



VOTING SYSTEM CERTIFICATION TESTING & CYBERSECURITY SERVICES

YOUR BEST ONE-STOP INDEPENDENT TESTING CHOICE

SLI
COMPLIANCE®

TESTED, PROVEN,
TRUSTED PARTNER

Every election is important. That's why you and your team take each election so seriously, you want to get it right...So, how can you be sure your voting machines, systems, software, and processes are functioning properly and securely?

Fortunately, there's SLI Compliance®, an accredited Voting System Test Laboratory (VSTL) under the auspices of the National Voluntary Laboratory Accreditation Program (NVLAP TESTING Lab Code 200733-0) of the National Institute of Standards and Technology (NIST), in partnership with the United States Election Assistance Commission (EAC).

SLI Compliance has been there from the very onset of federal certification testing for voting equipment, systems and software, and has the on-staff expertise and resources to provide high-quality compliance testing, certification and professional services to international, state, and local governing bodies.

Plus, with our ISO 17025 and ISO 9001:2015 certified status, our voting methodology has been audited for compliance against strict NIST NVLAP standards and is utilized uniformly across our many projects.

SLI Compliance understands that system security is a top priority... that's why we are pleased to introduce our sister company, Bulletproof.

In the wake of a phishing cyberattack targeting local U.S.-based election officials, election system security is more important now than ever to state and local election administrators. This is a reminder that election officials and voting system manufacturers must remain vigilant about election system security.

SLI Compliance understands that, in today's world, system security is a top priority in any voting or election program. That's why we're pleased to introduce you to our sister company, Bulletproof, a trusted provider of world-class cybersecurity, Information Technology (IT) services and end-to-end solutions.

When it comes to modern cyberwarfare, the best offense is a good defense. With SLI Compliance's 15+ years of voting and election industry experience combined with Bulletproof's 17+ years of IT and cybersecurity expertise, you can be confident in the integrity and security of your election systems.

NVLAP®
TESTING
NVLAP Lab Code 200733-0



Bulletproof's comprehensive portfolio of best-in class solutions includes significant expertise in cybersecurity, enabling them to bolster existing security services for the voting and elections industry. When you complement your existing resources with Bulletproof's deep technical proficiency and the expertise of their industry-certified IT professionals, the result is tailored solutions that meet your specific business needs at a fraction of traditional in-house setup costs.

With Bulletproof, you also have a team you can rely on for accurate and up-to date professional risk assessment, audit, testing and advisory services.

More than 70,000 users on six continents trust Bulletproof to secure their networks, data and people. From 24/7 threat monitoring to employee training and emergency incident response, Bulletproof puts their specialized knowledge and state-of-the art technology on their clients' side. Because they're more than IT consultants – they're cybersecurity experts.



KEEP YOUR SYSTEMS - *and your business* - COMPLIANT AND SECURE

Through flexibility and responsiveness, we provide the first-rate customer service you deserve.

Outstanding service and quality commitment are our top priorities, and we deliver just that to each and every one of our clients. We are committed to maintaining independence, impartiality and holding ourselves to the highest standards of integrity.

“The work of the entire SLI team has definitely lent so much credibility to this entire electoral process...for this alone, you have the gratitude of not just this member of the Technical Evaluation Committee, but more likely that of an entire nation.”

TIM DIAZ DE RIVERA, DIRECTOR GENERAL
NATIONAL COMPUTING CENTER - REPUBLIC OF THE PHILIPPINES

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OUR EMPLOYEES

Our team is comprised of some of the highest accredited and most experienced IT professionals in the voting and election industry. The growth we have experienced is a testimony to our team's competency, dedication and talent. We consistently invest in and develop our employees' expertise and skills in order to achieve the growth and advancement they need to reach both their, and SLI Compliance's, full potential and deliver world-class solutions to customers here at home and around the globe.

Our culture is built on transparency, ownership and accountability...



COMPLIANCE IS IN OUR DNA

VOTING SYSTEM CERTIFICATION TESTING & ELECTION SUPPORT SERVICES

During elections, it's important to ensure that your voting systems and processes are functioning correctly. Voting systems lose accuracy and proper functionality as they get older, creating a number of issues including discrepancies in the tallying of votes. Using an outside VSTL (Voting System Test Laboratory) to identify and remediate any issues with your systems will limit risk and help to extend the life of your voting systems.

