

LiquidSecurity™ CNL35XX Hardware Security Module (HSM) Family

Product Brief

OVERVIEW

LiquidSecurity™ HSM family provides a FIPS 140-2 level 2 and level 3 partitioned, centralized and elastic key management solution with high transaction/sec performance. It addresses high performance security requirements for private key management and administration while also addressing elastic performance per virtualized partition for cloud environment. With 32 partitioned network HSMs in a single physical network HSM, storage for 50,000 keys independent of key size, 35,000 2048b RSA ops/sec and chaining of up to 20 Appliances, LiquidSecurity CNL35xx family provides a solution that addresses requirements from few hundred RSA ops/sec or few key stores to 700K RSA ops/sec or 1M key store and everything in-between. This product family, available as a PCI Express adapter with complete software or a network HSM appliance, offers a no compromise cost efficient solution that addresses the stringent security requirements of SaaS applications, ecommerce payment systems and Enterprise, Banking and Government security applications especially as they migrate to the Public or Private cloud. Major applications for this product family include Key Management as-a-Service, Database as-a-Service, Crypto as-a-service, Secure DNS, SaaS Applications and Virtual Private Clouds in the Public Cloud.

FEATURES

- Highest performance
 - 35K 2048b RSA ops/sec
 - 10G Bulk crypto / sec
 - 11K ECC ops/sec
 - 50K any size key store
- Elastic HSMs
 - Up to 32 HSM partitions per appliance
 - Up to 1K unique users per partition
 - Connecting a partition on 20 different appliances to form a cluster for single network domain
- Rich Networking Support
 - 2 x 10GbE
 - SDN / Custom SDN support
- Division of Roles
 - Appliance admin: Create, enable/disable partitions but no access to keys in FIPS boundary
 - Partition admin: Create users per partition
 - Partition Users: Create, import keys and use them
- Multiple Form Factors
 - PCIe Adapter with complete Software to convert any system into a Network HSM
 - 1U appliance with FIPS boundary at Chassis level
 - 1U appliance with FIPS boundary at PCIe Adapter level
- Out of the Box solution
 - Restful APIs and Webgui for configuration
 - LiquidSecurity Client supports most hypervisors and tested with various applications
 - Health checks, Audit logs

BENEFITS

- Huge TCO Benefits for multi-domain/multi-tenant Public or Private Clouds
 - Partitioning and clustering features provide true elastic capacity for key stores and transactions per sec
 - Enables deployment in SDN / Custom SDN environments (such as VXLAN, NVGRE etc)
 - PCIe FIPS adapter + Network HSM Software enables easy integration with existing data center management tools
- Checks at multiple levels to ensure key protection among various tenants on same appliance
- Various form factors to meet requirements of Private, Public, Co-location data centers
- Easy integration with any application

APPLICATIONS

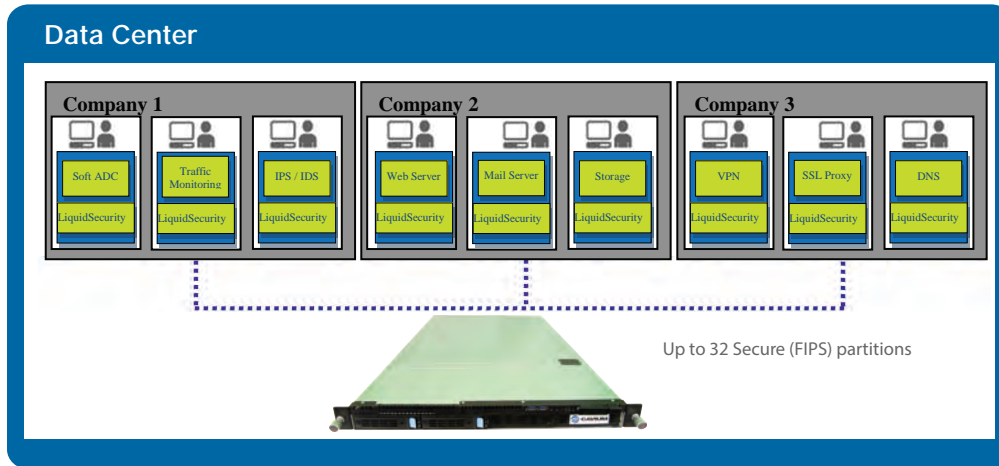
- Crypto As A Service
- Applications requiring FIPS 140-2 level 2 or level 3 compliance
- Key Management Service
- Database As A Service
- Secure DNS
- Public Key Infrastructure
- Document Signing

LiquidSecurity CNL35XX Network HSM Family



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SPECIFICATIONS

Chassis

- 1U 19in. rack mount Chassis
- Dimensions (Inch) : 16.92" x 1.71" x 27.91"
- Weight: 26.5lbs
- Input Voltage: 100 – 240V, 50 – 60Hz
- Operating Temperature: 0 to 40° C
- Regulatory Certifications: Safety, cTUVus UL, EMC, FCC/ICES, Class A

Adapter

- Low profile (2.1" x 6.6") PCIe form factor
- PCIe Gen2 x8 interface

SOFTWARE AND API SUPPORT

- PKCS#11
- OpenSSL
- Java Cryptography Architecture (JCA) support
- Microsoft CNG support
- Linux, Windows, FreeBSD
- Xen, KVM, VMware ESXi, Hyper-V
- API libraries for Two factor authentication over Network

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Device	FIPS Boundary	Performance		Dimensions
		Max RSA Ops / sec	SSL Record Throughput	
CNL3560-APL-HSM-G	Dual FIPS Boundary (Chassis + Adapter)	35K (2048b)	10 Gb/s	1U Rackmount
CNL3530-APL-HSM-G	Dual FIPS Boundary (Chassis + Adapter)	20K (2048b)	10 Gb/s	1U Rackmount
CNL3560-APL-Sec-G	PCIe Adapter	35K (2048b)	10 Gb/s	1U Rackmount
CNL3530-APL-Sec-G	PCIe Adapter	20K (2048b)	10 Gb/s	1U Rackmount
CNL3560-NFBE-G	PCIe Adapter	35K (2048b)	10 Gb/s	2.1" x 6.6"
CNL3530-NFBE-G	PCIe Adapter	20K (2048b)	10 Gb/s	2.1" x 6.6"