RACF/SDCC Network Operations
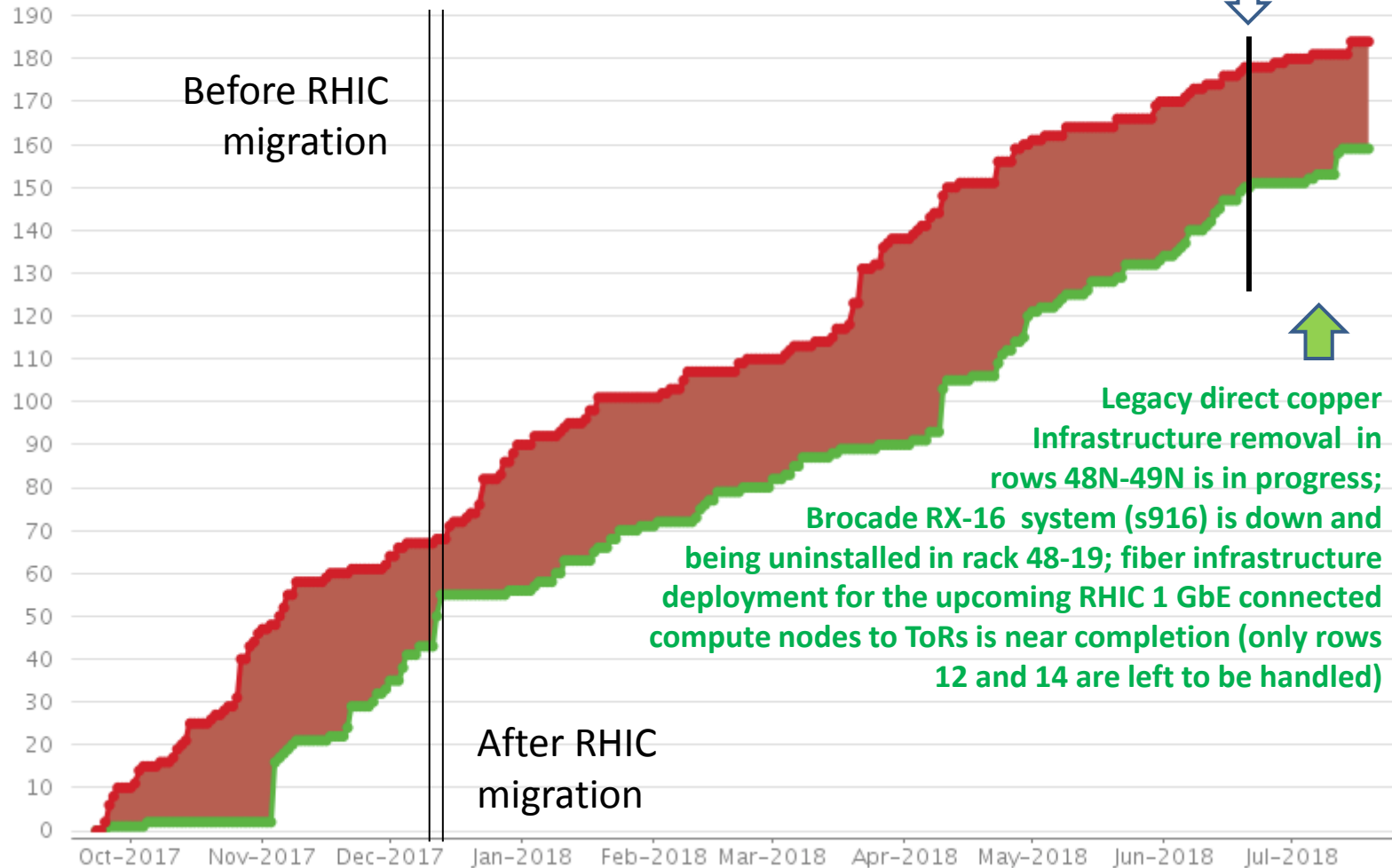## Status Report (July 19, 2018)

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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