Testing these systems to ensure quality performance is the only way to build and maintain voter confidence; however, this can be difficult without testing or compliance standards in place. SLI Compliance has a team of professionals to help ease election-related worries with our suite of voting system testing services including requirements development for certification testing.

Our extensive knowledge of election processes, software security practices, and voting system industry standards assures your test engagement receives the high-quality testing rigor required to meet today's certification standards.

The **SLI Advanced Voting System Test Protocol™ (AVSTP)** is designed to ensure that all parties fulfill stipulated certification requirements.

The advantages of AVSTP:

- > Testing that covers the full range of election system requirements for any electoral system.
- > Modular test methods to ensure election systems are secure, accurate, reliable, and auditable.
- > Reporting capabilities that deliver transparent and precise results.

VOTING SYSTEM CERTIFICATION TESTING

- Document Review
- Source Code Review
- Functional Testing
- Security Testing
- Electrical and Environmental Testing
- Electronic Poll Book Testing

ELECTION SUPPORT SERVICES

- Risk Limiting Audits
- Logic and Accuracy Testing
- Election Procedures Assessment
- Acceptance Testing
- Configuration Verification
- Pre- and Post-Election Forensic Analysis
- Voting System Standards Development

***HELPING TO ENSURE
ELECTIONS ARE RELIABLE,
ACCURATE, SECURE.
THAT'S SLI COMPLIANCE.***

“SLI’s work assisted the City Council greatly in understanding the strengths and weaknesses of existing systems and helped restore confidence in these systems for future elections.”

JAMES L. BECKLENBERG, ASSISTANT CITY
AND COUNTY MANAGER
CITY AND COUNTY OF BROOMFIELD,
COLORADO

REDUCE RISK WHILE INCREASING YOUR BOTTOM LINE

PRE- AND POST-ELECTION FORENSIC ANALYSIS

SLI Compliance® offers election officials worldwide a host of election-related services, from general election consulting and voting systems certification programs to analysis of pre- and post-election system performance. Forensic Analysis ensures electronic voting systems are appropriate for use.

SLI Compliance can assist by making certain that the configuration of the certified election system is maintained during deployment and that election data integrity is preserved during all phases from set-up to counting and recording and transmission of results. Our services can be provided either pre- or post- elections.

***DON'T WAIT UNTIL YOUR
SYSTEM FAILS...
LIMIT YOUR RISK NOW AND
EXTEND THE LIFE OF YOUR
VOTING SYSTEMS***

DID YOU KNOW?

- SLI Compliance is currently the Independent Test Authority (ITA) for the New York State Board of Elections.
- We have visibility into a known vulnerability database that keeps us updated of potential issues that may not be known to states and smaller jurisdictions.

PRE-ELECTION FORENSIC SERVICES

- SLI Compliance conducts system audits and test elections to ensure that the deployed system is identical to the certified baseline and that no improper data entry or security penetration occurred that would affect count accuracy.
- SLI Compliance conducts audits to ensure security techniques being used are valid and that effective security procedures are contained in the design. Security features are compared for validity against NIST Special Publications, EAC Guidelines, and ANSI Standards & Guidelines.
- SLI Compliance ensures that techniques being used are effective as built and can recommend enhanced techniques that should be implemented where needed.
- SLI Compliance reviews the end-to-end security process to identify any weaknesses in the security chain. We pay particular attention to any aspects of the overall design that could place the system at risk.
- In addition to component or feature-level tests, SLI's end-to-end security and forensic analysis test methods are designed to validate the security of all aspects of the system. Testing can include voter registration, the creation of ballots, the transmission of ballots and receiving of marked ballots, the recording and tallying of results, providing voter confidentiality, and the audit/recount process.
- SLI Compliance uses FIPS compliant hashing algorithms to provide independent verification and validation to confirm the software and data have not been modified in any manner from the originally tested baseline.

- Source Code is exposed to various tools to determine possible security risks. SLI Compliance checks the as-built software to verify that error checking is performing as expected, the system reacts to the errors and there are methods in place to prevent issues like buffer overflows, pointers not being freed, penetration attacks, and unauthorized insertions of code.
- Security algorithms and security policies are reviewed to validate correct implementation. Our experience shows that cryptographically compliant modules may be present, but if the security policies are not correctly implemented, the system may not be secure or compliant.

