



ARCVIEW
MARKET RESEARCH



GREENTANK

North American Vape Market

Quarterly Report 2021

QUARTER THREE



DATA PROVIDED BY



HEADSET®

It's that time again. When ones and zeros become cannabis vape hardware heroes. Welcome back to the industry's favorite comprehensive cannabis vape data report series.

Our Q2 report, which compared April, May, and June's sales to those of the same time period one year earlier, was another huge success. In addition to the nine markets we covered in our Q1 vape report, we welcomed two new markets in Pennsylvania and Michigan. Multiple MSOs and LPs from each of the 11 markets analyzed reached out to us with follow-up requests for more information and vape trend consultations, which can only mean one thing: We give damn good data.

Considering the positive response we've received thus far, you're sure to find that the third report in the series will continue to deliver actionable data and insights. One of many can't-miss highlights includes our examination of how each of these 11 markets has fared while returning to some semblance of pre-COVID-19 normalcy. Point-of-sale tracking across the USA and Canada—supplied by our incredible partners at Headset—shows that vape sales for the quarter in both the US and Canada were out of this world. In total, a combined 27 million vape units were sold over the three-month period in both countries, generating over \$900M in revenue proving that while the pandemic might have kept us down, consumers turned to cannabis vapes to stay up.

Several trends have also carried over from Q2, and in many cases, intensified. The double-digit YoY sales growth that ran throughout our previous vape report has continued in every market, except Washington—ironically known as the evergreen state. The slight uptick in disposable sales we saw in certain US markets has noticeably increased everywhere, except in Pennsylvania. Canadian cartridge sales, which grew exponentially in Q2, have overwhelmingly become the preferred vape product type among consumers north of the border. And the 1g package size continues to make immense strides, with massive segment share increases in most markets, but not all . . . folks, that is what we call a cliffhanger!

Unfortunately, knowing the general trends sweeping through the US and Canada simply isn't enough. To quote Mark Twain, "It's not what you don't know that gets you in trouble, it's what you know for certain that just isn't true." Great data beats a good guess every time. Brands need to know where their individual markets are headed, so they can anticipate trends and capitalize on them before they unfold. That's the key to sustained success in our corner of the industry. So, without further adieu, we ask you:

HOW WELL DO YOU REALLY KNOW YOUR MARKET?

Sales data in this report includes 11 North American markets in the United States and Canada:



California



Colorado



Washington



Oregon



Nevada



Pennsylvania



Michigan



Alberta

British
Columbia

Saskatchewan



Ontario

Acknowledgements



Headset is the cannabis industry's leading data analytics company, serving over 2000 retailers across 30 markets. Headset's mission is to help businesses make better-informed decisions through data by collecting and analyzing consumer transaction information. Headset's models and dashboards help cannabis retailers better optimize their day-to-day operations. These tools also help licensed producers, product manufacturers, processors and distributors leverage retail sales data in real-time to identify trends and opportunities, stay competitive, and collaborate with their retail partners and customers.

Learn more at headset.io

California



The Golden State continues to live up to its name by setting records every quarter and showing no signs of slowing down.

In Q3, California broke the vape sales record it had set in the previous quarter with \$314.9M in sales. A record 9.2M units were sold from July to September, an increase of nearly 2M from the same time period one year earlier. Nearly two-thirds of these units were 1g products, which jumped 14% in popularity relative to one year ago. But it was disposable devices that made the most unexpected move during the quarter, climbing to 11% segment share for the first time since Q1 2019! We're not sure to what extent tourism is driving this surge in disposable sales, but it's a very encouraging sign for any California brands making disposable plays in the near future.

