



GAMING LABORATORIES
INTERNATIONAL®



SERVING iGAMING WORLDWIDE

iGAMING SECURITY AUDITING & CONSULTING SERVICES

PUTTING DECADES OF iGAMING SECURITY EXPERIENCE TO WORK FOR YOUR

GLI[®] A TRUSTED, PROVEN

For nearly three decades, Gaming Laboratories International (GLI[®]) has worked closely with gaming stakeholders around the world, offering an unparalleled range of services designed to support our clients in creating the competitive edge of a world-class organization with security and integrity. Drawing from our experience in more than 475 jurisdictions worldwide, we have aligned with iGaming regulators, operators and software suppliers to deliver services that meet the highest standards of quality, ensuring that the work we do for you

is second to none. We are grateful for the opportunity to work with you, providing long-term, value-added solutions. You will not find another company more dedicated to helping safeguard your assets than GLI. Today, close to 50 regulated iGaming markets rely on us to help maximize the efficiency, security and compliance of their iGaming operations.

The significant growth in and the reliance on additional technology channels to deliver iGaming operations comes with an equally significant escalation in risk. Whether it is the modernization of product delivery, the introduction of iGaming as a source of revenue or the protection of these assets, we recognize this increasing threat to your business. We have spent many years developing a strong, global professional and technology services practice through the expansion of our capabilities and by investing in industry experts to the benefit of our customers. Our commitment to keeping your assets safe

has resulted in the development of a global professional and security services practice that is strong, due to the sheer volume and quality of our experts on staff. To enhance our ability to reduce risk for iGaming operators, we have formalized our professional and technology services brand, now known as Bulletproof – a trusted provider of world-class solutions including software quality assurance (QA) and testing, cybersecurity, and end-to-end Information Technology (IT) services.

Through Bulletproof, we offer specialized practices around each of our service offerings to empower the continuous improvement of your iGaming processes, systems and overall business infrastructure. Our knowledge of the iGaming industry and our understanding of iGaming systems provide tremendous value to iGaming operators. Our comprehensive portfolio of best-in-class security auditing and consulting solutions leverages significant expertise in iGaming regulations globally, enabling us to bolster the very best services



OPERATION

ADVISOR

to ensure you and your players are fully secure. When you complement your existing resources with our deep security proficiency and the expertise of our certified IT security professionals, the results are solutions tailored to meet your specific business objectives.

With Bulletproof - a GLI company, you also have a team you can rely on for accurate and up-to-date iGaming deployments, cybersecurity assessments and consulting. We are here to support you every step of the way to meet your business objectives while protecting player trust and managing integrity and security.

 **BULLETPROOF**

a GLI[®] company



TABLE OF CONTENTS

“Gaming Laboratories International (GLI®) and our professional services division, Bulletproof, provide end-to-end security solutions to ensure that you are protected from breach at all times. Let us work with you so your organization doesn’t become the next big news story for the wrong reasons. **Keep hackers out and profits in!**”



INTRODUCTION

Our Team.....	3
Security Today	4

INFORMATION SYSTEM SECURITY (ISS) ASSESSMENTS

Preparing You for Every Audit	7
Security and Audit Services	9

iGAMING MODERNIZATIONS

Trusted Technical Advisors.....	11
---------------------------------	----

VENDOR MANAGEMENT

Independent Verification & Validation	12
Multi-Vendor Management	12
System Security Implementation Planning	12

IMPLEMENTATION AND MANAGEMENT

System Security Cutover.....	13
System Security Maintenance	13

LOCATIONS

World Map	17
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JAMES MAIDA, PRESIDENT/CEO,
GAMING LABORATORIES INTERNATIONAL (right)
STEVE BURNS, CEO, BULLETPROOF (left)

OUR TEAM

Our experts are comprised of some of the highest accredited and most experienced IT security professionals. While others who serve iGaming come from firms with little to no gaming specific experience, our experts have decades of gaming specific security experience. This differentiates us from the rest and makes us extremely competitive because we don't have to learn the business of our clients first like other firms often do. We identify operational risk that others miss, and we are always a cut above the rest.

