The Internet of Everything (IoE)

Objectives

Explain how network devices use routing tables to direct packets to a destination network.

IPv6 is important to help manage the data traffic identification, which will be needed in the future. Many addresses will assist in this endeavor, and IPv6 helps to alleviate this need.

Background/Scenario

Today, more than 99% of our world remains unconnected. Tomorrow, we will be connected to almost everything. 37 billion devices will be connected to the Internet by 2020. From trees, to water, to cars, the organic and the digital will work together for a more intelligent and connected world. This tomorrow of networking is known as “The Internet of Everything” or “IoE.”

If traffic, transportation, networking, and space exploration depend on digital information sharing, how will that information be identified from its source to its destination?

In this activity, you will begin to think about not only what will be identified in the IoE world, but how everything will be addressed in the same world!

Activity directions for class or individual students:

1. Read the blog/news source, “Internet of Everything: Fueling an Amazing Future #TomorrowStartsHere” authored by John Chambers regarding the IoE. This blog is located at http://blogs.cisco.com/news/internet-of-everything-2.
2. View the video, “Cisco Commercial: Tomorrow Starts Here” located halfway down the page.
3. Navigate to the IoE main page located at http://www.cisco.com/web/tomorrow-starts-here/index.html.Click a category that interests you from within the graphic collage.
4. Watch the video or read through the blog or .pdf that belongs to your IoE category of interest.
5. Write five comments or questions about what you saw or read. Be prepared to share with the class.

Required Resources

- Internet connectivity for research on the cisco.com site.
- Headphones may be useful if students are individually completing this activity within a group setting.
- Recording capabilities (paper, tablet, etc.) for comments or questions regarding the videos, blogs, and/or .pdfs read or viewed for step 4.

Reflection

1. Why do you think there is a need to address trees? Windmills? Cars? Refrigerators? Why will just about anything be able to use an IP address?