Cisco StadiumVision Mobile Reporter

Cisco Introduces Cisco StadiumVision Reporter Version 1.2.



Introduction to Cisco StadiumVision Mobile

The Cisco StadiumVision[®] Mobile solution allows sports and entertainment businesses to take the in-venue fan experience to the next level. By taking full advantage of the multicast capabilities of the Cisco[®] Connected Stadium Wi-Fi network, distribution of live, low-delay video can be scaled to tens of thousands of users. The power of scalable content delivery to mobile devices enables a sports and entertainment business to complement the live experience in new ways, promote merchandize and future events, and along the way, build a more intimate relationship with each guest in the venue.

Cisco StadiumVision Mobile Reporter

The StadiumVision Mobile Reporter, a key component of the StadiumVision Mobile solution, enables a sports or entertainment business to objectively measure and report on the quality of the fan experience the business provides.

Mobiles devices running a StadiumVision Mobile client app periodically submit a set of video, Wi-Fi, and content usage metrics back to the StadiumVision Mobile Reporter. The Reporter's high-performance data collection engine is designed to keep up with client data arriving from tens of thousands of mobile devices. All client data is processed on the fly as it arrives, and becomes available for immediate viewing in a number of real-time reports and charts. All data is of a technical nature; no personal or user identification data is collected.

Two types of ready-to-go reports are planned: one for marketing and one for IT. Role-based access control (RBAC) provides a marketing or IT team member with the appropriate level of access to the StadiumVision Mobile Reporter user interface, without exposing them to functions that lie outside their area of expertise and responsibility. All reports and charts are optimized for viewing on a tablet, which allows real-time reports to be consumed by staff while they roam the venue during live events.

The marketing reports are optimized for the part of the venue organization that is responsible for advertisement and sponsorship sales. The focus of these reports is usage trends, including total usage as well as popularity of the various channels and content. These reports serve as a powerful aid in signing up new sponsors and advertisers, and also serve as a post-event affidavit that proves to existing sponsors and advertisers that the number of impressions met their expectations. Finally, the marketing reports provide the content owners with critical intelligence needed for setting pricing on rate cards, and also help the venue make better decisions regarding future infrastructure and application investments.

The following marketing reports are available in StadiumVision Mobile Reporter Version 1.2. One report instance is generated for each event. In addition, each event report type is aggregated into a corresponding season report that makes it easy to spot trends in usage, device preferences, and content popularity.

- Peak users per video channel
- Unique users per video channel
- Total viewing time on each video channel
- Android vs. iOS breakdown
- Total users over event duration

The StadiumVision Mobile Reporter engineering reports will be available as part of the product's second phase. The goal of the engineering reporting tools is to measure the quality of the fan experience, and identify possible causes if and when the experience is found to be below par. The reporting engine performs analysis on a variety of client metrics, including video quality, network quality, mobile device demographics, and operating system versions. By analyzing and cross-correlating the various data sets, and screening for outliers and exceptions, probable causes and factors are identified.

The StadiumVision Mobile Reporter software is packaged with the Cisco UCS[®] C220 M3 Rack Server and sold and supported as an appliance (see Figure 1). An easy-to-use, web-based user interface allows the appliance to be administered and operated without requiring staff who are Wi-Fi, video, or UNIX trained. As new features are added to Cisco StadiumVision Mobile, the StadiumVision Mobile Reporter is easily upgradeable to take advantage of these new capabilities.



Figure 1. Cisco StadiumVision Mobile Reporter Appliance

Solution Dependencies

The Cisco StadiumVision Mobile Software Development Kit (SDK) is just one component of the larger StadiumVision Mobile solution. In order to function as expected, StadiumVision Mobile needs to be deployed alongside the StadiumVision Mobile Streamer, the StadiumVision Mobile Reporter, the StadiumVision Mobile Encoder, and the Connected Stadium Wi-Fi network. Figure 2 illustrates how the various StadiumVision Mobile components fit together.





The StadiumVision Mobile SDK interacts with StadiumVision Mobile Reporter by submitting periodic video, Wi-Fi, and content usage metrics back to the Reporter. For more information, please refer to the <u>StadiumVision Mobile</u> <u>Client Software Development Kit data sheet</u>.

The Cisco StadiumVision Mobile Streamer also submits performance and utilization metrics to the Cisco StadiumVision Mobile Reporter on an ongoing basis. These are then correlated with the corresponding client metrics, allowing cause and effect relationships to be identified and reported. For more information, please refer to the <u>StadiumVision Mobile Streamer data sheet</u>.

The Cisco StadiumVision Mobile Streamer is fully standards compliant. However, applications using the Cisco StadiumVision SDK must be serviced by a Cisco Connected Stadium Wi-Fi network. Connected Stadium Wi-Fi is designed for high-density coverage in challenging RF environments. The solution is multicast-enabled and has quality of service optimized for live-streaming video. The Connected Stadium Wi-Fi solution centrally manages all aspects of wireless infrastructure, including access and security. These capabilities are all critical for a successful StadiumVision Mobile deployment. For more information about Connected Stadium Wi-Fi, please refer to the Connected Stadium Wi-Fi data sheet.

