Part VI

Network Automation

Part VI of this book includes most of the network automation topics from the CCNA blueprint; however, this part includes as much discussion of how Cisco and others have changed the way networks work to enable better automation as it discusses tools and processes to automate networks.

Chapters 21 and 22 examine a wide range of products and architectures that also enable better operations and automation. Chapter 21 discusses how controllers can separate out part of the work formerly done by networking devices. The chapter shows the advantages of these new controller-based models and details a few examples. Chapter 22 then goes on to give more detail about Cisco Software-Defined Access (Cisco SD-Access), a controller-based networking approach to building enterprise campus networks.

Chapters 23 and 24 discuss a few more specific details about network automation. Controllers typically include REST APIs and often return data to automation programs in the form of formatted data like JSON. Chapter 23 introduces these concepts. Chapter 24 then moves on to discuss IT automation tools, specifically Ansible and Terraform.