



Where Technology
Means More®



CISCO

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The AI Journey for Service Delivery

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predictive analytics language translation sales forecasting price optimization
 fraud detection conversational AI AIOps knowledge management scifi-ran
 real-time recommendations nedia summarization cybersecurity cybersecurity
 personalization anomaly detection Virtual assistants document automation
 network security voice recognition churn prediction demand forecasting
 image recognition autonomous vehicles uality control equipment process automation
 demand prediction Image classification video analysis pattern recognition
 pattern recognition financial analysis chatbots financial analysis risk assessment
 financial analysis **AI USE CASES** image generation
 medical imaging autotomomous
 voice genimization equipment maintenance robotic process automation workflow
 autonomous vehicles quality control image generation chatbots automation
 process automation process automation quality control robotic automation
 quality control reporting equipment maintenance telecoms video analysis
 image classification video analysis pattern recognition financial analyse data
 virtual assistants optimizing analysts financial analysis risk assessment entry
 voice recognition text summarization inventory management image generation
 autonomous vehicles autonomous vehicles route optimization credit scoring
 process automation quality control data entry automation workflow automation

AI USE CASES

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process automation digital control data entry automation workflow automation
automation services automation services route optimization e-commerce
voice recognition text generation inventory management image recognition

INSIGHTS

FROM THE 2025 EPLUS AI READINESS SURVEY

Gartner Predicts:

“30%” of Generative AI Projects will be abandoned after proof of concept by end of 2025.”

GEN AI: A NEW FRONTIER OF OPPORTUNITY AND CHALLENGES

74.8%

A resounding **74.8%** of respondents plan to implement **GenAI** within the next year, demonstrating the technology's significant impact and perceived value.

NAVIGATING ADOPTION ROADBLOCKS

IT leaders face increasing challenges, with **skills gaps** (41.8%), **cost** (38.8%), and **security** (35.8%) coming out on top.

41.8%



38.8%



35.8%



How Do You
Set Up Your
AI Initiatives
for Success?

The AI Journey

LEVEL
03

AI Mature

Advanced adopters with established AI strategies

Transform the organization's capabilities

Inflection Point –Continue with current AI **build/consume** strategy or pivot?

Advanced

- AI is a core driver of business innovation
- Proactively building generative AI applications
- Data Science team
- Fully-functional AI Center of Excellence

LEVEL
02

AI Ready

Prepared and ready for acceleration

Established Data and AI strategy, ready to **accelerate business outcomes**

Functional

- Clearly defined AI use cases
- Strategic commitment and budget alignment to AI initiatives
- Modern Data Platform
- Data Governance aligned to AI initiatives

LEVEL
01

AI Curious

Exploring AI possibilities

Focus on AI **strategy**, business **outcomes**, and AI **preparedness**

Beginner

- Limited experience with AI
- Lacks a business-aligned AI strategy
- Data Silos, No Data Team
- Data governance concerns

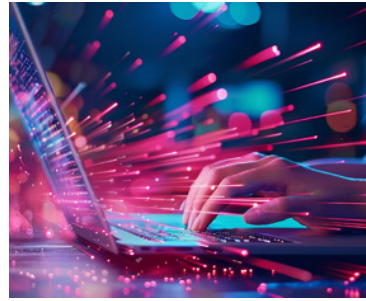
Inflection Point – Build AI infrastructure or **consume** AI services?