POST-ELECTION FORENSIC SERVICES

- SLI Compliance compares the static and semi-static files of the voting system and each of its components through before and after images to ensure the system is functioning and tabulating according to specified parameters.
- SLI Compliance ensures that the code contains no hidden functionality, back doors, Trojan horses, conditional compilation flags, test flags, or hardcoded passwords.
- SLI Compliance confirms election systems haven't been compromised or contain unauthorized updates. SLI Compliance identifies any and all added, altered or deleted files, programs, scripts or other operating components.
- Risks identified by SLI Compliance are itemized corrective actions and compensating controls, including system configurations and architecture that can mitigate risks.

DON'T LET APPLICATION FLAWS LEAVE YOU VULNERABLE

SOURCE CODE REVIEW

IN TERMS OF SECURITY
AND COMPLIANCE,
SOURCE CODE IS
CRITICAL FOR YOUR
BUSINESS

SLI COMPLIANCE HAS PROVIDED
SOURCE CODE REVIEW FOR MULTIPLE
SECRETARY OF STATE OFFICES AND
ELECTION BOARDS

HOW SURE ARE YOU THAT YOUR APPLICATION SOURCE CODE IS
COMPLETELY FLAWLESS?

With SLI Compliance's proven source code review methods, you get innovative, highly reliable, custom solutions that give you the critical knowledge you need. Knowledge that helps professional source code review engineers with sophisticated skill sets and extensive experience across a range of industries, including financial services, transportation, telecommunications, aerospace, healthcare, voting systems and e-commerce.

We provide a step-by-step inspection as well as automated analysis of software to locate errors or unexpected conditions. Our review covers conformance to standards, modularity, commenting and maintainability.

We also perform security analysis of the source code using automated tools to identify vulnerabilities and security weaknesses. Automated scanning of application source code using commercial static secure analysis tools, combined with manual analysis is completed to identify data entry points, perform data flow analysis, trace user controllable data from entry points, and search the code base for known gaps and software vulnerabilities.

PROTECT YOUR ASSETS FROM VULNERABILITIES

SLI Compliance understands the source code in your election system is critical for success. Our process and tools make it possible for us to evaluate every aspect of your code (composition, organization, labeling) against industry-acknowledged code development standards and identify errors that could compromise security.

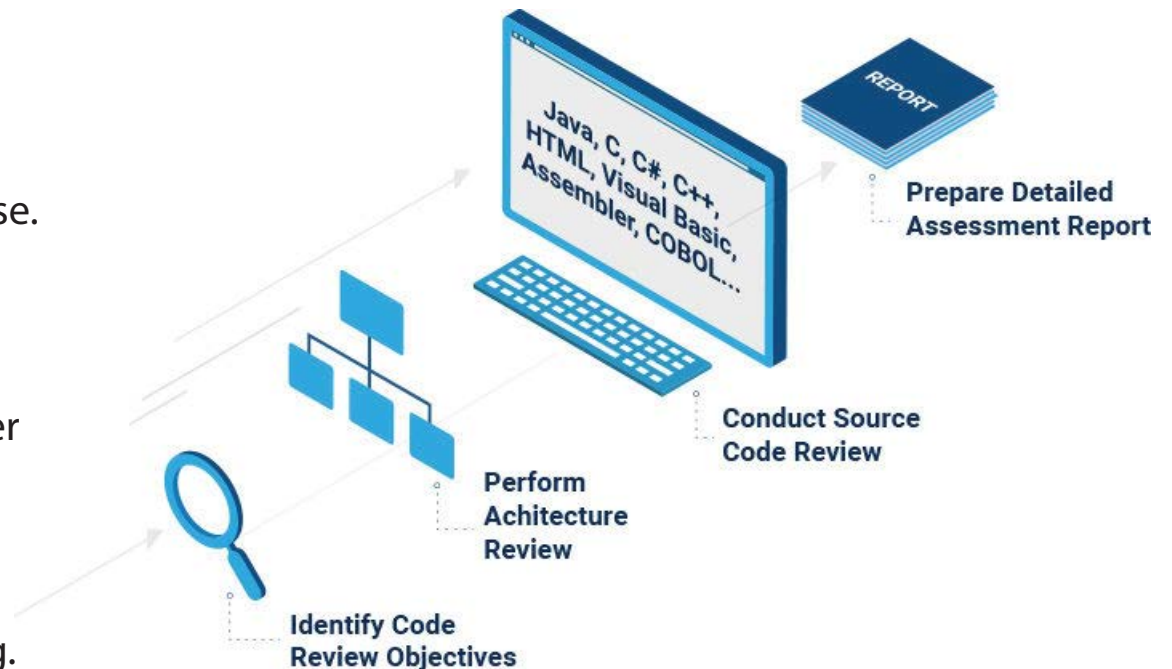
By making sure your code is intelligible, stable and maintainable, SLI Compliance® helps you keep your systems—and your business—secure and compliant.

