



**GENESEE COUNTY PURCHASING**  
A Division of the Genesee County Controller's Office

COUNTY ADMINISTRATION BLDG  
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**Crystal Simpson, CPA**

**Chief Financial Officer**

January 10, 2024

James Graff  
Sentinel Technologies, Inc.  
17199 N Laurel Park Dr, Ste. 322  
Livonia, MI 48152

Sent via email: [jgraff@sentinel.com](mailto:jgraff@sentinel.com) on January 10, 2024

Dear Mr. Graff:

On Thursday, August 14, 2023, your company submitted a bid for the New Key Card Reader/Electronic Portals and Security Camera System Including Installation. The County is requesting that you submit pricing for licensing, warranty, and support for the aforementioned proposal for both five (5) years and ten (10) years. Please use the chart below.

<b>Product</b>	<b>Total cost 5-Year</b>	<b>Total cost 10-Year</b>
Licensing	<b>\$233,194.48</b>	<b>\$458,773.94</b>
Warranty	<b>included</b>	<b>included</b>
Support	<b>included</b>	<b>included</b>

- Total Project Costs with 5 year Licensing: \$1,009,050.16
- Total Project Costs with 10 year Licensing: \$1,234,629.62

**Additional details**

- Verkada products come with up to 10-year hardware warranty.
- Verkada software licenses include:
  - Unlimited users and access across web and mobile platforms
  - Unlimited cloud archiving of video clips
  - Automatic firmware and cloud software updates
  - Verkada customer support (available via phone, email, and live chat within Verkada Command).

Please submit this information to me no later than Tuesday, January 16, 2024, by 12:00 p.m. via e-mail @ [rschubert@geneseecountymi.gov](mailto:rschubert@geneseecountymi.gov).

If you have any questions or concerns regarding this matter, please feel free to contact me via e-mail @ [rschubert@geneseecountymi.gov](mailto:rschubert@geneseecountymi.gov) or phone 810.257.3195.

Sincerely,

Rita Schubert  
Purchasing Manager

## **Genesee County Committee:**

The 10 year total cost of ownership shown below is a visual comparison between the hybrid cloud architecture of Verkada and a traditional on-premise system. As you can see, Verkada guarantees a completely predictable TCO over 10 years due to our 10 year warranty. Any on-prem solution will come with additional costs after the initial purchase. DVR maintenance, repair, replacement, and the labor costs associated with these things are just a few of the sources of these extra costs.

When taking into consideration the average life of DVRs/Video Servers of 5-7 years, it is clear to see a steep increase in total cost just over halfway through a 10 year period. It's uncertain to predict the extent of failure, as it could be a single hard drive failure or an entire storage rebuild with loss of crucial footage and periods of downtime.

Verkada's 10 year warranty entirely eliminates any future purchase until 2034 while providing a system that is scalable, redundant, and secure. Rather than paying more over time for a system that continuously gets worse and needs repair, Verkada's serverless architecture is able to deliver continuous software updates giving you added functionality, security, and technology that improves as time goes on. When you pair this with complementary cloud backup and redundancy, it's only natural to doubt whether an on-prem system can, or *is quoted to*, provide the same benefits.

