Cisco Connected Stadium Wi-Fi Optimization Service

Maximize the Value of Your Cisco Connected Stadium Wi-Fi Solution

The Cisco® Connected Stadium Wi-Fi solution is designed to help solve the problem of Wi-Fi overload and to provide fans with reliable access to their favorite applications and sites while they are at the game. The solution provides improved coverage and improved capacity within a venue. This is achieved using a combination of a unique Cisco design and select Cisco products, coupled with customized planning, design, and implementation services.

As part of the implementation services, Cisco performs RF tuning during a number of events to ensure that the Wi-Fi network is operating as designed. However, factors that impact the RF environment, as well as physical changes to the venue, can cause the Wi-Fi performance to change over time, sometimes without the customer even being aware of the change.

To help venues ensure the ongoing health of their Cisco Connected Stadium Wi-Fi deployment, Cisco has developed the Cisco Connected Stadium Wi-Fi Optimization Service to complement each venue's own enforcement of the RF policy.

Cisco Services Approach

The Cisco® Lifecycle Services approach defines the minimum set of activities needed to help customers successfully plan, build, and run Cisco technologies.

The solution lifecycle refers to the beginning-to-end view of the continuum of events that takes place in the life span of a solution. As Figure 1 shows, the Cisco Lifecycle Services approach provides a framework that makes it easy to understand which service activities need to be performed (and in what order) to successfully prepare for and manage network change and to operate and optimize the solution.

Figure 1. Cisco Lifecycle Services Approach
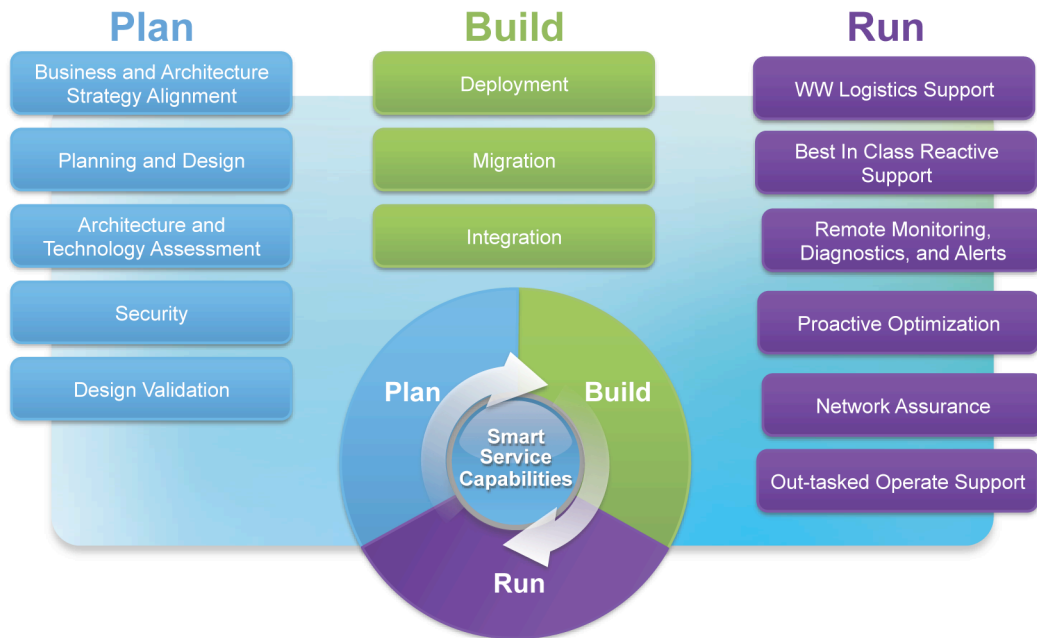
Service Components

The Cisco Connected Stadium Wi-Fi Optimization Service is one of the offerings in the Cisco Lifecycle services for Cisco Sports and Entertainment solutions as part of the Run phase.

As part of the Cisco Connected Stadium Wi-Fi Optimization Service, Cisco provides subject-matter experts (SMEs) both onsite and remote for the period of service. SMEs perform, or provide, the following services:

- **Remote WLAN Network Assessment:** Remote assessment of WLAN and controller; includes report of configuration and code upgrade recommendations
- **Onsite RF Assessment**: Onsite, "empty-bowl" RF survey and assessment summary
- **WLAN Controller Upgrade**: Onsite upgrade of WLAN Controller and Access Points (APs), plus basic functional testing
- **Live Event Engagement**: Live, onsite support for a specified number of events; includes venue IT operations consultation, live capture, and event summary, and can also include live, onsite support for special events that require a greater level of attention (that is, a championship match or game)

Service Details

Remote WLAN Network Assessment
As part of the WLAN Assessment, a Cisco wireless engineer remotely conducts an assessment of the architecture, operational status, and security of implemented WLAN technology and mobility applications to validate the implementation meets requirements for availability, security, and reliability. The assessment includes device configuration analysis and security analysis.

