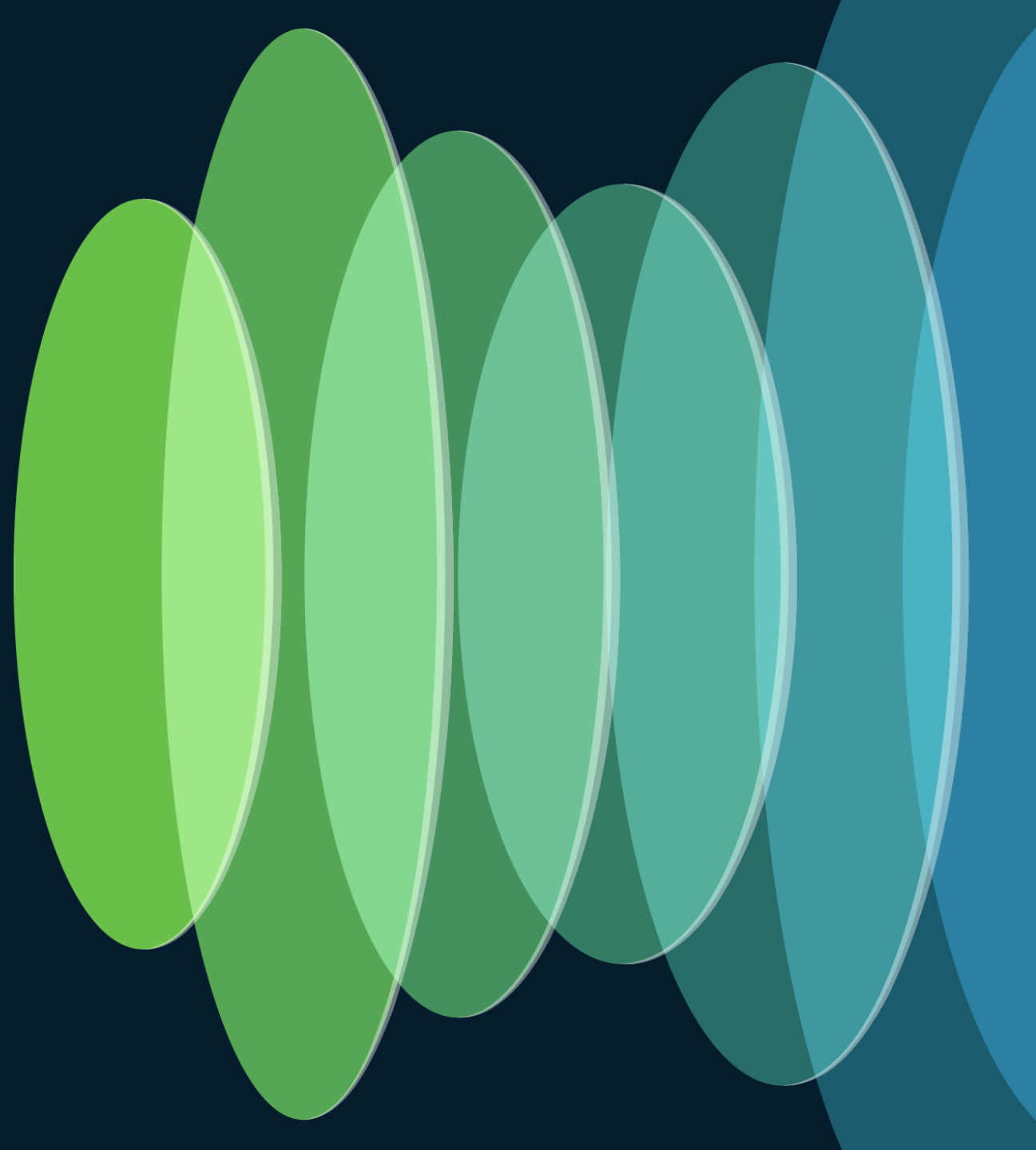


**CISCO** *Live!*  
IT Leadership Program





# AI and Data Centre Modernisation

Where Performance Meets Purpose

Jeremy Foster, SVP and GM, Compute

Murali Gandluru, VP, Product Management Data Centre Marketing

ITLGEN-1014

# Current Sustainability Landscape



Regulatory  
Pressure

**140**

countries currently have net  
zero targets to meet<sup>2</sup>



Business  
Imperative

**73%**

of CxOs sustainability  
is a top priority<sup>3</sup>



AI  
Growth

