

Black Book™ 2018 Survey



Top Healthcare Industry Technology Security Solutions Comparative Performance Result Set of Top Cybersecurity Vendors

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS



Black Book Market Research LLC annually evaluates leading healthcare/medical software and service providers across 18 operational excellence key performance indicators completely from the perspective of the client experience. Independent and unbiased from vendors' influence, Over 606,000 healthcare IT users are invited to contribute. Suppliers also encourage their clients to participate to produce current and objective customer service data for buyers, analysts, investors, consultants, competitive suppliers and the media. For more information or to order customized research results, please contact the Client Resource Center at +1 800.863.7590 or surveyresearch@blackbookmarketresearch.com

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2018 CYBERSECURITY SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS

2018 SURVEY RESPONDENT IDENTIFICATION	NUMBER OF RESPONSES VALIDATED	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	361	14.6%
Clinic/Practice Name	240	9.7%
Multispecialty and Large Group Clinics	247	10.0%
Health Systems, Networks & IDNs	266	6.8%
Academic Hospital & Medical Centers over 250 Beds	338	10.8%
Community Hospitals 101-249 Beds	381	15.4%
Small Hospitals under 100 Beds	392	15.9%
Other Providers	239	9.7%
	2,464	

Source: Black Book™ 2018

BLACK BOOK METHODOLOGY

HOW THE DATA SETS ARE COLLECTED

Black Book collects ballot results on eighteen performance areas of operational excellence to rank vendors by electronic medical and health record product lines. The gathered data are subjected immediately to an internal and external audit to verify completeness and accuracy and to make sure the respondent is valid while ensuring that the anonymity of the client company is maintained. During the audit, each data set is reviewed by a Black Book executive and at least two other people. In this way, Black Book's clients are able to clearly see how a vendor is truly performing. The eighteen criteria on operational excellence are subdivided by the client's industry, market size, geography and function outsourced and reported accordingly. Situational and market studies are conducted on areas of high interest such as e-Prescribing, Health Information Exchange, Cybersecurity, Accountable Care organization, hospital software, services providers, educational providers in e-health, bench markers and advisors. These specific survey areas range from four to twenty questions or criteria each.

UNDERSTANDING THE STATISTICAL CONFIDENCE OF BLACK BOOK DATA

Statistical confidence for each performance rating is based upon the number of organizations scoring the electronic medical and health records service. Black Book identifies data confidence by one of several means:

- Top-10-ranked vendors must have a minimum of ten unique clients represented. Broad categories require a minimum of 20 unique client ballots. Data that are asterisked (*) represent a sample size below required limits and are intended to be used for tracking purposes only, not ranking purposes. Performance data for an asterisked vendor's services can vary widely until a larger sample size is achieved. The margin of error can be very large and the reader is responsible for considering the possible current and future variation (margin of error) in the Black Book performance score reported.
- Vendors with over 20 unique client votes are eligible for top 10 rankings and are assured to have highest confidence and lowest variation. Confidence increases as more organizations report on their outsourcing vendor. Data reported in this form are shown with a 95% confidence level (within a margin of 0.25, 0.20 or 0.15, respectively).
- Raw numbers include the quantity of completed surveys and the number of unique organizations contributing the data for the survey pool of interest.



WHO PARTICIPATES IN THE BLACK BOOK RANKING PROCESS

IT users ranking from hospital and medical practice executives, clinicians, IT specialists and front-line implementation veterans are invited to participate in the 2018 annual Black Book technology security initiative satisfaction survey. Non-invitation receiving participants must complete a verifiable profile, utilize valid corporate email address and are then included as well.

The Black Book survey web instrument is open to respondents and new participants each year at <http://blackbookmarketresearch.com> and mobile applications from iTunes and GooglePlay. Only one ballot per corporate email address is permitted and changes of ballots during the open polling period require a formal email request process to ensure integrity.

2,464 qualified users of systems with validated corporate/valid email addresses ranked cybersecurity product and services suppliers (170 receiving ten or more qualified, unique provider ballots) offering individual or bundled arrangements as part of the Black Book annual survey, conducted via web survey instruments.

Additionally, 6,411 about-to-be users and those in the replacement phases to a non-original system cybersecurity or answered questions about budgeting, vendor familiarity and vendor selection processes but current non-user ballots are not counted in the vendor ranking process of client satisfaction.



