
2025
WISPAMERICA™
BROADBAND WITHOUT BOUNDARIES

AI And Machine Learning In Action: Transforming Network Operations

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What is AI & ML

Feature	ASR (Automatic Speech Recognition)	LLM (Large Language Model)
Purpose	Convert **spoken words to text**	Understand and **generate natural language text**
Input	Audio (spoken language)	Text
Output	Plain text (transcription)	Coherent, context-aware language (text)
Examples	Siri hearing you say "Call Mom"	ChatGPT writing an email or summarizing a story
Key Skill	Listening & transcribing	Reading, reasoning, and responding like a human

(AI in voice mail)

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Think of it like...	ASR is your ears, LLM is your brain
ASR = audio → text	LLM = text → understanding & response

ASR vs. LLM

Feature	ASR (Automatic Speech Recognition)	LLM (Large Language Model)
Purpose	Turn speech into text	Understand and generate text
Input	Spoken audio	Written text
Output	Transcribed text	Context-aware response or generation
Example	Dictation, voice search	ChatGPT, summarizing, writing

ASR vs. LLM

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Computer Vision vs. Generative AI

Feature	Computer Vision	Generative AI
Purpose	Analyze images or video	Create new text, images, or audio
Input	Photos, video, live camera feed	Prompt or training data
Output	Tags, detections, facial recognition	Text, images, code, audio
Example	Face ID, object detection	DALL·E, ChatGPT, Copilot

Machine Learning vs. Deep Learning

Feature	Machine Learning	Deep Learning
Scope	Broad category of training models	A subset using neural networks
Model Type	Decision trees, regression	Multi-layer neural networks
Use Cases	Fraud detection, recommendations	Image recognition, language modeling
Speed/Power	Less data, easier to interpret	Data-hungry and complex

Supervised vs. Unsupervised Learning

Feature	Supervised Learning	Unsupervised Learning
Training Data	Labeled (input-output pairs)	Unlabeled (just input)
Goal	Predict/classify known outcomes	Discover hidden patterns
Example	Spam filter, speech-to-text	Customer segments, anomalies

Rule-Based vs. ML-Based AI

Feature	Rule-Based AI	ML-Based AI
How it Works	Pre-set rules by humans	Learns from data patterns
Flexibility	Rigid, can’t adapt	Adaptive, improves over time
Example	If-then chatbot, thermostat	Predictive text, smart replies

Predictive vs. Generative AI

Feature	Predictive AI	Generative AI
Purpose	Predict future values/outcomes	Create new content
Use Cases	Forecasting, recommendations	Writing, image/audio generation
Example	Netflix suggestions, stock forecast	ChatGPT, DALL·E, music tools

Our Speakers

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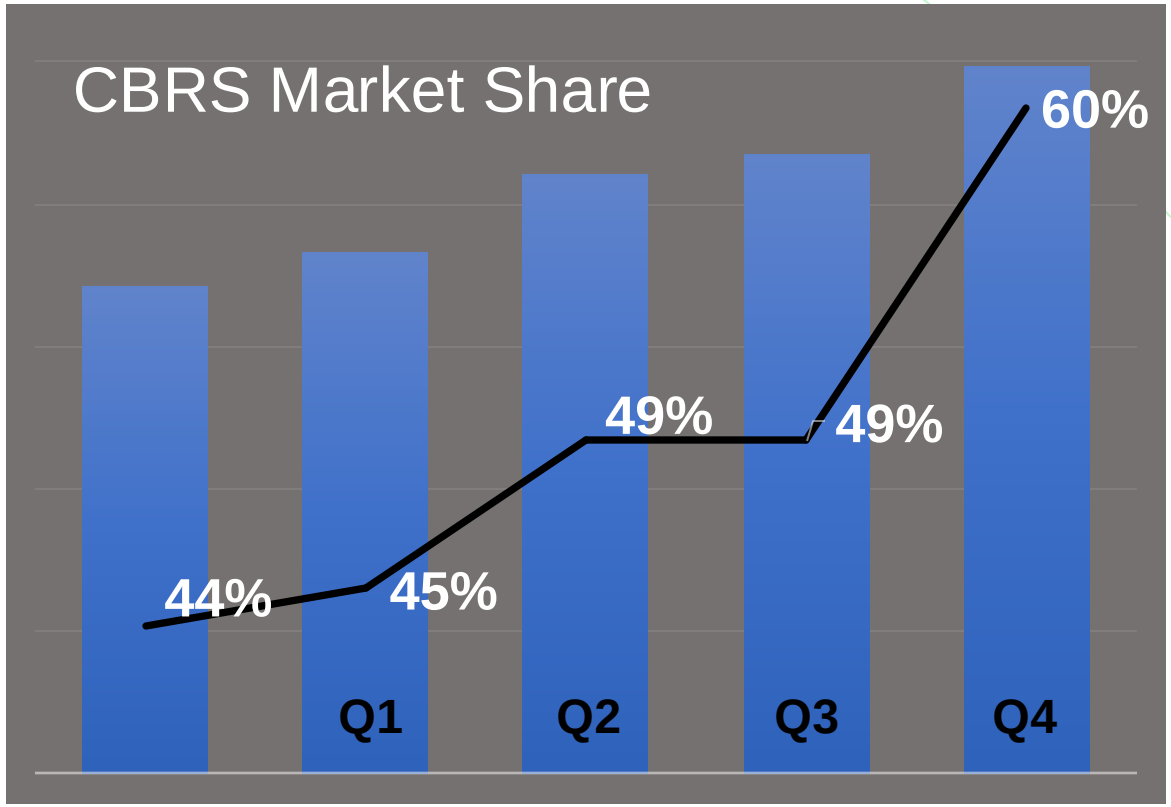
Federated Wireless Leading
CBRS and 6 GHz Innovation

