



## Release Notes

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### ***Clavister CorePlus Version 8.81***

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Build: 8.81.07  
Published 2008-10-14  
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# 1. Version Summary

Version 8.81.07 is the latest version of the Clavister CorePlus™ kernel. For a list of appliances that are supported by this version of the Clavister CorePlus™, please refer to the Compatibility section.

## 2. New Features

The following sections detail new features and enhancements in Clavister CorePlus 8.81. For a complete list and description of all the features in Clavister CorePlus 8.81, refer to Clavister CorePlus Admin Guide 8.81.

### 2.1. New Features and Enhancements in CorePlus 8.81.07

*No new features were introduced in the 8.81.07 release.*

### 2.2. New Features and Enhancements in CorePlus 8.81.06

*No new features were introduced in the 8.81.06 release.*

### 2.3. New Features and Enhancements in CorePlus 8.81.05

*No new features were introduced in the 8.81.05 release.*

### 2.4. New Features and Enhancements in CorePlus 8.81.04

*No new features were introduced in the 8.81.04 release.*

### 2.5. New Features and Enhancements in CorePlus 8.81.03

*No new features were introduced in the 8.81.03 release.*

### 2.6. New Features and Enhancements in CorePlus 8.81.02

#### New Log Category for Anti-Virus Related Events

It is now easier to find Anti-Virus related log events since they have been grouped into a separate log category.

#### Multiple PPPoE tunnels

It is now possible to configure multiple PPPoE tunnels to use the same physical interface.

### 2.7. New Features and Enhancements in CorePlus 8.81.01

#### Linkmon extended with new actions

Linkmon has been extended with two new actions usable in HA scenarios. "HA Failover" will initiate a failover if the unit is the active HA member, and "HA Failover and Reconfigure" will initiate a failover as well as a reconfigure on the unit.

#### TCP Stack optimization

The TCP Stack implementation has been optimized to increase the performance of the Application Layer Gateways.

### 2.8. New Features and Enhancements in CorePlus 8.81.00

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## **Hardware Accelerated IDP Scanning**

Hardware acceleration support for IDP scanning.

## **Hardware Accelerated Anti Virus Scanning**

Hardware acceleration support for Anti Virus scanning.

## **Extended route monitoring capabilities**

The route monitoring feature used for route failover has been extended to support more advanced monitoring with ICMP Echo Requests, TCP handshakes or HTTP requests. The new host monitor feature can be configured to monitor several hosts for each route, and each host can have different approval criteria.

## **Threshold rules has been extended to support limitations on the number of allowed connections.**

Threshold rules now supports the number of allowed connections as well as the allowed setup rate of new connections from a host or a network .

## **Static DHCP leases in the DHCP Server**

The possibility to configure static DHCP leases in the configuration has been added.

## **New Port Manager handles port allocations on a per SourceIP+DestinationIP tuple.**

In earlier releases the possible number of port allocations for an IP address was ~65000. With the new Port Manager the possible number of port allocations is ~65000 per source+destination IP address combination. Thus almost providing an "infinite" number of possible connections from the same IP address.

## **IDP / Anti Virus accelerator support for SG4000 Series appliances.**

Support added for IDP and Anti Virus acceleration for the SG4000 Series appliances.

## **The Intel e1000 driver is updated to support new chipsets.**

Support added for the following chipsets: 82541PI, 82571EB, 82572EI and 82573E.

## **Web Authentication: Automatic redirect to originally requested URL upon authentication.**

It is possible to set up SAT/NAT rules in combination with user authentication and redirect all http requests to the login page. When the user has successfully logged in, he or she will be redirected to the originally requested URL.

## **New advanced setting to turn on logging for all packets that pass through the gateway over a connection.**

A new advanced setting "LogConnectionUsage" has been added that will log all packets that pass through the gateway over a connection.

## **E-mail recipients are informed about infected files even if scanner is running in audit mode**

When infected files are detected in the SMTP-ALG, an attachment is created to warn the receiver. The warning attachment is created regardless of scanning mode enabled or audit.

## **New license parameter for enabling/disabling IPsec server capability**

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A new license parameter has been added in order to make it possible to enable/disable IPsec server capability i.e. the capability to act as IKE responder.

### **Heartbeats can now be turned off.**

Cluster Heartbeats in a High Availability scenario can be turned off on a per-interface basis.

### **Maximum allowed compression ratio.**

It is now possible to specify the maximum allowed compression ratio to allow for Anti Virus scanning.

