

FAQ Guide

Configuring the North LonSLTA interface

Introduction

When you are unfamiliar with the Lon network, and how it has been engineered, configuring the LonSLTA interface can sometimes appear complex and frustrating.

This guide should help the engineer to establish a successful link between the North Lon interface and a product working to the LonMark standard.

Who are Echelon and the LonMark Association?

Echelon Corporation provide intelligent products which allow integration through point-to-point "binding" at a field bus level, and have developed centralised server-based software packages. Echelon is the prime developer of the hardware and protocol elements of the system.

Third-party products based on the Echelon product family are often compatible, but this cannot be guaranteed. The **LonMark Association** exists to try to ensure commonality between different third-party products, and is currently the only definitive guide to using Echelon in a cohesive, integrated system.

The North LonSLTA interface is targeted at LonMark products which support Standard Network Variable Types (SNVTs).

What is required in order to communicate with the Echelon device?

You will need the following:

- ObSys
- The LonSLTA interface on either the Compass, Commander or ObSys platforms
- A Serial LonTalk Adapter (SLTA), this can be supplied by North
- The third party LonMark system that you wish to communicate with. It will be useful to have any associated documentation to hand
- A copy of the external interface file (XIF) for each of the LonMark devices is also required

What should I be aware of, regarding the Echelon device?

Take a look at the Echelon device. Somewhere on it should be a 'service pin'. This is typically a small, push-button switch that sends out a 'service message' on the Echelon network when it is pressed. This message enables any systems 'listening' on the Echelon network to identify the existence and the location of the device.

You will also need a copy of the device's external interface file (XIF). This is used to tell systems what information can be accessed within the device. Without it we can not get useful information from the device. If you do not have one for the device then the [LonMark Association Web site](#) allows you to download them. Once you have one it will need to be converted into an ObSys contents file. The easiest way to do this is to [email us](#) the XIF. You will receive the converted contents file back along with instructions on how to install it.

The documentation that you have (or can find on the Web) will tell you the communication channel that the device you have operates on. Most LonMark devices use TP/FT-10, but can use TP/FX-78, TP/FX-1250 or TP-RS485. The SLTA must operate on the same communication channel. This should be indicated on the unit's chassis.

The final part of the preparation is to set up ObSys and the LonSLTA driver according to the North documentation (available in the e-Library). The main items to note will be the **cable specification** and the **switch settings** for the SLTA. The actual configuration of the Driver will be covered later in this document. Before you can move on, you must ensure that except for the LonMark device, you have a working system. If you are using the LonSLTA OSM, make sure that the SLTA is connected and the COM port is assigned in the OSM set up. If you are using the LonSLTA Compass Point, make sure that ObSys can get values back from the Compass Point and across the Compass Network.

[Search the North e-Library](#) for more information and technical documentation on the LonSLTA interface.

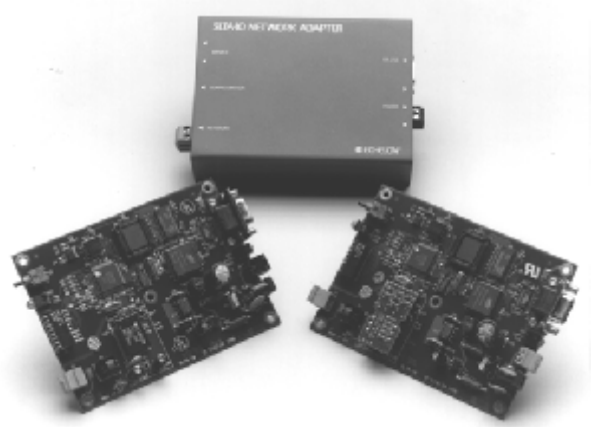
How do I configure the LonSLTA driver?

Connect the **COM port** of the North interface product (Compass Point, Commander, or ObSys) to the Serial LonTalk Adapter with a cable as specified in the Engineering Guide.

Next, configure the LonSLTA interface using ObView. Set the interface **baud rate** to match the SLTA's (verify with the switches on the SLTA) and set **initialise SLTA** object to yes.

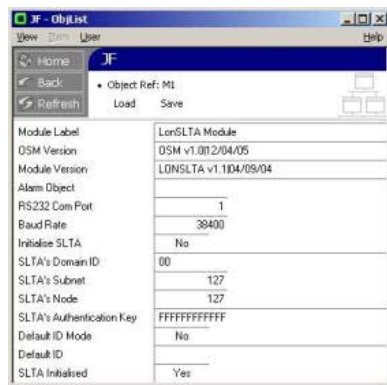
The next four objects to set up concern the addressing of the SLTA on the Echelon network. If any two or more LonMark devices (including the SLTA) are to communicate they need to be on the same Domain and therefore must have the same **Domain ID**. They must then have a unique **Subnet** and **Node** addresses set.

You should now reset the interface (Compass Point, Commander or ObSys). This will re-configure the attached SLTA.



A Lon device's address is usually configured using the Echelon LonMaker engineering software. If you are unsure about the addressing of the devices, they can be discovered by using the **Default ID mode**. If you know the Domain ID, Subnet and Node addresses of all devices that you wish to communicate with, then [skip to the next section](#).

How can I find out the Domain ID, Node and Subnet addresses?



The first thing to do is to configure the SLTA to a known address. From ObView set the following interface objects, and then reset the driver:

Object	Value
Domain ID	00
Subnet address	127
Node address	127
Authentication Key	FFFFFFFFFFFF

Once reset, the ObView page for the LonSLTA interface should look similar to the image on the left.

Next, set the **Default ID Mode** to 'Yes'. We can now find the address of a LonMark device (if you have a network of devices, then chose one at a time).

Whilst the ObView page for the interface is shown, **press the service pin** on the Lon device. A value should now appear in the Default ID object. This means that the device is communicating with the SLTA, which in turn is communicating with the LonSLTA interface. If the ID does not appear press the service pin again. If this does still not work type the neuron ID of the device.

From ObView, click the Back button then open the Lon network object. Next, click the Scan button and once scanning has completed click refresh. You should now see one object for the Neuron device. Open this object, then open the object Domain 0. The ObView page should show a short list with this Lon device's address settings:

If the Subnet and Node addresses are both 0, then that is a sign that the Lon device has not yet been configured. Ask the installer of the Echelon system to address them using LonMaker, and make a note of the address parameters.

Note the address parameters of the Lon device and continue to the next stage.



How do I view the Echelon devices using ObSys?

Now the addressing fields are known, the SLTA can be configured. From the ObView page for the LonSLTA interface, enter the Domain ID and Authentication Key that you noted previously. Next, enter a Subnet and Node address for the SLTA that is not being used by any other LonMark device, e.g. '127', then reset the driver.

Using ObSys open the Lon network and re-scan. Once scanning has finished click refresh: all the LonMark devices should now appear.

Finally, open the Lon device you wish to view. If a blank page is displayed then you require a contents file for the device; email the XIF file for this device to North.



If you are still having difficulties, or have any feedback on this topic please contact our [support team](#) for further information.