

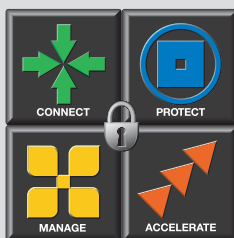
The Seven Key Factors for Internet Security TCO

Executive Summary

Total Cost of Ownership, or TCO, of any information technology deployment consists of more than simply the direct costs of acquisition and maintenance. Any model that depicts true TCO will incorporate these factors as well as a range of less easily quantified, but ultimately more important factors. In fact, the generally accepted notion is that these less tangible costs actually account for the lion's share of TCO. However, many attempts to quantify TCO for Internet security deployments leave out some of the most significant contributors to TCO.

For example, advanced flexibility to add new protection capabilities is a fundamental requirement for Internet security. The potential cost of a lack of flexibility can show up either as a need for a "forklift" upgrade of an inflexible solution or, worse, as a security breach due to a lack of protection for a newly discovered exploit. As such, a consideration of TCO that ignores flexibility (and thus security) will provide skewed results.

This white paper defines the significant contributing factors to TCO for Internet security deployments and addresses how Check Point Software Technologies provides industry-leading capabilities across these areas.





TCO Considerations	Check Point Advantage
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7: Initial Hardware and Software Acquisition

When considering acquisition costs, buyers should consider two key elements:

- 1) the cost of acquiring hardware and software today, and
- 2) the longer-term cost of a growing deployment.

In third-party testing that measured real-world price/performance, Check Point solutions outperformed competing enterprise-class solutions by as much as a factor of five.

The primary metric that expresses initial acquisition cost is price vs. performance, or the amount of investment required to meet the requirements.

6: Ongoing Hardware and Software Acquisition

Proprietary, hardware-only approaches to security must be frequently upgraded in whole (both hardware and software) in order to take advantage of new security features. For hardware-based security product users, this typically means making a choice between updated security enforcement capabilities and a reasonable upgrade cycle.

Over time, Check Point's software subscription licensing model and open approach to hardware integration provide significant advantages over competing hardware-bound solutions.

5: Vendor Support and Capability

This factor includes both costs associated with keeping hardware and software licensing and support contracts up to date, as well as the indirect cost/benefit of vendor experience and capability in providing quality security solutions.

Check Point's long-time leadership of the firewall and VPN market has resulted in unique advantages available to our customer base. The result is that Check Point software subscription provides access to a more sophisticated, higher-quality security product than competing offerings.

4: New Administrator Learning Curve

Even if the initial set of administrators has a strong working knowledge of a given product, as turnover and growth take their toll on organizational knowledge, the ability to find and/or train new administrators becomes a real concern.

Check Point's intuitive, graphical interface allows new administrators to become productive more quickly than other solutions that rely on legacy command-line interfaces.

3: Security Integration

The costs associated with security integration can range from internal effort, to external (consulting or system integration) projects, to the opportunity cost of being unable to integrate a needed security function.

Check Point's Open Platform for Security (OPSEC™) provides a uniquely broad range of integration interfaces to address each of the key areas of a complete Internet security architecture. With OPSEC, Check Point allows our customers to have the best choice of integrated security solutions.

2: Management Effort (Initial and Ongoing)

The amount of administrator effort needed to initially install and configure systems as well as maintain the deployment over time. The main indicator of the management effort associated with security deployments is the quality and capability of the management component of the solution.

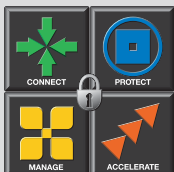
Check Point is routinely acknowledged as having the strongest management capabilities in the firewall/VPN space, and the innovative user interface first introduced with FireWall-1® in 1994 is still widely imitated but never equalled.

1: Security

At heart, the primary function of a firewall is security, and the primary function of a VPN is secure connectivity. The cost of inadequate security is very difficult to quantify beforehand, but the effects of a security breach will often be felt for months or years afterward.

Check Point's software-based approach to security and outstanding track record for providing the highest quality security products on the market provide a significant advantage to our customers in the most important area of a security deployment: SECURITY.