Our senior leadership team ensures our global resources receive the best support, most advanced and up-to-date methodologies and assessment and auditing tools as well as training while enabling them to deliver world-class solutions to our valued iGaming clients around the globe.

“iGaming clients trust our team, knowing they are some of the best professionals in the world. The consistent growth we have experienced is a testimony to our team’s competency, dedication and talent.”



Pictured Left to Right:

WADE DAUPHINEE
Director GRC

THOMAS BIERBACH
Director Lottery Services

GREG DOUCETTE
VP Solutions Delivery & GRC

KELLY BLACK
Managing Director Solutions Delivery



SECURITY AND PRIVACY ARE LISTED AS THE NO. 2 CONCERN FOR CIO'S IN A 2016 FORBES ANNUAL SURVEY. **THE AVERAGE SECURITY BREACH GOES UNDETECTED 197 DAYS**, AND THE AVERAGE DATA BREACH COSTS **\$4 MILLION**, ACCORDING TO A 2016 IBM SURVEY.

CYBERSECURITY CONSULTING PRACTICE

Our **Cybersecurity Consulting Practice** delivers 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, address uncertainty and act with integrity.

We bring together market-leading services for the delivery of quality management solutions, global regulatory intelligence, IT process improvement, enhanced due diligence, compliance management, internal audit, and risk management services. We also specialize in IT Security Assessment, Ethical Hacking and IT Security Consulting; Payment Card Industry PCI:DSS;

Source Code Security Audit; and ISO 27001 Information Security Management Systems Assessment and Certification.

iGAMING TECHNICAL & SECURITY STANDARDS CONSULTANCY

GLI is proud to have assisted regulatory bodies across the world for the development of their technical and security standards for iGaming. Because of its long-standing role in the testing of iGaming deployments around the globe, we have also been requested to provide advice to regulators seeking to update their iGaming technical and security standards.

To further contribute to the development of a regulatory framework for iGaming, We released a model technical standard for iGaming systems and security – GLI-19. We welcome jurisdictions to adopt this standard in its entirety or utilize its content as a basis to aid the development of their own robust standards.

**GLI - YOUR TRUSTED
iGAMING TESTING,
SECURITY AUDITING
AND CONSULTANCY
PROVIDER SINCE 1989**



INFORMATION SYSTEM SECURITY (ISS) ASSESSMENTS

We evaluate information security in three primary areas to evaluate iGaming security:

1. Administrative Controls

This involves the evaluation of an organization's policies, procedures and practices for managing and safeguarding information. The primary goal is to determine and report on the adequacy and strength of the processes used to protect information. Then the next step is to determine whether the organization's administrative controls comply with regulatory or other specified requirements.

2. Technical Controls

This involves the evaluation of the system configuration and security; including hardware, servers, applications and other network components. The assessment

of technical controls normally includes a network vulnerability scan (Penetration Testing). The primary goal is to determine and report on the robustness of the computer network infrastructure at safeguarding information and managing any associated risks. Then the next step is to determine whether the organization's technical controls comply with regulatory or other specified requirements.

The Penetration Testing we perform is non-destructive, which means that we take certain precautionary measures to avoid exploiting any vulnerability discovered.

3. Physical & Environmental Controls

This involves an assessment of the location and facilities where equipment used to manage and store information is kept.

The goal is to determine and provide a report on the robustness of the security mechanisms in place and any associated risks. Then the next step is to determine whether the organization's physical and environmental controls comply with regulatory or other specified requirements.

PREPARING YOU FOR EVERY AUDIT

We can provide independent third-party assessments and certification audits of your lottery's information security processes against nationally recognized and internal security standards.

