APPLIED COMMUNICATION SCIENCES

Applied Communication Sciences
Security Consulting Services

001
Comprehensively assess
your network vulnerabilities

002
Test the readiness of your
plan and your people

003
Protect your organization's
vital resources

Your clients and constituents trust you to keep their data safe. In turn, you need a group you can depend on to make sure your network and services are worthy of that trust. Applied Communication Sciences Security Consulting Services can fortify your network and organization from threats of all types, coming at you from all angles. Our deep experience and the makeup of our team make us uniquely capable of assessing your network and services, identifying vendor-agnostic risk mitigation strategies, and implementing an effective plan.

▶   Security in the digital age means protecting your information assets and defending your network infrastructure and services against an ever-increasing number of sophisticated cyber attacks. Accessing and compromising sensitive data and service denial continue to be the primary objectives of cyber crime. To survive, you need a comprehensive and extensible strategy to secure your network infrastructure, services, and the sensitive information that resides in and travels across them. Your strategy must protect a wide range of information, services, and communications technologies, as well as support systems.

OPERATING IN AN INSECURE WORLD
Security is a never-ending battle — and it's you against increasingly sophisticated attackers. Your network and information systems are under siege. But how can you determine your preparedness, or conversely, your level of vulnerability? You might ask yourself:

- Do we have a carefully planned and comprehensive defensive strategy?
- Are our security policies and practices a step ahead of our threats?
- Have we executed properly from both technological, operational, and personnel standpoints?
- Are we periodically auditing and reviewing our practices and implementation?

Applied Communication Sciences offers a comprehensive set of security services to help you develop and maintain an effective security program. With more than a quarter century of experience and a uniquely diversified team, we offer a complete suite of security services, including: Security Policy & Architecture Development; Vulnerability & Risk Assessment; Network Penetration & Multimedia Services Testing; Security Operations Benchmarking & Optimization; Supply Chain Integrity; and Smart Grid Security.

THE APPLIED COMMUNICATION SCIENCES SECURITY SERVICES PORTFOLIO

The Applied Communication Sciences Security Services portfolio provides a comprehensive set of cyber security services, from architecture and policy development, to implementation and risk assessments. Our portfolio is modular and flexible, so you can customize the services to your unique needs for protecting your information assets, networks and services, and business continuity against evolving cyber threats.

