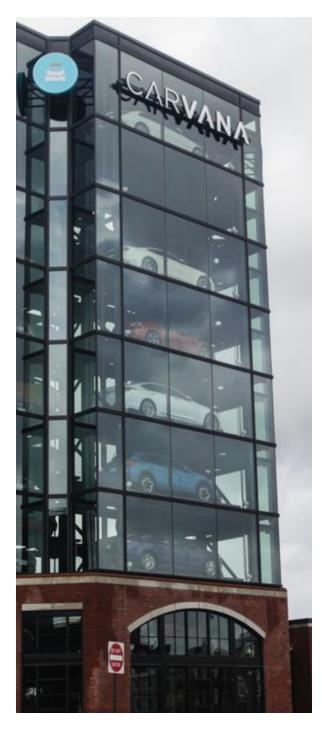
From Chaos to Control:

How Oomnitza Reshaped Carvana's Asset Management





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98%

Endpoint Recovery Rate \$640K

Annual Capex Savings 100%

NIST & SOC-2 Compliance



Executive Summary

With growth exceeding 3,000 percent, Carvana faced a daunting technology asset challenge, struggling to manage over 13,000 laptops and mobile devices manually using spreadsheets. Their offboarded employee endpoint recovery rate languished at a mere 50%, and they operated with a 70 percent risk of human error. In addition, the absence of holistic asset visibility, and precise inventory control, jeopardized compliance adherence.

But Carvana transformed their operations with Oomnitza's Modern Technology Asset Management solution. Automated workflows eradicated the risk of human error. With timely alerts and notifications, endpoint recovery skyrocketed to 98%, yielding annual savings of over 600 thousand dollars, as they no longer wasted CapEx on replacing unrecovered laptops and mobile devices. Moreover, Carvana achieved a perfect 100% compliance rating with NIST and socks-2 requirements. In addition, Procurement processes accelerated fivefold, simplifying forecasting and order tracking, with procurement partners.

Oomnitza helped Carvana automate and streamline IT operations, saving precious time and resources, optimizing asset life cycles, and slashing costs.

Rocketship Growth Posing Monumental Tech Asset Challenges

Carvana's journey from 2016 to 2022 was an extraordinary success story, with growth exceeding 3,000%, catapulting annual revenues beyond \$10 billion. This meteoric rise wasn't just about numbers; it also triggered a rapid transformation in the workforce, swelling from a few hundred to over 10,000 employees.

What's particularly remarkable is that a substantial 70% of Carvana's workforce occupied dynamic, high-turnover operational roles, including those in inspection centers, manufacturing facilities, and logistics teams handling car deliveries. Consequently, Carvana faced a perpetual cycle of onboarding and offboarding hundreds of employees weekly.

Adding complexity, a significant portion of Carvana's workforce relied heavily on company-provided devices, laptops, and mobile devices spread across 300 locations. Managing this expansive arsenal of over 13,000 endpoints became a daunting task for their lean IT team, often relying on manual methods and unwieldy spreadsheets.

Plummeting Recovery Rates of Offboarded Employee Endpoints

Supervising an inventory of over ten thousand devices through manual spreadsheet management proved incredibly frustrating for Carvana. Timely notifications to departing employees about returning corporate-owned endpoints and promptly identifying overdue devices became increasingly challenging, if not impossible. Consequently, Carvana struggled with a mere 50% hardware recovery rate for offboarded employee equipment, translating to an annual expenditure surpassing \$600,000 on replacing lost or unaccounted-for laptops and mobile devices.

Even when laptops were dutifully returned, Carvana faced a secondary hurdle – accurately tracking their physical locations within a sprawling network of 300 locations. Despite elements of their employee onboarding and offboarding processes being integrated into their HRIS system, asset management, especially the allocation of specific devices to individuals, remained bogged down in manual spreadsheet-based operations.

This lack of accurate visibility into their technology assets led to a puzzling situation where new devices were needlessly purchased for fresh hires, while previously returned devices gathered dust, representing an untapped resource.

Challenges

Carvana struggled to manually handle more than 13,000 laptops and mobile devices using spreadsheets, resulting in:

- A meager offboarded employee endpoint recovery rate of only 50%.
- Operating with a 70% risk of human error.
- A lack of holistic asset visibility and precise inventory control, leading to compliance adherence issues.
- Ineffective security risk mitigation and remediation due to inadequate location tracking across over 300 physical locations.

