

Commitment to Product Security

At B. Braun Medical, security is not just a marketing tactic; it is in our DNA. We are committed to providing products that support patient health and customer security. Within the larger topic of product security is the specific growing concern over cybersecurity for healthcare providers in today's ever-changing technological landscape.

Cybersecurity affects people, processes and technology. The B. Braun Product Cybersecurity Team is committed to engineering medical devices and software that are designed to ensure patient safety and protect your clinical data.

B. Braun has dedicated resources and the corporate commitment to drive product security throughout the product lifecycle.

Our Values

Our commitment to cybersecurity is backed by our values: collaboration, availability, confidentiality and proactive vulnerability management.

Collaboration

We engage with regulatory bodies worldwide to drive innovation by serving as active contributing members of the following:

- Association for the Advancement of Medical Instrumentation® (AAMI)
- Integrating the Healthcare Enterprise (IHE) Health Level 7 (HL7)
- CycloneDX
- Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA)
- Health Information Sharing and Analysis Center (H-ISAC)
- International Organization for Standardization (ISO)
- American National Standards Institute (ANSI)
- National Institute of Standards and Technology (NIST)

Our interactions with these entities help ensure interoperability with your technological ecosystem.

We also:

- Ensure that B. Braun devices can and will operate with your preferred EMR system with oversight by our experienced integration team
- Unite with industry-leading hospitals to assess the security of B. Braun devices in diverse operating environments
- Partner with customers to securely integrate long-term solutions

Availability

From a security standpoint, we focus on maintaining processes that help ensure devices are available when needed. Security controls are designed with clinical workflow in mind to limit interruption to your staff.

Confidentiality

Confidentiality is core to cybersecurity. B. Braun's team of product security experts works to protect private and personal health information from unauthorized users.

Proactive Vulnerability Management

B. Braun is proud to actively work with a variety of organizations to drive improvements in cybersecurity. This allows us to close out nearly 90% of security concerns and issues within 23 days (average of six days).¹ Over the past five years, the B. Braun Security team has conducted weekly product security assessments, through which over 3,800 potential security vulnerabilities were assessed and closed.¹



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potential vulnerabilities
assessed over 5 years¹

Development Lifecycle Management

B. Braun's development process is consistent with U.S. and world regulatory security frameworks. Through our effective use of people, process and technology, we sustain your investment in a changing market and regulatory environment.

Security elements of the B. Braun product lifecycle include:

- Proactive threat monitoring
- Design time third-party review
- Third-party/researcher/customer feedback
- Issue intake and disclosure
- Incident response
- Patching and updates for security

Security by Design

The Health Care Sector Joint Security Plan (JSP), a guide advising how to manage cybersecurity in healthcare organizations and healthcare manufacturing, drives our commitment to security-by-design in our products. We design and manufacture our products to be safe, secure and reliable for the patients and clinicians who depend on them. This includes:

- Product-level cybersecurity planning
- Threat Models to find security items
- Attack Tree Modeling to identify critical paths
- Third-party testing to verify defense in depth to reduce risk

Organizational Imperatives

Ensuring security is the responsibility of an effective organization with defined roles, responsibilities and accountability.

Our organizational structure supports all elements of product security both internally and externally. Our corporate Chief Information Security Officer (CISO) and Global Product Security Office provide oversight of B. Braun's IT infrastructure and our product security teams. Product security is integrated across the product lines by product security team experts.

Security discipline is an organizational imperative enhanced by common goals and strong team relationships inside B. Braun. We ensure the security of our products through effective cross-functional team relationships.



1. B. Braun Data on File.