STOP LIGHT SCORING KEY

2018 RESULTS

HEALTHCARE TECHNOLOGY SECURITY SOLUTIONS

END-TO-END ENTERPRISE CYBERSECURITY



STOP LIGHT SCORING KEY

2018 TOP OVERALL HEALTHCARE SECURITY VENDOR HONORS

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS, Top Vendor

SYMANTEC

FUNCTIONAL SUBSET HONORS: TOP VENDORS

HOSPITALS & INPATIENT ORGANIZATIONS

SYMANTEC

PHYSICIANS ORGANIZATIONS

SYMANTEC

ANCILLARY PROVIDERS & OUTPATIENT SERVICES

PALO ALTO

HEALTHCARE CORPORATIONS & PROVIDER SUPPORT FIRMS

FIREEYE

STOP LIGHT SCORING KEY

FIGURE 1A/B: CYBERSECURITY VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS

HOSPITALS	PHYSICIANS	PAYERS	HEALTH CORPORATIONS
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Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
<p>Deal breaking dissatisfaction</p> <p>Does not meet expectations</p> <p>CANNOT RECOMMEND VENDOR</p>	<p>Neutral</p> <p>Meets/does not meet expectations consistently</p> <p>WOULD NOT LIKELY RECOMMEND VENDOR</p>	<p>Satisfactory performance</p> <p>Meets expectations</p> <p>RECOMMENDS VENDOR</p>	<p>Overwhelming satisfaction</p> <p>Exceeds expectations</p> <p>HIGHLY RECOMMENDED VENDOR</p>

Source: Black Book Research

STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
Green 8.71 +	(Top 10%) scores better than 90% of cybersecurity vendors. Green coded vendors have received constantly highest client satisfaction scores.
Clear 8.70 – 5.81	(Top 33%) scores better than 67% of cybersecurity vendors. Well-scored vendor which have middle of the pack results.
Yellow 5.80 to 7.32	Scores better than half of cybersecurity vendors. Cautionary performance scores, areas of improvement required.
Red Less than 5.79	Scores worse than 66% of cybersecurity vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

STOP LIGHT SCORING KEY

FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

Black Book raw score scales

1 = Deal breaking dissatisfaction ◀ ▶ 10 = Exceeds all expectations

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of cybersecurity vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end cybersecurity services collectively.

STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q6 CRITERIA RANK	HEALTHCARE TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
5	1	VENDOR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the cybersecurity vendor.
- **Subsections** – each subset comprises one-fourth of the total cybersecurity vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective provider subsection with the supplier, specific to their enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of technology security functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS: HEALTHCARE TECHNOLOGY SECURITY SOLUTIONS

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

Summary of criteria outcomes

TABLE 1: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
9	SYMANTEC	1
5	PALO ALTO	2
3	TREND MICRO	3
1	NORTHROP GRUMMAN	5

Source: Black Book Research

OVERALL KPI LEADERS: END-TO-END ENTERPRISE CYBERSECURITY

HEALTHCARE TECHNOLOGY SECURITY SOLUTIONS

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA

Questions	Criteria	Vendor	Overall
1	Strategic Alignment of Client Cybersecurity Goals	PALO ALTO	2
2	Innovation & Optimization	SYMANTEC	1
3	Training & Education	TREND MICRO	3
4	Client relationships and cultural fit	SYMANTEC	1
5	Trust, Accountability, Transparency, Ethics	SYMANTEC	1
6	Breadth of offerings, client types, delivery excellence	TREND MICRO	3
7	Deployment and outsourcing implementation	SYMANTEC	1
8	Customization	TREND MICRO	3
9	Integration and interfaces	SYMANTEC	1
10	Scalability, client adaptability, flexible pricing	NORTHROP GRUMMAN	5
11	Compensation and employee performance	PALO ALTO	2
12	Reliability	SYMANTEC	1
13	Brand image and marketing communications	SYMANTEC	1
14	Marginal value adds and modules	PALO ALTO	2
15	Financial & Managerial Viability	SYMANTEC	1
16	Data storage and backup services	SYMANTEC	1
17	Tech support and customer care	PALO ALTO	2
18	Best of breed technology and process improvement	PALO ALTO	2

INDIVIDUAL HEALTHCARE TECHNOLOGY SECURITY VENDOR KEY PERFORMANCE

TABLE 3: END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS—RAW/AGGREGATE HEALTHCARE CYBERSECURITY SATISFACTION SCORES 2018

