



**U.S. Department of Agriculture
Office of the Chief Information Officer**

Accessing Virtual Worlds Across Agencies: USDA Trusted Source Hosting Model

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Federal Consortium For Virtual Worlds

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Our Background

USDA OCIO and National Defense University IRM College

- ❑ Began a collaborative effort on Virtual Worlds in early 2009.
- ❑ Proof of concept prototype to implement Virtual Worlds behind a Secure Government Network.
- ❑ Created a high level concept of operations, and worked together to support that concept for the Federal Consortium.



USDA Virtual World – Our Vision

- Agencies will be able to work independently or in a shared environment.
- An environment that allows learning, collaboration and interaction among individuals and organizations in geographically diverse locations.
- Shared repository of 3D objects to be leveraged across agencies.
- Reduce expenses for travel while broadening collaboration and communication.
- A robust and scalable virtual world environment in our secure enterprise data center.



Hosting in an Enterprise Data Center Architecture

- A full service 24 X 7, Tier IV Federal Enterprise Data Center.
- Multiple platforms on Mainframe, Midrange and Intel based systems.
- Dual power feeds provide uninterrupted power and on site backup diesel generators.
- In-house certified project managers and software development staff.
- Physical Security managed by access, surveillance and biometrics.



Identity and Access Management

USDA eAuthentication:

- User identity must be physically demonstrated and verified with government-issued ID to receive Level 2 credentials
- Virtual World access granted to only Level 2 eAuth users
- NIST compliant, and mature set of processes and procedures surrounding technology

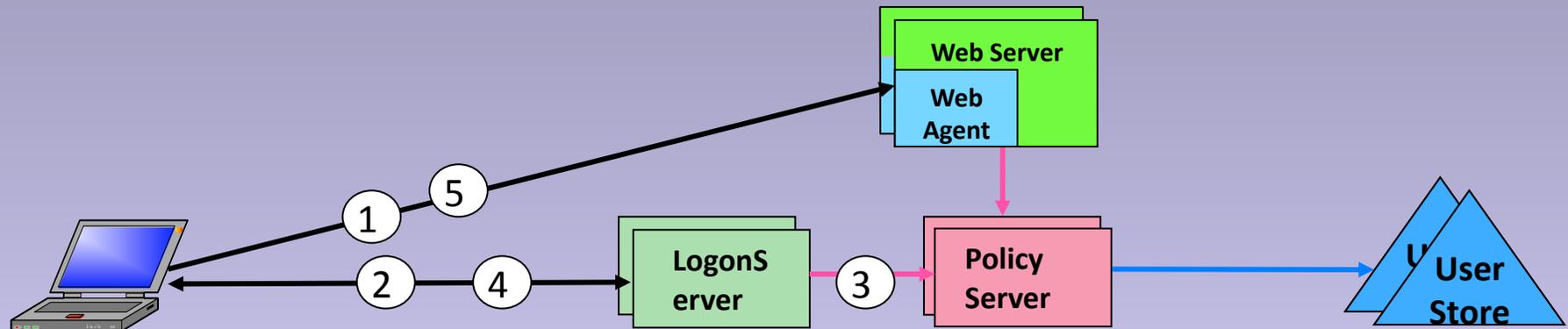
Roadmap to HSPD:

- eAuthentication evolving toward adoption of HSPD-12 smart cards



Assurance Levels 1 – 2

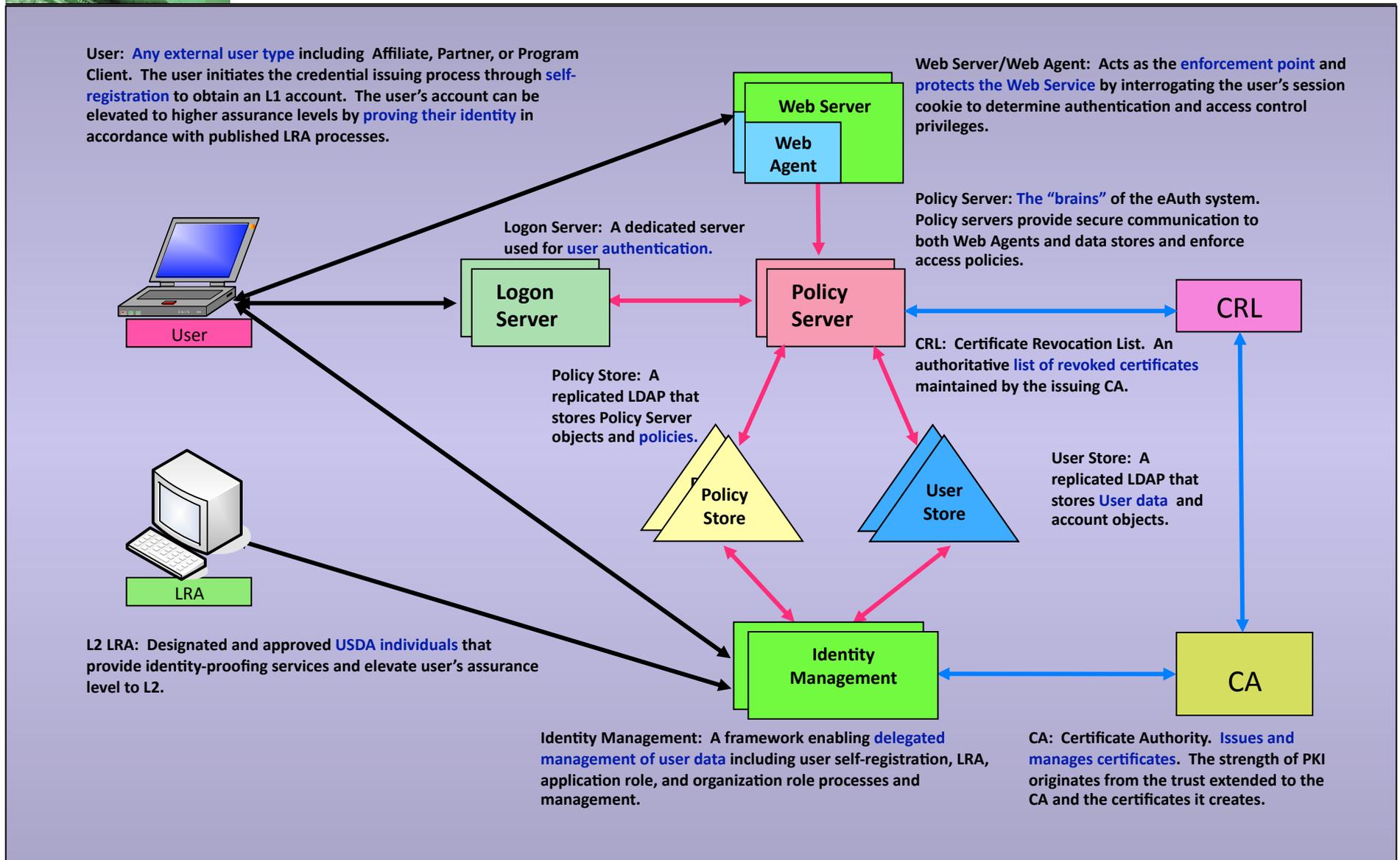
Authentication Process



1. The user requests access to the protected resource. The Web Agent intercepts the request. The web agent requests the eAuth session cookie. If no valid cookie is found, the user is redirected to the Logon Server.
2. The user is prompted for credentials. The user returns username and password.
3. The logon server passes the credentials to the Policy Server. The policy server authenticates the user against the user ID stored in the User Store.
4. The logon server creates a session cookie and passes it back to the user.
5. The user is redirected back to their original request.



eAuthentication – Generalized Concept of Operations





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Innovative Meetings



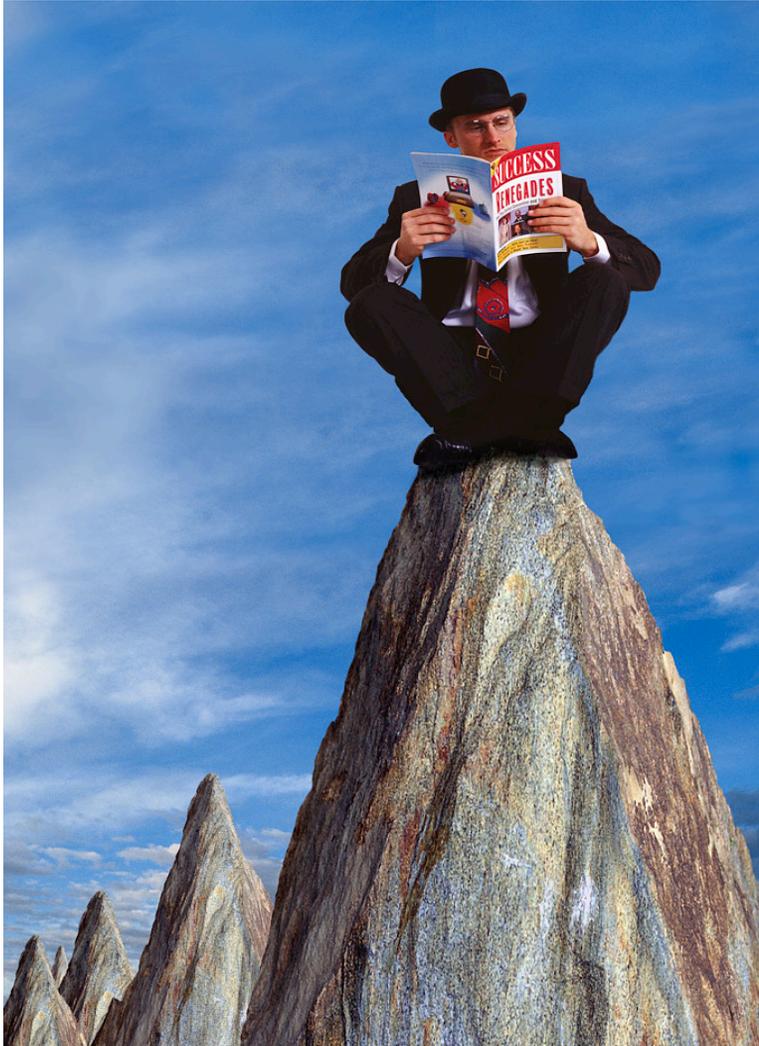
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Virtual Training





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**Improved
Collaborative
Planning**



Teams Created to Develop Approach

Security and Access

- Authentication
- Web 2.0 Adoption
- Future Web Access
- VW Repository

Policy

- Functional Requirements
- Disaster Recovery
- High Availability
- Agreements w/Partners

Implementation Plan

- Product and service roll out
- Scheduling
- Go-to-Market
- Management of virtual world services

Architecture

- Network and Storage
- Web 2.0 Integration
- Physical environment
- Scalability

Business Plan

- Acquisition approach
- Determination of start up costs
- High Availability
- Agreements w/Partners



Next Steps

USDA plans to partner with interested agencies that will help shape a collaborative environment in a multi-agency pilot.

- Conduct kickoff session with agency partners to discuss funding, begin constructing agreements, and leverage expertise
- Develop a future roadmap
- Establish requirements for virtual world procurement
- Collaborate in the creation of structure and policies
- Roll out a Virtual World environment to 1000 users



To Become a Partner

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