RACF/SDCC Network Operations
Status Report (Aug 2, 2018)

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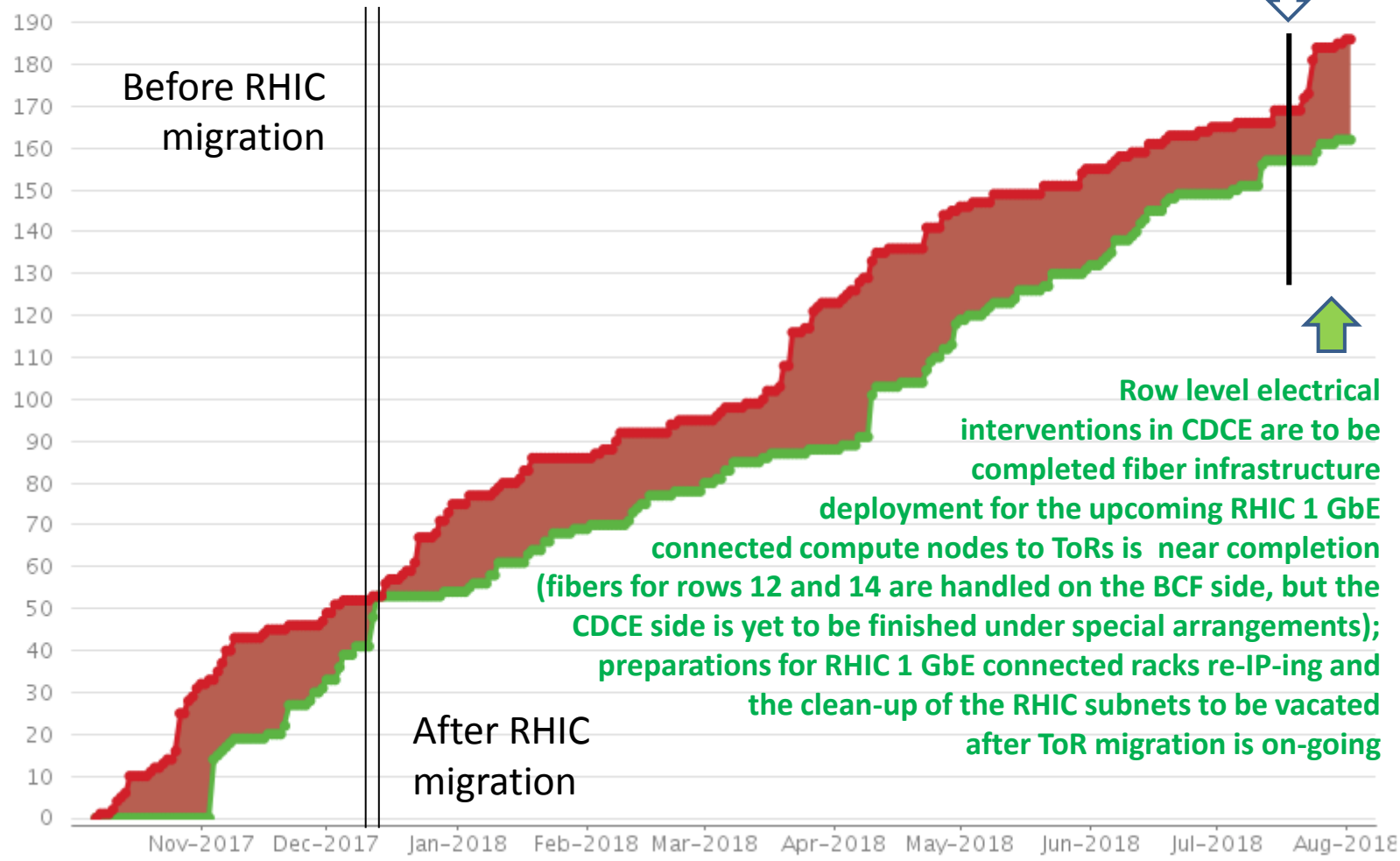
Project: RACF/SDCC Network Operations & Interventions

Chart

This chart shows the number of issues **created** vs the number of issues **resolved** in the last **300** days.

