

A photograph of a large indoor cannabis cultivation facility. The plants are arranged in long, neat rows within raised wooden beds. The facility is covered by a translucent plastic or polycarbonate covering supported by a series of white, arched metal frames, creating a tunnel-like structure. The lighting is bright and even, highlighting the vibrant green of the cannabis leaves.

Quickly-Growing Cannabis Market Meets State Regs and Improves Security With Dahua Solution

The cannabis industry in the United States has grown drastically since 1996, when California became the first state to legalize marijuana for medical use. By 2019, thirty-three states had followed suit, eleven of them also allowing recreational use. This complex industry requires that cannabis business owners navigate municipal, state, and federal law to ensure compliance across a variety of requirements. High-performing video surveillance is crucial due to the expensive assets inherent to the industry and required by government regulations as well.

Brandon Levine operates nine licensed cannabis businesses in Sonoma County, California that take the product “from seed to sale.” These include consulting, cultivation, manufacturing, and retail. Striving to bring his customers the highest-quality products and customer service, he incorporates cutting-edge equipment into every aspect of his facilities. Physical security is no exception. Focus Tech Inc. in Santa Rosa, California built a high-performing security solution using video surveillance and access control products from Dahua Technology. These allow Levine’s businesses to run more efficiently, support meticulous quality control procedures, and keep people and assets secure. The variety of benefits

provided by the Dahua security solution results in high Return On Investment (ROI).

A Future-Proof Surveillance System

Among the businesses requiring video surveillance were Fleuron, a grow facility, Mercy Wellness, a dispensary, and Doobie Nights, a state-of-the-art retail experience. Fletcher Pinkham, president of Focus Tech, needed a flexible system that could integrate with other equipment and scale as Levine’s operations expanded.

“As an installer I was looking for a company with ‘future-proof’ surveillance systems,” Pinkham remarked. “Dahua was able to provide that solution, including recording servers with flexibility for additional storage if needed, as well as features within the VMS and DSS that could be added later such as access control, vehicle surveillance, and employee attendance management.”

Levine echoed the need for adaptability: “An ongoing thing with this industry is that you never know what government regulations are going to require next. Our Dahua solution has been a nice, easy transition for us.”

Dahua Devices Fulfill Regulatory Requirements

California's Bureau of Cannabis Control (BCC) requires dispensaries to have video coverage without blind spots, along with the ability to identify the faces of everyone entering the building. In addition, dispensaries must store ninety days of continuous recording at 15 fps and 720p resolution. Focus Tech chose Dahua to meet the above requirements, and Levine has found video surveillance to be invaluable for operational purposes as well. He gave an example of why the cameras are so vital at Fleuron:

"There is a whole range of issues that can pop up with a cultivation facility. Anything can go wrong, and if something does go wrong, we're talking mistakes in the millions of dollars. Just having the peace of mind when I go home that we're able to keep an eye on everything, is the biggest thing for me as a business owner.

"Having security cameras is more than watching people, it's actually saving me from having to hire people to watch other people. The cameras can alleviate the workload that would normally be handled by a human. It gives me peace of mind knowing that we have all angles covered and that we have reliable equipment and the right software operating it."



Focus Tech used a variety of cameras integrated with access control and managed by Dahua DSS and VMS.

Fisheye View Eliminates Blind Spots

To ensure a 360-degree view, Focus Tech installed the 6MP fisheye (N68BR4V).

"At Fleuron, these were used with Dahua ceiling mounts and pole extenders to allow for camera placement at the exact height of the grow lights in

the center of the room," Pinkham stated. "This not only eliminates blind spots but gives a great view of the canopy for the grower to view any potential problems with the flowers. The IP67 rating ensures that the camera will be safe from high humidity or damage by spraying plants with nutrients and water. The de-warping features and digital zoom give multiple views of the flowers."

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- Brandon Levine, *Fleuron*

Crystal-Clear Video for Facial Detection

The 4K IR Long-distance Vari-focal ePoE Dome (DH-IPC-HDBW5831EN-Z5E) captures clear images of the faces of everyone entering and exiting Doobie Nights, a requirement of the BCC. ePoE technology offers a plug-and-play solution to transmit power and data over long distances via Ethernet or coaxial cables, reducing installation time and saving money. Additionally, the camera was able to meet the BCC requirements from an installation point across the room, resulting in a less intrusive experience for customers. Pinkham also explained why the camera's Wide Dynamic Range (WDR) capabilities were important:

"The True WDR capability of this camera is able to achieve a clear, detailed picture of people entering the building despite the dark interior and generally bright sunny California scene outside."