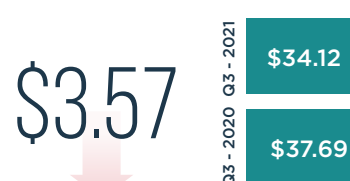
TOTAL SALES



TOTAL UNITS SOLD



AVG UNIT PRICES



DISPOSABLE SALES



1G UNIT SALES



TOP BRANDS

	Q3 - 2020	Q3 - 2021
DISPOSABLES	STIIIZY	STIIIZY
CARTRIDGES	STIIIZY	STIIIZY

BEST SELLING CARTRIDGE

STIIIZY

Blue Dream
Distillate - 1g

BEST SELLING DISPOSABLE

STIIIZY

Blue Dream
Live Resin - 0.5g

*DATA SOURCE: HEADSET

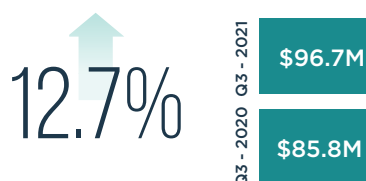


Colorado

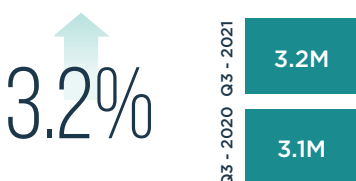
They say you can't teach an old dog new tricks, but Colorado's vape market is still surprising us with its retail data nonetheless. Three trends stand out when analyzing Colorado's Q3 vape sales:

1. Sales of disposables soared to new heights, accounting for 17.4% of all sales for the three-month period. Disposables had never surpassed the 16% mark in the state previously, so the \$16.7M these units generated was undoubtedly a welcome surprise for the market.
2. EvoLab isn't just a cool name; it also absolutely owns the Colorado disposable scene at this point. For the eighth consecutive time, dating back to Q2 2019, EvoLab was the top disposable brand in the state. The Colorado Rockies could only dream of that kind of sustained success. In Q3, the brand grew its command of Colorado's disposable market to an impressive 31% share of all unit sales, more than doubling the unit sales totals of its nearest competitor.
3. After only growing by a combined 1% over the previous three quarters, the sale of 1g units is maturing before our eyes. Its growth spurt to 38.6% of all vape units sold was a 41% hike from Q3 2020 and a promising sign of positive indexing from a market that has been slow to embrace the 1g package size. Before we know it, it'll be asking to borrow the keys to the car.

TOTAL SALES



TOTAL UNITS SOLD



AVG UNIT PRICES



DISPOSABLE SALES



1G UNIT SALES



TOP BRANDS

	Q3 - 2020	Q3 - 2021
DISPOSABLES	EVOLAB™ CANNABIS EVOLVED	EVOLAB™ CANNABIS EVOLVED
CARTRIDGES	openVAPE™	openVAPE™

BEST SELLING CARTRIDGE



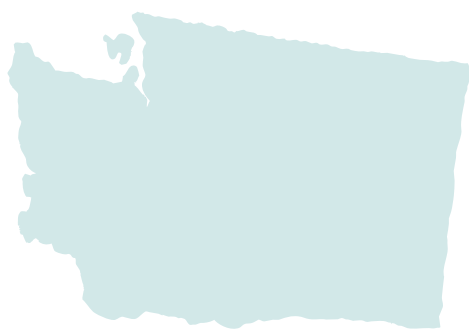
Sesh - 1g

BEST SELLING DISPOSABLE

MAGNITUDE

Super Lemon Haze - 1g

*DATA SOURCE: HEADSET



*Excise taxes not included in data

Washington

Washington produces more apples than any other US state and it looks like its vape industry is seeking the same type of growth because its Q3 sales were ripe for the picking.

Vape sales in the state increased 7.7% from a year ago and unit sales were up 11%, impressive margins for one of the oldest markets we track. One-gram units also continue to be crisp. They've increased in popularity to 88.5% of all vape sales from 86.5% last year, while the top cartridge and disposable products or brands haven't changed among consumers, suggesting that once Washington's vape users find a product they like, they stick to it. One takeaway that shocked us industry insiders, though, is how quickly the popularity of disposables has risen in a market that many consider to be the most entrenched in the US.

After bottoming out in Q1 2020 with 0.9% segment share, Washington's disposable category has rebounded impressively and unexpectedly, essentially improving one percentage point with every subsequent quarter. Now accounting for 6.4% of all vape sales, disposables are finally starting to drive some serious quarterly and annual revenue in the state. How do you like them apples?

TOTAL SALES

7.7%

Q3 - 2020 Q3 - 2021

\$64M

\$59.4M

TOTAL UNITS SOLD

11.5%

Q3 - 2020 Q3 - 2021

2.9M

2.6M

AVG UNIT PRICES

\$0.90

Q3 - 2020 Q3 - 2021

\$22.36

\$23.26

DISPOSABLE SALES

120.7%

1G UNIT SALES

2.3%

TOP BRANDS

Q3 - 2020

Q3 - 2021

DISPOSABLES



CARTRIDGES



BEST SELLING CARTRIDGE



Zkittles
Distillate - 1g

BEST SELLING DISPOSABLE

HELLAVATED

Strawberry Haze
Distillate - 0.5g

*DATA SOURCE: HEADSET



Oregon

Only three things are guaranteed in life: death, taxes, and the steady maturation of Oregon's vape market.