**+850%**

Additional electricity  
required for OpenAI's  
ChatGPT search<sup>4</sup>



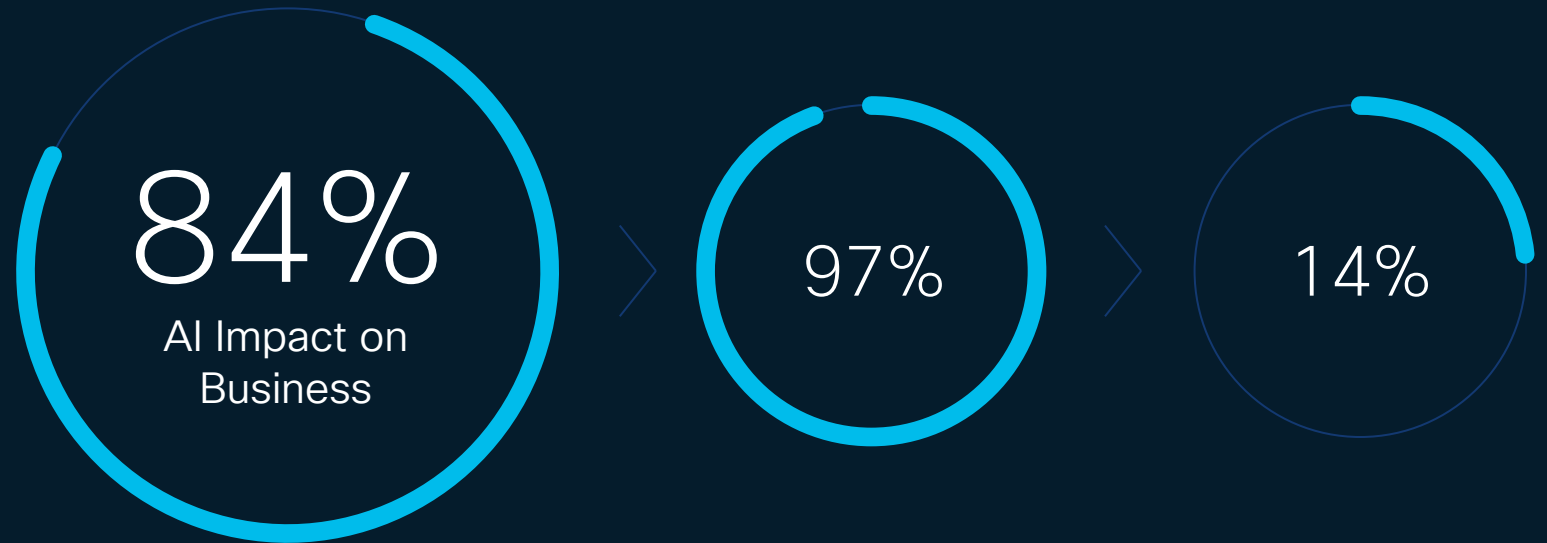
Energy  
Demand

**2X**

data centre energy  
consumption to double by  
2026 from 2022<sup>5</sup>

# AI Readiness

## In IT Businesses



84% of organizations expect AI to have a significant impact on their business

Respondents reported an increased urgency to deploy AI-powered technologies

Of the 97%, only 14% of respondents felt their organizations were AI ready

Cisco AI Readiness Index.

