

RACF/SDCC Network Operations Status Report (August 1, 2019)

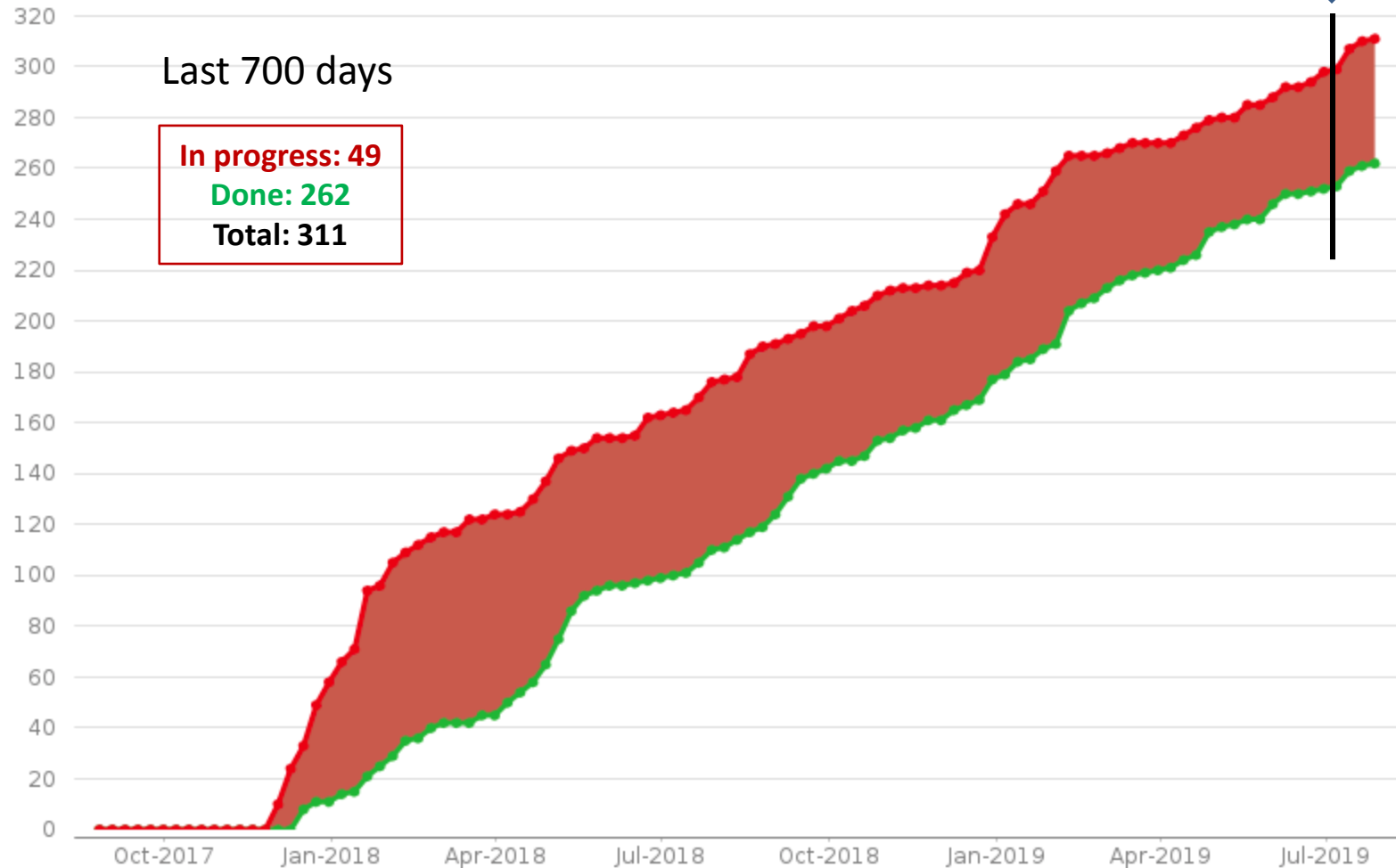
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Project: Post RHIC Migration BCF & CDCE Cleansing & Service Normalization (2018Q1-2019Q4)

Chart

Previous Report

This chart shows the number of issues **created** vs. the number of issues **resolved** in the last 700 days.

