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**Operational Update
July 3rd 2017
Clavister Holding AB**

CLAVISTER®
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Executive Summary

Introduction

Last week's Petya ransomware attack once again brought the global threat of cybersecurity to the front of the news cycle. An estimated 12,500-16,000 computers were attacked with 64 countries affected, organizations hit and crippled with data encrypted and disabled. The threat landscape—with IoT devices proliferating, ransomware, DDoS attacks, identity theft and privacy intrusions—is expanding quicker than at any time in cybersecurity history.

Customers who took advantage of our new suite of threat defense were protected throughout these recent attacks, something that the whole company takes pride in. We are determined to continue to drive our innovation platform and go-to-market strategy to protect our current and future clients from such attacks. But maybe even more importantly, the Clavister board of directors and the management team are unified in that we will continue to invest in the technology and the people of Clavister, that we attract the best talent in the world to Clavister and our global mission to make the world digitally safer.

We are grateful that our customers and shareholders believe resiliently in our vision, even as we continue to grow our global brand and the business. We are receiving interest from our investors and a number of major market players to provide the financial support required for the company to continue to grow and extend its technological reach across the globe.



Operational Highlights

- **Business Expands in Japan**

Sales through Canon IT Solutions is growing and the projected development for the Japanese market remain intact. Initial technical issues have been resolved, proved by a recent order totaling to 1,6 MSEK. Additional orders are expected during second half of 2017.

NTT-BP has started the deployment of Clavister products for their Wi-Fi network. First installations are now up and running in selected locations in Tokyo.

- **Commercial break-through in**

Orders have been received from multiple mobile operators, all being tier-1 carriers. Clavister expects the orders to grow significantly over the years to come, and is expecting several new commercial orders on a regular basis. The response from telecom customers has surpassed expectations from both Clavister and commercial partners.

Year to date, the following orders have been received:

- June 2017: Commercial order from a tier-1 mobile operator in Latin America
- April 2017: Commercial add-on order from a Western European tier-1 mobile operator
- March 2017: Commercial order from a Western European tier-1 mobile operator
- February 2017: Trial order from a Southern European tier-1 mobile operator

Clavister has also received orders on appliance-based security solutions (non-virtualized), demonstrating that Clavister's solutions is highly competitive also in regular network deployments. Essentially, this shows that revenue prospect from telecom sales is not only dependent on the adoption rate of virtualized telecom networks.

- **Sanmina to produce security appliances in Sweden**

Selected models of Clavister's appliance hardware is now being produced in the Sanmina plant in Örnköldsvik, Sweden. This production collaboration creates a total end-to-end Swedish product line, from innovation through software design, implementation and testing, to final production and assembly. Clavister expects to see quality improvements with lower aftersales service costs as a consequence, as well as improved gross margins due to a more sophisticated, stream-lined and automated production process.

- **Organizational changes and cost optimization**

Several organizational changes have been carried out in order to prepare Clavister for an intense period of work. Parts of the cost base have been reallocated to sales and marketing functions, which in practice means converting operational expenses to sales contribution. Also, a number of functions have been optimized, resulting in lower expenses effective later part of 2017.

- **Latest software release puts an end to high learning-threshold of Clavister products**

Latest software release, Clavister cOS Core version 12, combines high flexibility with a high level of usability, dramatically reducing the knowledge threshold for operating the Clavister products. Feedback from early customers is overwhelmingly positive, which is encouraging for upcoming customer projects.



A view from the CEO

Last week's Petya attack of ransomware and data destruction once again brought the global threat of cybersecurity and ransomware to the front of the news cycle. An estimated 12,500-16,000 computers were attacked according to Microsoft's Malware Protection Centre with 64 countries affected, organizations large and small hit and crippled with data encrypted and disabled. Shipping giant Maersk had their shipping infrastructure affected and heavily impacted; even the Chernobyl nuclear plant was set to manual as fears of critical infra-structure being disabled prompted fears. Firms struggled to keep operational and maintaining business. Though the totals from the Petya attack aren't known yet, the WannaCry ransomware attack that presaged Petya is illustrative and devastating in its financial destruction. Experts are predicting a four billion dollar estimate at the potential losses. And Petya, having its kill switch removed, has the potential to be far more deadly and costly. The threat landscape—with IoT devices proliferating, ransomware, DDoS attacks, identity theft and privacy intrusions—is expanding quicker than at any time in cyber-security history.

As such, the management team at Clavister and myself have taken structural steps in its engineering processes, in the product discovery terrain and in developing innovation initiatives to protect our customer base and expand the business opportunities that affords. It's vital that we create an agile and passionate security organization as well as reactive business—one that can pivot to these new threats as well as have the products and solutions that the market desperately needs. The market Clavister competes in sees a sharp consolidation of vendors with Clavister standing securely as one of the few European security vendors to be growing robustly amongst large American competitors. The key to success is Clavister's ability and determination to react to the market and mitigate threats.

Starting last year with a steady ramping up into the future, I've assembled strategic teams to put a series of innovations and best-in-breed solutions into the portfolio, to deploy them and get them to market quickly and effectively, both through the physical appliance range as well as their virtualized counterpart. Multi-factor authentication, endpoint security, IP reputation, threat visibility tools and a directive to make the products easier to use and set up are starting to pay off.

I'm happy to announce that our customers who took advantage of our new suite of threat defense were protected throughout these recent ransomware attacks, something that my team and the whole company takes pride in. This is just the beginning of a strategy we'll be investing going forward: we have a sizeable investment of both technical expertise and market segments where we'll compete. But maybe even more importantly, our management team and board of directors are unified in that we heavily invest in our people, that we attract the best talent in the world to Clavister and our global mission to make the world digitally safer.

