



U.S. DEPARTMENT
of ENERGY

Time Meeting 12-23-2025 SCDF

X f i @BrookhavenLab

Power System (PDU) Updates

- Meeting with F&O on Wednesday
 - PDU 1A3 - Issue is believed to be poor air flow
 - Furthest from the AC units
 - ~100 sPHENIX nodes currently still offline
 - Plans are being drawn up to rearrange compute racks to reduce sustained power draw on PDUs powering rows 101 and 103, both compute rows.
- Remediation of three additional PDUs yet to be scheduled.
 - One PDU will result in shutdown of one row of compute
 - No operational impact on remaining three PDUs
- SCDF planning document with schedule available at:
 - [proposed_pdu_schedule - Google Docs](#)

Other News on Data Center Power

- Parameters adjusted on the diesel generators to prevent issues associated with startup that were previously encountered
- Commissioning of the 3rd diesel generator, part of the Power System 4 (PS4) project, will be decoupled from commissioning of PS4.
 - Intent is to have the 3rd generator available sooner
 - Will give the new data center, in bldg 725, N+1 generator redundancy at current power consumption levels
- Discussions in progress on scheduling of low risk work on power to the data center in the near term.

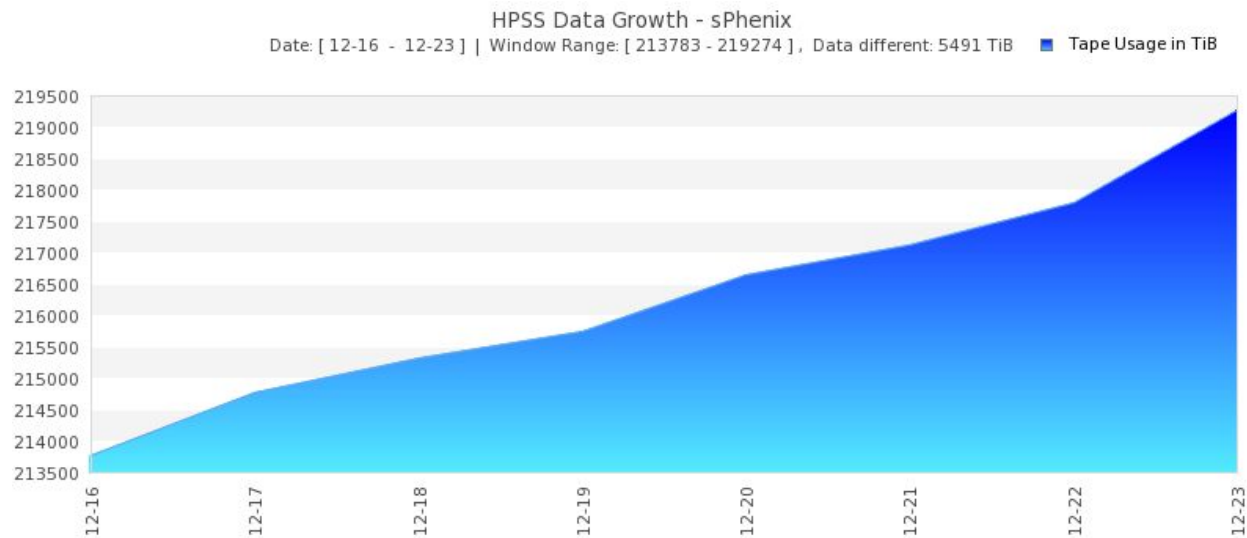
Network Upgrades (Post Run)

- SCDF perimeter firewall upgrade
 - Two “bumps” in the wire, ~24 hours apart.
 - 1st bump - Established connections expected remain
 - State transfer between firewall modules
 - 2nd bump - Established connections will disconnect
 - Firewall swap, no state transfer
 - ~48 hr period of no firewall redundancy.
 - “Bumps” shouldn’t affect connectivity to SDCF managed cssh.sdcc.bnl.gov gateways from the internet (used by some to get to the counting house)
 - Connectivity to the SCDF from BNL campus and the internet will be affected

Network Upgrades (Post Run)