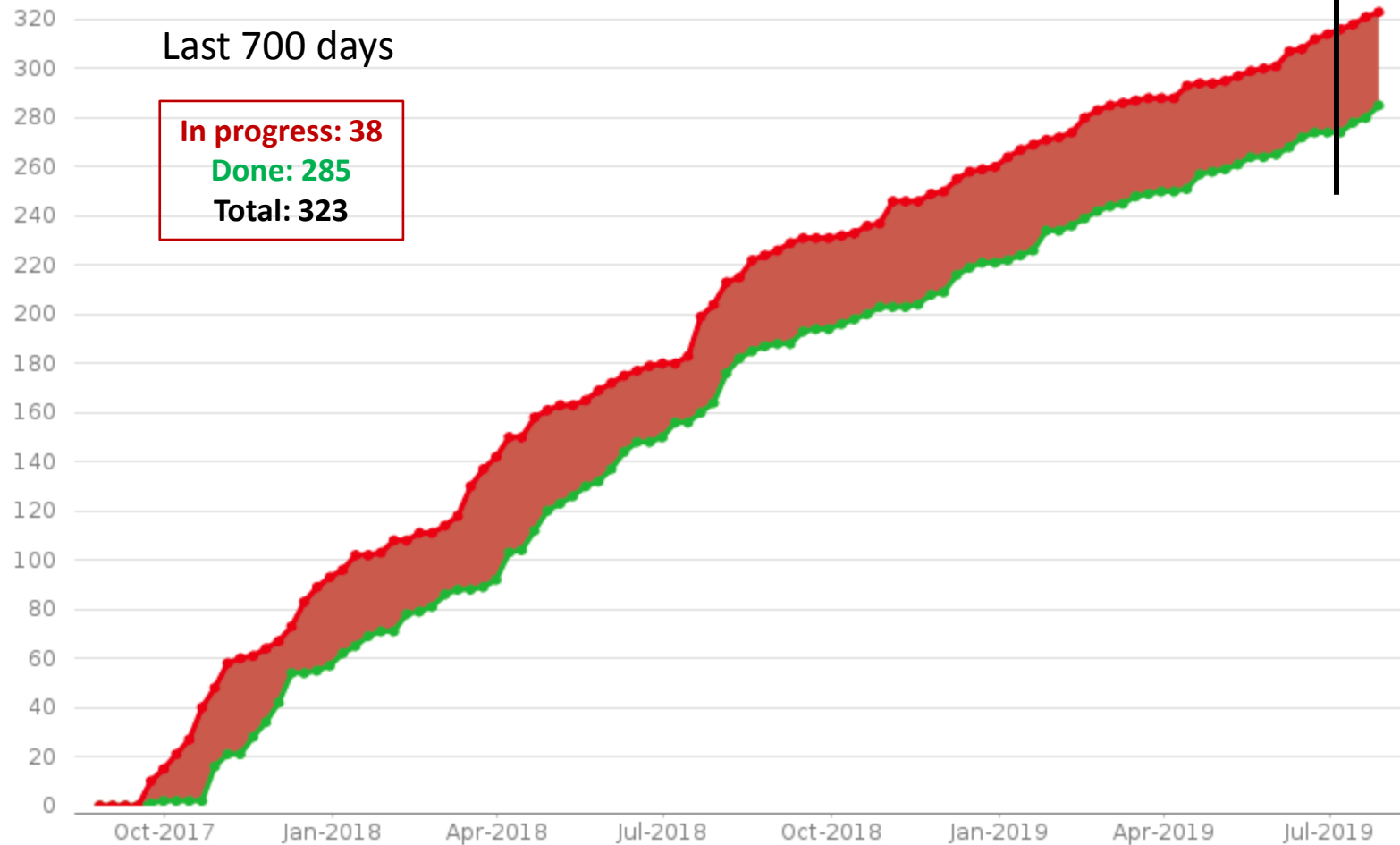


Project: RACF/SDCC Network Operations & Interventions

Chart

Previous Report

This chart shows the number of issues **created** vs. the number of issues **resolved** in the last **700** days.