ISO 27001 International Standard for Information Security Management Practices

- Compliance Assessments
- Information Security Management System (ISMS) Consulting and Audit Preparation
- Certification Audits

PCI Data Security Standards (DSS)

We can assist with all of your PCI requirements, from the completion of a self-assessment questionnaire or a report on compliance to conducting a gap assessment against the current PCI:DSS standard. We have PCI-Qualified Security Assessors (QSAs) on staff.

We can deliver the following services:

- Compliance Assessments (Health Checks)
- Consulting and Audit Preparation/Support
- Certification Audits

World Lottery Security Control Standard (WLA SCS) & ISO 27001

WLA Security Control Standard (WLA SCS) certification is the lottery industry's only certification and validation of the maturity of a lottery's security and integrity. The WLA SCS is built upon ISO 27001 and its Information Security Management System, which is the world's foremost information security standard.

We provide lotteries with the following services:

- ISO 27001 and WLA SCS Training
- WLA SCS / ISO / IEC 27001 Gap
- ISO 27001 and WLA SCS:2012 Certification
- Lottery Security and Integrity Assessments

NIST 800-53 – Security and Privacy Controls Standard for Federal Information Systems and Organizations

- Compliance Assessments



SECURITY AND AUDIT SERVICES - OPTIMIZED FOR THE iGAMING INDUSTRY

Our team of experts can provide end-to-end security auditing and consulting support for the rollout out of innovative products including interactive:

- Casino
- Poker
- Sportsbook & Pools
- Live Dealer
- Bingo
- Lottery Tickets
- Online Instant Win / Scratch Games

Our **Governance, Risk & Compliance (GRC) Division** provides lotteries with the security and compliance services needed to ensure you are protecting the confidentiality, integrity and availability of your data and information.

Network Risk Assessment (NRA)

- Internal & External Network Vulnerability Assessments and Penetration Testing
- Wireless Network Vulnerability Assessments and Penetration Testing
- Firewall Assessments

Infrastructure Risk Assessment

- Assessment of Server and Workstation Security Configurations
- Assessment of IT Security Infrastructure (Intrusion Detection Systems, Audit Logging)

Application Risk Assessment

- Gaming Application Vulnerability Assessments and Penetration Testing
- Web Application Security Assessments

Information Technology Security Controls Reviews

- Security Program and Governance Reviews
- Security Policy and Procedure Reviews
- IT Security Architecture Reviews

Social Engineering HUMAN

- Physical Security Attacks
- Help Desk Social Engineering Calls

TECHNICAL

- Email Phishing
- USB Drops

IS YOUR iGAMING OPERATION PROTECTED 24/7? DON'T BE AN EASY TARGET – ENSURE YOU AND YOUR PLAYERS ARE FULLY SECURE.



UNDERTAKING iGAMING MODERNIZATION EFFORTS INTRODUCES RISK ON THE PATH TO REWARD. **SAFEGUARD YOUR SIGNIFICANT TIME AND FINANCIAL INVESTMENT** TO BE SET UP FOR SUCCESS.

A close-up photograph of two red dice resting on a black computer keyboard. The dice are slightly out of focus, with the one in the foreground being sharper. The background is dark and blurred, showing more of the keyboard and a person's hand. The text 'iGAMING MODERNIZATION' is overlaid in large, white, sans-serif font on the left side of the image.

iGAMING MODERNIZATION

TRUSTED TECHNICAL ADVISORS

We act as trusted technical advisors for provincial and state regulators, gaming operators, lotteries and Tribes, identifying the details of their modernization solution with their chosen technology and iGaming service providers.

We also provide consulting on the introduction of a new advanced iGaming system that can support enhanced player experiences and game innovation. Also considered is the integration of back-office business analytics systems along with the development of process and procedure to maintain a steady state operation that considers data confidentiality, integrity and availability (CIA).

