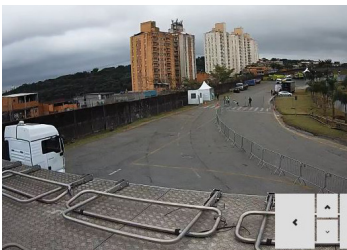


cnVision™ Heightens Security at the 2019 Brazilian Grand Prix



“Without interference, latency, delays or signal loss, the solution allowed Formula One to have high-quality images to monitor the safety of visitors to the event. Cambium Networks has robust, flexible and manageable communications solutions that ensure complete confidence in the solutions Seal Telecom provides to its customers.”

CRISTIANO FELICISSIMO,
PRE-SALES DIRECTOR LATAM,
SEAL TELECOM



Video stream was clear and consistent through the cnVision Companion.



1080p resolution Dahua cameras were used to monitor the area.

Overview

THROUGHOUT THE 2019 SEASON, Formula One (F1) Grands Prix were hosted in 21 countries. When the Brazilian Grand Prix needed a video surveillance solution in November 2019, they used cnVision to keep visitors entering the grounds under safe watch. Cambium Networks’ purpose-built wireless video transport solution gave F1 reliability, security and predictability.

The Challenge

THE BRAZILIAN GRAND PRIX, A FORMULA ONE RACE, marked its 48th championship event in November 2019. In preparation for the race, a question was brought up: how could they securely monitor some of the public areas and VIP areas on the racetrack grounds?

Wireless was their answer. For this temporary event, fiber and cable would have taken too long to set up. Additional challenges included the high levels of RF noise, elevated interference levels and areas on the racetrack grounds that were covered by dense trees. The system integrators (SI) needed a wireless solution that would perform well under these conditions.

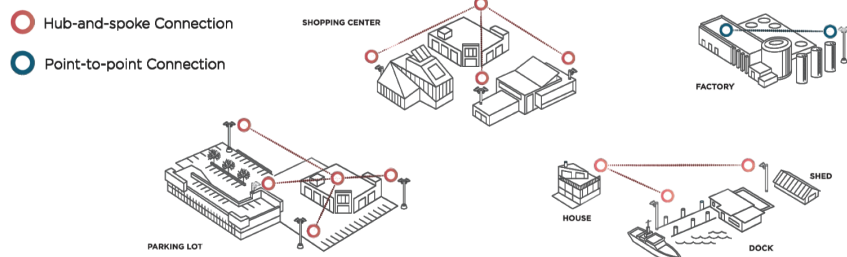


This section of the racetrack grounds shows the cnVision HUB 360r and client locations monitoring areas near the circuit.

The Solution

CAMBIUM NETWORKS PROVIDED cnVision™ Client MINIS, a cnVision Hub 360r and installation for the event, managing the network through the cnVision Companion software. Eight Client MINIs were installed, the omni-directional Hub 360r was optimally positioned to connect the clients, and the clients were then connected to the Hub 360r. 1080p resolution cameras from Dahua were used to monitor the area. Installation was seamless and quick because the omni-directional antenna in the product portfolio did not require alignment.

The cnVision system’s simplified user interface made setting up the wireless cameras easier for the SIs, saving time and cost.