Previous Report

206



Row level electrical interventions in CDCE are to be completed fiber infrastructure deployment for the upcoming RHIC 1 GbE connected compute nodes to ToRs is near completion (fibers for rows 12 and 14 are handled on the BCF side, but the CDCE side is yet to be finished under special arrangements); preparations for RHIC 1 GbE connected racks re-IP-ing and the clean-up of the RHIC subnets to be vacated after ToR migration is on-going

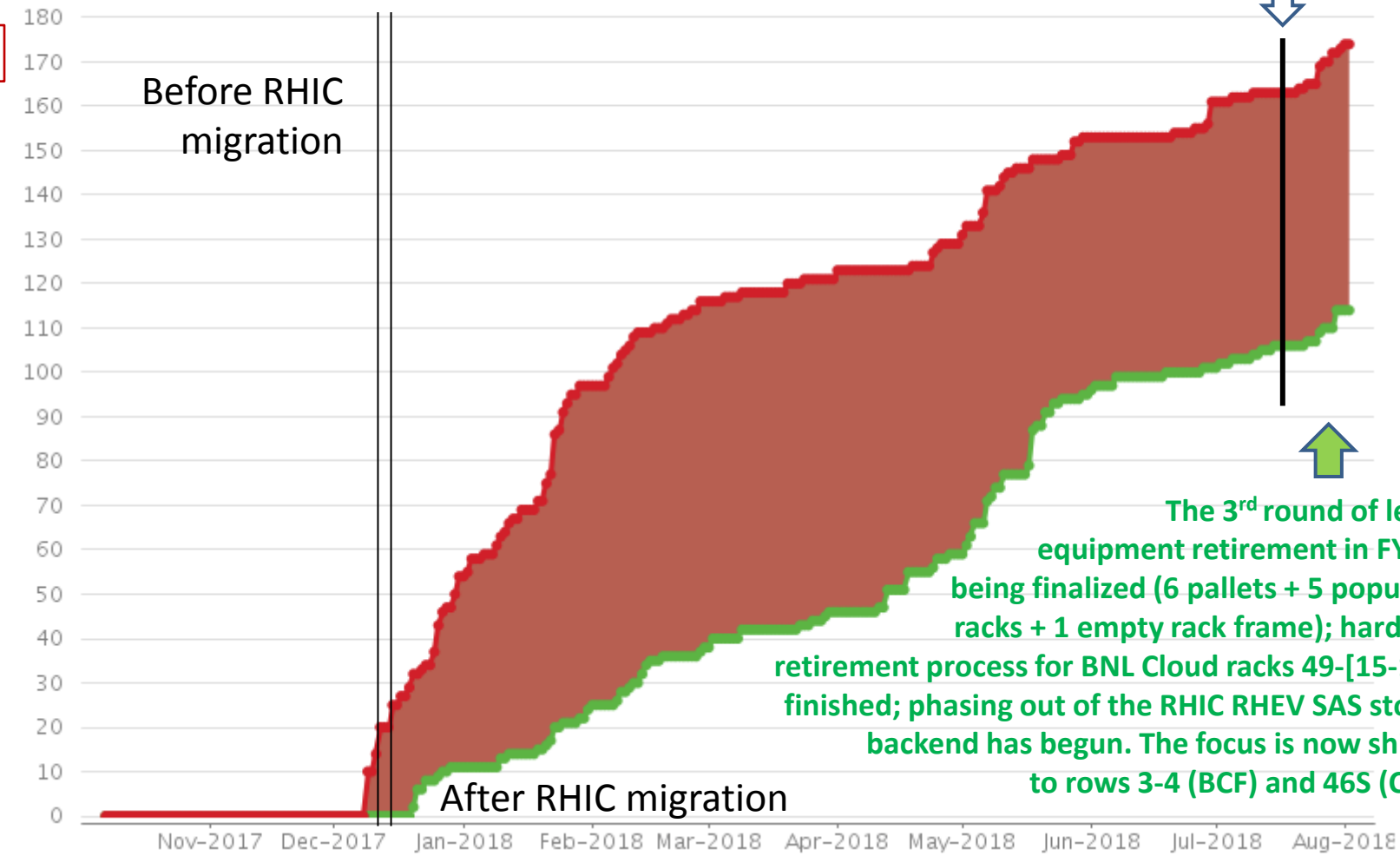
Project: Post RHIC Migration BCF & CDCE Cleansing & Service Normalization (2018Q1-3)

