

TechDemocracy

Vertica Analytics Platform partners with Intellicta to provide real-time machine learning-driven predictive analytics relating cyber risk to business risk



Who is TechDemocracy?

TechDemocracy is a framework-driven, solution-agnostic firm dedicated to helping companies operationalize a unique system that matches every business requirement. TechDemocracy builds customized solutions, utilizing the appropriate services to address challenges the cybersecurity industry is facing today.

How to Achieve Data-Driven Decision Making?

Most large organizations face five types of business risk: strategic, compliance, operational, reputational, and financial risk. To assess risk impact and calculate potential damages, extensive security metrics are collected, often

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Chief Architect
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through a Security Information and Event Management (SIEM) solution. But even if all the information is there to interpret, that’s just the start attests Ken Pfeil, Chief Architect at TechDemocracy: “It’s one thing having the data, quite another having it in the right format for board members and decision makers to fully understand. They often can’t get data-driven answers to critical questions like ‘are we secure enough’ or ‘what are the top risks we are facing today.’ In most cases, they rely on reports from existing IT security systems, which haven’t been audited and give them little confidence they are any more secure than the last major company to be breached.

“As a result, business leaders want an automated way to assess their existing infrastructure and overall risk environment compared to best practices and industry regulations, based on the sum of intelligence coming from their security systems and external sources. They need to find and close the gaps across their disparate systems before they are exploited, to make sure they are not the next executive to have to answer for a massive data breach.”

Vertica-Intellicta Partnership for Risk-Level Assessment

TechDemocracy provides Intellicta, a cloud-based continuous IT risk assessment platform that automates workflows needed to assess



At a Glance

- **Industry**
Technology—Software
- **Location**
New Jersey, USA
- **Challenge**
Supporting clients in assessing risk impact and calculating potential damages by applying predictive analytics to huge security datasets
- **Products and Services**
Vertica Analytics Platform
- **Critical Success Factors**
 - + Enabled data-driven decision making
 - + Improved speed and flexibility in huge dataset calculations
 - + Enhanced data correlation supports fraud detection
 - + Applied machine learning for predictive analytics

“Data correlation and cross-correlation give us great indicators of compromise, and compliance breach violations. Vertica’s speed, flexibility, algorithm support, and the ability to calculate across huge datasets stood out for us.”

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the entire existing security operations infrastructure. This is underpinned by the Vertica Analytics Platform to analyze SIEM vulnerability and configuration data, security solution logs, and intelligence feeds. Pfeil describes why Vertica was the obvious partner: “Applying both continuous and predictive intelligent analytics is vital in cybersecurity. Data correlation and cross-correlation give us great indicators of compromise, and compliance breach violations. Vertica’s speed, flexibility, algorithm support, and the ability to calculate across huge datasets stood out for us. This is exactly what we need to apply to our service model and the scenario planning we do with our clients.

“With the support of some superb Vertica engineers, we were extracting large datasets to apply analytics with Vertica within a week. We integrated different systems to add data sources, and this process was very straightforward. Leveraging Vertica’s advanced compression algorithms reduced our disk space and allowed us to process much more data without adding to the existing infrastructure.”

This integration enabled TechDemocracy to introduce a three-tier framework where all operational and implementation-level metrics are analyzed through Vertica. Correlated across 24 different segments, the data is then categorized into specific areas to determine the state of play from a compliance, security, resilience, and general enterprise information

perspective. This information is distilled into an executive dashboard to pinpoint gaps and inefficiencies, prioritize risk investments, and continually track progress.

Vertica Machine Learning for Advanced Predictive Analytics

The Vertica-powered Intellicta platform supports TechDemocracy clients with financial modeling risk indicators, workload planning for security operations and compliance teams, fraud detection with cross-correlated data, and threat hunting to indicate compromises that might elevate risk levels.

Pfeil is clear that Vertica forms a key part of the solution: “Considering the large amount of data many of our clients collate, capacity and load planning is an absolute must in the hunt for real-time data analytics. This is where Vertica is our powerhouse. With the right data, a good data scientist to interpret it, and the right underlying framework, our predictive analytics can give our clients a realistic glimpse into their future. Vertica’s machine learning capabilities are proving valuable in this respect, and we look to expand this capability further.”

“Leveraging Vertica, we can show our clients how secure they really are,” Pfeil concludes. “It gives us the high level risk and compliance dashboards data, and actionable alerts that facilitate effective communication, and ultimately greater confidence.”