BEST-IN-CLASS SECURITY AUDITING METHODOLOGY & SOLUTIONS DELIVERY

When you undertake efforts and move towards iGaming, those initiatives can be risky and time-consuming, requiring significant investment, and senior executive commitment.

We understand key organizational resources can potentially have difficulty managing modernization projects while still being required to perform their ongoing day-to-day operational activities. Accordingly, through years of experience, we have identified a number of critical areas that will generate problems if not managed effectively. We utilize best-of-breed methodologies for delivery of critical iGaming projects.

We do this to assist with the need for cost containment, flexible, innovative product design, speed to market, market segment growth, improved customer engagement, streamlined business processes, increased service quality, and regulatory changes. Our end-to-end service delivery brings a complete governance, planning, execution, control and monitoring structure to your critical iGaming project.

This best-in-class iGaming implementation and security auditing methodology, along with our extensive industry experience, enables us to fulfill your business requirements on time and on budget while achieving your business and jurisdictional benefits.

WE PUT ALL THE PIECES TOGETHER FOR YOU



VENDOR MANAGEMENT

Independent Verification & Validation (IV&V)

We bring a proven project QA and Independent Verification & Validation (IV&V) methodology to your project. Our SQM3 is configurable to align with a project's size and risk factors and is supported by a suite of automated tools that alleviate the administrative burden of developing effective checklists, interview guides and collating deliverable review comments.

Multi-Vendor Management

When multiple vendors provide various pieces, it is easy to lose track of the delivery status on an iGaming project. Leverage our industry-leading vendor relationships to ensure project success with vendor management support through our project management office (PMO).

Our PMO ensures projects are managed and vendor deliverables are implemented on time and with the highest quality.

SYSTEMS SECURITY IMPLEMENTATION PLANNING

Our team of experts will analyze the necessary components required to integrate your iGaming system solutions. Large and costly capital iGaming modernization projects require cooperation among multiple vendors, and it is critical that the vendors work collaboratively to integrate the gaming pieces, seamlessly providing a unified business solution.

"EFFICIENCY, REPUTATION, AND CUSTOMER-ORIENTED ARE THREE OF THE MOST IMPORTANT ATTITUDES TO KEEP THE COMPANY IMPROVING. **GLI HAS A PERFECT SCORE IN ALL CRITERIA**, AND WE ARE VERY HAPPY WITH THE SERVICES THEY HAVE BEEN PROVIDING US. WE HOPE THIS RELATIONSHIP CAN GROW STRONGER, WHICH WILL MOTIVATE BOTH COMPANIES AND TAKE THEM TO A DIFFERENT LEVEL." (eBET)



IMPLEMENTATION AND MAINTENANCE

SYSTEM SECURITY CUTOVER

A system cutover may only take a day. However, the implementation planning may take weeks or even months to ensure a successful cutover.

We can assist with configuration and change management processes required to ensure success. Our team will help define Service Level Agreements (SLAs) and operational procedures to help ensure post-implementation sustainability.

SYSTEM SECURITY MAINTENANCE

System maintenance is ongoing and covers a wide variety of activities, including removing program and design errors, updating training and system documentation, refreshing test data, and driving system advancements.

We can assist iGaming operators in the management and maintenance of their critical security systems post-project implementation. This includes bespoke ad-hoc audits (in case of patches or emergencies) as well as planned routine periodic audits in accordance with best practices or regulatory requirements (quarterly, semi-annually, annually, etc.).

Security Awareness Training

Our experts can develop security awareness training for educating lottery employees about information security.

According to the IBM X-Force Threat Intelligence Index, a whopping 95% of cyber-attacks and incidents exploit unsuspecting and uninformed employees. Our Security

Aware service is the only user awareness solution in the market today that solves the difficult problem of end user adoption and buy in. With Security Aware, you can transform your people from cyber crime targets to active contributors to your cybersecurity, starting at just \$5/user/month.

