

Cloud Onload®



Application Acceleration Software

Enhance Customer Experiences.
Reduce End-User Abandonment.
Increase ROI.

Solarflare's Cloud Onload® software dramatically accelerates and scales network-intensive applications such as in-memory databases, software load balancers, and web servers. With Cloud Onload, data centers can support 400% or more users on their cloud network while delivering improved reliability, enhanced quality of service (QoS) and higher return on investment, without modification to existing applications.

Cloud Onload allows data centers to realize:

- Improved elasticity and efficiency, leading to a lower total cost of ownership (TCO)
- Increased peak transaction rates, eliminating service brownouts
- Reduced network jitter with greater response times, equating to superior QoS

Extending Data Center Investments

Cloud Onload delivers a return on capital expenditures (CapEx) investments by allowing data centers to redeploy 25% or more of their load-balancing servers for other tasks. Alternatively, data centers can attain a reduction in operational expenses (OpEx) by shrinking the overall server footprint.

Massive Scalability for Cloud-Scale Applications

Solarflare's Cloud Onload software significantly scales applications beyond the limits of other system parameters. With Cloud Onload, data centers can accelerate up to 2,048 unique flows per adapter, providing additional network efficiencies and QoS.

HIGHLIGHTS



Add 400% or
More Users



Reduce Latency
by 50%



Improve Message
Rates by 100%



Minimize Server
Footprint 25% or More



Maximize CapEx
and OpEx






Experience Near
Zero Network Jitter



Enhance Quality
of Service

How Fast Can Your Applications Go?

Cloud Onload accelerates nearly all network-intensive TCP-based applications. Typical performance improvements when utilizing Cloud Onload include:

USE CASE	APPLICATION(S)	PERFORMANCE INCREASE
IN-MEMORY DATABASES 	Couchbase, Memcached, Redis	100%
SOFTWARE LOAD BALANCERS 	NGINX, HAProxy	400%
WEB SERVERS/ APPLICATIONS 	NGINX, Node.js	50%

Licensing, Maintenance & Support

SFS-CL0030 3-year Cloud Onload license and maintenance
 SFS-CLS001 1-year Cloud Onload support contract
 SFS-CLS003 3-year Cloud Onload support contract

Ensuring Uptime and Network Compatibility

Cloud Onload significantly reduces CPU interrupts, data copies, lock contention and context switching resulting in reduced application latency and higher application transaction rates.

POSIX compliant, Cloud Onload ensures compatibility with TCP-based applications, management tools, and network infrastructures. In addition, Cloud Onload provides RDMA-like performance without requiring a forklift upgrade to the data center's network infrastructure, and can be deployed across x86-based platforms running Linux – bare metal, virtual machine or container.

Running on XtremeScale™

Solarflare's XtremeScale 10/25/40/50/100GbE network adapter portfolio is optimized to enable Cloud Onload to accelerate your data center for maximum performance.

Specifications

Cloud Onload supports the following Linux distributions:

- Red Hat Enterprise Linux 6.7 - 6.10
- Red Hat Enterprise Linux 7.3 - 7.6
- SuSE Linux Enterprise Server 12 sp3 and sp4*
- SuSE Linux Enterprise Server 15
- Canonical Ubuntu Server LTS 18.04
- Canonical Ubuntu Server 18.10
- Debian 8 "Jessie"
- Debian 9 "Stretch"
- Linux kernels 3.0 - 4.19

*SLES 12 was only available in pre-release form at the time this was released.

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