Benefits

- Identifies errors and inconsistencies that could lead to security failures.
- Allows for discovery and correction in the development phase instead of after release.
- Produces more intelligible, stable and maintainable code.
- Standardizes code, which results in shorter learning curves and maintenance cycles.
- Improves application security.
- Increases logic and consistency in naming.

Proven Results

One of SLI's clients expressed concern about why their custom software vendor was expending excessive effort to make simple software changes. Our examination of the system's source code revealed that the software had been written with inconsistent and ambiguously defined values, in violation of basic programming concepts. Remediation is currently underway and the client is receiving a better product.



“U.S. Elections Are More Vulnerable Than Ever to Hacking” - POLITICO

“Cyberattacks in Mexico Raise Alarm Bells Ahead of Sunday’s Election”

- Bloomberg

“Not Just Ballots: Tennessee Hack Shows Election Websites are Vulnerable, Too” - npr

“Senate Committee Urges Action to Prevent Election Hacking”

- REUTERS

“French Presidential Candidate Confirms ‘Massive’ Hack Days Before Election” - POLITICO

**THE ABSENCE OF A
PROPER SECURITY
PROGRAM IS
SIMPLY NOT AN
OPTION.**

“TIME’S RUNNING SHORT TO STOP 2018 ELECTION HACKING, SENATORS SAY”

- Bloomberg

“Kenya’s Odinga Says Election System Hack Caused ‘Massive’ Vote Fraud”

- REUTERS

CYBERSECURITY



Security can no longer be viewed as an extra layer of a business protocol. CIOs are worried about breaches, their organization's reputational risk and protecting their client data. These risks are becoming more and more impacting. Security must become embedded in organizations' core business framework.

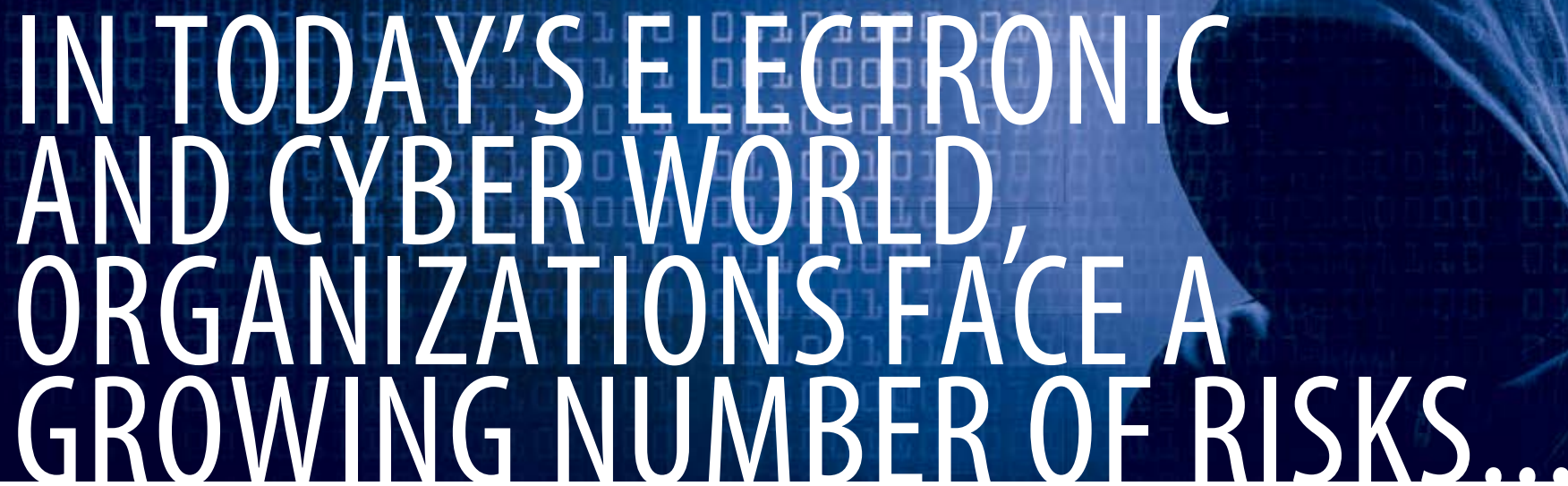
With the growing cyber-crime landscape, threats to private or intellectual property, and the ever-increasing fallout associated with security incidents, failing to implement the appropriate countermeasures can be hazardous.