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Before RHIC migration

After RHIC migration

Legacy direct copper Infrastructure removal in rows 48N-49N is in progress; Brocade RX-16 system (s916) is down and being uninstalled in rack 48-19; fiber infrastructure deployment for the upcoming RHIC 1 GbE connected compute nodes to ToRs is near completion (only rows 12 and 14 are left to be handled)
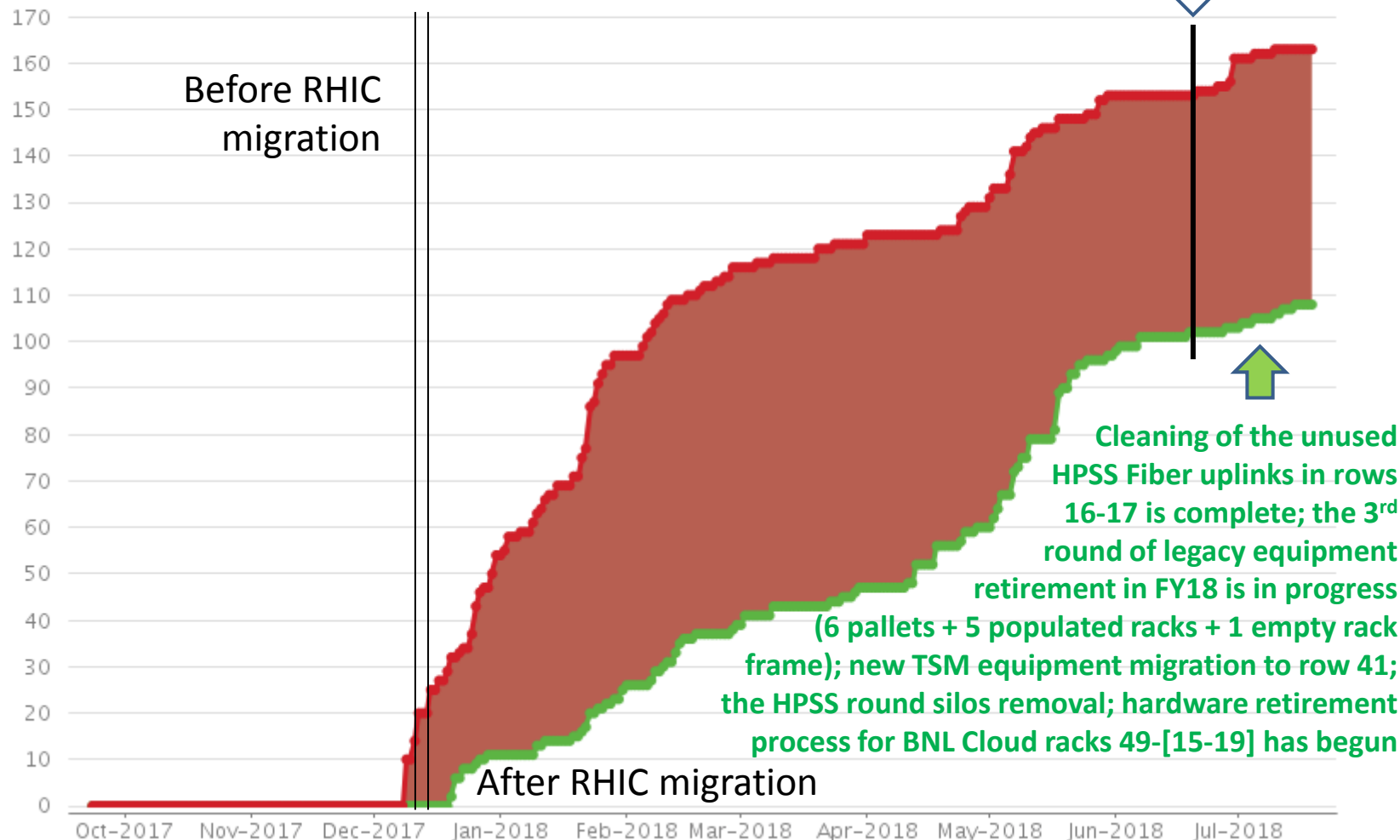
Project: Post RHIC Migration BCF & CDCE Cleansing & Service Normalization (2018Q1-3)