AI Project Trends



PRODUCTIVITY

AI Copilots
Chatbots
CSR Tools



IT EFFICIENCY

AIOps / SecOps
Automation
NOC Assistant



BUSINESS SPECIFIC

New Revenue Streams
Customer Experience
Differentiation



The Blueprint for AI



Large Language Models – LLMs

The Neural Core (AI Brain)

*Enables systems to understand and reason
Continually trained on vast datasets
Serve as "Core Intelligence Layer"
Trained and Fine tuned (Domain Specific)*



AI Ops / SecOps – Machine Intelligence

AI Left Brain

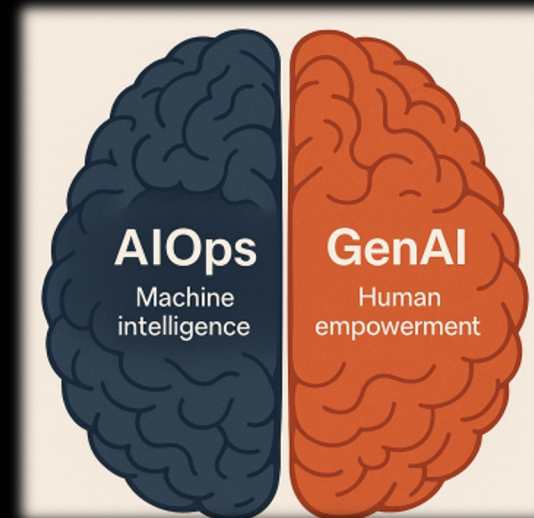
*Ingests and analyzes massive telemetry
Predicts failures and automates remediation
Driven by unsupervised and semi-supervised learning models*



Generative AI – Human Empowerment

AI Right Brain

*Deeply Human Facing (ChatGPT-Like)
Creates Content – Based on Human Prompts
Makes Complex systems more accessible through Natural Language*



Real Challenges. Real Providers. Real AI Solutions

Network Operations

Predict, Prevent, Optimize (Reactive)

- Predictive Maintenance – CMTS
- Scripting Assistance
- Minimize Log Noise
- Tribal Knowledgebase – Legacy Issues
- Standardizing Configurations
- Natural Language Query – NetBox - Slack
- PCAP Analysis
- Post Mortem Reporting

Field Technician Support

Faster Resolution / Decrease Truck Rolls

- Step-by-Step Guided Resolutions
- AI Powered Dispatch
- Faster Ticket Closure – Birth Certificates
- Computer Vision – Port Assignments

Security / Threat Detection

Reactive Defense to Proactive Protection

- AI-Powered Threat Detection
- Automated Irregularities Analysis
- Real-time translation- Human Readable
- Faster Breach Response
- Threat Hunting and Remediation
- LLM Penetration Testing

Customer Service

Enhance Customer Success

- Chatbots and 24x7 Virtual Agents
- Multilingual Virtual Agents
- Summarization Customer Tickets
- Proactive Notifications – Outages - Billing



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Operational Intelligence Meets Generative Insight

ALERT ID: 5678

Timestamp: 2025-01-09 14:23:12
Severity: CRITICAL
Root Cause: Optical light level degradation detected
Interface: GigabitEthernet0/1 (Router-3)
Current Power: -12.3 dBm
Threshold: -8.0 dBm

Impact Analysis:

- BGP Session Loss:
 - Peer: 192.168.10.1 (Router-1)
 - Peer: 192.168.20.1 (Router-2)
- Route Withdrawals: 50 routes across 10 routers
- Latency Impact: Increased from 15 ms to 90 ms
- Affected Businesses:
 1. Acme Corp
 2. Brightfield Industries
 3. GreenTech Solutions
 4. Horizon Enterprises
 5. Prime Logistics

Correlated Logs:

[14:22:56] Syslog: Optical power drop detected on GigabitEthernet0/1
[14:23:01] BGP: Peer 192.168.10.1 session terminated
[14:23:08] SNMP Trap: Interface link degradation detected on GigabitEthernet0/1
[14:23:15] NetFlow: Traffic drop detected on affected path 192.168.10.0/24

Historical Reference:

- Similar Incident: Optical light degradation on Router-5, GigabitEthernet0/2
- Date/Time: 2024-11-15 08:47:22
- Resolution: SFP module replaced (Vendor: Juniper Networks, Serial: JNP-SFP-01)
- Resolution Time: 2 hours
- Impact: 45 route withdrawals; resolved post-SFP replacement.