# We believe sustainability is the foundation for better innovation

## Power and energy efficiencies

Energy-efficient technologies, optimized infrastructure, and renewable energy sources

## Scalability and flexibility

Modular products, effective operations management systems, and integration of new technologies

## Cost optimization

Longer product life cycles, less to buy and manage over time, and more energy savings over time

## Regulatory compliance

No fines, penalties, reputational damage, or loss of customer base

# Cisco's Focus Areas

Innovating new technologies to reduce emissions



## AI-Ready Data Centres

Optimize for efficiency, visibility, performance and cost



## Future Proofed Workspaces

Energy efficient networks powering, connecting and securing the building



## Digital Resilience

Converged infrastructure, simplifying network design, planning & management

# Cisco's Focus Areas

Innovating new technologies to reduce emissions



## AI-Ready Data Centres

Optimize for efficiency, visibility, performance and cost



## Future Proofed Workspaces

Energy efficient networks powering, connecting and securing the building



## Digital Resilience

Converged infrastructure, simplifying network design, planning & management

# Cisco's Focus Areas

Innovating new technologies to reduce emissions



## AI-Ready Data Centres

Optimize for efficiency, visibility, performance and cost



## Future Proofed Workspaces

Energy efficient networks powering, connecting and securing the building



## Digital Resilience

Converged infrastructure, simplifying network design, planning & management

# The Impact of AI Demand on Data Centres

AI impact on energy consumption could double by 2026

2026

1000 TWh

2022

460

Growth will be led by power and the expansion of the data centre sector, where U.S. accounts for more than 1/3 of additional demand through 2026

Updated regulations and technology improvements will be crucial to moderate the surge in energy consumption from data centre

Source: IEA Electricity Report 2024

The need to balance  
innovation and sustainability in the  
data centre has never been greater

