

Cisco Universal Wi-Fi Campaign



What Is the Market Opportunity?

The Wi-Fi Opportunity Pyramid

Industry Vertical Markets

Universal Wi-Fi Solution

Cisco Meraki Solution

Cisco Connected Mobile Experiences

Qualifying Questions

Offers & Resources

Cisco® Universal Wi-Fi for Service Providers solution is a truly carrier-grade Wi-Fi infrastructure that is scalable enough to support exponential traffic growth from millions of users. It delivers a transparent mobility experience for the end user and is built on open standards, so your customers can count on it working with the network they have today, as well as the network they will have in the future. Cisco Universal Wi-Fi for Service Providers solution is part of an integrated, small-cell architecture and provides an end-to-end path from access points to controllers to core network gateways and spans service provider and enterprise markets.

As Wi-Fi becomes a critical part of service providers' mobile strategies, Cisco Universal Wi-Fi for Service Providers solution provides several critical, universal capabilities that allow operators to:

- Offer value-added services based on location, real-time analytics, and commercial partnerships
- Create a foundation for HD voice services
- Integrate with cellular small cells as a simple clip-on accessory as well as in the core network through integrated policy orchestration

What Is the Market Opportunity?

Mobile technologies are evolving quickly to respond to unprecedented customer demands. Users carry their mobile devices everywhere they go. They want the freedom to access data and voice as quickly and easily as possible, anywhere, anytime. The technology to connect wirelessly is increasingly embedded in devices.

The [Cisco VNI Global Mobile Data Traffic Forecast, 2014-2019](#) forecasts stunning growth in the mobile sector by 2019:

- The number of global mobile users will be 5.2 billion, up from 4.3 billion in 2014
- There will be 11.5 billion mobile-ready devices and connections
- The average mobile connection speed will increase 2.4-fold, from 1.7 Mbps in 2014 to 4.0 Mbps
- The number of wearable devices globally will grow five-fold, reaching 578 million by 2019, up from 109 million in 2014
- Voice over Wi-Fi will gain 53 percent of mobile IP voice, up from less than a tenth of a percent in 2014
- The number of Wi-Fi-capable tablets and PCs (1.9 billion) will be nearly 3.5-times the number of cellular-capable tablets and PCs (542 million)

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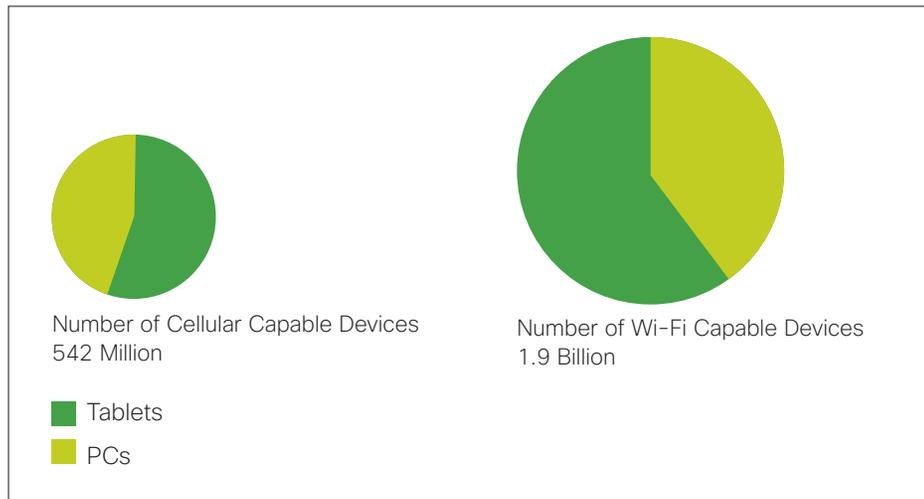
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Figure 1. By 2019, Wi-Fi Will Connect Nearly 3.5-Fold Cellular Connected Tablets and PCs



As consumers are becoming more mobile, they expect service providers to provide the capacity for mobile data. Statistics indicate that the combination of increasing data traffic, availability of Wi-Fi-enabled devices, and the need for speed is creating a very dynamic market opportunity for your customers.

