Arx Nimbus

Industry

Financial Services

Environment

- 4,000 employees
- $381 million in digital risk carrying cost annually

Thrivaca Highlights

- Comprehensive status of digital risk enterprise-wide
- Financially-quantified risk profile showing origins and causations
- Typical analysis enables over $2mm in annual cost recovery for less than $200k investment
- Adherence to regulatory and controls frameworks

“ You bring us a far better understanding of our risks than we’ve had until now. This is exactly what we’ve needed ”

Cybersecurity Director, Fortune 500 Thrivaca Customer

The Company

As a $2.8bn financial services firm headquartered in New York, the company operates in a heavily regulated environment. For the past 10-12 years, it has had a robust effort in risk reduction of all forms including cybersecurity or digital risk, financial risk, compliance, personnel risk prevention and third party risks of all types. The company has a Chief Risk Officer, and very active internal audit efforts to identify gap areas in organization, process and technology.

The Situation

Through deploying a $24mm cybersecurity budget, the organization operates a cybersecurity operations center (CSOC), uses over 220 cybersecurity solutions from over 150 vendors, has a 17-person cybersecurity staff, and uses three outside firms to perform regular vulnerability assessments and help design risk-reduction efforts including vulnerability remediation, incident response planning and simulation, and solutions implementation. Most of the current efforts around cybersecurity risk have been focused on specific preventative solutions. Before Thrivaca, there was no mechanism in place to guide or prioritize these efforts, and no means to measure their effectiveness in financial risk reduction terms.

The company was using a risk register since 2015 to track and document individual risks including their projected impact and probability. These values were largely derived from internally-organized workshops to gather the impressions of key stakeholders as to potential losses and the likelihood of certain risk-related events. The risk register organized the company’s expectations and forecasts around these risks, but was based primarily on the expert opinions and professional judgements of key company insiders. Through all of this effort, the company had arrived at a status by 2019 where it did not have a valuation of its total digital risk, creating uncertainty around potentially large unfunded liabilities.

The Solution

The company sought to close these gaps and apply ongoing metrics and data analysis to digital risk as it had in other critical areas of the business. To accomplish this, Thrivaca was implemented with an enterprise-wide scope and a baseline/initial Risk Profile was established in Q4 of 2018.

Using input from recently performed penetration tests, vulnerability scans, internal audit reports, network management metrics and security assessments, the company was able to establish a realistic picture of its then-current controls status at a detailed level, and Arx Nimbus was provided the status detail data which was applied along with historical and industry inputs for quantitative analysis by the Thrivaca data analytics platform.

The initial results showed a variance from the company's previous, risk-register driven projections around several key areas as follows:

Issue	Original Projection	Thrivaca Analytical Valuation
Aggregate Digital Risk (Expected Loss Value)	$75 million	$381 million
Annual Risk Mitigation Target	N/A	$31.2 million
Limitation of Liability	$14 million	$100 million
Remaining (residual-risk) self-insurance cost	N/A	$69.3 million

Using these results, the company was able to determine risk tolerance for its digital programs, data operations and IT systems. These parameters were then applied as risk-level requirements for future and planned projects, and expectations for evaluating vendors and supplier proposals including trading partner relationships.

The company initiated a program to prioritize risk mitigation efforts according to cost of risk. This allowed the bulk of digital-risk resources, budgets and personnel to be reallocated to the areas of greatest risk-cost recovery impact. The company was able to begin applying certain practices used successfully elsewhere in its operations, including Six-Sigma principles of measurement and feedback loops, to the digital risk and cyber risk reduction programs. By targeting risk where it originates, they were able to measure the results of their cybersecurity program, and create ongoing processes to refine and expand the measurable risk-reduction value of those efforts.

Results

- Leadership gained awareness of total digital risk impact, probabilities, and associated annual carrying costs
- Management was able for the first time to access an informed discussion of cybersecurity risks and options
- A financially-driven determination of cybersecurity insurance decisions became possible, allowing the company to optimize the most effective use of cyber insurance coverage
- Company was able to reduce cyber risk carrying costs by 8.2% and recover $25mm in costs in the first year

Arx Nimbus provides the Thrivaca™ quantified analysis of cybersecurity defense, governance, compliance and risk reduction for organizations in every industry. The patented Thrivaca Risk Profile© brings the first financially-literate value analysis of cyber risk at the microeconomic level, enabling enterprise to accomplish digital risk cost recovery; for insurance and insuretech applications; and for advancement of cybersecurity risk reduction programs of all forms. Arx Nimbus is a veteran-owned business and operates with the Chicago Connectory, 1871, University of Chicago's Polsky Exchange, OASIS Group, Tech Data, and the University of Illinois's Department of Mathematics to advance knowledge of cybersecurity risk for every organization.

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