

Information Technology Policy

Network Router and Switch Technology Standards

ITP Number ITP-NET002	Effective Date September 13, 2005
Category Network	Supersedes None
Contact RA-ITCentral@pa.gov	Scheduled Review October 2019

1. Purpose

Establishes enterprise-wide standards for router and switch technologies and the proper utilization of those technologies in a production environment.

2. Scope

This Information Technology Policy (ITP) applies to all departments, boards, commissions and councils under the Governor’s jurisdiction. Agencies not under the Governor’s jurisdiction are strongly encouraged to follow this ITP.

3. Policy

Commonwealth agencies and delivery centers are to leverage existing router and switch technology as detailed in this policy. All Commonwealth router and switch technology implementations are to comply with the technology standards specified in Section 4. Standards.

All Commonwealth router and switch technology implementations are to comply with the protocols and requirements and make use of the evaluation criteria listed in GEN-NET002B, *Network Router and Switch Hardware/Software Business Requirements*.

The Office of Administration, Office for Information Technology, Enterprise Technology Services Office (ETSO) will review and approve router and switch designs, changes, and implementations (and waivers if applicable), to document the currently installed base and to determine the risks associated with non-standard implementations.

All IT projects related to router and switch technology will be subject to review for compliance with this standard through the appropriate project governance processes. Refer to ITP-EPM006 *IT Strategic Planning and Projects* for IT project guidance.

Naming Standards

Commonwealth Governor’s jurisdiction agencies are to adhere to OPD-NET002C *Network Device Naming Standards* (authorized CWOPA personnel only, contact RA-ITCentral@pa.gov for requests) which details the requirements for the configuration of network device and their naming conventions.

Any new network devices deployed on and after the Effective Date detailed in OPD-NET002C not in compliance with this policy must obtain a COPPAR waiver approval against this policy prior to deployment of said network devices into an operational environment. Refer to section 10 for guidance on that process.

4. Standards

Current Standards

(These technologies are supported by the current standards and meet the requirements of the architecture. They are recommended for use.)

Product	IEEE Standard	Protocol
1/10/40 Gbps	802.3	See GEN-NET002B for approved protocols
IP version 4	802.3	See GEN-NET002B for approved protocols

Contain Standards

(These technologies no longer meet the requirements of the current architecture and are not recommended for use. They are to be phased out over time. No date has been set for their discontinuance.)

Product	IEEE Standard	Protocol
10/100 Meg Switched-Layer 2	802.3	See GEN-NET002B for approved protocols

Emerging / Research Standards

(At the present time, they are to be used only in pilot or test environments where they can be evaluated. Use of these technologies is restricted to a limited production mode and requires approval of an ITP COPPAR waiver request.)

Product	IEEE Standard	Protocol
VOIP	802.3ae	See GEN-NET002B for approved protocols
IP Version 6	802.3	See GEN-NET002B for approved protocols

5. Responsibilities

Agencies and Delivery Centers are to adhere to the guidance set forth in this policy and its supplementals.

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 *Commonwealth of Pennsylvania Information Technology Acceptable Use Policy*
- GEN-NET002B *Network Router and Switch Requirements*

- OPD-NET002C *Network Device Naming Standards* (authorized CWOPA personnel only, contact RA-ITCentral@pa.gov for requests)
- ITP-EPM006 *IT Strategic Planning and Projects*

7. Authority

Executive Order 2016-06, Enterprise Information Technology Governance

8. Publication Version Control

It is the 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, for reasons such as the need to comply with requirements for a federally mandated system, a request for waiver may be submitted via the Commonwealth of PA Procurement and Architectural Review (COPPAR) process. Requests are to be entered into the COPPAR Tool located at <http://coppar.oa.pa.gov/>. Agency CIO approval is required.

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	09/13/2005	Base Document	N/A
Revision	12/20/2010	ITP Refresh	N/A
Revision	10/31/2018	ITP reformatted Removed unnecessary language throughout Added reference to ITP-EPM006 Merged STD-NET002A into ITP, rescinded STD-NET002A Updated Standards Added OPD-NET002C	Revised IT Policy Redline 10/31/2018