Physical Security Vertical Market Assessment:
US Cannabis

US Cannabis Market

The US cannabis industry is unique in the physical security market. While use and possession remains illegal at the federal level under the Controlled Substances Act, there has been a move to legalize the cannabis market at the state level. Currently 18 states, as well as the District of Columbia, have legalized both medicinal and recreational cannabis use, with additional states legalizing for medicinal use only.

The cannabis market represents a growth opportunity for physical security equipment vendors and service providers. In the US, cannabis companies are cultivating, dispensing, distributing, and selling cannabis-based products. According to BofA Securities, legal sales of cannabis in the US accounted for around $25 billion in 2021. This was an increase of 40% on 2020 sales. The market forecast is optimistic, with Cowen and Company predicting that the US market will be worth around $100 billion by 2030.

The market represents a great opportunity for security solution providers. Cannabis security end-users do not have legacy security solutions and are not tied to specific devices. They also have relatively new relationships with their systems integrators as most end-users have been operating for only a short time. Furthermore, the industry is heavily regulated. The cannabis market is a melting pot of growth opportunity, regulation which requires spending on security solutions, and customers who are willing to embrace new solutions and partners.

Market Sectors

Companies in the cannabis industry are involved in several different activities. These range from growing the cannabis to the manufacturing of the different product types to the distribution and retail sale. Each sector has a different set of security challenges.

Cannabis industry route to market
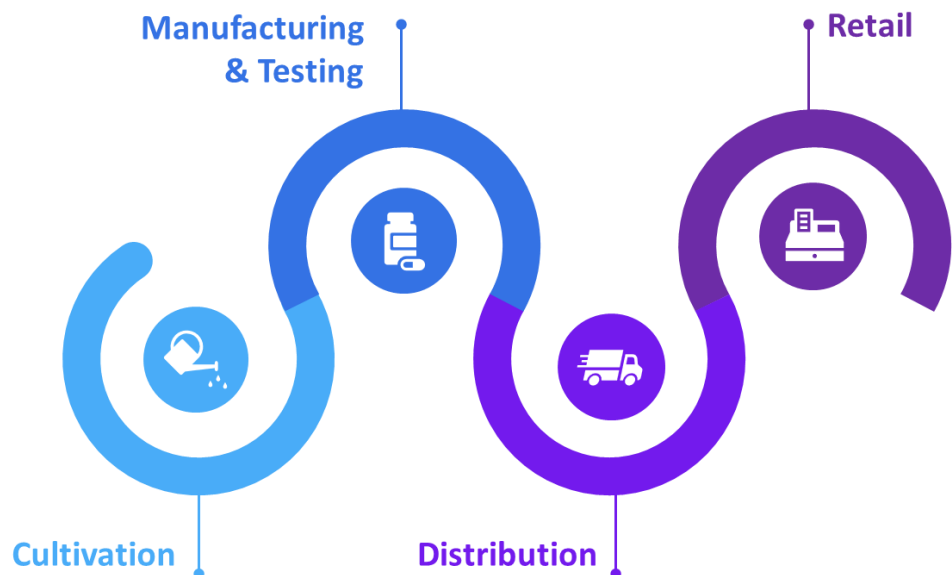
Cultivation refers to the growing of the cannabis in either outdoor or indoor locations. Challenges include protecting these large sites from unauthorized access as well as the visibility issues of surveilling locations in varying lighting conditions.

Manufacturing & Testing includes the drying and curing of the product as well as the manufacturing of product variations, such as pills, gummies, creams, and tinctures. Restricting unauthorized access and tracking employee activity are key security concerns.

Distribution is the transportation of cannabis to retailers and customers. Armored vehicles carrying both cash and product can require video surveillance to alert to potential threats and to ensure the cannabis is not tampered with. GPS tracking is another solution used to protect distribution activity.
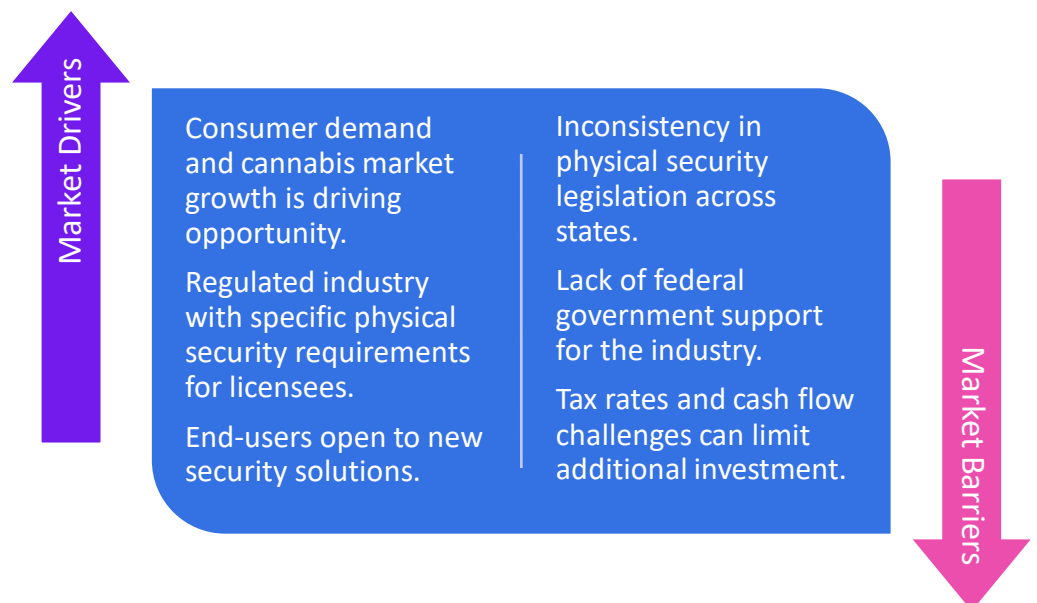
Retail refers to the sale of cannabis to customers. This can be done at the same site as the cultivation and manufacturing or at a dedicated retail outlet. Security solutions are heavily regulated, requiring, for example, video surveillance at the point of sale (POS) and all exits and entrances. Protecting staff, alerting to theft (both insider and external), and monitoring activity are all key requirements in the retail sector.

