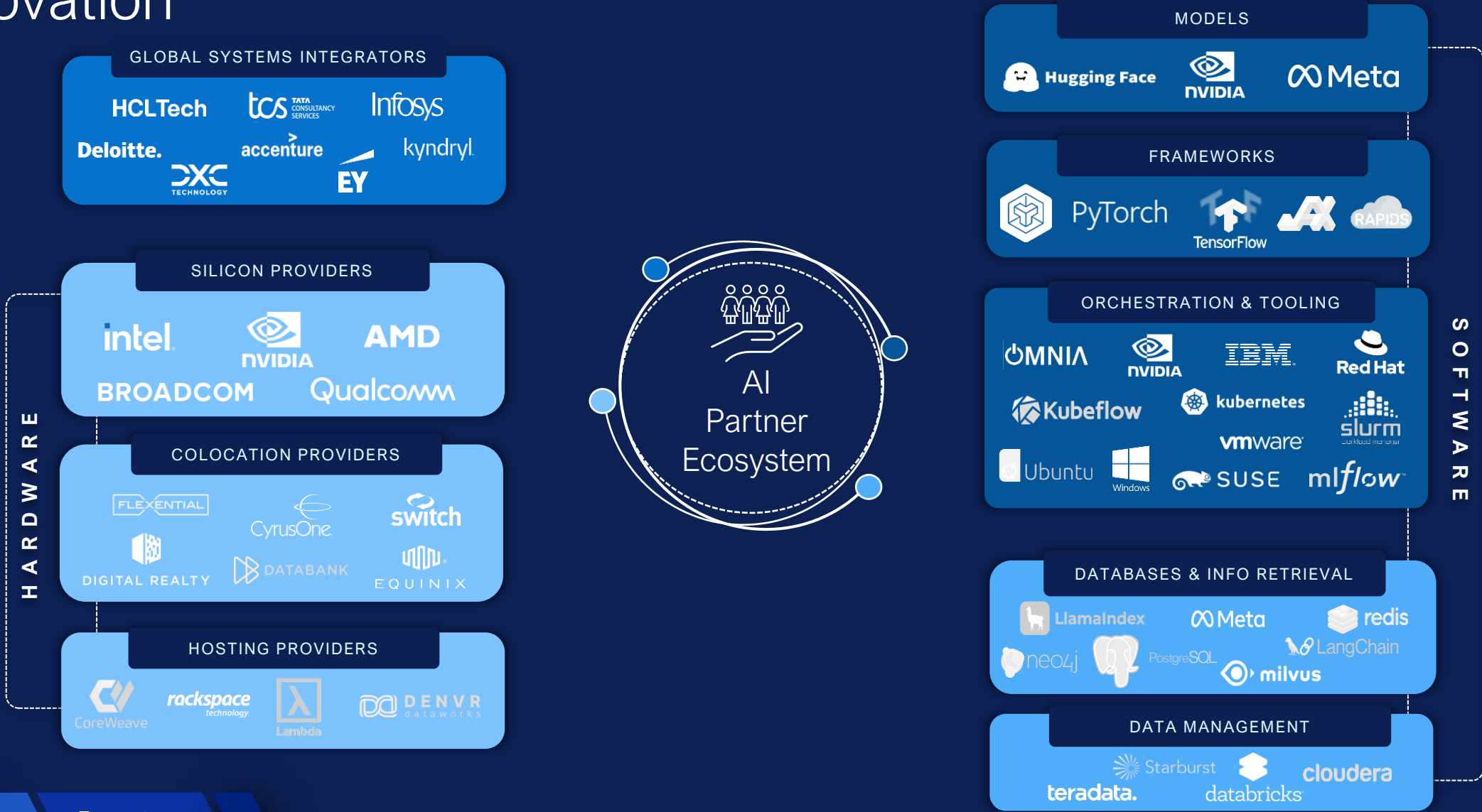


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# Creating access to a broad open ecosystem for AI innovation