Planned Maintenance Check:

- Maintenance Scheduled for Router-3? **NO**
- Last Maintenance on Router-3: 2024-12-05
- Notes: No issues related to optical connections were noted during the last maintenance cycle.

SFP Details:

- Vendor: Cisco Systems
- Serial Number: CS-SFP-12345A
- Model: GLC-LH-SMD
- Installed On: 2021-05-10
- Time in Production: 3 years, 8 months
- MTBF (Mean Time Between Failures): 5 years
- Warranty Status: **Expired**

Environmental Metrics:

- Router-3 Temperature: 62°C (Normal)
- Humidity: 45% (Normal)
- Power Supply: Stable (Redundant configuration confirmed)

AI Anomaly Analysis:

- Cross-referencing external factors: No weather events detected in the area.
- Nearby infrastructure status: No concurrent failures detected on associated links.
- Pattern Recognition: Similar behavior observed in 3 prior incidents across the network.

Recommended Actions:

1. Inspect physical fiber connection on GigabitEthernet0/1 for damage or contaminants.
2. Test optical power levels using a power meter.
3. Replace SFP module if power remains below threshold:
 - Suggested Replacement: Cisco GLC-LH-SMD
 - Inventory Check: **3 units available in local stockroom**
4. Notify affected businesses of potential service disruption:
 - Suggested Communication Template: "Service disruption expected on affected paths for up to 2 hours"
5. Reroute traffic through backup link (192.168.30.1) to minimize impact:
 - Validation: Backup link operational and verified stable.
6. Log incident in root cause analysis database for future correlation.

Data Sources Used:

1. Syslog from Router-3
2. SNMP Traps from Router-3
3. NetFlow Data: Traffic anomalies detected
4. Maintenance Schedule Database
5. Historical Root Cause Database
6. Environmental Monitoring System
7. Inventory Database (SFP Stock Check)
8. Regional Weather Data: No adverse conditions
9. Vendor MTBF and Warranty Information

From Hesitation to Action

Cost and Complexity



- Entry Point Cost
- Limited Internal AI Expertise
- Vendor / Tool Sprawl
- Integration with legacy systems

Data Readiness



- Data Silos
- Outdated Data
- Data Privacy Concerns
- Inconsistent Data Formats

Security and Compliance Risks



- Fear of Misuse
- Shadow IT
- Unvetted AI Tools
- Threat of New Attack Surfaces

Cultural Uncertainty



- Fear of replacing human roles
- Loss of Decision Control
- Trust in AI Systems
- Lack of AI Literacy

Checklist for AI Success

- ✓ Use Case Definition
- ✓ Solution & Platform Selection
- ✓ Data Strategy
- ✓ Governance, Risk & Compliance
- ✓ Cost Modeling & Optimization
- ✓ Training
- ✓ Ongoing Management

The Path to Proof of Concept (POC)

Helping clients evolve from AI Curious to AI Ready

AI ENVISIONING

Develop AI strategy | Explore industry examples |
Identify focus use cases

USE CASE DEVELOPMENT

Fully explore 2-3 top use cases | Align with business
objectives | Identify in-scope/ out-of-scope items

AI POLICY AND GOVERNANCE

Ethical and regulatory AI considerations | Data governance
gap analysis | AI policy creation | AI risk threat modeling