Comprehensive Cyber Security Services
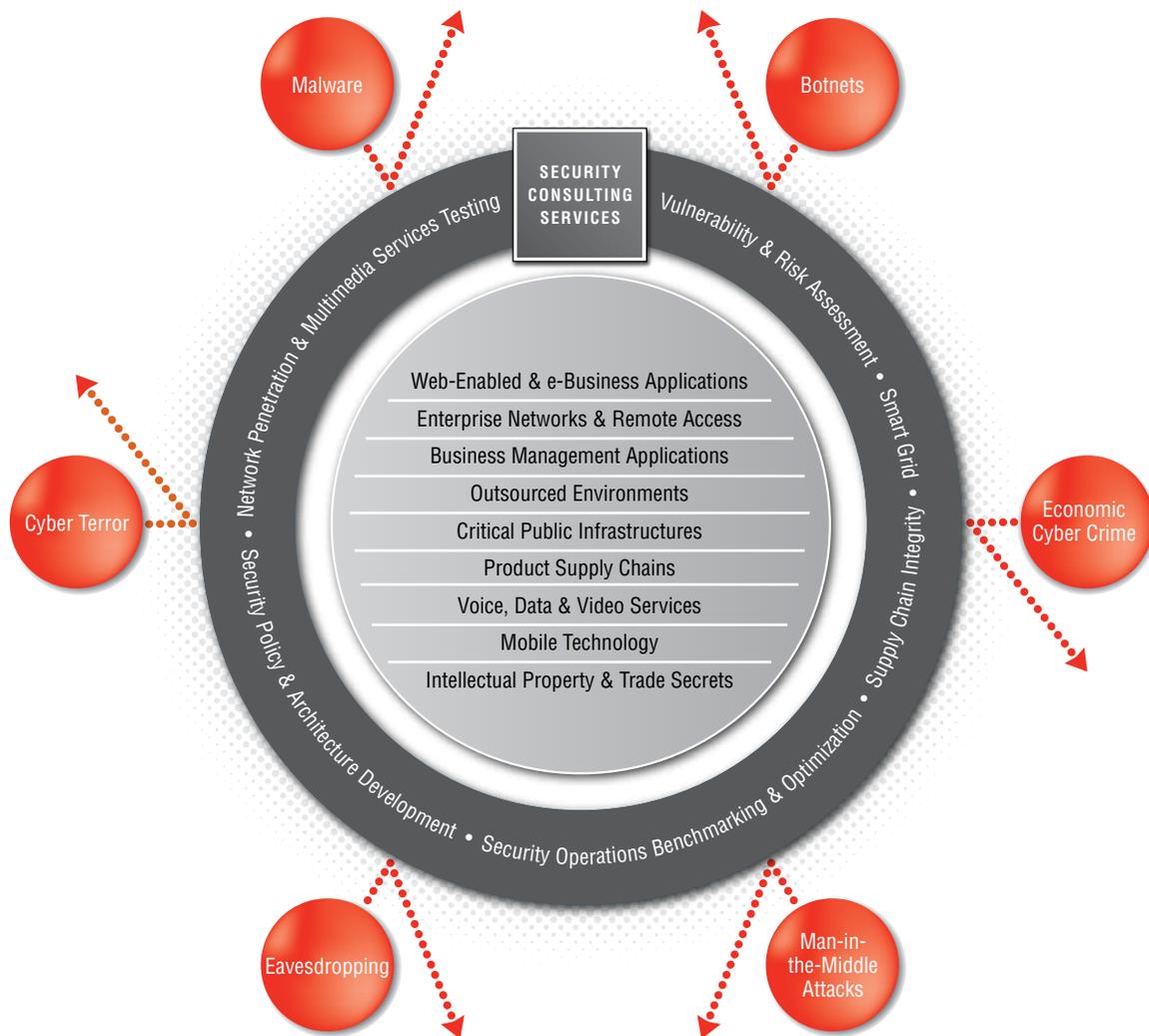
APPLIED COMMUNICATION SCIENCES SECURITY CONSULTING SERVICES

SECURITY POLICY & ARCHITECTURE DEVELOPMENT

Applied Communication Sciences Security Policy & Architecture Development services help organizations architect and deploy practical, defense-in-depth security strategies. Beginning with a needs assessment, we help you establish the primary technical and operational security requirements for your organization. Based on these requirements, we formulate a cohesive set of security policies, tailored to your organizations' unique needs, using industry best practices.

We help you implement these policies with robust security architectures, product assessment and selection, operational procedures, training, and enforcement programs to effectively engrain a higher level of security into your day-to-day operations. Our objective position allows us to provide forthright opinions about product selection, program effectiveness, and cost/benefit tradeoffs.

VULNERABILITY & RISK ASSESSMENT

If you have serious security requirements, the last thing you need is a less-than-thorough assessment. With a multidiscipline team of security experts who have government security clearances and professional certifications, Applied Communication Sciences has established a well-earned reputation for its comprehensive vulnerability and risk assessments. Rather than focusing on a few select security topics, we are in a position to dig deeper if needed, evaluating physical, logical, and operational security by assessing everything from support facilities, buildings and operational procedures to platforms, protocols, applications, networks, and security architecture design.

A key element of our vulnerability assessments, which is often missed by others, is the security aspect of reliability and network resiliency. Besides defending against attacks, security must also provide for the availability of critical services under a wide variety of adverse conditions, both cyber and physical. Our experts address redundancy, and logical and physical diversity of critical components and services. All our assessments include a structured rating of vulnerability risks and a mitigation plan.

NETWORK PENETRATION & MULTIMEDIA SERVICES TESTING

Applied Communication Sciences offers Network Penetration & Multimedia Services Testing to support the entire lifecycle of new technology and services' introduction and periodic auditing. We use our own proven methodology; combining the best aspects of automated testing with custom-designed attacks. We perform many activities including packet capture analysis, source code analysis, and software reverse engineering to identify vulnerabilities and elicit potential avenues of attack. Linking individual weaknesses, we build more elaborate attacks, such as Man-in-the-Middle attacks. And for embedded systems, we perform highly specialized hardware and firmware security assessments.