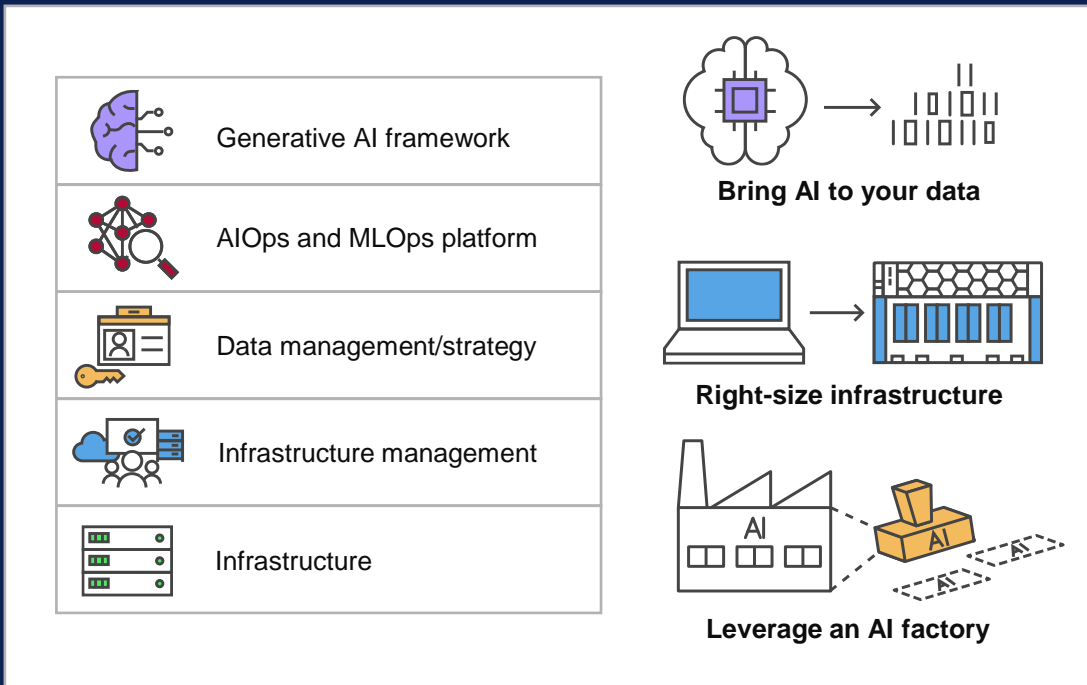


# Dell ecosystem solutions

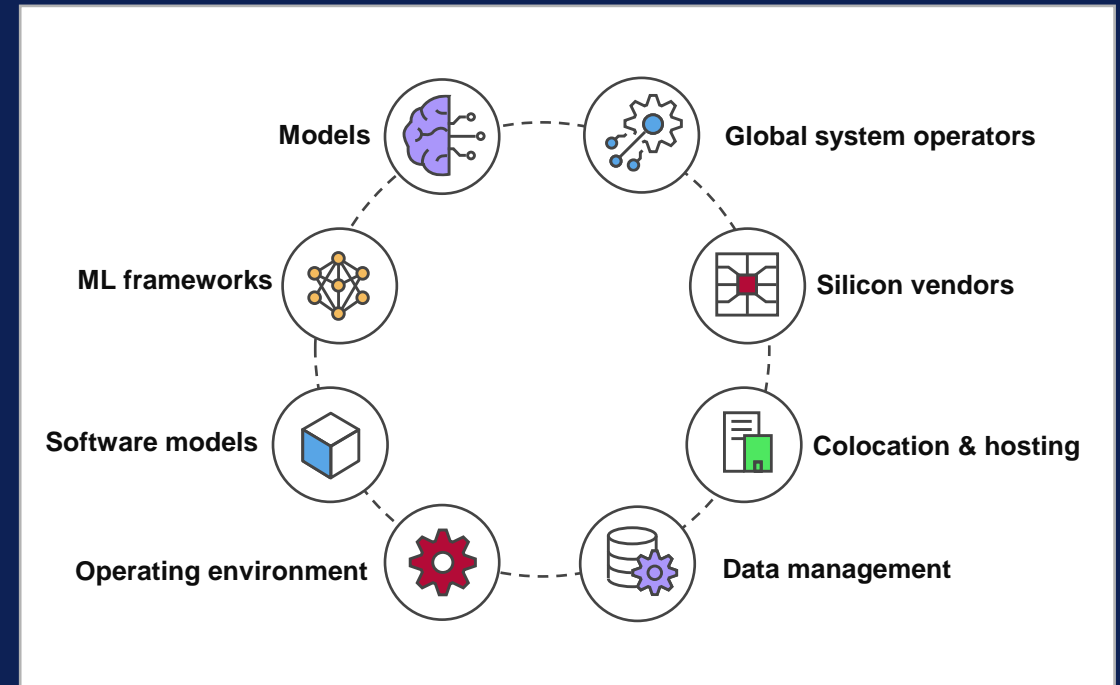
Over 340k engineering hours spent on design, development and validation on GenAI solutions\*



