# Clavister's new dimension in network security reaches the Cloud

The Cloud computing market is expected to grow by €7.5 billion by 2015 as an increasing number of recession-hit companies recognise the advantages of reduced cost, greater mobility and increased flexibility. This is a boom market but for many there is one black cloud on the horizon.

According to an IDC IT Cloud Services User Survey, 74 per cent of IT executives and CIOs have cited security as the top challenge preventing their adoption of the Cloud services model.

It's a view supported by Gartner's report Top End User Predictions for 2012 and Beyond. This says that by 2016, the financial impact of cybercrime will be growing at a rate of 10 per cent annually and by the same year, 40 per cent of enterprises will make proof of independent security testing a precondition for using any type of Cloud services. Cloud vendors rely heavily on their reputation so it is vital that they have reliable security measures in place and implement the latest technology to protect client data. Trusted security is now the most important USP and differentiator for Cloud vendors.

### Security: an enabler for Cloud deals

Leading provider of world-class security solutions Clavister sees effective security as an enabler of Cloud deals rather than an inhibitor. This is why Cloud providers are a principal target for its sophisticated new range of solutions with the aim of bringing a fresh dimension to security and to enable market leaders to get optimal value from their networks.

### Smaller footprint with improved functionality

Clavister's new range of solutions include Clavister Virtual Series - four high-performance Virtual Security Gateways that deliver multi-functional Security-as-a Service (SaaS) for virtual and Cloud environments and hosting providers.

Designed from the inside out, Clavister's products offer slick Scandinavian style while delivering high network security performance which is, after all, what its customers are looking for.

The new product series also features the world's fastest security system on a 1U form factor, delivering up to 240 Gigabits per second (Gbps) of firewalling when competitors deliver between 150 and 160 Gbps in a 3U form factor. They also feature improved operating systems and a more user-friendly interface.

"Providers who have large hosting halls with lots of servers find that the cost of each rack is so high they want to make everything as small as possible," says Johan Edlund, Clavister's Vice President Product Management. "They want to fit more computing power into a smaller footprint and we have managed to do that, giving greater firewall performance in a form factor that is one third the size of competing solutions."

Wrapped in licensing and business models specifically crafted for Cloud purchasers, the new product set combines fully centralized management with seamless provisioning and deployment. Customers can use a self-service portal to scope new services which effectively removes most manual operations and reduces cost in large-scale Cloud environments. The complete feature-set is also cross-platform. Unlike competing solutions that require a combination of physical and virtual security devices, Clavister provides both, so software and licence administration is kept to a minimum.

### Ease of deployment

The Clavister Virtual Series is easy to deploy in a range of scenarios including VMware virtualization environments, non-VMware environments and even co-location environments.

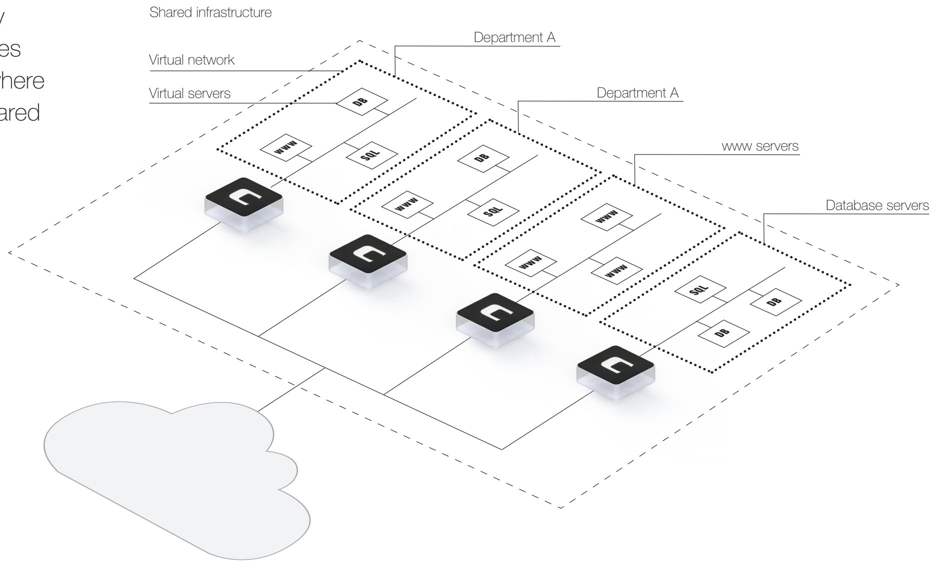
In the enterprise, Clavister Virtual Series can be used in a virtualized environment to establish protected zones in an otherwise open environment. This means that the Virtual Security Gateway is used in an enterprise virtual data center to establish security zones for different areas of the virtual network. The Virtual Series for example, can be used to establish protected zones for the HR, R&D, sales and finance departments all in the same Cloud environment. It can also be used in order to create zones for different functional groups e.g. web servers, database servers and ERPs. Each department can have its own firewall, which simplifies calculations on cost distribution.