Project: HPSS Operation and Updates

Chart

Previous Report

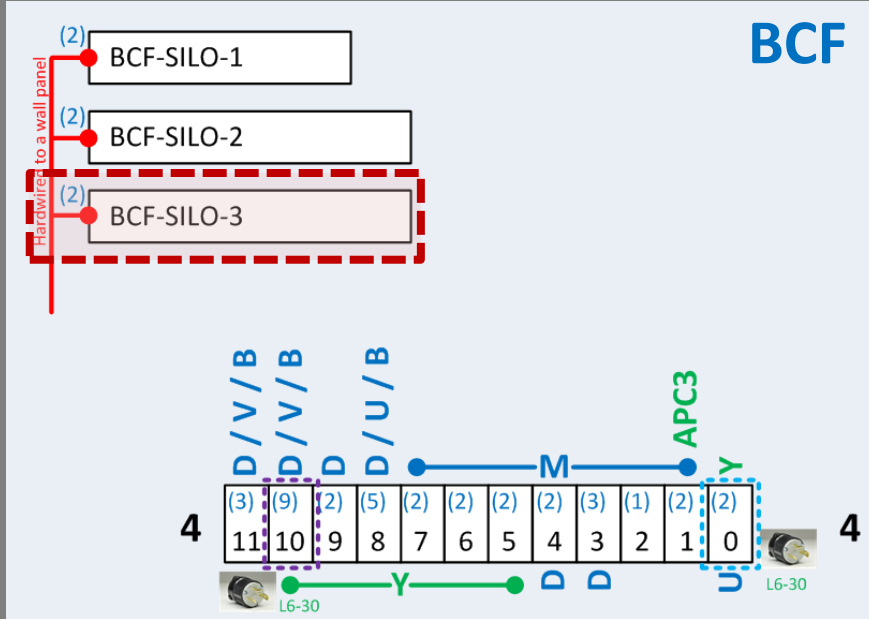
This chart shows the number of issues **created** vs. the number of issues **resolved** in the last 700 days.



BCF Silo #4 Migration to Position CDCE Silo #6

- The electrical work on BCF Silo #4 on July 19, 2019 was mostly successful (the missing parts needed for new pigtails were ordered and received quickly next week)
- The physical migration of the library was done in 2 days (Jul 22-23, 2019)
- The library was powered at the new location on Jul 23, 2019 by the contractors
- The population of the CDCE Silo #6 with tape drives and connecting them to the old movers in BCF proceeded until Jul 31, 2019 by the Storage/HPSS Group
- Other works/fixes performed during the period of Jul 22-23:
 - The directly wired power feeds of BCF Silo #4 were replaced with new ones based on plug and receptacle (BNL electricians)
 - The existing power feeds of CDCE Silo #5 were provided with new fittings (BNL electricians)
 - The silo security door of the CDCE Silo #1 was fixed (Oracle personnel)
 - The internal power distribution issue of CDCE Silo #5 was identified and fixed (Oracle personnel)
- The wiring of the new FC patch panel for the CDCE Silo #6 can now proceed by Telco personnel (expected to be done before the first rack of RHIC movers is installed in 44-4 in mid-August 2019)
- The migration of about 11k tapes from BCF Silos ##2-3 into CDCE Silos ##4-6 is now expected to be performed in Aug-Nov 2019 timeframe, leaving the BCF Silo #3 empty and ready for the move to position CDCE Silo #7 (the space and power are ready available)
 - The details of this plan are yet to be confirmed

The Current State and the Next Move (CY19)

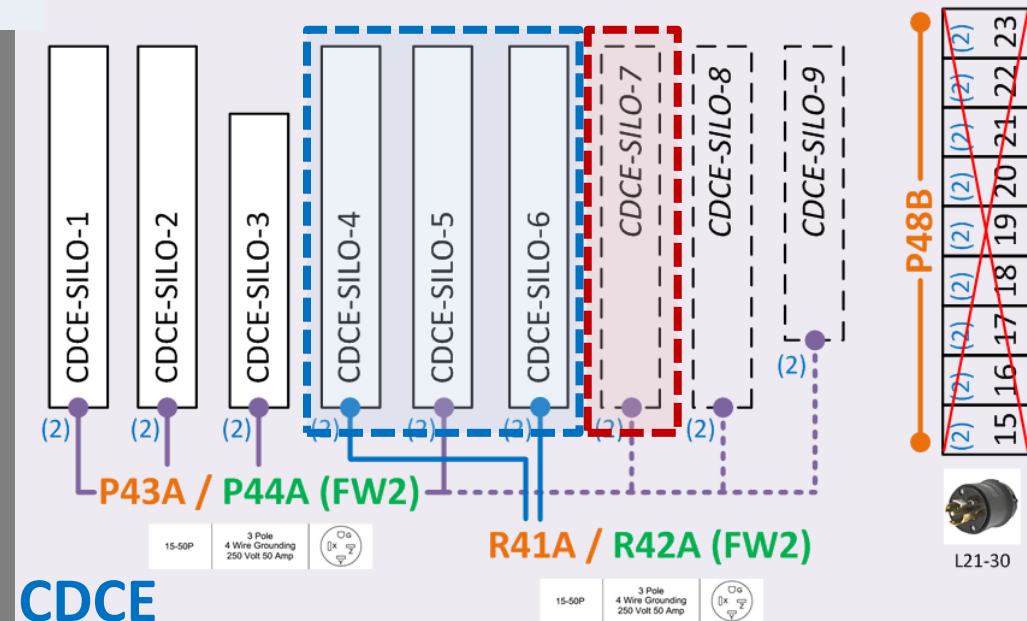


BCF Library #3 is disassembled, moved to position #7 in the CDCE, reassembled and powered up in (A) Sep-Oct 2019 or (B) Nov-Dec 2019 timeframe