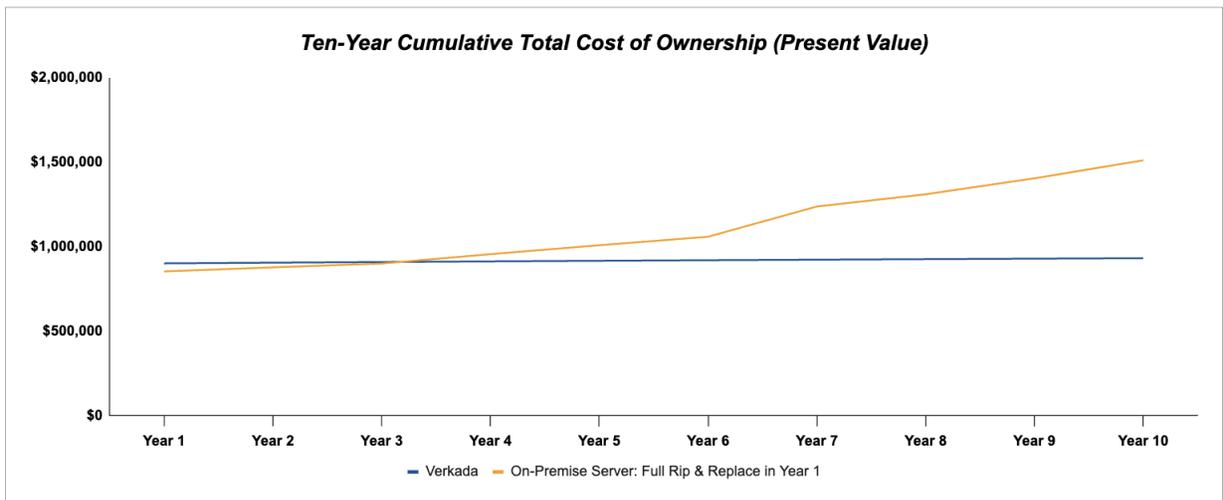
While your physical security will be greatly improved with Verkada, you will also no longer be sacrificing your cybersecurity posture either. With on-premise systems, enforcing security measures such as encryption, port security, certificate enforcement, and more becomes the responsibility of internal IT teams and often falls short of standards. Verkada assumes this responsibility and gives you government level security (SOC 2 Type 2 compliance) out of the box. This greatly reduces the risk of cyber threat. Each device has security controls entirely eliminating the chance of threats using our IoT devices to pivot around a Local Area Network. It's quite difficult to put a price on a truly strong cybersecurity posture—especially when digital assets are valuable and need to be protected.

This breakdown assumes the cost of the camera portion only, but the same philosophy applies to the access control system as well. While the total cost may appear cheaper, there are also additional costs and fees associated with maintaining an on-premise access control system.

Thank you for taking the time to review this Total Cost of Ownership analysis and breakdown. We also greatly appreciate the opportunity to submit our bid and hope we can earn your business and partnership in the future. Questions and concerns are always welcome.