We use a wide range of testing tools to support these assessments. One distinguishing trademark of our testing services is our unique and award-winning Applied Communication Sciences IP Assure software. IP Assure is non-intrusive software that evaluates your IP network configurations to determine if required security, availability, and regulatory policies are implemented correctly. It's a network security and reliability tool that can transform the costly, labor-intensive job of network error detection and correction into a simple, automated process.

All our network penetration and multimedia services tests are performed discretely and held under strict confidentiality. Results are well documented and repeatable. A structured rating of vulnerability risk and a mitigation plan is an integral part of our report. Examples of our extensive experience assessing systems/technologies include:

- Smart grid service components and networks
- Embedded systems
- IPTV service components
- High-risk, web-based financial applications
- VoIP call agents and IMS call control functions
- Telematics systems and applications
- Wireless networks and mobile services
- Routers, firewalls, application gateways, and proxies
- SQL and LDAP databases.

SECURITY OPERATIONS BENCHMARKING & OPTIMIZATION

With vast experience in service provider and enterprise network operations centers, we can evaluate your staff's effectiveness, as well as the operating procedures they use to detect, respond to, and contain malicious events and network failures.

Our Cyber Intrusion exercise is a unique Applied Communication Sciences Security Services offering. In it, we orchestrate a realistic series of cyber events based on your network that are played out in an interactive table-top environment. The goal is to assess and improve the effectiveness of the network operations center staff by training them to:

- Correlate information from a variety of sources in order to diagnose malicious cyber problems
- Identify a multipart attack from independent, random events
- Effectively communicate inside and outside the organization
- Organize a response and perform in high-stress situations.

APPLIED COMMUNICATION SCIENCES SECURITY CONSULTING SERVICES

SUPPLY CHAIN INTEGRITY

As product supply chains become increasingly global and complex, the threats they pose to your network and services become more serious and often, harder to track — especially as they extend to off-shore developed and maintained system components and software, each with their own supply chain. We provide a holistic approach to supply chain integrity, with risk mitigation elements that include procedural, contractual, physical, and technical approaches. We surpass the basic product and lifecycle testing done by most organizations to provide a comprehensive analysis of the vulnerabilities in your critical vendors' products and even in their supporting supply chains. We help reduce the risks and make sure you are implementing the appropriate controls on an end-to-end basis.

SMART GRID SECURITY

The energy sector is going through dramatic changes in technology and services, from the home area network to the utility companies' access, distribution, and generation infrastructures. Smart meters are now communicating via wireless networks to the utilities' power distribution networks and new energy-management applications are being provided to rate payers. All of these changes to existing Supervisory Control and Data Acquisition (SCADA) systems and the new systems and network architectures have risks that need to be managed. Applied Communication Sciences, with its vast experience in critical infrastructure protection, has been pioneering new security assessment methodologies and techniques to evaluate the risks with new hardware/firmware platforms, communications protocols and interfaces, home and field service networks, management systems, and applications. We also provide thought leadership in standards and industry forums to help in the creation of a security roadmap for suppliers and utilities.

THE APPLIED COMMUNICATION SCIENCES ADVANTAGE

Applied Communication Sciences has decades of security experience protecting critical infrastructure and large, complex public- and private-sector networks. For over 25 years, Applied Communication Sciences personnel have directly supported the National Security Telecommunications Advisory Committee (NSTAC) and various domestic and international standards forums and industry groups. Our expertise has allowed us to innovate new methodologies and pioneer the security analysis of new technologies, such as 3G/4G mobile technologies, IPTV, and Smart Grid. Our cross-sector work with commercial and government clients provides us unique insight into current and future threats. Your network and services keeps your organization humming. Don't entrust it to just anyone.

AT A GLANCE

Applied Communication Sciences Security Consulting Services can help ensure your network, services, and organization are prepared and protected by:

- Assessing risk and identifying vulnerabilities
- Helping architect and implement solid end-to-end strategies
- Testing your network and services with custom-designed attacks
- Training your team with hands on attack simulations
- Addressing emerging and future threats in new technologies and services.

APPLIED COMMUNICATION SCIENCES

For more information:
info@appcomsci.com
www.appcomsci.com

ACS-BR-001