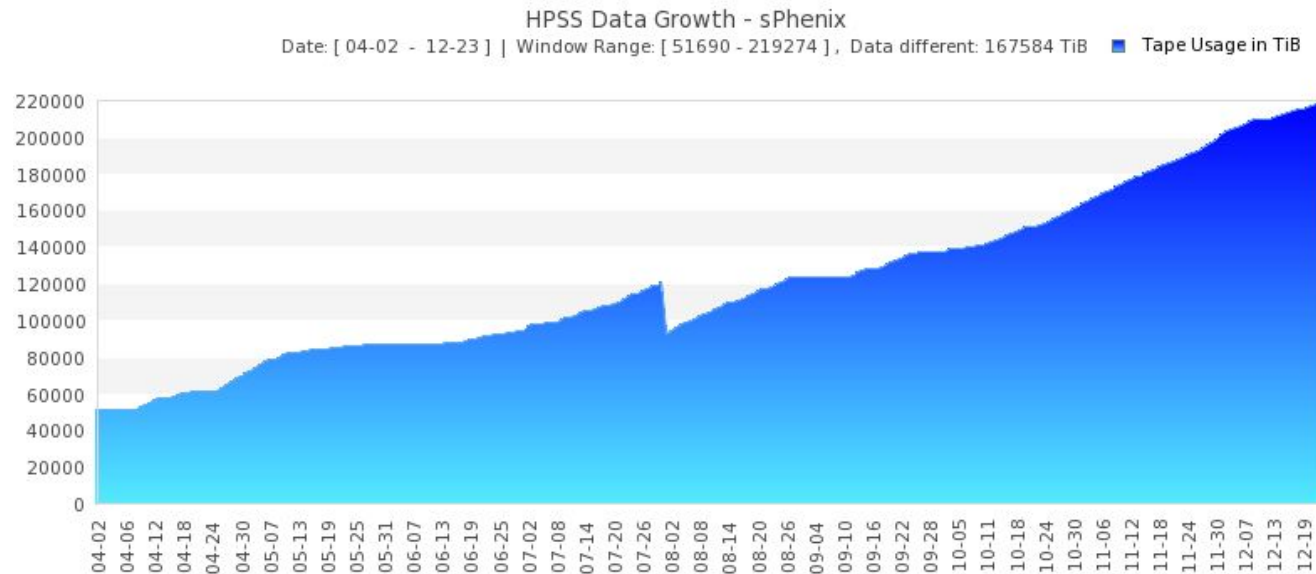
- SCDF Bldg 515/CDCE Storage Core reconfiguration
 - Routing interface will move from old to new router hardware
 - Expect loss of connectivity for a **few minutes** if everything works
 - Network group would like to have a one hour window of potential instability to diagnose problems should some the switch not work as planned.
 - Access to storage systems in 515 will be disrupted, this includes
 - STAR HPSS resources.
- Possible windows
 - Last week of January or first week of February.

sPHENIX Data Volume Past 7 Days



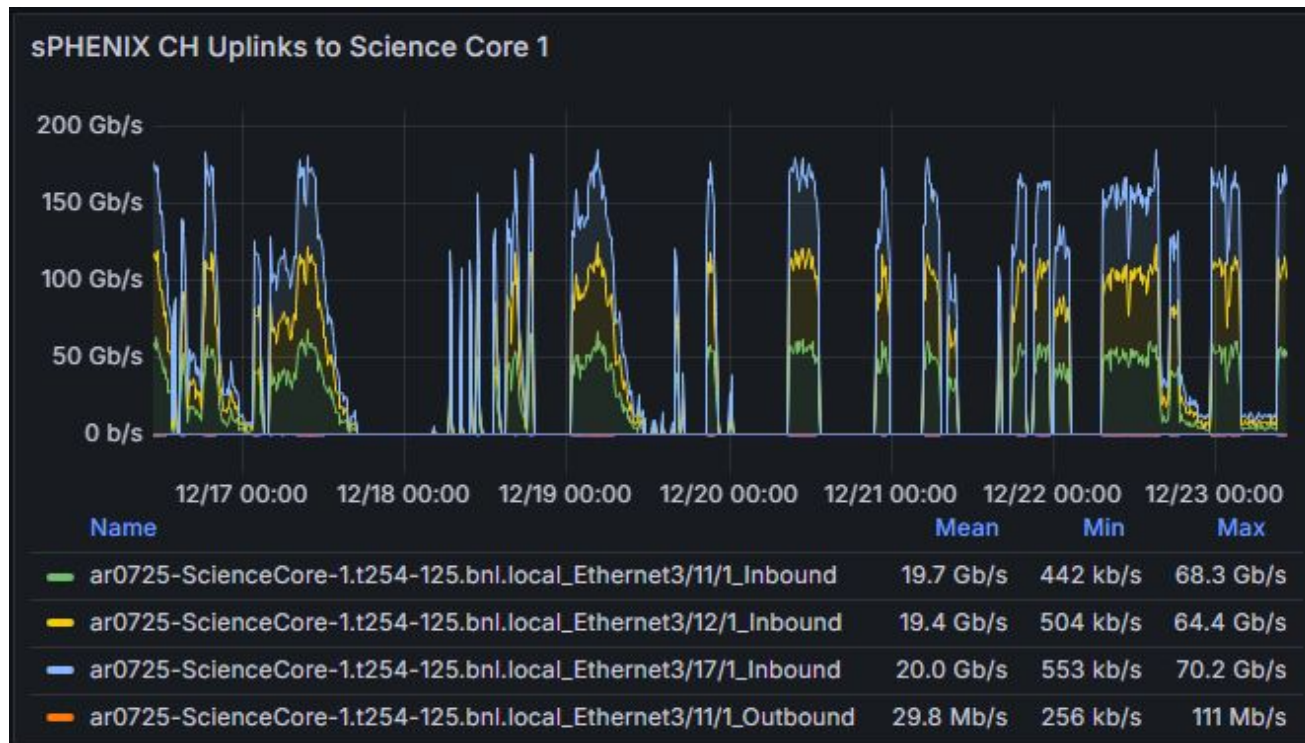
6.04 PB written to tape in the last 7 days

