MARKET ANALYSIS

Worldwide Security and Vulnerability Management 2013–2017 Forecast and 2012 Vendor Shares

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IDC OPINION

Economic growth and uncertainty have made for a difficult business environment for companies of all sizes and locales. What hasn't been slowing is the cyberthreats companies have been facing every day. As a result, the security and vulnerability management (SVM) market hasn't been experiencing a downturn. Enterprises and organizations continued to deploy technologies to improve their management of security operations. In response to sophisticated threats and privacy requirements, organizations turn to security and vulnerability management solutions to provide threat intelligence, security policy consistency, and risk management. The SVM market provides a window into an organization's risk posture and allows for that risk position to be monitored and improved. Security and vulnerability management market revenue grew at a rate of 9.4% in 2012. This was down from a strong 13.9% rate from 2011. Revenue in the SVM market was $4.2 billion in 2012 compared with $3.8 billion in 2011. IDC believes the SVM market will remain on a positive growth trajectory in 2013, with revenue anticipated to be $4.6 billion, which is a 9.8% increase. By the end of the forecast period (2017), the market should exceed revenue of $6.4 billion with a steadily strong annual growth rate, resulting in a compound annual growth rate (CAGR) of 9.1%. Highlights are:

- The public disclosure of security breaches and data loss incidents results in ever-increasing usage of products that can create and enforce security policy and provide information required by auditors. It also requires that products that aggregate data and event management have the ability to identify and remediate internal threats based on user privileges.
- Security consists of products, people, and policy. SVM vendors are able to provide many policy solutions that are used to supplement and validate other security defenses. SVM products can be considered the "brains" of an organization's security efforts.
- The SVM market is diverse. The top 10 vendors only command 44.5% of the overall market, with still only one vendor with a market share greater than 10%. Mergers and acquisitions (M&As) are slowly resulting in consolidation of the market; however, with multiple components, it will be difficult for a few vendors to dominate the market.
- SVM products will continue to benefit from increasing threats from organized attackers. SVM solutions help organizations identify weaknesses (vulnerabilities and policies), gain a full picture of what is going on (security intelligence and event management [SIEM] and forensics), and provide visibility of those issues to the executive team.

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Security Products: Market Analysis

TABLE OF CONTENTS

P

LIST OF TABLES

LIST OF FIGURES

P

IN THIS STUDY

This IDC study examines the security and vulnerability management market for the 2012–2017 period, with vendor revenue trends and market growth forecasts. Worldwide market sizes and vendor revenue and market shares of the leading vendors are provided for 2012, and a five-year growth forecast for this market is shown for 2013–2017. This study concludes with market trends and IDC's guidance for future success.

Methodology

See the Methodology in the Learn More section for a description of the forecasting and analysis methodology employed in this study.

In addition, please note the following:

- This forecast sizes the market for specialized threat analysis and prevention products.
- For more information on IDC's definitions and methodology, see *IDC's Worldwide Security Products Taxonomy, 2012* (IDC #235288, June 2012) or *IDC's Software Taxonomy, 2013* (IDC #241527, June 2013).
- Research for this document was conducted in early 2013. Some information contained in this study was derived from IDC's Worldwide Security Appliance Tracker as of June 20, 2013, and IDC's Software Market Forecaster database as of May 2, 2013.
- The data presented in this study represents IDC's best estimates based on a variety of data sources and does not necessarily include direct feedback from the vendors mentioned.
- All numbers in this document may not be exact due to rounding.

Security and Vulnerability Management Market Definitions

The security and vulnerability management market encompasses two separate but symbiotic markets — security management and vulnerability assessment. These two markets can stand alone, but they have considerable overlap. There are seven subcategories divided between security management and vulnerability assessment. The markets and submarkets are defined as follows:

- **Security management products.** Security management products consist of products that provide organizations with the ability to create security policy that drives other security initiatives, allows for measurement and reporting of the security posture and, ultimately, provides methods for correcting security shortcomings. The security management market is divided into the following components:

- □ **Proactive endpoint risk management (PERM) solutions.** PERM solutions automate or semiautomate the *enforcement* of security policy and configuration management on endpoints. Proactive enforcement includes the setting, monitoring, and updating of system configuration settings and the installation of security patches. PERM can be done with or without agents. It also can internally discover systems to find network devices, identify system configuration, and determine patch status. A key feature of this category is the ability to *enforce* endpoint security policies, which include security configurations, patch levels, device controls, and application usage.

- □ **Forensics and incident investigation solutions.** Forensics and incident investigation solutions capture and store real-time network and device data and identify how business assets are affected by network exploits, internal data theft, and security or HR policy violations. Products in this category also include those that can do historical recreations to find how an event occurred. The submarket is expanding to include malware forensics tools, used by researchers to deconstruct targeted and stealthy malware. Finally, this category also includes products that can be used by law enforcement to gather evidence associated with criminal activity.

- □ **Policy and compliance solutions.** Policy and compliance solutions allow organizations to create, measure, and report on security policy and regulatory compliance. This information is used to establish corporatewide policies, distribute them, and provide audit information for compliance measurement. Policy and compliance products do not directly enforce the security policies; that function is handled by PERM products. Products in this category are used to *establish* and *report* on enterprise security policy.

- □ **Security intelligence and event management (SIEM) solutions.** SIEM solutions include products designed to aggregate data from multiple sources to identify patterns of events that might signify attacks, intrusions, misuse, or failure. Event correlation simplifies and speeds the monitoring of network events by consolidating alerts and error logs into a short, easy-to-understand package. Many products in this category also consolidate and store the log data, which is processed by the SIEM. This market also includes activities that collect and disseminate threat intelligence, provide early warning threat services, and can provide information on countermeasures. Data from SIEM is provided to policy and compliance solutions for consistent reporting.

- □ **Security device systems management (SDSM) products.** SDSM products are primarily systems management products that monitor and report on the status of perimeter security products (e.g., firewalls, intrusion detection and prevention, and Web security). It can be used to manage device policy and monitor the health of security systems.

