# **Extending the Telos Desktop Director Over Fiber**

27 July, 2004

## Background

Several customers have inquired about the feasibility of extending one or more Desktop Directors or Call Controllers to remote locations. This Technical Support Bulletin describes one method of doing so.

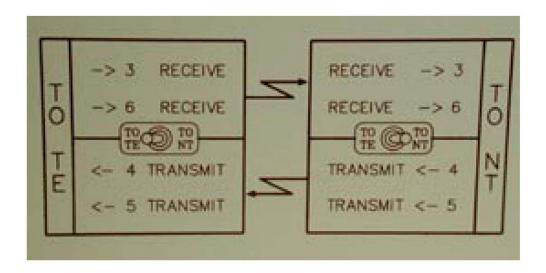
Since the Telos Desktop Director and Call Controller use the same low level 4-wire interface as the ISDN "S" interface, devices designed to extend ISDN S interface devices should work to extend these Telos products. This document describes a particular product that has been tested at Telos, although others probably exist. No endorsement is implied.

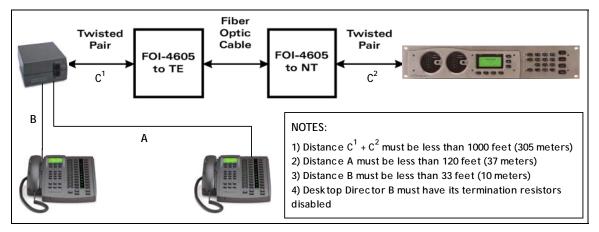
## FiberPlex FOI-4605

The FOI-4605, made by FiberPlex Inc, is a small, self-contained, device that converts between the ISDN S interface and a send/receive fiber optic pair. At the far end a second unit is used to convert the signal back to an ISDN S interface signal.

For more information on the FOI-4605 and related products see the FiberPlex web site: <u>www.fiberplex.com</u>. Note that the basic FOI-4605 does not include the power supply, be sure to request the optional docking power supply. FiberPlex also make a product that can aggregate one or more ISDN S interface signals with other signals, such as a T1, on a single pair of fiber. The FOI-4605 is illustrated above:

Since the ISDN S interfaces specifies that an ISDN TE (Terminal) must talk to an ISDN NT (Network Termination), the FOI-4605 supports either mode of operation, as determined by a switch setting on the unit. The unit to be connected to the Desktop Director(s) must be set to "To TE" and the unit to be connected to the TWOx12 must be set to "To NT" as illustrated below:





The above distance restrictions are theoretical values, based on the S interface specifications, and should work, assuming the fiber transceivers fully support the S interface standard. Telos has verified correct operation with the FOI-4605 in several configurations as follows:

- $\Box$  C1 = 12 meters, C2 = 12 meters, A = 1 meter, B = 1 meter
- $\Box$  C1 = 1 meter, C2 = 1 meter, A = 1 meter, B = 1 meter
- $\Box$  C1 = 12 meters, C2 = 12 meters, A = 12 meters, B = 1 meter

#### **Desktop Director Power**

The remotely located Desktop Director(s) or Console Controller(s) will require a source of power. This is accomplished using the Telos part # 2091-00001 power supply. This power supply kit also provides a modular splitter, so it can be used to power one or two Desktop Directors.

#### Single Remote Desktop Director

The user can use the above scenario, with only a single Desktop Director remotely located. It is not recommended that a local and remote Desktop Director share the same port of the Telos Interface.

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