Third party tools

- VMware Workspace ONE for endpoint management
- · Tanium for endpoint security
- Meraki for network infrastructure management
- Okta for single sign-on
- ServiceNow for service management and ticketing

Exposed Vulnerabilities in Laptop Security

Furthermore, Carvana's extensive network of locations, combined with deficient asset visibility, raised security concerns. While Carvana had implemented endpoint security tools enabling critical functions like remote wiping and laptop lockdowns, their effectiveness depended on precisely pinpointing the physical locations of these laptops. This proved challenging, especially considering that these devices could be scattered across any of Carvana's 300 physical locations. Consequently, this limitation significantly impeded Carvana's ability to fortify defenses against potential laptop attack vectors.

Inadequate Inventory Control Jeopardizes Compliance

Moreover, the asset visibility deficit presented Carvana with a formidable hurdle in meeting compliance obligations. Carvana adheres rigorously to stringent standards set forth by NIST (National Institute of Standards and Technology) and SOC 2 (Service Organization Control 2), both demanding meticulous asset management and stringent inventory control.

This involves maintaining detailed records documenting asset depreciation, punctually and accurately reporting these assets to Carvana's FBA (Financial Business Analysis) team, and timely removal of assets from financial records per appropriate protocols. The lack of precise asset visibility not only hindered these essential compliance procedures but also left Carvana vulnerable to potential regulatory violations.

Audits Strain Resources, Procurement Encounters Delays

The dearth of asset visibility further hindered Carvana's ability to effectively respond to IT audits, presenting a significant challenge in providing auditors and the finance department with accurate figures. Additionally, forecasting expenditures with precision and understanding the true cost per employee remained elusive without comprehensive asset insights. These limitations compounded the complexities of efficiently managing their endpoint hardware infrastructure.

Complicating matters, when Carvana initiated substantial hardware orders, IT faced the dual challenge of tracking existing assets and deciphering inbound items from procurement vendors. This predicament resulted in unwarranted delays as considerable time was required for scanning and incorporating new hardware into the system, followed by the laborious task of updating spreadsheets to reflect these changes.

Given Carvana's modestly sized IT team and limited bandwidth, achieving comprehensive asset tracking and timely spreadsheet updates was impractical. Relying on manual input introduced risks of human errors and data inaccuracies. An automated asset oversight solution became imperative to address these challenges and enhance efficiency and reliability in Carvana's technology asset management.

Course Correcting with Modern Technology Asset Management

In the contemporary enterprise landscape, automation takes precedence for good reason. Engaging in manual processes, like updating spreadsheets to monitor assets, depletes limited IT resources and exposes companies to the risk of human errors.

To tackle these challenges, Carvana strategically adopted a suite of third-party tools to fortify operations. While tools like VMware Workspace ONE for endpoint management, Tanium for endpoint security, Meraki for network infrastructure management, Okta for single sign-on, and ServiceNow for service management and ticketing were individually effective, they often operated in isolation, lacking the comprehensive and unified view of Carvana's technology asset landscape.

Here's where Oomnitza's agentless Modern Technology Asset Management solution shines. By leveraging Oomnitza's developed and supported connector integrations with these tools, Carvana established a seamless, bidirectional communication channel between their technology management tools and Oomnitza, operating in near real-time. This transformative integration empowered Oomnitza to serve as the single source of truth for Carvana's technology assets, significantly reducing reliance on manual interventions.

This capability proved particularly valuable in tracking endpoint changes, a task susceptible to oversight and errors when managed manually through spreadsheets. With Oomnitza, updates were seamlessly captured through automation, ensuring precise endpoint tracking without the perpetual need to painstakingly locate assets and update records.

"Thanks to Oomnitza, we've gained a holistic perspective on all of our endpoint devices. This empowered us to make informed procurement decisions, particularly as we prioritize cost and process efficiency."

Imran Kazi Vice President of Technology Services at Carvana

Game-Changing Outcomes

Amid rapid growth, it's common to overlook details and minor aspects due to resource and time constraints. Yet, Oomnitza has empowered Carvana with technology asset visibility, enabling smart decisions that curb waste, enhance compliance, and improve audit readiness. This, in turn, has resulted in substantial cost savings.

Replaced the Risk of Human Error with Automation

Oomnitza now automatically maintains precise asset data for Carvana's endpoints, eliminating the need for manual involvement. This transformation has yielded substantial benefits, saving several hours of IT resources every week, which would otherwise have been spent on the tedious task of keeping an asset spreadsheet up to date.

In addition, Carvana was able to decrease the risk of human error by 70 percent by utilizing Oomntiza's built and supported connectors with tools like VMware Workspace ONE, Tanium, Meraki, Okta, and ServiceNow to automate the continuous delivery of a more accurate single source of truth for technology asset data.

