OPN sense ®

OPNsense® Rack Security Appliance
DEC2600 Series
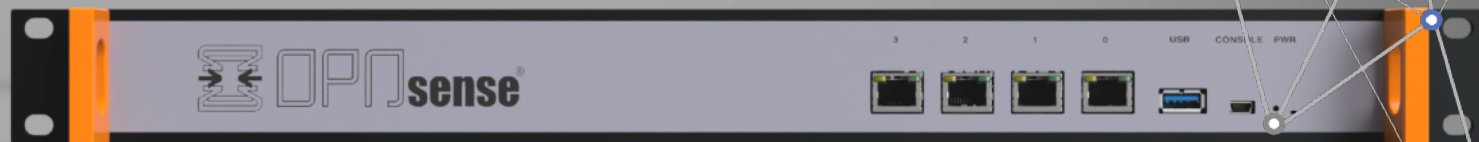
specifications DEC2685

3 2 1 0   USB   CONSOLE   PWR

3.3 Gbps FIREWALL
600 Mbps IPsec VPN
256GB Storage
8GB DDR3 RAM

CONSUMES 50% LESS*

* Compared to previous model [DEC2680]

Gigabit Performance.

Gigabit embedded performance in a one height rack.
Fully featured for SME's and branch offices.

**3.300Mbps Throughput
275.000 Packets per Second**

**327Mbps Inline High Speed
Intrusion Prevention &
SSL Finger Printing**

**Fast Filtering
35.000 connections P/S
Low Latency ~1.6mS (with
CoDel & Traffic Shaper)**

**Hardware Assisted Encryption
600Mbps IPsec (AES256GCM16)**

**Guard Web Access
Filtering (SSL) Proxy
Captive Portal with Voucher
support**

**Up to 256GB SSD
Offering Sufficient Space for
Logging & Reporting**

**System wide two-factor
authentication.
Compatible with Google
Authenticator.**

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DATASHEET

DEC2600 SERIES

OPNsense® Certified™

Bundled with a free year OPNsense® Business Edition
√ **Commercial firmware repository**
√ **Free GeoIP database**
√ **Official OPNsense Open Virtualization Image**
√ **Free professional plugins (OPNcentral, Proxy Access)**
√ **Free E-Book (English & German)**

OPNsense® Business Edition

Your licence key: opn78bu-sines-sedt1i0n

The OPNsense Business Edition is intended for companies, enterprises and professionals, who are looking for:

> a more selective upgrade path,
> additional commercial features,
> support the project commercial as alternative to donating.

Annual SUBSCRIPTION

Securing Networks™

OPNsense

SOFTWARE
VERSATILE - OPEN SOURCE - FULLY FEATURED

OPNsense® Secure Your Network With Ease™

OPNsense is Deciso's fast growing open source firewall and security platform released under an Open Source Initiative approved license. Its rich feature set is combined with the benefits of open and verifiable sources.

All features can be used from within the easy to use graphical interface, equipped with a build-in search feature for quick navigation. Protecting your network has never been this easy with features such as; the integrated intrusion prevention system and two-factor authentication for safely connecting mobile users.

Businesses
Protect your business network and secure your connections.
From the stateful inspection firewall to the inline intrusion detection & prevention system everything is included for free.Use the traffic shaper to enhance network performance.

Schools
Limit and share available bandwidth evenly amongst students and utilize the category based web filtering to filter unwanted traffic such as adult content and malicious websites. It is easy to setup as no additional plugins nor packages are required.

Hotels
OPNsense offers a captive portal to control guest internet access for a limited duration. Vouchers can easily be created via the graphical user interface.

On the road
Even on the road OPNsense is a great asset to your business as it offers OpenVPN and IPSec VPN solution with road warrior support and two-factor authentication. The easy client exporter make configuring your OpenVPN SSL client setup a breeze.

Remote Offices / Branches & SOHO
The integrated site to site VPN (IPsec or SSL VPN) can be used to create a secure network connection to and from your remote offices. Enjoy the easy configuration and online searchable documentation with simple how-to type of articles to get you started, quickly. Pluggable support is offered for ZeroTier, Tinc as well as Wireguard.

