TriDAS and
Tower integration tests

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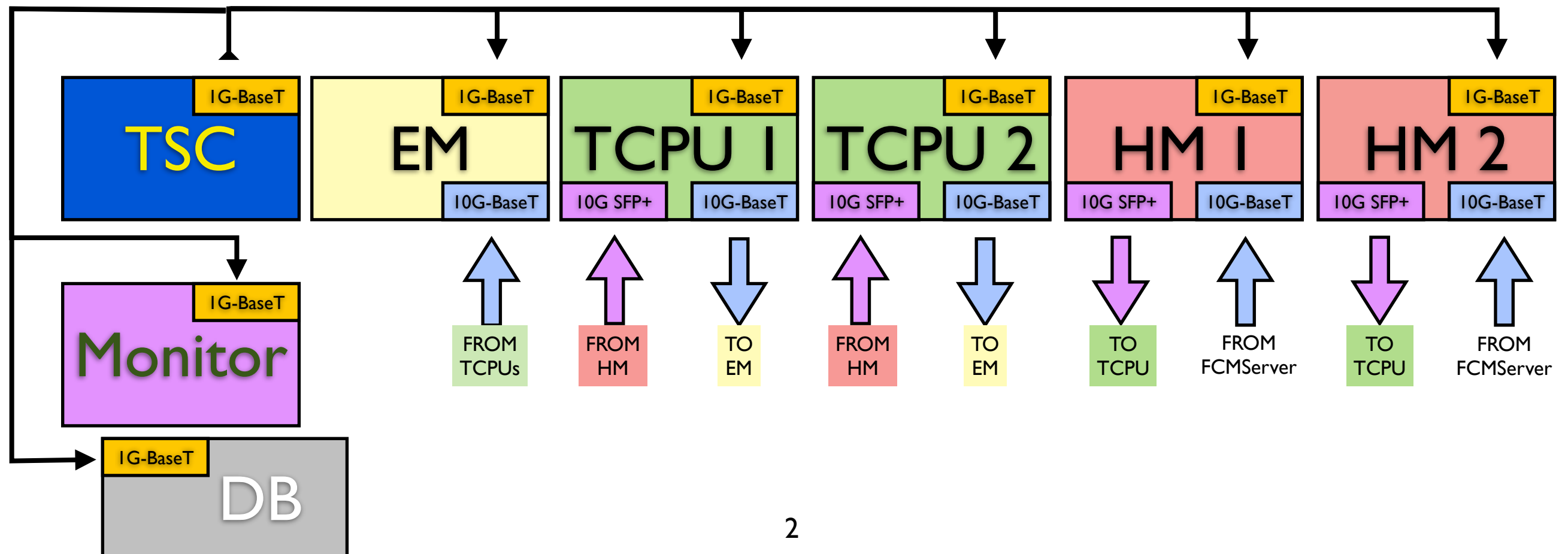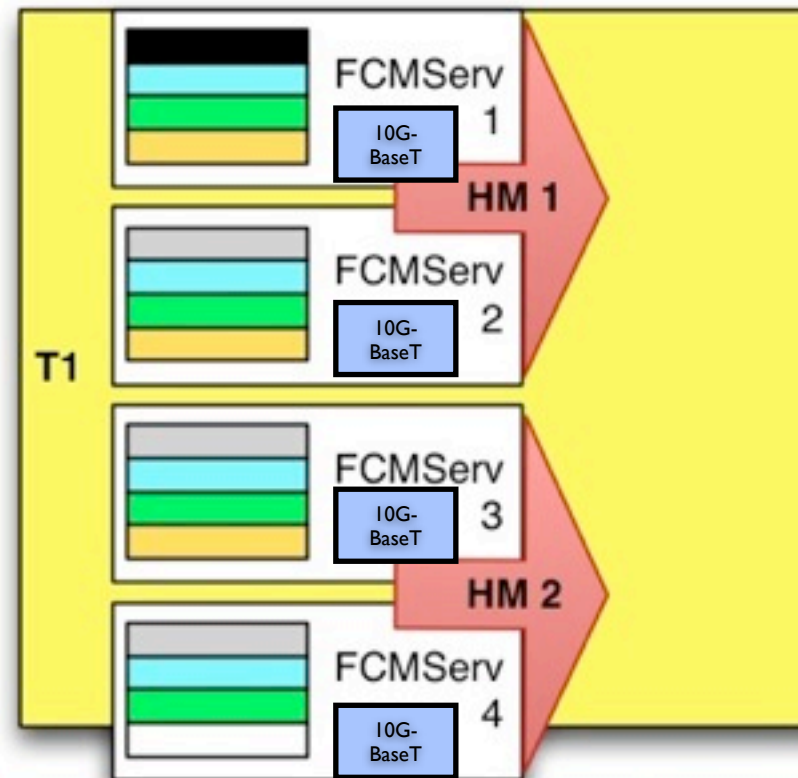
INFN - Sezione di Bologna