Bottom Line: Check Point Software Technologies provides the industry's lowest TCO for Internet Security.



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7: Initial Hardware and Software Acquisition

Hardware and software acquisition costs are the most easily quantified aspect of TCO for information technology deployments. However, when considering acquisition costs, buyers should consider two key elements:

- 1) the cost of acquiring hardware and software today, and
- 2) the longer-term expected cost of acquiring technology to meet the needs of a growing deployment or upgrading the capacity of the solution.

The primary metric that expresses initial acquisition cost is price vs. performance, or the amount of investment required to meet the requirements. This assumes functional parity between competing solutions, which often is not the case, especially for security deployments. It is often the case that different vendors' solutions will provide significantly different security capability over time. See item #1, Security, for a consideration of this element.

The Check Point Advantage

Check Point provides our customers the best price versus performance capability in the industry. As an example, tests conducted by The Tolly Group support Check Point's position as the VPN and firewall price/performance leader. In these tests, Check Point solutions outperformed other competing enterprise-class solutions in real-world environments by as much as a factor of five. The complete test results and analysis can be found at <http://www.checkpoint.com/products/connect/tollyreport.html>.

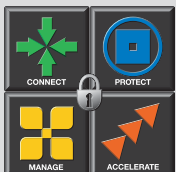
Check Point TCO Enablers

The Check Point Eco-System

By leveraging standard components and systems used in multiple markets, open security solutions offer the best price/performance. Host processors, co-processors, network interfaces, high-speed buses, operating systems and complete system assemblies developed for the PC, server and networking markets can all be applied to open security applications. The vast volumes and intense competition intrinsic to these markets reduce prices while huge R&D investments maximize performance.

SecureXL Technology

SecureXL™ is a framework of interfaces, software modules and industry standards that enables Check Point partners and customers to build cost-effective solutions to meet the most demanding performance requirements. The SecureXL framework, together with Check Point's commitment to open systems, delivers industry-leading performance at the lowest possible cost. For example, customers looking for the highest firewall performance on an open platform can leverage Check Point's software-based SecureXL implementation, Performance Pack, on SecurePlatform, while customers requiring extremely high (2.5+ gbps) VPN performance with thousands of VPN tunnels can utilize Check Point's SecureXL Turbocard hardware based solution to meet the performance need. This level of performance, scalability and flexibility is only available in an open systems architecture, like Check Point's SecureXL.



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6: Ongoing Hardware and Software Acquisition

The ongoing cost of hardware and software acquisition related to upgrading and growing a deployment.

When an organization deploys an information technology system, the expectation is for that system to scale and grow with the needs of the organization over time. The same holds true for firewall and VPN deployments. An organization's solution will need to grow as the organization adds users, connects with more partners or customers, and generally begins to make more use of information systems as a critical part of its business process.

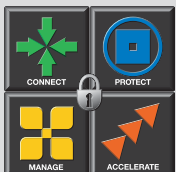
Unfortunately, scalability isn't the only reason that customers of some vendors must purchase new hardware. Proprietary, hardware-only approaches to security must be frequently upgraded in whole (both hardware and software) in order to take advantage of new security features. For hardware-based security product users, this typically means making a choice between updated security enforcement capabilities and a reasonable upgrade cycle.

The Check Point Advantage

Over time, Check Point's software subscription licensing model and open approach to hardware integration provide significant advantages over competing hardware-bound solutions.

Check Point's software subscription licensing model allows our customers the flexibility to increase performance and maintain cutting edge security without a dependence on a specific hardware platform. Because the security functionality of Check Point solutions resides in software, customers can upgrade hardware capability at any time without impacting their software license costs. This means that customers who purchased the first available version of FireWall-1 in 1994 and remained current on software subscription are entitled to the full range of new security capability available in Check Point NG with Application Intelligence™ as well as the full performance capability of 2003 hardware, whether an open server or one of Check Point's OPSEC-certified appliance platforms.

