

IMT Standards IMT Standards Oversight Committee Government of Alberta	Effective Date: 2018-08-14 Scheduled Review: 2019-08-14 Last Reviewed: 2018-08-14 Type: Technical
Standard number – A000085	
Server – High Density Computing	
Category: Hardware Keywords: Server, High Density	

Description of Standard

The standards below are for the selection of Servers – High Density Computing. To extend the life of existing data centres, the use of blade enclosures and other high-density technologies is preferred.

Standard Specification

High Density Computing must meet the *minimum* specifications listed below:

Enclosure	<ul style="list-style-type: none"> • Ability to hold a minimum of 2 hot-swappable servers • Backwards compatibility with existing high density solutions is preferred (investment protection)
Power Supply	<ul style="list-style-type: none"> • Fully-Redundant hot pluggable power supply (minimum 2)
Interconnect	<ul style="list-style-type: none"> • Redundant minimum 10Gbps shared network to provide network connectivity for all server • Redundant storage area network (SAN) fiber channel shared connectivity to all servers. • Rack mounting kit (including cable management arm) for 3rd party server cabinets • Hardware-based remote administration and control option (e.g. Integrated Lights Out support) • Hardware Management and alerting agent

Standard Options

The High Density Server must support the following options:

Processor	<ul style="list-style-type: none">• Intel Xeon, AMD Opteron or equivalent CPU• Minimum two CPU sockets on the motherboard
Memory	<ul style="list-style-type: none">• Can support at least of 1 TB of memory
Local Storage	<ul style="list-style-type: none">• SAS (Serial Attached SCSI), SSD (Solid State Disk), or Micro SD card for Local Storage
Network	<ul style="list-style-type: none">• Redundant 10GBps network interfaces
SAN Storage	<ul style="list-style-type: none">• Redundant SAN conductivity (HBA)
Other	<ul style="list-style-type: none">• Hardware-based remote administration and control module

Power Usage Guideline

The power usage guideline is 110/208V Chassis with fully redundant power supply.

Heat Guideline

The heat guideline is 3,869 BTU's/Hr PER SINGLE BLADE.

Where to Apply This Standard

This applies to all Government of Alberta Ministries.

Authority and Exceptions

Internal Use Only

Supporting Documentation

Not applicable.

Owner

Service Alberta, Office of the Corporate CIO, Enterprise Operations and Infrastructure

Contact

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Additional Information

Audience	GOA
Source	Service Alberta
Sensitivity	Public
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Proposed By	Service Alberta, Office of the Corporate CIO, Enterprise Operations and Infrastructure – Garnet Randolph – 780-644-3903

Appendix A

Types of Standards	Description
Technical Standard	These are detailed, unique standards that have developed in response to government IMT policies. Technical standards are intended to be replicable, transferable, and adaptable across ministries and other government agencies. Examples of these could include address data standards or specifications for a single identifier for transacting with government electronically.
Product Standard	An IMT product or specific technology oriented standard that facilitates the task of planning for enhancements and acquisitions within the government's broad information systems environment. As a definitive list of the numerous technologies either employed or under evaluation by Workplace Technology Services, product standards are critical in establishing conformity, interoperability and interchange-ability. Examples of these could include a government-wide standard for document, record management and database, and the list of core products for government workstations.
Process Standard	An established, mandatory business practice that supports IMT projects and existing systems to improve the outcome, diminish risks, and increase reliability. Examples could include business continuity planning processes, threat risk assessment processes, etc.
Reference Standard	An IMT industry standard (either a national or international formal or de facto standard) that has been adopted for use by the Province of Alberta. A Reference Standard may be adopted either as stand-alone or as a precursor to a customized standard or policy document. Examples could include the 1024 bit RSA standard for public key encryption.