

ARCHITECTURE TESTS
AND
TIER3 DEMONSTRATOR

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T3_US_PRINCETON_ARM

Work started on registering and configuring

T3_US_Princeton_ARM CMS site

T3_US_Princeton_ARM was registered in [SiteDB](#) (approved by CMS Computing)

SITECONF committed to [siteconf git repository](#) and deployed at CVMFS

glideinWMS factory entry added for [CMS_T3_US_Princeton_ARM_ce](#) at CMS ITB pool

Few people (e.g. Justas Balčas) will be able to submit jobs to the site

HTCondor tarball for AArch64 was created (manually) and added to glideinWMS factory

Pilot jobs now runs on AArch64 slots and are visible to CMS

CRAB Server [adds strict matching rules](#) to job ClassAds

Justas manually modified job ClassAds to land CRAB job on the site

No output was returned by the job

Step by step closer to the goal

DARK SIDE

HTCondor (8.1.4) for AArch64 was built mid-July 2014, which is outdated compared to what CMS use (8.3.X) [CHEATED]

Repositories for Fedora 19 deleted, thus there is no more building of complex packages

Up-to-date full OSG port is required for AArch64 and selected OS

UPSTREAM SUPPORT FOR AARCH64

ROOT 6.04.00 might include official initial AArch64 support (kudos Danilo) by the end of May

Two m400 (HP Moonshot) with Ubuntu were added to ROOT6 CI ([ROOT CDash](#))

ROOT test suite results: 1066 PASS and 2 FAIL

CMake and old configure scripts have AArch64 support

Only CMake build is being constantly tested

CVMFS might have "sneak preview" RPM for AArch64 and later decide if to support AArch64

Linker [issue resolved](#) in trunk and backported to 2.25 branch

LevelDB AArch64 support upstreamed

Wait for "decent" AArch64 development boards

APM UPDATES

APM provided source code for APM GCC and provided initial guidance for performance tuning on AArch64 in general and X-Gene 1

We were provided access to X-Gene 2 system for comparison against X-Gene 1 (ParFullCMS and HEP SPEC)

X-Gene 2 development kits (aka APM Merlin) support in upstream is already happening

MORE FRIENDS

CMS initiated CERN + Red Hat (HT) + HP collaboration (under NDA) and similar is being done for Princeton

HP provides EUFI and Mellanox firmware (64K pages) for m400

RH provides beta of Red Hat Enterprise Linux Server for ARM (RHELSA)

Linaro provided 96Boards Enterprise Edition (EE) specification (Confidential)

96Boards EE are "decent" boards for everyone in terms of capabilities, size and price

First to arrive in Q2 2015

UPCOMING EVENTS

APM representatives visit at CERN sometime on 1st-2nd week of June

Linaro introduction phone meeting on Wednesday (13th May) at 10:00 AM

Introduction, 96Boards EE specification, CERN hardware requirements, Linaro Connect, etc

Andrea Gallo - Director of Linaro Enterprise Group (LEG)

Steve Taylor - Director of Marketing

Q & A

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