

SMART Authorization for Physical & Logical Convergence



Cyber Security Division 2012 Principal Investigators' Meeting

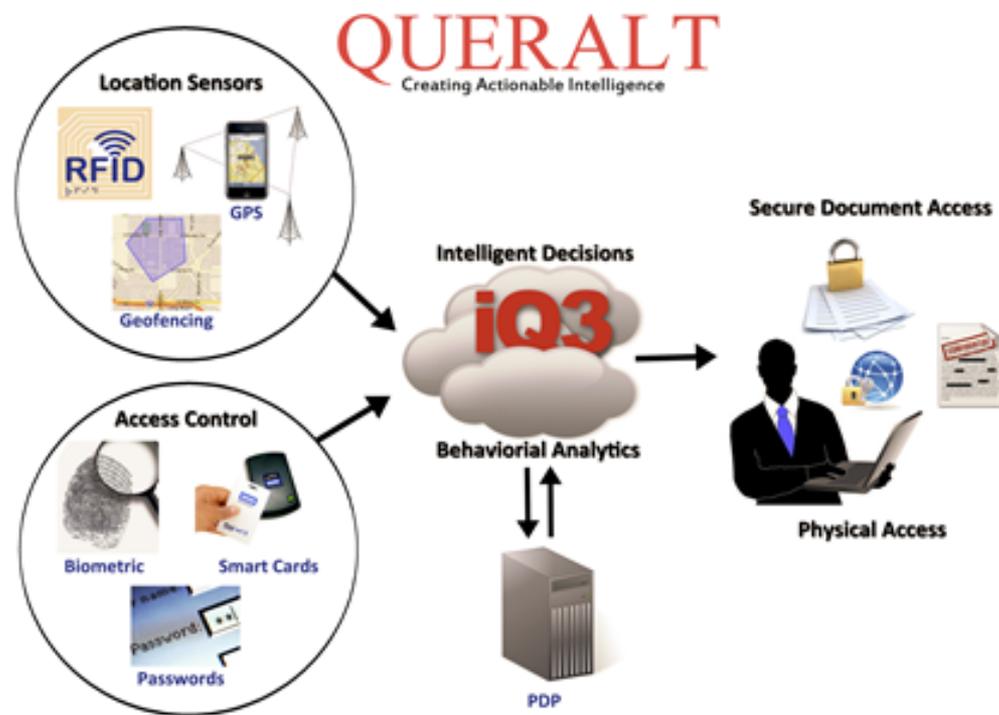
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Context: IQ3 Platform

Drives smarter outcomes via cloud-based decision platform

- Context-aware decisions
- Real-time, policy driven
- Converged environment (physical & logical assets & attributes)



Sponsored by DHS Science and Technology Directorate

Core Problems Solved

Ask “questions” & actuate “responses” based on the answer:

- Does John Smith have access to Server Room 4?
During off-hours? - **Yes**
During a fire alarm? - **Yes**
- Has Mrs. Johnson received her evening meds?
Yes
Did she eat a meal first? - **No**
- Does Google Contractor have access to a database?
Remotely? - **Yes**
While being “badged in”? - **No**

