



Obsolescence and Anticipated Upgrades

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RF

- **Separator LLRF**
 - Serendipitously used 11 GeV and 750 projects to update LLRF
- **LLRF**
 - C25/C50 LLRF/HPA
 - Laser/Chopper
 - Chopper Amplifiers for 200 kV
 - Capture/Quarter
 - Quadrature chassis
- **High Power RF**
 - Klystron Pre-amp

C25/50 Upgrades

- **LLRF**
 - Two Cavities/RF Station
 - New Interlock electronics
 - CAMAC disappears
- **HPA**
 - HPA control"R100 like"

Proposal is to replace 1-2 zones a year

C50's first

Over next 20 years we may not need to replace all zones as we gather spares from back populating with new LLRF

Other EES Systems

Diagnostics

- Four Channel BPMs
 - Needs mux design to work with new BPM
- Viewers/Harps
 - Design in placeupgrading at opportunistic timesOmar to discuss tomorrow
- BLM/FSD
 - New design ...upgrade path similar to Viewers and Harps

DC Power

- Digital Sections becoming obsolete
 - Analog block 2: digitizer replace as it fails
 - Shunt daughter card replacements
- Sensors become obsolete

Summary

- RF has its known “obsolescence” targets.
- Each group has developed a means to replace (“survive”) obsolete components
- Methods Include
 - Calling Steve Suhring and begging for money
 - Hiding it in other projects
 - Opportunistic replacement (typically when it breaks)
- Suggest we need a more transparent and systematic way of identifying/prioritizing components at end of life or obsolete.

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