That high corporate benchmark has made Clavister one of the most exciting players in the cybersecurity space as it moves to a full global player, one that continually attracts robust and committed investment to realize its strategic ambitions and capitalize on its innovations, especially its telecom and service provider solution which is seen as one of the most promising in the software defined networking and virtual space.

We're grateful that our customers and shareholders believe resiliently in our vision, even as we continue to grow our global brand and the business. While that's based on an evidence-based business analysis, we're increasingly seeing our investors and partners spreading the word to their business network on the importance of security and that we have dynamic products and services that solve their needs. Together, we can show that Clavister solutions are the best in class and ready to meet the challenges that the security landscape presents.

John Vestberg,
CEO
Clavister



Business Update

To provide more insight into some of the exiting activities that Clavister is currently executing on, here follows a summary of some of the most important ones.

- **Experienced cyber-security sales manager to head Clavister's enterprise sales**
To catalyze the growth of Clavister's enterprise sales, Andreas Åsander has been appointed to head the sales operations as Vice President for Enterprise Sales. Åsander has over 15 years of experience in various roles related to sales and marketing of enterprise cyber security products. He has an extensive knowledge about the market and the Clavister product portfolio, and is tasked to rapidly start building up a sales operation that can drive Clavister's growth in the enterprise market.
- **Business expands in Japan again after period of technical challenges**
In Japan, the sales of Clavister products through Canon IT Solutions, one of the largest and most influential system integrators in the Japanese market, is starting to grow again after a period of technical challenges related to regional adaptations of a mail security component. The commercial relationship remains strong and the projected sales development for the Japanese market remain intact. Clavister anticipates an acceleration in sales to increase its market share in Japan together with Canon IT Solutions.

An order totaling to 1,6 MSEK was received in June, and additional orders are expected during second half of 2017. The business with Canon IT Solutions has the potential to reach 40-60 MSEK annually as their existing sales volumes are being transitioned to Clavister. On top of that, dialog continues about expanding with additional products, additional verticals outside SMB and additional geographical markets outside Japan.

NTT-BP has started the deployment of Clavister products for their Wi-Fi network. First installations are now up and running in selected locations in Tokyo.

- **Global contract manufacturer Sanmina to produce Clavister’s security appliances in Sweden**

Starting June 2017, selected models of Clavister’s appliance hardware is now being produced in the Sanmina plant in Örnköldsvik, Sweden. This production collaboration creates a total end-to-end Swedish product line, from innovation through software design, implementation and testing, to final production and assembly.

Sanmina is a global contract manufacturer with 45,000 employees in 25 countries, well suited to deliver world-class technology production to clients with a particular competency in communications networks. Their Swedish high-quality and high-technology production plant is located close to Clavister’s headquarters in Örnköldsvik, allowing for a highly agile approach to product design, prototyping and rapid production with tight collaboration between the two companies’ engineering and supply chain teams.

In addition to the benefit of being able to deliver true end-to-end Swedish products, Clavister also expects to see quality improvements with lower aftersales service costs as a consequence, as well as improved gross margins due to a more sophisticated, stream-lined and automated production process.

- **Latest software release puts an end to high learning-threshold of Clavister products**

Clavister products are considered to be among the most, if not the most, versatile and flexible network security products on the market. This flexibility allows for the products to be deployed in almost any type of advanced network infrastructure, which of course is a huge benefit for system integrators almost daily facing infrastructure challenges.

With flexibility comes however complexity. Especially for customers and partners new to the Clavister products, this complexity can be perceived as a steep knowledge threshold to overcome initially. Sometimes, with more time-consuming installations as a result, thereby delaying completion of projects.

Now, with the latest Clavister software, Clavister cOS Core version 12, released in June, the Clavister engineering teams have been able to combine high flexibility with a high level of usability, dramatically reducing the threshold for operating the Clavister products. Feedback from early customers is overwhelmingly positive, which is encouraging for upcoming customer projects.

- **Expanding sales and marketing efforts to additional Telecom and Service Provider customers**

Former global account manager at Clavister, Erik Engström, has been appointed Vice President of Global Service Provider Sales. In this role, Engström will head and drive Clavister sales and marketing efforts towards global TEMs (Telecom Equipment Manufacturers) such as Nokia and Ericsson, global service providers and global system integrator accounts. Engström is also joining the executive management team where his extensive knowledge from the telecom and service provider industry will be highly important.

This move is a cornerstone in Clavister’s strategy to expand its sales and marketing efforts of Clavister’s highly competitive virtualized telecom security solutions to a global customer base.

- **Latest Ericsson Mobility Report confirms dramatic growth of mobile data usage**

Mobile growth has been upgraded by Ericsson Mobility Report 2017. In 2016 there was 7.7 billion mobile subscriptions worldwide, with a prediction for 2022 of 9 billion subscriptions. For Clavister, having a business model where revenue scales with capacity demand, the most exciting reading from Ericsson’s report is the expectations on mobile data, growing almost ten times from 8.8 EB (Exabytes) in 2016 to 71 EB in 2022.

- **Commercial break-through in telecom business**

Clavister's investment in virtualized security solutions for the telecom market has resulted in commercial orders from multiple mobile operators during the spring. All of these operators are tier-1 carriers, substantial in size and brand. Clavister expects the orders from these customers to grow significantly over the years to come, both due to increased capacity demands, additional solutions being deployed and add-on functionality acquired.

The response from customers in the telecom segment has surpassed expectations from both Clavister and commercial partners. Clavister is expecting several new commercial orders on a regular basis.

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- **Organizational changes and cost optimization**

During the spring, several organizational changes have been carried out in order to prepare Clavister for an intense period of work. Parts of the cost base have been reallocated to sales and marketing functions, which in practice means converting operational expenses to sales contribution. Also, a number of functions have been optimized, resulting in lower expenses effective later part of 2017.