

uB DAQ test stand  
update and LArTF  
DAQ room update

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Aug Oct-2013

# Purpose

- This document outlines the 4 DAQ test stands needed for Sep-2013 through Spring-2014 for the MicroBooNE DAQ to be ready for commissioning
- An eye is kept on finite manpower and equipment

# 4 Test Stands

- Georgia, Kazu, David K, ... run the Nevis test stand(s) at Nevis
- Wes, Eric, Gennadiy run the DAB Annex test stand
- Wes, Eric, David K, Gabriel, Matt, Georgia run the DAB MRT+ test stand
- Zarko, Georgia, Kazu, Eric, Wes run the LArTF test stand

# Assumptions

- PAB PMT DAQ readout crate moved to DAB MRT. ergo, MRT+. Bo VST will not need this crate back before early-2014.
- A new PMT crate w trigger board and at least 2 PCIe cards will be available in ~~September~~ October for LArTF
- seb-10 has gotten uboonepab02's 2 Nevis PCIe cards and are moved into HV cage in DAB highbay.
- Bought one more signal generator for 3rd test stand.
- Other test stands do not need DAQ team's significant attention: VT, BoVST, NMSU, CAPTAIN, ...
  - Indeed, NMSU test stand will be first consumer of IRM: BNB signals!

# Nevis

## Purpose:

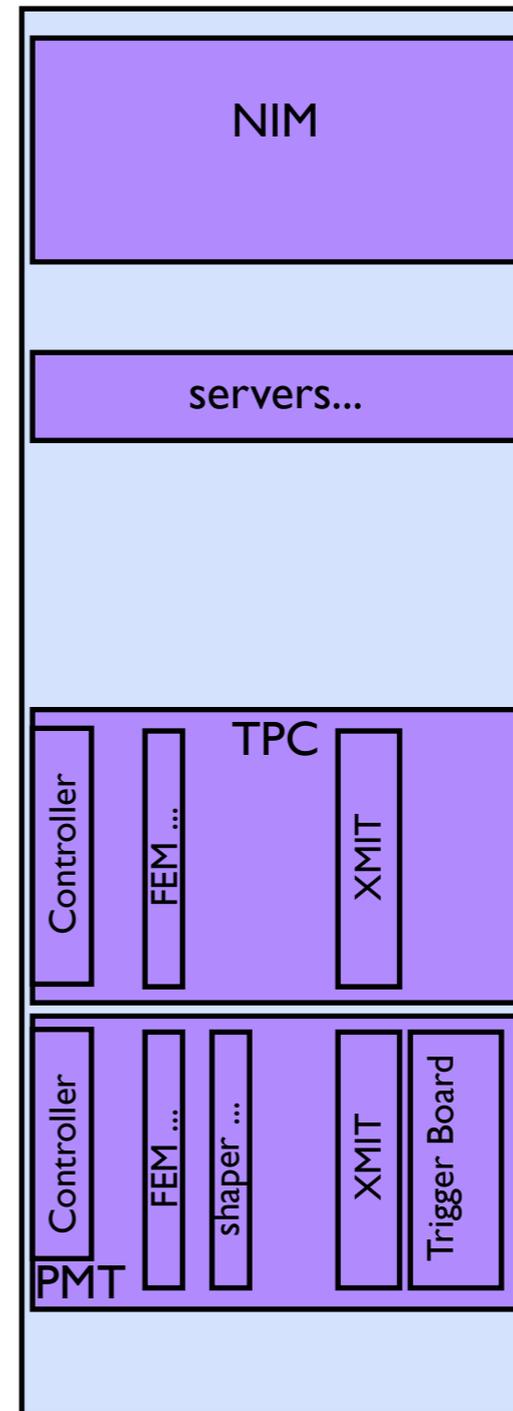
- Run PMT+TPC system
- Develop FPGA, readout code
- Test Clock fanout
- Test Trigger fanout
- Direct Trigger Board control

## TimeFrame:

Aug 01-2013 - ?

## Operators:

Kazu/Georgia/Chi



# DAB Annex ORC'd

## Purpose:

Test readout in Huffman/compressed mode.  
Exercise Run Control.  
Exercise Run Configuration dB.  
Direct Trigger Board control  
Ganglia development  
Development Online Monitor  
in DAQ environment, connect it to  
assembler shared memory  
segment.

