

AI for ISPs

A Practical Educational Guide for Tier 2 & Tier 3 Operators

AI Adoption is a Journey, Not a Destination

Are you ready for what's next?

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The AI Readiness Gap

~8%

of organizations have cloud infrastructure that is AI-ready at scale

~92% are not prepared

86%

of C-suite leaders are increasing AI spend in 2026

Ambition far outpaces infrastructure

48%

of organizations lack enough quality data to operationalize AI

Data is the #1 bottleneck

The AI Readiness Gap

What's Missing

Tech & Process Foundations

Cloud, Enterprise Resource Planning, and security modernization is incomplete at 92% of organizations — fragmented processes block AI integration.

Observability & Automation

Only a small minority achieve advanced monitoring or full automation — most lack real-time AI-integrated insights.

Data Preparedness

48% of executives say their data is not ready for AI. Without clean, connected data, AI tools cannot deliver value.

Talent & Culture

AI capability must be embedded in day-to-day work — organizations that treat it as a side initiative fall behind.

AI Is Reshaping Network Traffic

5–9x

growth in total IP traffic
expected by early 2030s
vs. today

*AI workloads are a major
contributor*

165%

projected rise in data
center power demand
by 2030 vs. 2023

*AI's share of data center power roughly
doubling by 2027*

AI Is Reshaping Network Traffic

What This Means for Your Network

AI Traffic Is Already Here

Over 4% of U.S. wireless traffic is now AI-driven. For a 50K-subscriber ISP, that is measurable load today — and growing.

Volume Is Accelerating

AI traffic alone could exceed 1,000 EB/month by the early 2030s, growing at ~25% annually. Your network planning must account for this now.

Traffic Patterns Are Shifting

Always-on AI agents move traffic from episodic sessions to continuous background flows — changing how you plan capacity.

Content Is Changing

By mid-decade, the majority of application content will be AI-generated or AI-served — the traffic on your network is fundamentally changing.

Why You Should Consider AI

With most organizations unprepared and traffic patterns shifting, the question is not if AI matters — but whether you are ready.

90%

of telcos say AI is increasing revenue and reducing costs

89%

of telecoms plan to increase AI spending in 2026

78%

of companies now use AI in at least one business function

Why You Should Consider AI

Rising Subscriber Expectations

AI enables faster response times, proactive network management, and personalized service that customers increasingly demand

Competitive Pressure

Tier 1 carriers and cable MSOs are already deploying AI — without a strategy, smaller operators risk falling behind

Accessible, Affordable Tools

Cloud-based AI solutions now allow smaller teams to leverage capabilities that once required enterprise-scale investment

Untapped Data Assets

ISPs generate vast amounts of network, billing, and customer data that AI can turn into actionable insights

The Challenge of Deploying AI

Talent Gap Most ISPs lack dedicated data science or AI expertise — building internal knowledge takes time and resources

Legacy Systems Fragmented data environments make integration difficult — AI tools require clean, connected data

Vendor Confusion Distinguishing genuine AI solutions from repackaged automation requires careful evaluation

Budget Constraints Funding AI while maintaining network operations and capital projects creates competing priorities

Change Management AI adoption affects workflows, roles, and culture, requiring commitment beyond the technology itself

52%

of broadband executives
say they lack budget for AI
readiness

Risks of Mis-Deploying AI

95%

of organizations saw zero measurable
return from generative AI

60%

of AI projects without AI-ready data will be
abandoned by 2026

Risks of Mis-Deploying AI

Wasted Investment

Deploying without clear objectives often results in shelved projects and lost budget

Regulatory Exposure

Poorly implemented AI may mishandle subscriber data, creating compliance risks

Eroded Employee Trust

Introducing AI without communication can create fear and resistance to change

Customer Experience Failures

AI systems that perform poorly can frustrate subscribers and increase churn

Vendor Lock-In

Rushing in without evaluating compatibility can leave you dependent on one vendor

What Mis-Deployment Looks Like

A composite scenario based on common patterns across Tier 2 and Tier 3 ISPs

Without a Plan

1. A regional ISP purchases an AI-powered chatbot to reduce call center volume
2. No data audit is performed — the chatbot is trained on incomplete and outdated FAQ content
3. Customers receive inaccurate answers, leading to a spike in escalations and complaints
4. Call center staff lose trust in the tool and stop routing inquiries to it within 8 weeks
5. The \$85K annual investment is abandoned after 6 months with no measurable improvement