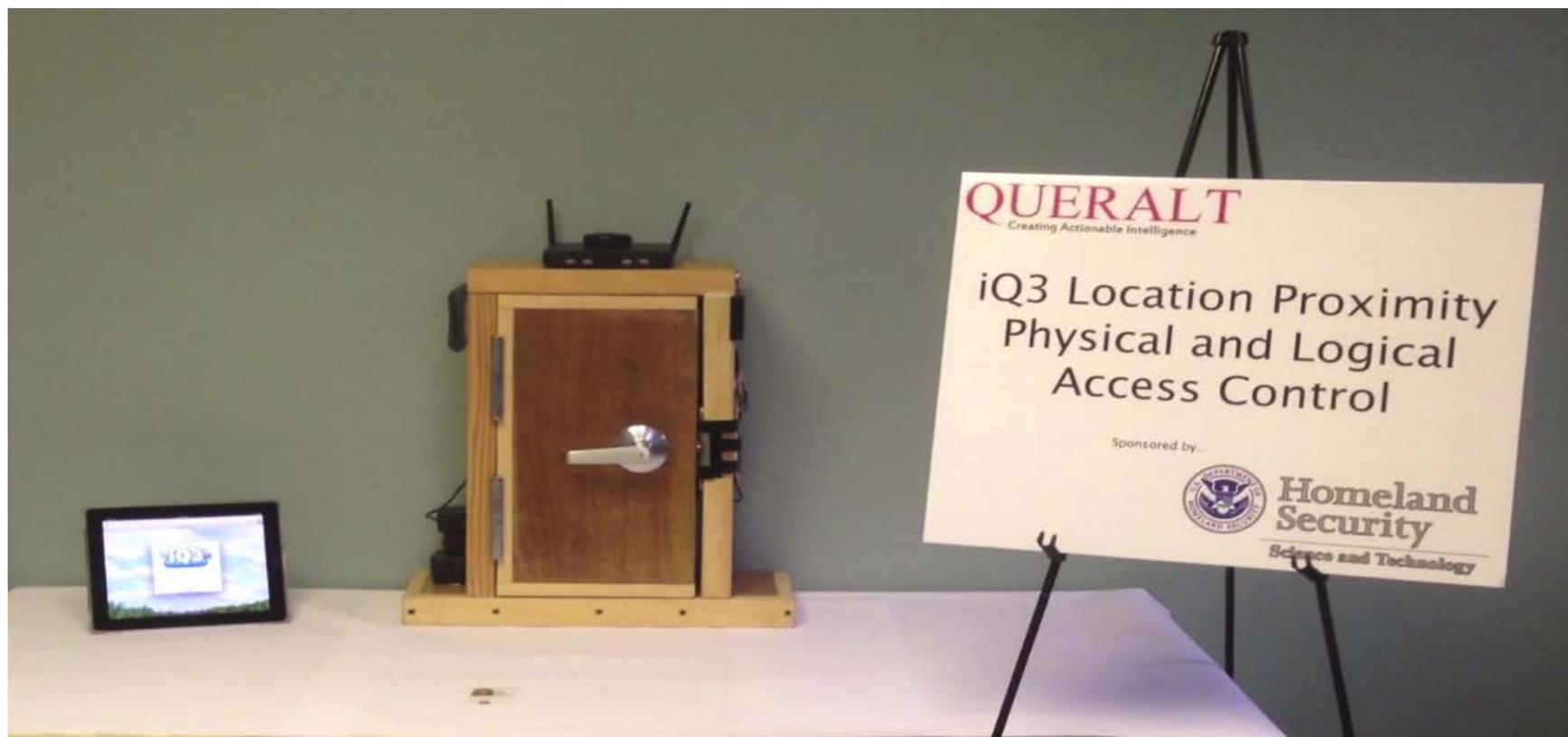


DHS S&T CSD (background)

- Program Area: Cybersecurity User Protection & Education (CUPE)
 - Identity Management
- SBIR Phase I (May '09) -> Phase II (Jun '10) -> Phase III (Jan '12)
 - Highly Scalable IdM Tools
 - Developed location-based service for utilizing “location” as an attribute to provide authorization decision requests
 - Proof-of-concept pilot running @ S&T IdM Testbed
 - Currently exploring operational pilots

