



TECHSUMMIT19

BARRACUDA TECHNICAL SUMMIT

Barracuda CloudGen Firewall

CloudGen Firewall Firmware 8
Update Training



- SSH Proxy
- FTP Gateway
- Mail Gateway
- SPAM Filter
- Public Key Infrastructure Service
- NG Web Filter (IBM/ISS)
- Shared DNS Service





- 2.700 tickets closed with public relevance
 - 260 tickets added with 8.0.1
- 560 tickets for features / improvements
 - 60 tickets added with 8.0.1
- 13.000 tickets processed to reach this milestone



What's New?





- **Startup and shutdown phases now processed much faster**
 - Result: faster reboots
- **New platform – CentOS 7**
 - Kernel 4.14.127
 - New partition scheme: Recommended for a clean install
- **New and updated toolchain**
 - We got VIM :wq!



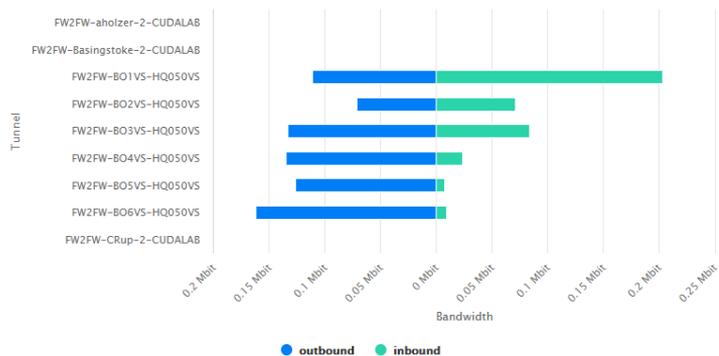


- Replaces Barracuda Reporting Server
- Status overview for entire WAN
 - Details and availability of SD-WAN connections and transports
 - Security, and web and network traffic details
- 100+ predefined reports
 - Safety and liability, network activity, web activity, security, and productivity
- Minimum requirements
 - 2 TB storage, 32 GB memory, 8 CPU Cores
 - CGF firmware 7.2.4 or higher and 8.0.1 or higher





VPN Summary



VPN Status



6 Healthy (66.67%)

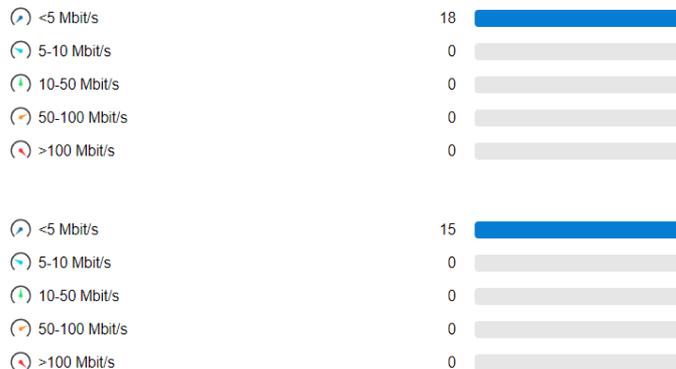
0 Degraded (0.00%)

3 Down (33.33%)

Transports with highest latency

FW2FW-BO6VS-HQ050VS Quality0	578.06 ms	Progress bar
FW2FW-BO6VS-HQ050VS Bulk0	568.73 ms	Progress bar
FW2FW-BO6VS-BO5VS Bulk0	558.75 ms	Progress bar
FW2FW-BO1VS-HQ050VS Bulk0	546.15 ms	Progress bar
FW2FW-BO2VS-HQ050VS Quality0	545.97 ms	Progress bar
FW2FW-BO1VS-HQ050VS Quality0	535.26 ms	Progress bar
FW2FW-BO5VS-HQ050VS Bulk0	514.9 ms	Progress bar
FW2FW-BO5VS-HQ050VS Quality0	510.27 ms	Progress bar
FW2FW-BO4VS-HQ050VS Quality0	506.76 ms	Progress bar