Furthermore, Oomnitza's workflow automation streamlined the employee offboarding process, reducing the number of manual touches from over 30 per employee to an efficient and error-free zero.

Reduced Wasteful CapEx Spend on Endpoints

Moreover, it has led to a remarkable enhancement in the endpoint recovery rate for offboarded employees, soaring from 50 to an impressive 98 percent, resulting in annual savings exceeding \$600,000. Notably, this efficiency means that over a two-year period, Carvana didn't have to procure a single new endpoint for incoming employees, as IT effectively repurposed recovered devices.

Improved to 100 Percent Compliant with its NIST and SOC 2 Requirements

Oomnitza has accelerated the procurement process by 5 times, streamlining the forecasting and tracking of orders through procurement partners through additional workflow automation. This not only accelerates the procurement timeline but also acts as a safeguard against human errors, such as overlooking spreadsheet updates or similar oversights.

Outcomes

By deploying Oomnitza's Modern Technology Asset Management solution:

- Endpoint recovery surged to 98%, saving over \$600,000 annually as they no longer needed to replace unrecovered devices.
- Automated workflows eliminated the risk of human error.
- Attained a perfect 100% compliance rating with NIST and SOC-2 requirements.
- Procurement processes
 were accelerated 5x,
 streamlining forecasting and
 order tracking

"I'm no longer super nervous going into meetings with my boss, because I know I can answer any question he throws my way around the status of our over 10,000 endpoints."

Rob Laker, Manager - Endpoint Operations at Carvana Carvana now enjoys the agility of quickly accessing vital information, such as the inventory of laptops or devices in specific inspection centers, tracking asset ownership, and effortlessly identifying deactivated devices. This newfound efficiency enables Carvana to promptly retrieve and present the necessary data to management and finance, simplifying audit processes.

Thanks to this comprehensive visibility, Carvana has streamlined its compliance efforts, achieving a remarkable 100 percent compliance rate with its NIST and SOC 2 requirements, showcasing the profound impact of Oomnitza's solutions on their operations.

Unlocked Financial Efficiency and Optimized Asset Lifecycles

Carvana's partnership with Oomnitza has also fostered a close collaboration between the IT and accounting departments, resulting in enhanced precision in managing asset lifecycles and ensuring accurate depreciation accounting. This synergy has delivered substantial annual savings of over \$65,000 in personal property tax expenses. This financial achievement was made possible by the efficient tracking of retired devices and the seamless sharing of this information with our accounting team.

Furthermore, within the broader context of asset lifecycles, Oomnitza has proven invaluable in managing warranties and repairs, a critical aspect of maximizing the lifespan of devices. Oomnitza's tracking capabilities provide essential data that guides Carvana in making informed decisions about asset lifecycles, ultimately contributing to more effective overall asset management.

Single source of truth for technology assets

In the final analysis, Oomnitza has solidified its position as Carvana's unequivocal authority on technology assets. It serves as the linchpin that helps Carvana address fundamental queries, such as the proper management of endpoints from offboarded employees. With Oomnitza in their corner, Carvana now possesses the capability to furnish precise, data-backed insights about its technology assets, enabling them to run their business more efficiently and cost-effectively with unwavering confidence.

Highlights

Carvana gains comprehensive visibility across its over 13,000 endpoints of laptops and mobile devices. They are also:

- Increased recovery of offboarded employee endpoints from 50% to 98%, saving over \$600K annually
- Improved to 100 percent compliant with its NIST and SOC-2 requirements.
- Decreased risk of human error by 70%, utilizing Oomntiza's built and supported connectors with tools like VMware Workspace ONE, Tanium, Meraki, Okta, and ServiceNow to maintain a more accurate single source of truth for technology asset data
- Accelerated the procurement process by 5 times, streamlining the forecasting and tracking of orders through procurement partners

About Carvana

Carvana (NYSE: CVNA) is a pioneering force in the online used vehicle market. It has rapidly become the fastest-growing used car retailer in U.S. history. Carvana.com enables customers to purchase vehicles from home, backed by a 7-day money-back guarantee, nationwide inventory, and home delivery. Carvana also facilitates selling and trading vehicles across its 300+ U.S. locations, including iconic Car Vending Machines. With a strong commitment to customer care and innovation, Carvana ranks as the second most customer-centric automotive brand in the U.S., following only Ford on Forbes' 2022 Most Customer-Centric Companies List. Impressively, Carvana is one of the fastest companies to break into the Fortune 500.