ENTERPRISE CYBERSECURITY SOLUTIONS VENDOR	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Mean
1 SYMANTEC	9.46	9.59	9.21	9.37	9.28	9.14	9.63	9.40	9.55	9.17	9.33	9.63	9.51	9.19	9.28	9.52	9.46	9.18	9.38
2 PALO ALTO	9.52	9.44	9.19	8.91	9.23	9.47	9.18	9.43	9.17	9.09	9.40	8.77	9.17	9.31	8.99	8.83	9.49	9.38	9.22
3 TREND MICRO	9.20	9.24	9.37	9.13	8.78	9.50	8.75	9.64	8.57	9.37	8.74	9.30	8.42	8.92	8.19	9.36	8.50	9.00	9.00
4 FIREEYE	8.87	9.22	8.64	8.77	9.03	8.80	8.59	8.06	9.05	9.28	8.58	7.31	8.32	7.30	8.95	8.85	8.25	8.63	8.58
5 NORTHROP	8.88	8.93	8.29	8.88	9.04	8.36	8.42	8.77	8.63	8.43	8.84	8.28	7.75	8.16	7.10	8.48	8.67	8.80	8.48
6 CSC	8.98	8.13	9.02	9.29	8.33	8.53	9.35	7.92	7.82	7.50	7.48	8.55	8.62	7.54	8.21	8.97	9.32	8.23	8.43
7 IBM	8.54	8.22	8.31	7.51	8.70	8.67	8.26	7.96	8.93	7.19	9.10	8.78	7.89	8.73	9.09	7.92	8.55	8.30	8.37
8 CISCO	7.50	8.80	8.22	8.35	7.55	9.18	9.47	8.21	7.67	8.15	9.05	8.39	8.47	8.64	7.44	8.00	8.59	8.21	8.33
9 JUNIPER	8.48	7.66	9.08	8.43	7.27	7.97	7.58	8.83	8.75	8.96	7.92	7.89	8.56	6.88	8.43	8.59	8.69	8.76	8.26
10 BOOZ ALLEN	8.79	8.27	7.39	8.95	8.30	7.49	8.53	7.50	7.57	7.63	9.03	8.77	8.19	7.94	7.73	8.73	9.14	8.56	8.25
11 BT	6.80	7.60	8.55	8.40	8.78	7.96	7.35	7.14	7.89	8.10	8.70	7.21	6.78	7.19	7.54	8.60	7.80	8.24	7.81
12 FORTINET	8.72	8.02	8.75	8.11	6.90	6.92	8.08	8.14	7.61	7.12	6.96	8.66	8.17	8.19	7.53	7.15	7.36	7.89	7.79
13 AT&T	8.36	7.47	8.10	7.43	8.17	8.02	7.00	8.29	8.45	7.64	6.80	7.30	8.61	8.63	6.58	8.01	7.33	7.54	7.76
14 LEVEL3	8.22	8.94	7.73	7.83	7.74	7.63	8.93	7.30	6.79	8.26	6.73	7.45	6.98	8.79	7.13	7.41	6.76	8.60	7.73
15 MCAFEE	7.14	7.82	8.22	7.84	7.21	7.93	7.86	8.67	6.07	7.01	5.86	6.78	6.63	8.35	6.47	8.61	8.78	7.07	7.46
16 NETSCOUT	8.48	8.26	8.97	6.90	7.29	8.00	6.60	7.86	8.84	7.27	6.05	7.36	6.94	5.72	7.29	5.94	7.37	7.85	7.39
17 VMWARE	7.45	6.45	7.27	7.24	6.13	8.81	6.28	6.08	7.66	8.15	7.62	8.40	8.06	6.86	5.78	8.61	7.50	7.13	7.30
18 BLACKDUCK	9.17	7.82	7.78	5.37	7.85	8.20	5.40	6.89	6.74	5.88	8.51	6.71	7.07	8.81	6.98	5.89	7.17	6.51	7.15
19 SECUREWORKS	7.22	7.48	8.70	7.18	6.65	6.26	7.25	5.61	6.96	7.63	7.31	4.97	7.73	7.01	7.35	5.55	8.61	7.30	7.04
20 KASPERSKY	6.90	7.73	7.77	7.18	6.78	5.20	7.62	6.80	8.29	5.36	7.61	6.62	7.60	7.99	5.50	6.15	7.76	6.91	6.99

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

1. Strategic Alignment of Vendor Offerings to Client Cybersecurity Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers and stakeholder satisfaction is the most important priority. Cybersecurity client is likely to recommend the vendor to similar sized industry peer organizations and executives.