DATA STRATEGY

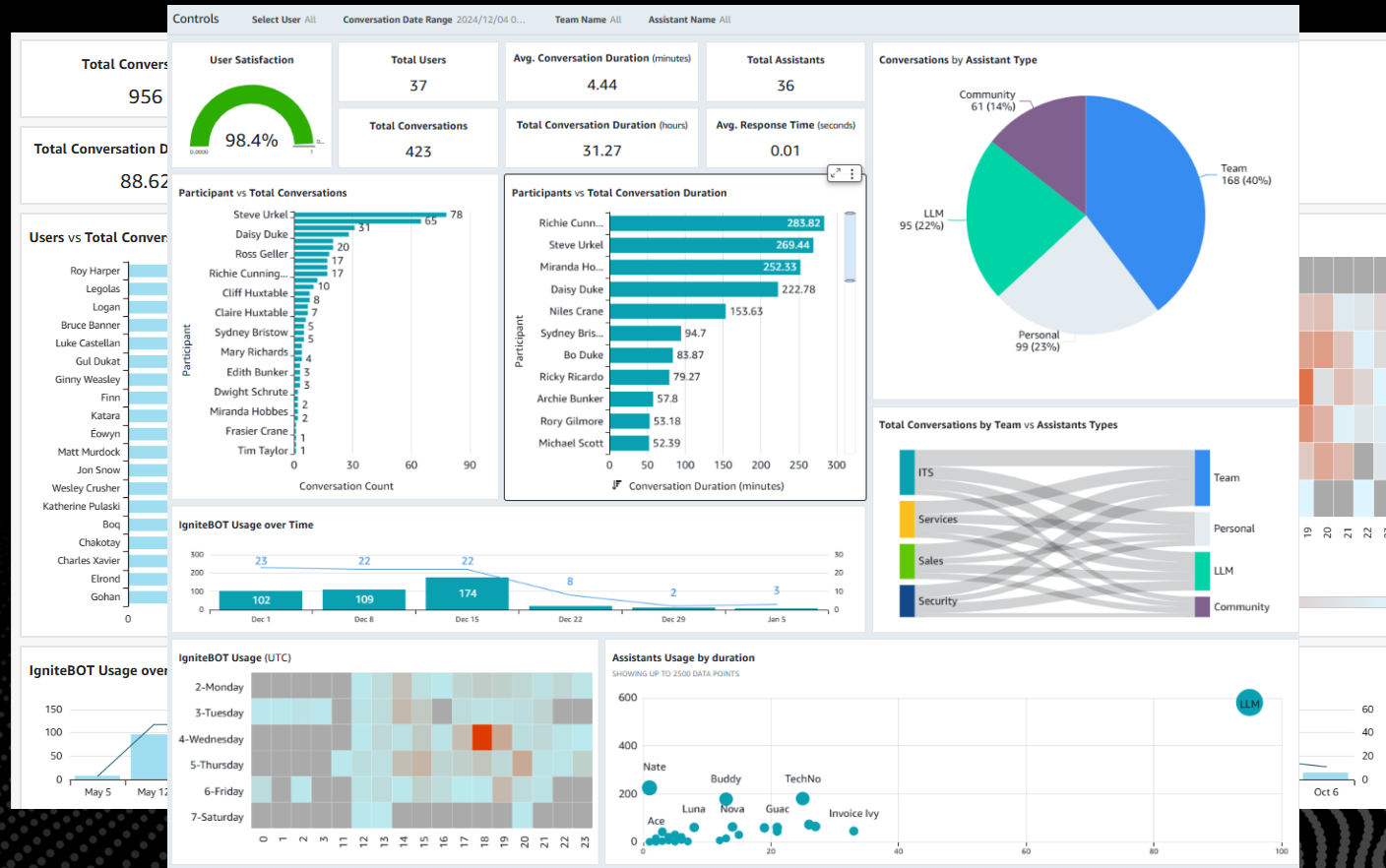
Data strategy assessment | Break down data silos |
Modern data platform adoption

PROOF OF CONCEPT

POC platform selection and deployment | Measure and
iterate | Report on success metrics



Metrics are the key to a successful POC



Start Small, Think Big

1

Identify AI Use Cases

Define success metrics and solution requirements

2

Assess Preparedness

Data, policy, governance, and operations

3

Execute a Measured POC

Focus on identified use cases and measure success

4

Prioritize & Implement

Let POC results guide your priorities for Production



Q&A



<https://discover.eplus.com/partner/eplusaijourneyforbroadband25/>