41N 42N 43N 44N 45N 46N 47N

Only short interruptions to BCF Silos ##1-2 and CDCE Silos ##4-6 will be needed as the BCF Silo #3 is expected to be moved empty, like it was done for BCF Silo #4

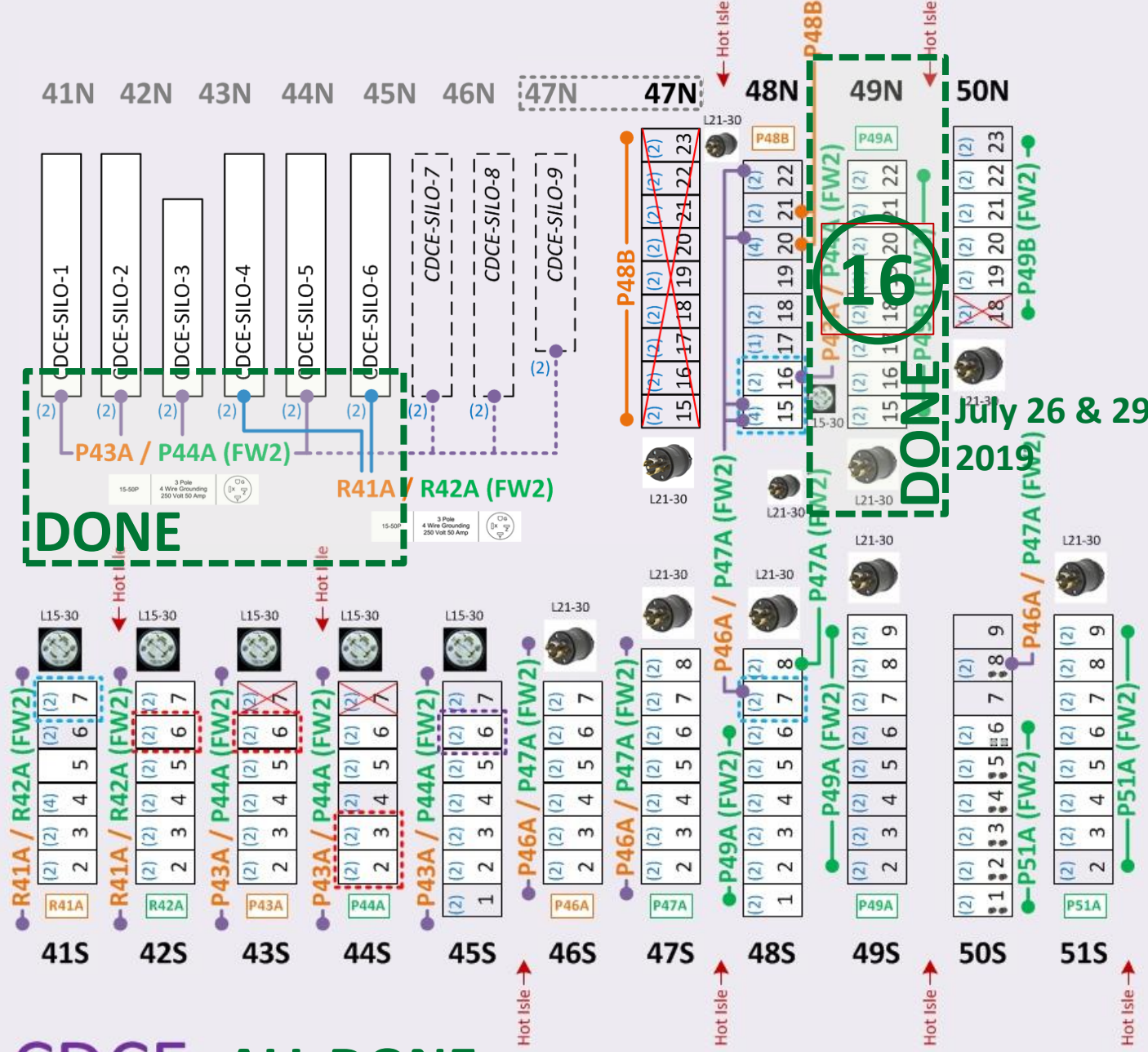


Hardware Removal / Deployment Operations

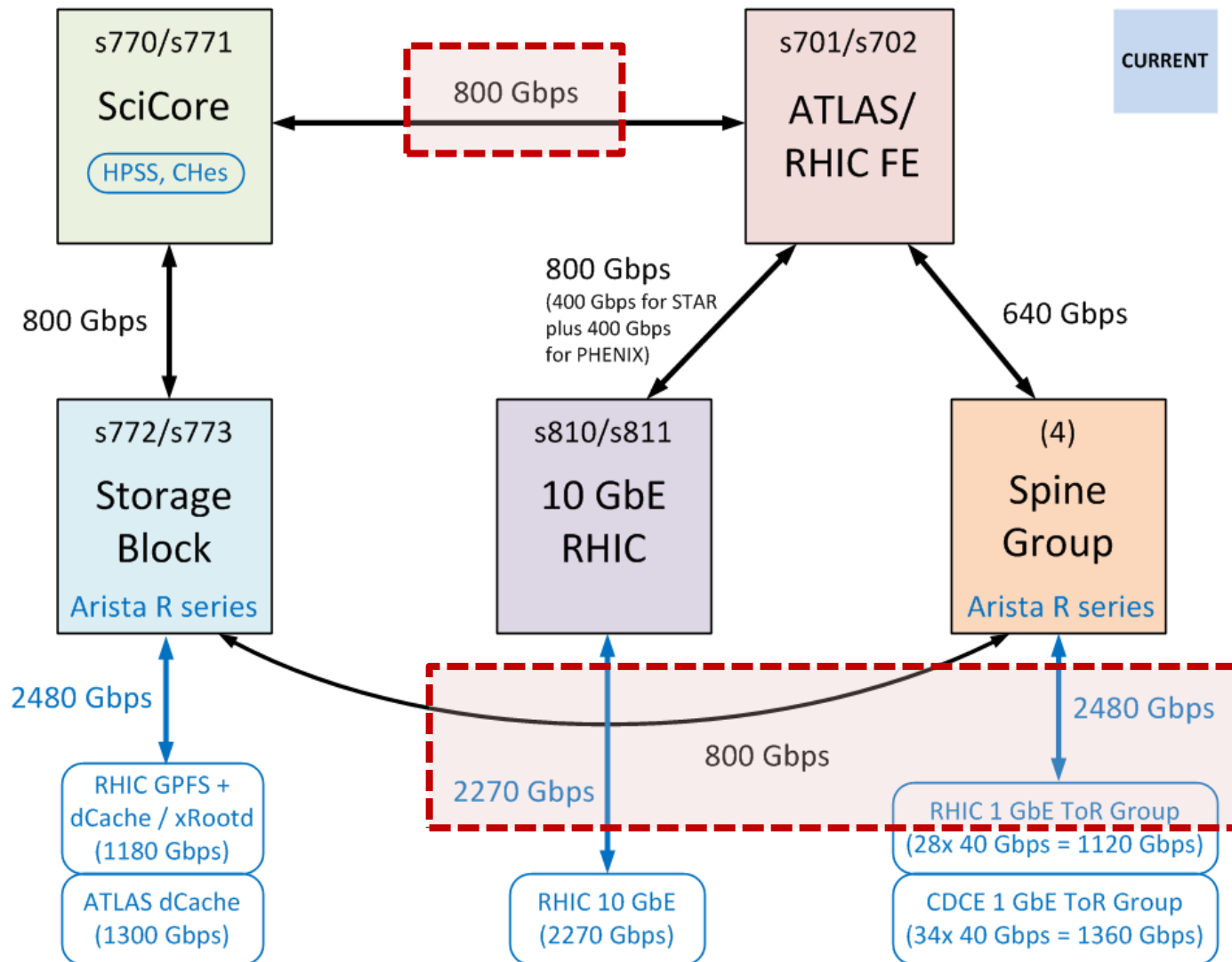