- **Vulnerability assessment (VA) products.** These are batch-level products that scan servers, workstations, other devices, and applications to uncover security vulnerabilities in the form of known security holes (vulnerabilities) or are configuration settings that can be exploited. These scans provide a view of the threat status of the device or an application. More sophisticated VA products can test for unknown vulnerabilities by mimicking common attack profiles to see if a device or an application can be penetrated. The use of penetration testing is an advanced capability that allows you to safely exploit vulnerabilities by replicating the kinds of access an intruder could achieve and providing actual paths of attacks that must be eliminated. Penetration testing, when used in conjunction with vulnerability scanning, reduces the number of false positives. Vulnerability assessment products are additionally segmented as defined here:

- ❑ **Device vulnerability assessment products.** Device vulnerability assessment products use either network- or host-based scanners to look into a device to determine the security vulnerabilities. These scanners search out and discover devices and try to find known vulnerabilities on target systems. They can have credentialed access (using usernames and passwords) into devices or provide an uncredentialed (hacker's view) look at a device. Credentialed scanners can do a deep dive into the device to find known vulnerabilities, while the hacker view will simulate attacks to see if a device can actually be exploited. Device VA scanners generally operate anonymously.

- ❑ **Application scanners.** Application scanners are products specifically designed to test the robustness of an application or software to resist attacks — both specific attacks and attacks based on hacking techniques. Application scanners avoid doing general vulnerability checks, such as port scans, or patch checks to concentrate on vulnerabilities associated with direct interaction with applications. Specifications for application scanners include databases and Web software. The application scanner market could be segmented into products that look at deployed applications (dynamic testing) and products that review source code (static testing).

SITUATION OVERVIEW

Security and Vulnerability Management Market in 2012

Products that fall within the security and vulnerability management market remain in high demand. The SVM market covers a wide area of solutions that are designed to provide the brains of the security organization. Organizations look for solutions to proactively mitigate risk, create and audit security policy, consolidate risk management information and, ultimately, provide some security peace of mind. As a result, the market had a 9.4% growth rate in 2012 compared with 2011's results. The total market in 2012 was $4.2 billion. With 40 named vendors, even following all of the merger and acquisition activity, the SVM market is large and competitive. Unlike some other security markets that are dominated by a handful of vendors, only one vendor exceeds 10% in market share. It takes 13 different vendors to accumulate 50% of the total market. This is up 1 vendor from what was required in 2011 to reach the same level.

To illustrate the complexity and competitiveness of this market, Table 1 provides a collection of select vendors and their products as they fit into the market subcategories. Please understand this is a representative list and does not include every product a vendor has that falls within the SVM market.

TABLE 1

Representative SVM Vendor Products for Select Vendors

Company	Proactive Endpoint Risk Management	Forensics and Incident Investigation	Policy and Compliance	Security Intelligence and Event Management	Security Device Systems Management	Vulnerability Assessment
EMC		RSA Security Analytics	RSA Archer eGRC Suite	RSA Security Analytics		
Enterasys Networks Inc.			NetSight	Security Information and Event Manager	Data Center Manager	
Guidance Software	EnCase Cybersecurity	EnCase Forensic	EnCase Enterprise			
HP			Compliance Insight Packages	ArcSight ESM; ArcSight Logger		Fortify Real-Time Analyzer; Fortify Static Code Analyzer
IBM	Tivoli Endpoint Manager for Security and Compliance		Tivoli Security Compliance Manager; Tivoli Security Policy Manager; Guardium Database Activity Monitor	QRadar		Rational AppScan; zSecure Audit; Guardium Database Vulnerability Assessment
Lumension Security Inc.	Lumension Endpoint Management and Security Suite		Lumension Compliance and IT Risk Management			Lumension Scan
McAfee	McAfee Total Protection for Compliance		Policy Auditor; ePolicy Orchestrator	McAfee Enterprise Security Manager; Risk Advisor		Vulnerability Manager; Vulnerability Assessment SaaS
Microsoft	Windows Server Update Services		System Center 2012 Configuration Manager			Baseline Security Analyzer; SCCM Vulnerability Assessment Configuration Pack

TABLE 1

Representative SVM Vendor Products for Select Vendors

Company	Proactive Endpoint Risk Management	Forensics and Incident Investigation	Policy and Compliance	Security Intelligence and Event Management	Security Device Systems Management	Vulnerability Assessment
NetIQ	Change Guardian		NetIQ Secure Configuration Manager	NetIQ Security Manager; Sentinel		
Qualys			QualysGuard Policy Compliance			QualysGuard VM; QualysGuard Web Application Scanning
Rapid7						Nexpose; Metasploit
Symantec			Symantec Protection Center; Control Compliance Suite	Security Information Manager; DeepSight Early Warning		Risk Automation Suite
Tripwire Inc.	Tripwire Enterprise Remediation Manager		Tripwire Enterprise's Policy Manager	Tripwire Log Center		

Source: IDC, 2013

Performance of Leading Vendors in 2012

The leading vendors for 2012 are pulled from both the security management and the vulnerability assessment ranks. Table 2 provides worldwide SVM revenue and market shares. Top vendors include:

- **IBM** is the leader of the market, with market revenue of $477.8 million. IBM's revenue grew 12.6% in 2012 compared with 2011 revenue, capturing an 11.4% share of this market.
- **HP** remained in the second position, with revenue of $393.3 million for 2012 and a growth rate of 9.1% when all of its 2012 revenue sources are combined.
- **EMC** on its expanded Security Analytics platform moved into the third position, with revenue of $216.6 million and a market share of 5.2% in 2012.

- **Symantec** is in the fourth position, with a market share of 3.1% on revenue of 129.4 million in 2012.

- **McAfee,** an Intel company, moved into the fifth spot, with revenue of $127 million. The company's growth rate of over 50% benefited from accounting elements from the Intel acquisition.

