Technical Meeting COMPASS-DCS / EN-ICE

Date: August 6th 2009, from 11:00am to 1:00pm
Place: 892-2-009
This meeting was attended by:
Mathias Dutour (EN ICE) (MD)
Piotr Golonka (EN ICE) (PG)
Catarina Quintans (COMPASS DCS) (CQ)
Ana Sofia Nunes (COMPASS DCS) (ASN)
Christophe Pires (COMPASS DCS) (CP)

Content:

General news:

The SCADA and the Front-ends Controls teams of EN-ICE moved their offices from Meyrin to Prevessin. The labs of Wiener and CAEN will also move to Prevessin later this week.

Oliver Holme, one of the JCOP-Framework experts, is leaving the EN-ICE section.

PVSS / General:

PG informed that there are patches for PVSS3.8 SP1, but no new one for PVSS 3.6 SP2. One fellow and one senior developers from ETM will stay permanently at CERN from now on to work especially on the RDB archiver. PVSS 3.9 is expected to be released on December, after which support to PVSS 3.6 will exist for a few months more and then will be discontinued.

CQ asked about the status of version upgrades on other CERN experiments. PG informed that CMS has recently moved to PVSS 3.8 SP1, ATLAS is migrating from PVSS 3.8 to PVSS SP1, ALICE is using PVSS 3.8 SP1 since last month and LHCb will have a smooth transition to PVSS 3.8 SP1. On the other hand, the accelerator is still using PVSS 3.6, mainly because of UNICOS, although PVSS 3.8 SP1 also has support for UNICOS.

COMPASS asked if the migration to successive schema versions of the Oracle database, from 6.2 to 8, can be made simpler and safer.

Action PG: check the procedure needed for the migrations of the schema versions and PVSS versions.

Oracle archiving:

COMPASS reported that there were three losses of communication of the PVSS production project with the production database in the last three months. It was observed that the buffer to memory did not work properly: the PVSS RDB manager blocks and does not recover when the connection is reestablished. If such an event occurs, the DCS team are now warned by SMS and can react timely, by restarting the manager (loosing the data in buffer). PG reported this was also observed in PVSS 3.8 and still needs some patch from ETM, but it's nos so critical for that version, because it has buffering to disk.

COMPASS asked for advice to reduce the load on the PC where the main PVSS project is running, when different users query the DB, namely to display trending plots or, in the future, to access the data without PVSS. There is no optimum way to do this. PG informed that a solution will exist for PVSS 3.8. He also suggested that individual accounts in the Oracle database could be created for end users to access directly the data, just as long as they would have only read permissions and would have restrictions on the queries that could be run.

COMPASS asked PG if there is the possibility to have the RDB manager running in a scattered project in a different PC, to try to improve the performance of the project. According to him, this is not an advisable configuration.

With respect to the API that is being prepared by PG to access data while keeping track of changes of mapping (DP names/aliases) in PL/SQL, some unforeseen performance limitations were found. On the other hand, ETM is preparing it's own way to do trending by alias.

Other PVSS issues:

With respect to the open remedy case concerning file permissions, PG informed that ETM could reproduce the problem but doesn't plan to solve it in the near future, not even for log files.

COMPASS expressed the interest in making the production project distributed for next year. MD and PG stated they don't expect any major difficulty with this change.

Wiener:

CQ informed that, during this Run, a loss of communication with Wiener VME crates requiring the power-cycle of the equipment only happened in two occasions.

COMPASS referred that the firmware upgrade of the Wiener equipment of type UEP 6021 and UEP 5021 should be attempted during the winter break.

Action MD: contact Wiener to get the fix of the UEP 5021 EPROM for testing during the shutdown.

CAEN:

MD reported that some problems where observed in LHC CAEN equipment: crates of type SY1527 and SY2527 sometimes blocked, both with Easy and with standard modules. Also the event-driven mode has shown limitations.

Action COMPASS: provide the hardware and performance requirements for the future, so that MD can check compatibility with recent CAEN hardware.

Action MD: provide numbers related to performances for the read-out from LHC experiments.

ISEG:

COMPASS reported a blockage of the ISEG server, after sending a many commands, and after the cycle of reading had be put faster a few days before. Now it was configured back to a slower cycle and is working fine.

SLiC:

CQ changed the pause time of the fast cycle back to 10 ms. Although fake readings still appear from time to time, they are now less frequent. The fakes on alerts appear on all type of crates. The fake readings first observed in SLC4 on vMon, iMon and status simultaneously now also appear in SLC3.

Action MD: provide version of SLiC with configurable HSCAENet timeout, improve identification of the current version installed and the current official release, and provide the source code to COMPASS.

Action COMPASS: when the module for broken SY403 module is back from repair, let MD have a look at the one currently in use and eventually test it in his lab.

DIP:

COMPASS informs that additional data is now provided via DIP – 46 items in total. CQ reported a not understood loss of subscription of items. She also asked if there is a standard way to monitor if the DIP client is still on (the self test mechanism doesn't seem to be working properly). Also, in MD's view, the DIP publisher must make sure that the DIP data sent to its subscribers is marked with “Bad” quality if outdated or if the source device is unavailable. Optionally, a DIP-published heart beat could also assert the functioning of the Publisher.

Action MD: check the exact meaning and usage of the self test mechanism, and if the documentation that refers to it is up-to-date.

Action COMPASS: call MD if problems with DIP items appear again.

ELMB:

COMPASS and MD, together with an ELMBs expert, will check the typical grounding of the ELMBs of COMPASS during the machine development break of next week.

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