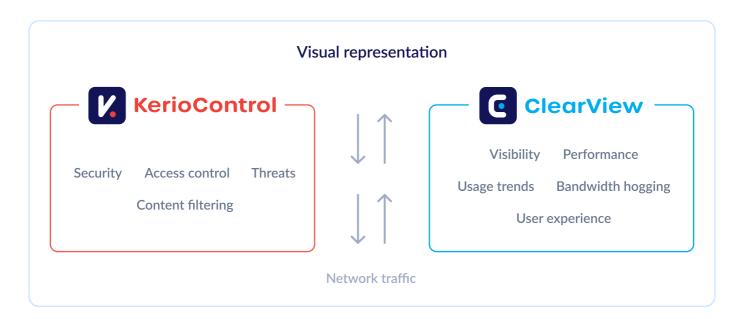


How GFI ClearView complements GFI KerioControl (Firewalls)

In the dynamic world of network management, a single data packet traverses through multiple critical network devices, each performing different operations. This document delves into how GFI ClearView beautifully complements GFI KerioControl, providing organizations with an integrated approach for improved network security, performance, and overall efficiency.

Life of a packet

Every data packet's journey through the network involves crucial touchpoints such as the router, switch, firewall (GFI KerioControl), bandwidth shaper, and more. At each stage, these devices perform their specialized tasks to ensure seamless packet delivery. The firewall, being security-centric, scrutinizes the packet for potential threats, while GFI ClearView, representing the visibility lens, extracts valuable insights enabling you to optimize network performance.





Combining the lenses

When combined, the two lenses merge into a powerful and comprehensive solution. GFI KerioControl's vigilant security measures align perfectly with GFI ClearView's deep visibility, together forming the ideal combination for network administrators to gain a holistic view of their network's health.

Real-life scenario - Greg's network challenges

To better understand the relationship between GFI KerioControl and GFI ClearView, let's follow Greg, the VP of Sales at a software company. For the past few weeks, Greg encountered issues during critical video calls with clients, experiencing audio and video quality degradation across nearly 50% of his calls. The networking team, while investigating through the firewall, couldn't identify the root cause, as the connection graphs didn't provide enough information or context.

Traffic Rule	Service	Source IP	Destination IP	Destination Hostname	Destination Cou				
Internet access (NAT		10.10.10.11	142.250.181.142	clients4.google.com	United States				
Internet access (NAT		10.10.10.11	170.114.52.2	zoom.us	United States				
Internet access (NAT		10.10.10.11	170.114.15.223	logfiles.zoom.us	United States				
Internet access (NAT) HTTPS	10.10.10.11	170.114.52.2	zoom.us	United States				
Internet access (NAT) HTTPS	10.10.10.11	170.114.52.2	zoom.us	United States				
Internet access (NAT) HTTPS	10.10.10.11	142.250.181.74	presence.googleapis.com	United States				
Internet access (NAT) 443/UDP	10.10.10.11	172.217.17.46	clients6.google.com	United States				
Internet access (NAT) 8009/TCP	10.10.10.11	192.168.18.97	192.168.18.97					
Active since 🔺	Event Type	Description	Description						
13:31:09	<table-of-contents> HTTP connection</table-of-contents>	Connection to tir	Connection to timecard-server.crossovertool.com, service HTTPS (1.18 MB transferred)						
13:32:18	르 Large data trarsfer	Unknown connec	nown connection to zoomsinqp23mmr.sin.zoom.us, service 8801/UDP (8.32 MB transferred)						

Introducing GFI ClearView to the Network

To augment their visibility, the networking team decided to deploy GFI ClearView. The implementation was smooth and non-disruptive, thanks to ClearView's:

- Out-of-path deployment
- No downtime requirement
- No HTTPS decryption requirement
- Compatibility with popular hypervisors.

