



# Elekta

## Virus Protection for Medical Device applications

Industry | IT Security & Data Protection | SE46 Application Whitelisting



Whitelisting basically means that no applications other than approved, can be used on protected equipment

*“We cannot expose ourselves to the risk of compromising patient safety through constant changes in the operational environment.”*

Lars-Johan Östblom  
Manager Control  
Systems Elekta

### Medical Equipment Free From Digital Disease

SE46 Application Whitelisting from Cryptzone is ideal for clinical environments where quality and patient safety is critical. Hospital management teams are assured that systems protected by SE46 are completely compliant and remain immune to digital threats from malware and e-disease. This is achieved by ensuring changes to systems software can only be undertaken following approval from a responsible officer.

In hospital environments it has proved to be particularly important to apply a truly proactive security solution to address the threat of viruses, worms and Trojans. This method is known as whitelisting.

Whitelisting ensures that no applications other than those approved, can be used on protected equipment. Traditional security solutions, such as antivirus, use the reverse approach of blacklisting, which looks for software previously identified as malicious. Such an approach can never attain the same level of security and quality because it is simply impossible to keep up to date with evolving software threats.

SE46 Application Whitelisting is perfect for use on medical systems. The security system works with any equipment based on a Microsoft Windows operating system. SE46 is also widely used in real-time and embedded systems, primarily because it is a stand-alone system, which requires few system resources from the computer on which it is implemented.

### Only Approved Applications on Medical Devices

The biggest advantage for hospital management is they can be 100% sure that only the right version of approved applications can be installed and run on a SE46 protected system. Therefore the risk of other malicious or just resource hungry software being introduced is completely eliminated. Developments in healthcare are rapidly moving towards an environment where all systems are networked to enable the exchange of information between different care units. Using SE46, systems are protected from being infected by unwanted and malicious code, regardless of the equipment it is connected to on an internal or external network.

### Prevent Data Loss through USB Port

To maintain patient safety and system integrity, SE46 Application Whitelisting prevents information being removed from computer systems using peripheral devices, such as USB flash drives, CDs and DVDs.



## Elekta eliminates Malware!

### Background

Elekta AB is a supplier of neuroscience products and solutions. One of its most well-known solutions is the Gamma Knife, which provides non-invasive radiosurgery for treating brain disorders. A sophisticated treatment planning computer is controlled by doctors via a Windows based PC, which is particularly sensitive to changes in operational environment.

It is vital that these Elekta systems, running specialized applications, are protected from virus and malware infection. Even on-going updates for virus protection have the potential to threaten the stability of the operational environment. Keeping system changes to a minimum helps to ensure patient safety. By only allowing certified applications to run on these computers virus updates are not needed, yet security is maintained. All applications or processes that are not certified simply cannot start. This provides much higher security and better control over the operating environment and helps to maintain a standardized environment.

### The Facts

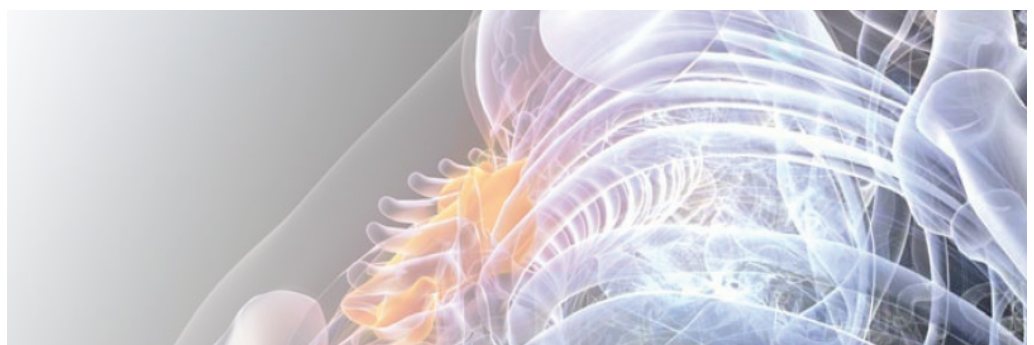
To protect patient safety, authorities around the world, set extremely high standards for systems that affect human health and subject them to rigorous safety requirements. According to MDD (Medical Device Directive) which regulates the requirements for medical systems, it is the supplier's responsibility to ensure that systems are protected against computer viruses and

other malicious code. Indeed there has been considerable debate whether the authorities should tighten the classification of medical systems to include the majority of IT-based systems used in healthcare.

### Benefits For Elekta

Elekta, together with SE46 from Cryptzone has developed a framework based on SE46 Application Whitelisting to manage the certified software allowed to run on the PC, which controls the gamma knife. With the help of SE46 a matchless environment has been created for the gamma knife solution, which prevents infection from any unauthorized code. This achieves enhanced control and greater safety while maintaining a standardized operating environment. Support engineers can identify themselves via a special USB flash drive to update the system with new software when required.

With the help of SE46, a unique environment was created for the product gamma knife



Cryptzone solutions mitigate information security risks in the key areas of Policy Compliance, Content Security, Secure Access and Endpoint Security.

#### International Headquarters

Cryptzone Group AB  
Drakegatan 7,  
SE-412 50 Gothenburg,  
Sweden

[www.cryptzone.com](http://www.cryptzone.com)  
[info@cryptzone.com](mailto:info@cryptzone.com)

#### Regional Offices

Sweden  
Tel: +46 (0)31 773 86 00

United States  
Tel: +1.949.279.6177

United Kingdom  
Tel: +44 (0)370 013 1600

#### Partner information:

For more information go to  
[www.cryptzone.com/partners](http://www.cryptzone.com/partners)