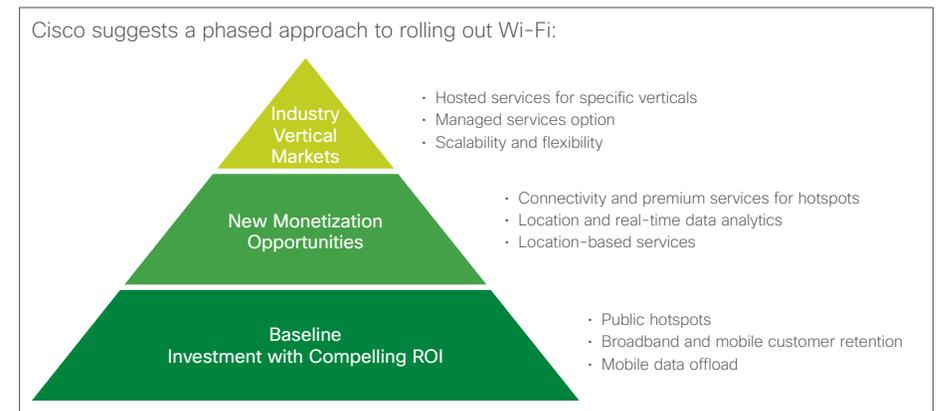
Traditional mobile networks don't have the capacity to deal with this type of exponential growth in data demand and global Internet usage. Service providers can effectively address the exponential growth by deploying licensed and unlicensed small cells that enable them to cost effectively manage coverage and capacity.

Source: Cisco Visual Networking Index (VNI) Global Mobile Data Forecast, 2014-2019

The Wi-Fi Opportunity Pyramid

Cisco views the Wi-Fi monetization opportunities as a pyramid, or a set of layers. Each of the layers supports the subsequent layer above. Service providers and their customers derive increasing value as they move up the Wi-Fi Opportunity Pyramid.

Figure 2. The Wi-Fi Opportunity Pyramid: Cisco suggests a phased approach to rolling out Wi-Fi.



Baseline

As a starting point, operators can enhance their relationship with their customers by offering public Wi-Fi hotspots as a means to reduce customer churn as well as develop business by offloading mobile data traffic to Wi-Fi.

New Monetization Opportunities

With this foundation in place, service providers can explore opportunities for creating new revenue streams from Wi-Fi networks. Some of the emerging monetization opportunities are based on:

- Real-time analytics of customer behavior patterns
- Location-based services such as coupons and alerts
- New trends such as Voice over Wi-Fi
- Explosive growth related to Internet of Things and machine-to-machine (M2M) connectivity
- Smart City technologies

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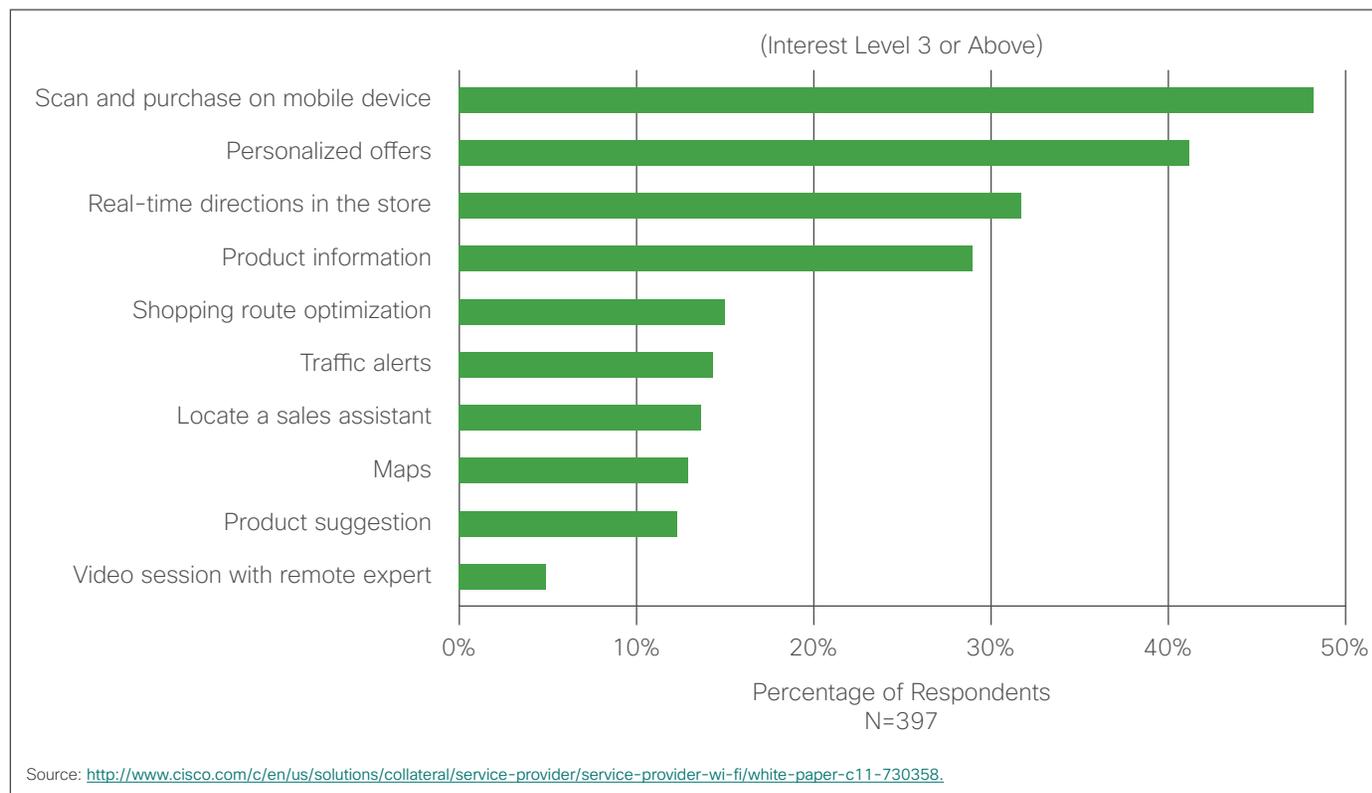
Our [Cisco consumer survey](#) found that more than 45 percent of consumers are interested in personalized offers that enhance their overall mobile experience. In addition, more than 35 percent are interested in real-time wayfinding information on their mobile devices. Wi-Fi offers unique information about indoor locations that isn't available with other systems today. Creating personalized services that take advantage of Wi-Fi location-based information in real time can enhance the consumer experience.

