

NetDiligence®

2018
CYBER
CLAIMS
STUDY

2019 Spotlight
PROFESSIONAL
SERVICES

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Introduction

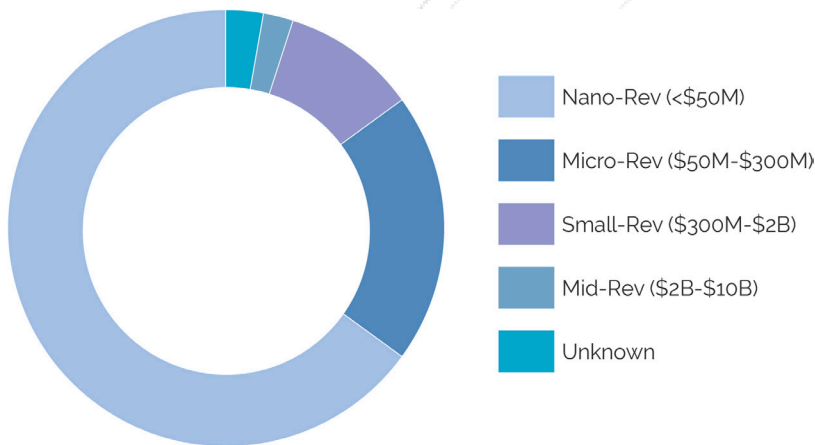
NetDiligence® is pleased to release the second in its series of “deeper dive” claims analyses. Beginning with a recent dataset of over 1,200 claims provided by our insurance partners, we have classified and analyzed 290 claims from the Professional Services sector. These claims provide insight into losses sustained from cyber events over the five-year period of 2013–2017. The incidents that occurred in 2017 have also been analyzed separately.

The Professional Services industry is a significant part of the American economy. In 2017 (the latest data available), the Professional Services industry comprised 1.18M firms, and employed 9M people. The industry had a combined annual revenue of \$1.76T.¹

In addition to overall sector results, the following sub-sectors of the Professional Services industry were analyzed for this report:

- Accounting
- Legal services
- Real Estate services
- Construction/Maintenance
- Insurance

As you review the findings in this report, please keep in mind that the vast majority (85%) of the data breach claims in this study involved smaller organizations (i.e., organizations with annual revenues < \$300M). As a result, our median and average costs tend to be lower than the breach costs reported in more general studies.



¹ Data from www.selectusa.gov/professional-services-industry-united-states

Findings

Breach Costs - Overall

- Average overall Breach Costs for Professional Services claims were \$162K (five-year) and \$81K (2017).
- The Professional Services sector, more than any other, is being disrupted by the rise in cybercrime. In this sector, 91% (five-year) and 93% (2017) of claims were due to criminal or malicious activity. The average Breach Costs for criminal events were \$187K (five-year) and \$85K (2017). For non-criminal events, the average breach costs were \$57K (five-year) and \$27K (2017).
- For the five-year period, the percentage of incidents in which records were exposed and the percentage of recordless incidents were roughly the same: 51% exposed records and 49% did not. The average Breach Costs were also similar: \$145K for events that exposed records and \$179K for recordless events.
- For the five-year period, the percentage of Professional Services claims that included litigation costs (defense and settlements) was higher than all other sectors combined: 12% vs 8% (defense) and 8% vs 4% (settlements).

Breach Costs - Sub-Sectors

We were able to identify a specific sub-sector² in almost 75% of the Professional Services claims. We present data for the top five sub-sectors in the table below:

Sub-Sector	Claims	Min	Average	Median	Max
Accounting	50	3,740	47,198	36,639	293,756
Legal	38	661	103,128	35,994	1,118,088
Construction/Maintenance	25	2,448	58,941	37,612	179,512
Real Estate	23	110	80,968	50,000	268,496
Insurance	19	1,500	32,503	24,768	116,300

² See the Appendix for the types of firms comprising each sub-sector.