What are the market drivers and barriers?

The cannabis industry has several market drivers and barriers. First, consumer demand for cannabis products is growing. New businesses are entering the market to meet this demand. Each one is a potential security customer.

Related, the industry is heavily regulated, and licensees must ensure that their businesses meet these requirements. A new retail store or cultivation facility must install video surveillance, access control and monitored intruder alarm systems to meet the terms of their license. The combination of market growth and regulation is driving an increased pipeline of security project opportunities.

Finally, the end-users active in the market are not entrenched with their solution providers or equipment brands. It is a young industry that is open to new types of security systems, so long as they meet the state regulations. The market is well suited to technologies such as video analytics and cloud solutions.

Market Drivers

Consumer demand and cannabis market growth is driving opportunity.

Regulated industry with specific physical security requirements for licensees.

End-users open to new security solutions.

Market Barriers

Inconsistency in physical security legislation across states.

Lack of federal government support for the industry.

Tax rates and cash flow challenges can limit additional investment.

In terms of market barriers, there remains an inconsistency in the regulatory demands for physical security solutions across states. Examples include the length of time that video images must be stored and the minimum camera resolution required. Additionally, there are no federal government standards for the industry. In fact, cannabis remains a prohibited substance at the federal level.

The ban also has implications for banking, as most US banks are unwilling to work with cannabis operators due to the additional risk and paperwork required to meet federal rules on money laundering. This means end-users often carry large quantities of cash in transit or at their facilities, increasing the security threat. Related, the industry is also quite highly taxed and cash flow can be challenging as inventory is expensive. This reduces the financial ability to spend on non-regulated physical security solutions.

Video Analytics

The cannabis industry is well suited to deploying video analytics. In the cultivation sector, people detection analytics can be used to alert to unauthorized individuals entering the facility. Regulations require fencing around the site, but there remains a need for additional solutions. Analytics can operate 24 hours a day to provide an extra level of security.

Video analytics can also play a role in the distribution sector. While armored trucks generally already have bullet-resistant glass and robust security locks, algorithms can enhance security by alerting when someone comes within a few feet of the vehicle, providing the driver or a central security manager with extra time to plan a response.

In the retail sector, point-of-sale integrations with video analytics can be used to alert to "sweet hearting" or other internal fraud. Solutions combine the data from scanning at the POS with the object recognition and video feeds of the operator. Alerts can be generated in instances where there appears to be a product scanned but no sale is registered. Similar analytics can also monitor for product tampering. There is also potential for face recognition to provide alerts when repeat offenders enter the facility, although this could raise privacy concerns.

Cloud Solutions

The video surveillance regulations imposed on cannabis operators are demanding. Cameras must be placed at multiple locations around a facility and have a minimum resolution and frame rate, and recorders must be kept in a secure location which cannot be accessed by employees. As a result, end-users are looking at cloud video to provide a solution.

Cloud video surveillance has several benefits for operators. Solutions are scalable and storage costs are proportional to business demands and the number of cameras required. Storage requirements are also flexible and can be adjusted to any changes in local regulation. The video images are stored in a remote location which is protected from unauthorized access. Furthermore, cloud providers manage the cybersecurity requirements and related IT upgrades, meaning the end-user does not need to get involved in the back-end solution.

Video images can also be accessed remotely. This is often part of the licensee regulations and can be attractive for operators who have more than one site or are responsible for responding to security threats during off hours.

Finally, most end-users are not tied into existing networking or deployment methodologies. As they expand sites to meet the growing commercial demand, cloud solutions can be deployed quickly and with limited initial cost outlay while supporting regulatory requirements.

State Regulations

The following states have approved recreational and medicinal cannabis use. Each state has a regulatory body or associated organization that manages the licensing and regulation of the industry.