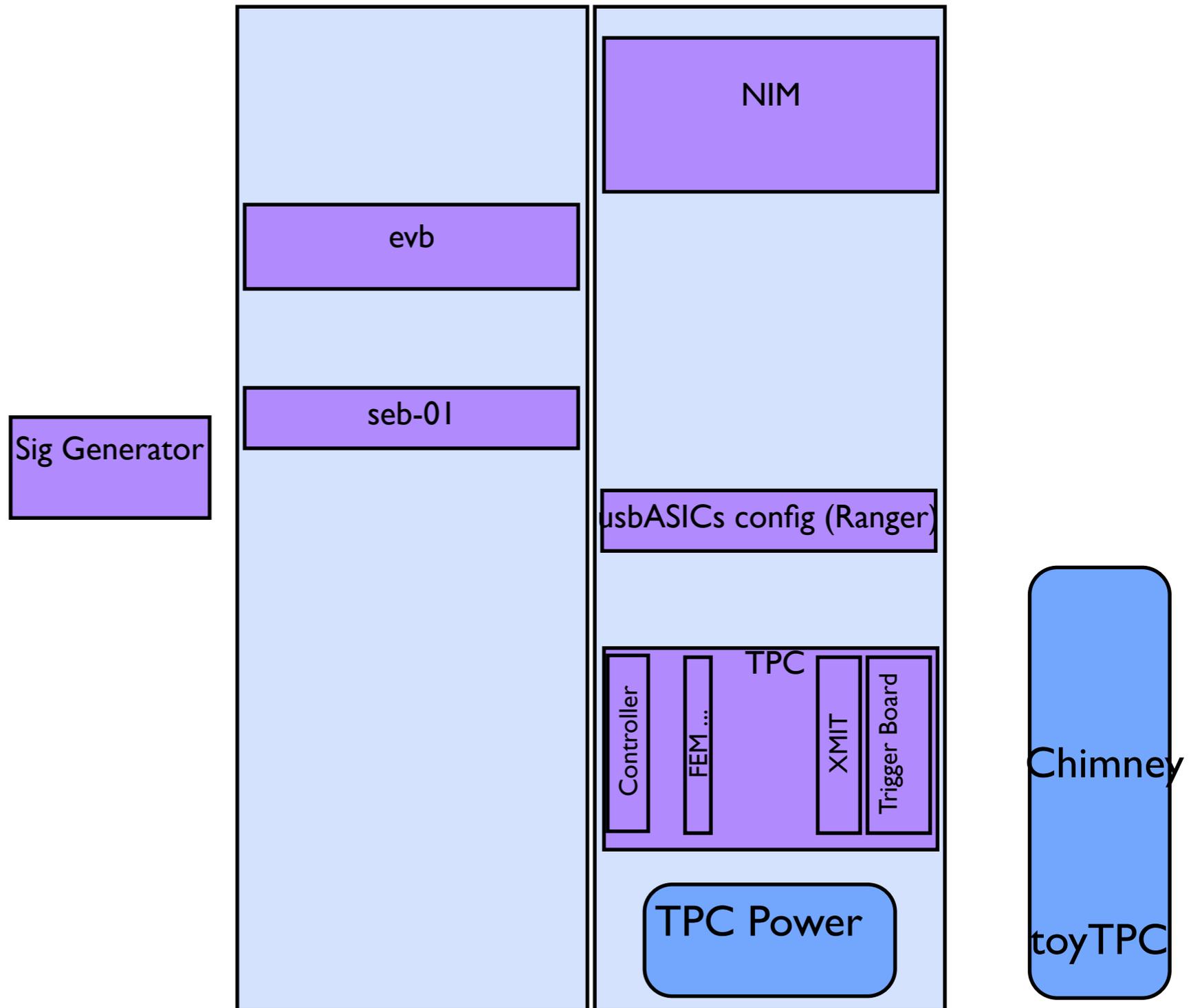
SN data handling  
Test SN readout.  
Test SN + Triggered readout together.

## TimeFrame:

Sep-2013 - 2015

## Operators:

Wes/Eric



# Purpose:

Run a PMT+TPC system with (an) **actual** PMT(s), reading out **actual** wires.

Internal (software) trigger + external: Pulse LEDs at same time as we force trigger on each TB.

*Limo* Trigger fan-out. No clock fan-out. Build events on evb. 2 weeks of **Oct 7**

Phase II tests: cold cables. Run w or wo PM week of **Oct 21**

Phase III tests: Push TPC into cryostat. Do above again pre- and post-tack and full weld of endcap. **Entire PMT system readout** w flashers.

Connect Online Monitor to assembler shared memory segment. Slowmoncon power supplies, etc, controls.