Findings

Crisis (Post-breach) Services Costs

- Average Total Crisis Services costs were \$108K (five-year) and \$44K (2017).
- For the individual categories of Crisis Services, the average costs were:
 - Forensics: \$88K (five-year) and \$29K (2017)
 - Legal Guidance/Breach Coach®: \$30K (five-year) and \$16K (2017)
 - Credit/ID Monitoring: \$27K (five-year) and \$7.7K (2017)
 - Notification: \$33K (five-year) and \$13K (2017)
- Average Legal Defense costs were \$33K (five-year) and \$13K (2017).
- Average Legal Settlement costs were \$68K (five-year) and \$47K (2017).
- Average Lost Business Income costs were \$30K (five-year) and \$25K (2017)
- Average Recovery Expense costs were \$25K (five-year) and \$17K (2017).
- Average Total Breach Costs (five-year) for Professional Services organizations with <\$2B in revenues were dramatically lower than for ones with >\$2B in revenues: \$123K vs \$2.3M.

Discussion

Cause of Loss

Ransomware was the most common cause of loss, accounting for 20% of claims over the five-year period and 32% in 2017. Construction and Real Estate paid the highest ransoms, both hitting the six-figure mark.

Hacking (17% of claims over five years; 18% in 2017), BEC/Phishing/Social Engineering combined (16% of claims over five years; 21% in 2017), and Lost/Stolen Laptops/Devices (17% of claims over five years; 2% in 2017) round out the top 4 causes of loss. The Average Breach Costs were:

Cause of Loss	Five-Year	2017
Ransomware	\$73K	\$70K
Hacking	\$405K	\$59K
BEC/Phishing/Social Engineering	\$69K	\$54K
Lost/Stolen Laptop/Device	\$62K	\$21K

The three highest five-year average Crisis Services Costs were due to Rogue Employees (\$457K), Malware/Virus (\$324K), and Hacking (\$197K).

Other Significant Findings

Malware/Virus was also used to capture credit data from third-party payment processing systems or ecommerce sites. Accounting and Real Estate were the top targets for this cause of loss (Average Breach Cost \$182K).

Law Firms acting on fraudulent **Social Engineering** emails accounted for 71% of the Wire Transfer Fraud claims with an average breach cost of \$206K. Attackers were also successful in the Financial Advisor sub-sector with this attack method resulting in an average breach cost of \$742K.

Consulting Services accounted for 93% of Legal Action due to **Trademark/Copyright Infringement**.

Accounting firms comprised 62% of **Legal Action** brought by a card brand, individual or class.

Rogue Employees stealing the identities of clients/customers—and in one case sharing with a foreign interest—resulted in an average Breach Cost of \$408K.

Types of Data

Data of all types was compromised in the Professional Services sector. PII claims were most frequent, followed by Files - Critical³ and Non-Card Financial.

PII	Claims	Min	Average	Median	Max
Records	55	1	15,418	500	450,000
Payouts	77	110	136,507	34,631	3,000,000
Breach Costs	82	110	45,202	37,612	6,160,000
Per-record Breach Cost	55	0.62	381	98.18	2,211
Total Crisis Services Cost	74	110	184,873	33,475	6,160,000
Files-Critical	Claims	Min	Average	Median	Max
Records	5	1	12,128	50	60,000
Payouts	61	945	97,085	48,306	2,240,020
Breach Costs	62	1,500	132,793	63,673	2,740,020
Per-record Breach Cost	5	1.10	1,213	1,489	2,939
Total Crisis Services Cost	45	1,500	125,294	43,270	2,740,020
Non-Card Financial	Claims	Min	Average	Median	Max
Records	11	4	1,871	94	18,493
Payouts	35	1,050	58,539	25,000	250,000
Breach Costs	41	3,550	303,179	39,292	9,093,336
Per-record Breach Cost	11	9.84	4,797	779.27	40,000
Total Crisis Services Cost	31	1,050	46,257	18,450	478,771
PHI	Claims	Min	Average	Median	Max
Records	7	1	820	332	4,200
Payouts	8	886	41,101	28,652	118,478
Breach Costs	11	290	40,969	26,958	128,448
Per-record Breach Cost	7	1.19	19,579	81.75	128,448
Total Crisis Services Cost	9	290	18,012	16,591	48,465

³ Most Ransomware, DDoS, Wire Transfer/Banking Fraud, and Network Outage claims do not expose records. "Files - Critical" is a Type of Data introduced in the 2018 NetDiligence® Cyber Claims Study to characterize these kinds of claims.

