



Business  
Intelligence

Data  
Center

Cloud

Mobility

Enterprise Computing Solutions

Security Solutions



V | Five Years Out

[arrow.com](http://arrow.com)

# Security Solutions

Secure the integrity of your systems and data today with the one company that thinks Five Years Out. At Arrow, we provide both hardware and proprietary

**V | Five Years Out** software solutions. Our offerings are engineered to protect your information and property from theft, corruption or natural disaster—all while allowing seamless access for your clients and intended users.

We've served as an innovator in the information security industry for over 15 years, and more than 1,900 channel partners worldwide leverage our services to safeguard their data, networks and platforms. Are you ready for a new level of confidence? Then let's meet at Five Years Out.

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We've developed a comprehensive portfolio of products that cover all key areas and ensure the highest level of security.

## Designed for Business Requirements

As your partner in forward thinking, we tailor our services to match your objectives. Whether you are a partner or vendor, you'll benefit from our absolute focus on value and growth.

### **We are well versed in the compliance and regulatory requirements of many markets, including these:**

- Finance
- Manufacturing
- Health care
- Federal government
- K-12 education
- State government
- Higher education
- Local government

### **Our security group has helped numerous customers in meeting regulatory compliance for a variety of federal agencies and standards, such as:**

- Federal Deposit Insurance Corporation (FDIC)
- Gramm Leach Bliley Act of 1999 (GLBA)
- US Department of Treasury – Comptroller of Currency (OCC)
- Health Insurance Portability and Accountability Act (HIPAA)
- US Securities and Exchange Commission (SEC)
- Sarbanes Oxley Act (SOX)
- National Credit Union Association (NCUA)
- ISO 27001 & 27002

## Created to Earn Your Confidence

Our employees undergo rigorous background checks and regular screenings. They all carry multiple degrees and certifications in informational security and digital forensics. And they're committed to your security.

### **We're insured by Lloyd's of London to perform information security work, including:**

- Information Security Assessments & Penetration Tests
- Incident Response to Security Events (i.e. Network Breach)
- Digital Investigation Services & Forensics

## Ready to Innovate



In conjunction with manual testing, our security group also utilizes a suite of commercial and proprietary tools. Our developed-in-house tool, ip\_Reaper, has tested thousands of networks and examined millions of systems and networked devices, and it's ready to produce customized analyses that fit any business requirements—including yours.

# Security Assessment and Penetration Test Services

We offer ten ways to test and assess security success.

## 1. Internal and External Vulnerability Testing

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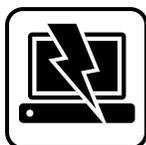


Also known as security assessment scanning, this type of testing identifies systems and network configurations that could expose the customer to a breach of the network and critical systems. Systems

are scanned for improper configurations; missing security software patches; unnecessary services and protocols; and vulnerabilities related to clear text protocols, coding and/or applications. Then recommendations to securing the environment are provided.

## 2. Internal and External Penetration Testing

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This testing protocol validates the risks associated with internal and external vulnerabilities exposed during security assessment scanning. By exploiting discovered vulnerabilities, we can

demonstrate the potential outcome of a hacker attack. We attempt to achieve domain administrator status, uncovering unprotected databases and applications, improperly structured privileges, data leakage issues, rogue and hostile applications, improperly patched systems, missing and poor passwords, unprotected network devices and more. After our penetration testing is complete, we make appropriate recommendations to further secure the environment.

## 3. Telecom and Phone Service Penetration Testing (aka: War Dial)

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This testing consists of dialing a range of phone numbers that belong to the customer. Each phone number is dialed and then monitored for a response.

Responding phone numbers that are connected to computer modems and network equipment are documented; a limited exploit is used to determine whether the phone numbers in question belong to the customer, and whether they pose any vulnerability.

For customers who have deployed Voice over Internet Protocol Systems (VoIP), this assessment involves identification of the specific VoIP hardware chosen and evaluates it for known security issues. This evaluation will confirm that the proper security settings have been chosen. Using a variety of assessment tools, the employment and functionality in the live environment will be confirmed. Testing of encryption will be accomplished by attempting to intercept audible VoIP packets. Lastly, all the VoIP hardware will be scanned during the normal security analysis of all devices on the network. Suggestions to mitigate exposed risks will be included in our report.

