

HEPiX Technology Watch WG – Plenary Meeting

22 January 2019

Contribution to notes

Andrea Sciaba

Presence (possibly incomplete – hints to HM)

Daniele Bonacorsi, German Cancio, Gang Chen, Laurent Duflot, Martin Gasthuber, Chris Hollowell, Charles Leggett, Edoardo Martelli, Helge Meinhard (chair), Servesh Muralidharan, Harvey Newman, Fazhi Qi, Stefan Roiser, Andrea Sciaba, Loic Tortay, Eric Yen

Apologies: Bernd Panzer-Steindel, Rolf Seuster, Peter Wegner

Meeting Web site

<https://indico.cern.ch/event/791868/>

1. Welcome, introduction, agenda

No comments on agenda

2. Note-taking

See above – thanks to Andrea!

3. Approval of minutes of meeting on 22 January

No comments, approved

4. Tour of sub-groups on progress and plans

General semiconductor markets and devices: Servesh Muralidharan and Peter Wegner agreed to serve as co-conveners. Work hadn't started yet.

Server markets: Chris Hollowell and Michele Michelotto agreed to serve as co-conveners. A bit of data had been collected.

CPUs and accelerators: Andrea Sciaba and Eric Yen agreed to serve as co-conveners. Andrea reported that a structure has been prepared (in Google docs) to collect information. Harvey said that he had sent a contribution to the list on heterogeneous systems, interconnects and very high-density systems in terms of CPU power per volume. Helge commented that this was fitting better to the server sub-group; Harvey agreed. He also pointed out that there is a massive CPU benchmark Web site.

Memory: No convener yet. *(Note added after the meeting: Meanwhile Shigeki Misawa has agreed to serve as convener.)* Servesh expressed an interest to contribute.

Storage: German Cancio and Martin Gasthuber agreed to serve as co-conveners. German reported that there is some progress, a structure for collecting information has been agreed to and created, which lists the identified areas for work. Volunteers have been identified for each work area. Additional work will be needed on SSDs, storage infrastructure etc.

Network: Edoardo Martelli and Rolf Seuster agreed to serve as co-conveners; a phone discussion between them had been scheduled. Edoardo commented that the Github-based Web site is not practical to use, can we re-consider? Helge replied that this is not the topic of the present meeting, and anyway sub-groups can use any tool they like internally; it is however important that when it comes to preparing presentations etc., everything of relevance gets uploaded into Github. Harvey commented that the conference of the Pacific Telecommunications Council (PTC) is an excellent source of information; the council establishes annual reports on network capacity and cost. While nobody plans on attending, the material is publicly accessible and should be digested.

4. Steps towards March deadlines

Helge reported that plans for the HOW (HSF, OSG, WLCG) workshop at JLAB are clearer – there is a 1.5 hours' session on technology tracking, where aspects covered by the Network Function Virtualisation WG also need to be covered. Shawn McKee and himself have been asked to convene this session.

At HEPiX the following week (25-29 March in San Diego) one or perhaps several (depending on the number of abstracts submitted in total) presentations on tech watch look feasible.

We've informally been contacted about presenting at the EGI conference in Amsterdam (6-8 May), which will integrate a GDB half-day (no GDB at CERN in May). Conference organisers are considering a slot in the main conference programme.

Helge strongly encouraged sub-groups to not only collect material, but also start digesting it in terms of relevance for our fields, and to draw conclusions. Regular sub-group meetings are probably a good way to ensure follow-up.

Following a short discussion, the next plenary meetings were fixed for 12 and 26 February and 12 March, at 16:00 h Geneva time (15:00 h UTC) each time.

4. Any other business

None apart from next meetings (see above)

List of actions

- [Conveners] Sub-group conveners: to call for sub-group meetings at their convenience. Sub-groups meet outside the plenary meeting and report to the plenary meeting.

Annex: Current composition of sub-groups

1. General markets, semiconductor markets, unit sales

Rolf Seuster
Servesh Muralidharan (co-convener)
Kai Leffhalm
Charles Leggett
Gang Chen
Peter Wegner (co-convener)

2. Server market

Michele Michelotto (co-convener)
Servesh Muralidharan
Peter Wegner
Mathieu Puel
Andrea Chierici
Harvey Newman
Chris Hollowell (co-convener)

3. CPUs and accelerators

Michele Michelotto
Rolf Seuster
Servesh Muralidharan
Domenico Giordano
Niko Neufeld
Andrea Sciaba (co-convener)
Charles Leggett
Peter Wegner
Mathieu Puel
Romain Wartel
Andrea Chierici
Andrea Valassi
Eric Yen (co-convener)
Shigeki Misawa
Felice Pantaleo
Chris Hollowell

4. Memory

Servesh Muralidharan
Andrea Sciaba
Loic Tortay
Fabio Hernandez
Shigeki Misawa (convener)

5. Storage

Federico Calzolari
Peter Wienemann
Oliver Freyermuth

Martin Gasthuber (co-convener)
German Cancio (co-convener)
Julien Leduc
Vladimir Sapunenko
Kai Leffhalm
Alessandro Brunengo
Shkelzen Rudovac
Loic Tortay
Fabio Hernandez
Eric Yen
Harvey Newman
Shigeki Misawa

6. Network

Federico Calzolari
Edoardo Martelli (co-convener)
Rolf Seuster (co-convener)
Fazhi Qi
Alessandro Brunengo
Harvey Newman
Tristan Suerink