

Web Application Security Solution

Acunetix Web Vulnerability Scanner



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E-SPIN Group Profile

- <u>Enterprise Solutions Professional on Information and Network</u> (E-SPIN)
- E-SPIN Sdn Bhd (Enterprise Technology Solution)
- E-SPIN OUTSOURCING

(Project Outsourcing/ISV)

1Tech Distribution

(International Technology Distribution)

- Requirement Analysis
- •Solutions Development
- Training and Consultancy
- Project Coaching and Blueprint Advisory
- Performance & Load Testing,
 Security Assessment & Penetration
 Test, Vulnerability Patching &
 System bardoning

Technology Solutions
Consulting

Distribution & Trading, Network System Integration

- •Technology Product Distribution & Trading
- Hardware, Software and Service
- •Global Sourcing and Single Procurement
- Turnkey Project Management and Delivery

- Standalone, Client/Server & Web Application
- Customization / Integration / Migration
- Web Design, Portal Development, Custom WebApp
- •Web and Application Hosting

Independent Software Vendor (ISV) Project Shared
Service Outsourcing
(SSO)

- •Software as a Service (SaaS)
- Project implementation, training, and maintenance outsourcing



E-SPIN Business Domain B.A.S.E.

Enterprise Solutions Portfolio

Business and Technology Applications

- Business Process and Workflow Automation
- Sales Force Automation and Customer Relationship Management (CRM)
- Business Intelligence, Data
 Warehousing and Performance
 Management System (PMS)
- Datacenter Global Integration, Server Consolidation and Infrastructure Virtualization
- WAN / Web Application Acceleration and Bandwidth Optimization, Open Source Application and Initiative
- Media and Broadcasting Technologies and Automation
- Network Management System (NMS), Network/System/App Monitoring, Alerting, Reporting
- Helpdesk and Remote Support;
 Computer lab and classroom training management

Availability, Storage and Busines: Continuity

- Data integrity, anti-hacking/ web defacement and availability assurance
- Data backup, storage archiving, replication, mirroring
- Continuous Data Protection (CDP) and Online Storage Protection
- Network, System and Data High Availability, Continuous Availability
- Business continuity and disaster recovery (BCDR)
- External storage, Network Attached Storage (NAS) and Storage Area Network (SAN)
- Internet link load, bandwidth aggregation, application traffic server load balancing
- •Non-Stop mission critical system hardware and network infrastructure
- High availability, system/network hardware and software clustering, auto failover and redundancy
- High Availability, Continuous
 Availability Network, System and Data
- Windows Event and Syslog Consolidation Log Management and Storage

Security, Risk and Compliance Management

- Network & Wireless Security, Firewall / VPN, IPS, ID Mgt, Network Access Control (NAC)
- Vulnerability Management, Security Assessment, Penetration Testing (Web/Application/Network/Database/ Patch Mgt & Security Hardening, Security Event Management (SEM), Incident Correlation Analysis and Reporting System; wired and wireless TCP/IP traffic analysis; Exploitation
- Content Security, Employee PC Activity Monitoring, Virus, Spyware, Phishing, Web, E-mail, IM, P2P Blocking and Filtering, Endpoint Security and Port Management, Data Theft Prevention
- Data Encryption, Code, Files, E-mail, Database, Folders, Virtual Disk, Full
 Disk Encryption; Digital Steganography, Watermarking and Digital
 Fingerprinting; Secure Data Erasure and Destruction
- Digital Signature and Signing, Multi Factor Authentication, Managed, Automated, Secure File Transfer (SFTP) and Application Tunnelling, Secure Document Exchange and Storage
- •IT Governance, Risk Management, and Regulatory Compliance

End-to-End Complete One-Stop Solutions

- •Technology consulting, requirement assessment and solution development
- Ongoing education, training and development (in-house or on-site)
- Solution sourcing, integration, migration, project implementation, main / sub contracting and maintenance support
- Independent Software Application development, integration and customization (standalone, client/server, web application)
- •E-Business and Web Solutions, web design, portal development, e-commerce, web / domain / email / application hosting service
- Project information technology share service and outsourcing (SSO)



Clients Overview (Domestic & International)













































































































































How WVS can help?