Well, actually there is no sales tax in Oregon but that maturation was on full display in Q3 during which vape sale revenue and the total number of units sold in the state both improved by approximately 17% from the same time period one year ago. For anyone keeping track, Q3 was the fifth straight record-breaking sales quarter for the state and its 15th consecutive record-breaking quarter for total units sold.

Despite already accounting for 9 out of every 10 vapes sold in Q2, the popularity of 1g units in Oregon rose once again to 91% in Q3—the highest mark for the package size of any North American market. And while the sale of disposables did technically increase 7.4% from the same period last year, the segment still accounts for less than 3% of all vape sales in the state, which makes sense considering Oregon's commitment to sustainability.

TOTAL SALES

↑
16.8%

Q3 - 2020 Q3 - 2021

\$50.7M

\$43.4M

TOTAL UNITS SOLD

↑
17.6%

Q3 - 2020 Q3 - 2021

2.0M

1.7M

AVG UNIT PRICES

↑
\$0.60

Q3 - 2020 Q3 - 2021

\$25.75

\$25.15

DISPOSABLE SALES

↑
7.4%

1G UNIT SALES

↑
4.5%

TOP BRANDS

Q3 - 2020

Q3 - 2021

DISPOSABLES

Buddies **Buddies**

CARTRIDGES

Select

Buddies

BEST SELLING
CARTRIDGE



T4 Live Resin
1g

BEST SELLING
DISPOSABLE

SERRA

Energy Sunshine
Live Resin - 0.3g

*DATA SOURCE: HEADSET



Nevada

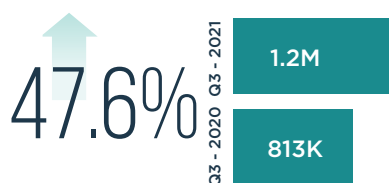
When you're on a hot streak, you've got to let it ride and we're ALL IN on Nevada's potential.

The state's \$41.4M in sales during Q3 marked its third straight quarter of record-breaking vape revenue. The market share of the category also rose over 2 full percentage points from the previous quarter to 18.6% of Nevada's entire cannabis industry. Disposables have also increased significantly in popularity in recent months, vaulting from 22.2% one year ago to 27.3% of all vape sales in Q3—the highest mark by 10 percentage points of the 11 vape markets we track. But the most interesting tidbit coming out of Nevada is that it's the only market where the sale of 1g units is down from last year. Not just down a little bit, either; 1g units there are on a cold streak, down 38.3% in unit sales from Q3 2020, and currently residing at a mere 6.6% of the market—by far the lowest mark of any market we track. Hopefully for 1g units, what happens in Vegas, stays in Vegas.

TOTAL SALES



TOTAL UNITS SOLD



AVG UNIT PRICES



DISPOSABLE SALES



1G UNIT SALES



TOP BRANDS

	Q3 - 2020	Q3 - 2021
DISPOSABLES	STIIZY	STIIZY
CARTRIDGES	airopo ADVANCED VAPOR SYSTEM	Select

BEST SELLING CARTRIDGE

cannavative
FINE CANNABIS PRODUCTS, MADE ONLY IN NEVADA
Blueberry CO2
0.8g

BEST SELLING DISPOSABLE

BOUNTI
NATURE'S REWARD
Blue Dream
0.5G

*DATA SOURCE: HEADSET



Pennsylvania

(Medical Only)

It may always be sunny in Philadelphia, but it's never not cloudy in Pennsylvania—at least according to the vape data.

The state is already a powerhouse for the cannabis vape industry, consistently moving over 2M units each quarter and generating \$100M+ in sales revenue. A statistic made more impressive considering Pennsylvania is still a medical-only state. Unlike every other market we've examined so far, the sale of disposable devices has continued dropping in the Keystone State, but only by 3% from one year ago. Its 8.8% stake of all vape sales is a far cry from the 17% stake the segment held as recently as Q1 2020, but still drives over \$9M in revenue a quarter. Pennsylvania's 1g units, on the other hand, are following national sales trends, having increased 17% from last year to 25.7% of all vape sales in Q3. This might still seem proportionally low but given the restrictions on users in this medical market, it's actually fairly impressive.