SD-WAN Bandwidth Summary



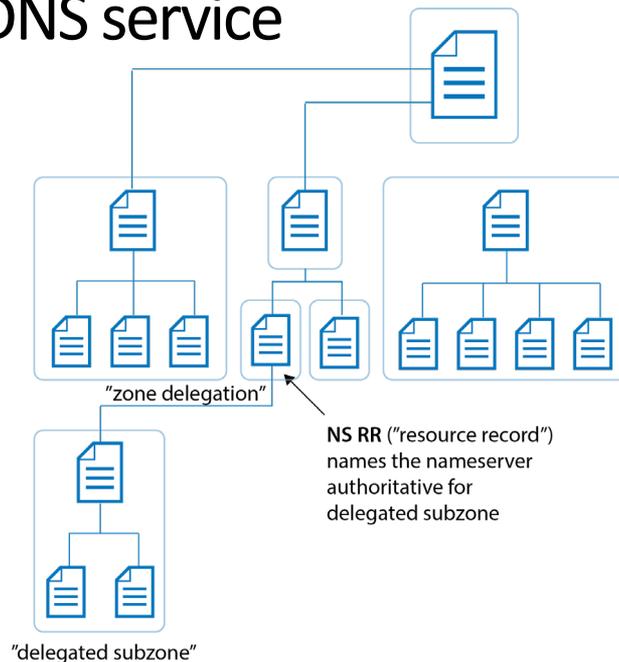


- Features of the completely refactored DNS service

- Stand-alone and distributed DNS service
- Master / Slave / Forward DNS Zones
- Split DNS
- Health probing
- DNS load balancing
- New user interface

- Repository Support

- Important: Read the migration notes!



When a system administrator wants to let another administrator manage a part of a zone, the first administrator's nameserver **delegates** part of the zone to another nameserver.





- Automatically configures a UDP TINA VPN tunnel
 - Configuration done via CLI or REST API
- Handles the traffic through the tunnel
 - All necessary services and access rules are created
- Uses BGP to exchange routing information





- Interconnect branch offices or data centers with resources located in Azure virtual networks via Azure Virtual WAN hubs
 - Fully automated, large-scale branch connectivity
 - Unified networks and policy management
 - Optimized routing using the Microsoft global network