- Known static methods:
 - Specific Web Applications known exploits
 - Directory enumeration
 - Known Web Server exploits
 - Known Web technology exploits (e.g. php vulnerabilities)
 - Known network services exploits (e.g. DNS, FTP, SMTP)

- Unknown dynamic methods:
 - SQL Injection
 - Cross-site Scripting
 - Directory and Link Traversal
 - File Inclusion
 - Source Code Disclosure
 - Code Execution
 - Common File Checks
 - Parameter Manipulation
 - Arbitrary file creation or deletion
 - CRLF Injection
 - Path Truncation
 - Java Applet reverse engineering
 - Session Hijacking
 - Authentication Attacks
 - Google Hacking Database

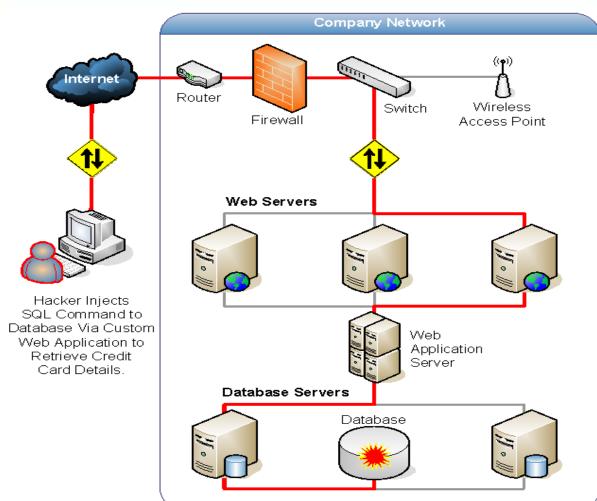
Acunetix WVS searches for all of the above hacking methods and much more.



E-SPIN Web Application Security
Solution



How Does Hacking Work?

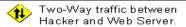


Flow

- A hacker finds a vulnerability in your custom web application and sends an attack via port 80/443 to the Web Server.
- Web Server receives the malicious code and sends it to the Web Application Server.
- Web Application Server receives malicious code from Web Server and sends it to the Database Server.
- Database Server executes the malicious code on the Database. Database returns data from credit cards table.
- Web Application Server
 dynamically generates a page
 with data including credit card
 details from database.
- Web Server sends credit card details to Hacker.

Legend

Data exchanged between Hacker and Web Server over port 80/443 which also gets through the Web Application Server, Database Server and the Database itself.



Credit card data is retrieved from Database.



Who use it for webapp VA audit/QA









































US Army

Bank of China

The Pentagon

IBM Denmark

University of Reading

Panasonic Asia Pacific

The armed forces of Norway

Wescom Credit Union

ActionAid UK

US Air Force

Fujitsu

Adidas Group

France Telecom

PricewaterhouseCoopers

Lonely Planet

State of North Carolina

California department of Justice

and many more...













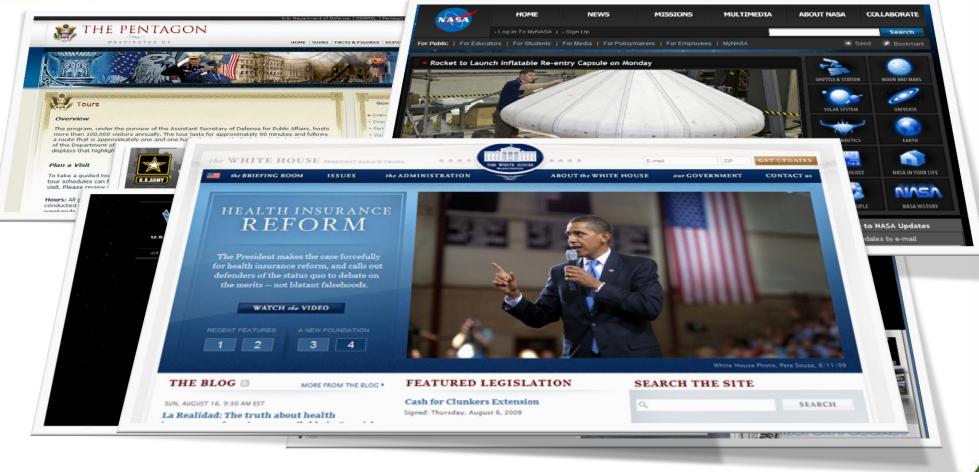


Show Case – ING Group's all Custom Web application portals





Protected World Most Attacked Site, Portals, Web Applications





Show Case – Government/ Government Agencies





Unique Benefit(s)

Operation

Automated

Manual, Advanced

Custom Reporting

Custom
Vulnerability Tag
and Test

Coverage

Web Server

Database Server

Application Server

Feature(s)