The Results

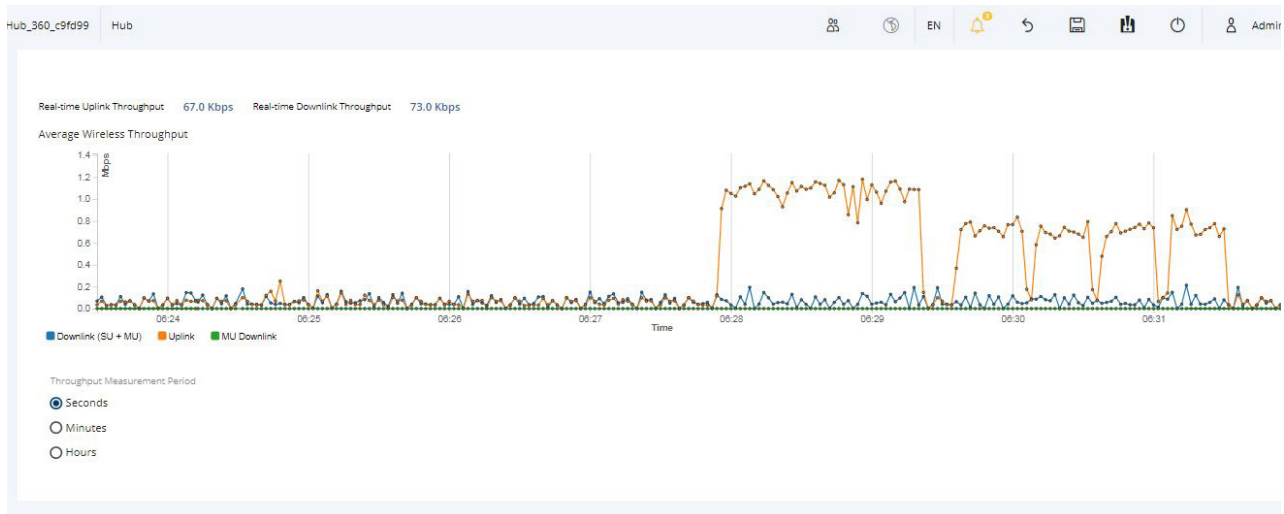
OVER THE COURSE OF THREE DAYS, the cameras provided a high-quality view of some public entrances and VIP entrances. cnVision is conformant with the Open Network Video Interface Forum (ONVIF), allowing cnVision client products to detect and display camera hardware models while offering the ability to troubleshoot the camera. These ONVIF standards are in place to ensure that network video products are interoperable regardless of the manufacturer. During the event, cnVision Hubs and Clients were integrated into a major video management system (VMS) to record and store video.

Significant results include:

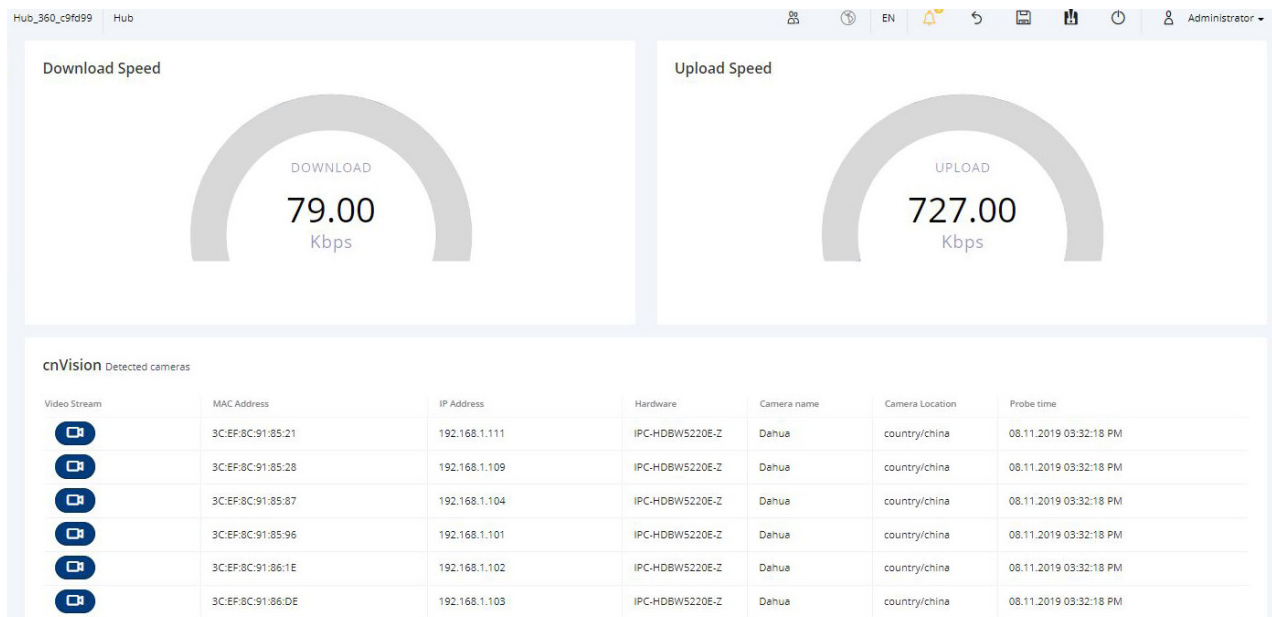
 **72+ hours of video feed**

 **Low latency, low jitter**

 **Short installation time**

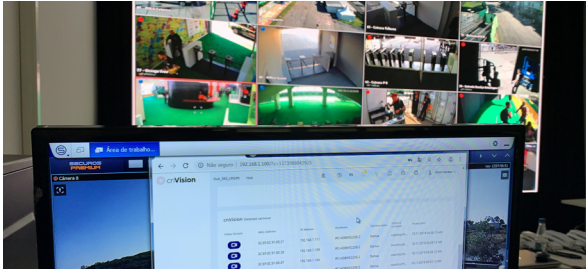


This chart shows the average wireless throughput during the 2019 Brazilian Grand Prix.

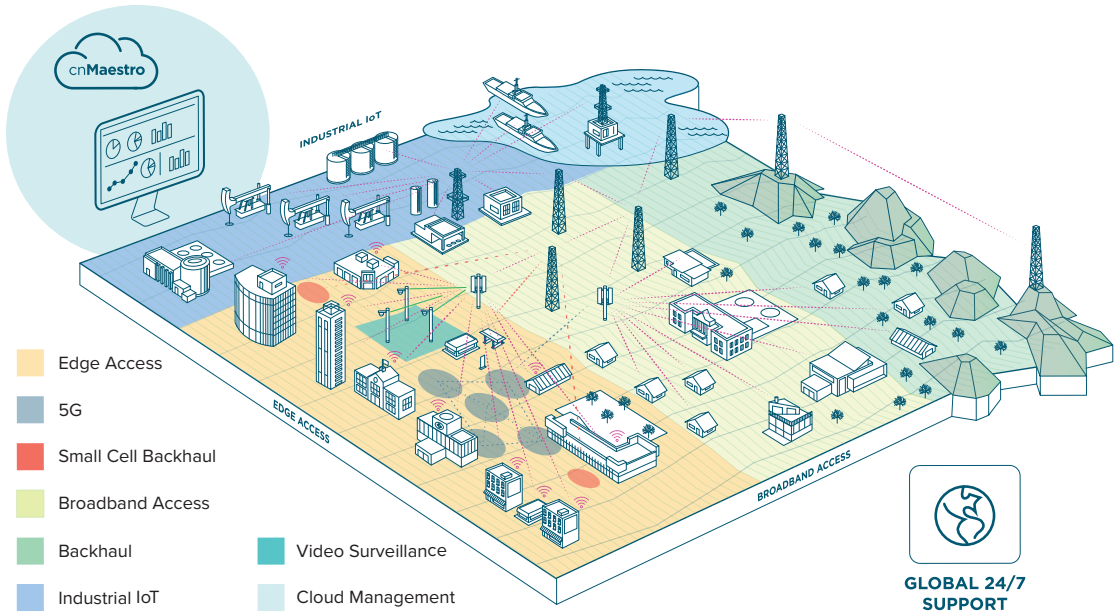


Above is the download speed and upload speed of the omni-directional cnVision Hub360r.

Its robustness and cost-effectiveness made cnVision a reliable wireless option for the Brazilian Grand Prix. The low latency and low jitter of the proprietary protocol of cnVision delivers a consistently clear video stream. Not only was cnVision useful for this temporary event, but it is also expected to be a reliable option in permanent uses and dense urban environments. For the Brazilian Grand Prix, wherever they needed a camera, cnVision made the connection.



cnVision Hubs and Clients were integrated into a major VMS to record and store video from public grounds and VIP areas.



Cambium Networks' Wireless Fabric of technology solutions enables network operators to tailor connectivity solutions to meet exact requirements and grow as needs evolve.