WHY BULLETPROOF?

It's no wonder that security and privacy are listed as the second most pressing concern for CIOs in last year's Forbes Annual Survey. According to the IBM X-force Threat Intelligence Index, a whopping 95% of cyberattacks and incidents exploit unsuspecting and uninformed employees, and according to another 2017 IBM survey, the average data breach costs 4 million dollars. The risks are simply too great to ignore, which is why we've spent the last 17+ years honing our IT security expertise to equip our clients with solutions that help them mitigate risk, achieve compliance, and protect their organizations.

DID YOU KNOW?

- More than 7 in 10 of all U.S. organizations were affected by a data breach in some way over the past few years.
- The average security breach goes undetected 197 days and the average data breach costs 4 million dollars, according to a 2017 IBM survey.



IN TODAY'S ELECTRONIC AND CYBER WORLD, ORGANIZATIONS FACE A GROWING NUMBER OF RISKS...

...IT IS MORE IMPORTANT THAN EVER FOR THESE ORGANIZATIONS TO HAVE A TEAM THEY CAN RELY ON FOR ACCURATE AND UP-TO-DATE, PROFESSIONAL RISK ASSESSMENT, AUDIT, TESTING AND ADVISORY SERVICES.

The Bulletproof Cybersecurity Team provides businesses with IT security and compliance services to ensure they are protecting the confidentiality, integrity and availability of their data and information. Delivering a comprehensive suite of services designed to empower audit, risk and compliance professionals, business leaders, and the boards they serve to reliably achieve business objectives.

DID YOU KNOW?

Lack of competent in-house staff outranks all other forms of cybersecurity worry for CISOs in 2018, including data breaches to ransomware attacks. (Source - Ponemon Institute Survey)

RUNNING A BUSINESS IS
HARD. WE MAKE YOUR
IT SYSTEMS **SIMPLE.**

SAFEGUARD YOUR DATA AND YOUR REPUTATION

CYBERSECURITY SERVICES

Bulletproof provides IT security assessment services, including network risk assessment services (ethical hacking) and assessments of your information security processes. A well-designed and functional IT security program aligned with your company's business objectives can help drive an effective and efficient organization while protecting the confidentiality, integrity and availability of assets and information.

NETWORK RISK ASSESSMENTS

Cyber threats can come from external and internal sources. Either way, the fallout from a security breach can be catastrophic. And if you operate in a sensitive or controversial industry such as voting, your risks are amplified. Our Network Risk Assessment is powerful tool to help you proactively manage those risks. Whether you've been the victim of a breach, worry that your last security audit was lacking or you require a risk assessment as part of an operational audit requirement, Bulletproof's NRAs go beyond basic vulnerability scans to a level of detailed testing required to give you meaningful insights into your network security and how to optimize it. Our testing covers Internal, External and Wireless plus applications such as your websites.

INFORMATION SECURITY MANAGEMENT SYSTEMS ASSESSMENT

Bulletproof provides third-party assessment services of your information security processes against a recognized industry standard and other reference materials (e.g. NIST 800:53, Center for Internet Security A Handbook for Elections Infrastructure Security Version 1.0, Report on Cyber Vulnerabilities in U.S. Election Equipment, Databases, and Infrastructure, September 2017, Congressional Task Force on Election Security Final Report) and can provide your organization with reporting that identifies any gaps against the chosen standard and recommendations for improvement.

Bulletproof provides businesses of all sizes and shapes with affordable, world-class security solutions that would otherwise only be available to the very largest of enterprises.