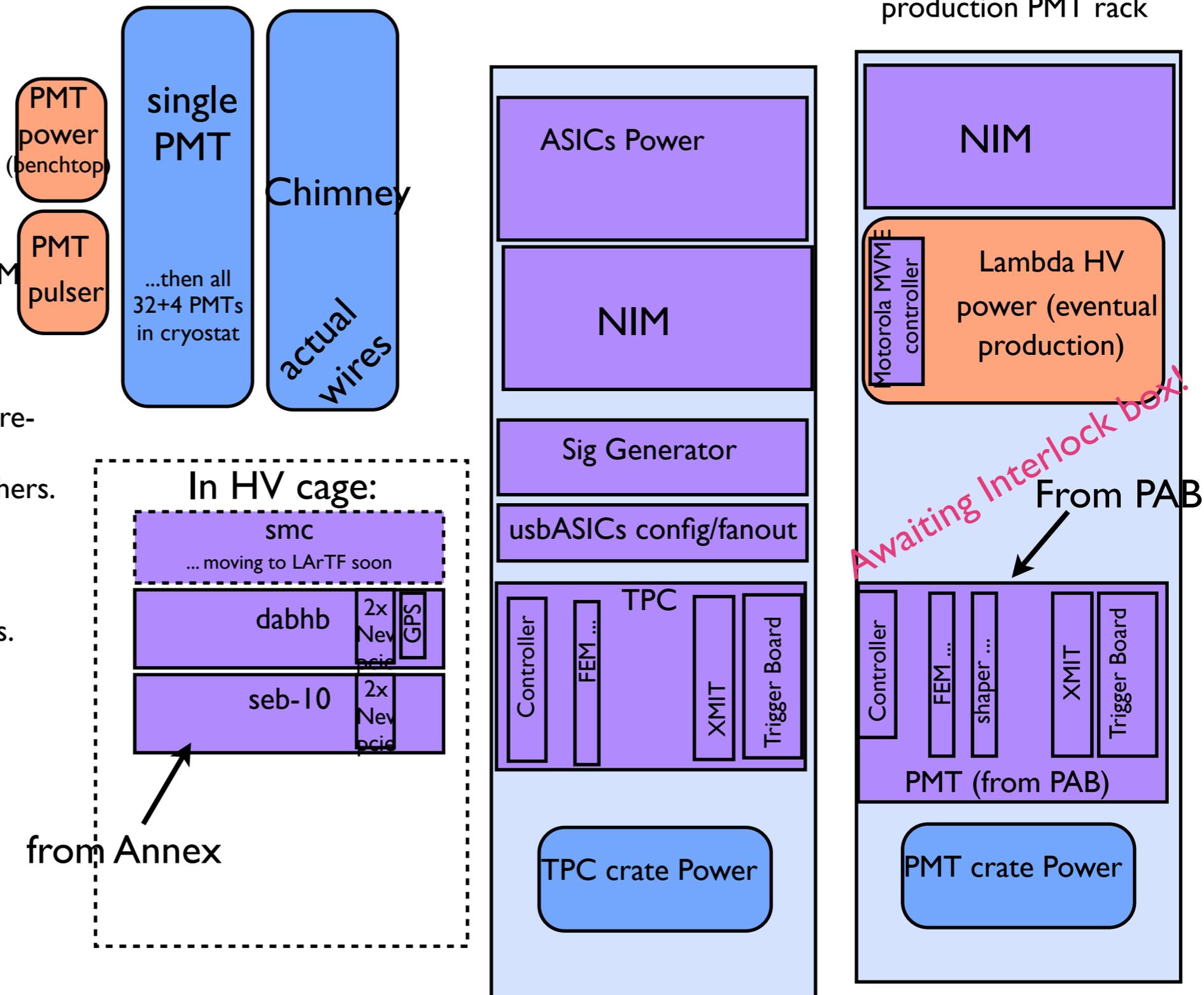
# TimeFrame:

Sep01-2013 - Mar-2014

# Operators:

Wes/Eric/Gabriel/Matt/David

# DAB MRT+



# Purpose:

# LArTF

## PMT crate only -- to start

- Understand beam timing from IRM
- Develop external triggers/inhibits:
  - BNB, NuMI, laser, Strobe
  - Then, && these triggers with PMT trigs
- Fake Data files=>assembler and attach Online Monitoring processes to all 21 shm segments
- Swizzling and Beam Data processes, shipping to Enstore
- Begin break-in of DAQ servers
- Develop GPS code on production card
- Add TPC crate if we get that far and all goes smoothly at MRT and Nevis with 2 crates