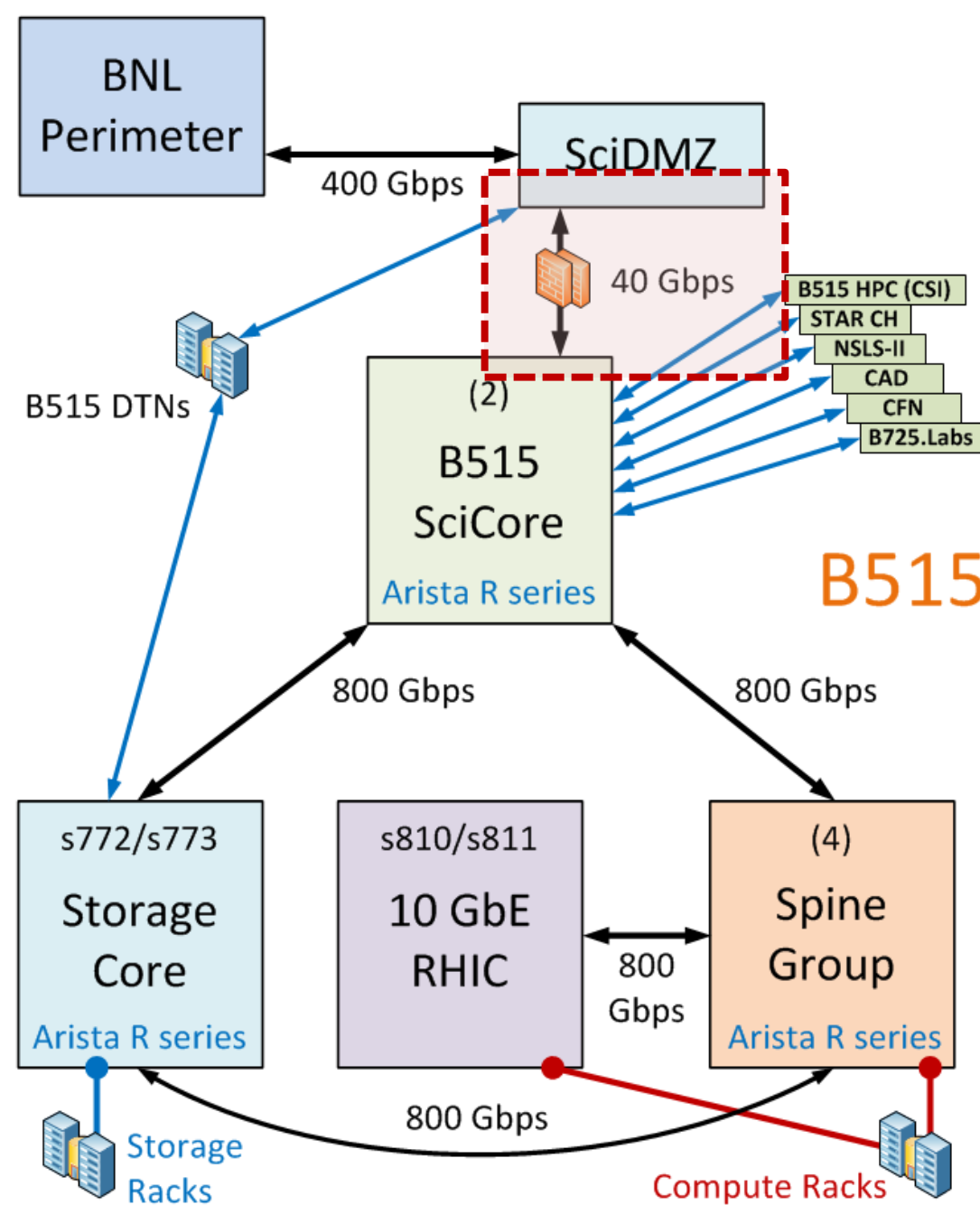
Electrical interventions in the CDCE (work on grounding & fixing the outlets to the cable trays) (Follow-up)

