

## Compliance, Risk & Resilience: **VULNERABILITY TESTING & REMEDIATION**

Regular, purposeful technical testing remains among the most effective ways to empirically discover vulnerabilities that are present across the information technology and operating technology environments. Risk-aware organizations use regular, independent testing to understand weaknesses and vulnerabilities in their systems by demonstrating and documenting exactly how attacks can be successful, where across the technical and communications environment threat actors can penetrate, and the specific exploits those actors can execute.

Some testing requires the skills of our ethical hackers to think like bad actors and impersonate their likely attack vectors, so organizations can make risk-based adjustments to the configuration and security of network architecture, applications, and devices. Vulnerability discovery should be continuous, rigorous and should always include validated remediation. Risks exposed by technical testing range from the benign to the critical, and effective remediation plans should address these with proportional effort and attention.

We help our clients appreciate the risks to their information systems and the vulnerabilities in their information security environments by performing comprehensive technical tests that empirically demonstrate the cracks in their armor. Our independence enables us to expertly probe client systems — as insiders or external ethical hackers — to understand the vulnerabilities and potential attack vectors, and to help clients understand and close their gaps. We help clients recognize how a “tip of the iceberg” often obscures more profound security issues.



### SERVICES

Our suite of tests can identify code and process-level vulnerabilities in the network, as well as in web and mobile applications. These tests can even document how field-level devices installed across the operating footprint of energy, utility, transportation, extraction, and process manufacturing entities are exposed to competent threats. Our testing methods include:

- White box and black box penetration testing and ethical hacking
- System and source code scanning
- Sensitive data discovery
- Document exfiltration testing
- Social engineering testing
- Web and mobile application security testing
- Industrial control systems risk & vulnerability assessments
- Remediation oversight & validation
- Security architecture risk assessment



We use other advanced techniques to help clients “check under their hoods” and remediate vulnerabilities at the root-cause level. The objective of our technical testing is not to find fault, but to reveal to clients specific and immediate measures they should take to close each vulnerable pathway, resolve any weakness, or prevent potential exploitation.

## REPRESENTATIVE ENGAGEMENTS

### **Web and Mobile E-commerce Security and Fraud Control Testing for Global Retailer**

We conducted a deep dive into a luxury retailer’s e-commerce applications, adherence to Payment Card Industry Data Security Standard [PCI-DSS], and adequacy of fraud control processes from stock keeping unit [SKU] selection to checkout. We applied white-box and black-box ethical hacking techniques to rigorously test these defenses and document our findings.

### **Annual Cycle of Pen Testing for an Insurer**

We ran a cycle of penetration tests on systems and applications for an acquisitive specialty insurer to provide independent insight into system vulnerabilities.

### **Testing of Applications Containing Electronic Health Records [EHR] HIPAA Data**

We assessed the security controls surrounding numerous applications containing electronic protected health information [ePHI] and provided clients with security remediation alternatives for an electronic health record system provider and a large municipal medical center.

## THE B. RILEY DIFFERENCE

Our testing experts are seasoned ethical hackers and secure software developers. They have published on the subject, spoken at industry forums, and regularly conduct technical testing for our clients. We use industry-standard proprietary tools and techniques in our scanning services, and regularly identify and research new technology in such areas as real-time document ex-filtration testing. We are often engaged to conduct periodic system scans and penetration tests over a year-long cycle to help clients ensure good ongoing network security hygiene. We document root causes of our vulnerability findings at the technical level and provide narratives to help management understand risk and impact factors.

### PRACTICE LEADER

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# ABOUT THE FIRM

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## ABOUT B. RILEY ADVISORY SERVICES

B. Riley Advisory Services provides specialty advisory services and solutions to complex business problems and board-level agenda items. Our team applies a unique mix of skill sets to address top-level, non-typical business challenges, such as developing compliance and risk systems for organizations, planning and executing a major acquisition or divestiture, pursuing a fraud investigation or corporate litigation, or managing through a business crisis or bankruptcy. In addition, we are a leading provider of valuation and appraisal services for asset-based lending applications.

Our team works with lenders, law firms, government entities, private equity sponsors and companies of all types. Our Advisory Services are a unique mix of Compliance, Risk & Resilience Services, Valuation and Appraisal Services, Restructuring and Turnaround Management, Operations Management Services, Forensic Accounting and Litigation Support and Transaction Support Services including Due Diligence and Quality of Earnings Reviews. B. Riley Advisory Services is a combination of the firms formerly known as GlassRatner Advisory & Capital Group and Great American Group.

## ABOUT B. RILEY FINANCIAL (“B. RILEY”)

B. Riley Financial, Inc. [NASDAQ: RILY] companies provide tailored financial solutions to meet the strategic, operational, financial advisory and capital needs of its clients through a diverse range of collaborative and complementary business capabilities.

B. Riley's diverse suite of business capabilities goes beyond traditional financial service offerings. By leveraging cross-platform expertise and assets, our business units are uniquely positioned to provide full service, collaborative solutions at every stage of the business life cycle and in all market conditions.