Check Point's open approach to hardware development allows our customers to benefit from the combined research effort of multiple different hardware developers, and to benefit from competition in that market. By leveraging standard components and systems used in multiple markets, open security solutions offer the best price/performance. Host processors, coprocessors, network interfaces, high-speed buses, operating systems and complete system assemblies developed for the PC, server and networking markets can all be applied to open security applications. The vast volumes and intense competition of these markets reduce prices while huge R&D investments maximize performance.



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Proprietary systems, on the other hand, rely on the relatively limited volumes and R&D resources of a single vendor competing in a single market space. Silicon Graphics is an example of a company that has chosen a proprietary strategy. Their special purpose systems initially had performance advantages for certain applications, but over time the R&D resources of standards-based solutions left Silicon Graphics behind. Any technology company with a proprietary strategy will find it very difficult to compete with the scale of an open alternative.

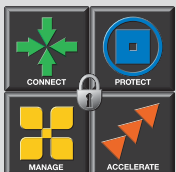
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5: Vendor Support and Capability

This factor includes both costs associated with keeping hardware and software licensing and support contracts up to date, as well as the indirect cost/benefit of vendor experience and capability in providing quality security solutions.

The Check Point Advantage

Check Point's long-time leadership of the firewall and VPN market has resulted in unique advantages available to our customer base. Almost all of the world's largest enterprises use Check Point solutions to secure their networks¹. As a result, Check Point has the unique opportunity of working in the largest and most rigorous environments to solve deployment, scale, and security issues. The result is that Check Point software subscription provides access to a more sophisticated, higher-quality security product than competing offerings, and Check Point support can apply the "lessons learned" from cutting edge, sophisticated environments to the entire Check Point customer base.

Check Point TCO Enablers

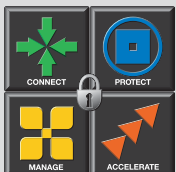
SecureKnowledge

SecureKnowledgeSM is a self-service database of technical information to help Check Point customers diagnose and solve installation and configuration issues with Check Point products.

Depth of Market Support

With over 2,500 partners in 86 countries, Check Point's support and distribution channel is the largest security-focused channel in the industry.

¹Check Point secures 97 of the Fortune 100 companies.



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4: New Administrator Learning Curve

The training and effort required for an administrator with little or no knowledge of the product to “come up to speed” on its use.

Even if the initial set of administrators has a strong working knowledge of a given product, as turnover and growth take their toll on organizational knowledge, the ability to find and/or train new administrators becomes a real concern.

The Check Point Advantage

Again, Check Point’s traditional leadership in firewall and VPN management quality and capability helps make it easier for new administrators to learn Check Point products. The intuitive, graphical interface allows new administrators to become productive more quickly than other solutions that rely on legacy command-line interfaces.

In addition, with over 20,000+ Check Point Certified Professionals, finding qualified personnel for managing Check Point deployments can be significantly easier than for competing solutions with smaller installed bases and immature certification programs.

Check Point TCO Enablers

Check Point Certified Professional Program

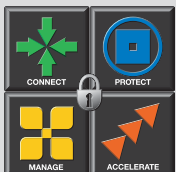
The Check Point Certified Professional Program provides students with the necessary skills to maximize their company's investment in Check Point based network security solutions. This program is based on comprehensive courses that offer students hands-on experience with Check Point products.

SMART (Security Management Architecture)

The SMART architecture enables a rich set of sophisticated management capabilities in Check Point solutions. Starting with core components such as an Integrated Digital Certificate Authority and advanced state table synchronization capabilities, SMART technologies allow Check Point to offer management tools to meet the needs of all organizations, from small businesses to larger distributed enterprises to global service providers.

One-Click Technologies

Check Point's One-Click technologies make it simple to deploy and manage VPNs. Multi-step VPN set-up and management processes are condensed into a single step, making it quick and easy to deploy remote access, intranet and extranet VPNs.



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3: Security Integration

The level of effort needed to create and maintain a broader security deployment that includes security applications, which are complementary to VPN and firewall functions.

The costs associated with security integration can range from internal effort, to external (consulting or system integration) projects, to the opportunity cost of being unable to integrate a needed security function.

