

# Cisco Small Cell Enterprise Select

Cisco® Small Cell Enterprise Select challenges the traditional approach to 3G and LTE licensed radio deployments by tapping into Cisco’s extensive certified partner network, which has been supporting enterprise mobility for over 10 years, deploying over 2 million enterprise-class Wi-Fi access points in 2013 alone.

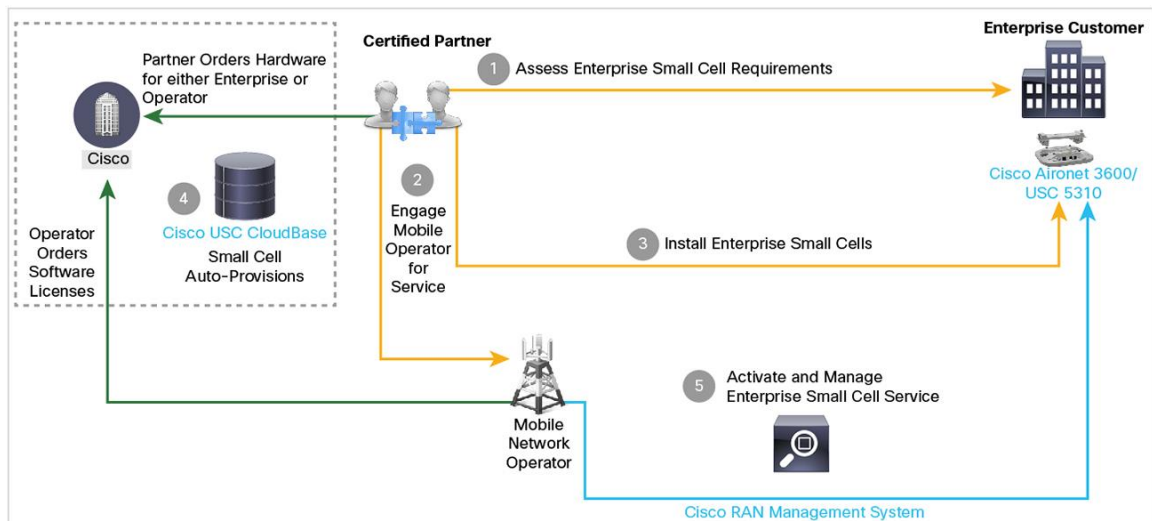
## Problem

Small cell deployments are at the precipice of the adoption curve chasm with no viable bridge to cross it, up until now. Enterprises around the world are often challenged to gain access to affordable 3G and LTE mobile services in their own buildings. This problem is becoming more acute with the emergence of business-critical applications and the increasing trend toward bring your own device (BYOD), which is pushing today’s businesses to become reliant on mobile devices. The challenge lies in establishing in-building enterprise small cell 3G and LTE services at a manageable cost and scale, then integrating these small cells into enterprise networks. Matching enterprises with operators who offer a solution to meet their needs can add complexity to the process.

## Solution: Cisco Small Cell Enterprise Select

Cisco took a unique approach to solve this problem. Rather than using the same costly model required to deploy macro cell sites or distributed antenna systems (DAS), Cisco developed a go-to-market strategy for enterprise small cells that is based on our years of experience deploying enterprise Wi-Fi. Working with our mobile network operator (MNO) customers, Cisco has developed a model that engages our extensive enterprise partner program to deploy 3G and LTE as part of the partners’ Wi-Fi offer and practice. Cisco Small Cell Enterprise Select allows Cisco certified partners to coordinate with MNOs to meet their in-building small cell design, implementation, and service criteria. Cisco Small Cell Enterprise Select allows enterprise customers to choose their preferred MNO while being assured of a premium service offering (Figure 1).

**Figure 1.** Cisco Small Cell Enterprise Select Business Process



---

Three essential technology components in the Cisco Small Cell Solution make this possible. First, each Cisco Universal Small Cell (USC) access point is designed with sophisticated radio engineering built in. This local self-optimizing network (SON) capability allows each access point to discover its neighbors and respond dynamically in real time to radio conditions, integrated with SON that provides dynamic adjustments between small cells and the macro-cellular network for self-optimization at scale. Second, our enterprise small cells can take advantage of existing power, real estate, and backhaul provided through the enterprise Wi-Fi infrastructure with either standalone access points or convenient modular plug-ins for the globally deployed Cisco Aironet® 3600 Series and 3700 Series Wi-Fi access points (Figure 2). Third, Cisco small cells ship uniformly from the factory, and they are activated with the specific configuration of the enterprise's selected mobile operator. Activation is accomplished through our centralized Cisco Universal Small Cell CloudBase™ software, allowing for zero-touch provisioning and assured service delivery.

**Figure 2.** Cisco Aironet 3600 Series and Cisco Universal Small Cell 5310



In addition, Cisco adds our deep relationships with enterprises and channel partners. This combination of superior technology and the ubiquitous Cisco partner network results in an exceptional capability to roll out small cell services, cost effectively, at a scale that operators working alone can't reach. Enterprises benefit by working with partners they trust, including the mobile operator of their choice.

