Meeting DAQ/automation/DMS

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Introduction

The Detector Monioring System (https://tds.virgo-gw.eu/ql/?c=9005 **)**

The Detector Monioring System: user manual (https://tds.virgo-gw.eu/ql/?c=9006 **)**
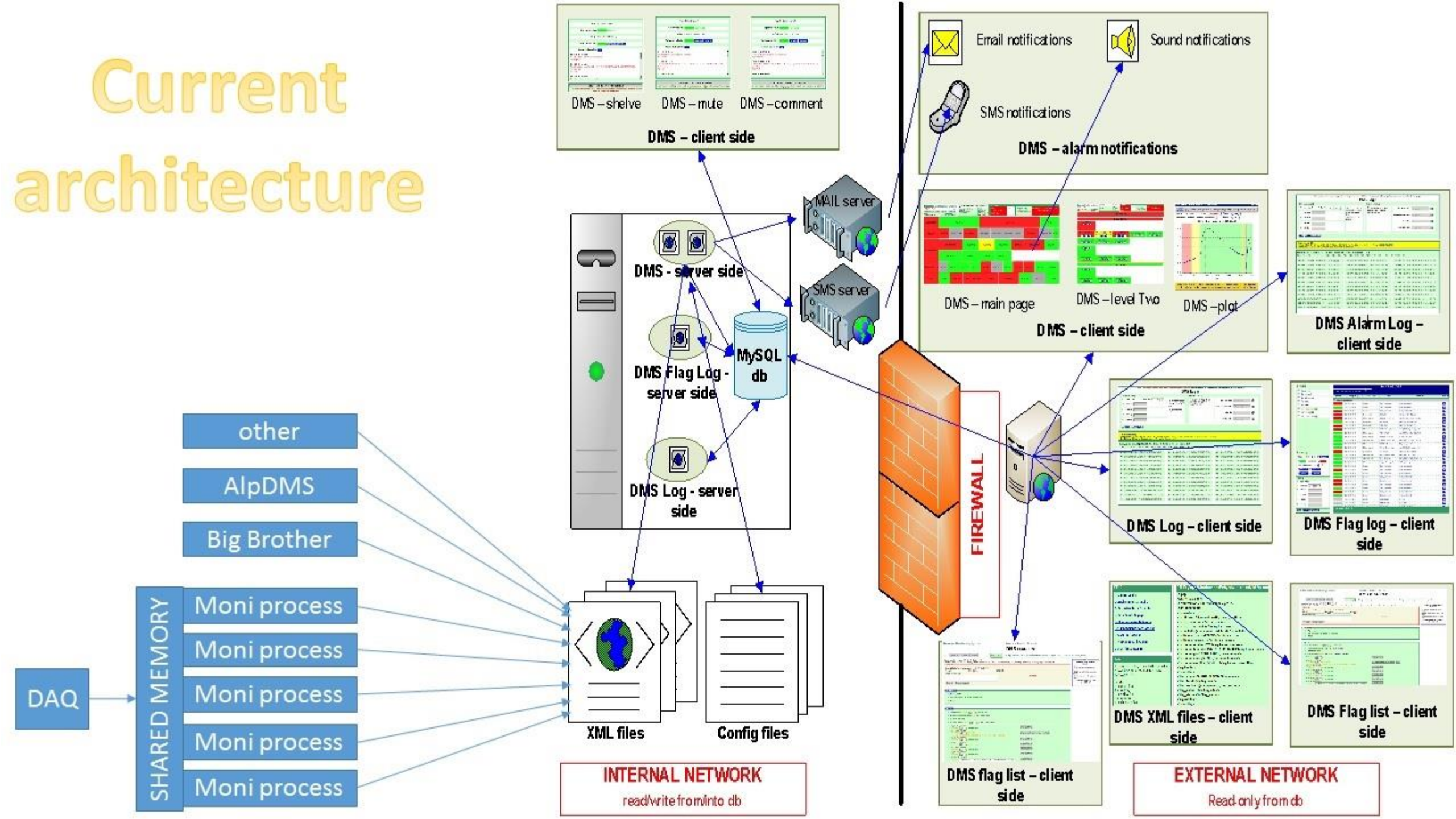
What is DMS ?