For ISPs, the Clavister Virtual Series can offer each Internet subscriber individual value-added security services to their Internet connection bill. This will help ISPs to increase the average revenue per user by offering cost-efficient security services to all existing customers. ISPs can tailor customer-focussed service packages to their customer segments based on an extremely scalable solution.

For hosting providers, Clavister's Virtual Series help solve the many problems caused by shared firewalls.

"The situation facing most hosting providers is that when they have a shared firewall to protect customers, nearly every one of those customers wants to add their own specific security policies," explains Andreas Asander, CEO of Clavister APAC (Asia Pacific). "Some customers want to have more complicated policies while others have just basic ones but when you start to aggregate say 10,000 customers with a shared firewall you get problems.

Fig. 1 The Virtual Security Gateway establishes protected zones where infrastructure is shared



"Eventually, providers just do not want to touch the shared firewall because every time they make a change for one customer it can affect all of its customers. Eventually they get to the stage where they do not know which policy belongs to which customers and it becomes unworkable. Also, if a customer decides not to use the service any more they dare not remove any policies because they are afraid that it may affect others. The firewall becomes a bottleneck and is a ticking bomb waiting to go off."

## Managing risk

Clavister's Virtual Security Gateway solution helps take away the risk. The shared firewall remains the property of the hosting provider but becomes a superstructure with only very few policies. It is not something the customer can use to introduce their own policies. Every customer has their own Virtual Security Gateway and connects to it to make their own policies. This transfers accountability back to the customer, making them responsible for the policies they create. It increases customer satisfaction by minimising the risk of isolated incidents breaching the firewall, avoids breaches to Service Level Agreements (SLAs) and improves the provider's image.

"You are seen as a company who provides good security and this is how you start making money, not just by selling security but by raising your profile as a reliable provider thereby enabling you to sell other services," explains Asander. "Our homogenous platform offers a wealth of features so hosting providers can, for example, sell a firewall service, an application control service or an anti-virus service.

"We can also offer different business models depending on how you actually structure your business with clients. We can offer pay-per-use, pay-per-feature or revenue sharing depending on how you run your cost and income structures. With our custom made portal, hosting providers can tailor-make their own specific licences for individual customers. The portal also allows their billing system to talk to our billing system, making this a fully-integrated part of their business."

Clavister Virtual Series is an attractive value proposition because of its ease of installation and the sales model that Clavister offers. It can be installed and deployed fully automatically without any human or technician involvement. Customers go into the operator's portal, choose the service or mix of services they want, whether it's firewall, VPN or more. The chosen services are automatically deployed in the service provider's data center core network and are ready to be used within an hour.