New

# TimeFrame:

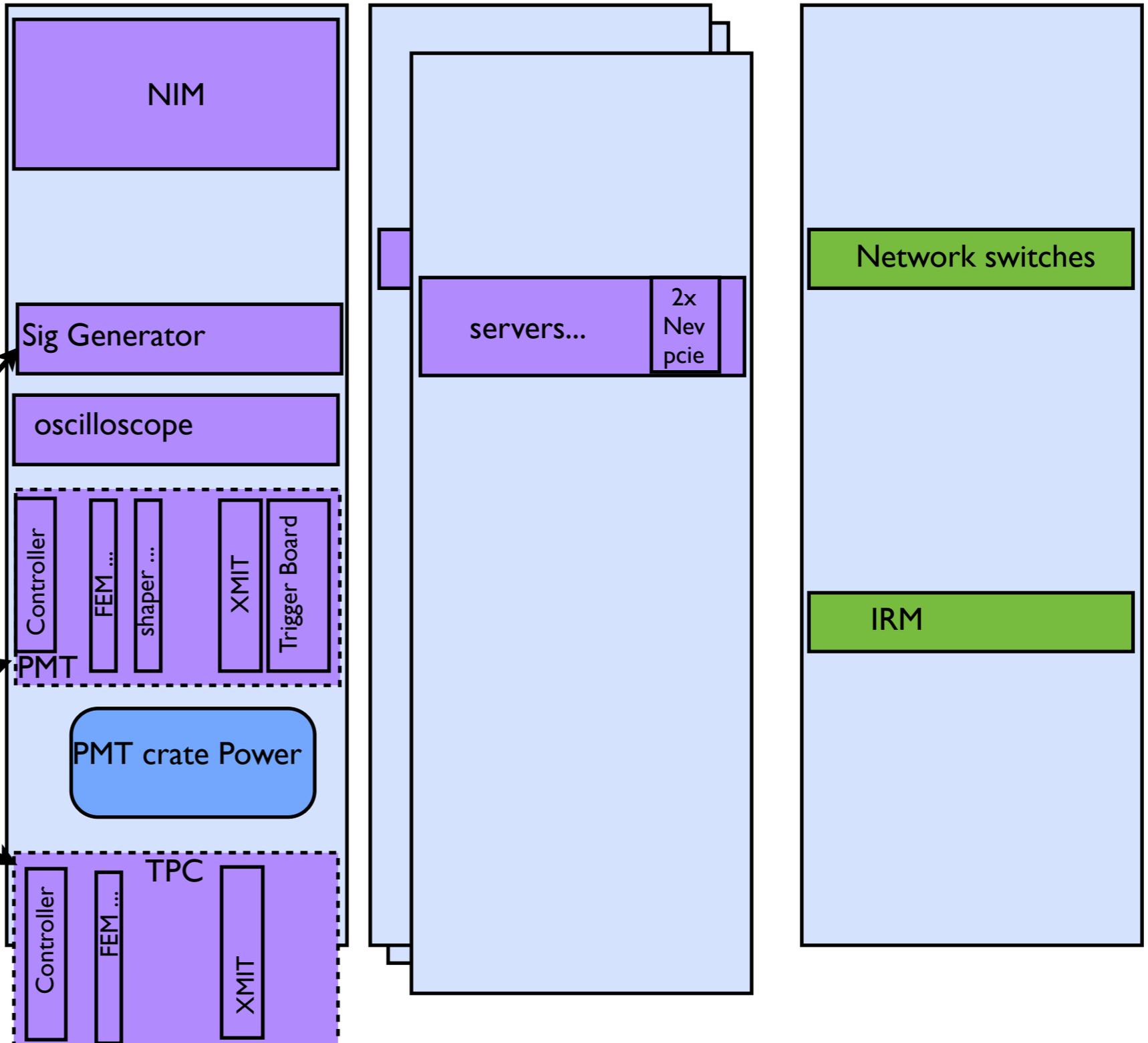
Oct, 2013 -

New from Nevis

If time allows

# Operators:

Zarko/Georgia/Kazu/Eric/Wes



**What about the actual  
experiment?**

# LArTF

DAQ Room Update

FEF (CD) has installed SFL6.4 on all 15 servers. Burning-in/Configuring everything now.

Need:

- GPS antenna
- PCIe cards, obvi
- optical fiber runs out to platform
- ubdaq-prod-smc moved to LArTF
- SlowControl (Glomation) boxes moved

FEF (CD) suggests we have hotswap server backups at LArTF: seb-dabhb and evb -- from teststand next summer, I propose.