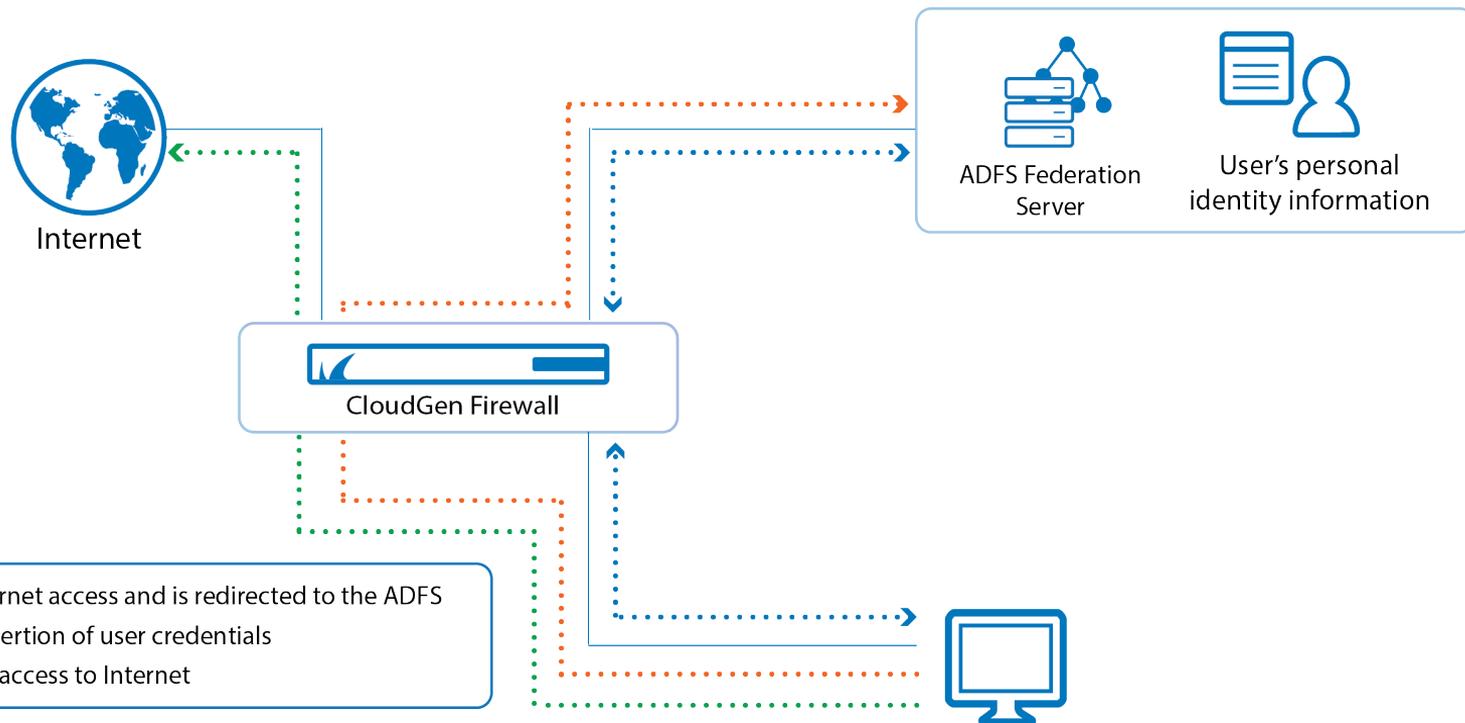




- **Transparent single sign-on (SSO) and inline authentication solution offered by Microsoft**
 - Sign into applications if the user is already signed in on the firewall - and vice versa
 - Requires a firewall rule to forward the traffic to fwauthd.
 - Supports both offline authentication and inline authentication.



Active Directory Federation Services



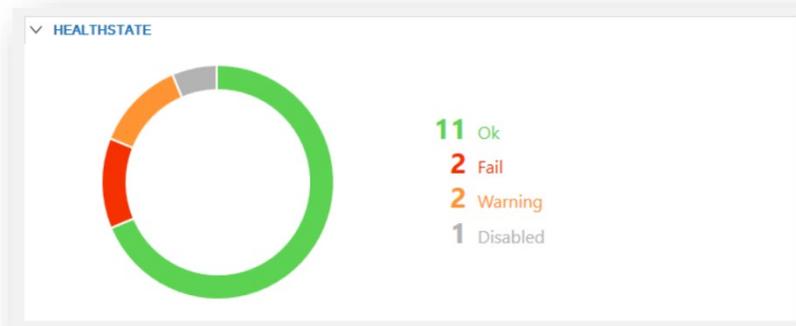


- Time-based One-time Password (TOTP), Radius and RSA as a secondary authentication method
 - Google Authentication node changes to “TOTP Authentication”
 - Client-to-site VPN
 - SSL VPN & CudaLaunch
 - Barracuda VPN Client
- Options to enroll users and groups for TOTP authentication
 - Bulk enrollment
 - Self-enrollment