IN 2016, SOFTWARE FAILURES COST THE U.S. ECONOMY \$1.1 TRILLION WITH THE GOVERNMENT BEING ONE OF THE WORST HIT INDUSTRIES. (TRICENTIS)

WE'RE READY TO HELP WITH EVERY SECURITY PROGRAM

A well-designed and functional information security program aligned with your iLottery's business objectives and regulatory requirements can help drive an effective and efficient organization while protecting the confidentiality, integrity and availability of assets and information.

Our team offers the following services which are categorized by security standards:

ISO 27001 Information Security Management Program

- ISO 27001 Gap Assessments and Roadmap Consulting
- Information Security Management System (ISMS) Consulting

PCI Data Security Standards (DSS) Consulting

We can assist with all of your PCI requirements, from the completion of a self-assessment questionnaire or a report on compliance to conducting a gap assessment against the current PCI:DSS standard. We have PCI-Qualified Security Assessors (QSAs) on staff who can deliver consulting and audit preparation/support.

Security Architecture Design

Our professionals have extensive experience working with network engineers and system developers to ensure lottery security requirements are accurately identified in the lottery gaming system layers and enterprise system architecture levels. Our engineers have the expertise to ensure network and

system architectures include security controls that cascade for redundancy to provide for robust defense-in-depth solutions.

Whether the architecture is for a new or redesigned lottery network or system, our engineers work with the lotteries to ensure that appropriate cost-effective security mechanisms are incorporated into the final network or security design. Our engineers have a depth and breadth of lottery experience that allows us to take a comprehensive and practical "real-world" approach that few others can match.

**YOUR TEAM OF SUPPORT EXPERTS
24/7, 365 - WE SPECIALIZE IN
MANAGED SECURITY SERVICES**





Managed Security Services Provider

In the reality of increasing cyber crime, the absence of a proper technical security program is simply not an option. An incident could create irreparable harm to a lottery's image, reputation, operation and erode player trust.

Our managed security services are specifically designed to support the lottery industry in its fight against cyber attacks and cyber crime. The word "managed" simply means that we look after this service or function for you. To help organizations protect their data, we offer a suite of comprehensive managed security services including:

- **24/7 Surveillance**
- **Cyber Incident Response Team**
- **Virtual Chief Security Officer**

Managed IT Services

Your lottery may have IT generalists on staff, but with today's complex systems, it's just not possible for them to know everything. Our managed IT services enable you to control costs in a predictable way and reallocate internal resources to more strategic and transformational projects.

