Introduction

This brief chapter summarizes the purpose, scope, assumptions, and intended audience of this document. The remainder of the document is split into two parts:

- DSL Network Architectures
- Redundant Physical Network Considerations

Purpose

This document has two chief goals:

- To present various digital subscriber line (DSL) architectures as models for customers as they plan for DSL deployment.
- To illustrate how Cisco redundancy features can be used to support DSL environments and to explain how these features can be used to achieve reliability in a DSL Network.

Scope

This document addresses design and implementation of Cisco DSL technology solutions for remote customer premise equipment (CPE), central office (CO) CPE, and service provider (SP) equipment.

Technologies addressed in the architecture portion of this document include:

- Integrated Routing and Bridging (IRB)/RFC 1483 Bridging
- Routed Bridge Encapsulation (RBE)
- Point-to-Point Protocol over ATM (PPPoA)
- Point-to-Point Protocol over Ethernet (PPPoE)
- Service Selection Gateway (SSG)

Redundancy topics addressed include:

- Customer Premise Equipment (CPE) Considerations
- DSLAM 61xx/62xx Considerations
- Cisco 6400 Universal Access Concentrator (UAC) Considerations
- Chassis Redundancy

Related Documents

Product guides on CCO:

- 6100 (NI-1): http://www.cisco.com/univercd/cc/td/doc/product/dsl_prod/c6100/index.htm
- 6100 (NI-2): http://www.cisco.com/univercd/cc/td/doc/product/dsl_prod/c6130ni2/index.htm
- 6400: http://www.cisco.com/univercd/cc/td/doc/product/dsl_prod/6400/index.htm

DSL technical marketing engineering (TME) architecture publications:

- http://dsl.cisco.com/architecture/
- *DSL SSG Training Lab* document by Rohit Aggarwal

Intended Audience

This document is intended for but not restricted to the following audience

- Professional Services
- NSA consultants
- Training
- TAC
- DSL customers

Document assumes that the reader has

- Advanced xDSL technology knowledge
- Familiarity with xDSL Architecture Components