PCI	Claims	Min	Average	Median	Max
Records	12	71	29,421	2,664	250,000
Payouts	16	1,770	89,234	32,862	415,000
Breach Costs	17	594	92,991	46,000	465,000
Per-record Breach Cost	12	0.38	28.27	10.90	155
Total Crisis Services Cost	14	1,770	97,774	51,538	465,000

Conclusion

By analyzing the Professional Services industry and the larger corporations they serve, we see their distinction as a “third party” as being exceptional. The unique role they play makes them a data-rich target for data theft, ransomware and fraud.

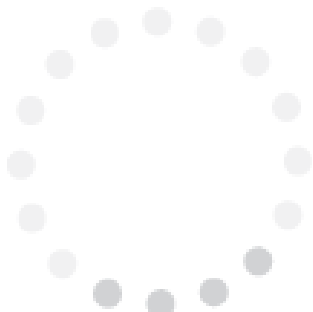
It is important for the Professional Services sector to understand their risk based on their role in the supply chain. Like the organizations they serve, Professional Services firms have arrangements with a variety of third-party vendors and service providers. It’s this next level of providers that is increasingly serving as an attack vector for malicious actors, resulting in expensive cyber events that impact both the Professional Services firm and their clients.

A Note on Methodology

Our data collection, analysis, and reporting methodology are described in detail in the full 2018 NetDiligence® Cyber Claims Study.

Contact Us

For more information about NetDiligence® or any of our service offerings, please visit us at [NetDiligence.com](https://www.netdiligence.com), email us at management@netdiligence.com, or call us at 610.525.6383.



Appendix

Types of Firms in the Professional Services sub-sector groupings:

Accounting – Accountants, Auditing, Bookkeeping, Business Services, Clerical, CPA firms, Payroll Services, Tax Advisor, Tax preparation

Architecture/Engineering – Architectural Firm, Architectural Services, Architecture firm, Engineering Services, Engineering/Architecture

Construction/Maintenance – Building Operator Services, Cleaning service company, Construction, Earthmoving, Facility Management, General Contractors, Heavy Construction Contractors/Construction Managers, HVAC services, Misc. Repair Services, Painting Services, Plumbing and Heating, Railroad system design & consulting, Water meter repair service

Consultants – Consultants, Consulting Services, Business Consulting & Not Elsewhere classified, Compliance Consultant, Management Consulting

Financial Advisors – Asset Management, Banking/Finance/Funds Transfer, Financial/Investment Advisors, Investment Advising

Human Resources – Benefit consultant, Employee Benefits, Employment Agencies, Employment Services, Outsourced Medical Billing Management, Outsourcing and Human Capital, Third-Party Administrators, TPA for owners and operators in transportation and logistics, TPA of Benefit Plans

Insurance – Insurance Agent, Broker, Insurance Agency, Insurance Brokers, Insurance P & C

IT/Cloud Services – Business Cloud Solutions, Cloud Hosting Provider, Information Services, IT consulting, Online Information Services

Legal – Bankruptcy Trustee, Law firm, Lawyers, Legal, Legal Services

Leisure – Resorts, Sports & Recreation Services, Sports Entertainment

Marketing/Advertising – Advertising Services, Communication services, Market Research, Marketing, Marketing Company, Marketing Consultant, Marketing Firm

Other – Agriculture, Car Dealership, Chauffeur/limo transportation services, General Government & Not otherwise classified, Government & Public Authorities, Investigative Services, Labor Union Services, Language Services, Manufacturer, Measuring & Controlling Services, Membership organizations, Misc. Business Services, Platemaking Services, Professional Membership Org, Publisher, Radio Station, State Credit Unions, Trade Organization, Travel Services, Warehousing Services

Printing – Commercial Printing, Printing Services, Printing/Graphics/Design services

Real Estate – Commercial Real Estate, Mortgage company, Parking management and real estate development, Property Management, Property Professionals, Property services company, Real Estate, Real Estate Agents, Real estate firm, Real Estate Management, Real Estate Operators and Lessors/Property Management, Real Estate Services

Security – Security, Security Services

Unknown – No sub sector description was provided