… a WEB tool intended to collect, further process, archive and display/notify, in a centralized way, the information regarding the status of the ITF, the technical infrastructures, the electronics equipment, etc... This information is displayed as a *"multi cell"* table, where each cell, named **flag,** denotes the status (codified by a color) of a specific item.
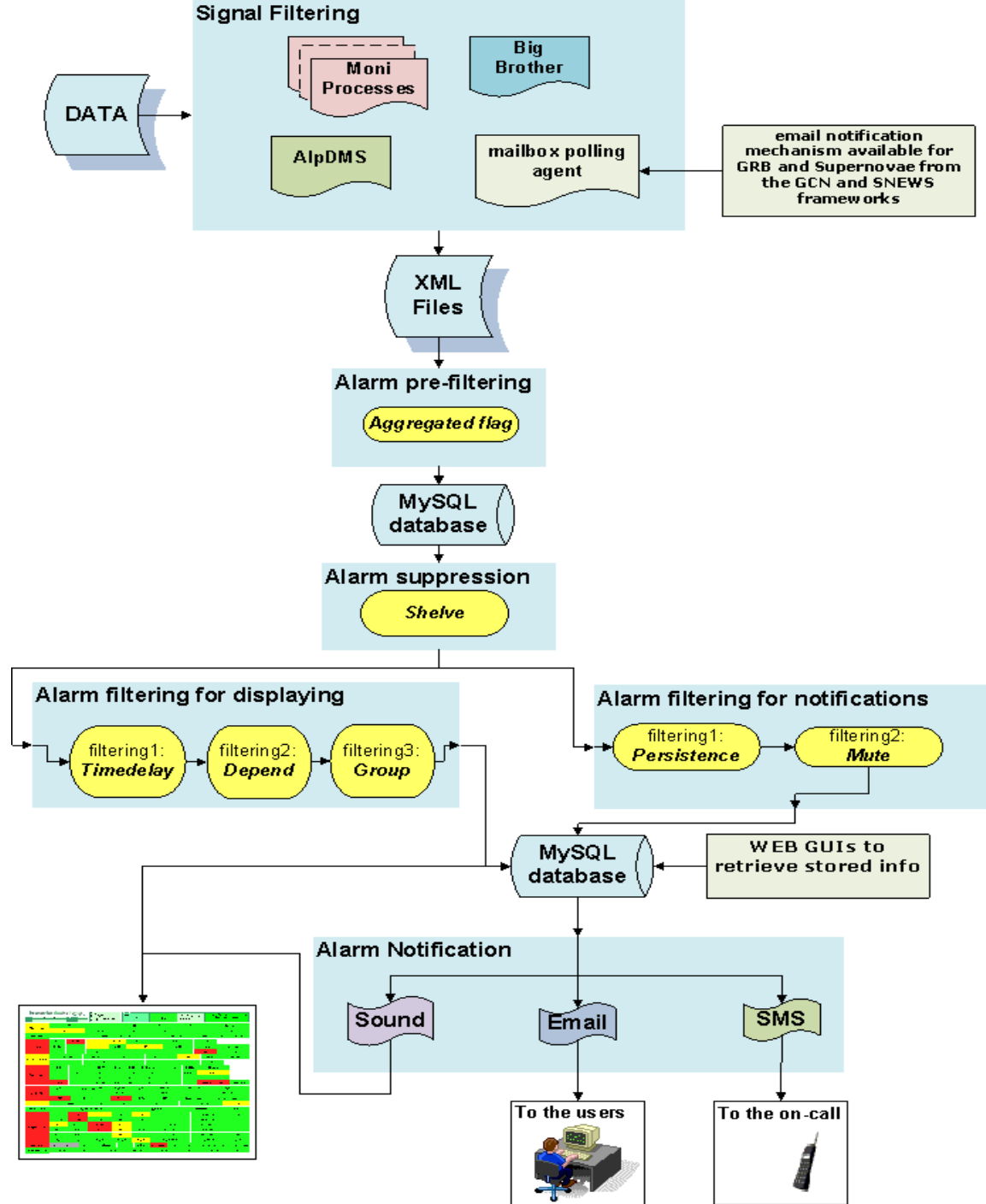
In case of problem the system can perform several types of notification. All the various information is stored in MySQL databases and can be retrieved through dedicated WEB interfaces.
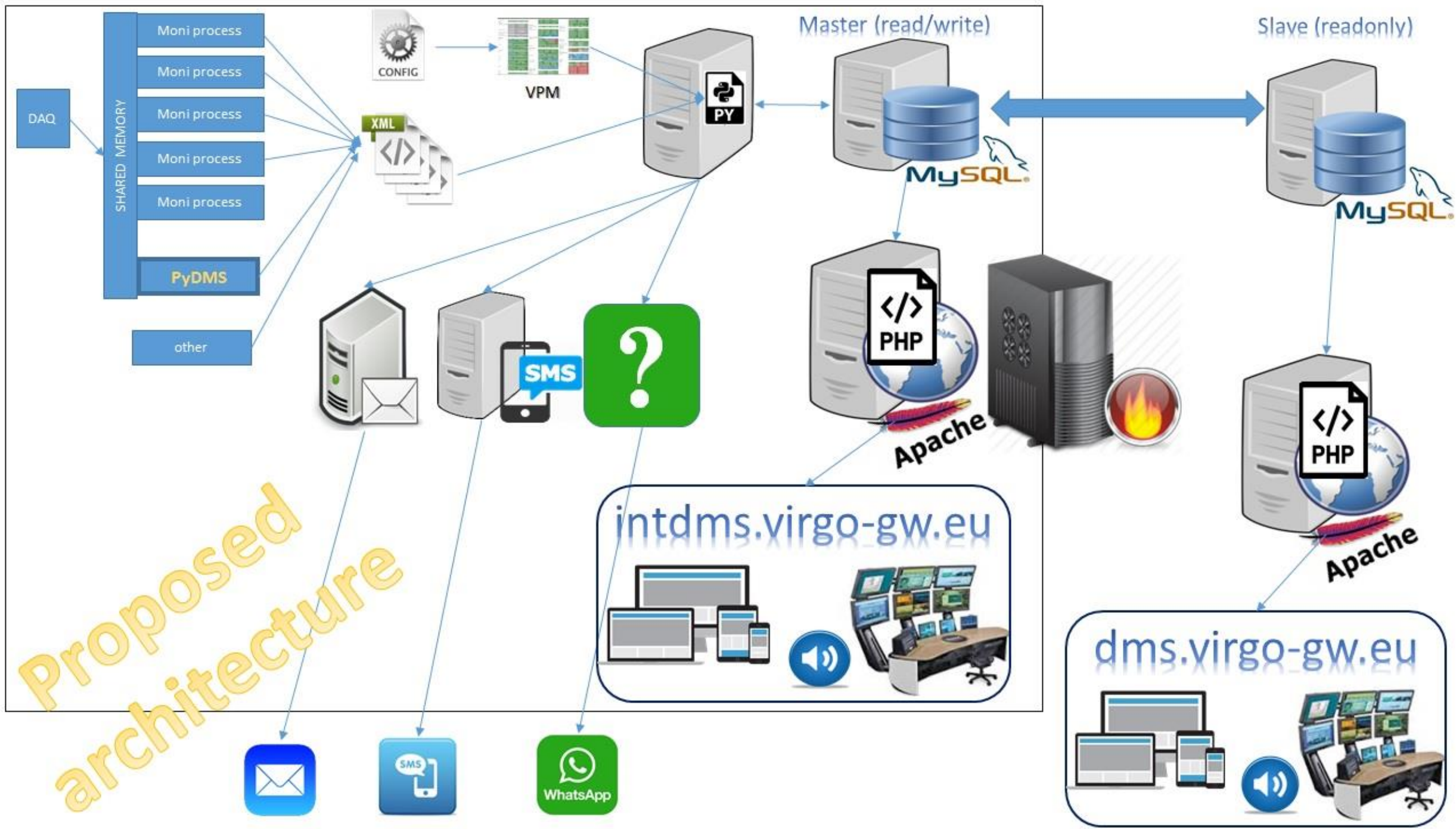
- The information is provided in a hierarchical way: the main page is a graphical interface showing information in predefined colored boxes called "flags".
- The system is completely configurable through configuration files and through devoted web interfaces available after Active Directory login.
- The system can perform alarm notifications in different ways: by email, by sms and by playing a sound from the main page.
- All the information like the evolution of the flag status, the change of configurations or the notifications of the alarm are stored in a MySQL database and can be retrieved through specific WEB interfaces