Wi-Fi location intelligence is a "gold mine" of information that can be used for better insights through analytics and personalization. This data can help operators create new

methods for increasing ROI through business models and partnerships. Location-based services that your customers can provide to create new revenue opportunities include:

- Personalized offers and promotions
- Real-time shopping directions
- Mobile advertising that provides location-specific content to the end user
- Loyalty applications with third-party content providers¹

Figure 3. Mobile Services of Most Interest



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Industry Vertical Markets

Service providers can continue to build value by targeting industry vertical markets, such as hospitality or retail, for a variety of value-added services and hosted Wi-Fi services.

Figure 4. Service Provider Enterprise Vertical Opportunities

Retail	Hospitality	Travel	Healthcare	Education
				
Consumers	Guests	Passengers	Patients	Students
<ul style="list-style-type: none"> Send location and dwell-time notifications Offer personalized promotions Access customer analytics 	<ul style="list-style-type: none"> Show maps with featured attractions Deliver personalized third-party advertising List nearby amenities 	<ul style="list-style-type: none"> Reduce wait times, improve traffic flow Provide gate directions Deliver third-party advertising 	<ul style="list-style-type: none"> Offer wayfinding patient apps Simplify onboarding List nearby services 	<ul style="list-style-type: none"> Improve safety and security Provide intuitive campus maps Enhance tours and stadium experiences

Who to Target

The segments we are targeting for new and incremental demand generation are service providers in the tier 2, 3, and 4 accounts, which include retail, campgrounds, parks, buildings, universities, schools, and trailer parks. Cisco can easily extend the brand recognition and successes in the top-tier customer base to this new segment.

There are two key audiences to target with this offer—technical and business decision makers.

- Technical Decision Maker titles include chief technology officer (CTO), VP of network planning, and VP of engineering. They are interested in building out robust infrastructure to support the needed growth in capacity and coverage.
- Business Decision Maker titles include chief executive officer (CEO), chief marketing officer (CMO), and chief financial officer (CFO). They are interested in capitalizing on mobile Internet trends and extracting value out of infrastructure spend by developing new services.

Service Provider Pain Points

- Declining market penetration
- Consolidation is occurring
- Customer churn
- Competition within service territory

Benefits for Service Providers

Cisco Universal Wi-Fi Solution for Service Providers solution provides the following benefits:

- Creates new revenue streams
- Helps service providers retain customers and increase average revenue per user
- Affordable, no large upfront investment
- Cisco and its partners understand the technology and help with step-by-step rollout
- Monetization strategy

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Universal Wi-Fi Solution

The Cisco Universal Wi-Fi for Service Providers solution includes the following elements:

A complete portfolio of intelligent 802.11ac access points including the Cisco Aironet® 1530, 1550, and 1570 Series for outdoors and the Cisco Aironet 700, 1700, 2700, and 3700 Series for indoors. Silicon-level integration supports crucial network functions, including interference mitigation, resource management, beamforming, band selection, and voice and video optimization.

