

Custom Hardware Appliances for GFI KerioControl



Introduction

This document serves as a comprehensive guide for the use of custom hardware appliances in GFI KerioControl deployments. It aims to provide stakeholders with a dual perspective: first, detailing custom hardware appliances that have undergone performance tests by GFI Software, and second, offering insights into the appliances that our global partners have reported to be using in the field. The guide is intended to facilitate better decision-making when it comes to choosing the most suitable hardware for your specific needs, and how to get them set up for use.

GFI-tested hardware appliances

Brand: Qotom

Model	CPU	RAM	Storage	NICs
Q790G4 S04	Intel Celeron Elkhart Lake J6412 Quad-core 2.0 GHz	(Up to 16G)	1x mSATA 1x SATA 3.0	4 x Realtek Gigabit LAN

Performance tests

Hardware specifications: Q790G4 with 8GB RAM, 32GB SSD with GFI KerioControl v9.4.3p1.
ISP Link: 700 Mbps Download / 200 Mbps Upload
Test Environment: File downloads, YouTube videos, and web traffic were used to generate traffic.

The results of the performance tests are shared below:

Performance metrics	Low-Medium Traffic	Full Load
Bandwidth	600 to 650 Mbps Download 190 to 200 Mbps Upload	350 to 400 Mbps Download 180 to 200 Mbps Upload
Connections	300 to 500	1000+
RAM Usage	~ 1 to 1.5GB	~ 2GB
CPU Usage	~ 30%	~ 50%

*These tests were performed on GFI KerioControl v9.4.3p1.

Brand: Brainworks

Model	CPU	RAM	Storage	NICs
Brainbox S	4-core Intel(R) Celeron(R) J4125 CPU @ 2.00GHz	4 GB	60 GB	4 x I211 Gigabit LAN
Brainbox NG	Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz	8 GB	240 GB	6 x I211 Gigabit LAN
Brainbox XL	Intel(R) Core(TM) i7-9700 CPU @ 3.00GHz	16 GB	500 GB	2 x 82599ES 10-Gigabit SFP 6 x I211 Gigabit LAN

Brand: HUNSN

Note: All devices in the below table have a form factor of 1U rack. More details related to dimensions, weight, and variants with different system specifications can be found in the links to each model. GFI internally tested KerioControl deployment on the appliances with the below specifications.

Model	CPU	RAM	Storage	NICs
DFA-RS03	4-core Intel(R) Celeron(R) J4125 CPU @ 2.00GHz	8 GB	60 GB	6 x Intel I210 Gigabit LAN
NFA-RS07	4-core Intel(R) Core(TM) i5-2520M CPU @ 2.50GHz	8 GB	60 GB	8 x Intel I211 Gigabit LAN 2 x Intel I350 Gigabit SFP
NFA-RS20	4-core Intel(R) Core(TM) i3-4160 CPU @ 3.60GHz	16 GB	120 GB	2 x 82599ES 10-Gigabit SFP 4 x Intel I211 Gigabit LAN 4 x Intel I350 Gigabit LAN

*GFI Software has not conducted performance tests on the appliance yet.

Appliances used by partners

Brand: Yanling

Model	CPU	RAM	Storage	NICs
Mini PC	Intel Kaby Lake Core i3-8130u AES-NI	8GB DDR4	64 GB SSD	6 x Intel Gigabit LAN

*GFI Software has not conducted performance tests on the appliance yet.

Below are some of the environments that partner has used this appliance for:

- Home office with 15 to 40 devices, but only 5 to 6 users with c.a. 900Mbps throughput.
- Small satellite locations on LTE with c.a. ~60/20Mbps throughput, 4-15 devices, and up to 6 staff members.
- Larger offices with 80 to 100 devices c.a 50 users and 900Mbps bandwidth.

Brand: Kettop

Model	CPU	RAM	Storage	NICs
Pc Mi2955C4	Intel Celeron 2955U processor, dual-core 1.40 GHz	Up to 8GB	Up to 256 GB	2 x Realtek RTL8111E Gigabit LAN
Mini PC Mi19N-S1	Intel Celeron Processor J1900 Quad-Core 2 GHz	Up to 8GB	Up to 256 GB	4* Intel I211AT - 10/100/1000 Controller

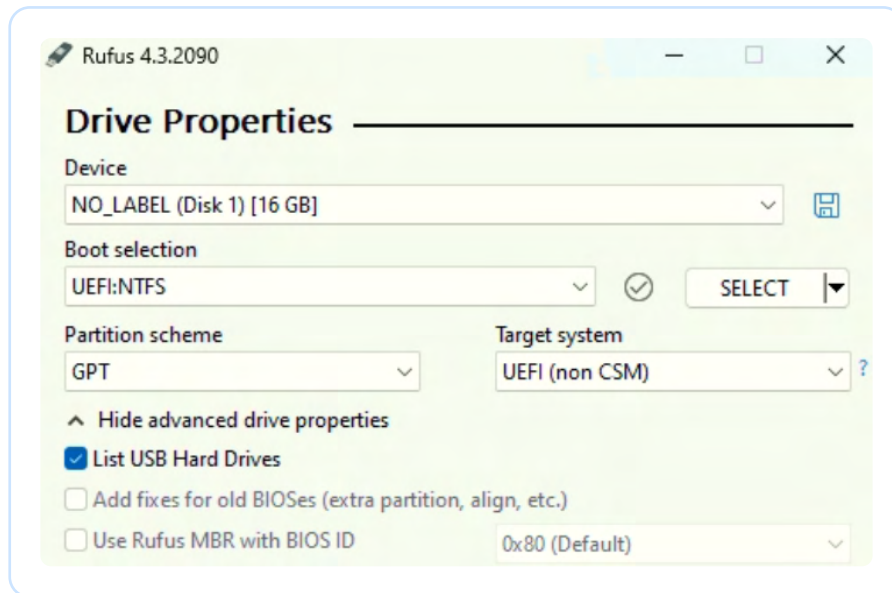
*GFI Software has not conducted performance tests on the appliance yet.

