



Office, Chief Information Officer / G-6

**DEPARTMENT OF THE ARMY
OFFICE OF THE SECRETARY OF THE ARMY
107 ARMY PENTAGON
WASHINGTON DC 20310-0107**

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MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Thin Client Computing Guidance

1. References:

a. Army Regulation (AR) 25-1, Army Knowledge Management and Information Technology (IT), 4 December 2008.

b. Thin Client Computing, Audit Report: A-2008-0220-FFI, U.S. Army Audit Agency, 28 August 2008.

c. Selected Thin Client Computing Implementations, Audit Report: A-2009-0145-FFI, U.S. Army Audit Agency, 29 June 2009.

d. U.S. Army Cost-Benefit Analysis Guide, Office of the Deputy Assistant Secretary of the Army (Cost and Economics), version 1.0, 12 January 2010.

e. Financial Management, Defense Finance and Accounting Service-Indianapolis Center Manual 37-100-11, Appendix A, August 2010.

f. Memorandum, CIO/G-6 and ASA(ALT), Subject: Use of Computer Hardware, Enterprise Software and Solutions (CHESS) as the Primary Source for Procuring Commercial IT Hardware and Software, 4 May 2009.

2. Purpose. This memorandum provides supplemental guidance for planning, acquisition and use of thin client computing technology, and as such updates the policy included in reference a (paragraph 6.2.e (4)). This regulation applies to the active Army, the U.S. Army National Guard and the U.S. Army Reserve, unless otherwise stated. This guidance is for Army commanders who wish to implement or transition to a thin client or hybrid computing (thin and thick client) environment, in either the NIPR (unclassified) or SIPR (classified) environment. It implements several Army Audit Agency (AAA) recommendations contained in references b and c.

3. Definition. A thin client device does not have a dedicated local hard drive, often runs only web browsers or remote desktop software, and relies on the network to communicate with a central server. In a thin client computing environment, all

applications and user data are stored on the servers. In addition, all significant processing is performed on the servers. Thin client devices access the data and information they require from a central location. Conversely, a thick (or fat/traditional) client has dedicated local storage and processing capabilities that can function independent of the central server. A hybrid computing environment is a mix of thin and thick client computing solutions.

4. Benefits and Limitations.

a. Benefits.

- Reduced touch labor costs and administration costs due to centralization (IT maintenance reduction, security patches, software version control)
- Reduced risk of physical data compromise/theft
- Reduced life cycle computing costs
- Better software license management
- Reduced power consumption (green computing)

b. Limitations. Thin client computing does have limitations and is sometimes not a good fit for all Army missions. These limitations include, but are not restricted to:

- Provides less computing power, hindering the ability to support graphics-intensive applications, collaboration tools, social media, streaming video and test/simulation environments
- Dependent on facility (e.g., space) and network resources (e.g., bandwidth)
- Not usable in stand-alone state (e.g., mobile/tactical users with no network access)
- Represents a single point of failure without a continuity of operations plan
- Requires a high initial investment for hardware, software and engineering
- Limits applications and peripherals compatibility
- Requires specialized thin client expertise to operate and maintain

5. Global Network Enterprise Construct (GNEC) Strategy Alignment. Implementation of a thin client computing environment is consistent with GNEC objectives, strengthening the Army network security posture and potentially reducing overall IT operating costs over time.

6. Guidance. The Headquarters, Department of the Army (HQDA) Chief Information Officer/G-6 (CIO/G-6) endorses thin client technology and encourages Army organizations (i.e., HQDA and its Field Operating Agencies, Army Commands, Army Service Component Commands, Direct Reporting Units, organizations, installations/posts/camps/stations and activities) to consider implementing this technology when it best suits organizational mission requirements. Army commanders and organizational directors are authorized to transition their organizations to thin client/hybrid computing environments as required to meet their mission and resourcing requirements.

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7. The Theater Signal Command and subordinate Network Enterprise Centers (NECs) will operate and maintain thin client/hybrid computing architectures for supported Army organizations on their respective installations/posts/camps/stations. Each NEC will operate no more than one thin client architecture. This architecture will be scalable to support multiple tenant missions.

8. Implementation and support of thin client shall conform to the Thin Client Computing Technical Authority document (Enclosure 3). Army organizations that currently run a thin client solution not operated or maintained by the NEC shall continue to maintain this environment until the end of its life cycle. Upon end of life, they will coordinate with the Theater Signal Command to transition their thin client solution into the computing architecture provided by the NEC. As required, thin client/hybrid solutions will comply with Section 508 of the Rehabilitation Act of 1973 and Electronic Product Environmental Assessment Tool (EPEAT) requirements.

9. The following documents shall be used to support commanders in decision making for computing environments:

a. Thin Client Mission Analysis Criteria (Enclosure 1). In order to determine suitability for thin client/hybrid implementation, Army organizations are encouraged to use the Mission Analysis Criteria and scoring assessment worksheet to guide their decision.

b. Cost-Benefit Analysis (CBA) Guide (Enclosure 2). An Army organization considering a thin client solution should prepare a CBA to provide a reliable, objective assessment of alternative courses of action. The recommended CBA framework is based on Office of the Deputy Assistant Secretary of the Army (Cost and Economics) guidance in the U.S. Army Cost-Benefit Analysis Guide.

c. Thin Client Computing Technical Authority Document (Enclosure 3). This document is the technical guide for implementing thin client solutions in accordance with standards, protocols, processes, architectures and appropriate thin client hardware/software configurations. It provides the process and key coordination stakeholders for thin client planning, implementation and sustainment, should an Army organization decide to pursue a thin client/hybrid computing environment.

d. Roles and Responsibilities (Enclosure 4). Defines the roles and responsibilities of all stakeholders in the process of assessing, procuring and implementing a thin client solution.

10. Funding. Implementing Army organizations will fund thin client/hybrid computing procurement in accordance with reference e. Thin client is currently an above-baseline service; therefore, each implementing organization will fund all costs of implementing

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and supporting thin client/hybrid computing environments, to include acquisition, installation and operation and maintenance. Acquisition of thin client infrastructure will be in accordance with reference f. Once a thin client architecture solution is installed and operational, Operation and Maintenance, Army (OMA) funds may be used for thin client life-cycle costs (including procurement of end-user devices, servers, storage and network equipment for technology refreshment or incremental system expansion) only if the total cost does not exceed the OMA threshold per requirement for the complete expansion or modification. The OMA threshold is currently \$250,000 per requirement as noted in reference e. If the cost exceeds the OMA threshold, Other Procurement, Army funds must be used.

11. Thin Client Knowledge Center. Thin client guidance, enclosures and information are available via Army Knowledge Online: <https://www.us.army.mil/suite/files/21928696>.

12. My point of contact for this subject is Mr. Jeff Turner: (703) 602-5686, DSN 332-5686 or jeff.turner3@us.army.mil.

Encls


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