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- GUI
- SSH / Console

Certificates
- Certificate Authority
  - Create or Import CA's
  - Create or Import Certificates
- Let's Encrypt (Plugin)
  - Automated (Trusted) CA

802.1Q VLAN support
- max 4096 VLAN's

Link Aggregation & Failover
- Failover
- Load Balance
- Round Robin
- Cisco Ether Channel (FEC)
- 802.3ad LACP

Other Interface types
- Bridged interfaces
- Generic Tunnel Interface (GIF)
- Generic Routing Encapsulation

Network Address Translation
- Port forwarding
- 1:1 of ip's & subnets
- Outbound NAT
- NAT Reflection

Traffic Shaping
- Limit bandwidth
- Share bandwidth
- Prioritize traffic
- Rule based matching
  - Protocol
  - Source
  - Destination
  - Port
  - Direction

IGMP Proxy
- For multicast routing

Universal Plug & Play
- Fully supported

Dynamic DNS
- Selectable form a list
- Custom
- RFC 2136 support

DNS Forwarder
- Host Overrides
- Domain Overrides

DNS Server
- Host Overrides
  - A records
  - MX records
- Access Lists

DNS Filter
- Supports OpenDNS

DHCP Server
- IPv4 & IPv6
- Relay Support
- BOOTP options

Multi WAN
- Load balancing
- Failover
- Aliases

Load Balancer
- Balance incoming traffic over multiple servers

Network Time Server
- Hardware devices
  - GPS
  - Pulse Per Second

Intrusion Detection & Prevention
- Inline Prevention

Stateful firewall
- Filter by
  - Source
  - Destination
  - Protocol
  - Port
  - OS (OSFP)
- Limit simultaneous connections on a per rule base
- Log matching traffic on a per rule bases
- Policy Based Routing
- Packet Normalisation
- Option to disable filter for pure router mode

Policy organization
- Alias Support
  - IP addresses
  - Port ranges
  - Domain names (FQDN)
- Interface Groups
  - Create security zones with equal rules
- Rule Category
  - Easy access rule sets

Granular control state table
- Adjustable state table size
- On a per rule bases
  - Limit simultaneous client connection
  - Limit states per host
  - Limit new connections per second
  - Define state timeout
  - Define state type
- State types
  - Keep
  - Sloppy
  - Modulate
  - Synproxy
  - None
- Optimisation options
  - Normal
  - High latency
  - Agressive
  - Conservative

Authentication
- External Servers
  - LDAP
  - Radius
- Integrated Servers
  - Local User Manager
  - Vouchers / Tickets
  - FreeRadius (Plugin)

Authorization
- User Interface
  - Local User Manager

Accounting
- FreeRadius (Plugin & External)
- Vouchers / Tickets

2-Factor Authentication
- Supports TOTP
- Google Authenticator
- Supported services:
  - Captive Portal
  - Proxy
  - VPN

- Integrated rulesets
  - SSL Blacklists
  - Feodo Tracker
  - Emerging Threats ETOpen
- SSL Fingerprinting
- Auto rule update using configurable cron

Captive Portal
- Typical Applications
  - Guest Network
  - Bring Your Own Device (BYOD)
  - Hotel & Camping Wifi Access
  - Template Management
  - Multiple Zones
- Authenticators
  - All available authenticators
  - None (Splash Screen Only)
- Voucher Manager
  - Multiple Voucher Databases
  - Export vouchers to CSV
- Timeouts & Welcome Back
- Bandwidth Management
  - Use Traffic Shaper
- Portal bypass
  - MAC and IP whitelisting
- Real Time Reporting
  - Live top IP bandwidth usage
  - Active Sessions
  - Time left
  - Rest API

Virtual Private Networks
- IPsec
  - Site to Site
  - Road Warrior
- WireGuard (Plugin)
  - Site to Site
  - Road Warrior
- OpenVPN
  - Site to Site
  - Road Warrior
  - Easy client configuration exporter
- Tinc (Plugin)
  - Full mesh routing
- ZeroTier (Plugin)
  - VPN, SDN & SD-WAN

High Availability
- Automatic hardware failover
- Synchronized state table
- Configuration synchronisation

Caching Proxy
- Multi interface
- Transparent Mode
- Support SSL Bump
- SSL Domain only (easy filtering)
- Access Control Lists
- Blacklists
- Category Based Web-filter
- Traffic Management
- Auto sync for remote blacklists
- ICAP (supports virus scan engine)