Table 3 displays 2012 worldwide revenue and market shares for the leading security management vendors.

Figures 1–5 display 2012 market shares for leading security intelligence and event management vendors, proactive endpoint risk management vendors, forensics and incident investigation vendors, policy and compliance vendors, and security device systems management vendors, respectively.

Table 4 displays 2012 worldwide revenue and market shares for the leading vulnerability assessment vendors.

Figures 6 and 7 display 2012 market shares for the top 5 device vulnerability assessment vendors and application vulnerability assessment vendors, respectively.

TABLE 2

Worldwide Security and Vulnerability Management Revenue by Vendor, 2011 and 2012 ($M)

	2011	2012	2012 Share (%)	2011–2012 Growth (%)
IBM	424.4	477.8	11.4	12.6
HP	360.6	393.3	9.4	9.1
EMC	175.7	216.6	5.2	23.3
Symantec	122.3	129.4	3.1	5.8
McAfee (an Intel company)	82.6	127.0	3.0	53.8
NetIQ (an Attachmate company)	158.4	120.6	2.9	-23.9
Guidance Software	93.3	112.9	2.7	21.0
Microsoft	95.8	97.4	2.3	1.7
Tripwire Inc.	83.1	97.2	2.3	17.0
Qualys	76.0	91.4	2.2	20.3
Enterasys Networks Inc.	88.6	85.7	2.0	-3.3
Lumension Security Inc.	72.9	83.1	2.0	14.0
Fujitsu	78.9	80.9	1.9	2.5
NIKSUN	49.8	52.3	1.2	5.0
Trustwave	41.4	51.9	1.2	25.4
Rapid7	32.0	49.7	1.2	55.3
AccessData	35.0	45.0	1.1	28.6
Tenable	40.1	44.8	1.1	11.7
LANDesk Software	39.8	43.4	1.0	9.0
nCircle (acquired by Tripwire Inc.)	33.8	40.4	1.0	19.5
Splunk	22.2	38.7	0.9	74.3
Cenzic	32.5	37.3	0.9	14.8
Solera Networks (acquired by Blue Coat Systems)	28.0	35.0	0.8	25.0

TABLE 2

Worldwide Security and Vulnerability Management Revenue by Vendor, 2011 and 2012 ($M)

	2011	2012	2012 Share (%)	2011–2012 Growth (%)
Hitachi	34.4	34.9	0.8	1.5
Cisco	29.3	33.9	0.8	15.7
Application Security Inc.	35.0	31.5	0.8	-10.0
Positive Technologies	16.5	30.0	0.7	81.8
Veracode	20.0	29.0	0.7	45.0
CA Technologies	29.9	28.5	0.7	-4.7
Core Security	25.9	28.5	0.7	10.0
BeyondTrust	22.0	26.4	0.6	20.5
Imperva	20.6	24.9	0.6	20.9
Kaseya	20.5	22.3	0.5	8.8
Secunia	14.0	21.6	0.5	54.3
NEC	18.6	18.9	0.5	1.6
WhiteHat	11.0	17.5	0.4	59.1
VMware	14.8	17.5	0.4	18.2
VeriSign Inc.	14.2	15.4	0.4	8.5
IGLOO SECURITY INC.	9.8	12.5	0.3	27.6
Dell	8.2	8.5	0.2	3.7
NSFOCUS	7.4	8.4	0.2	13.5
iViZ Security	1.2	3.0	0.1	161.7
Subtotal	2,620.4	2,965.1	70.7	13.2
Other	1,212.3	1,226.4	29.3	1.2
Total	3,832.6	4,191.5	100.0	9.4

Source: IDC, 2013

TABLE 3

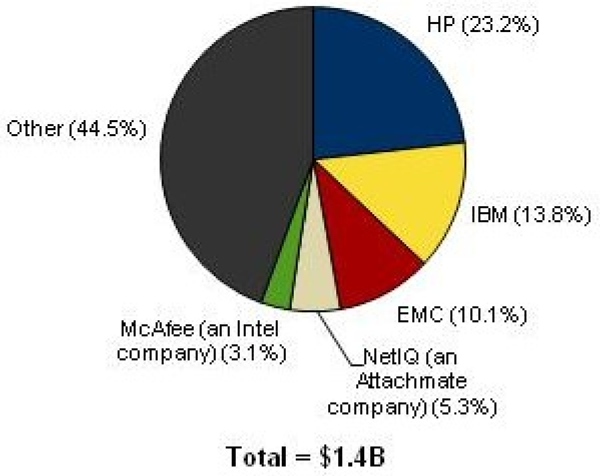
Worldwide Security Management Revenue by Vendor, 2012

	Revenue ($M)	Share (%)
IBM	375.7	11.5
HP	332.9	10.2
EMC	216.6	6.6
NetIQ (an Attachmate company)	118.8	3.6
Symantec	118.1	3.6
Guidance Software	112.9	3.4
Tripwire Inc.	97.2	3.0
Microsoft	86.6	2.6
Enterasys Networks Inc.	85.7	2.6
McAfee (an Intel company)	71.9	2.2
Fujitsu	65.4	2.0
Lumension Security Inc.	64.2	2.0
NIKSUN	52.3	1.6
AccessData	45.0	1.4
LANDesk Software	43.4	1.3
Subtotal	1,886.7	57.6
Other	1,389.2	42.4
Total	3,275.9	100.0