Cisco Small Cell Enterprise Select provides the following benefits:

**Benefit 1: Experienced Channel to Market**

Because Cisco channel partners are certified to sell and deploy in-building 3G and LTE services in partnership with a mobile operator, small cells can reach far more enterprises faster than is otherwise possible. Our extensive channel partner network has existing relationships with enterprise customers worldwide, and it is always looking for new business opportunities. We've geared up the RF-experienced channel we have used for years for Wi-Fi deployments, mapped that to our deep-rooted relationships with enterprise CTOs worldwide, and are working with our mobile operator customers to bring all parties together for a complete go-to-market plan. Fostering these relationships is helping to dramatically speed the time to market for enterprise deployments. Channel readiness includes training, program bundles that incorporate value-added services, and incentives to make the program cost effective for enterprise customers.

## **Benefit 2: Increased Service Offerings**

Working with Cisco partners allows the creation of additional services and enterprise value, over and above existing offerings, further increasing ARPU. Cisco partners have been rolling out indoor, location-based Wi-Fi services for years, and they are now adding indoor licensed small cell services to their offerings. Built on a common underlying architecture, analytics engine, and application partnerships, they can create a rich portfolio of new services.

## **Benefit 3: Software Radio Engineering for Deployment Speed and Ongoing Operational Efficiency**

We have combined easy deployment, through our hardware design, with the exceptionally intelligent radio engineering in each Cisco Universal Small Cell. Rather than deploying a radio engineer on site to install the network, enterprise IT can plug the modules in, and our small cell SON capability takes over. The operator activates the small cells from the network operations center (NOC) using our Cisco Universal Small Cell RAN Management System featuring Cisco USC CloudBase technology. The small cells discover their neighbors, form a grid, and continue to dynamically adjust to each other in real time to balance network load. In addition, Cisco SON provides real-time dynamic adjustments between small cells and the macro-cellular network for full mobility and self-optimization at scale.

## **Benefit 4: Lower CapEx and OpEx**

Using Cisco Small Cell Enterprise Select can result in a far lower cost per user for acquisition and deployment, and it allows mobile operators and channel partners to shift to a new and often untouched marketplace. Mobile operators can deploy and service far more small cell access points than they could on their own, and by taking advantage of a global partner network, they can do so at significantly lower operational cost. Costs are kept low through the expertise of the channel, the intelligence designed into the Cisco Small Cell Solution, and economies of scale made possible by this unique Cisco Small Cell Enterprise Select program.

## **Benefit 5: Right Time to Market - 802.11a/g/n to 802.11ac Migration**

The time is right! Enterprises are now preparing to move to next generation Wi-Fi with the latest 802.11ac technology. This migration has already started and will take place over the next three to four years with adoption growing at 145% CAGR until 2017 according to Dell'Oro. As enterprises look at swapping out earlier generation Wi-Fi, now is the perfect time for mobile operators to integrate indoor voice coverage with high-performance Wi-Fi, using the same commercial model that has made enterprise Wi-Fi such a success.

## **Commercial Opportunity**

By attaching small cell technology to the proven multi-million Wi-Fi access point annual run-rate, the adoption of small cells will reach the 450,000 worldwide Enterprises customers that Cisco works with every day, significantly reducing the overall cost of small cell deployments, and supporting innovation and new service capabilities. Cisco Small Cell Enterprise Select breaks down the barriers to small cell deployments, creating the conditions for enterprise small cells to move from early adopter to the mass market.

Through Cisco's relationships with large and small enterprises, government, public sector, retail, and healthcare customers worldwide, we understand the market opportunity and what is needed to deploy at scale. The challenge of cost-effectively providing in-building mobile services globally can be solved by taking advantage of the thousands of qualified Wi-Fi partners and by attaching small cell access points to the millions of enterprise Wi-Fi access points that are already deployed, as well as the millions more to come.

- Cisco has sold nearly two million small cell-ready Cisco Aironet 3600 Series and 3700 Series platforms since the launch of enterprise-class Wi-Fi access points that have a slot for the Cisco USC 5310 (3G) and Cisco USC 5416 (LTE) that easily “clips on” to the access points.
- Cisco Aironet 3600 Series and 3700 Series platforms have been deployed through thousands of Cisco certified Wi-Fi channel partners to many enterprise vertical markets throughout 120 countries. These are industries where voice services are mission-critical, and where there is a demand for licensed small cells. They include financial services, hospitality, manufacturing, health care, and universities.
- As enterprises move from 802.11n to 802.11ac, operators and partners can also take advantage of this technology migration to add a licensed small cell capability into the upgrade conversation.

With Cisco Small Cell Enterprise Select, Cisco has invested in a deployment methodology that allows mobile operators to engage with Cisco Certified Partners, certify them based on the operators’ small cell deployment criteria, and then support demand generation and market opportunity for in-building services. This method allows wide-scale deployment of enterprise small cells, and thereby crossing the adoption curve chasm. Enterprise customers can deal with a single trusted vendor and partner and get an in-building solution that delivers true in-building mobility. Regardless of the technology - Wi-Fi, 3G, LTE, or any combination of these technologies - employees are connected.

### For More Information

For more information about the Cisco Small Cell Solution and Cisco Small Cell Enterprise Select, go to [cisco.com/go/smallcell](http://cisco.com/go/smallcell).



Americas Headquarters  
Cisco Systems, Inc.  
San Jose, CA

Asia Pacific Headquarters  
Cisco Systems (USA) Pte. Ltd.  
Singapore

Europe Headquarters  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)