## **3. Addressed Issues**

The following sections detail the addressed issues in Clavister CorePlus 8.81 release.

**COP** items refer to issues in Clavister CorePlus and **FNT** items refer to issues in Clavister FineTune.

### **3.1. Addressed Issues in CorePlus 8.81.07**

- **COP-4053:** Fixed issue with DHCP NAK reception during initial phase of reconfiguration
- **COP-4524:** Fixed issue in OSPF where an LSA could be incorrectly deleted after being reoriginated
- **COP-4848:** The interface listings for Marvell Yukon interfaces showed incorrect IRQ values.
- **COP-6311:** Fixed leap year problem where leap year day was added to January instead of February
- **COP-6513:** Fixed problem in HA where one of the cluster members could be in lockdown and prevent its member from going active.
- **COP-6546:** A configured external log receiver that does not accept log messages might send ICMP destination unreachable packets to the security gateway. These packets would trigger new log messages resulting in high CPU utilization. Logging is now connection-based and the sending rate of log messages will be decreased by the security gateway when it receives ICMP destination unreachable packets regarding log receiver connections.
- **COP-6568:** Fixed problem resulting in the IDP/AV license being expired prematurely.
- **COP-6656:** Unnecessary DynDNS and HTTP-Poster re-posts were triggered during reconfigure. This is now avoided by always considering if the local interface IP address has been changed or if the HTTP-Poster/DynDNS configuration has been changed.
- **COP-6917:** The identification of IPsec clients during reconfigure was not correct when they were behind NAT.
- **COP-6980:** The value of the advanced IP setting MulticastIPEnetOnMismatch was ignored; Packets would be dropped and logged regardless of the configuration.
- **COP-7048:** Emails did not get forwarded by the SMTP-ALG. The sending client received an error message saying that the email could not be delivered.
- **COP-7084:** HTTP Web Content Filter override functionality can cause an unexpected restart when timing out users that have clicked the override button. Users that have clicked the override button have access to blocked content for a specific amount of time. When this time expires, an unexpected restart may occur.
- **COP-7101:** It was not possible to manually force media or duplex for Marvell Yukon interface

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types.

- **COP-7139:** Both members in the HA cluster did not log their change of state when roles were changed (active to passive and passive to active).
- **COP-7194:** Fixed issue in TCPStack with stalling transfers with peers using a very small send window
- **COP-7302:** SNMP Trap messages could sometimes contain garbage characters.
- **COP-7321:** The hardware accelerated IDP scanning caused "unexpected duplicate match" log messages under certain conditions.
- **COP-7337:** The SNMP logger could in rare circumstances cause the system to malfunction.
- **COP-7345:** Web Content Filtering functionality could fail if the WCF server used for URL lookups stopped responding to queries. The mechanism used for failing-over to secondary servers has been improved. WCF will connect to the second closest server if the primary server fails. If that server also fails, it will continue with the other servers. After 1 hour of using secondary servers, a new attempt will be made to contact the primary server in order to minimize latency.

## 3.2. Addressed Issues in CorePlus 8.81.06

- **COP-1549:** ICMP Destination Unreachable packets were not sent when UDP packets hit a Reject rule.
- **COP-2193:** Web authentication and wwwsrv connections were closed at reconfiguration.
- **COP-2231:** The DHCP Server did just send replies back on the receiving interface without regarding routing decisions. The DHCP Server now performs a route lookup if the reply is destined for a host address (i.e. not an IP broadcast).
- **COP-3346:** Eats TCP packets on the HA-node which was inactive when IDP was enabled, if fail-/handover occurs. HA for idpupdate now let active node download files. Timestamps are compared after reconfigure and signature files are synchronized between HA-nodes.
- **COP-4964:** Some services were using the private IP in HA setups for communicating. This is now changed to use the shared IP.
- **COP-5385:** The DNS lookup of the IP address to a remote gateway failed under certain circumstances.
- **COP-5847:** The CLI command for displaying updatecenter AV/IDP update status was not showing enough information. It has now been improved.
- **COP-6036:** The SMTP ALG could not tell the difference between the new Microsoft Office 2007 document file types and file type ZIP. This is because there is no difference that can be easily discovered (the new Microsoft Office files are in fact ZIP files with a different extension). An ALG configured to make file integrity checks would therefore signal these files as invalid (wrong mime type, wrong file suffix...). The ALG will now identify Office 2007 files as ZIP files. Anti-virus checks will, if enabled, scan the contents of the new Office 2007 files just like it would with a regular ZIP file.
- **COP-6045:** IP address with suffixes .0 and/or .255 could incorrectly be assigned to IPsec config mode clients.
- **COP-6186:** Nested MIME bodies could in some scenarios be blocked by the SMTP-ALG. For example, the SMTP-ALG could block images inserted as 'inline' with an error message indicating base64 decoding error. The recipient received the email without the attached image but an error message saying: "The attachment xxxx has been blocked by the Security Gateway".

