

How to do Machine Studies at LHC@FNAL (Show and Tell)

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People Involved

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Basic Goals

The goal is to be able to do machine studies remotely using **LHC@FNAL**

Without annoying the hell out of the machine studiers at CERN

Able to voice communicate to the entire group of studiers via some technology.

Able to see what is going on at least the consoles. (Not necessarily video)

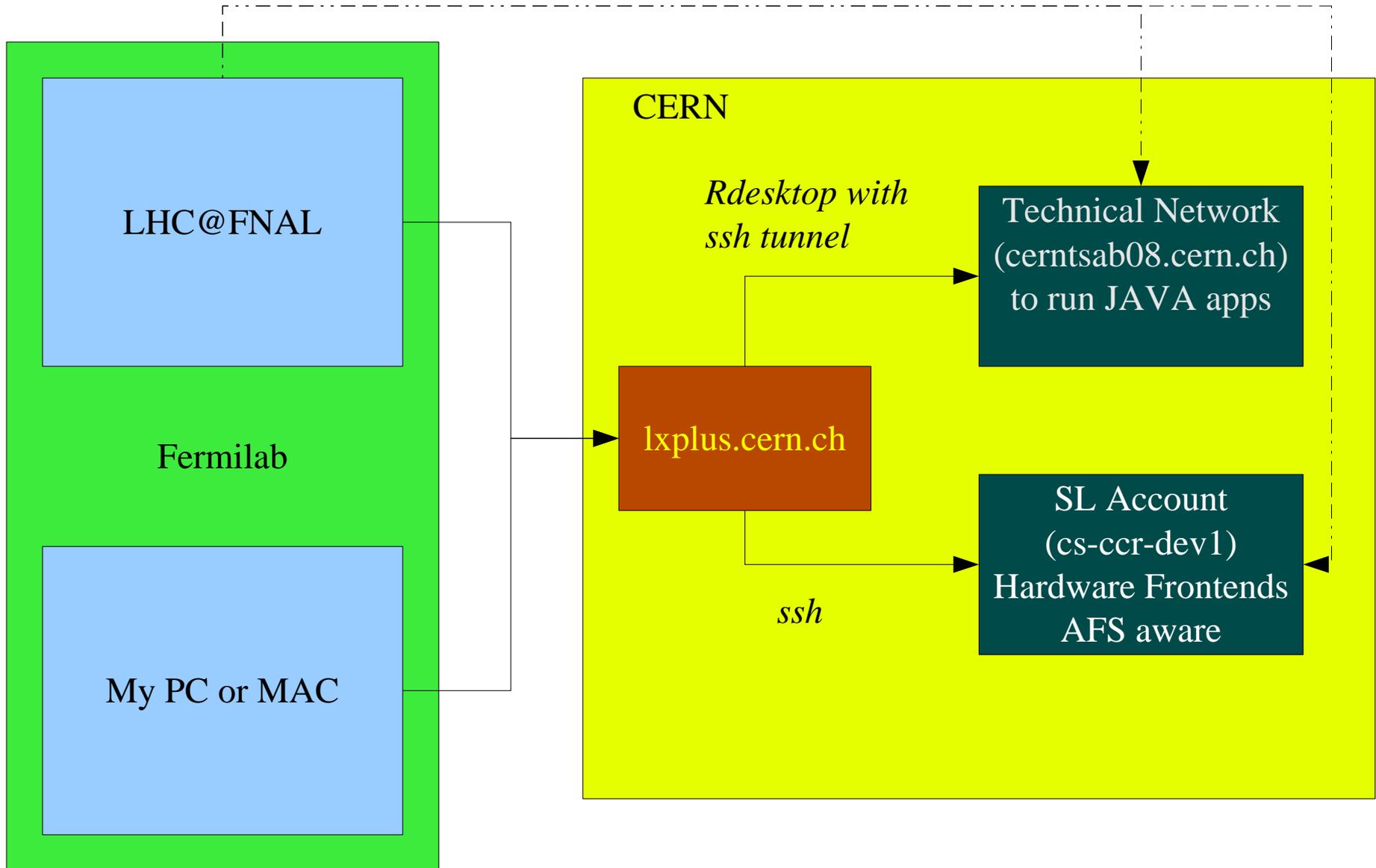
My Requirements

Must be able to plot out devices like fast time plot.

Must be able to transfer large datasets (100's of MB) from CERN to local laptop for analysis.