Innovation

Sustainability



# Impact of AI and the Data Centre

## Challenges

Performance Demands



Cooling Dilemma



Power Constraints



Space Efficiency



Investment



Network Implications



# Efficient data centres are an important sustainability opportunity

Today's data centre accounts for

**1-2%** of global electricity demand

**50X** the power of a typical commercial office building

Every watt saved on computing results in

**1.55 watts saved at the facility level**

**43%**

Cooling and power provision systems

Chillers

Fans and pumps

UPS and transformer losses

Lighting

**43%**  
Servers

**86%**

COOLING + SERVERS

11% Storage

3% Network

# Where do you start?

1

**Evaluate your current data centre footprint and technology stack**

2

**Modernize your data centre technology** to optimize for sustainability

3

**Measure impact** over time, with predictive insights for better decision-making



**DAKOTA STATE**  
UNIVERSITY

**CISCO** *Live!*  
IT Leadership Program

# Helping You Advance Sustainability in the AI Era

IT INFRASTRUCTURE

SIMPLIFIED OPERATIONS

## AI-Ready Data Centre

FULL STACK SOLUTIONS

DESIGN & BUYING GUIDES

# Infrastructure that's AI-ready



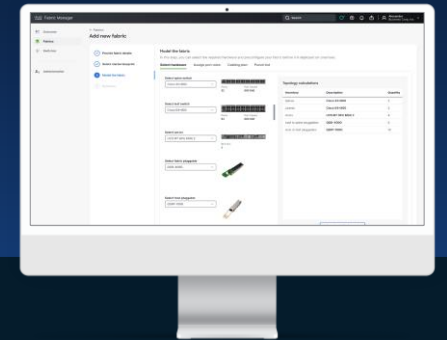
Cisco Data Centre  
Networking



Cisco Silicon One  
Cisco Optics



Cisco Unified  
Compute



Cisco Nexus  
Hyperfabric AI

Simplified Operations

# Advancing sustainability with telemetry



ENERGY METRICS