Source: IDC, 2013

FIGURE 1

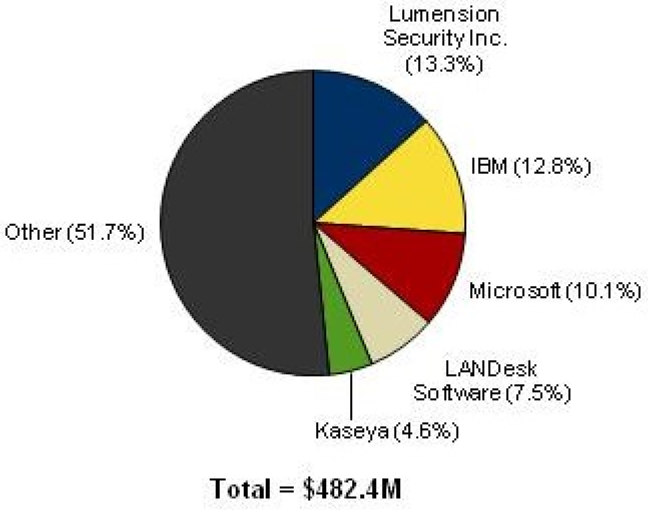
Worldwide Security Intelligence and Event Management Revenue Share by Vendor, 2012



Source: IDC, 2013

FIGURE 2

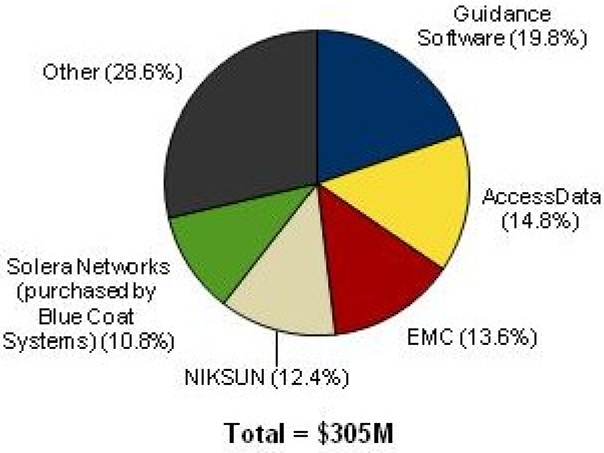
Worldwide Proactive Endpoint Risk Management Revenue Share by Vendor, 2012



Source: IDC, 2013

FIGURE 3

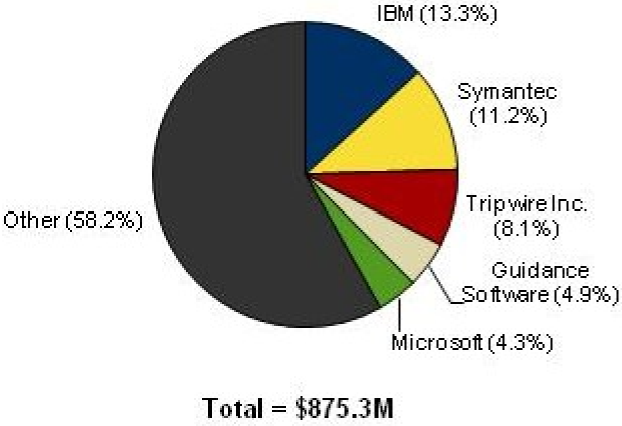
Worldwide Forensics and Incident Investigation Revenue Share by Vendor, 2012



Source: IDC, 2013

FIGURE 4

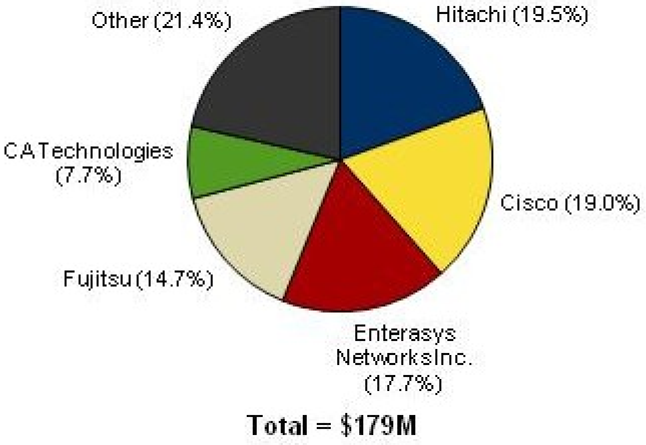
Worldwide Policy and Compliance Revenue Share by Vendor, 2012



Source: IDC, 2013

FIGURE 5

Worldwide Security Device Systems Management Revenue Share by Vendor, 2012



Source: IDC, 2013

TABLE 4

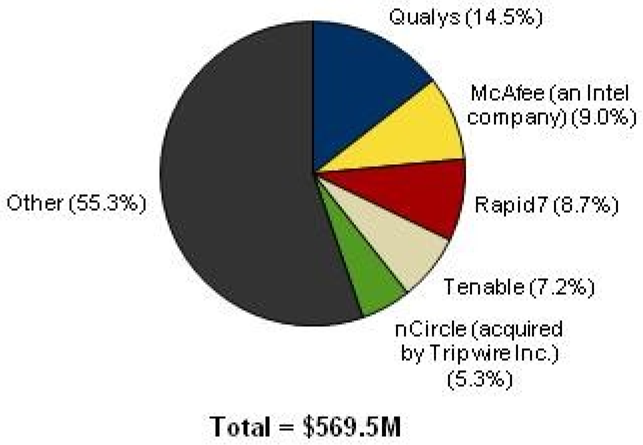
Worldwide Vulnerability Assessment Revenue by Vendor, 2012

	Revenue ($M)	Share (%)
IBM	102.1	11.1
Qualys	86.4	9.4
HP	60.4	6.6
McAfee (an Intel company)	55.1	6.0
Rapid7	49.7	5.4
Tenable	40.8	4.5
Cenzic	37.3	4.1
nCircle (acquired by Tripwire Inc.)	34.1	3.7
Veracode	29.0	3.2
Core Security	28.5	3.1
Positive Technologies	28.0	3.1
BeyondTrust	26.4	2.9
Secunia	21.6	2.4
Lumension Security Inc.	18.9	2.1
WhiteHat	17.5	1.9
Subtotal	635.8	69.4
Other	279.9	30.6
Total	915.7	100.0