State	Regulatory Body	Website
Alaska	Department of Commerce, Community, and Economic Development – Alcohol and Marijuana Control Office	www.commerce.alaska.gov
Arizona	Arizona Department of Health Services	www.azdhs.gov
California	Bureau of Cannabis Control	www.bcc.ca.gov
Colorado	Colorado Department of Revenue	www.sbg.colorado.gov
Connecticut	Department of Consumer Protection	www.portal.ct.gov/dcp
Illinois	Illinois Department of Financial and Professional Regulation	www.idfpr.illinois.gov
Maine	Department of Administrative and Financial Services – Office of Marijuana Policy	www.maine.gov/dafs
Massachusetts	Cannabis Control Commission	www.masscannabiscontrol.com
Michigan	Cannabis Regulatory Agency	www.michigan.gov/mra
Montana	Montana Department of Revenue	www.mtrevenue.gov/cannabis
Nevada	Nevada Cannabis Compliance Board	www.ccb.nv.gov
New Jersey	Cannabis Regulatory Commission	www.nj.gov/cannabis
New Mexico	Cannabis Control Division	www.ccd.rld.state.nm.us
New York	Office of Cannabis Management	www.cannabis.ny.gov/licensing
Oregon	Oregon Liquor and Cannabis Commission	www.oregon.gov/olcc
Vermont	Cannabis Control Board	www.ccb.vermont.gov
Virginia	Virginia Board of Pharmacy	www.dhp.virginia.gov/pharmacy
Washington	Washington State Liquor and Cannabis Board	www.lcb.wa.gov

While a complete assessment of each state's physical security regulations is beyond the scope of this report, an overview of regulations in California, Colorado and Nevada are provided to summarize some of the main requirements.

California

The Bureau of Cannabis Control is responsible for cannabis regulation in California. The agency was merged from three state programs to create a centralized organization to manage commercial cannabis businesses. It is responsible for more than 1,000 distributor licenses and even more licenses for retail. Physical security regulations require licensees to ensure that only authorized individuals have access to key areas of the premises. An alarm system must be installed, maintained, and monitored by a licensed security provider. License holders need to provide building diagrams that outline where these systems are installed.

The video surveillance system must use cameras with a minimum resolution of 1280 x 720 pixels. Cameras need to be fixed and located within 20 feet of entry and exit points. They are also required in areas where the cannabis is weighed, packed, stored, loaded, and unloaded, and at all point-of-sale locations. Images must be stored at 15 frames per second (fps) and kept for 90 days. The Bureau of Cannabis Control may inspect these recordings as required. Finally, any failure in the video surveillance system should create a notification to the operator to ensure it is fixed quickly.

Colorado

In Colorado, the Marijuana Enforcement Division of the Department of Revenue is responsible for physical security regulations. Licensees must keep records of the alarm system, including a schematic of the zoning, as well as details of the alarm installation and monitoring company. Outdoor or greenhouse locations must provide sufficient security measures to ensure that the areas are not easily accessible. This includes physical fencing, specified at nine gauge or lower metal chain links or similar secure material. Gates need to be a minimum of eight feet high (or six feet plus barbed wire).

The video surveillance system must have four hours of back-up battery power to ensure it can continue to operate if power is lost. Cameras need to be placed within 20 feet of all entry and exit points, as well as other key locations such as the point of sale. Recording equipment must be kept in a remote or secure location with access limited to authorized individuals. Off-site monitoring and storage are authorized if the provider meets, or exceeds, the on-site regulations. Images need to be recorded 24/7 and stored for a minimum of 40 days, and the time and date must be embedded onto the video feed.

Nevada

The Nevada Cannabis Compliance Board governs the state's cannabis industry through regulations for licensing and operation of cannabis facilities. Physical security regulations require that, for production and distribution, there must be a single secure entrance to the physical building with security equipment to deter or prevent unauthorized access.

Video surveillance solutions must have a 19-inch monitor to view images and cameras must have a recording resolution of 1920 x 1080 at 15 fps for all entrances and exits, vaults, and POS locations. It is also required that law enforcement be able to view video remotely and that video be stored for 30 days. Lower-resolution video surveillance cameras can be used in lower-risk locations. Outdoor cultivation also requires that the cameras be monitored.

Market opportunities: how to win?

- End-users must meet a range of regulations to win, and keep, their license to operate in the cannabis industry. Security partners can support their customers by keeping up to date with the changing regulations as they relate to the physical security environment. This includes both the technology market, such as video surveillance and access control, as well as the requirements for physical barriers, such as gating and fencing.

- Cash management can be a challenge for end-users. The cost for inventory and product is high in the cannabis market, and owners are often expanding their businesses quickly to meet the growing commercial demand. Operators can be budget conscious as a result. Security solutions that are cost effective and scalable are well suited to the market. Educating the end-user community on how best to leverage these solutions can be an important value proposition for systems integrators.

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