"This team of high-class experts cover just about any topic in IT that you need help with and are ready to jump in with both feet to respond to your needs. This is a team that goes the extra mile to make things right and to help the customer understand what is at stake."

JEFF MELVIN, IT MANAGER
ADVANCE SAVINGS CREDIT
UNION

LOAD & PERFORMANCE TESTING

Our professionals can evaluate an application or system against load and performance requirements through tuning, optimization or refactoring as well as validating response times, throughput and breaking points using load, stress, endurance, volume and scalability testing techniques. We will ensure that the voting system will handle a high volume of transactions for your elections.

MEET THE DEMANDS
OF TODAY'S RAPID
SOFTWARE DEVELOPMENT
LIFECYCLE METHODS

"ES&S enlisted the help of Bulletproof to complete a network performance analysis on a current network architecture in use. After a thorough review of the network, Bulletproof discovered key network bottlenecks and provided recommendations on ways to improve performance. The key findings that were found led to measurable improvements on future projects. I was impressed by Bulletproof's thoroughness, knowledge, and professionalism and look forward to future engagements with them."

MICHAEL ANTHOFER, DIRECTOR OF TECHNICAL SERVICES,
ES&S (ELECTION SYSTEMS & SOFTWARE)

PERFORMANCE TESTING

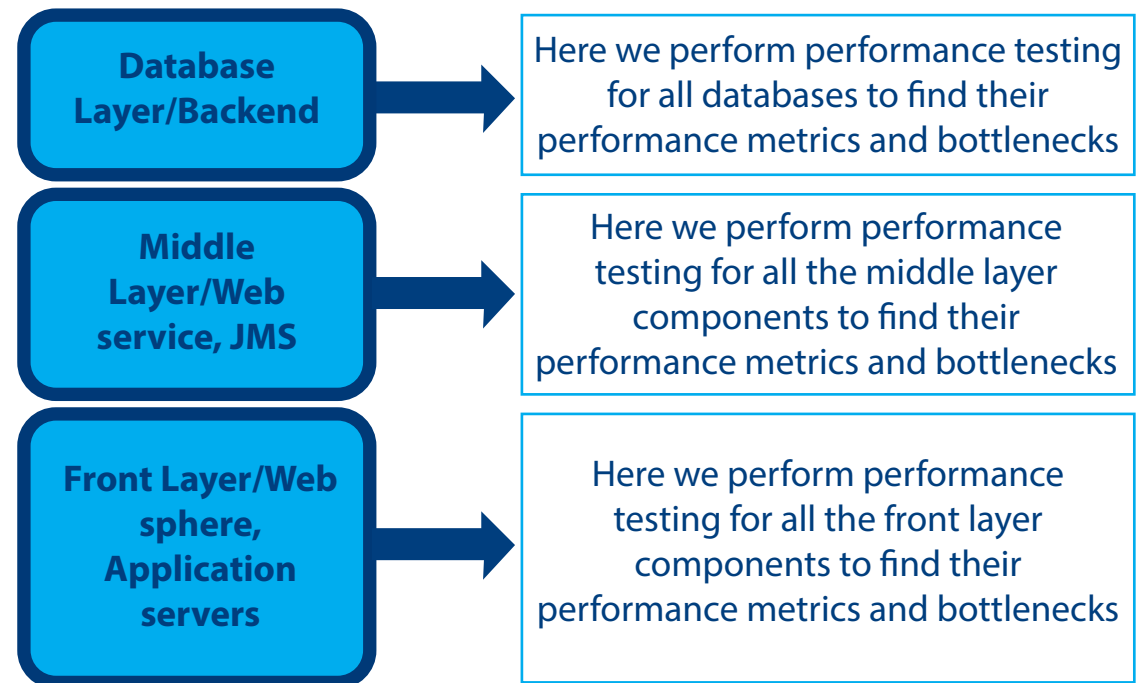
Performance testing determines how a system performs in terms of responsiveness and stability under a particular workload. Performance testing can also be used to investigate, measure, validate or verify other quality attributes of the system, such as scalability, reliability and resource usage.

LOAD TESTING

Load testing is the process of applying ordinary stress on a system or device to see if it can perform as intended under normal conditions. Load testing is performed to determine a system's behavior under both normal and anticipated peak load conditions. This testing helps identify the maximum operating capacity of an application as well as any bottlenecks or component degradation in the system. A load testing approach generally includes the practice of modeling the expected usage of a software program by simulating multiple users accessing the program concurrently.

