# Exporting and Importing data
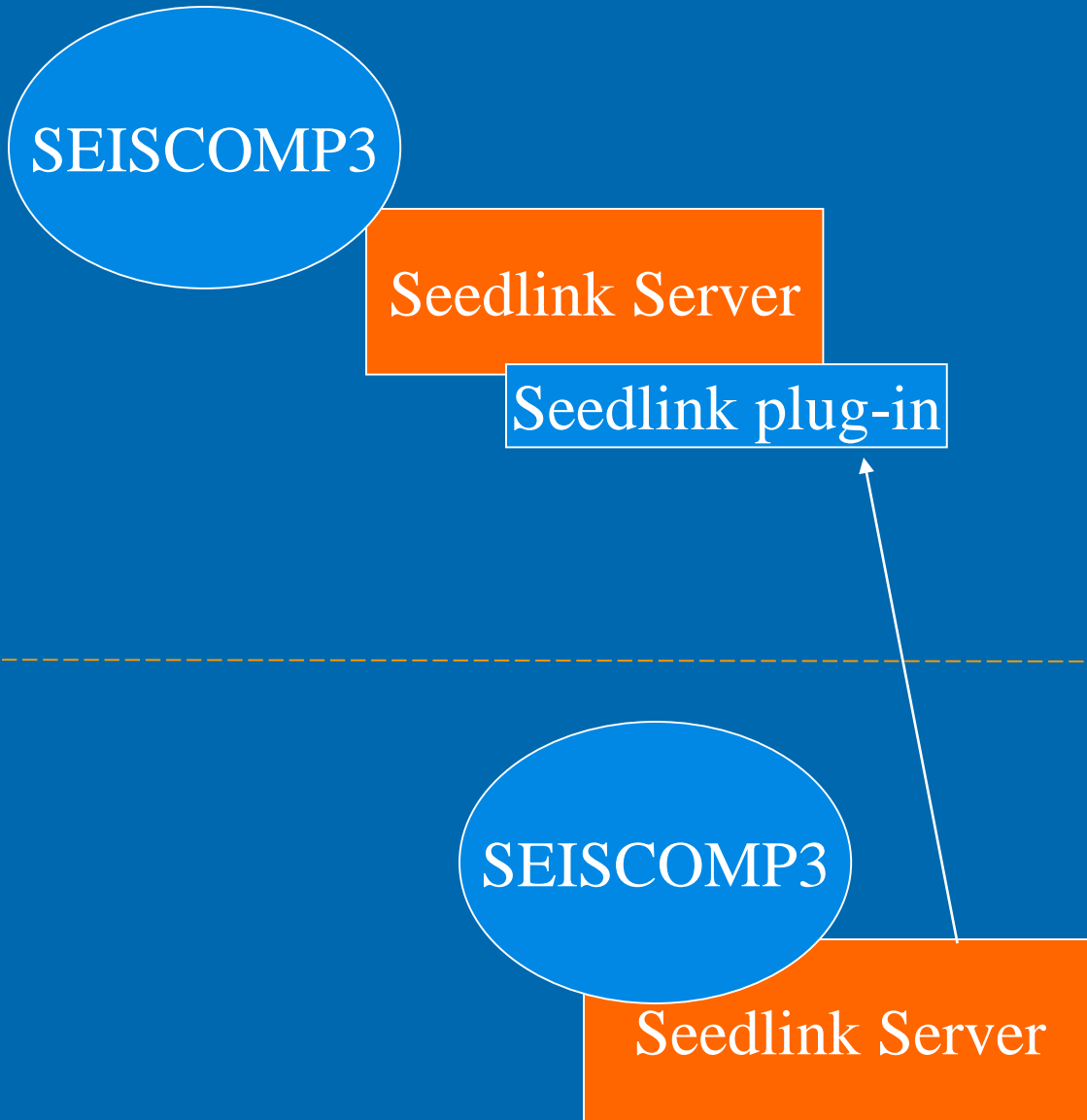
# Overview for exporting/importing data

➢ Create an **export** on one end

➢ Create an **import** on the other end


➢ The easiest way to exchange data with another institution, with a neighboring country, or even between two machines used by your own institution, is to point someone at your Seedlink server.

