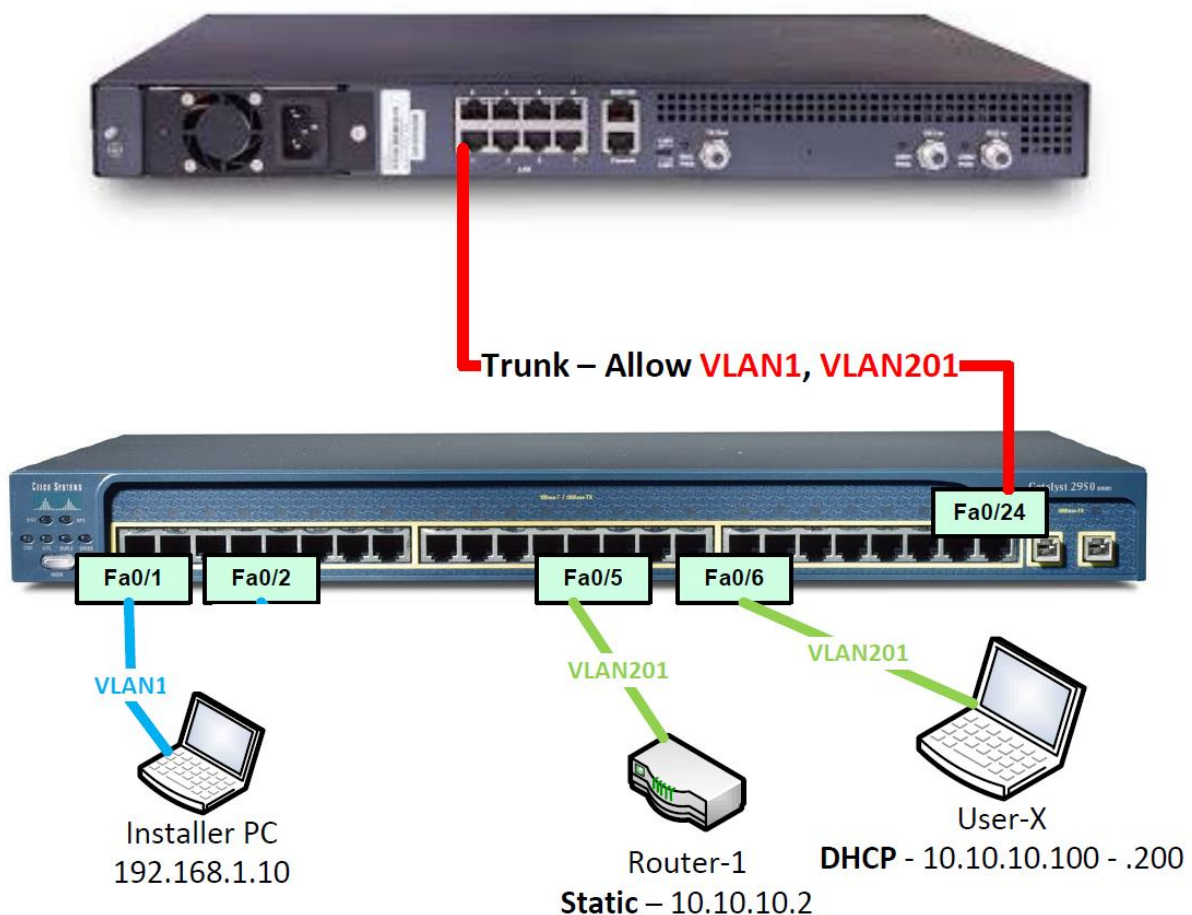# How to activate and lineup Fixed Terminal on Thor 7

1.1 Default Connections to X7

Basic example of a Remote-Side Telenor Thor-7 Network

NOTE: Default connections is same as for Maritime Terminals, except for Fixed Terminals a ACU does not have to be connected.
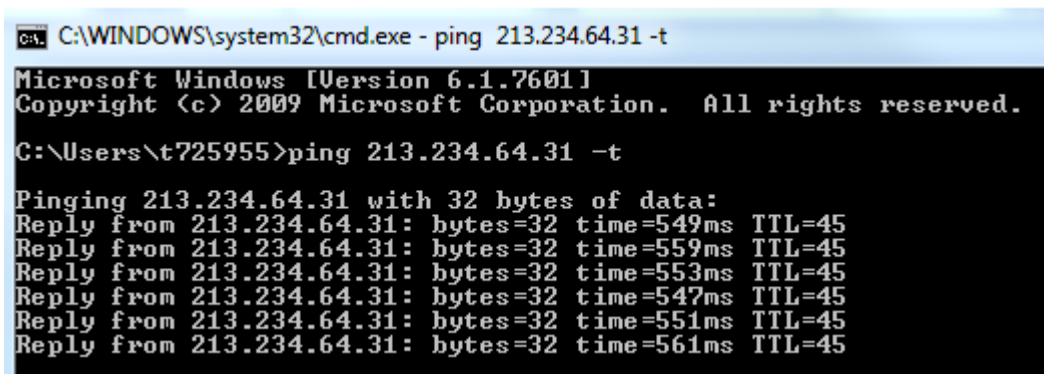
Example above explained:
- X7 Port #1 connected to *VLAN-capable-external-switch* Port *Fa0/24*. Port on external switch is configured as **Trunk** allowing **VLAN1** *(Default VLAN)* and **VLAN201** *(Traffic VLAN)*.
- At least a port needs to be configured as **VLAN1** (Default VLAN) for **Installer PC** and **Admin access**. Hence atleast port *Fa0/1* and/or *Fa0/2* should be configured as VLAN1.
- Ports *Fa0/5* and *Fa0/6* are configured to allow **VLAN201** *(Traffic VLAN)*. Here you will connect your Router, Hosts, etc.. Depending on your network size and preferences.
- Traffic **VLAN201**, by default, will have **DHCP range** of 10.10.10.100 – 10.10.10.200. If you need static IP on your hosts/routers use .2-.99
- Default Modem IP is 10.10.10.1 in VLAN201 (Traffic) and 192.168.1.1 in VLAN1 (Admin).

