

KM3NeT-Italy Collaboration Meeting LNS, 27 November 2014

Shore Station Items

Tommaso Chiarusi

INFN - Sezione di Bologna



Computing resources for the **Portopalo Shore Station** Towers already stated. counting room **Preliminary Design** Tenders still ongoing: A. Rovelli, 06 Oct 2014 Descrizione Richiesta Da comprare Comprato Hit Manager Twin square 2U 2 + 3Trigger CPU Twin square 2U 8 AcuServer 1U 22 22 Monitoring TRIDAS 1U 4 3 1 QE FCMserver 1U 38 17 4 + 14 + 374 nodes, 3 NCR • ~ 1000 cores (2≤r≤3)GHz • 10 GbE switches ... TriDAS switch fabric with large connectivity (enough for the Towers, but not Infrastructure sensational...) for the 8 Towers Possible space for the **Optimization of resources** Strings could allow a (partial?) integration of Towers +

2

Strings computing

infrastructures

DAQ outlines



If they made it ... why don't we!



Strategy	Building stage	Purposes	Context	operations on DAQ data	Impact on DAQ	requirements of infrastructure implementatio	problems by DAQ design	Feasibility
Correlated events	offline	bundles, VHE/UHE events diffuse flux	correlation of absolute time	none	none	none	none	for free
Correlated DAQ	offline	sgmented events, (any events)	external trigger (follow-up);	none	rate of follow-up, managing of dedicated buffers	shared TriDAS switch fabric	none	medium
Integrated DAQ	online	any	standard triggers	Tower 2 String conversion on HMs	computing power at aggregation stages (HMs)	shared TriDAS switching and computing resources	none	complex

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SC km3-IT 22 Gennaio

Wednesday, 22 January 2014 from 08:00 to 18:00 (Europe/Rome) at Laboratorio Porto di Catania

12:50 - 13:20

Stato stazione di terra 30' Speaker: Dr. Tommaso Chiarusi (BO) Material: Slides

Solution 2

System dimensioned to serve 8 Towers , with network configuration <u>EXPANDABLE</u> to connect also the KM3NeT Phase I TriDAS So, please be reassured: no conceptual issue at all ! KM3NeT-IT project: Towers+Strings on-shore items

Introduction

Dr. Tommaso Chiarusi (BO)

Lavori di corredo alla Stazione di Portopalo 10'

Gaetano Schillaci (LNS)

Upgrading TriDAS for the 8 towers of KM3NeT-Italy 15' Matteo Manzali (CNAF)

TSC - The Tridas system controller and its interfaces with Data Base and Data Manager15' Mr. Matteo Favaro (INFN), Matteo Favaro (C)

Data Base services in KM3 15' Cristiano Bozza (SA)

Offline Trigger System 15' Luigi Antonio Fusco (BO)

Parallel Neutrino Triggers using GPUs for an underwater telescope 15'

Dr. Bachir Bouhadef (PI)

🛪 CNAF people

together with F. Giacomini, they are giving essential contributions to TriDAS development and tests