Chart

This chart shows the number of issues **created** vs the number of issues **resolved** in the last **300** days.

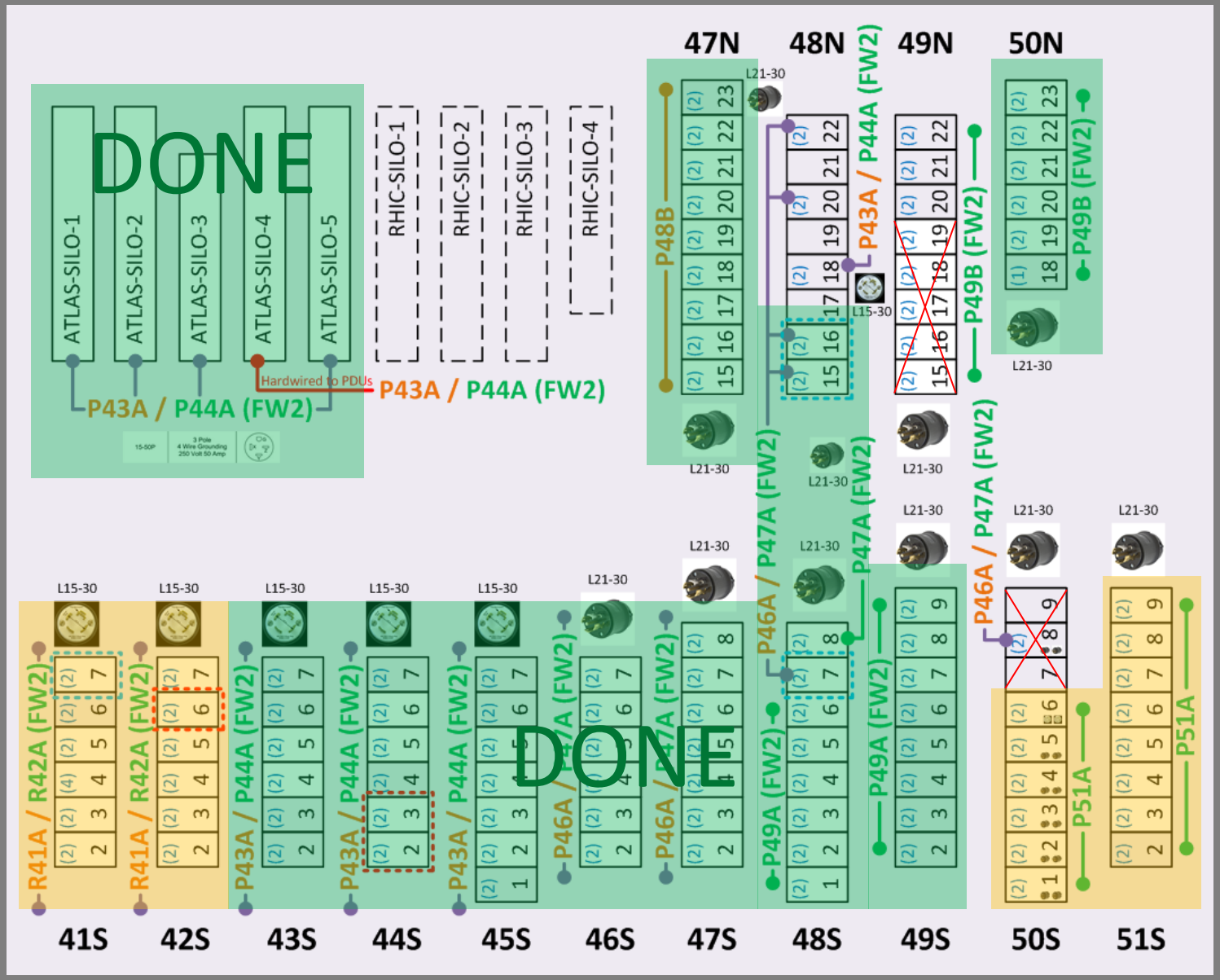
Previous Report

177



The 3rd round of legacy equipment retirement in FY18 is being finalized (6 pallets + 5 populated racks + 1 empty rack frame); hardware retirement process for BNL Cloud racks 49-[15-19] is finished; phasing out of the RHIC RHEV SAS storage backend has begun. The focus is now shifting to rows 3-4 (BCF) and 46S (CDCE)