isti

# Class Setup

SEISCOMP3

Seedlink Server

Seedlink plug-in

SEISCOMP3
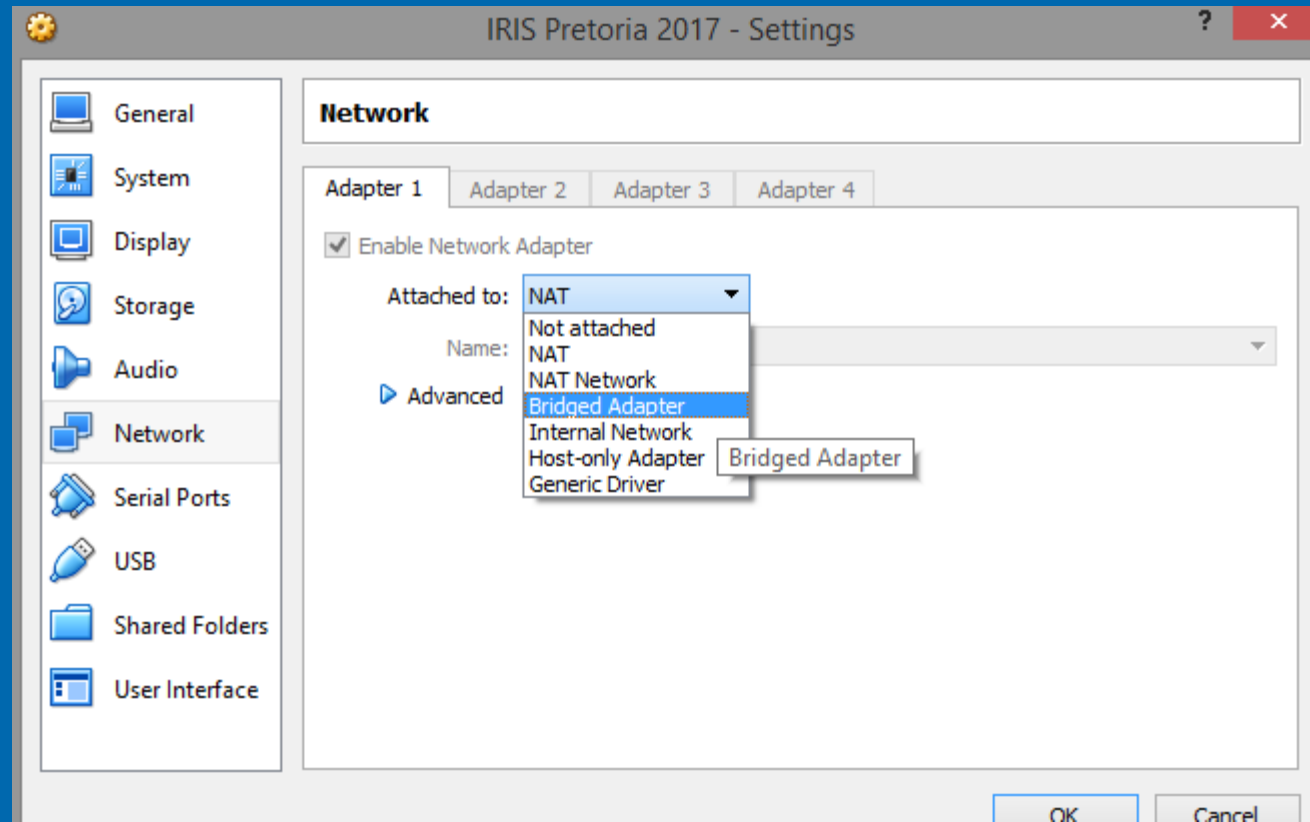
Seedlink Server
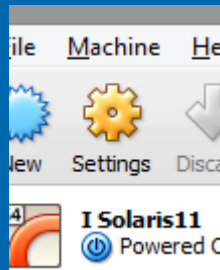
# Set up import/export

Everyone on the left side of the room, may try to exchange data with any person on the right side of the room.

# Change to Bridged Mode

➢ You'll need to run your Virtual Machine's networking in Bridged Mode

# Change to Bridged Mode

➢ You should probably restart Ubuntu after doing this. Make sure you still have internet. (ex: ping yahoo.com)

➢ Success:

   ➢ $ ping yahoo.com

   ➢ PING yahoo.com (98.138.253.109) 56(84) bytes of data.

   ➢ 64 bytes from ir1.fp.vip.ne1.yahoo.com (98.138.253.109): icmp_seq=1 ttl=44 time=265 ms

➢ Failure:

   ➢ $ ping yahoo.com

   ➢ ping: unknown host yahoo.com

# Firewall

➢ Best practice will be to allow only port 18000 connections into your organization's firewall and to Ubuntu. But for this exercise we can do:

➢ sysop@ubuntu14:~$ sudo ufw disable

➢ [sudo] password for sysop:

➢ Firewall stopped and disabled on system startup

# Share Metadata; Import It

- Ask for the metadata someone on the other side of the classroom downloaded this morning for the quiz. That will be FJS or MSEY. (Get it by email or memory stick or whatever, or download it yourself from IRIS.)
- Import this into your system
- Click 'sync'

# Find Out Your Partners IP, Create a new seedlink profile

Bindings:

➤ Instead of IRIS' IP, you'll put your partner's IP when you create a New Chain.

➤ Drop the global profile on your new inventory station. Save

System:

Update Configuration. Restart Seedlink.

# Check!

Run scrrtv & or slinktool  -Q :

And determine if the new channel is coming from IRIS to your partner, and then from your partner to you!