OVERALL RANK	Q1 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
2	1	PALO ALTO	9.40	9.64	9.55	9.47	9.52
1	2	SYMANTEC	9.28	9.21	9.64	9.69	9.46
3	3	TREND MICRO	9.03	9.40	9.24	9.11	9.20
18	4	BLACKDUCK	8.94	9.46	9.12	9.15	9.17
6	5	CSC	9.22	8.44	8.96	9.29	8.98
5	6	NORTHROP GRUMMAN	9.21	8.87	8.60	8.82	8.88
4	7	FIREEYE	8.65	9.53	8.88	8.41	8.87
10	8	BOOZ ALLEN	8.94	8.74	9.25	8.21	8.79
12	9	FORTINET	8.23	8.54	9.17	8.95	8.72
7	10	IBM	8.30	9.08	8.45	8.31	8.54

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

2. Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS vendor is responsive. Cybersecurity clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	O2 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.73	9.45	9.47	9.69	9.59
2	2	PALO ALTO	9.05	9.50	9.65	9.56	9.44
3	3	TREND MICRO	9.11	9.17	9.32	9.36	9.24
4	4	FIREEYE	9.44	9.34	9.08	9.01	9.22
14	5	LEVEL3	9.00	8.87	8.73	9.15	8.94
5	6	NORTHROP GRUMMAN	9.20	9.14	8.69	8.68	8.93
8	7	CISCO	8.62	8.98	9.21	8.37	8.80
10	8	BOOZ ALLEN	8.35	7.78	8.99	7.95	8.27
16	9	NETSCOUT	8.89	7.99	7.66	8.50	8.26
7	10	IBM	7.95	8.30	8.72	7.91	8.22

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

3. Training & Education

Table 7: Cybersecurity leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, technology security client service and customer servicing consultant employees in particular. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
3	1	TREND MICRO	9.44	9.30	9.46	9.28	9.37
1	2	SYMANTEC	9.51	8.96	8.92	9.47	9.21
2	3	PALO ALTO	9.26	9.57	8.94	9.00	9.19
9	4	JUNIPER	9.27	9.12	8.87	9.05	9.08
6	5	CSC	8.29	9.41	9.01	9.38	9.02
16	6	NETSCOUT	8.89	9.31	8.92	8.77	8.97
12	7	FORTINET	8.04	8.42	9.38	9.16	8.75
19	8	SECUREWORKS	9.11	8.84	8.49	8.37	8.70
4	9	FIREEYE	8.85	9.05	8.23	8.44	8.64
11	10	BT	8.29	8.59	8.50	8.81	8.55

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

4. Client relationships and cultural fit

Table 8: Technology security vendor leadership honors customer relationships highly. The relationship with the vendor elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.07	9.38	9.34	9.69	9.37
6	2	CSC	9.30	9.26	8.97	9.61	9.29
3	3	TREND MICRO	9.25	9.22	9.07	9.00	9.13
10	4	BOOZ ALLEN	8.96	9.08	8.91	8.85	8.95
2	5	PALO ALTO	9.00	8.96	8.89	8.80	8.91
5	6	NORTHROP GRUMMAN	8.78	9.31	8.74	8.69	8.88
4	7	FIREEYE	9.01	8.96	8.45	8.65	8.77
9	8	JUNIPER	8.75	7.40	9.27	8.32	8.43
11	9	BT	8.22	8.90	8.13	8.37	8.40
8	10	CISCO	8.74	8.40	7.95	8.30	8.35

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

5. Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to cybersecurity clients as well as prospects. Client possesses an understanding that its technology security organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	O5 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.28	9.49	9.37	8.97	9.28
2	2	PALO ALTO	9.38	9.14	9.38	9.02	9.23
5	3	NORTHROP GRUMMAN	9.25	9.35	8.62	8.94	9.04
4	4	FIREEYE	8.97	9.17	9.50	8.47	9.03
3	5	TREND MICRO	8.86	8.87	8.53	8.84	8.78
11	6	BT	8.44	8.78	8.46	9.45	8.78
7	7	IBM	9.23	8.87	7.96	8.74	8.70
6	8	CSC	8.62	8.26	7.78	8.67	8.33
10	9	BOOZ ALLEN	8.73	8.47	8.16	7.83	8.30
13	10	AT&T	8.49	8.51	8.02	7.66	8.17

