

# Computers, printers and networks



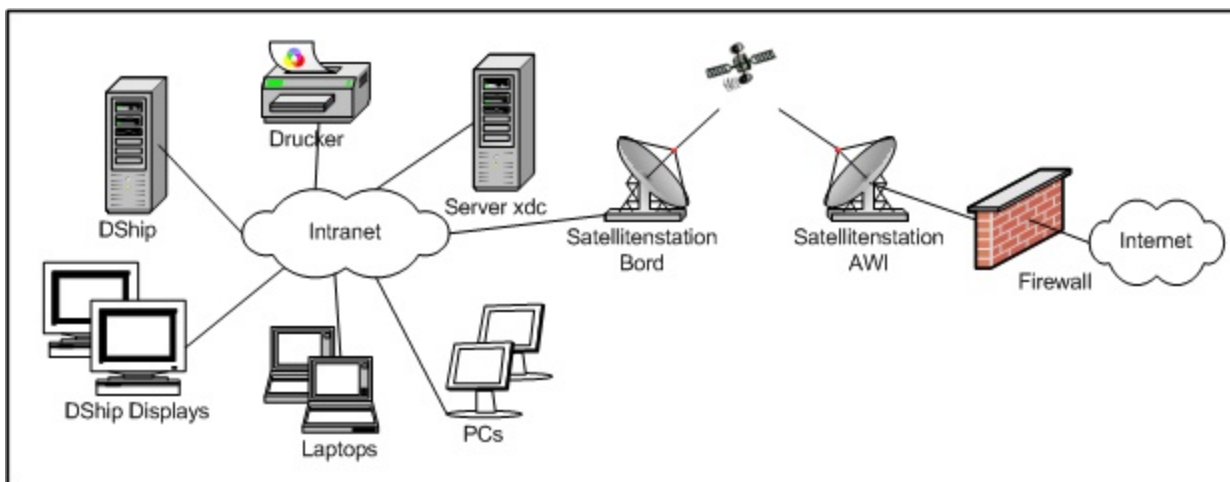
## Attention:

You may bring your own computers, but please make sure your virus protection is up-to-date!

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## Overview

Information technology (IT) onboard comprises the computer network, a server for data storage, several workplaces, printer, photocopiers, intranet and a leased line for internet usage.



## Computers

Besides computers used only for display of the DSHIP system two further usable computers are installed in the dry laboratory. Another 2 computers are available for processing multi beam data, data of the sediment and fishing echo sounders and ADCP data. They can only be used by authorized users. Please contact the cruise leadership for obtaining these data.

All device-specific computers are only to be used with the specific equipment and are only available to authorized users. Please contact the relevant person before the cruise.

The computers are part of the fs-heincke.local domain. Registered users are treated as domain users which means that you are automatically connected to the network **"home"** via disk drive **"H:"** by the login script.

Computer name	Location	User name
xpc1	dry laboratory	scientist
xpc2	dry laboratory	scientist
xpc3	dry laboratory	mbesadmin, sbpadmin, fishsounderadmin, adcpadmin
xpc4	dry laboratory	mbesadmin, sbpadmin, fishsounderadmin, adcpadmin
	dry laboratory bridge	

## Printers

Printers are available to everybody on board. They are connect to the local network.  
You can install their drivers on your own computers or use one of the lab or public PCs to print.

## Networks

### Wired ethernet

All laboratories, cabins and other functional rooms provide network sockets. For operational reasons the whole network is subdivided in segments called VLANs. Thereby the network of laboratories, chambers, bridge and other connectors are seperated so that the whole system continues working even if a part of it fails. Still, the single segments are connected in such way that computers of one segment can communicate with other computers, printers etc. via a router and TCP/IP.

### Wifi

Wifi is available in all cabins and laboratories. You will get the connection details by the ship's command.

### Hardware

Central components of the IT are situated in the Umformerraum. There are 4 times 48-port CISCO switches centralizing and managing all network traffic.



## Intranet

„Heincke“-Internet-Portal gives first information about the locations, technical data, security, DShip and expeditions. It can be reached by entering the URL "  
<http://www.fs-heincke.local>" in a web browser.



## DShip

DShip is a scientific data acquisition and management system developed by Werum Software & System CIS AG. Several sensors on board deliver real time data to this system which manages archiving and on board redistribution.

Find details on the system and its data parameters here: [DShip - System](#).

At the end of a campaign DShip data gets transferred to the DShip land archive and can be accessed via <http://dship.awi.de>.

## Data logging, storage and archiving

### Data storage

Data storage is accomplished via a storage server named XDC1. It provides several network shares via `\\xdc1.fs-heincke.local\data`. Data have to be deleted at the end of the cruise. The server provides central services like printing, intranet and central network services (DNS, DHCP, user management) besides the collective data storage.

### Time service (NTP)

A time synchronization service (NTP = Network Time Protocol) is available on board at IP address 192.168.150.1.

This is helpful to synchronize time of your lab equipment and computers.

The time information is acquired from the a GPS receiver. All computers, servers, measuring systems and clocks get the time information from there.

### Rawdata storage on board

Several instruments and devices produce raw data which are stored with a defined data structure on the server under `H:\scientists\data`.

### Data archiving on land

Shortly after the cruise raw data are made available via AWI mass storage under limited access rights. After being associated with metadata they may be transferred to the *Publishing Network for Geoscientific & Environmental Data* [PANGAEA](#) for usage. Please contact the people in charge for the devices if raw data have not been made available.

**Please pay attention to the fact that raw data are only available if the instruments and devices were operated by scientific personnel!**

Find a list for raw data storage under this [Link](#).