As new threats arise and as business objectives change, most organizations find it necessary to extend existing security deployments with new products or technologies. Extensibility and integration with third party solutions, therefore, are important attributes of any security device. Proprietary systems typically offer limited extensibility or lock users into single vendor security strategies. Open systems, on the other hand, are based on standard interfaces ensuring that organizations are able to extend their security deployments with integrated solutions from multiple vendors.

The Check Point Advantage

Check Point's OPSEC provides a uniquely broad range of integration interfaces to address each of the key areas of a complete Internet security architecture. Using best-of-breed OPSEC solutions means choosing the best solutions on the market and benefiting from the innovations and expertise of the vendors that specialize in the functionality users need. OPSEC products cover a range of four broad categories: Security Enforcement, Management and Reporting, Performance and High Availability, and eBusiness. With OPSEC, Check Point allows our customers to have the best choice of integrated security solutions.

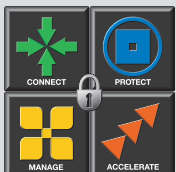
Check Point TCO Enablers

OPSEC Certification

With OPSEC-certified products, integration is not a promise it's a guarantee. Before being labeled "OPSEC-certified" or "Secured by Check Point," OPSEC products must pass rigorous lab tests to insure conformance with OPSEC integration standards and true value added to the Check Point Secure Virtual Network (SVN) architecture. Check Point verifies interoperability so that users can deploy OPSEC-certified products with total confidence in their integration and value provided.

OPSEC SDK

The OPSEC Software Development Kit (SDK) allows third party applications to integrate into Check Point's security solutions. The SDK is a collection of APIs (Application Programming Interfaces) that hide the intricacies of the underlying protocols and networking from the application developers. The OPSEC application can use one or more APIs depending on the functionality and requirements of the product.



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2: Management Effort (Initial and Ongoing)

The amount of administrator effort needed to initially install and configure systems as well as maintain the deployment over time.

Many TCO considerations separate initial and ongoing effort into separate categories. However, the underlying enablers of lower TCO are the same for both. For example, centralized management capability that does not require command-line interaction on a device-by-device basis can save hours of administrator time, whether that administrator is configuring an initial deployment or making a change to the configuration of an existing deployment.

The main indicator of the management effort associated with security deployments is the quality and capability of the management component of the solution.

The Check Point Advantage

Check Point is routinely acknowledged as having the strongest management capabilities in the firewall/VPN space. The innovative user interface first introduced with FireWall-1 in 1994 is still widely imitated but never equalled.

Starting with the intuitive, easy-to-user interface of SmartCenter™ and scaling to the powerful multi-domain management of Provider-1® that remains unmatched in the industry, Check Point's ease-of-management significantly reduces the time and effort needed to manage a firewall/VPN deployment and minimizes the training time required for new administrators to become fluent with the solution.

Check Point TCO Enablers

SMART (Security Management Architecture)

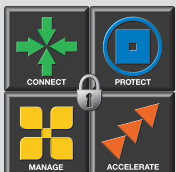
The SMART architecture enables a rich set of sophisticated management capabilities in Check Point solutions. Starting with core components such as an Integrated Digital Certificate Authority and advanced state table synchronization capabilities, SMART technologies allow Check Point to offer management tools to meet the needs of all organizations, from small businesses to larger distributed enterprises to global service providers.

SmartUpdate™

SmartUpdate enables remote distribution of software applications and updates for Check Point and OPSEC-certified products and remote management of product licenses. It provides a centralized means to guarantee that Internet security throughout the enterprise network is always up to date.

One-Click Technologies

Check Point's One-Click technologies make it simple to deploy and manage VPNs. Multi-step VPN set-up and management processes are condensed into a single step, making it quick and easy to deploy remote access, intranet and extranet VPNs.



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1: Security

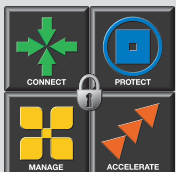
Inadequate security can result in system downtime across the enterprise or loss of customers due to a public security breach. Ironically, one of the main things that buyers overlook when considering the total cost of a firewall/VPN solution is the underlying security of the solution. At heart, the primary function of a firewall is security, and the primary function of a VPN is secure connectivity.