Web/web svs scan

Site Crawler

Reporter

Vulnearbility editor

Customization option

advanced penetration testing

HTTP editor

HTTP sniffer

HTTP Fuzzer

Blind SQL Injector

Authentication Tester

Target Finder

Compare Result

Command Line Support

AcuSensor Technology



Unique Benefit(s)

Quick Video Demo



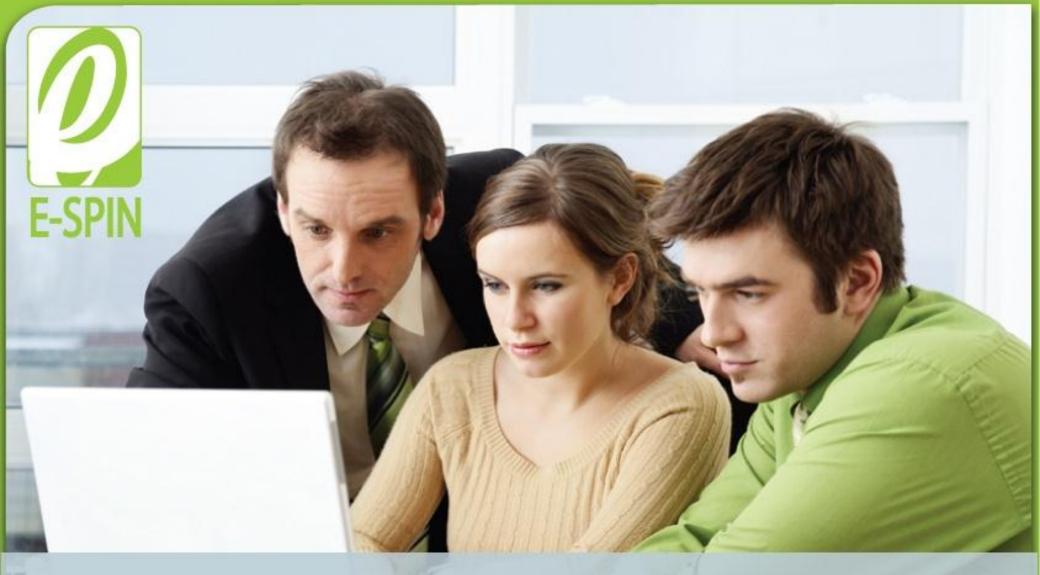
E-SPIN WVS Complete Solution Unique Value Proposition

Training / Deployment Maintaining Vulnerability Consulting Supplying Knowledge Security Toolkit Resolution Transfer • VA Software • Basic 1 MD Installati Software Vulnerability Complet to 5MD and fixing require on. e range Advance Scanning of **Applianc** signature ment Mitigation System update security Project module / Admin reportin Supplyin warranty toolkit consulti software GIAC range of Local developmen ng product / Certified Project technical Applicati t/ • Project service Training docume integration on / support coachin and Fxam ntation (with One Stop equipme g onsite) nt Customized service 8x5/24x7 provider renting / vendor • Paid as Use Mix and Match CLIENT Requirement



Transfer of Technology Option

Skill Nature	Transfer Group	Extent of Skill	How it is transferred
Technology Training	Technical Staff	Basic Web / Application Security	• Formal Courses – 1 Day
	End user technical	Training	Basic System Administration
	group		Training
Application Training	Security Assurance	Operation of the application	• Formal Courses – 5 Day
	Analyst / Security Admin		Advanced hand on system
	• End user		administration training
Independent and	Training for In house	Independent and Global recognize GIAC	Subscribe for E-SPIN GIAC
Global Certified	domain	complete range of training and testing	certified training + certified
Training and Exam	expert/consultant		testing
Project Consulting	• Real job in hand joint	• first hand experience on carry out real	Participating in the real job
and Coaching	exercise to transfer real	job and duties from scanning,	in hand, learn by doing and
	skill set by "learned" it	configuration, reporting, interpretation,	observe how it is performing
	first hand	to vulnerability fixing and mitigation	Subscribe for consulting
		solution framework, to really execute	service with vulnerability
		vulnerability fixing / mitigation module	fixing outsourcing for 30
		development, fix production	Man Day
		vulnerability	
Initial exposure and	Technical Support	Exposure and knowledge in web /	Visit sites in Europe
management	• End user operations	application security operation in real-life	
awareness of the	personnel	environment	
web / application	Department Manager		
security operation	• End user operations		
	manager		