Analytics Boost Cameras' Usefulness

The entrances to Fleuron and Doobie Nights are also manned by the 2x2MP IR Dual-sensor Dome Network Camera (DH-IPC-HDBW4231FN-E2-M). Pinkham explained the many reasons why he chose these versatile cameras:

"The two adjustable lenses in this camera are able to completely cover 180 degrees of the building, eliminating the need for a second camera with a separate wire run, drilling, mount, et cetera. This is

a much cleaner look and also saves time and money for installation.

“Their small form factor and micro dome provides great protection from vandalism. This means I can confidently install them at an optimal height to capture important details such as facial features and license plate numbers. The Starlight Technology allows for color at night with standard supplemental commercial lighting, making color of vehicles and clothing available for review.

“The IVS features enable detection of line crossing, intrusion, and abandoned objects, sending notifications to a third-party remote monitoring service for after-hours perimeter protection and intervention. The built-in microphone also allows notifications to be triggered by a loud noise such as a window breaking. This can alert of a potential issue even if the event takes place outside the cameras’ field of view.”

Cameras Working in Tandem

Expanding upon exterior coverage at these facilities is the Multi-flex™ 4x2MP IP camera (DH-IPC-PDBW5831N-B360) and the 2MP 30x IR PTZ (59230UNI). The Multi-flex provides a 270-degree view with three lenses and uses the fourth lens for an additional view of the area directly below the camera. Pinkham praised the ease of installation:

“The ability to move the lenses independently lets the installer capture the ideal field of view for the environment. The mechanical varifocal zoom capability lets me zoom in or out on regions of interest and eliminates guesswork on lens focal length. Also, the single cable run to a camera with four sensors saves labor and material costs.”

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- Fletcher Pinkham, *Focus Tech*

The audio output of the Multi-flex cameras is integrated with loudspeakers that can be used through the DSS client software and DSS Mobile 2 App. This lets security give a verbal warning to intruders at the facility.

“The IVS features have been set up so that alerts are



sent to the after-hours security monitoring team if a predefined area is breached. At Doobie Nights we have configured the IVS features on the panoramic camera to trigger the PTZ on the roof of the building to move to a preset point, and then use the auto-tracking IVS feature to zoom in and follow movement automatically from a new angle with 30x optical zoom capability,” Pinkham said.

Scalable, Flexible, Storage and Management

When it comes to storing and managing video, Dahua devices deliver ease of use and scalability. The 16 HDD Enterprise Video Storage device (DHI-EVS5016S-R 16HDD) provides flexible options for future additions to the security system. Capable of recording and managing up to 512 IP cameras, the unit is the main recording server and can be partitioned to accommodate many different situations. The processor and RAID enclosure are housed in one chassis to save space and reduce cost.

“Buying a device like this gives peace of mind to the end user and installer because if cannabis laws change and more storage is required, they can simply add more HDDs in the empty bays without hassle,” Pinkham said. “In a highly-regulated and evolving industry like cannabis, this kind of flexibility makes the system more or less future-proof.”

The DSS Pro Video Management System Server (DHI-DSS7016DR-S2), installed at Mercy Wellness, lets Levine and his staff view all locations through a single platform.

“The DSS Pro also allows for vehicle surveillance to



be added down the road,” noted Pinkham. “Mercy Wellness plans to integrate these systems in delivery vans in the future.”

Access Control from Storage to Sale

Finally, the four-door access controller (DHI-ASC1204C), which scales up to sixty-four four-door controllers managed by Smart PSS, supports controlled lockdown of all connected access doors and uses the same VMS as the cameras.

“Access control has been a big change for us,” Levine commented. “Key card access makes it so easy to walk around the facility without stopping and punching in a code. Knowing where people are and who’s gone through which door is huge for us: we want to make sure that everybody is in the right place at the right time and the product is not leaving when it’s not supposed to be. All of our product is tracked from one area of the building to the other – from storage to sale.”

Pinkham added, “I was excited to offer my clients the ability to use an access control system with the same software as the cameras, which can simplify training as well as add the ability to link cameras to doors.”

Feature-Rich and Cost Effective

From future-proof solutions that allow for easy

expansion across multiple locations, to cost-effective equipment with a robust set of features, Dahua products are a natural fit for a quickly-growing vertical market.

“I chose Dahua Technology because their cameras are feature-rich but still cost-effective, their representatives have always provided me with great support, and their five-year warranty for dealer partners leads the industry,” Pinkham explained.

As the cannabis industry continues to expand and evolve, it will be increasingly important for physical security to keep up with the associated demands and requirements. Selecting a security solution that can easily integrate and scale as needs change will help support efficient operations and improve ROI.