sPHENIX Data Volume Since April 1



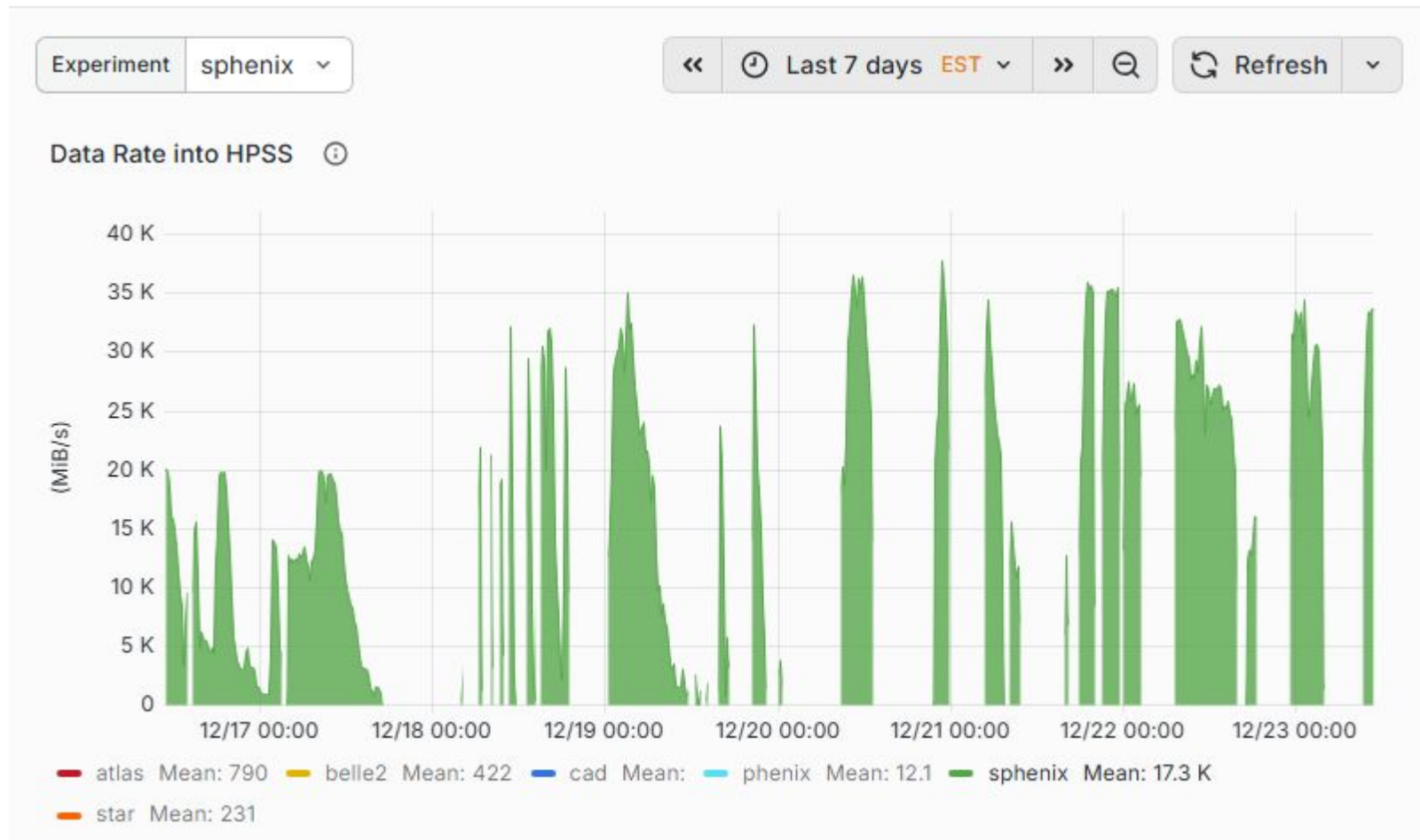
184 PB written to tape since April 1 2025

Network Traffic from sPHENIX to SCDF



Network traffic on one of two LACP links between sPHENIX and SCDF. (Transfers to HPSS and Lustre).

sPHENIX Data to HPSS



STAR Data to HPSS