# FDSN WS

➢ The FDSN web service is built-in to SeisComP3. But it has a prerequisite before you can enable and run it: python-dateutil. Open a shell and sudo execute these 3 commands:

➢ sudo apt-get install python-setuptools

➢ sudo easy_install pip

➢ sudo pip install python-dateutil

In scconfig

Enable and Start fdsnws

| Update | Start | Stop | Restart | Check | Enable module(s) | Disable module(s) | Update configuration |

All commands (such as 'start', 'stop') will affect all modules which rows are currently selected. If no row is select

| Auto | Module | Status |
|------|--------|--------|
| Off | scautoloc | not running |
| Off | scvsmaglog | not running |
| Off | scm | not running |
| Off | scamp | not running |
| Off | arclink | not running |
| Off | scenvelope | not running |
| Off | scalert | not running |
| Off | scimex | not running |
| Off | scimport | not running |
| Off | arclinkproxy | not running |
| Off | ew2sc3 | not running |
| Off | scautopick | not running |
| Off | scvsmag | not running |
| Off | slarchive | not running |
| Off | slmon | not running |
| On | fdsnws | running |
| On | scmaster | running |
| On | spread | running |
| On | seedlink | running |

Idle

spread;1;1;1
scmaster;1;1;1
arclink;0;0;0
arclinkproxy;0;0;0
diskmon;0;0;0
ew2sc3;0;0;0
fdsnws;1;1;1
ql2sc;0;0;0
scalert;0;0;0
scamp;0;0;0
scautoloc;0;0;0
scautopick;0;0;0
scdb;0;0;0
scenvelope;0;0;0
scevent;0;0;0
scevtlog;0;0;0
scimex;0;0;0
scimport;0;0;0
scm;0;0;0
scmag;0;0;0
scproclat;0;0;0
scqc;0;0;0
screloc;0;0;0
scsohlog;0;0;0
scvoice;0;0;0
scvsmag;0;0;0
scvsmaglog;0;0;0
scwfparam;0;0;0
seedlink;1;1;1
slarchive;0;0;0
slmon;0;0;0

# Issues Starting?

➤ Look at the log files with gedit. One one system in the class we had an additional dependency to install.

➤ First log file is here:

➤ gedit seiscomp3/var/log/fdsnws.log

➤ Second one is here: (note the period in front of seiscomp3)

➤ gedit .seiscomp3/log/fdsnws.log

# FDSN Web Page

> You can take a look in your web browser to see that your web service is running

# DataSelect URL Builder

### Filtering the inventory

The streams served by the *Station* and *DataSelect* service may be filtered by specified an INI file in the `stationFilter` and `dataSelectFilter` configuration parameter. You may use the same file for both services or define a separate configuration set. **Note:** If distinct file names are specified and both services are activated, the inventory is loaded twice which will increase the memory consumption of this module.

```
[Chile]
code = CX.*.*.*

[!Exclude station APE]
code = GE.APE.*.*

[German (not restricted)]
code = GE.*.*.*
restricted = false
shared = true
archive = GFZ
```

# scconfig fdsnws

## Configuration / fdsnws

Provides FDSN Web Services

**Information**

**System**

**Inventory**

**Modules**

**Bindings**

**Docs**

- ▼ **Inventory**
  - scinv
- ▼ **Messaging**
  - scmaster
- ▼ **Processing**
  - ew2sc3
  - scamp
  - scautoloc
  - scautopick
  - scenvelope
  - scevent
  - scmag
  - scqc
  - screloc
  - scvsmag
  - scvsmaglog
  - scwfparam
- ▼ **System**
  - diskmon
  - global
  - kernel
- ▼ **Utilities**
  - **fdsnws**
  - ql2sc
  - scalert
  - scdb
  - scdbstrip
  - scevtlog
  - scimex
  - scimport
  - scm
  - scvoice
  - slmon
  - sync_arc

▷ **global**

▽ **fdsnws**

**listenAddress** 🔒
`0.0.0.0`
Defines the bind address of the server. "0.0.0.0" allows ...

**port** 🔒
`8080`
Server port to listen for incoming requests. Note: The ...

**connections** 🔒
`5`
Number of maximum simultaneous requests.

**queryObjects** 🔒
`10000`
Maximum number of objects per query, used in ...

**realtimeGap** 🔒
Restricts end time of requests to current time - ...

**samplesM** 🔒
Maximum number of samples (in units of million) per ...

**recordBulkSize [bytes]** 🔒
`102400`
Set the number of bytes to buffer for each chunk of ...

**htpasswd** 🔒
`NFIGDIR@/fdsnws.htpasswd`
Path to password file used in fdsnws-station/queryauth. ...

**accessLog** 🔒
Path to access log file. If unset no access log is created.

☑ **allowRestricted** 🔒
Enables/disables access to restricted inventory data.

☐ **useArclinkAccess** 🔒
If enabled, then access to restricted waveform data is ...

☐ **hideAuthor** 🔒
If enabled removes author information from any event ...

**evaluationMode** 🔒
If set the event service will only return events having ...

☑ **serveDataSelect** 🔒
Enables/disables the DataSelect service.

☑ **serveEvent** 🔒
Enables/disables the Event service.

☑ **serveStation** 🔒
Enables/disables the Station

**stationFilter** 🔒

**dataSelectFilter** 🔒

☐ **debugFilter**
If enabled a debug line is

> If enabled a debug line is written for each stream ID explaining why a stream was added/removed by a inventory filter.