1.2 Customer perspective

1. Perform installation on site according to Antenna Providers manual.
2. Install the necessary options files and Velocity software on your X7 modem.
   a. See "Customer - Procedure for loading Velocity SW to X7.pdf" for details
3. Perform the "Commisioning Wizard" for the X7 modem, steps shown below.
   a. Navigate to the terminal GUI in Firefox, Chrome, or IE v10+, https://192.168.1.1 and login as admin user.
   b. Navigate to the commissioning wizard using the quick link on the Dashboard or via "Commissioning -> Commissioning Wizard"
   c. **1.Enter Commissioning Mode**
   d. **2.Manage Software Packages & Configuration files.** If not already done. Upload the files received earlier from the NMS by Telenor.
      i. TERMINAL_OPT (falcon.json)
      ii. TERMINAL_LAN_OPT (lan_config.json)
      iii. CONSTELLATION_OPT (beam_map.json)
      iv. GLOBAL PKI (x509_global.bin)
      v. Terminal SW (1.5.0.1-91.pkg or higher)
      vi. And save locally
   e. If any changes reboot the terminal for the uploaded files to take effect.
   f. Login again as admin user.
   g. Start the commissioning process using the "Enter Commissioning Mode" button
      i. Click the Continue without changes button to move to the next screen
   h. **3.Coarse antenna pointing**. Enter the terminal location, and satellite position (0.65W) and click "Save remote location". This geo location will be used for acquisition so this must be accurate.
   i. **4.Configure downstream**Enter the downstream parameters valid for your location and click the "continue" button.
      i. The downstream parameters must be received from Telenor and will depend on your location.
   j. **5. Fine Antenna pointing**. Notice that the "continue" button is greyed out. It will remain so until downstream lock has been achieved, and antenna pointing has been stopped.
      i. Check the "use audio feedback" box and click the "start antenna pointing button", then click Continue on the popup box.
      ii. Make sure antenna is properly peaked based on feedback, fix antenna in position, then click the Stop antenna pointing button, making sure that level hasn't changed significantly. Then continue to the next page.
   k. **6.Contact NOC.**Click continue on the Contact Noc page
      i. Contact TSBc's Service Desk at +47 6707 3470 / +47 05002.
      ii. Provide following information when calling TSBc Service Desk:
      iii. Your name
      iv. Name of company you are representing
      v. Name of vessel/site
      vi. Modem type (X7)
      vii. Serial Number of modem
      viii. Antenna type (For verification/troubleshooting of configuration files)
      ix. Weather
      x. Confirmation of Rx lock towards Thor 7.
      xi. Any other details you deem important.
   l. TSBc's Service Desk shall create a Change Order called "Thor 7 iDirect Service Activation" <Site name> <Serial Number>.
   m. Service Desk shall use the Pulse NMS to activate your terminal on the Velocity platform.

      n. **7.Cross polarization test**, SKIP this step.
      o. **8.P1dB test** - Enter the parameters provided by NOC and click Turn on signal, adjust power and apply for each adjustment, based on feedback from NOC, then turn off signal and complete.
            i. Click on continue button to move to the next page
      p. **9.Enter Transmit Power Parameters** - Enter the parameters provided by NOC. P1dB and Max Tx Power.
            i. Click continue to move to the next page
      q. **10.Exit commissioning mode**
      r. **11.Commissioning successfully completed** click the **Return to dashboard** button to exit commissioning wizard
      s. NOTE: Additional information may be found in the user manual from iDirect for the X7 modem.

4. Verify that modem get Rx and Tx lock on the modem, and acquires into NET. Within 10 minutes of TSBc activating your terminal you can expect the terminal to come online on Thor 7. NET led on X7 modem will turn solid **green** when terminal is online.

Verify that you are able to pass traffic when connected to External Switch on VLAN 201. Ping 8.8.8.8 or similar. TSBc shall verify that we can ping your terminals Public Interface, if TSBc can ping public Interface on modem, check external switch configuration on vessel.

5. That is it. Terminal is activated and should be able to log on and enjoy service on Thor 7.

If there are any questions contact Service Desk at +47 6707 3470 / +47 05002.

Helpdesk.nittedal@telenor.com