Source: IDC, 2013

FIGURE 6

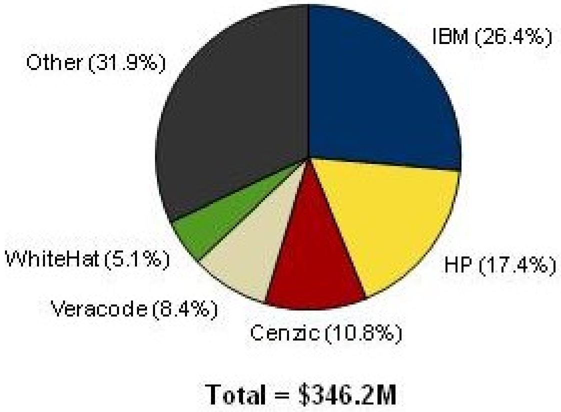
Worldwide Device Vulnerability Assessment Revenue Share by Vendor, 2012



Source: IDC, 2013

FIGURE 7

Worldwide Application Vulnerability Assessment Revenue Share by Vendor, 2012



Source: IDC, 2013

FUTURE OUTLOOK

Forecast and Assumptions

Worldwide revenue for the SVM market reached $4.2 billion in 2012, representing 9.4% growth over 2011. IDC currently forecasts that the SVM market will increase at a 9.1% CAGR and reach $6.5 billion in 2017, as shown in Table 5.

Tables 6 and 7 show the top 3 assumptions and the key forecast assumptions, respectively, which provide the basis for the worldwide security and vulnerability market forecast for 2013–2017.

TABLE 5

Worldwide Security and Vulnerability Management Revenue by Segment, 2009–2017 ($M)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2012–2017 CAGR (%)
Security management										
Security intelligence and event management	826.5	1,052.3	1,308.3	1,434.1	1,594.1	1,741.7	1,896.0	2,054.9	2,217.2	9.1
Proactive endpoint risk management	378.5	425.1	464.6	482.4	505.6	533.3	565.4	594.9	623.5	5.3
Forensics and incident investigation	136.6	188.7	221.0	305.0	368.7	436.4	507.5	581.6	657.7	16.6
Policy and compliance	587.6	694.2	800.5	875.3	961.9	1,049.1	1,141.8	1,238.4	1,336.4	8.8
Security device systems management	273.7	254.5	201.4	179.0	165.6	155.6	150.5	146.8	145.0	-4.1
Subtotal	2,202.9	2,614.7	2,995.9	3,275.9	3,595.8	3,916.0	4,261.2	4,616.5	4,979.9	8.7
Vulnerability assessment										
Device	428.3	474.7	522.0	569.5	617.4	666.2	717.7	771.2	825.6	7.7
Application	244.6	275.9	314.7	346.2	390.3	448.3	516.6	591.2	667.9	14.0
Subtotal	672.9	750.6	836.7	915.7	1,007.7	1,114.5	1,234.3	1,362.5	1,493.5	10.3
Total	2,875.8	3,365.3	3,832.6	4,191.5	4,603.5	5,030.6	5,495.5	5,979.0	6,473.4	9.1

Note: See Table 6 for top 3 assumptions and Table 7 for key forecast assumptions.

Source: IDC, 2013

TABLE 6

Top 3 Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Significance	Changes to This Assumption That Could Affect Current Forecast	Comments
Consumerization	The bring-your-own-device (BYOD) trend will continue to impact IT planning. With IT departments struggling to keep up with the pace of mobile device and Web service innovation, individual users will continue to find ways to improve their own productivity. Some organizations are raising the white flag of surrender, while others are working to use new software tools to protect the integrity of corporate data.	Consumerization is a driver for IT as individual users adopt new devices and services. It creates an indirect round of spending as some enterprises invest in software tools to either secure corporate data or police the network. On the downside, it could draw resources away from other IT projects.	If organizations begin to pull back on consumerization strategies, it arguably becomes somewhat easier to reduce threats, which could lower growth in the market.	IDC does not expect organizations will pull back on consumerization strategies, as the benefits of consumerization outweigh the potential issues.
Security threat environment	Hackers and others continue to find ways to attack enterprises and consumers. Attack vectors continue to increase and are becoming more difficult to discover. Organizational attackers (mercenaries for hire, organized crime, or state sponsored) increase the sophistication of attacks and the resources available to attackers.	The constant arms race between attacker and defender means that enterprises must continue to expand their security spending to defend against sophisticated attacks.	The increasing use of cloud services could bring down costs for hardware and software products, which could reduce the overall market, but more likely, heavier adoption will bring in more customers, thus being a potential positive for market revenue growth.	There is a short delay (time lag) between the emergence of new threats and the deployment of new counteracting products. Vendors are trying to be proactive in bringing technology innovation to the marketplace.

TABLE 6

Top 3 Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Significance	Changes to This Assumption That Could Affect Current Forecast	Comments
Economy	The global economy will be uneven in 2013, with some regions posting stronger growth than in 2012, while other regions struggle to regain momentum. Worldwide GDP will increase by around 2.5%.	A down economy affects business and consumer confidence, the availability of credit and private investment, and internal funding. A global recession would cause businesses to delay IT upgrades and some new projects; a rising economy does the opposite.	If the worldwide economy slips into a recession, business may reduce spending and cut security budgets.	With advanced threat defense a strategic priority for many large organizations, IDC does not expect any macroeconomic softening to have a large impact on growth in the market. However, depending on the scope of a downturn, it could.

