



## CYBERSECURITY

# NETWORK, WEB, AND MOBILE APPLICATION SECURITY Proactive Security Design and Procurement

Any application development and procurement process that does not include a rigorous security review in the critical path process is fundamentally broken. It exposes organizations to predictable, unnecessary, and avoidable cybersecurity risk, and misaligns the organization with every cybersecurity framework, regulation, and standard. Ankura's team includes specialists who help clients design security into every application and ensure that applications never leave the development environment for the production environment until they are security-assured. Security-by-design should be integral to an effective software development life cycle (SDLC) and procurement process, so organizations neither develop nor purchase applications that are not approved by the information security group.

## SOLUTIONS

Developing software without security as a key objective, constraint, and requirement should be prohibited by the policy of every organization, regardless of size, location, or industry sector. Never should an application move from the development environment — or the procurement process — to the production environment unless competent and certified security staff members have put it through a security review. A best practice is for the security team to have veto authority over final production release.

Ankura regularly finds that our clients use applications built by developers who are neither security-trained nor security-capable. Developers sometimes build software that may have the features, functionality, and performance demanded by users, or may be "fit for purpose," but that may not include effective security. Organizations' procurement departments release requests for proposals and tenders that include minimal or no cybersecurity requirements for purchased applications or software packages. Ironically, it is at the ideation and conceptualization stage of internally-developed software, or at the RFP development stage for externally procured software, that security is most cost-effectively designed or specified into software. Retrofitting security after the fact can break applications, cost more, and cause organizations to miss release deadlines.

## HOW WE HELP

We understand why every accepted information security framework, standard, and regulation includes an SDLC process that elevates security as a determinative factor prior to software release. Our security experts help developers ensure that their web and mobile retail and e-commerce applications are developed, tested, and launched securely. Ankura helps clients design and install an SDLC approach that elevates security to a critical path activity in software development and acquisition, as an instrumental element of the organization's cybersecurity policy and process management — at the network, web, or mobile application levels and throughout the software acquisition process.

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We help our clients appreciate the risks to their information systems and the vulnerabilities resident in their information security environments, by running 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. Services include:

- Software development life cycle process and effectiveness assessment
- Secure software development strategy and training
- Network, web, and mobile application security testing
- Software compliance to regulations and best practices
- System and source code scanning and review
- Penetration tests and ethical hacking
- Remediation oversight and validation
- Sensitive data discovery
- Document exfiltration testing
- Industrial control systems security specifications and procurement

## REPRESENTATIVE ENGAGEMENTS

### Procurement Framework for Specifying Security in Industrial Control Systems (ICS) Component Acquisition

Ankura developed a set of specification, procurement, contractual provision, and asset management policies, procedures, and language to ensure security is emphasized in the acquisition of industrial control system components acquired by a major surface transportation agency.

### Web and Mobile E-commerce Application Security and Fraud Control Process

Our security team conducted a deep dive into a global luxury retailer's e-commerce applications, adherence to PCI-DSS, and adequacy of fraud control processes from SKU selection to checkout. We applied white-hat and black-hat ethical hacking techniques to rigorously test these defenses and document our findings.

## ABOUT US

Ankura is an expert services firm defined by *HOW* we solve challenges. Whether a client is facing an immediate business challenge, trying to increase the value of their company or protect against future risks, Ankura designs, develops, and executes tailored solutions by assembling the right combination of expertise. We build on this experience with every case, client, and situation, collaborating to create innovative, customized solutions, and strategies designed for today's ever-changing business environment. This gives our clients unparalleled insight and experience across a wide range of economic, governance, and regulatory challenges. At Ankura, we know that **collaboration drives results.**

## THE ANKURA DIFFERENCE

Our security experts are accomplished engineers and developers who have authored books on security software development and who regularly present the topic at industry events. They specialize in network and application security reviews, using ethical hacking to empirically demonstrate for our clients how their live applications may be vulnerable to internal or external compromise. Ankura understands the SDLC process and knows how to develop this discipline and capability in organizations that historically host applications that were improperly security-vetted. As part of our business continuity plan and disaster recovery process, we inventory applications in the data center and help clients ascribe ownership and responsibility for security.

## GET IN TOUCH

Scott Corzine  
[scott.corzine@ankura.com](mailto:scott.corzine@ankura.com)  
+1.646.291.8596 Direct  
+1.917.930.5300 Mobile

Duane Lohn  
[duane.lohn@ankura.com](mailto:duane.lohn@ankura.com)  
+1.602.321.9818 Mobile