## Boston Scientific

**Customer profile**
Fortune 500 developer, manufacturer, and marketer of medical devices

**Industry**
Healthcare

**IT environment**
Complex IT infrastructure with dozens of assorted operating systems in use, and about 30,000 end nodes for Windows

**Challenge**
- Detect threats in its manufacturing environment without compromising performance
- Demonstrate regulatory compliance in accordance with FDA
- Scale previously-implemented hardware to run efficiently with newly-acquired technology

**McAfee solution**
- McAfee Application Control
- McAfee VirusScan
- McAfee Host Intrusion Prevention
- McAfee Global Threat Intelligence
- McAfee® ePolicy Orchestrator® (McAfee ePO™)
- McAfee Management for Optimized Virtual Environments (McAfee MOVE)

**Results**
- Protects legacy machines without compromising performance
- Easily documents and validates compliance with industry regulations and FDA mandates
- Eliminates two of three endpoint antivirus solutions for increased efficiency

# Boston Scientific Relies on Suite of McAfee Products to Secure Windows Systems and Protect Legacy Hardware

Fortune 500 company Boston Scientific is a worldwide developer, manufacturer, and marketer of medical devices with approximately 25,000 employees and revenue of $7.8 billion in 2010. For more than 30 years, Boston Scientific has advanced the practice of less invasive medicine by providing a broad yet deep portfolio of innovative products, technologies, and services across a wide range of medical specialties. The company's products help physicians and other medical professionals improve their patients' quality of life by providing alternatives to surgery.

## A Complex Security Ecosystem

Boston Scientific (BSC) has an incredibly complex IT infrastructure with dozens of assorted operating systems in use. There are approximately 30,000 end nodes for Microsoft Windows alone—about one-half to one-third of which are in the field with sales and support staff at any given time. The manufacturing side of the company must comply with very specific and very rigid processes mandated by the FDA and other regulations such as the Sarbanes-Oxley Act (SOX).

Meanwhile, in the sales area, the sales force often deals with sensitive data from end-customers—the patients who receive the product—which has its own set of regulations and processes to ensure privacy. These concerns are on top of the large contingency of accounting and normal IT processes that keep the company going. Managing these concerns to ensure compliance and protect multiple internal entities is a high priority for the IT department.

## Security for Legacy Machines

One of the most difficult challenges Boston Scientific faces is the security of its manufacturing lines. Though the manufacturing lines are cutting edge, some of the security hardware is not.

"There are logistical reasons for keeping around old hardware, most of which are related to compliance demands from the FDA," explains Rick Snyder, Boston Scientific endpoint security supervisor. "The old hardware, which includes some Windows NT and Windows 98 machines, must run on the network alongside newer, much more sophisticated technology, and that becomes a big challenge."

When the company initially tried to run McAfee® VirusScan® software on its manufacturing network, as it does in other areas of the organization, the organization suffered performance issues due to the older equipment. The dated hardware proved to be the weakest link in the infrastructure—it couldn't support the updated antivirus software. To any system this issue could be relatively minor if tuned correctly, but even this was far too much for Boston Scientific's outmoded hardware platforms to handle. Boston Scientific needed a way to detect threats in its manufacturing environment without compromising performance.

*"[McAfee] Application Control has a very light footprint on our system, yet because of its whitelisting properties, it provides extremely strong defenses against deviation from an original state."*

—Rick Snyder
Boston Scientific
Endpoint Security Supervisor

## Application Control to the Rescue

At that point, Boston Scientific began using McAfee Application Control in its manufacturing environment. McAfee Application Control helps Boston Scientific block unauthorized or unknown applications and code on its servers, corporate desktops, and fixed-function devices, while consistently allowing items that are known to be acceptable. McAfee Application Control guards against unauthorized applications and malware by using a dynamic whitelisting trust model. It easily protects Boston Scientific's unsupported legacy systems, such as Windows NT and 2000. McAfee Application Control uses negligible memory, works in disconnected and offline modes, and conducts no file scanning that could impact system performance.

"[McAfee] Application Control has a very light footprint on our system, yet because of its white-listing properties, it provides extremely strong defenses against deviation from an original state," Snyder declares. "We can provide a high degree of safety on our older platforms because we can lock in the state we want for our machines, and then rely on [McAfee] Application Control to detect any changes, which could present a threat."