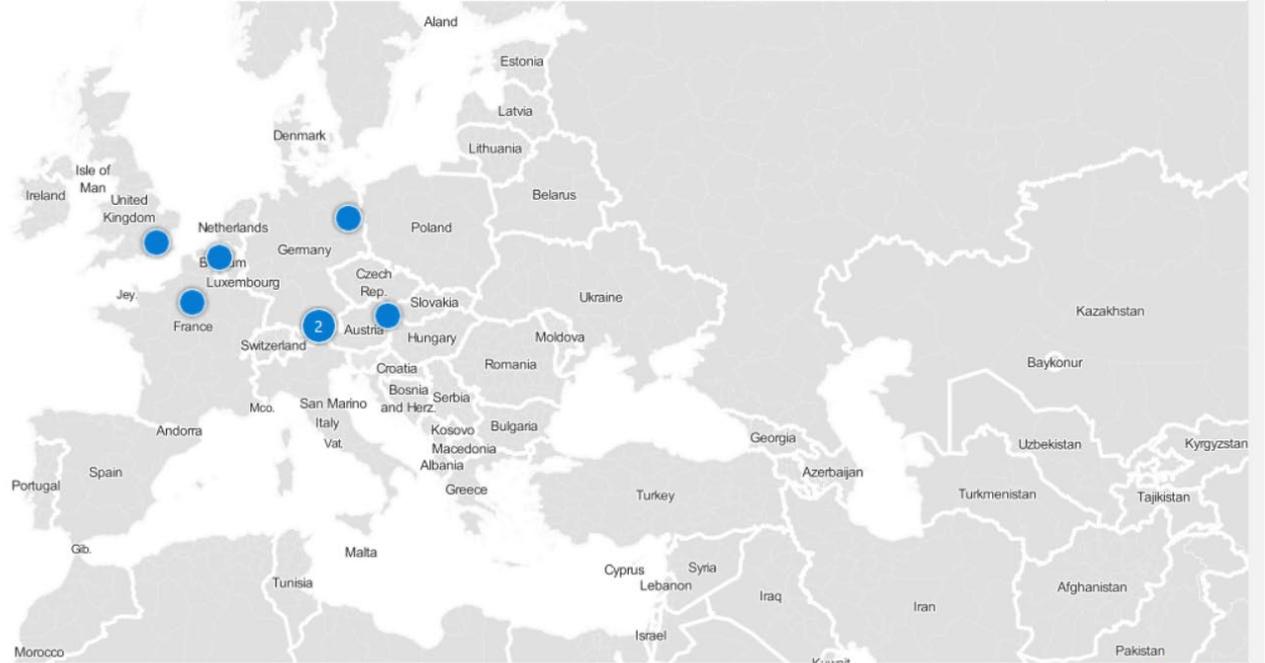


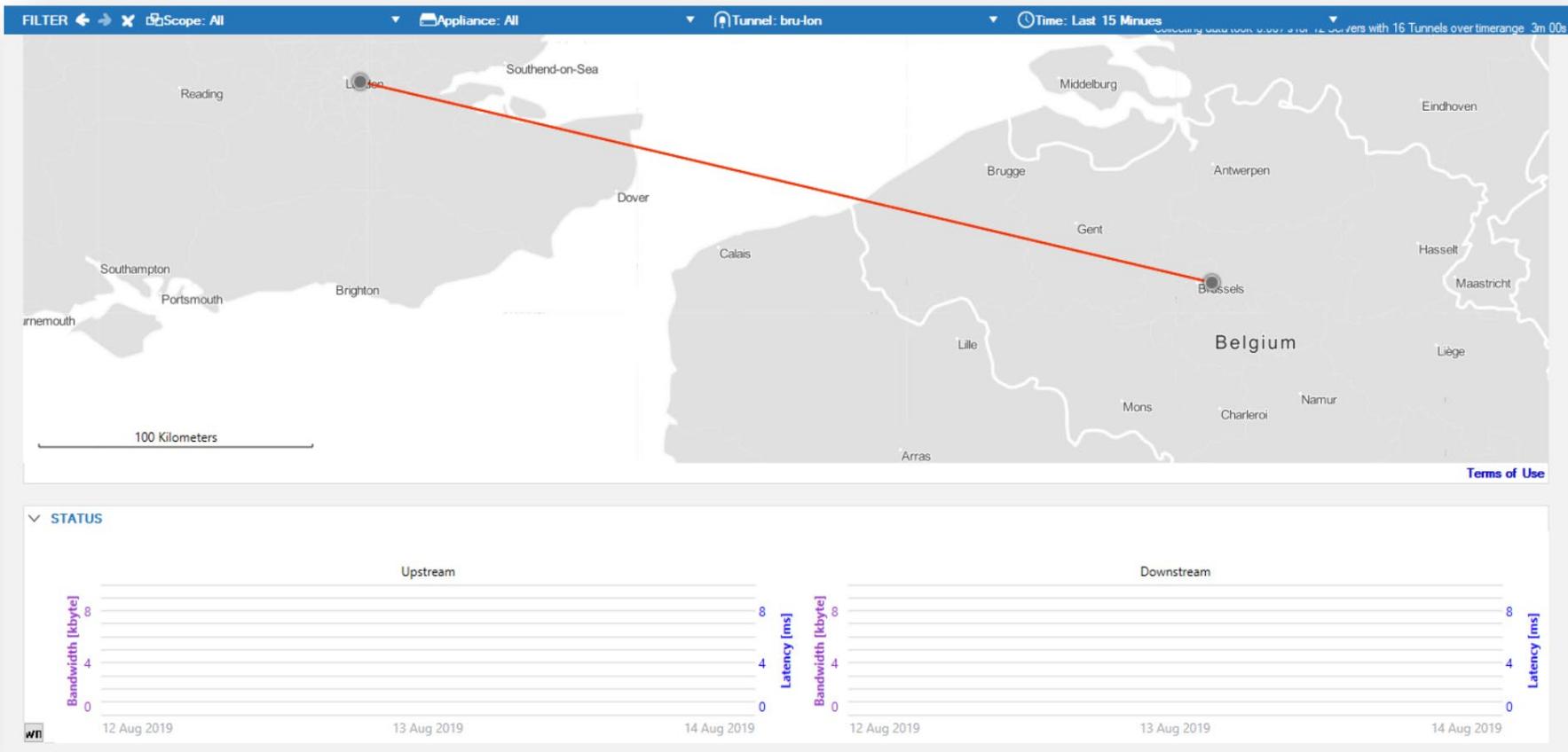
- Summarizes all relevant connectivity information
 - Drill-down functionality
 - Transport health state
- Visualizes SD-WAN measurement information
 - Latency
 - Used and available bandwidth