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The ALG has been updated with better support for nested MIME blocks.

- **COP-6377:** IPsec tunnel setup could in some scenarios read from uninitialized memory and cause instability problems. The issue has been corrected and together with this fix, the memory used by the IPsec engine has been registered and can now be monitored using the 'memory' CLI command.
- **COP-6503:** Attachments with very long file names could cause memory corruption.
- **COP-6505:** Log string sent to syslog receivers was not always correctly formatted. Some log arguments were not separated by a whitespace, resulting in invalid parsing by syslog receivers.
- **COP-6512:** When restarting an interface using the yukon driver, there has been a theoretical possibility of memory corruption. This has been fixed.
- **COP-6516:** Will continue scanning even if an IDP hardware scanning error happens if AUDIT mode is used.
- **COP-6521:** In a scenario where one or more IPsec tunnels have been modified and needed to be reconfigured the unchecked use of an IPsec policy rule could cause the gateway to crash.
- **COP-6610:** TCP connections with SYN relay were not synchronized correctly. In case of HA failover, traffic on these connections would freeze.
- **COP-6682:** Some H.323 messages were incorrectly disallowed by the ALG. The H.323 Status Enquiry message is now allowed to be forwarded through the H.323 ALG.
- **COP-6763:** The failmode setting in the HTTP ALG was not honored by the Dynamic Web Content Filtering.
- **COP-6773:** The log message for expired or no valid Web Content Filtering license did only show up once. The log message is now generated every 1 minutes, when HTTP request was parsed, and should be more noticeable to the administrator.
- **COP-6791:** The SMTP-ALG could in some scenarios cause instability to the system by losing track of SMTP state synchronization. The SMTP-ALG has been updated with improved state tracking and email syntax validation.
- **COP-6807:** SLB TCP monitoring did not increase TCP sequence number in reset packet sent to server in case of connection timeout. The sequence number is now increased by 1.
- **FNT-402:** Default IPsec MTU is now 1420

### 3.3. Addressed Issues in CorePlus 8.81.05

- **COP-3899:** The TCP pseudo reassembly didn't take the window scale option into consideration.
- **COP-5867:** Pure IPsec-transport mode with multiple clients behind a NAT gateway did not work when the clients used the same port. The port number is now used in the lookup so that the return traffic from the Security Gateway can be sent to the right client.
- **COP-5907:** A watchdog crash in the WebAuth subsystem during reconfiguration has been fixed.
- **COP-5946:** A missing Content-Transfer-Encoding header field in e-mails could sometimes hang the SMTPALG session.
- **COP-5965:** With TCP sequence validation turned on, closing existing connections would cause all subsequent attempts to reopen the same connection to be dropped with a log message about a bad sequence number. The situation would resolve itself after a timeout of about 50 seconds, but would still cause severe traffic impairment in certain situations (most noticeably HTTP traffic).

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This change will by default loosen the restrictions when an attempt to reopen a closed connection is received (ValidateSilent, ValidateLogBad), while still enforcing RFC correctness. TCP sequence validation is turned off by the setting "Ignore". New options also exist to keep the original behavior (ValidateReopen, ValidReopenLog) or to completely ignore TCP sequence validation for reopening attempts (ReopenValidate, ReopenValidLog). The difference between these settings only affects how the gateway handles TCP sequence number validation when an attempt to reopen a "not open" connection is made. Also note that reopening closed TCP connections must be explicitly allowed by the gateway, for these settings to make a difference.