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

6. Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: Cybersecurity vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled security services. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s security initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
3	1	TREND MICRO	9.47	9.59	9.47	9.45	9.50
2	2	PALO ALTO	9.48	9.39	9.48	9.52	9.47
8	3	CISCO	9.35	9.23	9.10	9.04	9.18
1	4	SYMANTEC	9.32	9.27	9.31	8.67	9.14
17	5	VMWARE	8.96	9.11	8.63	8.54	8.81
4	6	FIREEYE	8.54	8.52	8.58	9.55	8.80
7	7	IBM	9.13	8.77	8.06	8.72	8.67
6	8	CSC	8.89	8.36	8.01	8.87	8.53
5	9	NORTHROP GRUMMAN	8.51	8.57	8.26	8.11	8.36
18	10	BLACKDUCK	8.30	8.61	8.12	7.76	8.20

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

7. Deployment and Technology Security solutions implementation

Table 11: Cybersecurity client deploys at a pace acceptable to the client. Security solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. Technology security solutions implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	O7 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.67	9.41	9.81	9.61	9.63
8	2	CISCO	9.52	9.08	9.47	9.79	9.47
6	3	CSC	9.09	9.44	9.41	9.46	9.35
2	4	PALO ALTO	9.09	9.54	8.51	9.57	9.18
14	5	LEVEL3	8.96	9.10	8.61	9.05	8.93
3	6	TREND MICRO	8.69	9.00	8.15	9.14	8.75
4	7	FIREEYE	8.65	8.84	8.11	8.74	8.59
10	8	BOOZ ALLEN	8.28	8.99	8.05	8.81	8.53
5	9	NORTHROP GRUMMAN	7.93	8.54	8.55	8.66	8.42
7	10	IBM	9.05	7.66	7.93	8.39	8.26

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

8. Customization

Table 12: Technology security products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. Services and software allows for modifications that are not costly or complex.

OVERALL RANK	O8 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
3	1	TREND MICRO	9.50	9.52	9.69	9.83	9.64
2	2	PALO ALTO	9.58	9.61	9.13	9.41	9.43
1	3	SYMANTEC	9.47	9.48	9.16	9.47	9.40
9	4	JUNIPER	8.64	8.55	8.67	9.44	8.83
5	5	NORTHROP GRUMMAN	9.03	8.50	8.41	9.12	8.77
15	6	MCAFFEE	8.18	8.89	8.39	9.20	8.67
13	7	AT&T	8.60	8.05	7.42	9.08	8.29
8	8	CISCO	7.39	8.66	8.14	8.65	8.21
12	9	FORTINET	7.82	8.04	8.63	8.05	8.14
4	10	FIREEYE	7.05	7.86	8.05	9.27	8.06

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

9. Integration and interfaces

Table 13: Technology security vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	O9 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.54	9.71	9.40	9.54	9.55
2	2	PALO ALTO	8.74	9.40	9.17	9.36	9.17
4	3	FIREEYE	8.82	9.25	8.86	9.26	9.05
7	4	IBM	8.68	8.65	8.91	9.49	8.93
16	5	NETSCOUT	9.42	8.28	9.13	8.52	8.84
9	6	JUNIPER	8.95	8.56	8.28	9.21	8.75
5	7	NORTHROP GRUMMAN	9.10	8.76	8.21	8.45	8.63
3	8	TREND MICRO	8.67	8.35	8.84	8.43	8.57
13	9	AT&T	9.00	7.56	8.57	8.66	8.45
20	10	KASPERSKY	7.92	8.80	8.24	8.18	8.29