TOTAL SALES

34%

Q3 - 2020 Q3 - 2021

\$112.8M

\$84.2M

TOTAL UNITS SOLD

29.4%

Q3 - 2020 Q3 - 2021

2.2M

1.7M

AVG UNIT PRICES

\$0.18

Q3 - 2020 Q3 - 2021

\$50.16

\$49.98

DISPOSABLE SALES

3.3%

1G UNIT SALES

16.8%

TOP BRANDS

Q2 - 2020

Q2 - 2021

DISPOSABLES
CARTRIDGES



RYTHM

CRESCO
LABS*

CRESCO
LABS*

CRESCO
LABS*

BEST SELLING CARTRIDGE

CRESCO
LABS*

Gorilla Glue #4
Liquid Live Resin
1g

BEST SELLING DISPOSABLE



RYTHM

Banana Cream
CO2 - 0.3g

*DATA SOURCE: HEADSET



Michigan

Great Lakes State? More like great vape state.

Two quarters ago, Michigan sold \$84.8M worth of cannabis vape products. In Q3, that figure spiked to \$106M. Not impressed yet? Consider this: The number of units sold in Q3 was more than double the amount sold during the same time period last year, and 1g units now dominate the market at a prolific 83% clip. Usually, we only see 1g package size popularities of this magnitude in the most mature markets, which either means that Michigan's vape industry suffers from reverse-Benjamin-Button disorder or that consumers there are just dead-set on getting the best possible bangs for their buck.

Following the pattern we're seeing in several more entrenched US markets, Michigan's disposable segment also rose from a 0.01% blip on the radar in Q3 2020 to a respectable 3.9% stake between July and September—an increase of 3800%! With tourism levels still well below pre-pandemic levels in the state, it's extremely promising that disposable sales are on the rise, especially when taking into account how much tourism drives all-in-one sales in the US.

TOTAL SALES



TOTAL UNITS SOLD



AVG UNIT PRICES



DISPOSABLE SALES



1G UNIT SALES



TOP BRANDS

	Q3 - 2020	Q3 - 2021
DISPOSABLES		
CARTRIDGES		

BEST SELLING CARTRIDGE



Me Time Distillate - 1g

BEST SELLING DISPOSABLE



Northern Lights Distillate - 1g

*DATA SOURCE: HEADSET



Alberta

If you think Alberta is known primarily for its oil deposits and its cattle, well, you'd be right. However, the prairie province is also Canada's second largest vape market and this herd has undergone quite a shift in consumer preferences over the last 12 months.

Both Alberta's vape sales revenue and its total number of units increased significantly relative to last year's Q3, by 28% and 45% respectively, but even those figures pale in comparison to the growth that 1g units have experienced in the province. In Q3 2020, the package size accounted for only 2.3% of Alberta's unit sales, generating just under \$1M in sales. Fast forward a year and 1g units now comprise 42.3% of all units sold. In Q3, the package size brought in \$16.6M alone—exactly 50% of the vape revenue AB generated during the period!

Consumer interest in 1g units has essentially made the disposable segment an afterthought in the province. The sale of these all-in-one units has plummeted 76.4% from Q3 2020, when they accounted for one out of every five vape sales. At a mere 4.3% of the market, disposables are becoming as unpopular as a vegetarian entree at an Alberta steakhouse.

TOTAL SALES

28%

Q3 - 2020 Q3 - 2021

\$32.9M CAD

\$25.7M CAD

TOTAL UNITS SOLD

44.8%

Q3 - 2020 Q3 - 2021

895.8K

618.8K

AVG UNIT PRICES

\$4.67 CAD

Q3 - 2020 Q3 - 2021

\$36.82 CAD

\$41.49 CAD

DISPOSABLE SALES

76.4%

1G UNIT SALES

1,739.1%

TOP BRANDS

Q3 - 2020

Q3 - 2021



REDECAN

48^N

DISPOSABLES

CARTRIDGES

GOOD
SUPPLY

GOOD
SUPPLY

BEST SELLING CARTRIDGE

BZAM
CANNABIS.