## A Suite of Products Protects Windows End Nodes

Boston Scientific also relies on McAfee VirusScan and McAfee ePO software to protect its 30,000 Windows end nodes around the world. The company also uses McAfee Global Threat Intelligence™ (McAfee GTI™) technology, a comprehensive cloud-based threat intelligence service. Already integrated into McAfee security products, McAfee GTI works in real time, 24 hours a day, to protect Boston Scientific against cyberthreats across all vectors—file, web, message, and network.

"McAfee GTI has been very useful in giving us an overall view of the threat landscape," Snyder says. "We have it set to high sensitivity on our servers and medium on our nonserver endpoints. It is extremely reliable, and when it comes to addressing threats on a moment-to-moment basis, it gives us as much of a proactive stance as you can get in a definition-based process."

## The Power of McAfee ePO Software

All of the McAfee products Boston Scientific uses—along with some of its own homegrown applications—integrate with the McAfee ePO console for centralized reporting and management. McAfee ePO software is an accurate, scalable, easy-to-use platform that gives Boston Scientific a single view into its security environment and a central point of contact for overall management of its security infrastructure, including policy administration, software distribution, updates, control, and reporting.

"We knew from the beginning that McAfee ePO [software] was the most effective solution for managing the entire environment from a single point," Snyder affirms. "It's really a handy one-stop shop for pretty much everything we need to do. It provides the overview heartbeat status we need in real time, and it gives us background information so that we can do reporting, statistical analysis, trending, and all sorts of things."

## McAfee Streamlined Processes and Improved Compliance Tracking

McAfee Application Control and the resulting McAfee ePO software reports have made it much easier for Snyder and his team to document and validate compliance with FDA demands for Boston Scientific's production process. The organization can set strict rules that enable identification of system changes more easily and, from there, delineate the activity that caused the change.

Also, thanks to McAfee, Boston Scientific was able to go from using three separate endpoint antivirus solutions to just one—an efficiency that allowed the company to shift functional duties to one person rather than splitting them among three people. From that point, it made deploying and managing successive products and updates more accurate and completely streamlined, something Snyder credits to McAfee ePO software.

"The McAfee ePO server's canned reports are very illustrative and intuitive, but more importantly they serve as a great template for fine tuning or even building our own from scratch," Snyder states.

## On the Horizon

In the face of ever-present and ever-changing threats, Boston Scientific has been increasing efforts to secure its machines. As Boston Scientific looks forward, it knows future security improvements will only help the overall organization.

Now that McAfee Application Control has been tested in the manufacturing environment, Boston Scientific is considering rolling it out across its entire environment on both manufacturing and nonmanufacturing machines. Boston Scientific will run McAfee Application Control and McAfee VirusScan to get the full spectrum of protection. McAfee Application Control and McAfee VirusScan work in concert to ensure that nothing gets white-listed that should be blacklisted and vice versa, while McAfee Host Intrusion Prevention guards against zero-day attacks, keeps servers up and running, reduces patch requirements, and protects critical corporate assets.

Boston Scientific is also in the proof-of-concept stage with McAfee MOVE AntiVirus. McAfee MOVE AntiVirus optimizes security, flexibility, and management for virtual environments, increasing the options for companies investing in virtualization for data centers, applications, and desktops. "The McAfee MOVE AntiVirus solution provides an excellent resolution for the VDI architecture. All scanning is offloaded into a gateway virtual appliance within the hypervisor plane. Instead of each virtual endpoint requiring resources to scan its own activity, the appliance does the scanning as a proxy within the VM plane and individual VSE [McAfee VirusScan] clients can be removed," says Snyder. "This reclamation of resources that would have previously been allocated to the endpoints within the virtual pool gives you a net-sum gain of active endpoints that can be created."

## One Happy Customer

Overall, McAfee Platinum Support has been a critical factor in Boston Scientific's satisfaction with McAfee. Snyder maintains that he is especially happy with speedy and effective responses to global threats and Boston Scientific's infrequent issues. "There have been several times where a global virus outbreak hit, and we had extra .DAT solutions flowing out while colleagues and competitors were still waiting for their vendors to call back," Snyder concludes. "[McAfee] Platinum Support is well worth it—not just for the rapid response, but for the access to research information and personnel. The [McAfee] Platinum Support staff is dedicated and knowledgeable, and they work with you to a complete resolution."

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