Vulnerability Management, Security Assessment, Penetration Testing Solution



Solution Complete Portfolio



Web Server

Application and Web Application Security • Web Application Server Database Server

 Google Hacking Cross Site

Scripting

 SQL Injection Dynamic Source Code Analysis

 Black box hacking

 White box hacking

 Database Security

 Source Code Dynamic and Static Analysis

Offensive

Exploit • Exploit Research, Development, Testing

 Remote Trojan Exploit Library

Exploitation Framework, Development, Library

Addon for Network. System, Application, Database, VoIP Security Exploit

Hostile Source Code Reverse Engineering / Malware and Remote Trojan • Industry de

factor hostile decompiler / disassembler to unlock protected binary program into source code

 Remote trojan, keylogger for pc, server activity include screenshot

Wireless Security Assessment, Penetration Testing

Wireless Network and Security Aduit, Penetration **Testing**

 Offensive Hacking, then report on the wireless security posture

Network, Server, System Vulnerability Assessment

 Vulnerability Assessment

Network Audit

Server Audit

 System Audit Application Audit

Network, Server, System, Application Log Review

 Network Equipment

Server (Win & Non-Win)

• System & Workstation

Application Log

• Log

Consolidation, Review, Report and Audit

End to End Professional Service

Warranty, Update, **Maintenance Support** •8x5xNBD | 24x7

Consulting, Coaching Project Consulting, Coaching, Implementation

Training, Transfer of **Technologies** •Certified | Product Specific Vulnerability Fixing, Mitigation Module Development Development Outsourcing



Solution Complete Portfolio













End to End Professional Service

Warranty, Update, Maintenance Support •8x5xNBD | 24x7 Consulting, Coaching
•Project Consulting,
Coaching,
Implementation

Training, Transfer of
Technologies
•Certified | Product Specific

Vulnerability Fixing,
Mitigation Module
Development
•Development Outsourcing

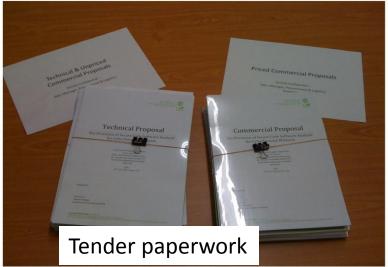


Why Do Business with E-SPIN?



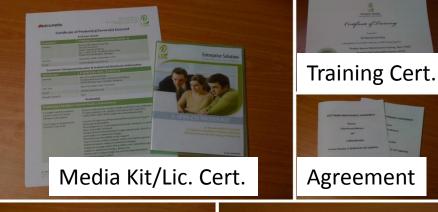


Value Added Service(s)















Vulnerability Fixing



Technical Reference



Propose Business and Service arrangement with Client/Partner

Distribution & Trading

Equip. & App. Renting

Service Outsourcing Certified / Training

Project
Independent
Consultant /
Sub Con





Consultancy, Training, Certification and Support



System Deployment



Development / Customization



Technology Consultancy



Special Project Custom Training



Certification / Exam



Coaching /
Solution
Architect



Onsite Advanced Training



Offsite Technical Training



Thank You & Open Discussion



Vulnerability Management, Security Assessment, Penetration Testing Solution

E-SPIN Value Added Services

Professional Qualification
Skill Certification

Product In Depth Training

Vulnerability Fixing | Mitigation Module Development

System Hardening | Patching

Project Consulting | Solutions Development

Local Technical Support (phone | email | remote | onsite)

Single Sourcing Hardware | Software | Service

Security Assessment
Outsourcing | Subcontracting

Extended Security Assessment

Penetration Testing

Intrusion Analysis

Incident handling

System Admiin.

Security Mmgt.

Security Audit

Secure Development

Forensics Analysis

Core Security Assessment

Web App (Web, App, Db. Server).

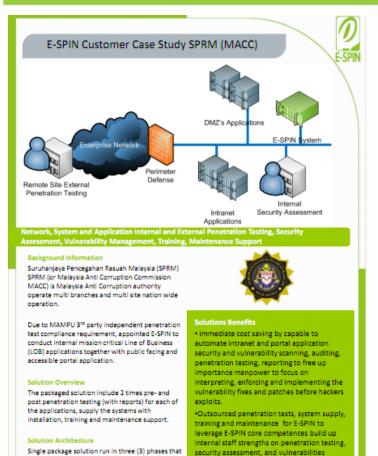
Network /Server & System Database In Depth Packet / Wireless/ Log Malware Analysis/ Reverse

Testing & Research



Case SPRM

(3rd Party /Independent Network/Application/Database/Server Security Audit)



management.

design and develop to address client business IT

and operation requirements and deliver better technologies, process, people skillset, knowledge and ability, full empowering support service from

consulting, coaching, product system administration training and maintenance support.