Magic Melon
Distillate - 1g

BEST SELLING DISPOSABLE

EDISON
CANNABIS CO

Limelight Distillate
0.3g

*DATA SOURCE: HEADSET



British Columbia

The current British Columbia vape market is almost unrecognizable relative to where it was one year ago.

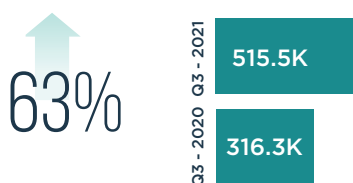
At the time, BC's nascent market was selling approximately 300K units per quarter, two-thirds of which were half-gram products. Since then, however, vape sales in Canada's most western province have increased 46.9% and its total number of units sold has vaulted by more than 60%.

Disposables have basically fallen off of the map altogether with 1.6% of all vape sales, the category's lowest segment share of any North American market. In its place, the sale of cartridges have gone through the roof, making up 98.4% of all units sales during the quarter. Average unit prices have dropped by over \$4, which completely threw us for a loop given that 1g unit sales are up over 1300% from last year. It's hard to pinpoint what's causing this head-scratching contradiction, but one thing is for sure: BC consumers aren't complaining.

TOTAL SALES



TOTAL UNITS SOLD



AVG UNIT PRICES



DISPOSABLE SALES



1G UNIT SALES



TOP BRANDS

	Q3 - 2020	Q3 - 2021
DISPOSABLES	KOLAB PROJECT	EDISON CANNABIS CO
CARTRIDGES	KOLAB PROJECT	GENERAL ADMISSION

BEST SELLING CARTRIDGE

-ness

Ninja Fruit
Distillate - 1g

BEST SELLING DISPOSABLE

EDISON
CANNABIS CO

Limelight Distillate
0.3g

*DATA SOURCE: HEADSET

Ontario

Cannabis spending has been way up in Canada since the start of the pandemic, and nowhere is that more evident than in the enormous growth Ontario's vape market has undergone over the last 12 months.

In Q3, the province nearly doubled its vape revenue totals from one year ago, selling 1.3M products in the process. It continues to be the only Canadian market that's surpassed 1M unit sales in a single quarter, but we can assure you it won't be the last given how close Alberta came to hitting the milestone in Q3. Unlike in the US, the popularity of disposables in Ontario is way down. In Q3 last year, these devices constituted one-quarter of the province's vape sales. Now that figure hovers at 6.8%, which is still proportionally the highest disposable share of any Canadian market in this report but very telling of where the Ontario market is headed. Spoiler warning: the market is gravitating toward 1g cartridges. This package size has erupted in Canada's largest cannabis market, growing 908% over the last year to 35.3% of all units sold over the last quarter. And yet, there is still plenty of room for even more growth here, as Ontario's 1g unit popularity is proportionally the lowest of any Canadian market in this report. For now. A golden opportunity for brands operating in the Golden Horseshoe, if we've ever seen one.

TOTAL SALES

94%

Q3 - 2020 Q3 - 2021

\$52.2M CAD

\$26.9M CAD

TOTAL UNITS SOLD

123.6%

Q3 - 2020 Q3 - 2021

1.3M

581.4K

AVG UNIT PRICES

\$6.98 CAD

Q3 - 2020 Q3 - 2021

\$39.22 CAD

\$46.20 CAD

DISPOSABLE SALES

72.5%

1G UNIT SALES

908.6%

TOP BRANDS

Q3 - 2020

Q3 - 2021

DISPOSABLES

REDECAN

REDECAN

CARTRIDGES

GOOD SUPPLY

BACK FORTY

BEST SELLING CARTRIDGE

BACK FORTY

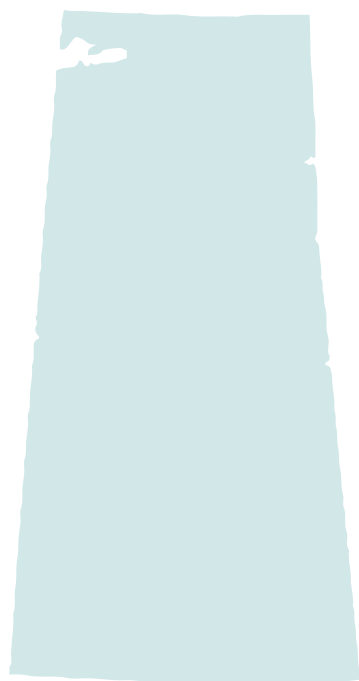
Forbidden Fruit
Distillate 1g

BEST SELLING DISPOSABLE

CANACA

THC Distillate
0.5g

*DATA SOURCE: HEADSET



Saskatchewan

Saskatchewan isn't just a word that throws up big scores in Scrabble, it's also a vape market growing at a healthy and sustainable rate.