## 4. Wireless Security Penetration Testing (aka: War Driving)

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This assessment involves physically scanning the perimeter of a facility using a wireless scanner. The wireless scanner probes the general vicinity for any emitted Wireless Access Point

(WAP) signals that are in the area. Each responding signal is documented for ownership, whether or not it is a known corporate resource, and whether or not it is secured with encryption.

Testing begins within the vicinity of wireless signal(s). Using a commercial laptop outfitted with a special wireless antenna, signals are then collected and identified for ownership. Signals identified as the wireless system belonging to the customer are then targeted for penetration. The attempt to penetrate begins with initiating a request and response from the WAP. As users connect to the device, encrypted packets of information are captured. Depending on the encryption technology securing the wireless network, the number of packets being collected will vary. The packets collected are then examined with an attempt to decrypt them. If successful, the decrypted packets should provide the information needed to connect to the wireless network.

This service also identifies mobile devices connected to the 8-2.11 wireless and their exposure to an unsecured environment.

## 5. Wireless Security Architecture Review

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This review examines the security aspects of the wireless topology and design—with the goal of determining the best possible security posture. Wireless components such as controllers,

access points, client workstations and mobile device settings are reviewed to ensure proper security measures have been implemented. And wireless technology is reviewed for best use of security features and capabilities. Recommendations for securing the environment—and applying new technologies and capabilities to enhance security—are documented and included.

## 6. Firewall Configuration Review

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In this review, we will evaluate the configuration and firewall policy with the goal of providing suggestions and best practices. This service examines considerations such as security concerns

based on improper configuration and management, issues relating to the hosts the firewall is protecting, and issues relating to the services those hosts must offer through the firewall. Firewall review findings will be documented to include recommendations.

# Security Assessment and Penetration Test Services

(Continued)

## 7. Network Security Appliance Configuration Review

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This review examines the security features and settings of the customers' intrusion detection systems, intrusion protection systems, unified threat management and next generation

security appliances for optimal security configurations. Components reviewed include the firewall rule set, threat policy configuration and protection settings, and antivirus/malware configuration and protection settings. Findings will be documented and will include recommendations.

## 8. Internal and External Vulnerability Testing

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This testing determines if unauthorized access to applications data, and/or network can be achieved. The scope of the project can vary greatly, depending upon the desired level of information.

Web applications are probed, and testing identifies vulnerabilities such as coding flaws, buffer overflows, cross site scripting, SQL injection, broken access control and authentication, improper error handling, insecure storage and insecure configuration management. Recommendations for securing the environment are provided.

## 9. Network Security Architecture Examination

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This protocol inspects the topology of customer-deployed security devices within their network. Devices such as firewalls, security appliances, routers, switches and VPN aggregators are

examined for proper placement, utilization and network security hardness. Recommendations are provided on how to expand the security posture of the present infrastructure.

## 10. Social Engineering

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Social engineering is a process in which access is gained to a network via people, process and technology—often using physical means. Companies may be exposed to potential social

engineering threats daily—in the form of individuals posing as copier repair technicians, auditors from consulting firms, new employees, heating and ventilation technicians, food delivery personnel and more. Other avenues for attack include infected hardware or email phishing. We demonstrate these dangers and deliver recommendations to decrease overall risks.

# Project Timeline

The time for completion of each project is dependent on the following criteria: the services purchased by the end user, the size of the network being tested, and the level of depth the testing will undergo (i.e., Security Vulnerability Assessment vs. Complete Penetration Test).

Delivered findings will include a metric of high, medium and low risk. We explain the exposure of the vulnerability and make recommendations for the remediation of the problem.



## A Variety of Reporting Formats

Reports can be broken down into a variety of formats. An executive-level report provides a high level of the findings, while data reports can be highly detailed, explaining the findings with significant granularity. Whatever decision makers are involved, we provide relevant reports that make it possible to take action and achieve more secure environments.

# Are You Five Years Out?

Most people live in the present. The world of now. But a handful of us work in a unique world that doesn't quite exist yet—the world of Five Years Out.

Five Years Out is the tangible future. And the people who live and work there know that new technologies, new materials, new ideas and new electronics will make life not only different, but better. Not just cheaper, but smarter. Not just easier, but more inspired.

Five Years Out is an exciting place to be. So exciting that, once you've been there, it's hard to get excited about the present. Because we know what's coming is going to be so much better.

Five Years Out is a community of builders, designers, engineers and imaginers who navigate the path between possibility and practicality. Creating the future of everything from cars to coffeemakers.

Are you one of them? Then you're probably working with us.



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