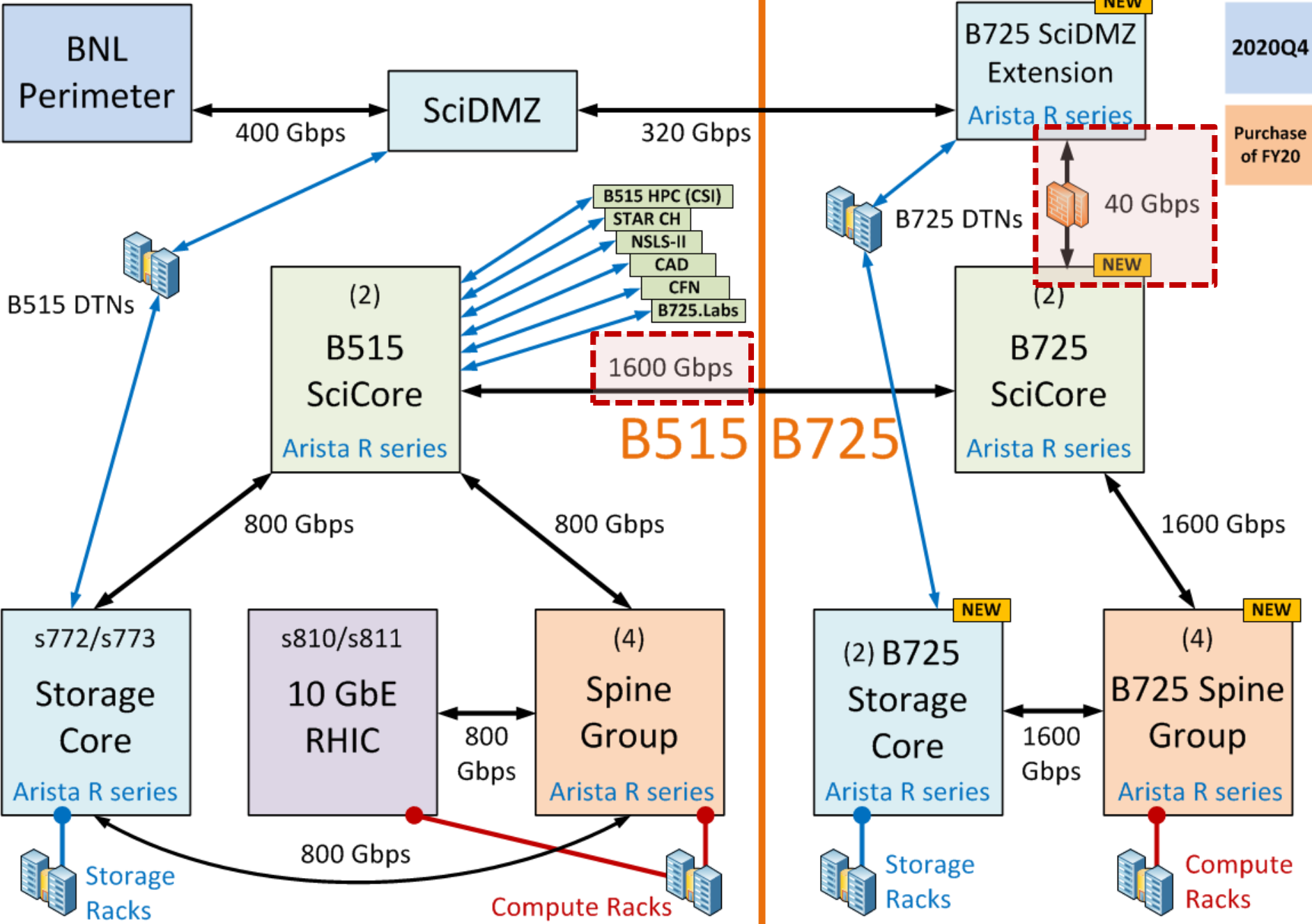
CDCE ALL DONE



STAR Compute Farm / UDP Flood Incident (July 23, 2019)



