Quantum Innovation and Readiness Forum

Gaining the Quantum Advantage and Managing Risk for Federal Government

Event Summary

At the first event held at the newly reopened Forge, we explored thought **leadership on the quantum landscape and post-quantum cryptography (PQC) in the age of AI**, with a focus on cybersecurity for both Federal and commercial sectors.

This event provided an overview of Quantum technologies, current uses and advancements, and cybersecurity threats posed by quantum computers, as well as implications, of AI in quantum computing.

Additionally, we had the opportunity to demonstrate the Dirac3 quantum computer, showcasing its capabilities.

What Government Leaders Can Do Now

- **Automate** cryptographic discovery to find vulnerabilities
- **Prioritize** high-value assets for PQC upgrades
- **Embed** quantum into your zero-trust strategy

For more insights, please read Accenture's report: *The Future at Quantum Speed*

Program Highlights

Accenture's Perspective on Quantum

Accenture sees quantum approaching a true inflection point: the convergence of qubit hardware breakthroughs, advances in error-correcting code, new post-quantum cryptography standards, and the growing intersection of quantum with AI and cybersecurity. This shift represents more than just a tech milestone—it's a generational modernization opportunity. Garland Garris, Cybersecurity Capability Lead for Accenture Federal Services (AFS), shared our perspective on how agencies can prepare for the quantum era with a "secure-then-scale" approach: begin with a cryptographic inventory, prioritize PQC adoption, and embed these changes into broader zero-trust strategies. Rick Driggers, AFS Cyber Practice Lead, and Stephen Harper, AFS Quantum Information Science Lead, emphasized the importance of early pilots focused on optimization, sensing, and secure communications—built with clear goals, executive sponsorship, and room to scale. By bringing together future-focused vision and the right partners, agencies that start early and treat quantum as a core part of their digital roadmap will be positioned to lead the quantum-enabled era.

Panel: Navigating the Quantum Inflection Point

Department of Energy (DOE) Quantum Lead, Lili Cameron, CISA Cryptographic Services Lead, Dr. Gary Jones, and DOE Technology Commercialization Executive, Rima Oueid, shared insights on how agencies can prepare for the coming quantum shift. The panel emphasized the need to automate cryptographic discovery, prioritize high-value assets, and embed post-quantum cryptography into zero-trust and broader cybersecurity strategies. They encouraged agencies to work closely with vendors to accelerate adoption of NIST-selected algorithms and avoid treating quantum as a siloed effort. The conversation also highlighted near-term mission applications—including optimization and quantum sensing pilots—and the value of building public-private partnerships that scale beyond research to real-world infrastructure and impact.

Quantum Innovation and Readiness Forum

Technology Partner Deep Dives and Demos

Leaders from Accenture's ecosystem partners—QuSecure, SanboxAQ, Aliro, Tychon, and QCi—outlined their perspectives and demonstrated their advanced quantum capabilities with relevant use cases impacting Federal agencies.

Post-Quantum Cyber Readiness QuSecure – Demonstrated its quantum-resilient orchestration platform, showing how agencies can transition to post-quantum cryptography with minimal disruption to existing infrastructure

Post-Quantum Risk Discovery SANDBOXAQ – Demonstrated tools for identifying cryptographic vulnerability and assessing quantum risk exposure, helping agencies prioritize and plan their PQC transition.

Quantum-Secure Networking Aliro QUANTUM® – Showed how quantum networks and entanglement-based protocols can enable next-gen secure communications.

Cryptographic Inventory and Risk Monitoring TYCHON – Presented automated cryptographic discovery and analytics tools, helping agencies identify vulnerable assets and prioritize PQC upgrades as part of broader zero-trust strategies

Accessible Quantum Computing QCi – Showcased their Dirac-3 quantum computer, now operational in the AFS Forge. The photonic-based system offers room-temperature quantum processing designed for real-time mission applications, bringing accessible quantum hardware directly into federal innovation environments

What's Next

AFS is thrilled to continue to connect subject matter experts and practitioners to support AI initiatives across the Federal government. **Start Your Quantum Journey Now.**

Garland Garris
AFS Quantum Lead
garland.garris@afs.com

Kara Lacy
AFS Quantum Program Manager
kara.lacy@afs.com

Stephen Harper
AFS Quantum Information Science Capability Lead
stephen.a.harper@afs.com