GrlSoftware

Network administrator's objectives with GFI ClearView

The three main objectives they had in mind were:

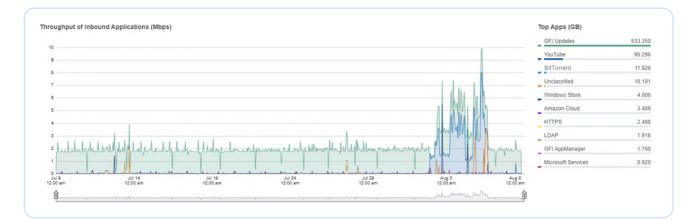
1. Real-time application performance insights

With GFI ClearView's real-time application monitoring, they could quickly identify the cause of poor performance. They observed detailed application usage and throughput data in real time, enabling them to pinpoint that YouTube and Netflix were consuming substantial bandwidth.

External IP (User)	Internal IF (User)	P Applio	cation			Tran	sfer Rate (kbps)	Packet F (Rate Flows pps)
40.67.254.36	10.10.10	0.11 Micro	soft Ser	vices[*.wns.wir	ndows.com]		0.523		0 1
162.125.19.131	10.10.10	0.11 Dropi	Box[bolt	.dropbox.com]			0.311		0 1
18.205.93.209	10.10.10	0.11 Zoom	[*.zoom	n.us]			0.295		0 1
172.217.23.206 10.10.10.11		0.11 udp p	udp ports 443 -> 53786				0.194		0 1
213.227.162.108	10.10.10	0.11 Team	Viewer				0.158		0 1
	Inbound	Applications				Outbou	und Applications		
Application Name T	ransfer Rate (Mbps)		Flows	Distribution (%)	Application Na		te Packet Rate	e Flows	Distribution (%)
Total	32.833	3524	120		Total	34.3	50 339	5 118	
YouTube	32.217	3123	7		Netflix	33.9	82 306	3 1	
Netflix	0.458	247	1		YouTube	0.2	68 239	9 7	
Zoom	0.090	106	5		Zoom	0.0	62 30	0 46	
RDP	0.057	40	46		RDP	0.0	30 5	7 5	
Google Analytics	0.006	1	2		Google Analytics	0.0	04 :	2 2	
	Inbound Hosts/Users					5			
IP Address Trans (User)	sfer Rate (Mbps)	Packet Rate (pps)	Flows	Distribution (%)	IP Address (User)	Transfer Rate (Mbps)	Packet Rate (pps)	Flows	Distribution (%)
Total	32.166	3407	106		Total	34.321	3373	103	
65.109.95.28 (public_IP)	32.165	3406	91		65.109.95.28 (public_IP)	34.321	3373	91	
65.109.95.57	0.000	0	4		62.152.2.83	0.000	0	1	

2. Historical Data Analysis

Delving into historical data, they discovered additional network stressors, such as GFI updates and torrent traffic, which contributed to performance issues at different times.





3. Proactive application performance monitoring

After identifying the root cause, they were able to add policies in the firewall to limit bandwidth usage by unconstrained applications.

However, for future cases, they wanted to be proactive. So they set up Application Performance Monitoring within GFI ClearView for all the critical applications across the organization, and configured acceptance thresholds so that whenever performance fell below that level, they would get notified over email. In the below image, you can see Zoom is performing well, as it scored 9.10 on a scale of 10 on a 5-minute interval.

				APS Scor	es					
	Name	Score	Normalized Delays (ms/kb)		Transaction Delays (ms)		Jitter (ms)	Loss (%)		RTT (ms)
			Network	Server	Network	Server		Inbound	Outbound	
	Microsoft Teams Solution Center (8388951)	9.68	30.76	2.43	82.38	3.43	5.56	0.00	0.00	82.28
	YouTube Solution Center (205)	9.26	29.47	23853.11	104.77	2624.64	21.95	0.30	1.30	38.67
~	Zoom Solution Center (1007)	9.10	421.40	197.98	199.46	41.65	58.01	0.00	0.00	119.29

Different lens, common ground

In conclusion, while GFI KerioControl (firewall) and GFI ClearView (visibility tool) view the same data through different lenses, they are not competitive; rather, they complement each other. The combination of their specialized perspectives empowers network administrators with a complete picture of their network's security, performance, and efficiency.



With GFI ClearView and GFI KerioControl working hand in hand, organizations can ensure a robust, secure, and optimized network environment that meets the demands of modern business operations. Together, they elevate network management to new heights, enabling seamless user experiences and efficient operations.

Are you facing the same issues as Greg? Contact us at sales@gfi.com to get your GFI ClearView trial today.

Get my trial