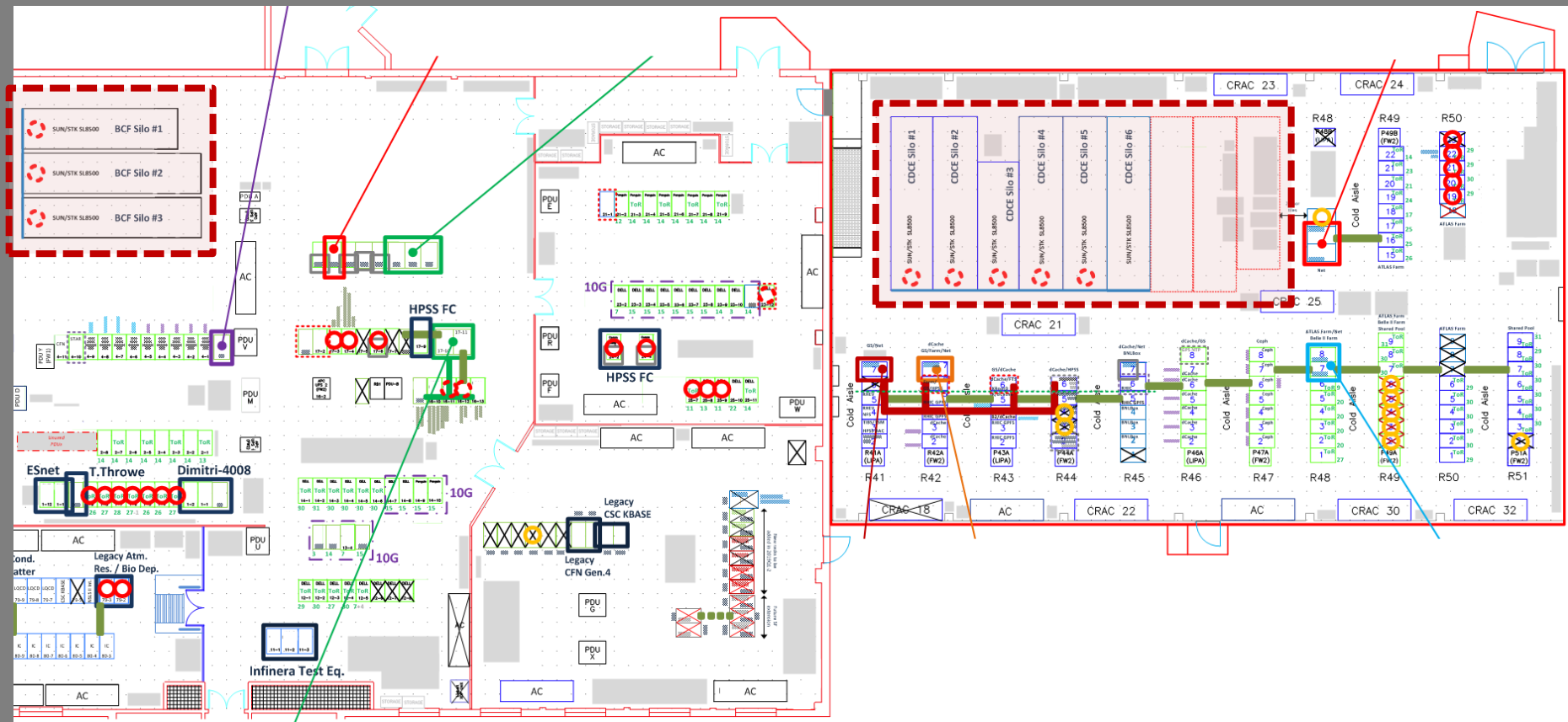




Ongoing/Upcoming Interventions and Equipment Deployment/Retirement Operations

- ATLAS/RHIC/Belle II FY19 compute addition (6 racks to be added to CDCE):
 - Mid-to-late-Aug 2019 ETA
 - Network uplink for Tor switches are ready (management 1 GbE copper deployed; the 10 GbE fiber is ready to be deployed on short notice)
 - Additional EIC compute nodes to be deployed in CDCE as well in Aug 2019
 - The deployment of these racks is to be followed by decommissioning of the 7 racks in row 1 (RHIC), 4 racks in row 50N (ATLAS) and 3 racks in row 25 (EIC, DayaBay, LBNE) freeing 12 ToR switches
- Farm VMMS extension by one node from 8 nodes to 9 nodes (Aug 2019):
 - All 2x 10 GbE (LACP) connected to subnet 48 (shared infrastructure rack 42-6)
- New HPSS movers and infrastructure components in row 44S in CDCE:
 - First rack of RHIC movers in rack 44-4 (Aug 2019) – network is provisioned
 - Replacement HPSS DB servers in racks 44-2 and 44-6 (Aug 2019) – network is provisioned
 - Replacement rstk* servers in racks 44-2 and 44-6 (Aug 2019) – network is provisioned
 - Second rack of RHIC movers in position 44-3 (Oct-Nov 2019, CDU purchase is needed)
- New RHIC GPFS equipment in CDCE:
 - gpfs cache servers in rack 45-5 (already physically deployed and provided with power and network)
- New CSI ML (Machine Learning) cluster in QCDOC:
 - New pre-assembled rack to be installed in position 30-4 in QCDOC which is logically to become a part of the IC/LQCD cluster (Mid-Sep 2019 ETA) – fiber provisioning will commence upon delivery
- New ATLAS Ceph OSD nodes in Sigma-7 and CDCE (Mid-Aug 2019 ETA)
- New central storage for RHIC (2 disk array + server pairs in rack 43-4) in CDCE (Oct-Nov 2019?)

B515 Floor Plan (Current, Aug 2019)



Questions & Comments