Chart

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

153

Previous Report

Before RHIC migration

After RHIC migration

Cleaning of the unused HPSS Fiber uplinks in rows 16-17 is complete; the 3rd round of legacy equipment retirement in FY18 is in progress (6 pallets + 5 populated racks + 1 empty rack frame); new TSM equipment migration to row 41; the HPSS round silos removal; hardware retirement process for BNL Cloud racks 49-[15-19] has begun
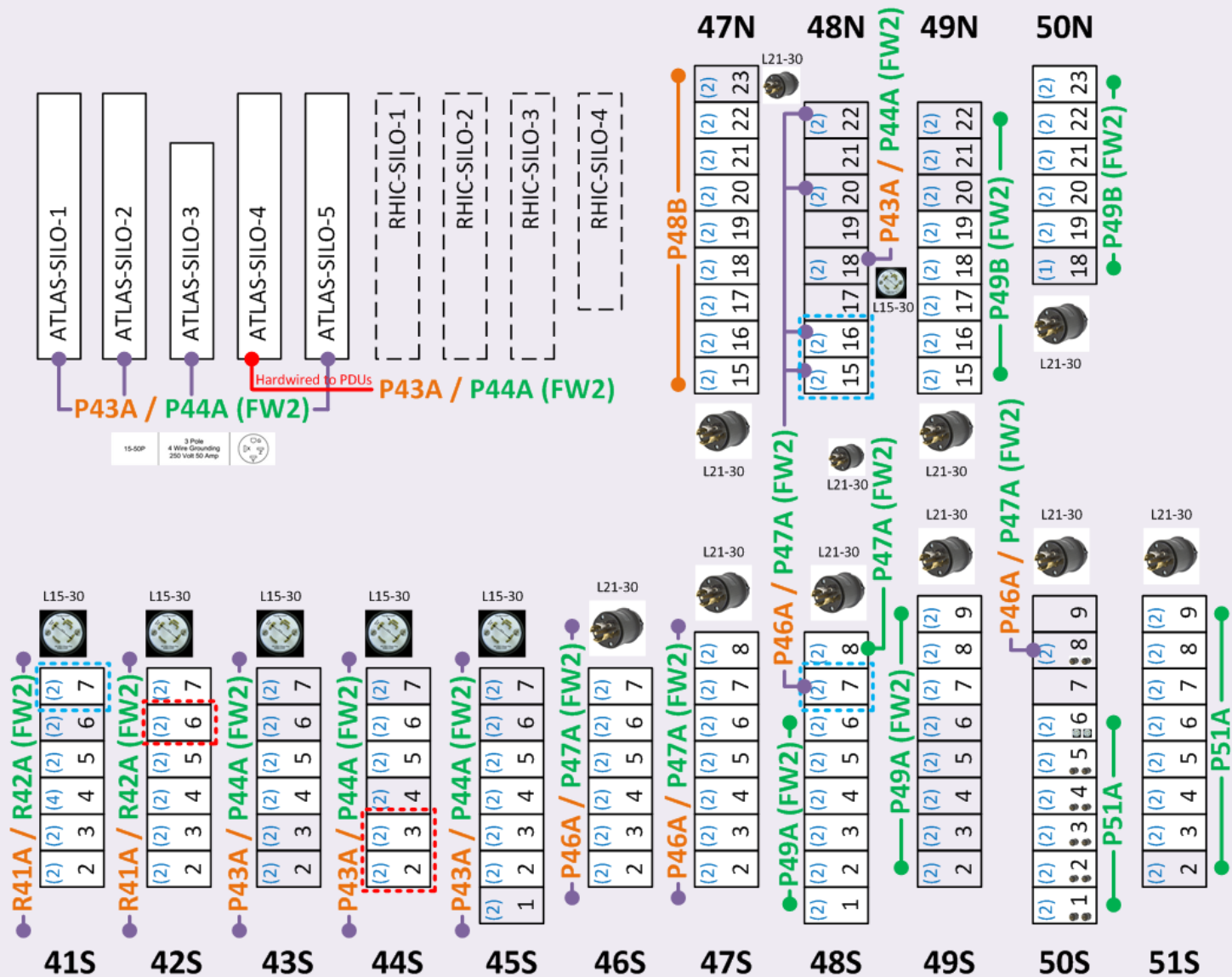
Recent Developments

- Conversion of compute node racks to spine-and-leaf infrastructure in CDCE [DONE]
- 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 (near completion)
  - All network is unplugged, the RX-16 switch is unplugged and powered down
  - Unplugging the racks CDUs from power feeds and removal of the CDUs will follow
  - All 5 racks are going to be physically retired in the 4th round of equipment
- New equipment to be connected to Facility networks before the end of FY18:
  - CSI Invenio system (rack 44-6, rack frame is ready)
  - New RHIC central storage rack (rack 43-5, rack frame needs replacement)
  - New central ATLAS dCache infrastructure (rack 43-6, rack frame needs replacement)
  - New ATLAS HPSS movers rack – still being configured (targeting rack 44-4)
- Procurement of 28x Arista 7020T ToR switches plus associated copper and fiber material for complete replacement of legacy s803/s804 switches is dispateched
  - The switch delivery on site is expected in the beginning of Aug'18
  - 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 – targeting the week of Aug 20, 2018 for this intervention for now

Power Interventions in CDCE

- The sequence of power interventions to be performed in CDCE that will bring all 9 PDUs/RPPs powering the equipment in this area one at a time

- To be handled in two steps:
  - **STEP 1** (targeting Tuesday Jul 24, 2018) bringing down P43A/R41A, P44A/R42A, P46A, P47A
  - Temporarily lifting redundancy for rows 41-47S, 48N and rack 48-7 and HPSS silos in CDCE
  - Should be transparent for all these FW2+LIPA redundantly powered equipment with few non-critical exceptions
  - **STEP 2** (targeting the week of Jul 30, 2018) bringing down P49A, P51A, P48B, P49B
  - Bringing down ATLAS Tier-1, Belle II Tier-1, ATLAS Tier-3 and Shared Pool compute racks in 3 sub-steps over the duration of several days – the exact sequence is yet t be determined

- This entire operation should be transparent for RHIC and ATLAS shared network components deployed in CDCE, yet it will have to stay on LIPA only for some time during the interventions next week, which is considered to be acceptable risk

Questions & Comments