Bulletproof has conducted performance testing in most types of software development life cycles ranging from Waterfall and V-model to Agile models and has experience helping clients define their performance standards and process. We have assessed very complex system architectures to determine the performance baseline/benchmark metrics and bottlenecks, during which, we have educated our clients on performance concepts and how to define performance requirements.

3-tier/Component based performance test:



SECURE, ENABLE, & EDUCATE

INTRODUCING SECURITY AWARE



**TRANSFORM YOUR PEOPLE
FROM CYBERCRIME TARGETS
TO ACTIVE DEFENDERS OF
YOUR CYBERSECURITY.**

**Average phishing rates decrease from
25% to less than 8% with Bulletproof's
Security Aware.**

Bulletproof believes a comprehensive security program starts with your people, protecting and empowering them through education and simulated cyber-attacks. Our approach also helps organizations improve processes and build a stronger cybersecurity culture through the introduction of personal and organizational risk scores. Also, we help customers understand and fix cybersecurity technology gaps.

CYBER-TRIED, TESTED AND TRUE RESULTS

CUSTOMER BENEFITS INCLUDE:

- A WORLD-CLASS TARGETED PHISHING AND USER AWARENESS EDUCATION SERVICE
- A DEDICATED CUSTOMER SUCCESS COACH
- SECURITY POLICY TEMPLATES
- EXPERT REVIEW OF YOUR ORGANIZATION'S SPECIFIC RISK SCORES AND GAPS
- TELEPHONE AND EMAIL SUPPORT
- QUARTERLY RISK REVIEW BRIEFING

Security Aware has been designed to address the full scope of cybersecurity people challenges inside organizations. It was recognized early on that addressing the people portion of the security equation was a critical path for a highly effective overall security profile. The Security Aware service will layer additional organizational intelligence and security posture improvement into your organization. The service is designed to make it faster, easier and less complex for companies of all kinds and sizes to get a sense of their cyber risk and to help them take actions to reduce that risk.

Reports with metrics and key risk indicators make it easy for managers, senior executives and boards to gauge cyber risk and organizational efforts to manage that risk. Cybersecurity awareness courses are delivered to your users in response to key stimulus provided through automated and targeted phishing simulations that test the user risk and address it, continuously improving on the organizational risk score.

Bulletproof provides a unique scoring system that generates cyber risk scores for the organization, its departments or groups and individuals, helping improve awareness and introduce accountability. It is easy to see from initial baseline scores where to apply additional effort.

Incident tracking allows you to perform problem management over time. Insight such as this is invaluable in determining where to place additional security controls, deeper remedial training, or safeguards into the budget. Security incidents can be logged in the system (for example email borne malware that is triggered) and these are weighed into the risk score.

TRAINING FOR ELECTION DAY VOLUNTEERS

INDUSTRY LEADING EDUCATION SERVICES

One of the biggest challenges facing the election process is providing adequate training to the hundreds of thousands of volunteers who work election day throughout a particular state and/or county. A robust online training program is a solution for this challenge.

Our team understands that our clients face critical challenges communicating messages and that education is not simply about providing new information or re-enforcing existing information. It should be a strategic, planned, and measured exercise to bring about change and achieve the desired learning outcomes. We design education solutions to not only deliver these messages, but to provide an opportunity for a continuous improvement cycle.

Additionally, we have specific experience developing election role-based eLearning. The training encompasses the requirements for each of the roles involved in an elector's journey to cast their ballot. Each role is provided a view into how their role fits into the overall elector flow. The training developed also includes how to use software systems to modify elector details and how to use and troubleshoot the electronic ballot systems.

DID YOU KNOW?

Elearning leaps time and cost constraints and meets your team where they are and when they need it.

Elearning allows you to deliver consistent training across your organization.



BULLETPROOF

a GLI company

1-866-328-5538
bulletproofsi.com

THE PEOPLE,
PROCESS, &
TECHNOLOGY YOU
NEED TO KEEP **IT**
RUNNING.



SLI

COMPLIANCE®

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*Helping to ensure elections are reliable,
accurate, and secure. That's SLI Compliance.*