

Information Technology Policy

Virtualization Policy

Number

ITP-SYM008

Effective Date

November 20, 2009

Category

Systems Management

Supersedes

None

Contact

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Scheduled Review

February 2023

1. Purpose

This Information Technology Policy (ITP) establishes virtualization standards for the Commonwealth.

2. Scope

This ITP applies to all offices, departments, boards, commissions and councils under the Governor’s jurisdiction (hereinafter referred to as “agencies”). Agencies not under the Governor’s jurisdiction are strongly encouraged to follow this ITP.

Third-party vendors, licensors, contractors, or suppliers shall meet the policy requirements of this ITP that are applicable to the products and services provided to the Commonwealth as described in the Responsibilities Section.

3. Definitions

3.1 Network Management Teams: Internal or external agencies or Commonwealth-contracted vendors tasked with management of Commonwealth IT networks.

3.2 Sponsoring Agency: Commonwealth agency in contract with external Network Management Team.

4. Policy

New projects implementing the use of virtualization technologies shall adhere to the policy and standards contained in STD-SYM008A *Virtualization Infrastructure Standards*. If an agency is considering utilizing virtualization for an existing or new technology, it is recommended that a baseline be performed and that a cost/benefit analysis be conducted. Information obtained from the baseline and cost/benefit analysis shall be made available to other agencies. Typical baseline generation shall be conducted over a two-to-four-week period and shall track

statistics, including, but not limited to, CPU, memory, disk, and networking utilization.

Agencies that desire virtualization products shall adhere to the processes and criteria outlined in ITP-BUS001 *IT Planning and Projects* and ITP-BUS002 *IT Investment Review Process*.

Network Management Teams shall employ legacy (such as MPLS, VRFs, VLANs, SDN, VxLANs, and similar virtual technologies) or NSX virtualized network technologies to maintain multiple security and routing instances.

Network Management Teams, wishing to connect legacy virtualized network technologies, shall implement the following controls:

- Not provide interconnection between Security Zones of the Commonwealth network.
- Ensure that all non-Commonwealth connectivity and/or traffic shall be isolated from all Commonwealth Security Zones.
- Provide the Office of Administration, Office for Information Technology, Enterprise Information Security Office (OA/OIT/EISO) with auditability to ensure that proper network segmentation is maintained.
- Except where permission is explicitly granted (via an approved IT policy waiver) by the EISO, not permit leaking of traffic information from one Commonwealth security zone to another via any means.
- Traffic between security zones must only be permitted when it traverses an approved network security gateway device with a rule-base maintained by a Commonwealth authorized gateway management organization operating with the explicit permission and under the security oversight of EISO.
- If there is a special business need to provide this functionality (ex: route leaking for device management) beyond the existing approved gateway management team(s), have its Sponsoring Agency submit the appropriate IT policy waiver request and obtain approval before implementing such a configuration.
- Requests for network configurations, including firewall reconfigurations, should be submitted via the IT Service Management Tool and by following the Service Request process. This process is detailed at: <https://itcentral.pa.gov/Pages/Enterprise-Services.aspx> (CWOPA Limited Access).

5. Responsibilities

5.1 Agencies shall follow the guidance found within this policy and utilize the virtualization standards detailed in STD-SYM008A *Virtualization Infrastructure Standards*.

5.2 Third party vendors, licensors, contractors, or suppliers, if they are supplying a virtual environment, shall comply with the requirements contained in this ITP.

6. Related ITPs/Other References

Definitions of associated terms of this policy are published on the Office of Administration's public portal: <http://www.oa.pa.gov/Policies/Pages/Glossary.aspx>

Commonwealth policies, including Executive Orders, Management Directives, and IT Policies are published on the Office of Administration's public portal:

<http://www.oa.pa.gov/Policies/Pages/default.aspx>

- [Management Directive 205.34 Amended Commonwealth of Pennsylvania Information Technology Acceptable Use Policy](#)
- STD-SYM008A *Virtualization Infrastructure Standards*
- [ITP-ACC001 Information Technology Digital Accessibility Policy](#)
- [ITP-BUS001 IT Planning and Projects](#)
- [ITP-BUS002 IT Investment Review Process](#)
- [ITP-BUS004IT Waiver Review Process](#)
- Office of Administration, Office for Information Technology (OA/OIT) Service Request process: <https://itcentral.pa.gov/Pages/Enterprise-Services.aspx> (CWOPA Limited Access)

7. Authority

[Executive Order 2016-06 Enterprise Information Technology Governance](#)

8. Publication Version Control

It is the [Authorized User's](#) responsibility to ensure they have the latest version of this publication, which appears on <https://itcentral.pa.gov> for Commonwealth personnel and on the Office of Administration public portal:

<http://www.oa.pa.gov/Policies/Pages/default.aspx>. Questions regarding this publication are to be directed to RA-ITCentral@pa.gov.

9. Exemption from this Policy

In the event an agency chooses to seek an exemption from the guidance within this ITP, a request for a policy waiver is to be submitted via the enterprise IT policy waiver process. Refer to [ITP-BUS004 IT Policy Waiver Review Process](#) for guidance.

This chart contains a history of this publication's revisions. Redline documents detail the revisions and are available to CWOPA users only.

Version	Date	Purpose of Revision	Redline Link
Original		Base Document	N/A
Revision	12/20/2010	ITP Refresh	N/A
Revision	12/03/2019	ITP Reformat Renamed ITP Title, dropped "Server" Removed "Problem Statement and Solution Statement" and "Background" subsections Created OPD-SYM008A for Product Standards	N/A

Revision	02/24/2022	Expanded the scope to cover third parties Replaced definitions with links to glossary or references where applicable Updated recommendation on when a baseline and cost/benefit analysis should be conducted Removed the requirement for separation of the commonwealth security zones being maintained between the virtual network and host. Updated responsibilities to also include third parties	Revised IT Policy Redline <02/24/2022>
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