- **COP-6045:** IP address with suffixes .0 and/or .255 could incorrectly be assigned to IPsec config mode clients.
- **COP-6124:** Some log strings containing space characters were not quoted as required for proper interpretation by some log receivers.
- **COP-6208:** A user logging in via WebAuth, configured to handle user credentials via one or several RADIUS servers, could cause an unexpected abort if no RADIUS server was reachable. This has been fixed.
- **COP-6214:** A possible memory violation in the user authentication module could cause the SGW to abort. Validation of the memory reference has been added to address this issue.
- **COP-6216:** When using L2TP over IPsec the dynamically added route was not removed when using Windows Vista behind a NAT device.
- **COP-6331:** Log id 1800211 contained incorrect English. The typo has been corrected and the revision changed to 2.
- **COP-6417:** The security gateway could fail to startup after a shut or restart command on Clavister 4200/4400 series devices. The console printed "Failed to execute 'fwcore.cfx'"

### 3.4. Addressed Issues in CorePlus 8.81.04

- **COP-1908:** Incorrect translation of TCP SACK sequence numbers could result in poor throughput/reliability when used. This issue has been corrected.
- **COP-5321:** TCP connections that were closed or aborted almost directly after the three way handshake could, in its closing state, still have as high timeout as it would have in the established state.
- **COP-5468:** Web Content Filter override feature blocks web content even though they have been overridden by user. The WCF override functionality has changed. When a user overrides a "restricted site notice"-page, the user is allowed to browse all blocked sites for a limited amount of time. All blocked URLs requested by the user are still logged.
- **COP-5582:** IPSec transport mode between two nodes did not function properly. The handling of fragmented packets in IPSec transport mode was incorrect and has been changed.
- **COP-5604:** The use of certificate revocation lists without a configured DNS could lead to memory corruption.
- **COP-5687:** The publishing of IDP signatures to FineTune failed for some signatures.
- **COP-5744:** Connections with one-way UDP traffic could sometimes be closed within a few seconds. Connections where the side opening the connection remained idle longer than the UDP lifetime was closed even if the other side continued to send data. A new advanced setting ("UDP Bidirectional keep-alive") under Connection Timeouts has been added to make it possible to set if both sides are allowed to keep a connection open.
- **COP-5835:** There were some L2TP incompatibility problems with Cisco routers. Handling of Offset Size and Offset Pad in the L2TP header has been added.

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- **COP-5876:** Single host routes were sorted according to metric and the routes were added last among the routes with the same metric. This became inefficient in a scenario where there are thousands of single host routes with the same metric. The algorithm for adding single host routes has been changed to be more efficient in this scenario.
  - **COP-5899:** IKE and IPsec lifetimes are no longer set to default values in case of incorrect settings. Lifetimes shorter than 300 seconds for IPsec SAs and 600 seconds for IKE lifetimes could cause inconsistency of IKE and IPsec SAs in large systems (>1000 tunnels). Configuration with shorter IKE lifetimes than IPsec lifetimes and with delta time less than 300 seconds between IKE and IPsec lifetimes could also cause inconsistency. In case of invalid settings a cfg warning will be issued.
  - **COP-5923:** The system shutdown process could be prevented from executing fully by the userauth module taking too long time to initiate shutdown of the module.
  - **COP-5937:** The OSPF maxage handling was in some scenarios not able to flush all outdated LSAs

### 3.5. Addressed Issues in CorePlus 8.81.03

- **COP-5159:** Hardware acceleration of encryption/decryption on IXP platforms would eventually fail during high IPsec traffic load.
- **COP-5245:** Certificate revocation lists (CRL) were sometimes wrongly encoded and sent on as certificates during IPsec negotiation. A patch from Safenet that corrects the issue has been applied.
- **COP-5381:** Unexpected abort at the inactive HA on non-x86 platforms during synchronisation of dynamically added IPsec routes. Access to unaligned memory has been made safe.
- **COP-5475:** If the Security Gateway was shutdown while the Port Manager was in High Load Mode some objects were not released properly. This has now been fixed.
- **COP-5550:** NAT-T was not fully compliant to RFC 3947.
- **COP-5606:** The SMTP-ALG incorrectly blocked e-mails if the client was configured to use "TLS if available" and the server supported TLS. The SMTP-ALG will now strip the STARTTLS capability from the capabilities reply sent from server to client.
- **COP-5616:** The log message IPSEC: id=01802040 could contain a wrong info field.
- **COP-5690:** A fail-over due to reconfiguration could faulty result in two active nodes in a High Availability cluster.
- **COP-5698:** Increased severity-level to 'error' for Web Content Filtering log message, indicating expired or no valid license parameter.
- **FNT-354:** Route monitor configurations could not be deleted in FineTune.
- **FNT-359:** Could not configure static DHCP leases on more than one DHCP server.