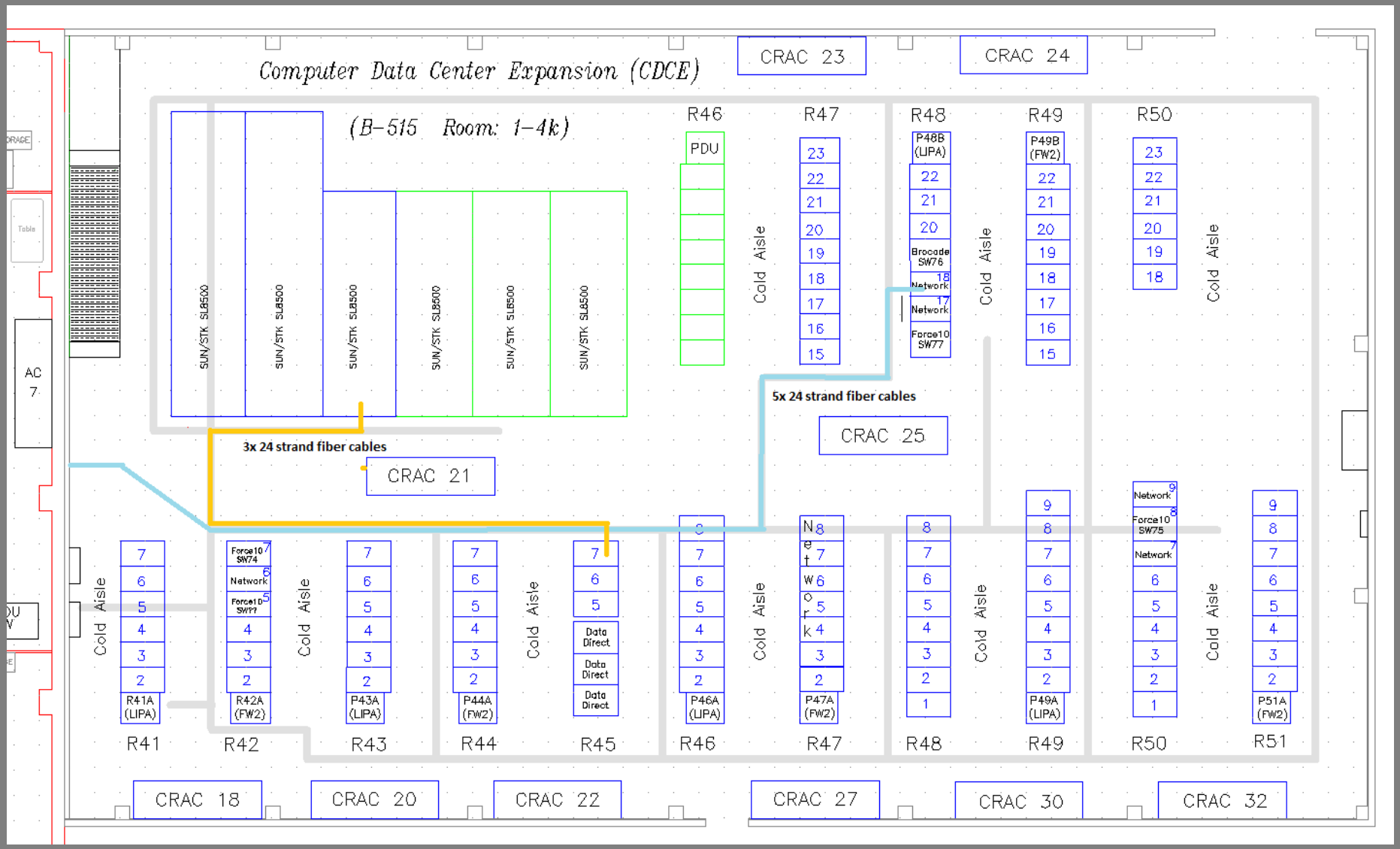
Power Interventions in CDCE



Recent Developments

- Retirement of the legacy BNL Cloud installation (racks 49-[15-19]) and its out-of-support legacy Brocade RX-16 network core (rack 48-19) is scheduled for July 2018
  - Racks a being sanitized by the Farm group [DONE]
  - The RX-16 switch is removed from CDCE (rack 48-19 is still blocked by CDUs)
  - Unplugging the rack CDUs from power feeds and CDU removal require special arrangement
  - All 5 racks are going to be physically retired in the 4th round of equipment retirement
- New equipment deployments and existing equipment migration In Aug-Sep'18:
  - CSI Invenio system (rack 44-6, rack frame is ready, hosts are in the rack)
  - New RHIC central storage rack (rack 43-5, rack frame needs replacement, blocked by CDUs)
  - New central ATLAS dCache infrastructure (rack 43-6, rack frame is ready, needs CDUs)
  - New shared PHENIX and STAR storage infrastructure rack (needs new rack frame and CDUs)
  - New ATLAS HPSS movers rack (rack 44-4, needs new rack frame)
- Procurement of 28x Arista 7020T ToR switches plus associated copper and fiber material for complete replacement of legacy s803/s804 (Exascale) switches
  - All ToR switches are delivered to BCF today (Aug 2, 2018) and being unpacked & configured
  - All 33 racks being converted to 28x ToR switches and re-IP-ed in BCF and RCF areas are to be handled on one day of intervention coinciding with the new NFS cut-in by the GS group – still targeting the week of Aug 20, 2018 for this intervention (assuming that the required fiber work in CDCE is completed in the upcoming few days under special arrangements)

