



## 15R and 16HI Comparison



## The NetSpective 15R Appliance



**CPU** - Intel Rangeley 8-Core SoC C2000 Series, 2.4 GHz, 20W, 1 RU  
**Memory** - 32GB DDR3-1600 UNBUFFERED, ECC  
**Hard Disk** - SSD, Intel 530 Series 240GB MSATA  
**Network Adapters** - 7 GbE LAN ports with three pairs bypass

The 15R model is our standard appliance that fits the needs of most networks. This appliance is designed to support a 1 Gig network. It is equipped with seven 1 Gig Ethernet ports, allowing the appliance to be configured in various ways. This includes a pair of bypass NICs, so that when in Inline mode, the appliance can fail open in the event of hardware failure.



The 15R was designed with Inline and SSL Inspection in mind. With a 1 Gig network, we typically see users surfing 65% SSL traffic on the Chrome Web Browser and our software has been tuned to these statistics. Keep in mind that NetSpective was also designed with selective SSL inspection. Customers can choose which groups, as well as which categories and websites they do or do not want to perform SSL Inspection on. Most categories, and even some groups of users such as staff members, do not need to be inspected.

Additional performance can be gained through the use of Remote Agents. Our latest Remote Agents for Windows and macOS have been redesigned with endpoint inspection. These agents perform the SSL inspection locally on the workstation, taking the burden off of the NetSpective appliance. This is not only necessary when the workstation is off-network, but a performance enhancement when they are on-network. Our NetSpective Extension for Chromebooks is an extension to the Chrome Web Browser, and can see all traffic within SSL connections without the need to perform SSL Inspection.

With these two design choices, a saturated 1 Gig network will never actually utilize 65% SSL inspection on our appliance. The majority of traffic should be non-SSL and CPU utilization will be nominal.

# The NetSpective 16HI Appliance



**CPU** - Hex Core 3.6GHz Intel XEON E5-1650V4, 15MB Cache, 0GT/S, FCLGA2011-3, 1RU

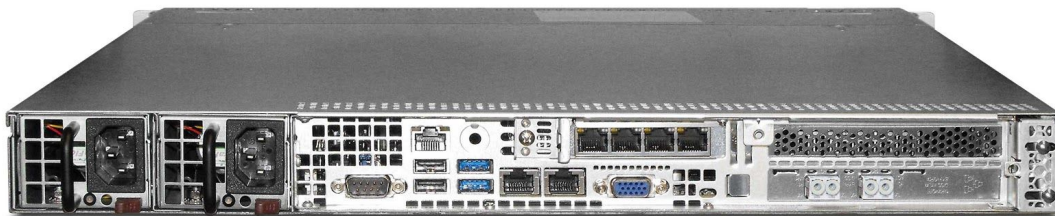
**Memory** - 64GB DDR3-1600 REGISTERED, ECC, 2GX72

**Hard Disk** - SSD, Intel S3500 Series 120GB MLC

**Network Adapter** - 10G INTEL PE210G2BP19, Dual Port Fiber 10 Gigabit Ethernet PCI Express Bypass Server Adapter Intel® based

**Power** - Redundant 450W AC power supply units offering maximum reliability and uptime

The 16HI model is our enterprise class appliance, designed for networks exceeding 1 Gig of bandwidth utilization. This appliance is equipped with a pair of Short Range Fiber (SFP+) multimode ports, as well as a set of six 1 Gig Ethernet ports. This versatility allows customers in a network transition to begin by deploying the appliance in 1 Gig mode (fail closed). When their network expands with high end equipment that is needed to support bandwidth beyond 1 Gbps, they can switch to the fiber optic ports. It should also be noted that the fiber optic ports are also bypass NICs that allow the appliance to fail open in the event of power failure. The 16HI also has dual power supplies for redundancy.



With our leading software deployment being Inline, we have done extensive performance testing with SSL inspection in mind. Current tests against the 16HI using 50/50 SSL and non-SSL traffic show the appliance supporting a maximum of 5 Gbps. Considering SSL inspection has a high computation cost, we try to utilize selective inspection and Remote Agent technology as much as possible.

To further mitigate the cost of SSL inspection, the 16HI is equipped with an Intel Quick Assist (QAT) adapter. When the 16HI identifies network traffic that has SSL inspection rules applied, the traffic is offloaded to the QAT adapter, where it is inspected and modified before being sent back to the filter and out the network. This allows the 16HI to process large amounts of traffic without being burdened by SSL inspection.

## Which appliance should I choose?

If your firewall, switches, and the equipment in your network use standard 1 Gbps Ethernet connections, and your ISP subscription is 1000 Mbps or less, then the 15R model will be sufficient for your network. We recommend the 15R for customers purchasing a license between 250 and 10,000 users.

If your firewall and core switch have Short Range Fiber (SFP+) connections, and your ISP subscription allows bursting beyond 1000 Mbps, then the 16HI should be chosen. We also recommend the 16HI for customers that are planning on transitioning their network to 10 Gig within the next 6 months, so they filter at 1 Gig today, and beyond 1 Gig when their network can support the additional bandwidth and fiber optic connections. We also recommend the 16HI for any customers purchasing an unlimited user license.