### 3.6. Addressed Issues in CorePlus 8.81.02

- **COP-2049:** The SGW could use a malformed host name upon contact of a LDAP server for CRL retrieval.
- **COP-2958:** An internal inspection once revealed a small segment of the pipes code, that appeared to be able to cause a crash under extremely rare circumstances. The segment has now been altered to prevent the problem from happening.

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- **COP-5194:** In a HA setup, the private MAC address was used as source MAC address for outgoing traffic on the active node, instead of the shared MAC address.
  - **COP-5236:** A wrong hostname could be used upon DNS lookup as a consequence of LDAP server connections by the SGW.
  - **COP-5253:** Old ICMP conns were not removed after a reconfiguration.
  - **COP-5286:** A problem with the HA synchronization of connection timeout values caused zombie connections to not time out on the inactive cluster member.
  - **COP-5306:** No log messages were generated if the system runs out of TCP send and receive buffers. Log messages have been added.
  - **COP-5311:** Added support for the e1000 quad variant of 82546GB
  - **COP-5319:** TCP traffic over VPN tunnel using NAT-T and AES could cause unnecessary fragmentation. The default value for the advanced setting TCPMSSVPNMax has been lowered from 1400 to 1392.



**Note**

*Please make sure that your configurations are updated to prevent fragmentation in the network.*

- **COP-5324:** Negotiation of SSL/TLS version with clients supporting TLS version 1.1 or newer failed.
- **COP-5333:** The default value for max number of SMTP sessions has been lowered to 200 to preserve memory. Please note that this value should be adjusted to fit your organization's need.
- **COP-5337:** SSL version 2.0 client hello messages larger than 127 byte were not handled correctly.
- **COP-5357:** When automatic database updates were disabled in Update Center, the security gateway could begin to repeatedly reconfigure until the AV/IDP license expired.
- **COP-5386:** In some cases Web Content Filtering failed to parse URLs that contained commas.
- **COP-5422:** The SMTP ALG sometimes handled SMTP traffic incorrectly if the last part of the mail was not received in one chunk.
- **COP-5428:** The Anti-Virus scan engine could on some systems cause the memory resources to be depleted. A new advanced setting has been added to make it possible to change the algorithm used by the scan engine.
- **COP-5435:** Client web browsers did not get an indication of a terminated file download in case a virus was blocked. Web browser and other HTTP clients will now receive an error message since the client connection will be closed with a TCP Reset packet.
- **COP-5456:** SMTP ALG did not handle SMTP traffic correctly after receiving a plain text mail.
- **COP-5461:** Multicast and broadcast traffic that were logged due to a low TTL, would incorrectly log the minimum TTL setting for unicast traffic.
- **COP-5464:** Fixed HA resend/failover issue in DHCP Server.
- **COP-5469:** Fixed issue with corrupted state entries when HA synchronization occur between a SG using a core version prior to 8.81.01 to a gateway running 8.81.01.
- **COP-5471:** An invalid IKE certificate payload could cause a service stop when running ikesnoop in verbose mode.
- **COP-5491:** SMTP-ALG setting for "Maximum e-mails per minute and host" has changed.

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Default value is now disabled (unlimited amount of e-mails are allowed). The maximum allowed value has also changed from 100 to 65535.

- **COP-5501:** 'Updatecenter -status' command did not change from displaying "Initializing...". This defect was only cosmetic and did not affect the auto update functionality.
- **COP-5511:** A full IDP/Anti-Virus database update is triggered if the software and hardware signature databases are not synchronized. This can occur when a device has been upgraded with a hardware accelerator card for IDP and Anti-Virus.
- **COP-5544:** Fragmented IP packets that were dropped for some other reason than being fragmented in an illegal way were sometimes still classified and logged as illegal fragments.
- **COP-5556:** IP fragmentation could cause TCP sequence number validation to lose track of the transmission window and start to drop all segments.
- **COP-5616:** The log message IPSEC: id=01802040 could contain a wrong info field.