Source: IDC, 2013

TABLE 7

Key Forecast Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Macroeconomics				
Economy	The global economy will be uneven in 2013, with some regions posting stronger growth than in 2012, while other regions struggle to regain momentum. Worldwide GDP will increase by around 2.5%.	**High.** The economy has been an inhibitor on IT spending, but the impact on security has been limited because of an ever-increasing threat environment. It is no time to reduce the existing security posture. Consumers are willing to pay to mitigate their worries about cybercrime.	↓	★★★☆☆

TABLE 7

Key Forecast Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Policy, IT governance, and regulatory compliance	Increased attention to sound IT governance policies and compliance with regulatory requirements drive an increased focus on content, storage, and data protection. There seems to be no limit on the growth in government regulatory issuances that can impact IT security.	**Moderate.** Compliance and governance will have a positive impact on security spending. Compliance spending seems to be funding itself through better-run business operations.	↑	★★★☆☆
Modular IT/risk aversion	Many firms remain cautious with regard to major IT investment/project implementation and have shifted to a more modular approach with longer periods of testing and slower rates of decision-making implementation.	**Moderate.** Overall demand will still fluctuate in the face of macroeconomic drivers/inhibitors, but the market should be less volatile. Large firms are taking a more long-term approach to IT than in previous years.	↔	★★☆☆☆
Technology/ service developments				
Consumerization	The bring-your-own-device (BYOD) trend will continue to impact IT planning. With IT departments struggling to keep up with the pace of mobile device and Web service innovation, individual users will continue to find ways to improve their own productivity. Some organizations are raising the white flag of surrender, while others are working to use new software tools to protect the integrity of corporate data.	**High.** The combination of economic uncertainty, the need to do more with less, and the expansion of consumerization means that the adoption of enterprise social networking, blogs, wikis, and other tools will continue to rise. Security for these efforts is still in development, but many enterprises are beginning to fund efforts to deal with consumerization.	↑	★★★☆☆
Innovation	Vendors will continue to deliver security software, hardware, and services innovation at the same rate as in the past.	**Low.** The security market will not face bottlenecks from lack of new product development.	↔	★★★★☆

TABLE 7

Key Forecast Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Security delivery model	Security software is more likely to be delivered as a service and/or a security appliance than be bought as shrink-wrapped products. The rise of software for virtual environments will gain share among software delivery models.	**Moderate.** It will become more difficult to segment what is pure security software, what is inherent in a security appliance, and what is delivered as a software service. This has considerable impact on licensing and maintenance.	↑	★★★★☆
Cloud services	Cloud services entails shared access to virtualized resources over the Internet. IDC estimates that cloud services spending will continue to grow at double-digit rates for the next few years, gradually accounting for a larger proportion of all IT spending.	**Moderate.** The key advantage to cloud services should be the ability of IT organizations to shift IT resources from maintenance to new initiatives. This in turn could lead to new business revenue and competitiveness. Cloud environments need to be secure, both on the customer premise and in the service provider's datacenter, so there will be ample opportunity for security vendors to take advantage.	↑	★★★☆☆
Labor supply				
Distribution of talent	IT security personnel are in short supply.	**Moderate.** With a limited supply of trained security personnel, easier solutions are required. The lack of security professionals will fuel the shift from standalone products to software as a service.	↑	★★★★☆

TABLE 7

Key Forecast Assumptions for the Worldwide Security and Vulnerability Management Market, 2013–2017

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Capitalization				
Venture capital and M&A	After falling for the past few years, venture funding of security start-ups has seen an increase in 2013. M&A activity has been increasing as larger companies look for new technologies to deal with the increasing threat environment and consumerization.	**Moderate.** There doesn't seem to be a funding limitation to IT innovation that would alter IT forecasts. Security continues to offer great opportunities for start-ups to enter the market. The purchase of smaller companies by larger companies expands the possible customer base for new technologies.	↔	★★★★☆
Market characteristics				
Vertical specialization by large vendors	Many large applications vendors that play in the "horizontal" markets have begun to add industry-specific offerings through organic development and/or acquisition to their product lines.	**Moderate.** This will raise the table stakes for industry-specific best-of-breed vendors to differentiate themselves. In addition, larger vendors can put pricing pressure on small vendors by offering deals involving horizontal applications, industry-specific applications, and infrastructure. This should shift revenue to larger vendors, albeit at lower prices, and augment overall large vendor market share but slow overall market growth.	↓	★★★☆☆
Security threat environment	Hackers and others continue to find ways to attack enterprises and consumers. Attack vectors continue to increase and are becoming more difficult to discover. Organizational attackers (mercenaries for hire, organized crime, or state sponsored) increase the sophistication of attacks and the resources available to attackers.	**High.** The higher level of attack sophistication requires stronger defenses. High-value targets (financial industry, critical infrastructure, retail, and government) need to spend more to protect their assets. It will also increase the need for prevention solutions that enforce security policies.	↑	★★★★☆

Legend: ★☆☆☆☆ very low, ★★☆☆☆ low, ★★★☆☆ moderate, ★★★★☆ high, ★★★★★ very high

Source: IDC, 2013

Market Context

Table 8 and Figure 8 show a comparison of IDC's current forecast with the forecast published in *Worldwide Security and Vulnerability Management 2012–2016 Forecast and 2011 Vendor Shares* (IDC #236065, July 2012). SVM continues to have strong growth, so the overall forecast is very similar to that published previously.

TABLE 8

Worldwide Security and Vulnerability Management Revenue, 2008–2017: Comparison of July 2012 and August 2013 Forecasts ($M)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
August 2013 forecast	2,634.5	2,875.8	3,365.3	3,832.6	4,191.5	4,603.5	5,030.6	5,495.5	5,979.0	6,473.4
Growth (%)	NA	9.2	17.0	13.9	9.4	9.8	9.3	9.2	8.8	8.3
July 2012 forecast	2,634.5	2,875.8	3,365.3	3,832.6	4,295.6	4,796.5	5,314.4	5,817.4	6,221.7	NA
Growth (%)	NA	9.2	17.0	13.9	12.1	11.7	10.8	9.5	6.9	NA

Notes:

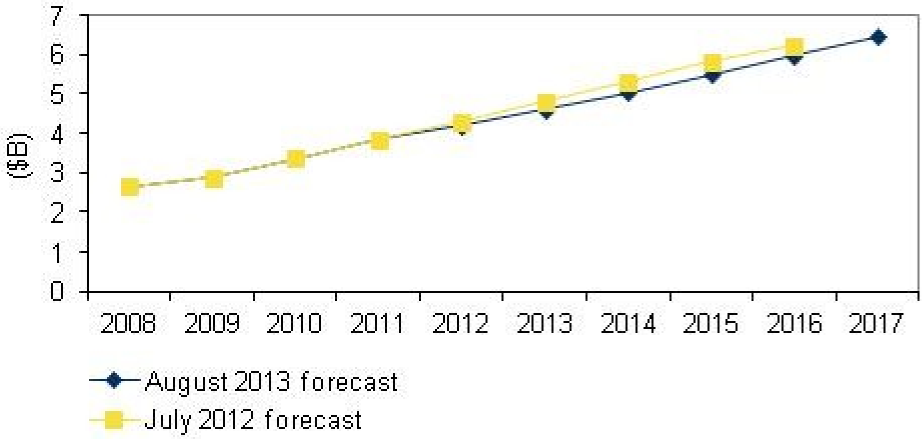
See *Worldwide Security and Vulnerability Management 2012–2016 Forecast and 2011 Vendor Shares* (IDC #236065, July 2012) for prior forecast.

Historical market values presented here are as published in prior IDC documents based on the market taxonomies and current U.S. dollar exchange rates existing at the time the data was originally published. For more details, see the Methodology in the Learn More section.

Source: IDC, 2013

FIGURE 8

Worldwide Security and Vulnerability Management Revenue, 2008–2017: Comparison of July 2012 and August 2013 Forecasts



Source: IDC, 2013

Market Trends

Given the importance of risk management, government regulations, and exposure through vulnerabilities, the security and vulnerability management market is full of opportunity. Developments that will shape this market in the future include the following:

- **Big Data analytics.** Organizations have a lot of data (various logs and other reporting data) associated with network devices, applications, and user activities. They have realized that to optimize their defenses, they need to effectively be able to not just collect all of this metadata, but also they must be able to process it. Combining Big Data with threat intelligence information, organizations can start using "situational awareness" to see the big picture of how their IT assets are working and how well they stack up to existing threats. SVM technologies provide the knowledge and intelligence to improve the overall security posture. SIEM technology does the heavy lifting of analyzing the data, but many of the other SVM technologies have a role to play. Vulnerability assessment data allows an organization to learn where risk resides, forensics provides historical data that can show how an attack proceeded, and policy and compliance provides data on devices but also is used to report many of the findings. By using advanced analytics to bring together threat intelligence, vulnerability information, security events, and protection profiles, it might be possible to predict what will be coming next. Both situational awareness and analytics are designed to facilitate better decision making by security professionals and executives and to help discover stealthy attacks.

- **Cloud.** Cloud infrastructures are growing in popularity, but organizations are concerned about the security of the devices that their data will be processed on and stored in. To deal with these fears, cloud providers are partnering with SVM vendors to allow customers to assess the security posture of the cloud infrastructure they will be utilizing. For ease of use, the cloud infrastructure vendors are turning to cloud security providers so that there is consistency regarding the scans, assessments, and reporting. In this way, they are using the cloud to protect the cloud.

- **Mobile devices.** Growth in corporate usage of smartphones and tablets, both enterprise owned and employee owned (bring your own device), is changing the risk posture of many organizations. The proliferation of these devices is requiring organizations to revamp some of their security policies, to improve their vulnerability management, and to bring security management into the mobile device management (MDM) systems. IDC expects that many MDM systems deployed by enterprises will come from security vendors that will be able to enforce unique security policies associated with mobile devices.

- **Application and software security vulnerability assessment.** As security becomes more important at the application level, especially with the proliferation of mobile applications, application-level security is becoming a fundamental component for software development and quality assurance. There are application scanning tools that look at operational products such as databases and Web servers, and in the future, there will be code scanning of individual mobile apps. The market has been moving from individual static and dynamic testing products to hybrid solutions that can offer both capabilities. IDC refers to this as "measuring twice and cutting once." Products within this market will continue to evolve to the point where they will be used throughout the software development life cycle so that vulnerabilities can be eliminated before a program becomes operational.

- **Multiple delivery systems.** Vendors are providing SVM products using various delivery methods, which include software, hardware, software as a service (SaaS), and virtualized appliances. The vulnerability assessment market has been available through SaaS for many years. The use of SaaS for application testing continues to grow. SaaS is also growing in the SIEM submarket, and there is no reason SaaS can't be used in the policy and compliance submarket. Hardware products are most prominent in the SIEM and forensics and incident investigation submarkets because of the need to store vast amounts of log data. Additionally, nearly any of the SVM submarkets can also employ software appliances to run in a hypervisor-based environment. IDC expects that SVM products will continue to be delivered in a diverse manner.

ESSENTIAL GUIDANCE

Security is a value-add, not just a necessary evil or the purview of the paranoid. Companies understand that their systems, storage operations, network connectivity, and endpoints need to be inherently secure. Customers demand security management that is well integrated with the IT infrastructure and that is effective, usable, and affordable. Security and vulnerability management is very important to meeting risk management goals because it provides policy and compliance context, vulnerability information, remediation and, ultimately, a comprehensive view of enterprise risk management. It offers organizations better ways to cost effectively provide risk management. SVM solutions can simplify the complexity associated with managing multiple security solutions while at the same time increasing the automation, effectiveness, and proactive nature of security. Vendors are growing the capabilities to provide comprehensive coverage within their security management offerings. The key to success in this space will be the ability to provide proactive security protection and the knowledge and intelligence to provide comprehensive security assessment data.