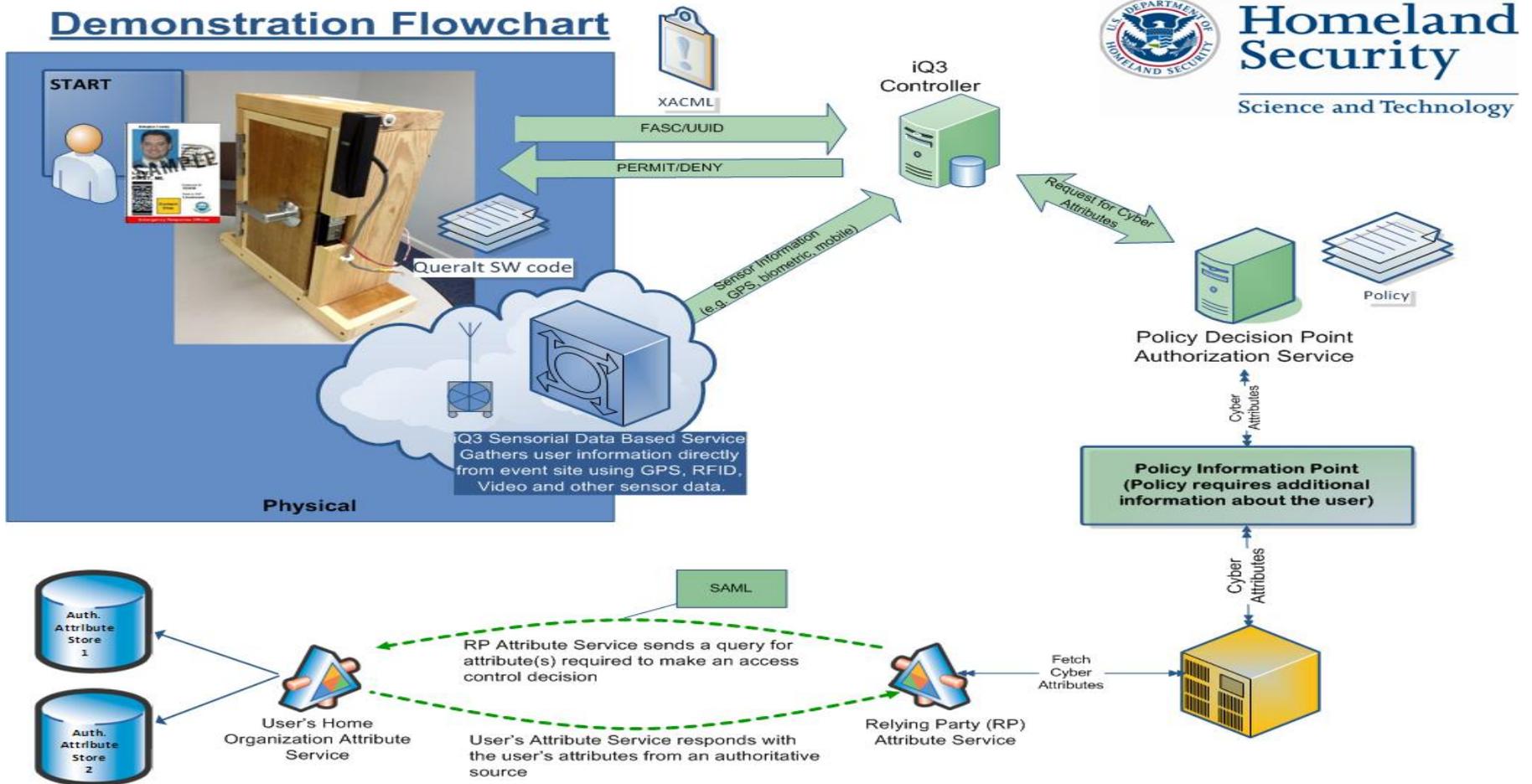
Location Proximity Demo

<http://www.QueraltInc.com/location-based-authorization-demo.html>



Authorization Flow

Demonstration Flowchart



Benefits

- Based on open standards (XACML) drive plug & play interoperability (compatible with PIV & PIV-I)
- Increases security in access control decisions via flexible, context aware policy creation
- Decreases risk in access control decisions via real-time, data driven responses reducing human error
- Decreases costs by extending life of PACS in place, and empowers those systems for Attribute-based Access Control

Progress

- Published API for Physical Access Control Systems use to enable contextual security
- Jointly developing whitepaper with Axiomatics
- Commercial pilot installations within elder care & gas manufacturing
- Exploring additional pilot installations within Federal & Local government, and financial services institutions
 - Seeking institutions who need both strong & flexible authorization

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Thank You

Questions?

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