discussion issues*

Miniweek WG5 June 2015

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* probably not complete

Functionality issues

- Z-suppression for APV (common mode addition)
- SRU Readout bandwidth (10 GBE -> DAQ disk)
- clock&trigger timing (common via SRU/CTF)
- Max trigger rates APV, VMM (10 kHz, 1 MHz)
- SRS in Magnetic fields (crates =NO, hybrids = YES)
- APV at low temperature (is this an issue?)
- APV non linearity (is this an issue ?)
- add more

Procurement/availability issues

- CERN store (only team account, only local delivery, no RFF)
- RFF (billed purchase from external teams: large administrative overhead, intermediate account loan, shipment issues)
- Restricted APV hybrids (Compliance Letter and   Federal Regulations http://www.ecfr.gov)
- FEC6 and   FEC3 (FEC 6 new on CERN store, replaces FEC V3)
- Panasonic connectors (production stopped, second source found)
- Commercial SRS sales (SRS licence: EicSys, Samway, …)
- Classic SRS vs. SRS ATCA (small systems vs medium / large systems)
- Price / channel (2012 : 2Eu/ APV channel, 2015: 2.5 Eu/APV ch)
- VMM2 hybrids (2 protos produced last week, 14 more for sponsor teams)
- VMM3 hybrids (expect as from 1Q 2015, no embargo, commercial)
- DCards for VMM readout (revised for triple power consumption of VMM)
- SRU, CTF (commercial availability to be set up)
- APIC Trigger pickup boxes   (PCB revision before commercial mini-series)
- OCX boxes (delayed, expect 10 inhouse protos 3Q 15, prior to commercial)
- add more

Firmware / Software

- SVN repository (binaries, docs, ticketing)
- WG5 web download (binaries, docs)
- SRS source code (Memo procedure)
- SRS DAQ software (DATE, MMDAQ..)
- SRS slow controls (SDC, scripts, …
- Data Analysis (Root , Amore)
- Test system software (Labview)
- add more

Frequent questions

- Which type of SRS system do I need (ask us)
- CERN store SRS purchase template (SCEMs + prices)
- Crate power limit   F(#ch, APV/VMM)
- power per channel (APV 4mA, VMM >10 mA)
- How to update FEC, SRU binaries (Dongle)
- Crate compliance (US Labs better use ATCA minicrates)
- 220V/110V options (automatic in last Crates)
- Grounding, noise, sparc-protection (…deserves care)
- add more

SRS architectures

- Small Systems (Minicrates, < 2 k channels)
- Medium-sized < 16 k ch (Eurocrates, ATCA)
- Large systems > 16 k ch   (ATCA)
- CTF = mini-SRU (ommon clock and trigger)
- SRU vs. networkswitches (DTCC vs UDP only)
- triggered systems (APV needs low lat. trigger)
- self triggered systems (VMM = provides its own)
- add more

SRS MANPOWER (major vacancies)

- Work on specific technical issues (trigger, power, connectors, cables, new SRS devices)
- SRS firmware (SRU BW , Z-Suppression, VMM integration)
- SRS controls for APV and VMM
- user assistance for standard SRS DAQ software (i.e DATE)
- small system user support (i.e Labview)
- CERN purchase consultancy (team accounts, RFF)
- SRS innovation issues (VMM , Dcards, optical SRS, TPIC)
- Hotline (nothing works, SRS got broken, need firmware ..)

- add more