### 3.7. Addressed Issues in CorePlus 8.81.01

- **COP-3162:** SNMP Interface OperStatus was only updated during startup and reconfiguration, resulting in a non trustable status.
- **COP-3533:** The L2TP server failed in some cases to send traffic over an L2TP tunnel to the client, forcing the client to reconnect in order to send traffic over the tunnel.
- **COP-4539:** HTTPS User Auth. was not able to use 4096 bit certificates
- **COP-4684:** The MULTIPLEX rule previously handled the SAT "all-to-one" setting incorrectly.
- **COP-4728:** Some web-servers do not terminate the HTTP headers correctly which caused the HTTP ALG to block data transfers. The HTTP ALG now accepts these http-headers.
- **COP-4793:** There was a problem with the certificate validation in the IKE negotiation that under certain circumstances caused the gateway to stop responding.
- **COP-4847:** The DHCPRelay MaxLeaseTime was previously 24 hours, causing problems if the DHCP lease time was higher. The MaxLeaseTime is now increased to 68 years.
- **COP-4995:** The GZIP decompressor could in some cases give false positives and mark a file as infected even though the file is actually clean.
- **COP-4999:** The CSPN Servers were pinged even if no UTM functionality was configured.
- **COP-5004:** HWM statistic values were incorrectly sent as integer numbers without proper conversion.
- **COP-5023:** The SMTP-ALG failed to correctly decode quoted-printable encoded e-mails.
- **COP-5037:** The DHCP client in IPPool did not always send DHCPRELEASE when removing clients
- **COP-5044:** Route monitoring using ICMP host monitoring failed to send monitor pings on a disabled route, making it impossible to recover to the primary route after a route failure.
- **COP-5045:** When using HTTP Host Monitoring with route failover, the HTTP URL couldn't be parsed correctly if it contained an IP address in the URL.
- **COP-5068:** The following SNMP Advanced settings was previously limited to 32 characters: SNMPSysContact, SNMPSysName and SNMPSysLocation. The new limit is 255 characters.
- **COP-5072:** SMTP commands were under certain circumstances incorrectly parsed, allowing

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blacklisted addresses to faultily pass through the SMTP ALG.

- **COP-5087:** NAT keep-alive messages for all IPsec SAs was sent in a single burst, causing heavy load on the CPU when having a large number of active SAs.
- **COP-5088:** The Port Manager did not handle multiple listening connections on the same port if the same IP is shared by multiple interfaces.
- **COP-5138:** The Intel e1000 chipset, 82571GB, was not recognized by the driver.
- **COP-5166:** The 'Outer Interface Filter' specified on an PPTP server could be overridden by normal IP rules. If the rule-set allowed PPTP clients to connect to the PPTP server, that connection could not be prevented by using the 'Outer Interface Filter' parameter. Now the 'Outer Interface Filter' parameter will always have precedence over the IP rules to actually be able to filter incoming connections. The IP rules will now only affect PPTP connections when the PPP\_PPTPBeforeRules setting is off.
- **COP-5181:** The HTTP-ALG failed to forward data to the receiver if the HTTP server announced a content-length value larger than the actual file size to be transmitted.
- **COP-5295:** Dynamic route synchronization for IPsec tunnels caused issues with disconnected clients when multiple L2TP/IPsec clients were behind the same NAT gateway.
- **FNT-224:** A H323 Application Layer Gateway object didn't reflect changes made in IP Address references. It was also possible to delete the references.
- **FNT-254:** After deleting an object in a sorted list, wrong object was selected.
- **FNT-274:** There were some problems configuring monitor parameters in Route dialog
- **FNT-279:** There were some problems configuring HTTP parameters in Host Monitor dialog
- **FNT-280:** Problems removing Link- and ARP- monitoring in the Host Monitor dialog.
- **FNT-287:** The setting "Source Interface" didn't recognize VLAN.
- **FNT-291:** A problem with HTTP ALG configuration dialog box caused stability issues.
- **FNT-292:** Static ARP MAC Address entries was always set to 00-00-00-00-00-00.
- **FNT-305:** The anti virus configuration for FTP ALG was not parsed if "Allow RESUME" setting was selected.
- **FNT-307:** Some log categories were missing (e.g. TRESHOLD, AVSE, etc)

### 3.8. Addressed Issues in CorePlus 8.81.00

- **COP-3198:** The SNMPv1 ifSpeed counter was of the wrong data type (Counter32 changed to Gauge32).
- **COP-3275:** The MAC addresses where earlier displayed in a non standard notation. They are now displayed using the following notation: xx-xx-xx-xx-xx-xx.
- **COP-3464:** Routes added by IPsec was not synced between cluster members.  
RESULT: Connections that were synchronized to the cluster member and that had the tunnel as an endpoint would be removed on the inactive node. When a fail over occurred the active node did not have any state of connections going through the IPsec tunnel.
- **COP-3998:** IPSec tunnels were dropped upon reconfiguration. Configuration deployment caused all established IPSec tunnels to be dropped even though the change did not affect the configuration of the IPsec tunnel.