Regards,  
The Sentinel and Verkada Team

## Total Cost of Ownership Camera Breakdown - Over the Next 10 Years



\*Assumption of additional costs and fees for on-premise camera system\*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total cost	per-year
<b>On-Prem (New Installation) Total Cost of Ownership</b>												
<b>Camera Purchases</b>												
New Cameras Purchased	531											
Replacement Cameras Purchased	0	0	0	0	0	0	27	40	80	107		
Total Cameras with Licenses	531	531	531	531	531	531	531	531	531	531		
<b>Server Purchases/Replacement/Serviceing</b>												
New Servers Purchased	15	0	0	0	0	0	0	0	0	0		
Replacement Servers Purchased	0	0	0	0	0	0	15	0	0	0		
<b>Total Camera HW Costs</b>	<b>\$315,048</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,019</b>	<b>\$23,732</b>	<b>\$47,465</b>	<b>\$63,484</b>	<b>\$465,749</b>	<b>\$46,575</b>
New Camera HW	\$315,048	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$315,048	\$31,505
Replacement Camera HW	\$0	\$0	\$0	\$0	\$0	\$0	\$16,019	\$23,732	\$47,465	\$63,484	\$150,701	\$15,070
<b>Total VMS License Costs</b>	<b>\$139,786</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$20,311</b>	<b>\$322,583</b>	<b>\$32,258</b>
<b>Total Server Costs</b>	<b>\$135,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$135,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$270,000</b>	<b>\$27,000</b>
New Servers	\$135,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$135,000	\$13,500
Replacement Servers	\$0	\$0	\$0	\$0	\$0	\$0	\$135,000	\$0	\$0	\$0	\$135,000	\$13,500
<b>Total Maintenance Costs</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$4,300</b>	<b>\$316,000</b>	<b>\$31,600</b>
NVR: Firmware Updates	\$0	\$0	\$0	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$94,500	\$9,450
NVR: Hard Drive Replacement	\$0	\$0	\$0	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$94,500	\$9,450
NVR: Hard Drive Fix	\$0	\$0	\$0	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$63,000	\$6,300
NVR: Clean and Dust Servers	\$0	\$0	\$0	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$21,000	\$2,100
Camera Cleaning	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$43,000	\$4,300
<b>Total Installation Cost</b>	<b>\$260,588</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$24,950</b>	<b>\$14,500</b>	<b>\$28,500</b>	<b>\$37,950</b>	<b>\$368,988</b>	<b>\$36,899</b>
New Camera Install	\$192,488	\$0	\$0	\$0	\$0	\$0	\$6,750	\$10,000	\$20,000	\$26,750	\$255,988	\$25,599
Camera Configuration	\$53,100	\$500	\$500	\$500	\$500	\$500	\$3,200	\$4,500	\$8,500	\$11,200	\$83,000	\$8,300
NVR Install & Configuration	\$15,000	\$0	\$0	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$30,000	\$3,000
<b>Total On-Prem (New Installation) Cost</b>	<b>\$854,722</b>	<b>\$25,111</b>	<b>\$25,111</b>	<b>\$64,111</b>	<b>\$64,111</b>	<b>\$64,111</b>	<b>\$239,580</b>	<b>\$101,843</b>	<b>\$139,576</b>	<b>\$165,045</b>	<b>\$1,743,319</b>	<b>\$174,332</b>
<b>PV of On-Prem (New Installation) Cost</b>	<b>\$854,722</b>	<b>\$23,915</b>	<b>\$22,776</b>	<b>\$55,381</b>	<b>\$52,744</b>	<b>\$50,232</b>	<b>\$178,778</b>	<b>\$72,378</b>	<b>\$94,470</b>	<b>\$106,390</b>	<b>\$1,511,787</b>	<b>\$151,179</b>

\*Assumption of fees and charges that may come up during a 10 year lifespan of an on-premise camera system\*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total cost	per-year
<b>Verkada Total Cost of Ownership</b>												
New Cameras Purchased	531	0	0	0	0	0	0	0	0	0		
Total Cameras w/ Licenses	531	531	531	531	531	531	531	531	531	531		
<b>Total HW / SW costs</b>	<b>\$705,295</b>	<b>\$0</b>	<b>\$705,295</b>	<b>\$70,529</b>								
Camera HW cost	\$307,425	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$307,425	\$30,742
Camera SW Licensing cost	\$397,870	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$397,870	\$39,787
Camera SW Licensing cost (annualized)											\$0	\$0
<b>Ongoing Maintenance &amp; Servicing</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$55,000</b>	<b>\$5,500</b>
Camera Maintenance	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$12,000	\$1,200
Camera Cleaning	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$4,300	\$43,000	\$4,300
<b>Total Installation Cost</b>	<b>\$192,750</b>	<b>\$0</b>	<b>\$192,750</b>	<b>\$19,275</b>								
<b>Total Verkada cost</b>	<b>\$902,345</b>	<b>\$4,300</b>	<b>\$941,045</b>	<b>\$94,104</b>								
<b>PV of Verkada cost</b>	<b>\$902,345</b>	<b>\$4,095</b>	<b>\$3,900</b>	<b>\$3,715</b>	<b>\$3,538</b>	<b>\$3,369</b>	<b>\$3,209</b>	<b>\$3,056</b>	<b>\$2,910</b>	<b>\$2,772</b>	<b>\$932,908</b>	<b>\$93,291</b>

\*Assumption of fees and charges that may come up during a 10 year lifespan of a Verkada camera system\*