



DEPARTMENT OF THE ARMY
CHIEF INFORMATION OFFICER
107 ARMY PENTAGON
WASHINGTON DC 20310-0107

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31 May 2024

SAIS-ADS (25-1rrrr)

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Chief Information Officer Guidance for the Army's Transition to Internet Protocol Version 6

1. References. See Enclosure 1.
2. Purpose. This memorandum communicates the requirement to implement and transition to Internet Protocol Version 6 (IPv6), assigns responsibilities, and provides guidance to conduct transition planning and methodically prepare for the operational deployment of IPv6 across all Department of Army (DA) networked information systems, devices, services, and applications that use internet protocol (IP) communications.
3. Background. IPv6 is the next-generation IP that is essential to supporting the continued growth of the Internet, presenting a strategic opportunity to enhance IP mobility and deliver information services with greater efficiency. Taking these benefits into account, and in accordance with Federal and Department of Defense (DoD) mandates per references 1a and b, it is the strategic intent of the Department's end state as an IPv6-only environment.
4. Applicability. This memorandum applies to all Army stakeholders to synchronize and integrate IPv6 implementation efforts (for example, Compos 1, 2, and 3, USACE, AMC, other ORGNETs, organizations receiving Non-Appropriated Funds (NAF) or Army Capital Working Funds (AWCF), and other Army organizations as required). In accordance with reference 1c, it includes all classified and unclassified information systems, devices, services, and applications that use IP communications. These technologies are more broadly referred to as "IP-enabled assets" throughout this memorandum.
5. Policy. Beginning Fiscal Year (FY) 2025 all new Army information systems that use IP technologies must be IPv6-enabled before implementation and operational use.
 - a. By the end of FY 2025, networks and systems that cannot be transitioned to IPv6-only; must be running in a dual stack (IPv4 and IPv6) environment.

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b. Army information systems that cannot be transitioned to IPv6 must be identified and justified through an approved Plan of Action and Milestones (POA&M) schedule for replacing or retiring these systems by end of FY 2025 per reference 1a.

c. In rare circumstances where there will be difficulties conforming to IPv6 transition requirements, the responsible system owner should submit a waiver request to the Army's Unified Network Council (AUNC) to waive this requirement. The AUNC will consider waivers on a case-by-case basis. In such cases, the purchasing agency shall request documentation from vendors detailing explicit plans (for example, timelines) to incorporate IPv6 capabilities within their offerings (re: M-21-07, Adhering to Federal IPv6 Acquisition Requirements).

d. Additional guidance for Operation Technology (OT) systems will be addressed in future policy as needed.

6. Responsibilities.

a. Army Chief Information Officer (CIO) will serve as the Army's IPv6 Agency Lead responsible and accountable for IPv6 policy and governance, develop IPv6 related policies, and report on transition progress to the DoD CIO IPv6 Working Group.

b. HQDA, Deputy Chief of Staff G-6 (DCS, G-6) will serve as the Army's IPv6 Lead Implementor responsible for the development and execution of the Army IPv6 Implementation Plan, which describes the approach to implement and transition to an IPv4/IPv6-hybrid environment in support of the IPv6 milestones identified in this memorandum. The Army's end state goal is an IPv6-only environment.

c. Army Cyber Command (ARCYBER) will develop an Army IPv6 Address Plan that is compliant with the Department of Defense Internet Protocol Version 6 Address Plan, Version 1.3 Updated December 2021. The Address Plan should consider clear and concise mapping of the addresses to the network's physical topology to maximize efficiency.

d. Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA (ALT)) should provide appropriate direction to Program Executive Offices and Program Managers to design, build, test, and field IPv6-capable Information Technology (IT), using the DoD Information Technology Standards Registry (DISR) mandated IPv6 standards.

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e. System Owners, Command Administrators, or Resource Managers will verify record profile data and resource data on IP-enabled IT systems in the Army's authoritative data source (ADS), Army Portfolio Management Solution (APMS) as updates occur.

