Tech Tip

TITLE: **AK3000 & CISCO ROUTERS DSU MODE COMPATIBILITY**

Cisco Router DS3 T3 Interface Overview

Cisco and DSU manufacturers supporting a DS3 or subrate T3 interface use proprietary methods of multiplexing. The Cisco IOS software command line interface (CLI) supports the dsu mode and dsu bandwidth commands, which configure the line card to emulate a DSU manufacturer's multiplexing scheme.

The Cisco default DSU mode is *Cisco*. Aktino does not support the Cisco mode for multiplexing. Testing in Aktino's lab verified Cisco/Aktino are compatible using the follow DSU multiplexing modes; *Kentrox, Larscom and Verilink*.

Cisco Router Programming Procedures

The following sample procedure shows how to use the dsu mode and dsu bandwidth commands for connecting to an Aktino Ak3000 DS3 Interface.

Step 1 Specify a DSU mode for a selected interface using the **dsu mode "***mode"*** command from interface configuration mode, where "*mode"* is the name of the DSU manufacturer. For example:
Router(config)# interface serial 1/0/0
Router(config-if)# dsu mode Kentrox

Step 2 Specify the bandwidth for the DS3 interface by using the **dsu bandwidth "***bandwidth"*** command, where "*bandwidth"* is a value in Kbits/sec. This value indicates the bandwidth needed to match the DS3 interface to the nearest number of timeslots for the configured DSU mode. Consult the Cisco Bandwidth Tables for valid settings. This example sets the bandwidth to 20Mbps:
Router(config)# interface serial 1/0/0
Router(config-if)# dsu bandwidth 20000

Additional Notes on clocking: CO router's DS3 interface is set to internal and RT router's DS3 interface is set to line. For example:
Router(config-controller)# clock source line (for router connected at the AK3000 RT)
Router(config-controller)# clock source internal (for router connected at the AK3000 CO)