Energy  
Consumption

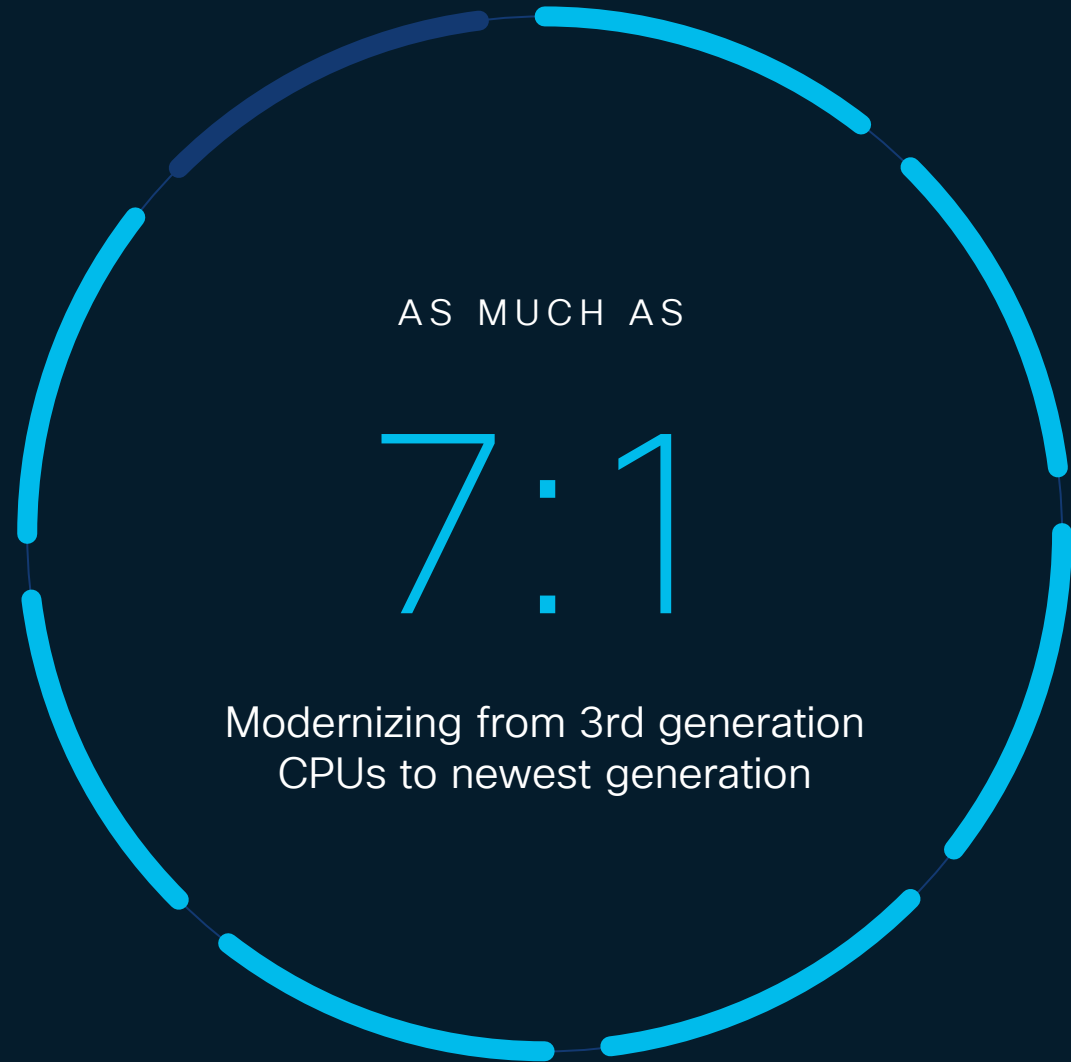
GHG Emissions

Carbon Intensity

Energy Mix

Energy Cost

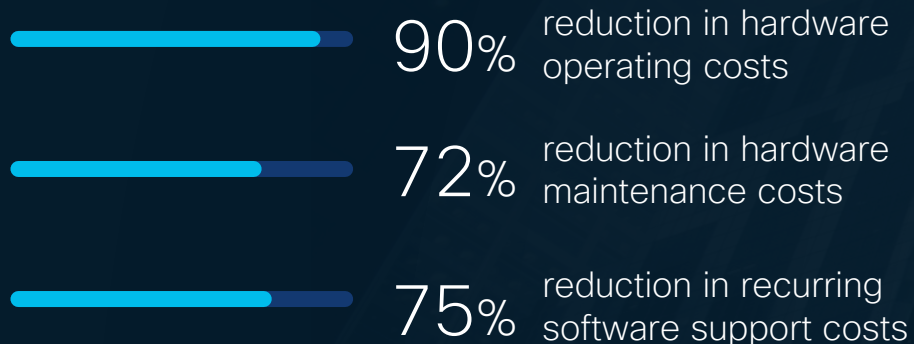
# The industry is changing



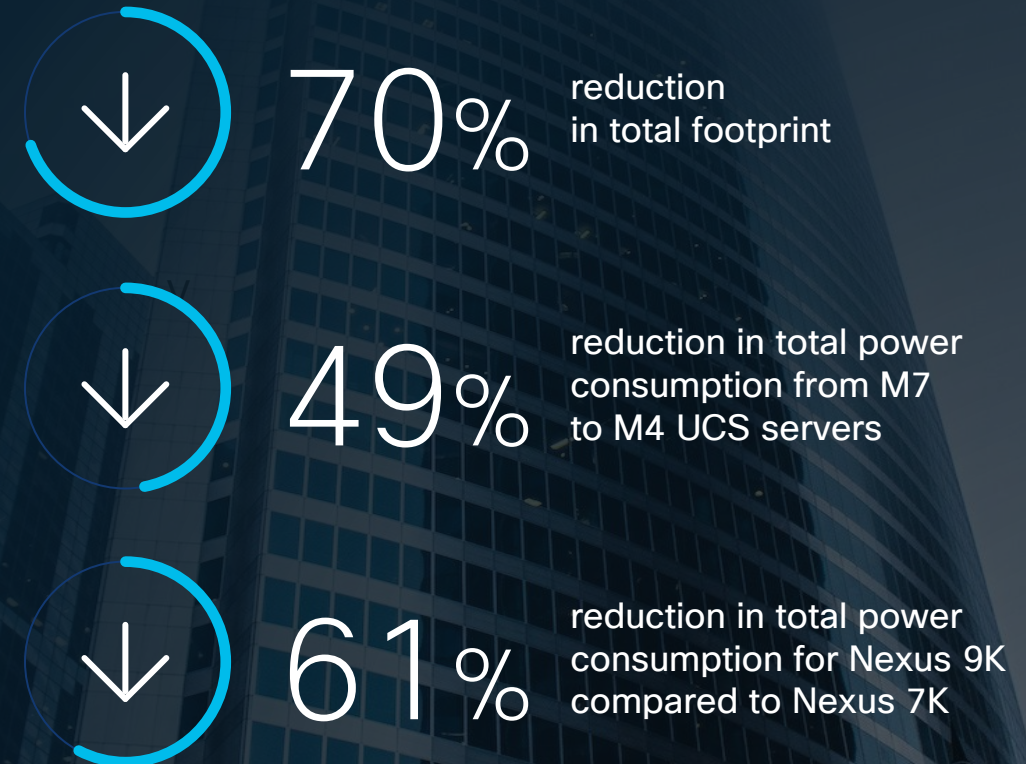
Case Study: Large Financial Services Organization

# Energy Reduction Through Modernisation

More modernisation benefits for customers



By replacing previous generation infrastructure with our latest platforms, a typical Cisco customer can expect:



Full Stack Solutions, Designs and Buying Guides

# Simplifying AI Adoption for a More Sustainable Future

01

Cisco Networking  
Blueprint &  
Validated Designs

AVAILABLE NOW

02

Cisco  
AI PODs

AVAILABLE NOW

03

Cisco Nexus  
Hyperfabric  
AI

AVAILABLE NOW

# End-to-End Sustainability

Leverage Cisco's product lifecycle management programs



Cisco Refresh program 21 years strong



Takeback and reuse with 99.9% recycled



Green Pay providing 5% incentive



Partner environmental sustainability specialization



Global public funding for sustainability initiatives



CX Sustainability Services

# Helping You Advance Sustainability in the AI Era

IT INFRASTRUCTURE

SIMPLIFIED OPERATIONS

## AI-Ready Data Centre

FULL STACK SOLUTIONS

DESIGN & BUYING GUIDES

# Call to Action



Visit the Sustainability Zone

---



Learn more about Cisco sustainability solutions and programs

---



Attend other Sustainability Sessions



# Thank you