SD-WAN SERVERS

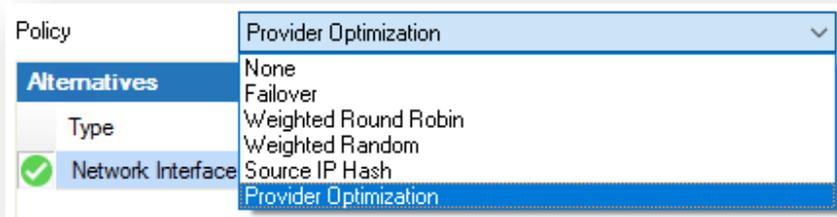
[Show all Servers](#)[Terms of Use](#)





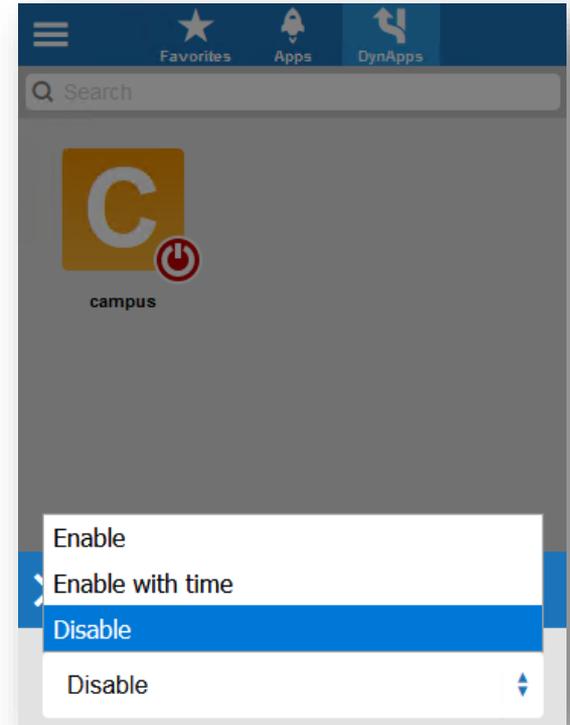
Provider Optimization

- New policy for connection objects
- Determines the provider with the fastest response time to TCP probing packets sent by the firewall





- Resources can be configured as a dynamic app
 - Super-users can enable, disable, or time-enable a resource
- Functionality available for all resources except
 - VPN Apps
 - Dynamic Firewall Rules





- Traffic Intelligence renamed to SD-WAN VPN
- IPv6 payloads in VPN tunnels are supported and now work for TINA site-to-site and client-to-site tunnels.
 - With the exception of SD-WAN

SD-WAN Settings (Firewall - VPN Interaction)

Transport Policies	
Transport Selection Policy	Optimize for Latency
SD-WAN Learning Policy	Slave (learn SD-WAN settings from partner)
	Slave (learn SD-WAN settings from partner)
	Master (propagate SD-WAN settings to partner)





