

GEMs for CMS High Eta Workshop III

18 April 2012

Project for Services Data Base

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GEM Project in CMS Databases



- ✓ **System: 1** - *GEM, System Coordinator: Archana Sharma*
- ✓ **Equipment type: 1** - *GEM Single Chamber*
- ✓ **Equipments: 0**
- ✓ **Locations: 1** - *GEM Room*
old RPC (YE \pm i/1) Stations x 36 Sectors
- ✓ **Work packages - 0**



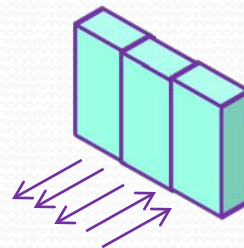
- ✓ **Cable Type - 0**
- ✓ **Cables & Rooting - 0**

What we need in CMS E&I Center to fill in CMS Databases...

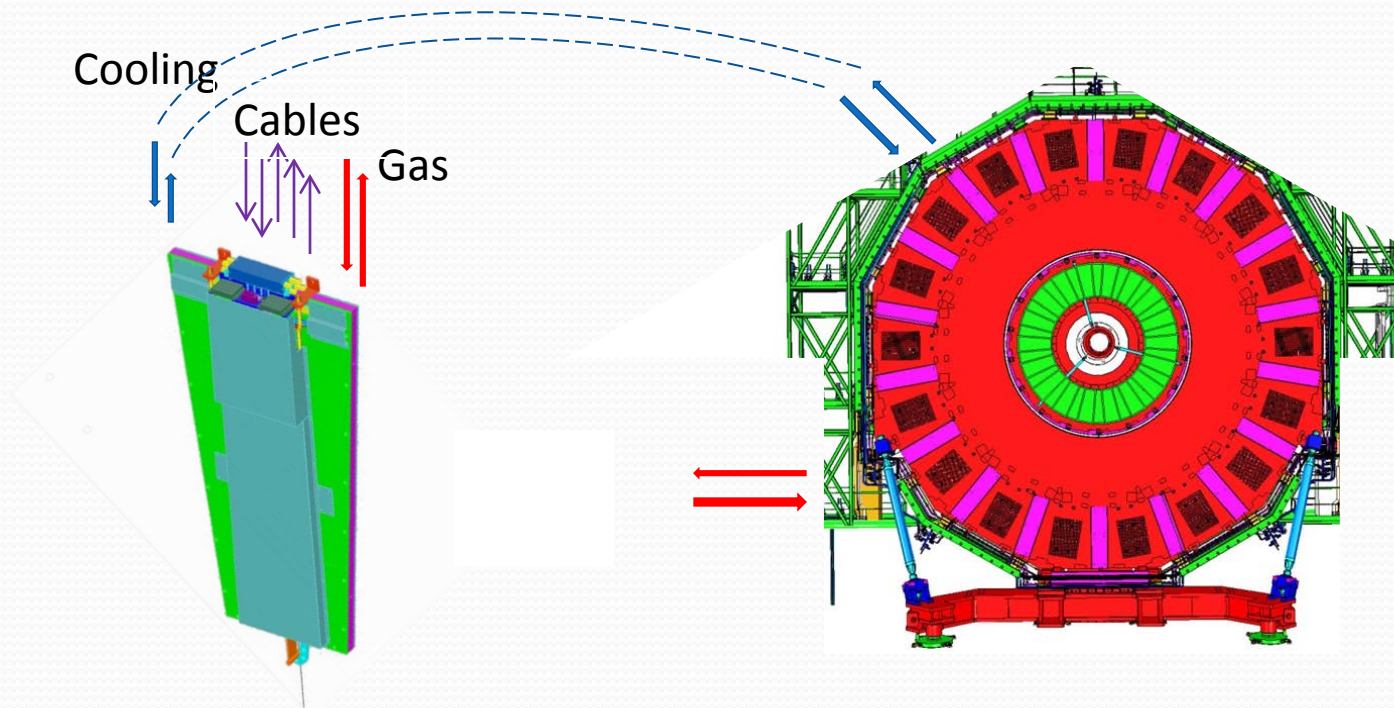
Step1: Functional scheme of the service project

(provided by the sub-detector group)

COOLING - 1 Supply, 1 Return
GAS - 1 Supply, 1 Return



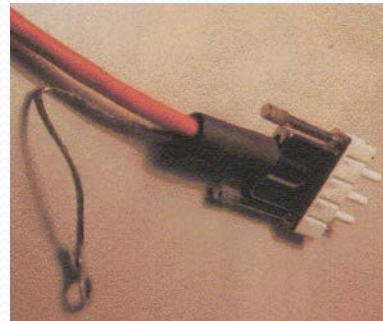
CABLES:
1 High Voltage
1 Low Voltage
3 Optical signal cables



Step 2: Identify quantity and technical characteristics of cables and connectors (provided by the sub-detector group)

1. Information about each cable type:

- *NAME*
- *DESCRIPTION*
- *DIAMETER*
- *WIDTH*
- *HEIGHT*
- *COLOR*
- *IMAGE (if available)*



Cable List with source & destination:

STATION	CHAMBER	CABLE TYPE	START POINT	END POINT	MAX LENGTH	DETECTOR SPECIFIC LABEL	STATUS
GE-1/1	GE-1/1/01	OPT_GE1	GE-1/1/01	RACK_YE1		GE-1/1/01-OPT_GE1	NEW
GE-1/1	GE-1/1/01	LV_GE1	GE-1/1/01	RACK_YE1		GE-1/1/01-LV_GE1	EXISTING
GE-1/1	GE-1/1/01	HV_GE1	GE-1/1/01	FPP_YE1		GE-1/1/01-HV_GE1	EXISTING

Step 3: Proposal for Routing

(Integration Office)

- *Identify all Sources and Destinations*
(Create new ones if missing in the Service and Equipment Database)
- *Check Cable Types*
(Enter information in Database)
- *Suggest possible Routes*
 - *Minimize cable length*
 - *Minimize Slack*
 - *Minimize impact on neighbor Systems)*
 - *Optimize Installation Tasks with respect to planning*
- *Identify each single cable*
(Cable Identification Sticker & Printing Support)



Step 4: Approval by System Coordinator



Step 5: Time estimation &
Cabling Work Packages Planning




Cabling



Close the process with compliance report

Check installation work

Update Technical Documentation if needed (Cable Lists, Routing Schematics)

To improve the Services Data Base Project we plan to develop a new user friendly Web Interface with better possibilities to search, document and visualize information. 

Conclusions

- System documentation validation by Cooling, Gas and Electronics experts in progress.
- Engineering Integration center coordinate/support as much as possible available.
- Improvement and modification of existing Services Database and Interface will start in the next days.

