

## NETCOM

### Easily accessible Remote Monitoring and Control

NETCOM is a Remote Monitoring and Control Access Center providing easy access and control to pertinent information on remotely monitored stations installed in lighthouses, buoys and beacons.

### Built with flexibility in mind to fit every user needs

Client data can be hosted on a secured remote server. For maximum security, data servers can be physically located on client's premises.

For maximum flexibility, NETCOM allows host of communication protocols including GSM, Radio, Satellite, ADSL, Microwaves, Fiber Optics, and AIS.

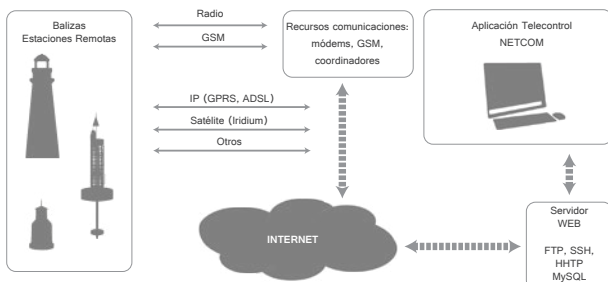
### Accessible via INTERNET

Information is easily accessible using a computer with INTERNET access. There is no need for specialized software to access data.



## FEATURES

- NETCOM allows users with proper credentials to fully maintain user's data including ability to create, modify, and delete monitored stations and users levels.
- Simple and intuitive operation.
- NETCOM allows storage of data in various database formats including: ORACLE, MySQL, and SQL SERVER allowing customer to choose a format that is most familiar to them.
- User configurable historical records to allow user to run reports to their specific needs.
- Designed to interact with an AIS Base Station, able to generate virtual or synthetic nav aids.
- Its flexible structure can be customized under client request.
- Display AIS including physical AIS as an overlay.
- Option to customize to client's needs and requirements.



# NETCOM

## HARDWARE

| PC/Server (minimum requirements):   | Transceiver unit:  |
|---|--|
| Intel Xeon processor.   | Configurable depending on requirements and type of communication used, GSM, radio, satellite, ADSL, microwaves, optical fiber, AIS, etc. |
| Ubuntu Linux Server 18.04 LTS   |  |
| 2 nos. Hard Disk of 500GB (RAID1, one as a mirror of the other, to ensure the protection of the information). |  |
| 4 GB RAM memory.  |  |

## SOFTWARE

|  |
|--|
| Communication program with message transceiver.                  |
| Database driver.   |
| Web application for network access.                              |
| GIS Map of the area (electronic chart with dynamic positioning). |
| Individual screens for each Remote Station.                      |



Fig. 1



Fig. 2

## SYSTEM SCREENS

|                                       |  |
|---------------------------------------|--|
| Initial system start-up.              | Remote station configuration.            |
| Validating user.                      | General system configuration.            |
| System General Display.               | Total active alarms.                     |
| Individual screens (Remote Stations). | Historical reports of alarms and status. |

## GENERAL SCREEN (FIG.1)

|  |
|--|
| Access to the whole application.   |
| Dynamic GIS map of the area.   |
| Every remote station positioned on the basis of the latest GPS data received: <ul style="list-style-type: none"> <li>- Green flag: Beacon in correct operation.</li> <li>- Yellow flag: Low level alarm, the beacon is still operating.</li> <li>- Red flag: General alarm, beacon off.</li> </ul> |

**!** Specifications subject to change without previous notice.

## INDIVIDUAL SCREEN (REMOTE STATION) (FIG.2)

|            |  |
|------------|--|
| Indicators | Light signal status pilot (green, yellow or red).            |
|            | Beacon status (on/off).                                      |
|            | Battery voltage reading.                                     |
|            | LED current consumption reading.                             |
|            | Correct light rhythm signal.                                 |
| Alarms     | Other free-configuration values.                             |
|            | LED failure alarm.   |
|            | Low-battery voltage alarm.                                   |
|            | Flasher failure alarm.                                       |
|            | Alarm on beacon consumption excess.                          |
| Commands   | Solar panel charging failure.                                |
|            | Mooring chain breaking (for buoys, through GPS positioning). |
|            | Switching-on/off.  |
|            | Request of status report.                                    |
|            | Beacon general reset.  |