Current architecture

DMS – shelve   DMS – mute   DMS – comment

DMS – client side

Email notifications   Sound notifications

SMS notifications

DMS – alarm notifications

DMS – main page   DMS – level Two   DMS – plot

DMS – client side

DMS Alarm Log – client side

MAIL server

SMS server

DMS - server side

MySQL db

DMS Flag Log - server side

DMS Log - server side

FIREWALL

other

AlpDMS

Big Brother

Moni process

Moni process

Moni process

Moni process

Moni process

SHARED MEMORY

DAQ

XML files

Config files

INTERNAL NETWORK

read/write from/into db

DMS Log – client side

DMS Flag log – client side

DMS XML files – client side

DMS Flag list – client side

DMS flag list – client side

EXTERNAL NETWORK

Read-only from db

Current diagram block

Signal Filtering

Moni Processes

Big Brother

DATA

AlpDMS

mailbox polling agent

email notification mechanism available for GRB and Supernovae from the GCN and SNEWS frameworks

XML Files

Alarm pre-filtering

Aggregated flag

MySQL database

Alarm suppression

Shelve

Alarm filtering for displaying

filtering1: *Timedelay*

filtering2: *Depend*

filtering3: *Group*

Alarm filtering for notifications

filtering1: *Persistence*

filtering2: *Mute*

MySQL database

WEB GUIs to retrieve stored info

Alarm Notification

Sound

Email

SMS

To the users

To the on-call

Proposed architecture

Moni process
Moni process
Moni process
Moni process
Moni process
PyDMS
other

SHARED MEMORY

DAQ

CONFIG

VPM

XML

PY

Master (read/write)

MySQL

Slave (readonly)

MySQL

PHP

Apache

SMS

?