1

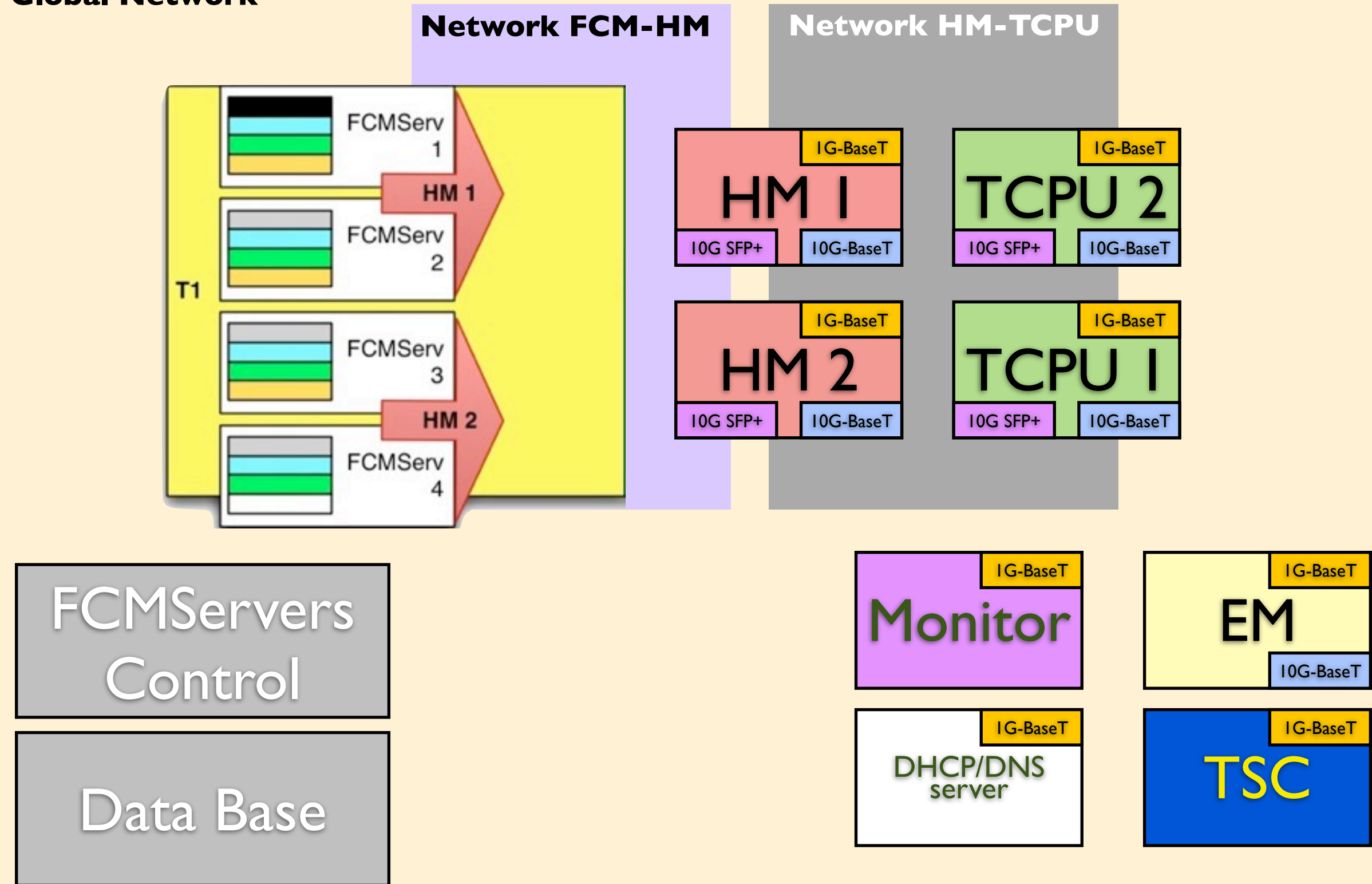# Integration tests for TriDAS

4 FCMServers+ 4 Terasic

From 1 floor
to 14 floors

FCMServ 1
10G-BaseT
HM 1
FCMServ 2
10G-BaseT
T1
FCMServ 3
10G-BaseT
HM 2
FCMServ 4
10G-BaseT

Interface Masters
TECHNOLOGIES
Innovative Network Solutions

10G SFP+   10G-BaseT

TSC	EM	TCPU 1	TCPU 2	HM 1	HM 2
1G-BaseT	1G-BaseT	1G-BaseT	1G-BaseT	1G-BaseT	1G-BaseT
	10G-BaseT	10G SFP+ 10G-BaseT	10G SFP+ 10G-BaseT	10G SFP+ 10G-BaseT	10G SFP+ 10G-BaseT

Monitor
1G-BaseT

DB
1G-BaseT

FROM TCPUs

FROM HM

TO EM

FROM HM

TO EM

TO TCPU

FROM FCMServer

TO TCPU

FROM FCMServer

2

Network Layout - draft

Global Network

Network FCM-HM

Network HM-TCPU

FCMServ 1

FCMServ 2

T1

FCMServ 3

FCMServ 4

HM 1

HM 2

HM 1
1G-BaseT
10G SFP+ | 10G-BaseT

TCPU 2
1G-BaseT
10G SFP+ | 10G-BaseT

HM 2
1G-BaseT
10G SFP+ | 10G-BaseT

TCPU 1
1G-BaseT
10G SFP+ | 10G-BaseT

FCMServers Control

Data Base

Monitor
1G-BaseT

EM
1G-BaseT
10G-BaseT

DHCP/DNS server
1G-BaseT

TSC
1G-BaseT

Preamble

Primary Validation of TriDAS functionalities:

@ **TestBench in Bologna**

In this context:

TriDAS is **serving** the tower validation

Naturally, also a TriDAS validation will be possible, but o(...)

(hopefully...)

Kind of *useful* measurements offered by TriDAS

- measurement of PMT single rates
- measurement of L1 trigger rates
- raw-data dumping
- post-trigger file dumping

Connections to other *test-items*:

- Data Integrity from FCMs/FCMServers
- Time Calibrations
- LedBeacon

Requests from TriDAS *WG*

- Stress Test (max rates with all floors)

Requests, please !

- Raw data are ok?

- The post-trigger dataformat will be changed, possibly - but not decided yet.

At the moment the Phase 2 PT-format is expected for tower integration tests

Waiting for requirements from various *items*