

Workload Authentication Maturity Levels

Draft Submission for IETF Review

Ryan Hurst @ SPIRL, Jeff Lombardo @AWS

Purpose and Goals

- **Establish a Framework:** Create a structured approach for workload authentication, inspired by NIST SP 800-63B
- **Guide Organizations:** Help organizations improve their security posture through consistent workload authentication practices
- **Facilitate Discussion:** Provide a common language to assess security properties and make informed decisions

Background and Status

- **Initial Draft:** Developed from initial notes and formatted according to RFC standards
- **Community Consensus:** Prior discussions indicated support for a document aligned with these goals
- **Preliminary Feedback:** Initial input gathered on potential structure and content
- **Co-Author Update:** Jeff Lombardo has joined to support further progress

Summary of Key Feedback

- **Clear Objectives:** Abstract refined to outline goals, best practices, and assurance levels
- **Structured Approach:** Sections aligned with NIST SP 800-63 standards to establish consistency
- **Threat Mitigation:** Dedicated security section addressing threats and mitigations
- **Granularity:** Levels reduced to 3-4, aligning with xAL standards for simplicity
- **Defined Boundaries:** Clear distinction between workload and human identity requirements
- **Standardized Terminology:** Consistent definitions for authenticators, including enrollment, management, and usage
- **Supporting Components:** Defined requirements for supporting authentication elements

Next Steps and Community Involvement

- **Please Review the Draft:**

<https://github.com/rmhrisk/WorkloadIdentityAuthenticationLevels/>

- **Request for Contributions and Feedback:**

- The proposed next steps
- Other topics and goals

- Lets work together to create a practical framework that helps consumers and implementers communicate effectively about workload authentication maturity.