RESEARCH VESSEL ÁNGELES ALVARIÑO

IEO (Spanish Oceanographic Institute)

Quick guide for non-crew members for using Technical Infrastructure and Communications

1. **Networking:** There are 4 networks:
   a. **Vessel**: Internet access (WiFi) and shared folders.
   b. **Scientific:** Sounder's computers and scientific equipment are connected. Also provides NMEA UDP signal. The access to data is done through the LINUX computer in the Acoustic Lab.
   c. **'Matrix':** (KVM switch Ethernet). It displays/manages in each 'Matrix' workstation distributed by the ship (Laboratories, Bridge and other specific places) any scientific computers connected to it.
   d. **WhatsApp:** For WhatsApp messaging (WiFi). (Password is posted on the bulletin board in the dining room.)

Network control:

There are applications used to scan network traffic to detect unauthorized access. These utilities do not display or collect data transmitted by the network, they only identify equipment and show traffic statistics.
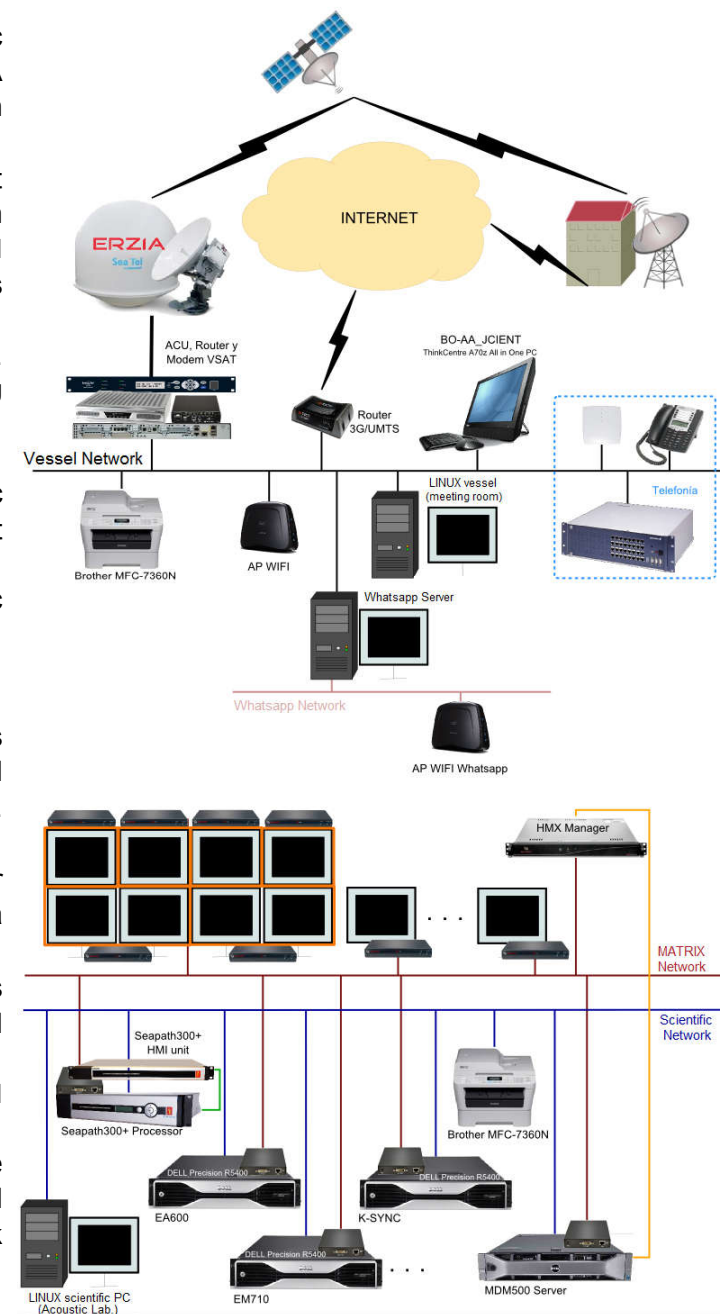
Internet access:

It is limited, it should be mainly used for consults and sending cruise-related emails. You cannot send or download massive data (Refer to I.T. Technician). This service is offered in two modes:

- **3G/UMTS:** It is available when in port and near shore depending on coverage. It is limited to a volume of **5GB/month**.
- **VSAT:** Low bandwidth (**128Kb**), it allows access to internet anywhere. Access restricted to certain workstations (Captain, Survey Leader, Bridge, Chief Engineer, Meeting Room and Technicians).

There are two workstations with LINUX in the Meeting Room (Deck#3) to allow scientists and crew to have Internet access via VSAT to check email and other tasks related to the cruise.

