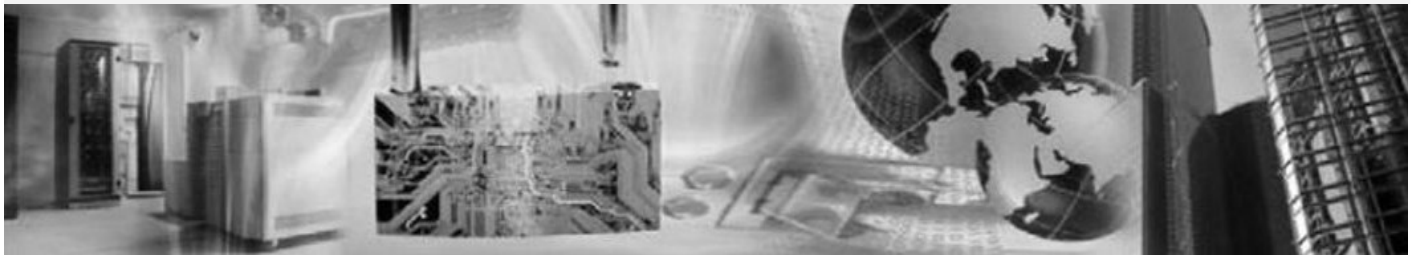
KMS
Advancing Disruptive Technologies & Capabilities

Quantum Resistant (QR) NSA CSfC Immersion Course

Course Objective: To provide the appropriate level of customer-relevant, quantum computer resistant CSfC-related technical and programmatic background information to allow customers to determine from a cost, schedule and performance perspective if / when / how to proceed with a Quantum Resistant (QR) CSfC prototype and/or instantiation effort.



One of the original NSA Commercial Solution for Classified (CSfC) Trusted Integrators, Key Management Solutions LLC (KMS) is a Veteran Owned Small Business (VOSB) that provides Joint Capabilities Integration and Development System-based (JCIDS-based) Research, Development, Test and Evaluation (RDT&E), Information System Security Engineering (ISSE), and DoD and Federal Assessment and Authorization (A&A) services with an emphasis on advancing disruptive technologies and capabilities – such as NSA CSfC Solutions.

*** ***Notes***

Course fees based on maximum of five (5) students at customer site / facility. Travel not included.

For more than five (5) students please send request for special pricing to:

CSfC-Training@kmssecurity.com

For information on this course, please send questions to:

pguerin@kmssecurity.com

The KMS Quantum Resistant (QR) NSA CSfC Immersion Course agenda and two day 'active learning' approach was developed based on Lessons Learned from over fifteen (15) years of successful NSA Suite B, Commercial National Security Algorithm (CNSA) and QR NSA CSfC RDT&E, Analysis of Alternative (AoA), Assessment & Authorization (A&A) and Technology Transition experience to include working directly with NSA CSfC Program Management Office (PMO) and DNM NSS representatives. Invaluable input from customer engineers, Program Managers, JCIDS process participants, Integrated Logistics and Support (ILS) representatives and Authorization Officials also helped shape this offering.

Course Overview:

- **QR NSA CSfC Operational & Technical Concepts** (day one) leverages KMS NSA CNSA CSfC Immersion Course and provides an overview of NSA's evolution from 'standard' CSfC to QR CSfC. Includes overviews of quantum computing, quantum computer threats and mitigations, QR encryption algorithms, entropy-compliant encryption key generation, storage, and Cross Domain key transfer deployment options, QR CSfC Policies, TTPs, and Key and Certificate Management Plan (KCMP) structure.
- **QR NSA CSfC Operational & Technical Walkthrough** (day two) 'Deep dive' based on customer's unique use case; Provides training for developing, accrediting and registering a tailored QR NSA CSfC solution to include CNSSI crosswalks, CP test and approval processes, development of an operations-specific KCMP to include alignment with NSA-required certificate policies (CP) and Certification Practice Statement (CPS).

The ***QR NSA CSfC Operational & Technical Walkthrough*** Modules leverage all information from the ***Operational & Technical Concepts Modules***, and employs an Action Learning approach culminating in a 'getting started' exercise whereby the instructor and students define a sample (or actual) QR CSfC Solution requirement, map that to one or more (final and/or Draft) NSA CSfC Capability Packages, define an initial (notional) Solution architecture and Concept of Operations (CONOPS), and map that to a CSfC-specific Plan of Action and Milestones (POA&M). Using the sample (or refined actual) CSfC Solution system information, the instructor and students walk through a typical system registration, potential NSA socialization process (for a sample failed requirement mitigation and CSfC Deviation Approval Request) and development of a plan for, and summary presentation materials for briefing the CSfC effort to the appropriate (customer-specific) Approving Authority representatives and interconnecting systems.

Who should attend?

This standard course was designed for both QR NSA CSfC effort decision makers and/or engineers. It is strongly recommended, however, that initial members of the participating training 'team' be comprised of four to five members with a combined understanding of all QR NSA CSfC effort technical and programmatic requirements.

Alternatively, information covered in this course would be beneficial to anyone interested in QR NSA CSfC trends, technologies and/or processes to include QR NSA CSfC as it relates to Cryptographic Modernization, Defense in Depth, the NSA Information System Security Engineering (ISSE) process and/or Risk Management Framework (RMF).