

Lab - Researching Networking Standards

Objectives

Part 1: Research Networking Standards Organizations

- Gather information about the major networking standards organizations by going on a web surfing treasure hunt.
- Identify important characteristics of some of the organizations.

Part 2: Reflect on Internet and Computer Networking Experiences

- Reflect on how the various networking standards organizations enhance our experience of the Internet and computer networking.

Background / Scenario

Using web search engines like Google, research the non-profit organizations that are responsible for establishing international standards for the Internet and the development of Internet technologies.

Required Resources

Device with Internet access

Part 1: Research Networking Standards Organizations

In Part 1, you will identify some of the major standards organizations and important characteristics, such as the number of years in existence, the size of their membership, the important historical figures, some of the responsibilities and duties, organizational oversight role, and the location of the organization's headquarters.

Use a web browser or websites for various organizations to research information about the following organizations and the people who have been instrumental in maintaining them.

You can find answers to the questions below by searching the following organizational acronyms and terms: ISO, ITU, ICANN, IANA, IEEE, EIA, TIA, ISOC, IAB, IETF, W3C, RFC, and Wi-Fi Alliance.

1. Who is Jonathan B. Postel and what is he known for?

2. Which two related organizations are responsible for managing the top-level domain name space and the root Domain Name System (DNS) name servers on the Internet?

3. Vinton Cerf has been called one of main fathers of the Internet. What Internet organizations did he chair or help found? What Internet technologies did he help to develop?

4. What organization is responsible for publishing Request for Comments (RFC)?

Lab - Researching Networking Standards

5. What do RFC 349 and RFC 1700 have in common?

6. What RFC number is the ARPAWOCKY? What is it?

7. Who founded the World Wide Web Consortium (W3C)?

8. Name 10 World Wide Web (WWW) standards that the W3C develops and maintains?

9. Where is the Institute of Electrical and Electronics Engineers (IEEE) headquarters located and what is the significance of its logo?

10. What is the IEEE standard for the Wi-Fi Protected Access 2 (WPA2) security protocol?

11. Is the Wi-Fi Alliance a non-profit standards organization? What is their goal?

12. Who is Hamadoun Touré?

13. What is the International Telecommunication Union (ITU) and where is it headquartered?

14. Name the three ITU sectors?

15. What does the RS in RS-232 stand for and which organization introduced it?

16. What is SpaceWire?

17. What is the mission of the ISOC and where are its headquarters located?

Lab - Researching Networking Standards

18. What organizations does the IAB oversee?

19. What organization oversees the IAB?

20. When was the ISO founded and where are its headquarters located?

Part 2: Reflect on Internet and Computer Networking Experiences

Take a moment to think about the Internet today in relation to the organizations and technologies you have just researched. Then answer the following questions.

1. How do the Internet standards allow for greater commerce? What potential problems could we have if we did not have the IEEE?

2. What potential problems could we have if we did not have the W3C?

3. What can we learn from the example of the Wi-Fi Alliance with regard to the necessity of networking standards?