R/V Ángeles Alvariño

Infrastructure diagram / Network topology

2. **Antivirus:** Before connecting to any network any equipment or storage device (computers, laptops, USB sticks, external HDDs, camera's memories, etc.) you must deliver it to the I.T. Technician for scanning.

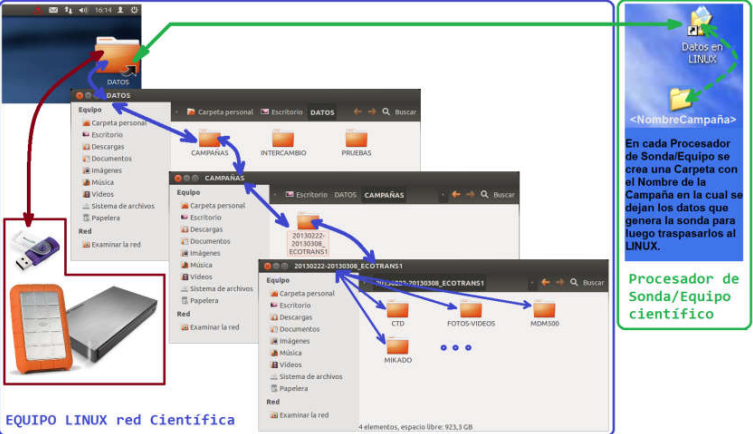*Please you should be extremely careful with USB sticks: do not connect them without scanning.*

3. **Folder structure and backup of survey data:**

In each Survey a folder structure is created on the LINUX computer of the scientific network for each Sounder/equipment to be used. Periodic copies (programmed tasks) of the data of the sounder are made (sounder's programs save the data in the folders created on each local computer and then they are transferred to the folders on the LINUX computer).

Data automatically recorded in the vessel by the Thermosalinograph+Fluorometer, VMADCP and MDM500 (Database containing the records of scientific and meteorological equipment of the ship) will be stored daily in this structure.

At the end of the cruise a backup of the data, will be kept for about two months.

4. **Access to scientific Computers and Racks:** *Restricted to vessel technicians*. Please request technicians to start them when required.

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5. **Telephone and Fax Service:** In each facility there is a phone with a list of extensions and instructions for use. There are also cordless phones assigned to certain positions that allow external calls (**service provided by the VSAT**), and some land phones can make external calls as Survey Leader, Chief Engineer and Bridge. The list of extensions has instructions on how to make these calls.

Vessel´s phone number is:

+34 942.420.519

To call outside:

Voice over IP (VoIP): [VSAT = permanent coverage]

  9+<int.pref.>+<PhoneNumber>   *e.g.:934942420519*

  Low cost sometimes with poor quality (it may be delayed).

There is also a FAX, located in the Bridge, with number. **+34 942.420.522**.
To send a FAX must dial:
  National:
  0+<FaxNumber> *Ej.:0942420522*
  International:
  0+00+<int.pref.>+<FaxNumber>*Ej.:00034942420522*

Another way to make external calls is to use the **Inmarsat Fleet Broadband Satellite Phone**, located at the Bridge (**00 870.773.301.852**) with a higher cost and with different rules (please ask I.T. Technician).

There is also **Telephone and FAX service via GSM** (only available when there is coverage for cell phones):

  Contact Phone Number: **+34 616.244.641**
        IEO internal use code: **64641**
  Fax number ……………: **+34 630.484.579**

6. **MIKADO program (Cruise Leader):** <u>In every Cruise</u> it is necessary to fill information (old ROSCOP) about it in a program called MIKADO so that they can be sent to CEDO (IEO) and from there to European and international DBs. This gives wide visibility to the research work carried out by the cruise team. This requires the **involvement of Cruise Leader**, requiring detailed knowledge of the research activities being performed. He/she *is ultimately responsible for the accuracy of the information collected and sent*.

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7. **Housekeeping of laboratories:** The scientific team is responsible of maintaining laboratories clean and tidy. At the beginning of the cruise laboratories are delivered in that condition and at the end they should be delivered in the same way.
It is not allowed to eat or drink in these departments.
Be reminded it is important to lash equipment and to hold chairs when they are not being used.
Keep doors closed for a better function of the air conditioner.

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8. **Technicians support hours:** From **08h00 to 11h00** and **12h00 to 17h00**, apart from emergencies after hours.
Technicians contact numbers:
203 – Electronic | 206 – I.T.

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9. **About scientific equipment and materials:**
All the equipment/material boarded are responsibility of the scientific team which must have staff duly qualified for its operation and maintenance and have suitable arrangements for any maintenance and repair.

Vessel sounders shall be also operated by qualified personnel of the scientific team.