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- **COP-4229:** The Multiplex rule did not previously work in NAT scenario.  
The multiplex rule (used to handle multicast traffic) did not work correctly with NAT'ed traffic.  
RESULT: With this fix, NAT rules will correctly rewrite source IP even with multiplexed traffic. Normal IP NAT rules are honored, as well as NAT/SETSRC rules. This does NOT include support for PORT-NAT/SAT.
  - **COP-4278:** The Anti Virus functionality consumed memory even though no Anti Virus were configured.
  - **COP-4298:** Obsolete Usage log messages caused unwanted logging.
  - **COP-4342:** Sender and recipient e-mail addresses were missing in the SMTP log messages.
  - **COP-4486:** There was a problem in collecting statistical data from several concurrent Netcon connections due to a fixed limit in the number of sessions allowed. An advanced setting (NetConMaxChannels) is added to control the maximum amount of concurrent connections.
  - **COP-4517:** The security gateway rebooted indefinitely when a configuration was uploaded that contained a VLAN interface that had a NULL interface as a physical interface. This only happened in HA scenarios.
  - **COP-4519:** The PPP/CCP implementation used by PPTP/L2TP could not handle the case when a peer rejects the MPPE/MPPC option.
  - **COP-4526:** Threshold rules connection rate limiting included connections that would not be allowed by the threshold rule in the rate computations.
  - **COP-4530:** Whitelisted hosts were allowed to exceed the threshold of protect actions that triggers blacklisting.
  - **COP-4535:** Anti Virus updates were downloaded even though no Anti Virus was configured.
  - **COP-4573:** The security gateway could under some circumstances hang if the Anti Virus scanning was enabled.
  - **COP-4592:** HTML encoded e-mails could in some circumstances be corrupted when passing through the SMTP-ALG
  - **COP-4639:** If one or more interfaces was configured with 0.0.0.0 as IP address the SGW would use it as local IP address in IKE negotiations.  
RESULT: IKE negotiations failed in phase 2.
  - **COP-4649:** The web page displaying a "virus found" message did not contain valid HTML.
  - **COP-4650:** Small files were sometimes passed through the HTTP-ALG without being scanned by the AntiVirus engine.
  - **COP-4657:** Advanced setting TCPNewSynProtect has been removed  
The use of TCPNewSynProtect in conjunction with pseudoreassembler is not working properly.  
RESULT: The ordinary synrelayer must be used instead of the TCPNewSynProtect functionality.
  - **COP-4677:** Scanning FTP traffic for viruses during reconfiguration or shutdown could cause the reconfiguration or shutdown to be postponed indefinitely.
  - **COP-4683:** Problems with the ServerFilter in IPPools.  
If the server filter was specified together with a server ip address, it was not properly enforced until a reconfigure of the SGW took place.  
RESULT: After a reconfigure could previously accepted leases become disallowed and be released.
  - **COP-4689:** The TCP stack did not announce a zero-sized receive window when the receive buffer is full.

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- **COP-4698:** The SMTP-ALG blocked server-to-server SMTP transactions. E-mails were incorrectly discarded by the SMTP-ALG. The sending server received no indications of that the transaction had failed.
  - **COP-4702:** The IDP engine was previously limited to 8000 signatures.
  - **COP-4821:** Web Content Filtering stopped working if the connection to the current CSPN server was lost.
  - **COP-4829:** The port used for a listening connection was not properly released when the connection was closed, thus making the port unavailable to be re-used.
  - **COP-4856:** Configuration failed if there were too little memory available for Anti Virus Starting up or reconfiguring the SGW failed if there was not enough memory resources available for the Anti Virus engine.  
RESULT: The SGW will proceed with the configuration even if there's too little memory for the Anti Virus engine. Files that would be scanned under normal circumstances, will now be blocked instead.
  - **COP-4865:** A problem with the pattern matching engine (used by the UTM functionality) could cause the SGW to restart under certain extreme conditions.
  - **COP-4907:** No logging were previously done when the SGW failed to resolve the IP addresses fro the update servers.
  - **COP-4915:** User Authentication failed when HTTPS was used in conjunction with a RADIUS server configured to use challenge response authentication.
  - **COP-4925:** The wrong type of log event was generated when the SGW received an invalid IPsec proposal.
  - **COP-4943:** GTP Interfaces are now properly added to linked list used at later stage to open interface's listening connections.
  - **COP-4947:** DHCP leases in the IPPool could under certain circumstances be dropped at HA failover  
Depending on the uptime, DHCP leasetime and master/slave startup order/delay could the IPPool drop the leases at HA failover  
RESULT: All DHCP leases was dropped at failover
  - **COP-4953:** SMTP-ALG blocking transactions missing content-transfer-encoding.  
The gateway used fail-mode parameter to handle smtp transactions missing the content-transfer-encoding. Transactions not specifying content-transfer-encoding is now according to RFC 2045 assumed to be 7bit.
  - **COP-4961:** PPTP client fails to reconnect atomatically after it has lost the previous connection to the PPTP server.  
PPTP client fails to reconnect atomatically after it has lost the previous connection to the PPTP server. There will be a reconnection attempt if there are packets sent on the PPTP client interface though.  
RESULT: Route failover will not work properly for monitored routes that points to a PPTP client as a disconnected tunnel wont be restored again.
  - **COP-5002:** IPPool reusing DHCP client problem  
Reused DHCP clients in the IP pool will under certain circumstances be treated as a new client by the DHCP server  
RESULT: The dhcp server will create a new instance for the client (no problem unless full usage of the ip span)
  - **FNT-198:** Double clicking on a removed rule in the usage box made FineTune crash.