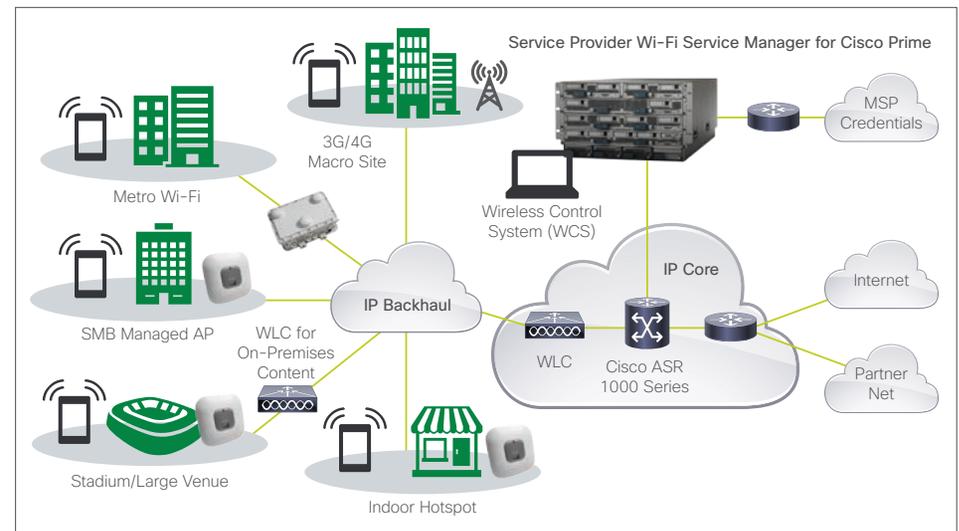
Secure network intelligence and management with carrier-grade network analytics, subscriber management, and policy control provided from the Cisco Wireless LAN Controller, the Cisco Mobility Services Engine (MSE), the Cisco Wireless Access Gateways (WAG), and the Cisco Policy Suite.

The Cisco Policy Suite, a flexible, scalable policy control platform, can be deployed across all access networks.

The mobile packet core, based on the award-winning Cisco ASR 5000 Series, provides standards-based capabilities that allow operators to transparently and securely integrate Wi-Fi, small cell, and macrocell radio networks through the Cisco ASR 5000 Small Cell Gateway. The Cisco ASR 5000 Series includes common subscriber management, policy, and authentication functions, delivering transparent service integration to Wi-Fi and licensed small cell users. The Cisco ASR 5000 Series Small Cell Gateway is widely deployed today, providing multivendor interoperability.

Across the Cisco Universal Wi-Fi for Service Providers solution, Cisco Prime™ is a unified network management platform that supports an intuitive user experience as it integrates operations across Cisco products, technologies, and networks.

Figure 5. Overview of all solutions required for service provider Wi-Fi.



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Cisco Meraki Solution

Cisco Meraki® is a cost-effective, cloud-hosted solution. Managed services providers can offer this as an outsourced, infrastructure as a service to end customers and operate through cloud-based controls. Cisco Meraki provides a simple, ready-to-use, pay-per-access point model for wireless deployments that can be considered for education and retail.

Universal Wi-Fi	Meraki
<p>Optimized for Mobile Carrier Deployments</p> <ul style="list-style-type: none"> • Hardware flexibility: Strand mountable AP, modular APs, sophisticated antenna options • Hotspots 2.0 to allow seamless roaming between operators around the globe, enabling new business models • Flexible architectures <p>Optimized for Carrier Integration</p> <ul style="list-style-type: none"> • Seamless mobility: 3G/4G seamless handoff to Wi-Fi • Integration with mobile network (data tunneling) <p>Optimized for Sophisticated RF Environments</p> <ul style="list-style-type: none"> • Customizable solution that enables: <ul style="list-style-type: none"> - Monetization - Ad insertion - LBS - Analytics 	<p>Optimized for Managed Service Deployments</p> <ul style="list-style-type: none"> • No staging required • Low TCO (simplified NOC management) • Brandable end-customer portal <p>Optimized for Fast Time to Market</p> <ul style="list-style-type: none"> • No data center footprint • Limited training required • Shortened sales cycles with cloud demos and free trials <p>Optimized for Ease of Use</p> <ul style="list-style-type: none"> • Cloud/Web-based management • Unique network visualization • Branded end-customer portal support

Cisco Mobility IQ

Cisco Mobility IQ is a highly secure, cloud-based solution that visually combines network, user, and business intelligence across your customer's mobile network to realize business outcomes.