As part of this service, the Cisco wireless engineer performs a remote Wireless LAN Network Assessment to cover the architecture, operational status, and security of the newly deployed wireless infrastructure, focusing on the following areas:

- **General Wireless LAN Controller Configuration:** Mobility groups and client roaming configuration, connection to wired infrastructure, and administrative security
- **Radio Frequency Configuration:** Includes radio resource management (RRM), RF channel, power, and radio settings, and AP configurations
- **Wireless LAN Security:** Includes existing vulnerabilities, RADIUS integration, authentication, and encryption review and rogue AP detection settings
- **Configuration of WLANs:** Service set identifier (SSID) configurations, AP group VLANs, guest access WLANs, and customer-specific wireless LAN policies
- **Management:** Review of integration with Cisco Prime™ Network Control System (NCS) and of logging and reporting capabilities, and existing faults and alarms
- **Basic Architectural Design Review:** Placement of controllers, controller redundancy configuration, security and mobility infrastructure, as well as integration of management, advanced mobility, and security devices with wireless controllers

At the completion of this service, the Cisco wireless engineer creates a WLAN network assessment report, which includes:

- **General Information:** Observations about the current design, configuration, and performance of the network assembled with information from gathered configurations, current design diagrams and documents, and collected data from remote activities.
- **Status:** An evaluation of the current state of the focus areas in the network is performed. In each focus area, multiple elements of the wireless network may be evaluated, including wireless LAN controllers and access points. Supporting data from the current network and comparison of this data against best practices and expected performance metrics is also included.
- **Recommendations:** Detailed recommendations for every element of the focus areas based on professional experience and established best practices for Enterprise Wireless LAN deployments. In cases where performance-impacting deficiencies are noted, the recommendations section also propose remediation steps and provide necessary configuration changes to improve performance and reliability of the wireless LAN.

Onsite RF Assessment

As part of the Onsite RF Assessment, a Cisco wireless engineer conducts a physical assessment of the RF design and performance to validate whether the performance meets the requirements of the customer, adheres to Cisco best practices, and is capable of supporting high-density wireless LAN traffic.

As part of this service, the Cisco wireless engineer:

- Performs an RF assessment, which includes:
  - Measuring the actual signal coverage of the wireless network
  - Identifying the overall level of interference and specific sources that may adversely impact wireless network performance

- Develops a report of the findings of the RF assessment analysis that includes analysis and recommendations for:
  - RF coverage
  - RF interference
  - Best practices

At the completion of this service, the Cisco wireless engineer creates an RF assessment report.

WLAN Controller Upgrade

As part of the WLAN Controller Upgrade service, Cisco works with customers to develop an upgrade checklist, which includes:

- Recommended WLAN controller and AP software release
- Description of the procedure to upgrade the WLAN controller and AP software
- List of validation checks to be executed, including network connectivity checks between APs, the Cisco Mobility Services Engine, and Cisco Prime NCS infrastructure components; and radio management setting checks on the WLAN controller
- Description of basic functionality tests to confirm the wireless network is operational
- List of upgrade tools and equipment
- Description of failure recovery procedures
- Implementation schedule

Cisco then provides one, or more, suitably trained Subject Matter Experts (SMEs) onsite to assist customers with the upgrade of the WLAN controller software and associated APs.

Live Event Engagement

As part of the live event engagement, Cisco provides an onsite wireless engineer for a specified number of live events to be mutually agreed upon by the customer and Cisco, each occurring within a single day. The Cisco wireless engineer gathers requirements from the customer's engineering team and performs the following support tasks:

- Monitor performance and overall health of the wireless network (controller and AP utilization, clients, RF coverage and interference) for the duration of the event
- To the extent possible, provide wireless infrastructure-related troubleshooting and support during the event
- To the extent possible, provide basic wireless client and end-user related troubleshooting by request during the event

During this service, the Cisco wireless engineer provides necessary observations or suggestions before, during, and after the event for the day of the event.

This service can also be extended to support special events, such as a championship match or game, where support may be required for more than a single day.

Service Requirements

It is important to note that live support of events requires an active Cisco Connected Stadium Wi-Fi Optimization Service agreement.

Why Cisco Services

Realize the full business value of your technology investments more quickly with intelligent, personalized services from Cisco and our partners. Backed by deep technology expertise and a broad ecosystem of partners, we enable you to successfully plan, build, and run your IT infrastructure as a powerful business platform. Whether you are looking to quickly seize new opportunities to meet rising customer expectations, improve operational efficiency to lower costs, mitigate risk, or accelerate growth, we have a service that can help you.

For More Information

For more information about the Cisco Connected Stadium Wi-Fi solution and the Cisco Connected Stadium Wi-Fi Optimization Service, please contact your local Cisco account representative.

Printed in USA

C78-732081-00   6/14