Preface

About the Guide

Audience

This design guide is intended for Cisco systems and customer engineers responsible for designing campus networks with Virtual Switching Systems 1440.

Document Objectives

This document provides design guidance for implementing the Cisco Catalyst 6500 Series Virtual Switching System (VSS) 1440 within the hierarchical campus architecture. Chapter 1, "Virtual Switching Systems Design Introduction" covers traditional design approaches and architectural scope of campus. Chapter 2, "Virtual Switching System 1440 Architecture" introduces the critical components of VSS and provides best-practice design options and recommendation specific in configuring VSS in campus. Chapter 3, "VSS-Enabled Campus Design" discusses the application of VSS in campus and illustrates the traffic flow and campus-specific best practice design recommendation. Chapter 4, "Convergence" illustrates the validated design environment. It includes the convergence characteristics of end-to-end campus enabled with VSS.

> **Note** Throughout the remainder of this guide, the Cisco Catalyst 6500 Series VSS will be referred to as the VSS.

This design guide references and uses accumulated best-practice knowledge documented and available in the documents listed in Appendix B, "References." However, during the development of this design guide, many design choices have been made to replace or update specific options recommended for VSS-specific deployments. This design guide makes explicit references to and/or reaffirms Cisco best practices.

Document Organization

This design guide contains the following chapters and appendices:

Section	Description
This chapter	Provides a brief summary of the content provided in this Campus 3.0 Virtual Switching Systems (VSS) solution publication
Chapter 1, "Virtual Switching Systems Design Introduction."	Provides an overview of VSS design presented in this publications
Chapter 2, "Virtual Switching System 1440 Architecture."	Addresses the architecture and components of Cisco Catalyst 6500 Series VSS 1440.
Chapter 3, "VSS-Enabled Campus Design."	Addresses three major parts of VSS campus design: • EtherChannel optimization, traffic flow and VSL capacity planning • Multilayer design best practices • Routing with VSS
Chapter 4, "Convergence."	Describes the convergence characteristics of end-to-end campus-enabled network with VSS.
Appendix A, "VSS-Enabled Campus Best Practice Configuration Example."	Provides VSS-enabled campus best practice configuration examples
Appendix B, "References."	Provides references and links to related documents

About the Author

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Nimish currently works as a Technical Leader in the Data Center Application group within ESE. In ESE he was a lead architect on Virtual Switching System Solution development and verification of best practices designs for Cisco Campus networks. Before his work on the ESE Campus solutions team, Nimish worked with Cisco Advanced Services providing design consultation and technical escalation for large Enterprise customers.

Nimish has been working on inter-networking technology for the last 17 years. Before joining Cisco, Nimish developed expertise with large financial institution supporting trading floor, large-scale design of enterprise networks with logistics and insurance companies and product development experience with IBM. Nimish hold MSEE from New Jersey Institute of Technology. Nimish enjoys fishing and outdoor activities including RVing National Parks.