- NTP traffic now sent via VIP if the CC is used as an NTP server
- REST API
 - New massive extension allows automated deployment and configuration via REST
 - For example: creating network objects, and updating and creating access rules
- X.509 client authentication now provided for weblog streaming
- SNMP for the VPN state of IKEv2 tunnels provides the correct information





- Traffic Shaping with AV works now as expected
 - QoS Band conditions do get enforced correctly
- Autodetect the number of interfaces

Network Interface Configuration

Interface Type	Ethernet	<input type="checkbox"/> Other
Driver Module Name	Automatically detected virtual NIC	<input type="checkbox"/> Other
Number of Interfaces	autodetect	<input type="checkbox"/> Other
Driver Options	0 1 2	<input type="checkbox"/> Other





- Multi-processor firewalls spread workload over multiple cores more efficiently
- New network drivers increase F900 throughput
- DC/TS client now synchronizes to a trustzone in an HA configuration more reliably
- HA improvements for low-memory, high-data throughput situations
- Improved cluster migration with site-specific network objects





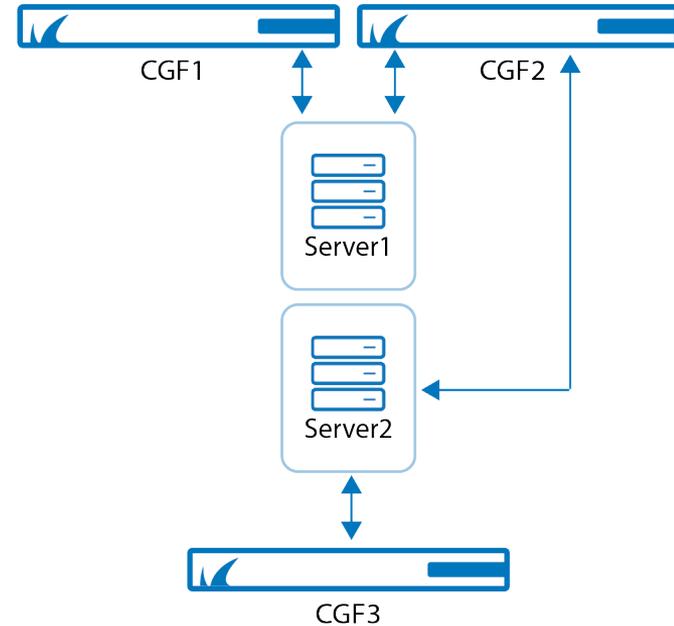
- Azure Accelerated Networking Support
- AWS Elastic Network Adapter (ENA) Support
- Managed identities for Azure resources
- Enhanced default firewall ruleset in the cloud
- Slack Notification Option for Events

Server Action	Client Action	Thresholds
Type:	<input type="checkbox"/> Mail	
	<input type="checkbox"/> Execute Program	
	<input type="checkbox"/> SNMP	
	<input type="checkbox"/> Apple Push Notification Service	
	<input checked="" type="checkbox"/> Slack Notification	
Slack Channel (omit #):	<input type="text"/>	
Incoming Webhook URL:	<input type="text"/>	





- **The base concept for managing HA**
 - Two different concepts (single vs managed box)
- **Contains information for both partners**
 - IP address, monitoring settings, probing information
- **Very flexible**
 - Multiple servers on one box
 - Move servers from one box to another
 - Lets you create complex HA scenarios