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## 4. Installation Instructions

For detailed installation and upgrade instructions, please refer to the Firmware Upgrades chapter in the Clavister CorePlus Admin Guide 8.81.



### **Important**

*The Cores for the Clavister SG10 and SG50 are specific to these hardware models and the correct Core file has a name which includes these model numbers. Do not use the Full version for upgrading the SG10 and SG50.*



### **Note**

*The mini core distributed with this version of the CorePlus package should only be used while installing CorePlus on a fixed drive / media.*

*The mini core is of an older version than the main core and has limited functionality!*

## 5. Known Issues

- **HA: Transparent Mode won't work in HA mode** There is no state synchronization for Transparent Mode and there is no loop avoidance.
- **HA: No state synchronization for ALGs** No aspect of ALGs are state synchronized. This means that all traffic handled by ALGs will freeze when the cluster fails over to the other peer. If, however, the cluster fails back over to the original peer within approximately half a minute, frozen sessions (and associated transfers) should begin working again. Note that such failover (and consequent fallback) occurs each time a new configuration is uploaded.
- **HA: Tunnels unreachable from inactive node** The inactive node in an HA cluster cannot communicate over IPsec, PPTP, L2TP and GRE tunnels, as such tunnels are established to/from the active node.
  - Inactive HA member cannot send log events over tunnels.
  - Inactive HA member cannot be managed / monitored over tunnels.
  - OSPF: If the cluster members do not share a broadcast interface so that the inactive node can learn about OSPF state, OSPF failover over tunnels uses normal OSPF failover rather than accelerated (<1s) failover. This means 20-30 seconds with default settings, and 3-4 seconds with more aggressively tuned OSPF timings.
- **HA: No state synchronization for L2TP, PPTP and IPsec tunnels** There is no state synchronization for L2TP, PPTP and IPsec tunnels. On failover, incoming clients will re-establish their tunnels after the tunnels are deemed non-functional. This timeout is typically in the 30 -- 120 seconds range.
- **HA: No state synchronization for IDP signature scan states.** No aspects of the IDP signature states are synchronized. This means that there is a small chance that the IDP engine causes false negatives during an HA failover.
- **HA synchronization with a gateway using CorePlus version 8.81.01 is not supported.** Due to a interoperability problem in the High Availability protocol, HA synchronization with version 8.81.01 of CorePlus is not supported, and will cause stability issues.
- **SMTP ALG limitation.** The SMTP-ALG will deny relaying of e-mails if the e-mail user agent has been configured to use "TLS if available". A fall back to non-encrypted transfer is not possible.

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## 6. Compatibility

The following section outlines the direct compatibility considerations as of CorePlus 8.81.07.

- **SG30 Series appliances**
  - Anti Virus service is not available.
  - IDP service is not available.

## 7. Getting Help

### **Technical Assistance via Telephone or Email**

We offer timely and rapid response to customer inquiries and service requests via telephone or email. Don't hesitate to contact us if you have any questions regarding the upgrade or installation procedure.

Clavister Technical Support  
Phone: +46 (0)660-29 77 55  
E-Mail: [support@clavister.com](mailto:support@clavister.com)  
Web: <http://www.clavister.com/support/>