## Dell Validated Designs/Dell Reference Designs



## Partner ecosystem & integrations



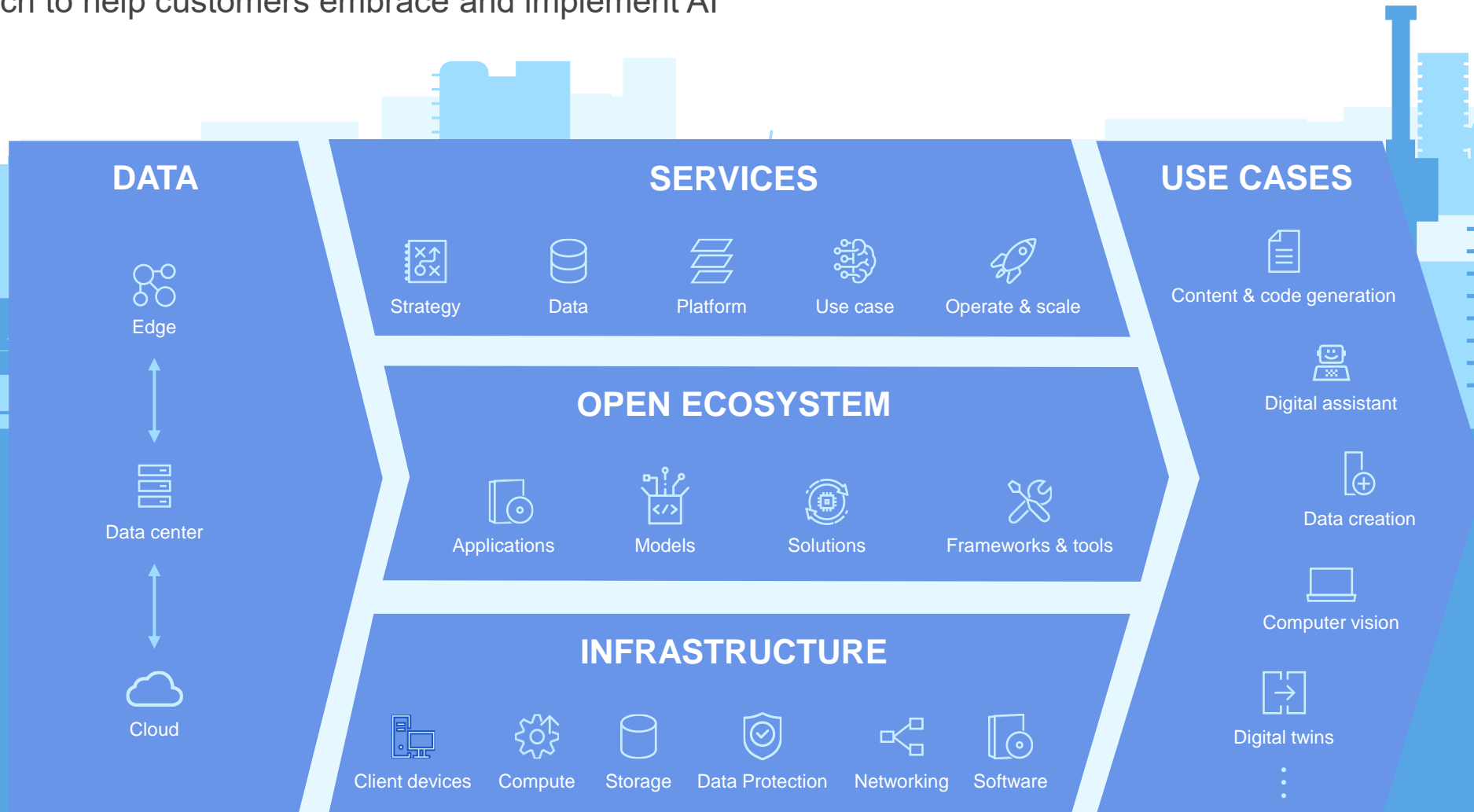
\*Source: Dell internal analysis

Ecosystem

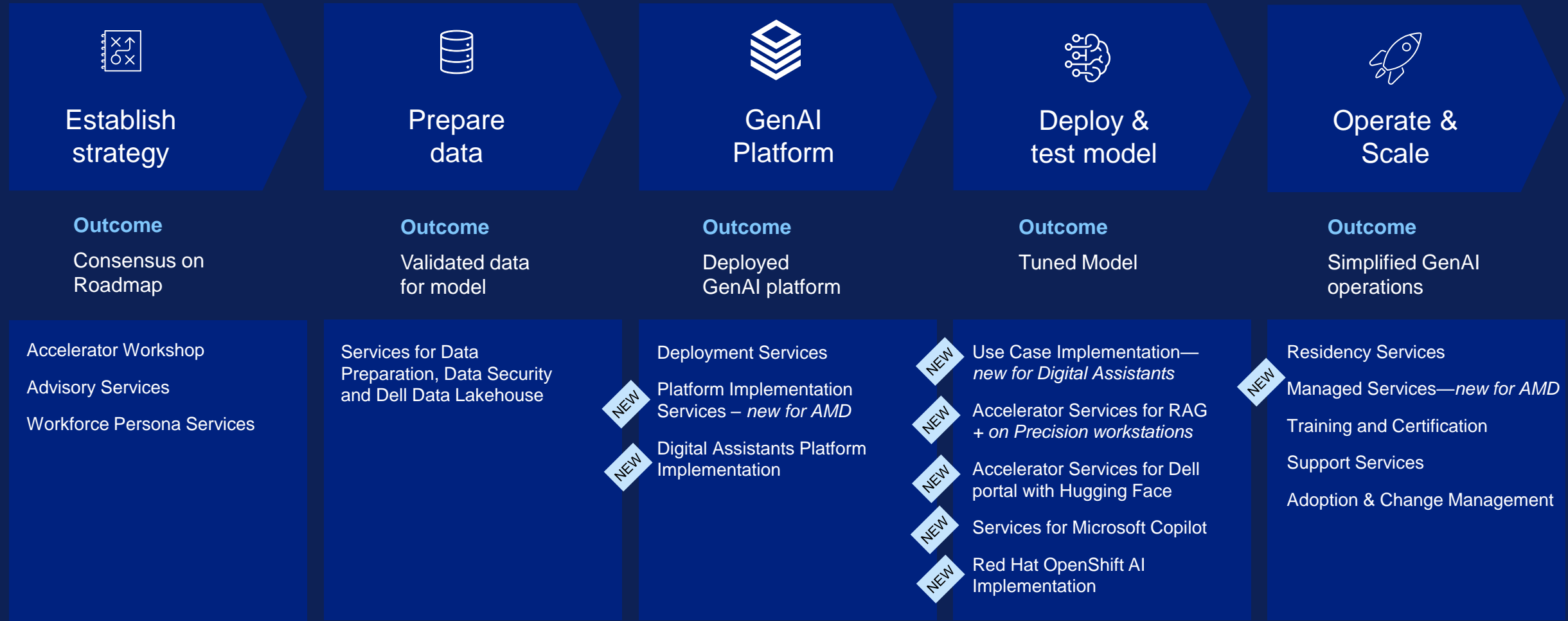
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# Accelerate GenAI outcomes and ensure long-term success with help at every stage



Simplify your AI journey with the Dell AI Factory

Services