Installing GFI KerioControl Operating System on a custom appliance

GFI KerioControl in the Software Appliance edition is distributed as an ISO installation image. To generate a bootable USB flash drive from this ISO installation image:

- Navigate to the [GFI KerioControl download page](#).
- Under Product, select “KerioControl”.
- Under Version, select “9.4.3 Patch 1”.
- Download the file named: “Kerio Control Software Appliance Installer (ISO)”.
- Finally, refer to the [Generating a Bootable USB Flash Drive](#) guide to create a bootable USB installer.

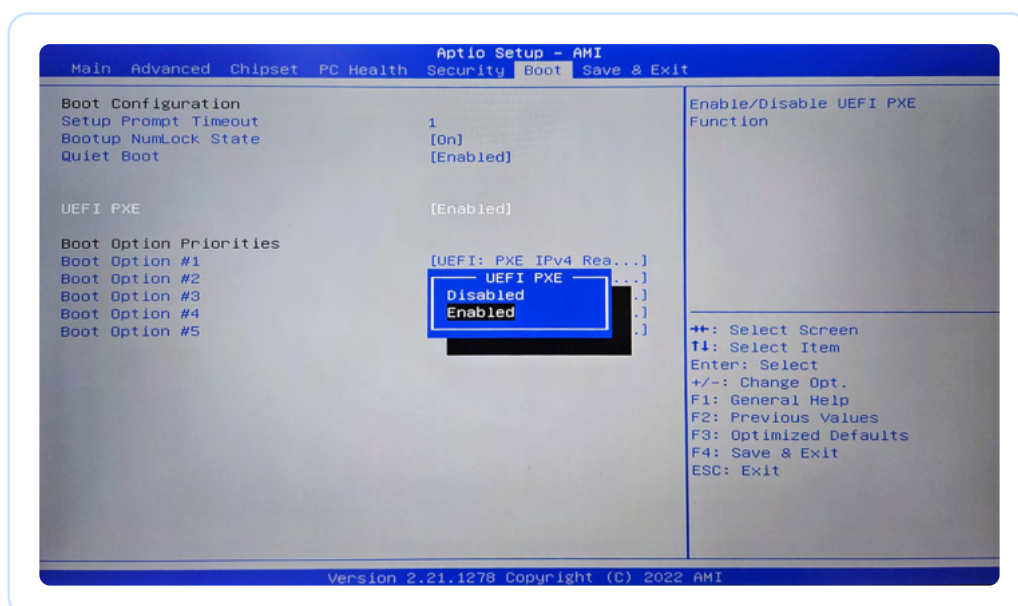
Important note: For generating a bootable installer USB, you can use a tool like [Rufus](#). Please ensure that you use the GPT partition scheme and UEFI as the Target system, as shown in the image below:



Once the USB has been generated, connect it to the appliance and turn it on (and enable UEFI boot - see the next section) - the installation runs automatically. For more information, please refer to [Installing Software Appliance on bare-metal server](#).

BIOS settings

To enable UEFI boot, you would need to change one setting in the BIOS for your custom appliance. Below is an example for your reference:



Limitation

Currently, there is one limitation in using a custom hardware appliance, compared to the GFI KerioControl NG Series. While the NG-appliance can group all LAN interfaces into a LAN switch, the capability is not supported with custom hardware appliances yet. That said, adding this enhancement is in our scope and is part of our immediate roadmap.

License

When requesting a license for a custom hardware appliance, please indicate to your distributor or GFI that an “OS - Linux” or “software appliance” license is required. Alternatively, if you are a Managed Service Provider and would be requiring the monthly billing option, please request a “KerioControl” MSP license.

Other considerations

- In case the appliance has no video output and has only RS 232, you can use the USB to RS232 adapter.
- During the boot, serial access requires a 115200 baud rate; whereas, during normal operations, the baud rate is 9600.
- Check the hardware appliance specifications for serial settings if you would need to use that for serial access.

Disclaimer

GFI Software provides this document for informational purposes only. It is intended to offer guidance on compatible third-party hardware appliances for use with GFI KerioControl. GFI Software does not endorse, certify, or assume responsibility for the performance, reliability, or any aspect of these third-party hardware appliances. Users are advised to independently verify the compatibility and functionality of such hardware with GFI KerioControl. GFI Software shall not be liable for any damages, losses, or liabilities arising from the use, performance, or reliance on these third-party products. This disclaimer does not affect any statutory rights of users that cannot be waived or limited by contract.