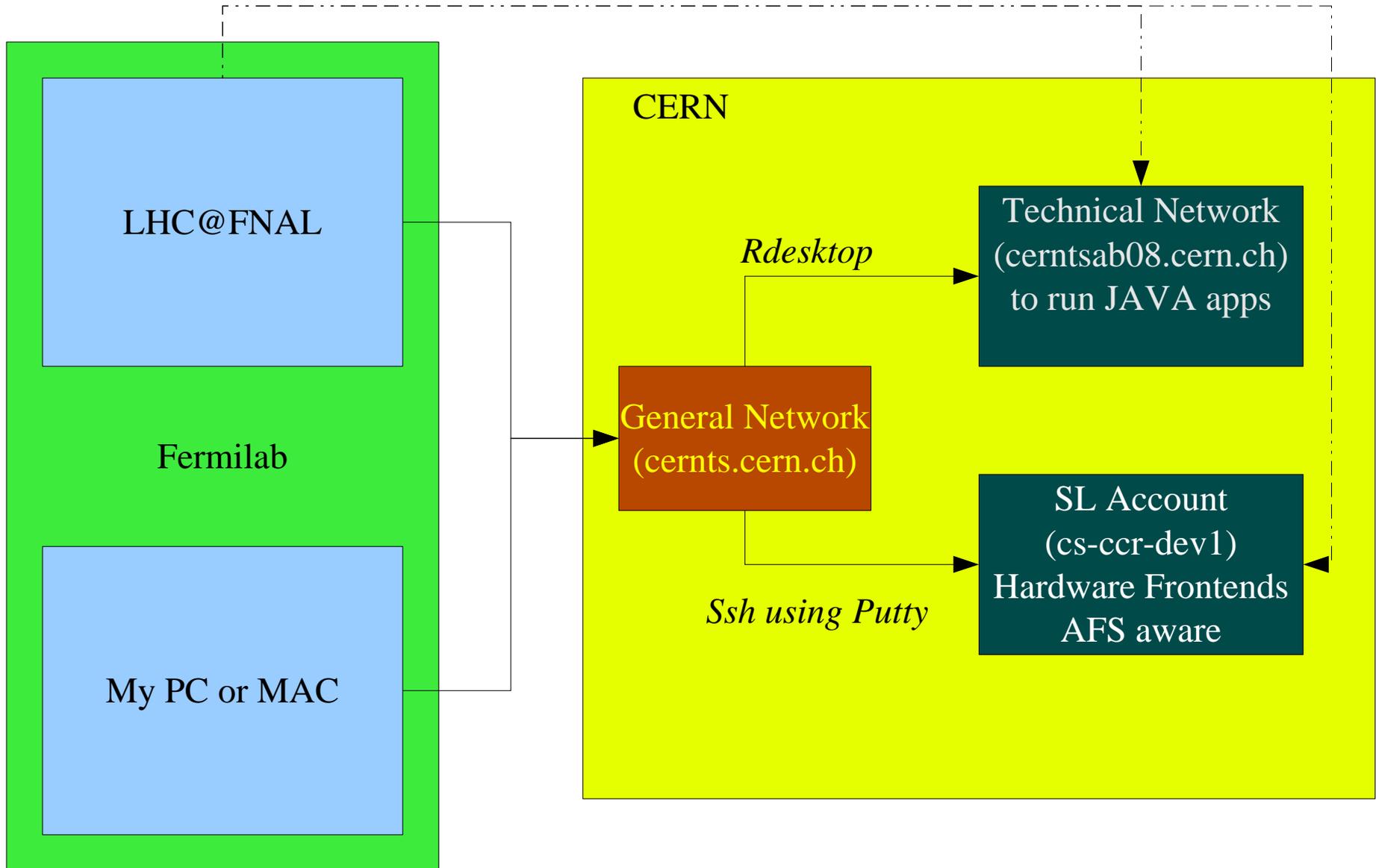
The Topology for UNIX jocks

Future



The Topology with RDesktop

Future



If you want to do this ...

First get an account from CERN

<http://www-bd.fnal.gov/issues/wiki/CERNComputerAccounts>

Fill in 2 forms and get your CERN collaborator to sign as guarantor.

FAX the forms to Pierre Charrue.

Get access to **LHC@FNAL**

See Bill Flaherty or Elvin Harms.