Virus scanning (via plugins)
- External engine support (ICAP)
- ClamAV (Plugin / C-ICAP)

Reverse Proxy
- HAProxy - Load balancer (Plugin)

Online Identity Protection
- Tor - Anonymity online (Plugin)

Backup & Restore
- History & Diff support

- File Backup
- Cloud Backup
- Git Backup

SNMP
- Monitor & Traps

Diagnostics
- Filter reload status
- Firewall Info (pfInfo)
- Top Users (pfTop)
- Firewall Tables
  - Aliases
  - Bogons
- Current Open Sockets
- Show All States
- State Reset
- State Summary
- Wake on LAN
- ARP Table
- DNS Lookup
- NDP Table
- Ping
- Packet Capture
- Test Port
- Trace route

Monitoring
- Zabbix Agent (Plugin)
- Monit (Plugin)
  - Proactive System Monitoring

Enhanced Reporting
- Network Flow Analyzer 'Insight'
  - Fully Integrated
  - Detailed Aggregation
  - Graphical Representation
  - Clickable and Searchable
  - CVS Exporter
- System Health
  - Round Robin Data
  - Selection & Zoom
  - Exportable
- Traffic Graph
  - Live Traffic Monitoring

Network Monitoring
- Netflow Exporter
  - Version 5 & version 9
  - Local for 'Insight'

Firmware
- Support Virtual Installs
  - VMware tools (Plugin)
  - Xen Guest Utilities (Plugin)
- Easy Upgrade
  - Reboot warning for base upgrades
- SSL Flavour selectable
  - OpenSSL
  - LibreSSL
- Selectable Package Mirror
- Reinstall Single Package
- Lock Package (prevents upgrade)
- Audit Feature
  - Check installed packages for known security vulnerabilities
- Plugin Support

REST API
- ACL support

Online Documentation
- Free & Searchable

Securing Networks™

	DEC2685

Software	
Preinstalled software	OPNsense®
License	Open Source + 1 year free Business Edition
Hardware Specifications	
GbE RJ45 Ports [10/100/1000Mbps]	4
USB Ports	1
Console Port	1
Internal Storage	256GB Solid State Flash
Memory	8GB DDR3
CPU Cores	4 (1.6Ghz)
Virtual Interfaces (802.1q VLANS)1	4093
System Performance	
Firewall Throughput	3300Mpbs
Firewall Packets Per Second	275Kpps
Firewall Port to Port Throughput	90Mpbs
Firewall Port to Port Packets Per Second	75Kpps
Concurrent Sessions	7000000
Firewall Latency (average)	200us
Firewall Policies (Recommended Maximum)1	10000
IPsec VPN Throughput (AES256GCM16)	600Mbps
High Availability with State Synchronisation	Requires Two
Dimensions	
Height x Width x Length (mm)	44.2 (1U) x 482.6 (19") x 180 (excl. handles [20mm])
Height x Width x Length (inches)	1.74 (1U)x 19 x 7.08
Form Factor	19" Rack mountable
Weight (appliance only)	2.6Kg
Environment	
Power Requirements	100-240VAC, 50-60Hz
Power Consumption (Typical)	12W
Heat Dissipation	41 BTU/hr
Operating Temperature	0 to +45°C
Storage Temperature	-20 to +70°C
Humidity	10-90% non-condensing
Regulatory Compliance	
	FCC part 15 Class A, CE, Rohs

[1] The user interface is designed for normal business usage, large rulesets, high number of users or interface assignments may be less practical.

All measurements are based upon TCP traffic unless stated otherwise. Maximum PPS is a peak performance, measured using 100 byte packets.Firewall Port to Port package per seconds is the peak performance when using 1500 byte sized packages. Total Firewall Throughput is calculated by multiplying the maximum packets per second with a standard package size of 1500bytes. IPS performance is measured using a http simulation with random sized small (400-800 bytes) send packages and 1K-8K response packages with 150 simultaneous emulated users and 21000 rules enabled. SSL VPN is measured using AES256GCM16+SHA512 and total throughput is calculated based on system load.Concurrent sessions are based upon memory available, where one state consumes 1KB of memory and 1GB of memory is reserved for system tasks. Latency is measured using netperf.

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