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

10. Scalability, client adaptability, flexible pricing

Table 14: Technology security services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
5	1	NORTHROP GRUMMAN	9.56	9.41	9.45	9.28	9.43
3	2	TREND MICRO	9.30	9.56	9.26	9.35	9.37
4	3	FIREEYE	9.21	9.39	9.17	9.34	9.28
1	4	SYMANTEC	8.60	9.45	9.55	9.07	9.17
2	5	PALO ALTO	8.62	9.20	9.17	9.38	9.09
9	6	JUNIPER	8.85	9.13	9.01	8.84	8.96
14	7	LEVEL3	7.87	8.01	8.11	9.03	8.26
8	8	CISCO	8.37	8.48	7.15	8.61	8.15
17	9	VMWARE	8.63	7.79	8.59	7.58	8.15
11	10	BT	7.65	8.17	8.58	7.99	8.10

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

11. Vendor staff expertise, compensation and employee performance

Table 15: Technology security vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
2	1	PALO ALTO	9.24	9.59	9.15	9.62	9.40
1	2	SYMANTEC	9.35	9.26	9.34	9.38	9.33
7	3	IBM	9.25	9.24	9.14	8.77	9.10
8	4	CISCO	8.76	9.38	8.78	9.26	9.05
10	5	BOOZ ALLEN	8.85	8.97	8.95	9.34	9.03
5	6	NORTHROP GRUMMAN	8.87	8.77	8.76	8.95	8.84
3	7	TREND MICRO	8.73	8.60	9.06	8.57	8.74
11	8	BT	8.31	8.48	9.14	8.86	8.70
4	9	FIREEYE	8.83	8.04	8.72	8.73	8.58
18	10	BLACKDUCK	8.19	8.02	8.94	8.88	8.51

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

12. Reliability

Table 16: Cybersecurity supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability is maximized and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is maximized by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.70	9.59	9.54	9.70	9.63
3	2	TREND MICRO	9.18	9.39	9.03	9.59	9.30
7	3	IBM	8.24	8.89	8.95	9.02	8.78
2	4	PALO ALTO	8.51	8.72	8.52	9.32	8.77
10	5	BOOZ ALLEN	9.20	8.94	8.54	8.39	8.77
12	6	FORTINET	8.78	8.69	8.11	9.04	8.66
6	7	CSC	8.83	8.84	8.25	8.28	8.55
17	8	VMWARE	8.50	8.18	8.67	8.26	8.40
8	9	CISCO	8.64	8.44	8.40	8.10	8.39
5	10	NORTHROP GRUMMAN	7.75	8.30	8.07	9.01	8.28

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

13. Brand image and marketing communications

Table 17: Technology security vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual security product and service deliverables. Image is consistent with top cybersecurity rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. High level of relevant client communications enhances the security supplier–user relationship.

OVERALL RANK	Q13 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.43	9.37	9.55	9.67	9.51
2	2	PALO ALTO	9.45	8.84	9.30	9.08	9.17
6	3	CSC	8.59	8.75	8.73	8.42	8.62
13	4	AT&T	8.29	8.99	8.76	8.39	8.61
9	5	JUNIPER	9.08	8.95	8.22	7.97	8.56
8	6	CISCO	7.61	8.91	8.87	8.49	8.47
3	7	TREND MICRO	8.42	8.80	7.85	8.60	8.42
4	8	FIREEYE	8.50	8.96	8.31	7.49	8.32
10	9	BOOZ ALLEN	7.57	8.12	8.83	8.22	8.19
12	10	FORTINET	8.38	8.42	7.69	8.18	8.17

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

14. Marginal value adds

Table 18: Beyond stimulus achievement, security vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled technology security product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing security solutions.

OVERALL RANK	Q14 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
2	1	PALO ALTO	9.38	9.27	9.15	9.43	9.31
1	2	SYMANTEC	9.51	9.19	8.87	9.20	9.19
3	3	TREND MICRO	8.84	9.15	8.69	8.98	8.92
18	4	BLACKDUCK	9.47	8.31	8.58	8.89	8.81
14	5	LEVEL3	9.18	8.92	8.48	8.59	8.79
7	6	IBM	8.58	9.29	8.43	8.63	8.73
8	7	CISCO	8.27	8.79	9.36	8.15	8.64
13	8	AT&T	7.66	8.80	8.71	9.34	8.63
15	9	MCAFEE	8.31	8.33	8.26	8.47	8.35
12	10	FORTINET	7.92	8.49	7.73	8.61	8.19

