INTERNET ENGINEERING TASK FORCE (IETF) - OCTOBER 2025 DRAFT OF UPCOMING CHANGES

This document outlines a draft proposal for significant changes and updates to be considered by the Internet Engineering Task Force (IETF) during its October 2025 meeting cycle.

1. INTRODUCTION

The IETF continuously evolves to address new challenges and opportunities in the internet's architecture and protocols. This draft serves as a preliminary overview of key areas slated for discussion and potential standardization in the upcoming October 2025 period. It aims to provide early visibility to working groups, individual contributors, and interested parties.

2. PROPOSED AREAS OF CHANGE

Protocol Enhancements:

- New proposals for improving the efficiency and security of existing core protocols (e.g., TCP, IPsec, DNS).
- Discussion on the integration of emerging technologies like quantumresistant cryptography into network security protocols.

New Protocol Development:

- Initiation of new working groups or charters for protocols addressing nascent internet use cases (e.g., advanced IoT communication, decentralized identity management).
- Exploration of novel transport or application layer protocols.

Operational and Management Improvements:

- Updates to network management frameworks (e.g., SNMP, NETCONF) to support modern network infrastructures.
- Standardization efforts for network telemetry and analytics.

Security and Privacy Standards:

 Refinement of existing security protocols and introduction of new mechanisms to combat emerging threats. Development of enhanced privacy-preserving technologies for internet communication.

3. IMPACT ASSESSMENT (PRELIMINARY)

A preliminary assessment suggests that these changes may impact various stakeholders, including protocol implementers, network operators, application developers, and end-users. Specific impacts will be detailed in subsequent document revisions and working group discussions.

4. TIMELINE AND NEXT STEPS

This draft is intended to solicit feedback prior to the formal call for contributions. Key milestones include:

• Feedback Period: Until November 30, 2025

• Working Group Review: December 2025 - January 2026

Agenda Planning: February 2026

• October 2025 IETF Meeting: Formal presentation and discussion.

Interested parties are encouraged to review this draft and provide feedback through the relevant IETF mailing lists.

5. CONCLUSION

This document represents an initial step in preparing for the October 2025 IETF cycle. Further details and specific proposals will be developed and disseminated in the coming months.

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