This solution gives service providers and business customers universal insight to understand their networks better, expand value, and increase revenue. It encompasses Cisco Network Intelligence, Cisco User Intelligence, and Cisco Business Intelligence.

Through a single, comprehensive dashboard with different views based on role, Cisco Mobility IQ displays a wealth of network and subscriber data collected across Wi-Fi, 3G, and 4G networks.

With this intelligence at their fingertips, your customers can troubleshoot and fix network problems faster for higher customer satisfaction. And you can help your customers generate new revenue based on a detailed understanding of their customer's movements in venues, such as stores and hotels, wait times at point-of-sale counters, and many other insights.

<http://miq.cisco.com>

Cisco plans to make this service available to certified partners in the future.

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Cisco Connected Mobile Experiences

Cisco has a unique offering with Cisco Connected Mobile Experiences. The location information and intelligence collected on the Cisco Service Provider Wi-Fi network can be used for both personalization and analytics for better business decision making.

Using the Wi-Fi location intelligence, operators can provide their customers with a highly personalized mobile experience that builds loyalty and boosts customer satisfaction. New opportunities can include customized content, personalized information, and mobile advertising over Wi-Fi.

In addition, there are unique reports that include real-time data about devices, context, and location, but provide venue owners and service providers the data for business decision making. This analysis includes trends, such as traffic patterns, dwell time, and crowding, to help bring value to network intelligence for businesses.

Learn more about Cisco Connected Mobile Experiences at: www.cisco.com/go/cmxe.



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Qualifying Questions

- What is the purpose of the proposed Wi-Fi network? Is it for indoor or outdoor needs? For small or medium-sized businesses, or a specific venue?
- What infrastructure is available (fiber, cable, Ethernet)?
- Is there outdoor power available?
- What are the end-user bandwidth requirements?

Offers

- **Cisco Capital® Financing: Three-Month Deferral**
Offer a three-month, interest-free payment deferral for all Cisco hardware, software, and bundled services. This offer expires July 25, 2015.
- **Multi-Year Service Contract Financing**
Offer three-year, 2.5 percent multi-year service contract financing. This offer expires July 25, 2015.
- **Free Predictive Site Survey**
This remote desktop survey covers two floors indoors or the area of one block outdoors. It's the perfect tool for initial budget planning. It provides the customer with values to start building Wi-Fi business cases. For more information see the [Predictive Site Survey](#).

Resources

Learn more about Cisco Service Provider Wi-Fi customer deployments with monetization opportunities by viewing the following resources.

Case Studies

- [Customer Stories Videos](#)
- [Blog Post: City of Santa Clara](#)
- [Blog Post: Austin Airport/Boingo](#)
- [Blog Post: America's Cup](#)

Articles

- [The Wireless Broadband Alliance and GSMA Announce Next-Generation Wi-Fi Network at Mobile World Congress 2015](#) February 19, 2015
- [Fans To Experience Upgraded Free Xfinity Wi-Fi at Wells Fargo Center](#) February 09, 2015
- [4 Cool Technologies Powering the Super Bowl](#)
- [Big Results at the Biggest Events](#)
- [Super Bowl Sets New Stadium Wi-Fi Record](#)

Reference

- White Paper: [Cisco VNI: Global Mobile Data Traffic Forecast Update, 2014-2019](#)
- White Paper: [Digging for the New Mobile Gold](#)
- White Paper: [Cisco Service Provider Wi-Fi: A Platform for Business Innovation and Revenue Generation](#)
- Infographic: [Small Cells](#)
- White Paper: [Wi-Fi: New Business Models Create Real Value for Service Providers](#)
- Blog: [Next Generation Mobile Monetization](#)

Competitive Documents

- [Ruckus Competitive Rebuttal Blog](#)

PEC and Specializations

- [Cisco Wi-Fi Cloud Based Tools - Voice of the Engineer - March 19 2015](#)
- [Cisco Smart Cell - Cisco Universal Small Cell Solution: A Platform for Service Innovation](#)

To watch a presentation about the direction of Cisco's Service Provider Wi-Fi architectures, visit the [Partner Education Connection](#) and search on ID# 1423852221697.

See a presentation about Cisco's Voice over WiFi solution and value proposition by visiting the [Partner Education Connection](#) and searching on ID# 1423852226547.