With a Structured Approach

1. The same ISP identifies call center volume as a priority, but first audits its data and processes
2. A readiness assessment reveals gaps in FAQ content, CRM integration, and staff training
3. The team addresses data quality, trains the chatbot on verified content, and pilots with one team
4. Frontline staff provide feedback during the pilot, improving accuracy before full deployment
5. Call volume drops 18% within 4 months, and the investment is expanded to a second use case

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Key Considerations for Planning an AI Implementation

Start with a Business Problem

Identify specific pain points (truck rolls, call volume, outage detection) and evaluate whether AI is the right tool

Define Success Metrics

Establish what improvement looks like (response time, cost savings, satisfaction) so you can objectively measure results

Engage Cross-Department Leadership

AI is not solely an IT initiative — operations, customer service, finance, and executive teams all need alignment

Assess Your Data Foundation

Determine whether you have the data quality, accessibility, and governance in place before selecting any solution

Plan for People

Allocate resources for training, change management, and role adaptation alongside the technical implementation

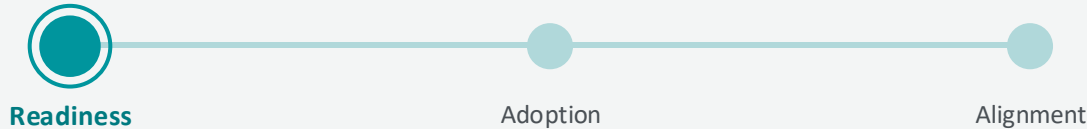
Build Incrementally

Start with a focused pilot that can demonstrate value quickly, then expand based on lessons learned

Prioritizing AI Use Cases for Your ISP

High Impact	Quick Wins Automated ticket routing Proactive outage alerts AI-assisted troubleshooting	Strategic Investments Predictive network maintenance AI-driven capacity planning Churn prediction models
	Easy Experiments Internal chatbot for staff FAQs Basic report summarization	Deprioritize Full autonomous network ops Custom LLM development
Low Impact	Low Complexity	High Complexity

Developing a Roadmap: AI Readiness

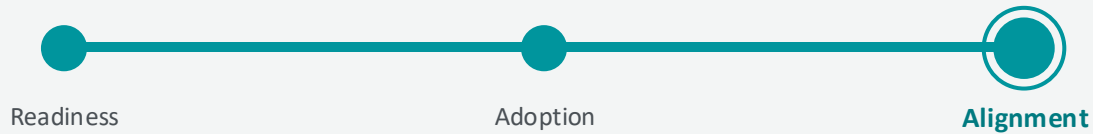


~8% of organizations are AI-ready at scale — readiness is where most must begin.

Readiness answers the question: Are we prepared to begin an AI journey?

- 1 Audit your current infrastructure and data environment — document where your data lives, how it flows, and whether it is accurate
- 2 Evaluate your team's skill sets honestly — identify gaps in technical capability, data literacy, and AI understanding
- 3 Review your technology stack for compatibility — determine which platforms can integrate with AI tools and which need upgrading
- 4 Assess your organizational culture around innovation — understand whether staff are open to technology-driven change
- 5 Benchmark your current operational metrics — establish baseline measurements so you have a clear starting point for comparison

Developing a Roadmap: AI Alignment



AI — alignment ensures the organization moves together.

Alignment answers the question: Is our organization unified in its AI direction?

- 1 Ensure key stakeholders share a common understanding of AI goals — misalignment leads to conflicting priorities
- 2 Align AI initiatives with your overall business strategy — AI should support your mission, not operate in isolation
- 3 Establish shared vocabulary and expectations — when departments interpret AI differently, communication breaks down
- 4 Conduct regular alignment checks among decision-makers — periodic reviews keep everyone moving in the same direction
- 5 Connect AI outcomes to organizational KPIs — create shared ownership rather than siloed accountability

Key Takeaways

1

AI offers real operational and competitive advantages for Tier 2 and Tier 3 ISPs — but only when approached with a clear plan

2

Deployment without preparation creates risk — 95% of organizations see zero measurable return when they skip the fundamentals

3

A structured approach across Readiness, Adoption, and Alignment gives your organization the best path forward

4

Start by understanding where you are today, then build incrementally toward where you want to be

Questions?

Adoptex

*Adoption Positioning System
the GPS for ISPs*