Get password to get onto PCs in LHC@FNAL

More accounts to get ...

Goto NICE system at CERN to reset password, set up AFS etc. See WIKI at: <http://www-bd.fnal.gov/issues/wiki/LAFS>

Get the FAQ by A. Petrov there: [Connecting to the CERN Network](#)

CERN's NICE system is at <https://websvc02.cern.ch/WinServices/>

Get a Technical Network password to run java apps.

Get lxplus.cern.ch for gateway to cerntsab08.cern.ch.

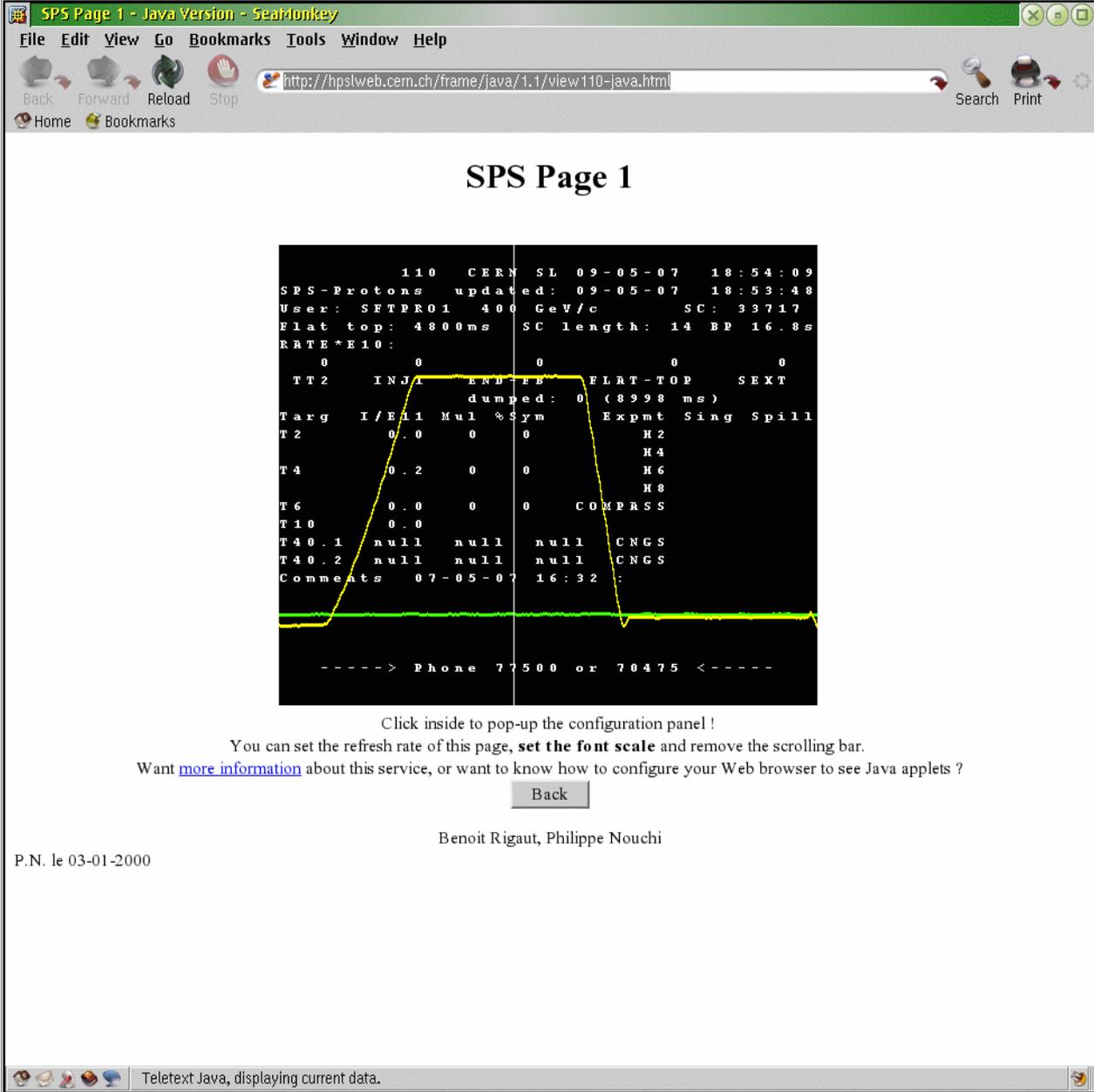
Get an SL account to get access to frontend data. CS-CCR-DEV1.cern.ch

Get an AFS account to be able to transfer data from CERN to here.