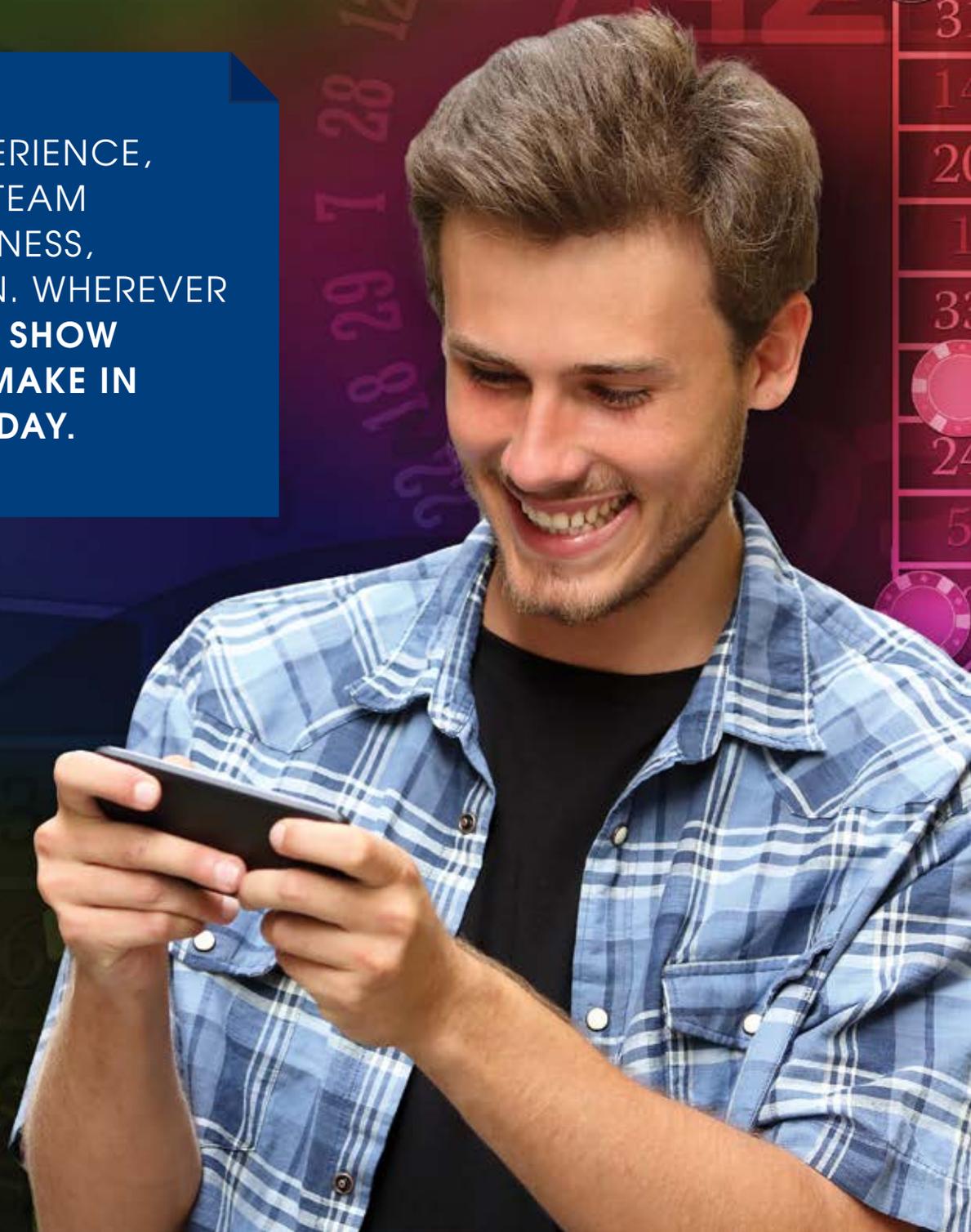
We have a wide range of service options that can be easily tailored to your unique needs. Our team of operational experts work 24 hours a day, 7 days a week, 365 days a

year to ensure your internal and external IT services are virtually bulletproof. Our core IT infrastructure service offerings include:

- **24/7 IT service desk and end-user support**
- **Proactive monitoring of your IT infrastructure**
- **Device management services**
- **Remote backup and disaster recovery**

OUT-MANAGE RISK.
CONTACT OUR EXPERTS
TO DISCUSS YOUR
NEXT PROJECT.

WITH NEARLY 30 YEARS OF EXPERIENCE,
OUR PROFESSIONAL SERVICES TEAM
IS HERE TO PROTECT YOUR BUSINESS,
PROFITABILITY AND REPUTATION. WHEREVER
YOU ARE IN THE WORLD, **LET US SHOW
YOU THE DIFFERENCE WE CAN MAKE IN
YOUR iGAMING OPERATION TODAY.**



SERVING THE GAMING INDUSTRY FOR NEARLY 30 YEARS

At GLI, we are so much more than just testing. We are committed to helping you deploy and manage your products securely using customized services and solutions from our Bulletproof team and time-tested strategies to achieve your business goals. For more information, please visit gaminglabs.com or call (732) 942-3999.

GLI®



GLI[®]

WORLD HEADQUARTERS

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GLI's core purpose is to be the trusted global compliance and quality expert relied upon by our clients – delivering world-class customer service and value that is unmatched.