R/V Clione - Radio, audio, connectivity and safety

Internet and data

Starlink
primary broadband

Dual-SIM 4G/5G router
one US SIM, one EU SIM

Mast WiFi antenna / booster
marina internet

Iridium GO exec
backup comms and tracking

WAN

WAN

Iridium only

UniFi Dream Machine
router, firewall, VPN to Taos

LAN to LAN

PredictWind DataHub Pro
weather and GRIBs, polar diagram, continuous position reporting

1 G switch - see Network page

Radio

Simrad RS40-B VHF / AIS
THIS IS THE BASE STATION
DSC, GPS-500, wireless handset

2x handheld VHF
dinghy, shore and expedition

Navtex terminal
existing

Ham radio

HF / SSB transceiver
one aboard, model TBC;
Icom plus tuner is the upgrade

HF linear amplifier
new

HF antenna tuner
new, matched to the radio

HF antenna switch
new, selects between elements

VHF antenna
masthead

Backstay antenna
one HF element;
may need re-hooking up

Triatic wire antenna
between the two masts

Safety

ACR GlobalFIX V4 EPIRB
float-free

Plastimo Transocean 6
liferaft

Personal AIS / PLB
sailing solo

Mesh and LoRa - on the radio side AND on the data network

Meshtastic node
NOT YET BOUGHT. ESP32-based nodes are WiFi and BLE, not Ethernet, so plan on either WiFi to the Dream Machine or USB to the Pi.

LoRa satellite system
NOT YET BOUGHT. Interface depends entirely on the unit - check for Ethernet first, fall back to USB serial on the Pi.

USB if no Ethernet

USB if no Ethernet

Pi 1 - weather / SDR hub
the radio-side Pi: HackRF, SDR, GRIB.
USB serial host for anything that cannot take Ethernet.

LoRa / mesh antennas
separate from the HF and VHF elements;
watch for desense next to the HF amplifier

Audio - Fusion / JL Audio

Media Raspberry Pi
offline Netflix and YouTube

MacBook Pro
downloads ashore, shown via the KVM

HDMI

'audio'

Focusrite Scarlett
field recording and bioacoustics interface

Mixer
Scarlett feeds the mixer.
Still needs a path into the Fusion - line in or an aux input

line in - route TBD

Fusion Apollo MS-RA800
head unit with HDMI input;
NMEA 2000: run from the plotter

JL Audio amplifiers
on the 12V house bank,
60 A DIN way

2x 10 in subwoofers
sealed, in the saloon settee bases

3-way speakers
8 in woofer, mid and tweeter,
front and rear zones