What I want is 50% done ...

See “Channel 13” at CERN

<http://hpslweb.cern.ch/frame/java/1.1/view110-java.html>



The screenshot shows a web browser window titled "SPS Page 1 - Java Version - SearchMonkey". The address bar contains the URL <http://hpslweb.cern.ch/frame/java/1.1/view110-java.html>. The browser interface includes a menu bar (File, Edit, View, Go, Bookmarks, Tools, Window, Help) and navigation buttons (Back, Forward, Reload, Stop, Home, Bookmarks, Search, Print). The main content area displays "SPS Page 1" and a Teletext Java applet. The applet shows a black screen with white text and a yellow line graph. The text includes:

```
110 CERN SL 09-05-07 18:54:09
SPS-Protons updated: 09-05-07 18:53:48
User: SFTPR01 400 GeV/c SC: 33717
Flat top: 4800ms SC length: 14 BP 16.8s
RATE*E10:
0 0 0 0
TT2 INJ END FB FLAT-TOP SEXT
dumped: 0 (3998 ms)
Targ I/E11 Mul %Sym Expmt Sing Spill
T2 0.0 0 0 H2
T4 0.2 0 0 H4
T6 0.0 0 0 H6
T10 0.0 0 0 H8
COMPASS
T40.1 null null null CNGS
T40.2 null null null CNGS
Comments 07-05-07 16:32
```

Below the graph, there is a phone number: `-----> Phone 77500 or 70475 <-----`. Below the applet, there is a button labeled "Back".

Click inside to pop-up the configuration panel !
You can set the refresh rate of this page, **set the font scale** and remove the scrolling bar.
Want [more information](#) about this service, or want to know how to configure your Web browser to see Java applets ?

Back

Benoit Rigaut, Philippe Nouchi

P.N. le 03-01-2000

Teletext Java, displaying current data.

Can get data from CERN using AFS



```
tssh
[cs-ccr-dev1] ~/public > ls
cern_data.dat
[cs-ccr-dev1] ~/public >
```

At CERN cs-ccr-dev1.cern.ch



```
xterm
/afs/cern.ch/user/c/cytan/public@fsui03% ls
cern_data.dat
/afs/cern.ch/user/c/cytan/public@fsui03% █
```

At Fermilab (fsui03.fnal.gov)

LSA (cerntsab08.cern.ch)

The screenshot shows a remote desktop session titled 'rdesktop - sdl'. The desktop background is blue with several icons: Recycle Bin, CERN Phonebook, Citrix Program Neighborhood, and Security Configurati... A web browser window is open, displaying a page titled 'LSA Applications' with the URL 'http://slwww.cern.ch/~pcrops/releaseinfo/pcropsdist/macsy/lsa_2t.html'. The page content includes a section '2-tier deployment' and a table showing the status of various applications across three sites: SPS, LHC, and LEIR. The table has columns for Application, SPS, LHC, and LEIR. The status is indicated by the word 'run' in a colored box (green for LHC, blue for SPS and LEIR). The browser's taskbar shows 'LSA Applications - Wi...' and the system tray includes 'Local intranet' and '100%' zoom.

Application	SPS	LHC	LEIR
EquipState	run	run	run
LHC Hardware commissioning		run	
Equip Monitor (FGC)		run	
PCMeasure	run		run
Settings Viewer	run	run	run
Trim	run	run	run
New Trim	run	run	run
Trim Archive	run		run
Steering	run	run	run
Drive	run		run
Resident Sequence Management	run		run
SDDS Browser		run	
Knob creator	run		run

Unfortunately cannot seem to run ANY java app today. Locked out?

What else is needed?

Remote desktop observation

SSS, VNC, KDE?

Voice communication

Skype, Webex, conference

To be tested out when Elliot is at CERN in first week of June.

Conclusion

At present [LHC@FNAL](#) is not as useful as I had hoped.

Advantage is many screens.

In the future, if [LHC@FNAL](#) can skip one connection (lxplus or cernts), things should be faster and better.

I can do studies on my laptop or desktop or at [LHC@FNAL](#) when

Remote viewing is available.

Voice comms is available.

First SPS studies on 27 June – [I will be at PAC, see if I can connect there!](#)