- Engaged E-SPIN to deliver 3rd party in depth network/application/database/server security audit
- Line of Business Anti Corruption System (KRIS) within Network
- Public Facing Portal and Web Application sprm.gov.my)
- Report on the vulnerability and security posture
- Recommendation of the vulnerability fixing / mitigation
- Supply the system with three (3) years maintenance contract
- Class of 5 man days system administration training for 1 class (10 pax)



Case PizzaHut

(3rd Party /Independent Network/Application/Database/Server Security Audit)



- Engaged E-SPIN to deliver 3rd party in depth network/application/database/server security audit
- Line of Business Pizza Online Order Credit Card / Ebusiness Facility
- Public Facing Portal and Web Application
- Report on the vulnerability and security posture
- Recommendation of the vulnerability fixing / mitigation
- Supply the Anti Defacement system with maintenance contract



Case Hong Leong Network/Server Security, Assets Inventory & Patch Management)



Background Information

Hong Leong Assurance Bhd as part of Hong Leong Group business. It business in General Insurance and Life Insurance.

Previously that IT Security unit is using open source and separatemental tool for network vulnarability examing, patch management, and software sudding for the vulnarability seasonant and reporting purpose, it is highly institutest and ineffective due to intensive manual operation required. All the pury immined rules note that is is much better to implement summarie and integrate network vulneability scenarie, patch manager and software satisfing software for the operation to generate standard and consistent report that is easy to compute scross that time period and prevent human error bring in the sean, patch and suffi process.

Solution Overview

Proposed solution include integrated Network Security Scanner that provide network valuatefully scanning, pasch management and software sudding functionality required and subscribed for ongoing software update subscription and local product phone and email support service as a total solution package.

Solution Architecture

The proposed solution was use to checke client network for possible security vulnerabilities by examing client entire network for missing security patches, sarvice packs, open shares, open ports, unused user securities and more. With this information (displayed in customizable graphical report), client used to eatily lock down network against shockers.

It also use to remotely display missing service packs and patches and outsion / 3rd party software and patches in application and OS natesorie-wide and patches patch auto-download and patch rolliness. Furthermore, it was use to perform network and software auditing and management reporting and compliance purpose.



Solution Benefits

- Replace manual and open source network security vulnerability scanner, and replace with scanner that capable to not just scanning and report vulnerabilities, and capable to deploy patches on demand and conduct software suditing for the internal staditing operation.
- Network security scanning, patching and sudding process sustemation. The propose solution allow automate and schedule exanning to see administrators significant of the time by automate mutine security scanning patching and sudding oversion with minimal human intervention.
- Deliver security benefit. It provides up-to-date vulnerabilities database, patch and service pack in single solution.

- Engaged E-SPIN to deliver network/server security assessment system, incorporate assets inventory and patch management functionality
- Perform internal network audit, assessment
- Report on the vulnerability and security posture
- Recommendation of the vulnerability fixing / mitigation
- Supply the system with the ongoing system update and maintenance contract



Case ING Insurance Web/Application/Database/Network/Server Security' Vulnerability Fixing, Training & Maintenance)



- Engaged E-SPIN to deliver
 web/application/database/network/serv
 er security assessment system,
 incorporate into ebusiness Software
 Development Life Cycle (SDLC) for
 Quality Assurance, Product Security
 Audit
- Outsourced vulnerability fixing and mitigation module development
- Training and project live system coaching
- Supply the system with the ongoing system update and maintenance contract



E-SPIN Threat and Vulnerability Management Solutions

Threat Analysis

Intrusion Monitoring

Malware Detection

Content Filtering

Classify threat based on probability and potential damage

Vulnerability Identification

Compliance Testing

Vulnerability Scanning

Operations Availability Analysis

Uncovering weaknesses before they can exploited

Vulnerability Management

Baseline Development

Incident Response Team

Asset Inventory and Classification

Event Correlation

Reporting

Developing and maintaining an on-going process

Remediation

Asset and Patch Management

Classification of Threats

Incident Response

Isolating and resolving asset security issues once identified