Key Features and Benefits

Cisco StadiumVision Mobile Reporter offers the following features and benefits:

- Collects metrics from the entire population of mobile devices in order to objectively measure and report on the overall fan experience.
- Provides marketing with compelling usage charts that are easy to share with potential sponsors, with the potential to increase ad and sponsorship sales.
- Provides data analysis that identifies and flags potential experience-quality issues, with relevant clues and
 possible causes provided in order to help IT diagnose and resolve the issue.
- Role-based access control (RBAC) allows appropriate Reporter access to be provided to each of the
 engineering and marketing organizations, without security being compromised.
- Aggregates data from year-to-date events into season reports, thereby providing marketing and engineering staff with a powerful tool for identifying behavioral and experience-quality trends.
- Provides easy upload of the entire season's event schedule to help ensure that reporting capabilities are always ready to go when the doors open. No preparation required.

Product Specifications

Table 1 summarizes features and capabilities of Cisco StadiumVision Reporter 1.2.

| Table 1. | Cisco StadiumVision Reporter 1.2: Features and Capabilities |
|----------|---|
|----------|---|

| Capacity: | 5000 mobile devices validated in Release 1.2. Actual capacity is probably higher. | |
|-------------------|---|--|
| Administration | Web-based user interface. HTML5 compliant. | |
| Reporting | Web-based user interface. HTML5 compliant. | |
| Marketing reports | Five types of event reports and five types of season reports | |

Table 2 lists hardware specifications for the solution. Table 3 lists regulatory standards compliance.

| Table 2. | Cisco StadiumVision Reporter 1.2: Hardware Specifications |
|----------|---|
|----------|---|

| Processors | 2 x Intel Xeon E5-2640/95W 2.50 GHz 6C/15 MB Cache/DDR3 1333 MHz |
|---|--|
| Memory | 4 x 8GB DIMMS, for a total of 32G DRAM |
| Hard Drives | 2 x 300 GB SAS 10K RPM SFF HDD; hot swappable; configured in a RAID1 mirror |
| RAID Controller | MegaRAID 9266-8i, with battery backup |
| Power Supplies | 2 x 650W. Redundant power supply configuration |
| Network Connections | Primary: Dual 1 Gigabit Ethernet ports Management: 1 Gigabit Ethernet port |
| Cisco Integrated Management Controller (CIMC) | Integrated Emulex Pilot-3 Baseboard Management Controller (BMC) IPMI 2.0 compliant for management and control One 10/100/1000 Ethernet out-of-band management interface CLI and Web GUI management tool for automated, lights-out management KVM47CFR Part 15 (CFR 47) Class A AS/NZS CISPR22 Class A |
| Front Panel Connector | One KVM console connector (supplies 2 USB, 1 VGA, and 1 serial connector) |
| Front Panel Locator LED | Indicator to help direct administrators to specific servers in large data center environments |

| Additional Rear Connectors | VGA 2 x USB 2.0 RS-232 serial port (RJ-45) |
|------------------------------------|--|
| Physical dimensions (H x W x D) | 1RU 1.7 x 16.9 x 28.5 in. (4.32 x 43 x 72.4 cm) |
| Temperature: Operating | 32 to 104°F (0 to 40°C) (operating, sea level, no fan fail, no CPU throttling, turbo mode) |
| Temperature: Nonoperating | -40 to 158°F (-40 to 70°C) |
| Humidity: Operating | 10 to 90% noncondensing |
| Humidity: Nonoperating | 5 to 93% noncondensing |
| Altitude: Operating | 0 to 10,000 ft (0 to 3000m); max ambient temperature decreases by 1°C per 300m) |
| Altitude: Nonoperating | 0 to 40,000 ft (12,000m) |

| Table 3. | Regulatory Standards Compliance: Safety and EMC |
|----------|---|
| | |

| Safety | UL 60950-1 No. 21CFR1040 Second Edition |
|----------------|--|
| | CAN/CSA-C22.2 No. 60950-1 Second Edition |
| | IEC 60950-1 Second Edition |
| | EN 60950-1 Second Edition |
| | IEC 60950-1 Second Edition |
| | AS/NZS 60950-1 |
| | GB4943 2001 |
| EMC: Emissions | 47CFR Part 15 (CFR 47) Class A |
| | AS/NZS CISPR22 Class A |
| | CISPR2 2 Class A |
| | EN55022 Class A |
| | ICES003 Class A |
| | VCCI Class A |
| | EN61000-3-2 |
| | EN61000-3-3 |
| | KN22 Class A |
| | CNS13438 Class A |
| EMC: Immunity | EN55024 |
| | CISPR24 |
| | EN300386 |
| | KN24 |

Ordering Information

Before you place an order for StadiumVision Mobile Reporter, we recommend that you use the Cisco Guided System Selling (GSS) tool at <u>www.cisco.com</u> to design your solution. This will help ensure an accurate bill of materials.

Table 4 lists the names and part numbers for the components in Cisco StadiumVision Mobile Reporter.

 Table 4.
 Cisco StadiumVision Mobile Reporter 1.2: Component Names and IDs

| Product Name | Product ID |
|--|--------------------|
| Cisco StadiumVision Mobile Reporter License and Platform | SV-M-REPORTER-K9 |
| Cisco StadiumVision Platform3 with No License | SV-PLATFORM3= |
| StadiumVision Platform3 300G Disk Spare | SV-HD-A03-D300GA2= |

For More Information

For more information about Cisco StadiumVision Mobile and the enhanced fan experience it provides, please visit <u>http://www.cisco.com/web/strategy/sports/</u> or contact your local account representative.



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