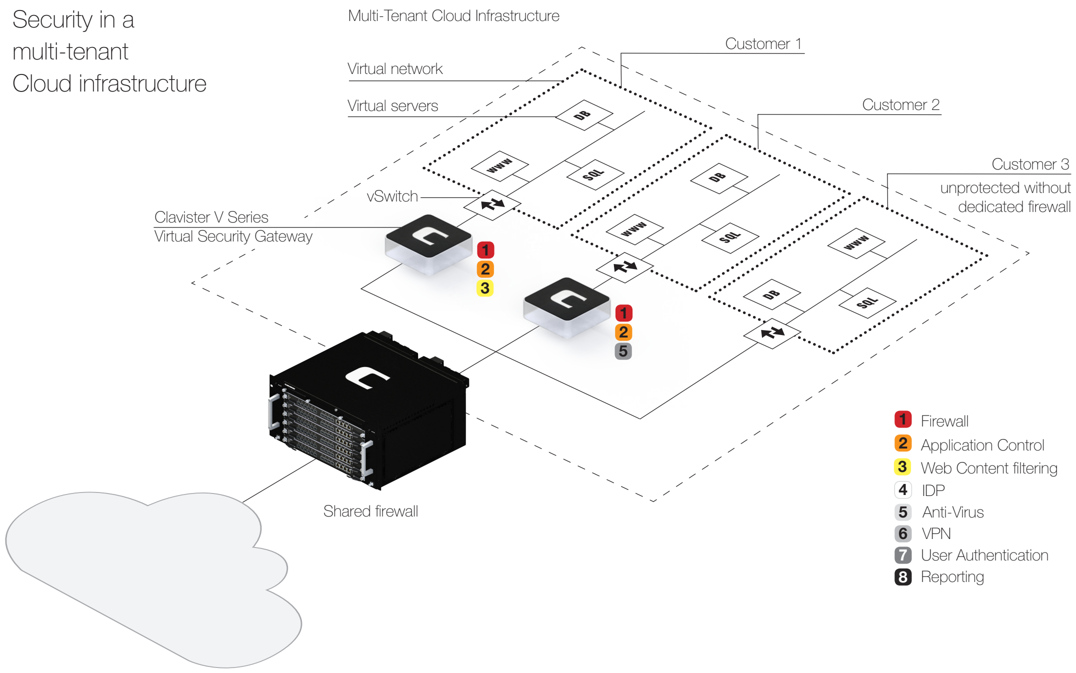
"The benefit to the operator is that the cost is just a fraction of the physical hardware installation charges because it is deployed virtually," says Asander. "Vital scalability is also delivered because, depending on the setup, you can run between 10 and 100,000 gateways per standard, off-the-shelf, physical server.

"This means that service providers have the ability to sell more, high-cost, services because there is almost no maintenance or physical work involved, except maybe for adding more hardware to your virtual infrastructure. We offer them a new revenue stream and we do that with a new business model because we do not charge them up front for a Virtual Security Gateway. They only pay for it when they install.

"This enables service providers to align revenues with capital expenditure because there is no initial outlay and no risk. They do not have to pay for anything until they are generating income from the solution.

"Clavister looks upon this as a long-term business with hosting providers as our partners."

Fig. 2 Security in a multi-tenant Cloud infrastructure



## Be InControl of your network

Clavister's award-winning network security operating system is at the heart of the Virtual series. Now rebranded as Clavister cOS Core 10, it now features a much simpler user interface.

The new and improved software also features InControl 1.30, which enables the centralized management of thousands of devices from the same management tool. Users can define and apply security policies, monitor status in real-time, manage software upgrades, conduct backups and restore all from one single console. InControl also includes versatile forensic tools for data-mining, deviation and trend analysis.

"The underlying architecture makes it possible to run InControl 1.30 clients from any location while still providing a high level of encryption of the management traffic," explains Edlund. "InControl 1.30 has advanced trouble shooting functionality with direct access to logs, snoops and CLI against the devices. If you can find the problem, you can use InControl to help you fix it. It also features a built-in monitoring dashboard which gives an insight into network traffic and with the logging agent, you have a solution that can be distributed within an organization to minimise the network overhead. For Cloud, data center and service providers we also have an extensive Application Programming Interface (API) that makes it possible to incorporate InControl into their network infrastructures and provides the possibility to automate network configuration."

## Control the social explosion

Clavister Application Control, which is built into cOS Core, is designed to manage the growing use of social networking, it allows you to identify and control the usage of applications such as Skype, YouTube and Facebook.

"Employee use of social networking during working hours is a huge cost to businesses," says Edlund. "For example, if an enterprise has 500 employees at an average hourly work cost of say €60; if the number of working days is 200 in a year, and if every employee spends just 30 minutes a day on social network sites the annual cost to the business is €3 million.

"With Application Control you can identify just how much social usage there is on your network, make graphs, analyse it and impose controls. If for example the marketing department use it for their work, you may give them full access but restrict other usage by time or activity to minimise cost and optimise the network."