Virtual Server - Cons

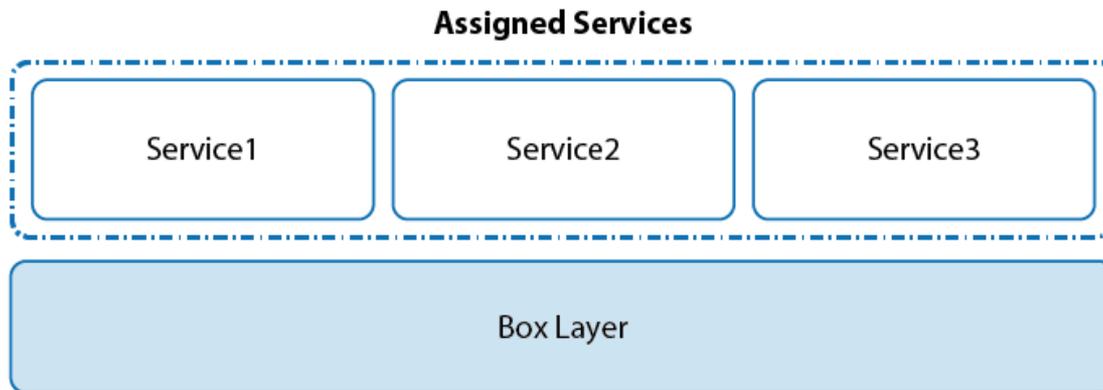


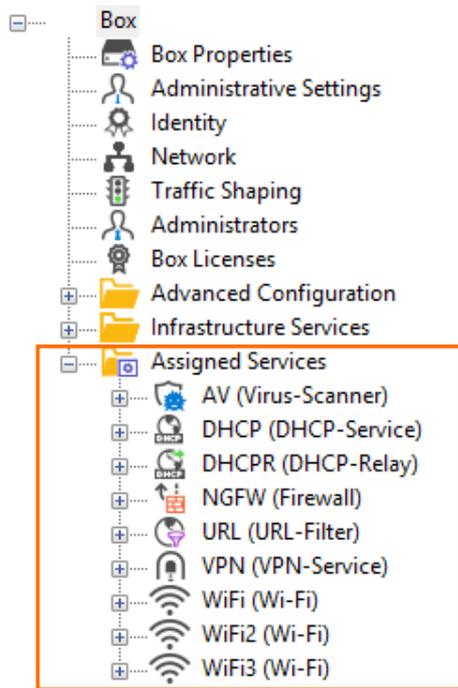
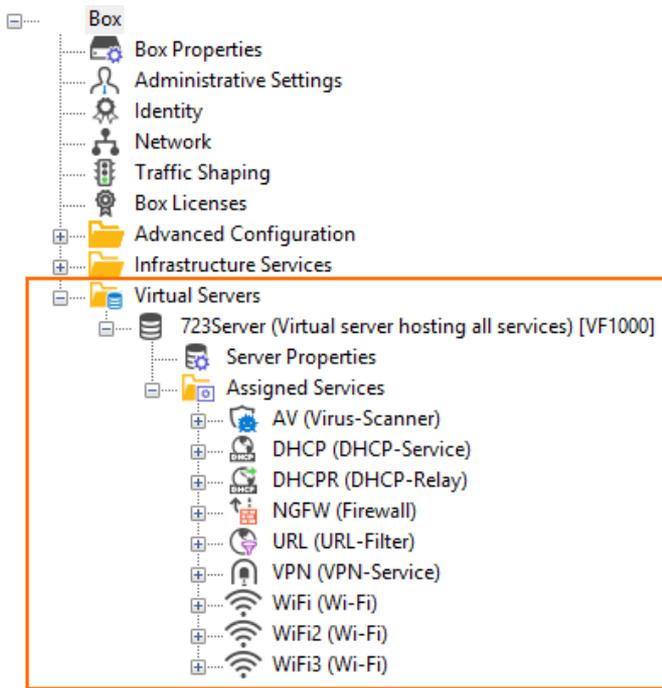
- Configuration spread on different nodes
- Complex HA scenarios not used at all
- "Free floating" servers impose various drawbacks
- Previous solutions did not remove the complexity
 - Simple configuration mode
 - Linking product type to virtual server





- **Box layer**
 - Runs infrastructure services and is responsible for logging, event, configuration, and control
- **Assigned service**
 - Selected services can be activated by user if required.







Live Demo





- **Assigned services**

- All firewalls that are delivered with firmware 8.0.1
- All firewalls that receive a completely fresh install of firmware 8.0.1
- If a new firewall is created within a migrated cluster, the new 2-layer architecture will be applied.

- **Virtual server**

- Firewalls that are being upgraded to firmware 8.0.1 from any lower release
- Restored PAR file from a firmware release < 8.0.1 will also show the older virtual servers/service structure
- If a cluster with a version 7.x is migrated to version 8.x, the config tree will display the older virtual servers/services structure.





Thank you

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