7. Duration.

a. This guidance is effective upon signature and remains in effect until superseded, rescinded, or incorporated into Army Regulation (AR) 25-1 (Army Information Technology), reference 1d.

b. The Office of the CIO will ensure this memorandum is reviewed no later than 1 October of each calendar year for supersession, rescission, or inclusion in the next edition of AR 25-1.

8. Points of contact.

a. CIO Policy Inbox: usarmy.pentagon.hqda-cio.mbx.policy-inbox@army.mil.

b. AUNC Inbox: usarmy.belvoir.hqda-dcs-g-6.mbx.hqda-dcs-g-6-aunc@army.mil.

c. SAIS-ADS: Dr. Gregory C. Smoots, Deputy Director, Architecture, Data, Standards, at gregory.c.smoots.civ@army.mil.

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Date: 2024.05.31
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LEONEL T. GARCIGA
Chief Information Officer

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2. Glossary

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- Superintendent, Arlington National Cemetery
- Director, U.S. Army Acquisition Support Center

CF:

- Principal Cyber Advisor
- Director of Enterprise Management
- Director, Office of Analytics Integration
- Commander, Eighth Army

REFERENCES

- a. OMB memorandum M-21-07 (Completing the Transition to Internet Protocol Version 6 (IPv6)), 19 November 2020.
- b. Deputy Secretary of Defense (Directive-type Memorandum (DTM) 21-004: Department of Defense Implementation of Internet Protocol Version 6), 29 June 2021.
- c. Assistant Secretary of Defense for Networks and Information Integration/DoD CIO (DoD Unified Capabilities Approved Products List), current edition.
- d. AR 25-1 (Army Information Technology).
- e. National Institute of Standards and Technology (NIST Special Publication 500-267, USGv6 Profile), 24 November 2020.
- f. DoD CIO (Department of Defense Internet Protocol Version 6 Address Plan, Version 1.3), December 2021.
- g. DoD CIO (Internet Protocol Version 6 Implementation Direction and Guidance), Memorandum), 27 February 2019.
- h. DoD CIO (Department of Defense Strategy to Implement Internet Protocol Version 6), September 2019.
- i. AR 25-13 (Army Telecommunications and Unified Capabilities).
- j. DA Pam 25-1-1 (Army Information Technology Implementation Instructions).
- k. DA Pam 25-2-2 (Cybersecurity Tools Unified Capabilities Approved Products List Process).
- l. MITRE (MTR 120656: IPv6 Readiness Assessment of Department of Defense Tactical Systems/Networks), 29 March 2013.
- m. MITRE (MTR: Department of Defense IPv6 Transition Study Version 1.0), 29 May 2020.

GLOSSARY

TERM

DEFINITION

Army Portfolio Management Solution (APMS)

APMS contains, and is the authoritative data source (ADS) for the Army's inventory of active IT investments and their associated systems and applications, as well as information system and application hosting environments.

IP-enabled asset

Any information system, device (i.e., routers, servers, switches, firewalls, printers, computers, etc.), service, or application that uses internet protocol (IP) communications.

IPv6-capable

Refers to an IP-enabled asset that has correctly implemented a complete set of IPv6 capabilities. The DISR mandated standards for IPv6 provide detailed technical requirements for IPv6 capabilities for distinct product types.

IPv6-enabled

Refers to an IP-enabled asset in which the use of IPv6 is "turned on" for production use.

IPv4/IPv6 dual-stack

Refers to the state of an IP-enabled asset when both IPv4 and IPv6 protocol stacks are operating in parallel, and network nodes can communicate via v4 or v6.

IPv6-only

Refers to the state of an IP-enabled asset when IPv4 protocol functions (addressing packet forwarding) are not in use. The DISR mandated standards for IPv6 defines technical requirements for a product to be capable of operating in IPv6-only environments.

Purchasing Agency

is any state organizational unit or administrative body that receives goods or services from a vendor.

Temporary Waiver

Waivers with a CIO designated expiration date. A temporary waiver enables the system managers to wait until an appropriate time in the systems life cycle (e.g., modernization) to incorporate a new data standard.

Permanent Waiver

Waivers granted for the life of the system.