## Business benefits

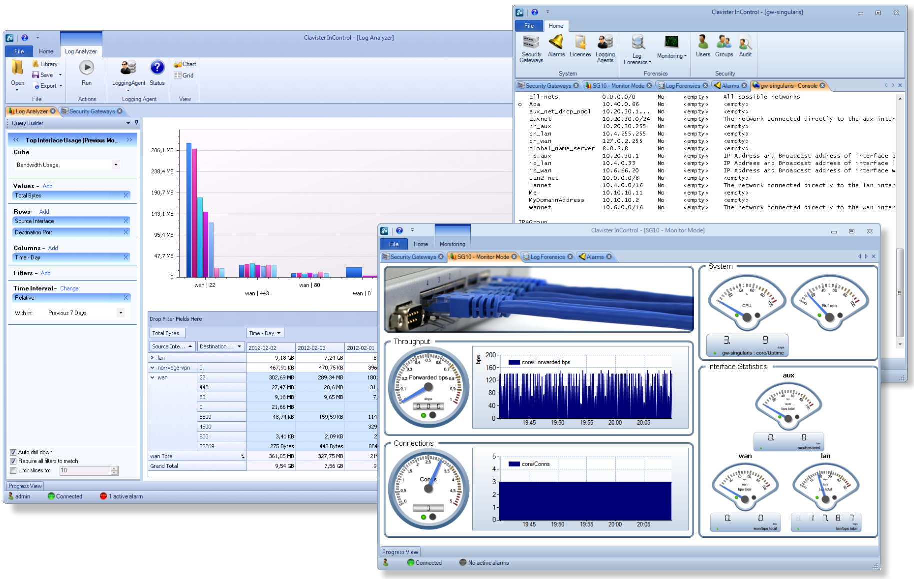
In addition to the technological advantages of Clavister's network security, there are also additional financial benefits because all product updates are included in Clavister's Security Subscription model and Cloud Licence Configuration. This provides customers with the whole security ecosystem, and is updated so they can be sure that their security solution is always relevant.

It includes five subscription pillars:

- Content security surrounding anti-virus, application control and Intrusion Detection and Prevention (IDP)
- Network security including firewalling, Virtual Private Networks (VPN) and tunnelling
- Network optimization for high availability, bandwidth management and traffic shaping
- Centralized management including Web User Interface (WUI) and Command Line Interface (CLI)
- Support and maintenance 24x7

## For more information

To read more about Clavister's Cloud security solutions, please visit www.clavister.com/solutions/cloud



```
   all-nets            0.0.0.0/0        No    <empty>    All possible networks
o  Apa                 10.40.0.66       No    <empty>    <empty>
   aux_net_dhcp_pool   10.20.30.1...    No    <empty>    <empty>
   auxnet              10.20.30.0/24    No    <empty>    The network connected directly to the aux inter
   br_aux              10.20.30.255     No    <empty>    <empty>
   br_lan              10.4.255.255     No    <empty>    <empty>
   br_wan              127.0.2.255      No    <empty>    <empty>
   global_name_server  8.8.8.8          No    <empty>    <empty>
   ip_aux              10.20.30.1       No    <empty>    IP Address and Broadcast address of interface a
   ip_lan              10.4.0.33        No    <empty>    IP Address and Broadcast address of interface l
   ip_wan              10.6.66.20       No    <empty>    IP Address and Broadcast address of interface w
   Lan2_net            10.0.0.0/8       No    <empty>    <empty>
   lannet              10.4.0.0/16      No    <empty>    The network connected directly to the lan inter
   Me                  10.10.10.11      No    <empty>    <empty>
   MyDomainAddress     10.10.10.2       No    <empty>    <empty>
   wannet              10.6.0.0/16      No    <empty>    The network connected directly to the wan inter

IP4Group
```

| Source Inte... | Destination ... | 2012-02-02 | 2012-02-03 | 2012-02-01 |
|---|---|---|---|---|
| lan | | 9,18 GB | 7,24 GB | 8, |
| norrvage-vpn | 0 | 467,91 KB | 470,75 KB | 396 |
| wan | 22 | 302,69 MB | 289,34 MB | 180, |
| | 443 | 27,47 MB | 28,6 MB | 31, |
| | 80 | 9,18 MB | 9,65 MB | 7, |
| | 0 | 21,66 MB | | |
| | 8800 | 48,74 KB | 159,59 KB | 114 |
| | 4500 | | | 329 |
| | 500 | 3,41 KB | 2,09 KB | 2 |
| | 53269 | 275 Bytes | 443 Bytes | 804 |
| wan Total | | 361,05 MB | 327,75 MB | 21 |
| Grand Total | | 9,54 GB | 7,56 GB | 9, |

Fig.3 InControl features a far simpler user interface.