New attacks preying on application and protocol vulnerabilities emerge every day. Security products must be agile enough to adapt and combat these threats, not in a matter of weeks, but in minutes. When a new threat is identified, defenses need to be immediately developed and distributed to devices and users around the world. This need for fast response implies a need for a software-based approach such as that offered by Check Point. The requirement for security implies a critical need for flexibility in a security system.

The Check Point Advantage

Check Point's software-based approach to security and outstanding track record for providing the highest quality security products on the market provide a significant advantage to our customers in the most important area of a security deployment: SECURITY.

Check Point's solutions utilize special purpose hardware for certain static functions (like cryptographic acceleration) but all adaptive protection mechanisms are software-based. FireWall-1 with SmartDefense™ can defend against new threats as soon as they are identified. Check Point's unique, software based approach means all that is required is an update to the software, so the underlying hardware components can be left alone. There is no need to wait an entire hardware development cycle, and no need to repurchase the entire solution for a single new security feature.



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The industry's most widely deployed virus scanners, firewalls, and IDS solutions are all open systems that take this continuously updated approach to security. Hardware-bound systems, conversely, often rely on proprietary ASICs and a custom operating system for core security processes. If a new attack requires a change to an ASIC function, new ASICs cannot possibly be distributed to users in time to adequately defend a network. For this reason, it is important to understand the extent to which ASICs plays a role in core security processes. Malicious URLs (like Code Red) represent just one category of emergent attacks that cannot be handled by ASICs. When critical security updates are required, customers of ASIC-bound solutions are penalized in two ways: first, they must wait for a new ASIC to be developed and released, and second when the new hardware is available, they typically have to re-purchase the entire solution, both hardware and software.

Check Point TCO Enablers

Application Intelligence

Application Intelligence is a set of advanced capabilities, integrated into Check Point FireWall-1 NG and SmartDefense, which detect and prevent application-level attacks. Application Intelligence redefines the network security landscape by evolving FireWall-1 into the only security gateway solution that integrates both network and application-level capabilities to deliver comprehensive attack protection and network security.

SmartDefense

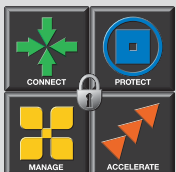
SmartDefense enables customers to configure, enforce and update all network and application attack defenses. It is included with FireWall-1 and actively protects organizations from all known and unknown network and application level attacks.

SmartDefense Active Update Service

The SmartDefense Active Update Service is a subscription service delivered by Check Point to ensure that the latest information on new and emerging attacks is available to SmartDefense users. These online updates expand the capabilities of SmartDefense, delivering a level of response and flexibility that ASIC-based firewalls are not designed to provide.

Stateful Inspection

Stateful Inspection, invented and patented by Check Point, is the de facto standard in network security technology. Stateful Inspection provides accurate and highly efficient traffic inspection with full application-layer awareness for the highest level of security. Customers experience higher performance, scalability, and the ability to support new and custom applications much more quickly than with older architectures.





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About Check Point Software Technologies

Check Point Software Technologies is the worldwide leader in securing the Internet. It is the confirmed market leader of both the worldwide VPN and firewall markets. The company's Secure Virtual Network (SVN) architecture provides the VPN and security infrastructure that uniquely enables secure and reliable Internet communications. SVN solutions, as delivered in the company's Next Generation product family, secure business communications and resources for corporate networks, remote employees, branch offices and partner extranets. Extending the power of SVN is Check Point's Open Platform for Security (OPSEC), the industry's framework and alliance for integration and interoperability with "best-of-breed" solutions from over 325 leading companies. Check Point solutions are sold, integrated and serviced by a network of 2,500 certified partners in 149 countries. For more information, please call us at (800) 429-4391 or (650) 628-2000 or visit us on the Web at <http://www.checkpoint.com> or at <http://www.opsec.com>.

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