IDC believes vendors should develop tools that bring together event records, efficiently prioritize incidents, separate real security violations from false alarms, and aggregate security events from different locations, devices, and manufacturers. Moreover, vulnerabilities must be viewed as part of an overall security management infrastructure that takes into account security policy, compliance, and risk management. SVM solutions should tell the enterprise why the vulnerability is a concern, its risk ranking, and how to remediate. SVM offerings must be able to provide a more aggressive, positive security model and not just respond to events in a chaotic manner. In many cases, SVM solutions, especially in the proactive endpoint risk management category, are moving to the point where the product will automatically remediate any security problems that should develop. Over time, SVM vendors need to combine their SVM agent with their own endpoint security solutions to provide all endpoint security capabilities, or the SVM vendor will need to partner with an endpoint security vendor that does not have SVM capabilities itself.

For the SVM market to maintain its strong growth rates, vendors must continue to make security smart. One area where SVM makes security smart is in the SIEM market, where an ever-growing set of security data has to be processed to find the critical information among a huge set of data and to put that intelligence into its proper context. The SIEM market is important for providing audit information and ensuring proper utilization of security technologies. IDC also believes that vulnerability scanning — whether it's device or application based, white box or black box, or credential or hacker view — provides critical information that allows organizations to adjust their security position to meet real security threats. IDC believes that products that can do real-time penetration testing will see considerable success over the next few years because they can pinpoint specific security gaps.

LEARN MORE

Related Research

- *Worldwide Web Security 2013–2017 Forecast and 2012 Vendor Shares* (IDC #242033, July 2013)
- *Worldwide Network Security Forecast 2013–2017 and 2012 Vendor Shares* (IDC #241926, July 2013)
- *U.S. Mobile Security Survey, 2013* (IDC #240598, April 2013)
- *Worldwide Mobile Enterprise Security Software 2013–2017 Forecast and Analysis* (IDC #240014, March 2013)
- *Worldwide Security Software as a Service 2012–2016 Forecast: Delivering Security Through the Cloud* (IDC #238553, December 2012)
- *Worldwide IT Security Products 2012–2016 Forecast and 2011 Vendor Shares: Comprehensive Security Product Review* (IDC #237934, November 2012)
- *Worldwide Security and Vulnerability Management 2012–2016 Forecast and 2011 Vendor Shares* (IDC #236065, July 2012)

Methodology

The IDC software market sizing and forecasts are presented in terms of packaged software and appliance revenue. IDC uses the term *packaged software* to distinguish commercially available software from custom software, not to imply that the software must be shrink-wrapped or otherwise provided via physical media. Packaged software is programs or codesets of any type commercially available through sale, lease, or rental, or as a service. Packaged software revenue typically includes fees for initial and continued right-to-use packaged software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure, or this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately. All of these are counted by IDC as packaged software revenue. Appliances are defined as a combination of hardware, operating environment, and application software where they are provided as a single product.

Packaged software revenue *excludes* service revenue derived from training, consulting, and systems integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of the product included in a service that offers software functionality by a different pricing scheme. It is the total product revenue that is further allocated to markets, geographic areas, and operating environments.

The market forecast and analysis methodology incorporates information from five different but interrelated sources, as follows:

- **Reported and observed trends and financial activity.** This study incorporates reported and observed trends and financial activity in 2012 as of the end of April 2013, including reported revenue data for public companies trading on North American stock exchanges (CY 1Q12–4Q12 in nearly all cases).

- **IDC's *Software Census* interviews.** IDC interviews all significant market participants to determine product revenue, revenue demographics, pricing, and other relevant information.

- **Product briefings, press releases, and other publicly available information.** IDC's software analysts around the world meet with hundreds of software vendors each year. These briefings provide an opportunity to review current and future business and product strategies, revenue, shipments, customer bases, target markets, and other key product and competitive information.

- **Vendor financial statements and related filings.** Although many software vendors are privately held and choose to limit financial disclosures, information from publicly held companies provides a significant benchmark for assessing informal market estimates from private companies. IDC also builds detailed information related to private companies through in-depth analyst relationships and maintains an extensive library of financial and corporate information focused on the IT industry. We further maintain detailed revenue by product area models on more than 1,000 worldwide vendors.

- **IDC demand-side research.** This includes thousands of interviews with business users of software solutions annually and provides a powerful fifth perspective for assessing competitive performance and market dynamics. IDC's user strategy databases offer a compelling and consistent time-series view of industry trends and developments. Direct conversations with technology buyers provide an invaluable complement to the broader survey-based results.

Ultimately, the data presented in this study represents IDC's best estimates based on these data sources as well as reported and observed activity by vendors and further modeling of data that we believe to be true to fill in any information gaps.

The data in this study is derived from all these sources and entered into IDC's Software Market Forecaster database, which is then updated on a continuous basis as new information regarding software vendor revenue becomes available. For this reason, the reader should note carefully the "as of" date in the Methodology discussion within the In This Study section, near the beginning of this study, whenever making comparisons between the data in this study and the data in any other software revenue study.

Historical Market Values and Exchange Rates

Historical market values presented here are as published in prior IDC documents based on the market taxonomies and current U.S. dollar exchange rates existing at the time the data was originally published. For markets other than the United States, these as-published values are therefore based on a different exchange rate each year.

Please refer to IDC's regional research studies containing historical forecasts for multiple countries for more accurate regional growth in local currencies. Note that this discussion applies only to historical values prior to 2012. 2012 and all future years are forecast at a constant exchange rate.

Synopsis

This IDC study provides a top-down sizing of the security and vulnerability management (SVM) market, which incorporates the security management and vulnerability assessment markets. The study covers CY12 for the market sizing and forecasts the market for the 2013–2017 period. Specific vendor revenue and market shares are included in this study.

"Enterprises continue to struggle with what security level is appropriate to meet demands on IT, especially regarding mobility, consumerization, advanced threats, cloud computing, and regulatory requirements. They continue to search for metrics to make risk mitigation decisions easier," says Charles Kolodgy, research vice president for IDC's Security Products service. "Security and vulnerability management tools can be used to make 'security smart' by discovering hard-to-find threats, supplementing security controls with policy, and automatically providing remediation of security problems."

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