AI-driven Shared and Unlicensed Spectrum Solutions are What We Do.



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Federated Wireless
Strong Commitment

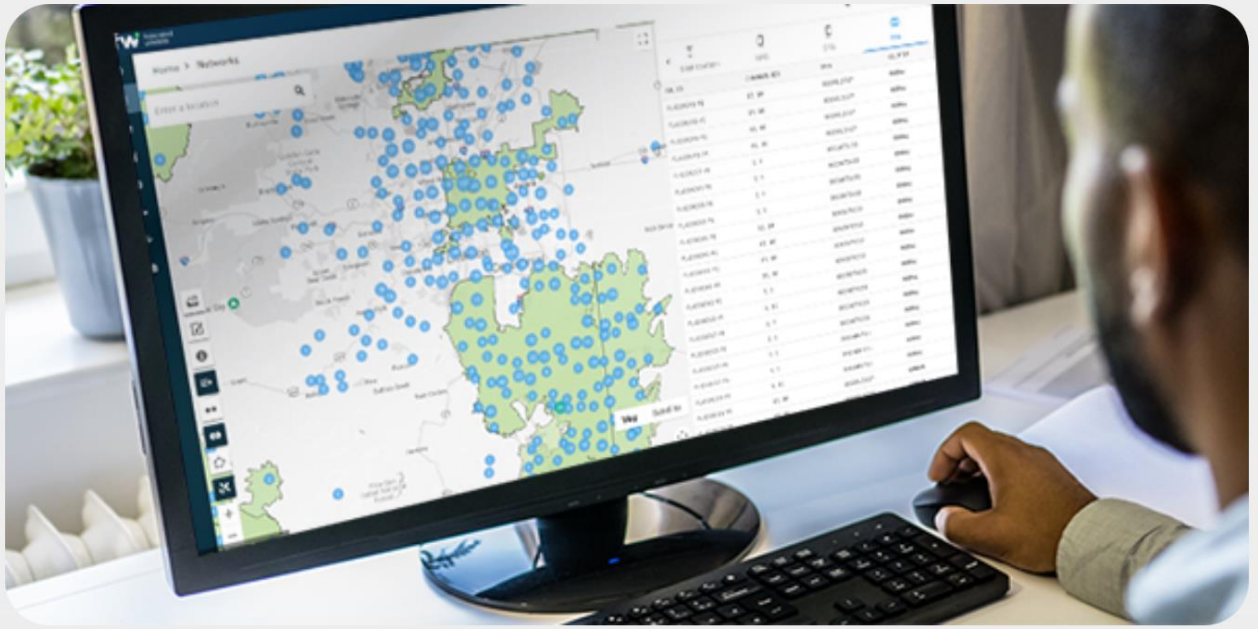
- ✓ Ten years commitment and over **$200m investment**
- ✓ **First to market** FCC approved SAS for CBRS
- ✓ **Leading 6 GHz development** and investment since 2017
- ✓ **Largest open ecosystem** for both CBRS and 6 GHz
- ✓ **Nvidia** partnership

Unmatched CBRS Performance

100% Spectrum Availability

100% Interference-Free Spectrum

100% Certain Spectrum



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THANK YOU