



# APPENDIX A

## Using Optical Splitters with 10GBE Links

Revised: November 8, 2010, OL-21054-04

### Introduction

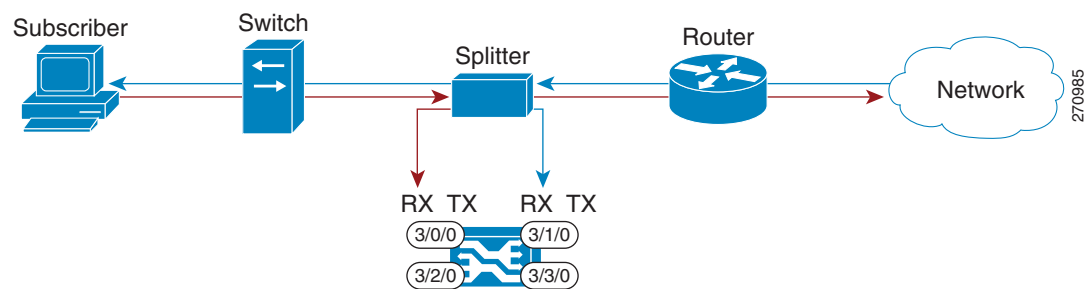
When designing a deployment with the Cisco SCE8000, it is important to keep in mind certain characteristics of the 10GBE link that affect the configuration of optical splitters and SPAN ports.

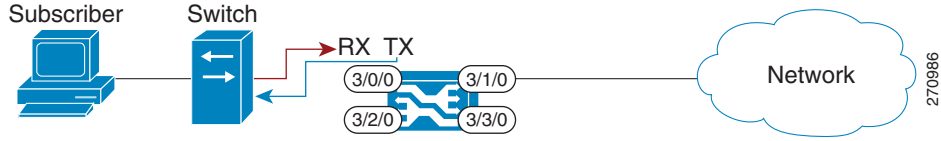
- 10GBE does not support autonegotiation (unlike regular GBE). The fixed 10GBE configuration is as follows:
  - duplex = full
  - speed = 10 GBE
- The 10GBE port is UP once it detects light (and correct sync pattern) in the RX input.
- A Switch or Router port will not transmit data unless it is UP (that is, it detects a good signal on the RX input).
- [Supported Configurations, page A-1](#)
- [Unsupported Configuration, page A-2](#)

### Supported Configurations

With regard to the 10GBE characteristics described in the introduction, the following configurations are supported in the 10 GBE environment as shown in [Figure A-1](#) and [Figure A-2](#).

**Figure A-1** Supported Optical Splitter Configuration



**Figure A-2 Supported SPAN Port Configuration****Note**

In the preceding configuration, it is essential that the Cisco SCE8000 be operating in receive-only mode. Other configurations may cause SPAN port traffic to be returned to the switch, causing unpredictable behavior.

## Unsupported Configuration

With regard to the preceding 10GBE characteristics, the following configuration is not supported in the 10 GBE environment as shown in [Figure A-3](#). In this configuration, the switch port remains in the DOWN state and therefore does not transmit.

**Figure A-3 Unsupported SPAN Port Configuration**