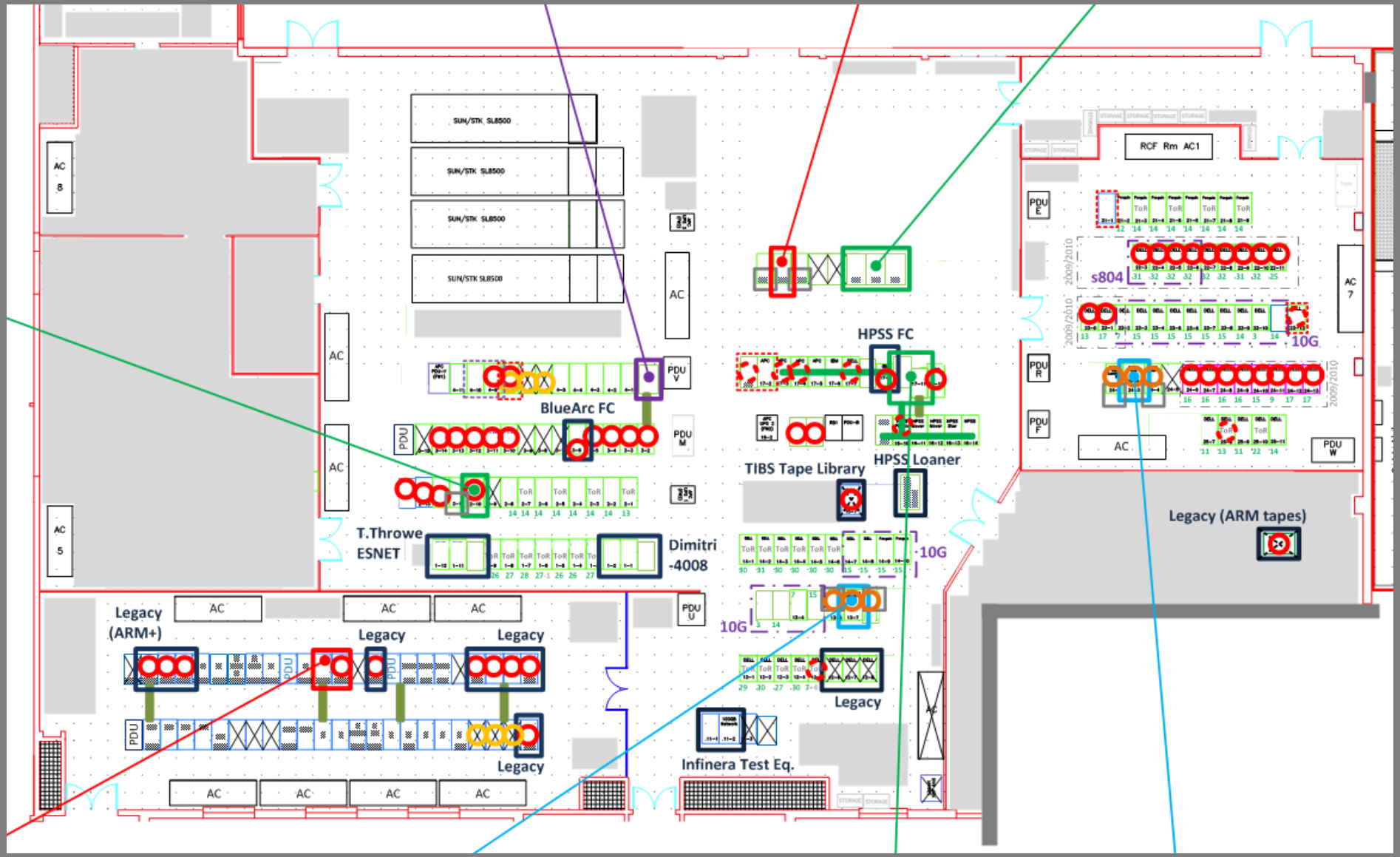
The Blocking Issue for Aug 20, 2018 Intervention



ToR Switch Migration Preparation

- DNS clean-up for RHIC Farm 1 GbE subnets
- Phasing out lsstnfs2.lst.bnl.gov and figuring out what to do with lsstmgr1.rcf.bnl.gov (Farm subnet 184)
- Re-IP-ing / virtualizing xrdstar0[1, 2].rcf.bnl.gov (Farm subnets 204 and 206)
- Retiring Brahms compute node rcas0006 (subnet 6)
- Retirement of the legacy PHENIX dCache DTN node phnxdoor03.rcf.bnl.gov
- PHENIX central DB and dCahe infrastructure move from rack 4-9 (BCF) to new shared RHIC storage infrastructure rack 45-6 in CDCE
  - phnxdbrcf[1, 2, 4, 5, 7].rcf.bnl.gov
  - phnxcore[03, 04].rcf.bnl.gov
- Subnet layout is finalized for all 28 ToR switches to be deployed on the RHIC side, including the special cases of row 25 (small experiments, /26 subnets) and racks 1-[6-8] (two /27 subnets per one ToR to accommodate the rvmm* nodes)
- Several more special nodes on Farm subnets to handle in ranges of racks to be retired in rows 22, 23, 24 before they (and s803/s804 systems) can be released – after the intervention of Aug 20, 2018