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

15. Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principals to steward appropriate resources that impact technology security buyers. Client is confident of long term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. Technology security vendor demonstrates and provides evidence of competent financial management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.16	9.59	9.24	9.13	9.28
7	2	IBM	9.20	9.18	8.51	9.47	9.09
2	3	PALO ALTO	9.14	8.89	8.62	9.29	8.99
4	4	FIREEYE	9.27	8.54	9.11	8.89	8.95
9	5	JUNIPER	8.11	8.59	8.78	8.24	8.43
6	6	CSC	7.88	8.32	8.25	8.38	8.21
3	7	TREND MICRO	8.27	8.44	7.77	8.27	8.19
10	8	BOOZ ALLEN	7.28	7.13	7.41	9.08	7.73
11	9	BT	6.98	7.04	7.52	8.60	7.54
12	10	FORTINET	8.04	7.42	7.57	7.07	7.53

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

16. Data storage and backup services

Table 20: In order to provide secure and constantly dependable security service offerings provider and payer entities, a security vendor has to provide the highest level of security, data storage and back-up services. The vendor's service in these areas is superior to the security and back-up system of past internal systems of the client.

OVERALL RANK	Q16 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
1	1	SYMANTEC	9.47	9.61	9.51	9.49	9.52
3	2	TREND MICRO	9.37	9.33	9.44	9.28	9.36
6	3	CSC	8.73	8.79	9.34	9.02	8.97
4	4	FIREEYE	8.86	8.53	9.00	9.00	8.85
2	5	PALO ALTO	9.11	8.32	9.12	8.77	8.83
10	6	BOOZ ALLEN	8.84	8.75	8.85	8.48	8.73
17	7	VMWARE	8.59	8.68	8.31	8.87	8.61
15	8	MCAFFEE	7.80	8.87	8.85	8.91	8.61
11	9	BT	8.14	8.71	8.72	8.84	8.60
9	10	JUNIPER	8.17	9.01	8.92	8.26	8.59

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

17. Technical support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal cybersecurity account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
2	1	PALO ALTO	9.49	9.42	9.56	9.48	9.49
1	2	SYMANTEC	9.61	9.19	9.40	9.64	9.46
6	3	CSC	8.94	9.50	9.25	9.58	9.32
10	4	BOOZ ALLEN	9.43	9.21	8.72	9.20	9.14
15	5	MCAFEE	8.76	8.58	9.15	8.65	8.78
9	6	JUNIPER	8.42	8.43	9.00	8.90	8.69
5	7	NORTHROP GRUMMAN	8.29	9.13	8.91	8.36	8.67
19	8	SECUREWORKS	8.66	8.65	8.22	8.89	8.61
8	9	CISCO	7.93	8.46	9.18	8.78	8.59
7	10	IBM	8.71	7.76	8.95	8.79	8.55

Source: Black Book™ 2018

INDIVIDUAL CYBERSECURITY VENDOR KEY PERFORMANCE

END-TO-END ENTERPRISE CYBERSECURITY SOLUTIONS

18. Best of breed technology and process improvement developments

Table 22: Cybersecurity management and related technology services are considered best of breed. Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. Security services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	TECHNOLOGY SECURITY COMPANY	HOSPITALS	PHYSICIANS	ANCILLARIES & OUTPATIENT	HEALTHCARE CORPORATIONS	MEAN
2	1	PALO ALTO	9.33	9.60	9.26	9.31	9.38
1	2	SYMANTEC	8.94	9.34	9.06	9.37	9.18
3	3	TREND MICRO	9.17	9.06	8.35	9.42	9.00
5	4	NORTHROP GRUMMAN	8.92	8.68	8.49	9.11	8.80
9	5	JUNIPER	9.06	8.55	8.34	9.10	8.76
4	6	FIREEYE	8.29	9.13	8.26	8.83	8.63
14	7	LEVEL3	9.07	8.65	8.55	8.12	8.60
10	8	BOOZ ALLEN	8.07	8.22	8.89	9.05	8.56
7	9	IBM	8.62	7.97	8.03	8.57	8.30
11	10	BT	7.77	8.64	7.74	8.82	8.24

Source: Black Book™ 2018

APPENDIX

BLACK BOOK MARKET RESEARCH LLC SURVEYS & IT USER POLLING

We hope that the data and analysis in this report will help you make informed and imaginative cybersecurity business decisions. If you have further requirements, the Black Book research team may be able to help you. For more information about Black Book's custom survey capabilities, please contact us directly at surveyresearch@blackbookmarketresearch.com

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