PHP

Apache

intdms.virgo-gw.eu

dms.virgo-gw.eu

WhatsApp

Interface between DAQ and DMS: From AlpDMS to PyDMS
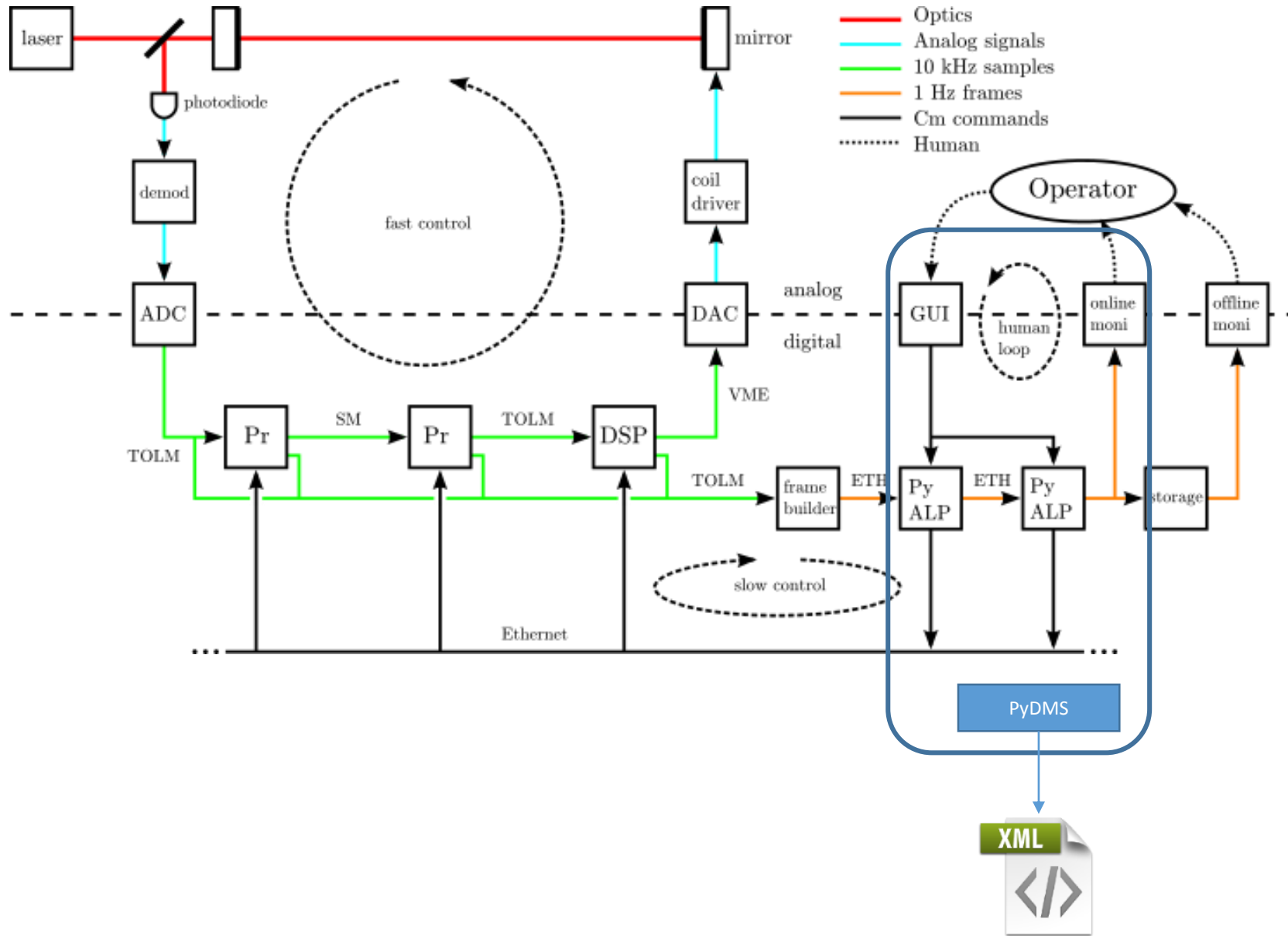
- Last DMS meeting on 2012 July 27th; partecipants D.Verkindt, F.Berni, V. Dattilo; minutes written by Didier and saved in working area (https://workarea.ego-gw.it/ego2/ego/itf/operations/detectormonitoring/meetings/2012-jul-27-agenda-minutes-documents/)

- From the minutes:

- Draft documents about the previous DMS: [DMS description] [DMS User Manual]

  It is agreed that Didier will do modifications on those documents and will be in the authors list. Didier proposes also that a DMS team is defined and that the full team signs any DMS-related document. It is agreed also that DMS definition should be enlarged and include also the DMS flags providers (Moni processes, BigBrother, AlpDMS, etc...).

- Regular EVO meetings + web repository for temporary documents and minutes of meetings ?

  Vincenzo explains that there is already a DMS wiki section in the EGO Working Area that contains minutes of previous meetings and documents. Didier will transfer these minutes and the attached documents in this area. Vincenzo explains also that previous meetings (for instance in March 2011 and Dec 2011) were focalized on DMS scripts and web page related items. In the future, Didier will be included in the meetings and will have wiki page permissions. Vincenzo explains also that current activity on the Virgo instrument (especially the input MC) engages both Vincenzo and Francesco, so they planned to postpone by about one year any upgrade of the DMS. Meanwhile, a first document containing requirements for DMS upgrade can be set up but without any regular meeting and with low priority.

- Who is in charge of what?

  In the past, Fabio was in charge of AlpDMS, Francesco (+Gary?) was in charge of DMS scripts, Franco was taking care of BigBrother, Didier was in charge of Moni library and processes, Vincenzo was coordinating and working on Alarms, Configs, etc... We plan to adopt the same team and tasks repartition for the DMS upgrade [to be confirmed and better detailed].

- Who coordinates?

  For now, Vincenzo continues to coordinate. We agree that it may be Francesco in the future.