Equipment Retirement / Deployment Overview



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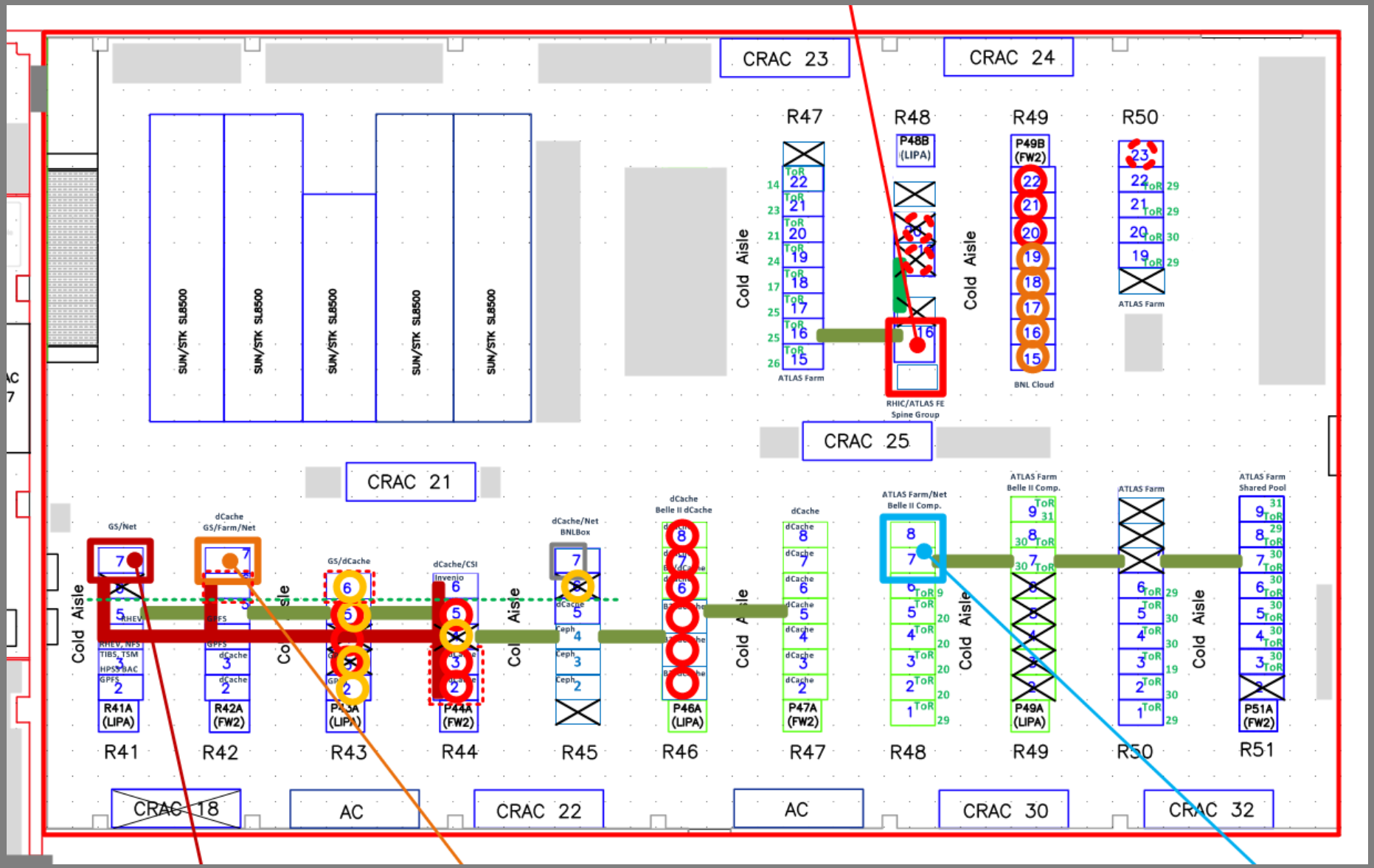

Questions & Comments