Canada's other prairie province produced \$8.3M in vape sale revenue during Q3, less than half of any other Canadian market we track, yet still a 27.3% increase from the Q3 2020. The province's 207K units sold, relative to 145K one year ago, tells a similar story, and its diminishing disposable market aligns with the same trend we're witnessing across the country.

But not all of Saskatchewan's growth has been slow and steady. The province's 1,708% increase in 1g package size unit sales relative to Q3 2020 is the second largest jump of any market in this report. That type of growth beats a triple-word score any day.

TOTAL SALES

27.3%

Q3 - 2020 Q3 - 2021

\$8.4M CAD

\$6.6M CAD

TOTAL UNITS SOLD

42.7%

Q3 - 2020 Q3 - 2021

207.2K

145.2K

AVG UNIT PRICES

\$5.26 CAD

Q3 - 2020 Q3 - 2021

\$40.42 CAD

\$45.68 CAD

DISPOSABLE SALES

51.7%

1G UNIT SALES

1,708%

TOP BRANDS

Q3 - 2020

Q3 - 2021

REDECAN

48^N

DISPOSABLES

REDECAN

GENERAL
ADMISSION

CARTRIDGES

BEST SELLING CARTRIDGE

GENERAL
ADMISSION

Pineapple Daze
Distillate 0.45g

BEST SELLING DISPOSABLE

EDISON
CANNABIS CO

Limelight Distillate
0.3g

*DATA SOURCE: HEADSET

Conclusion

During the gold rush, miners were constantly looking for ways to create greater yields in more expeditious fashions. Along came the Long Tom, a wooden crate used to create better fluidity that made it easier for chunks of gold to sink to the bottom and separate from the dirt and silt. It wasn't until much later that hydraulic mining greatly improved upon this process. Fast forward to 1991 when the technology of block chain was first outlined by Stuart Haber and W Scott Stornetta, a full 17 years before it was used to create the system we know today as crypto currency. In any burgeoning sector, there are tipping points that create acceleration in either direction and sometimes it's not until further down the road that we see the ripples from that first stone.

Some might say the pandemic could be the tipping point. Others argue that the industry hasn't had one yet, and won't, until US national legalization occurs. One thing is for sure: The cannabis industry, while maturing at an exponential rate, is still very much in its infancy and this is why the data is so important! It shows a sector that has never looked stronger, generating \$900 million alone in Q3. And yet, even this data doesn't paint a full picture. Missing are datasets from multiple Canadian provinces and several thriving US markets, including Illinois, Massachusetts, Arizona and Maryland. In fact, according to the Headset Insights platform, those four US markets alone generated an additional \$357M over the quarter. This means the North American cannabis vape market is currently generating between \$4B and \$5B in sales revenue annually.

Soon it will be even more, with new markets set to come online, including Virginia, New York, New Jersey, Mexico, and Montana.

Perhaps the tipping point is in the opportunity itself. Opportunity drives innovation. Extraction specialists continue to make advancements in extraction technologies, and these techniques have already resulted in new extract product types, including live resin extracts, which have skyrocketed in popularity over the last 18 months. Manufacturers are in an arms race to create the next generation of cannabis vape technology. From new form factors to new heating technologies, and a multitude of new functionalities in between, immense strides are being taken to revolutionize the way users interact with and experience their extracts.

So, while we can debate the fabled tipping point and where we stand in relation to it, one thing is very clear: all of these markers point to something huge. That point we keep referencing will only tip in one direction. Up. So pull on your Levi's, grab your Long Tom, and equip yourself with as much data as you can because to strike gold, you'll need more than luck. You'll need the data.

**ARCVIEW**
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We offer it for free because we want our partners to succeed and believe that forming a cohesive, analytics-substantiated approach at the onset of any hardware consultation puts them in the best position to do so.

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