# Introduction to HEPiX

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HEPiX / LHCOPN-LHCONE / HUF

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(*) The first HEPiX meeting in Japan – BUT… (see end)

# HEPiX Mission

- From our Web site https://www.hepix.org:
  *"The HEPiX forum brings together worldwide Information Technology staff, including system administrators, system engineers, and managers from the High Energy Physics and Nuclear Physics laboratories and institutes, to **foster a learning and sharing experience** between sites facing scientific computing and data challenges."*

- Emphasis is on site services as opposed to experiment software and middleware

- Originating in HEP (particle physics), but open to other sciences
  - Recent participation from life sciences, photon/material sciences, ...
  - Just attend our workshops (see below)

# HEPiX Activities: Workshops (1)

- Twice per year, one week each, in Europe, North America and Asia
  - Typically 100...140 participants
  - This one is the 56th workshop since 1991 - third Asian workshop after ASGC (Taipei) 2008 and IHEP (Beijing) 2012

- Workshop style
  - All plenary, no parallel sessions
  - Abstracts are usually accepted - no formal Programme Committee reviewing
  - No proceedings
  - 70...75 contributions per workshop

- Honest exchanges about experience, status and plans
  - People report successes as well as failures

# HEPiX Activities: Workshops (2)

- Topics organised according to tracks
  - Networking and security
  - Storage
  - Computing and batch systems
  - Clouds, virtualisation, grids
  - Basic IT services
  - End-user IT services and operating systems
  - IT facilities

  - Site reports: short summaries of what happened at a given site

# HEPiX Activities: Working Groups

- Active
  - Migration to IPv6
  - CPU benchmarking
  - Batch system monitoring
  - Data preservation
  - Configuration management

- Completed (selection)
  - Storage
  - Virtualisation
  - Unix environment scripts
  - AFS
  - Security

# HEPiX Governance *(too strong a word)*

- HEPiX board: Representatives of major labs as well as organisers of past successful workshops

  - Currently 26 sites represented

- Two co-chairs: Helge Meinhard (CERN), Tony Wong (Brookhaven National Laboratory)

- Face-to-face meetings at workshops, teleconferencing meetings in between

# Coming Next, Getting in Touch

- Next workshops:
  - 14-18 May 2018: University of Wisconsin in Madison (WI), USA
  - 08-12 October 2018: PIC, Barcelona, Spain

- Web site: https://www.hepix.org

- Mailing list: hepix-users@hepix.org (moderated)
  - To subscribe, send an e-mail to listserv@listserv.hepix.org with an empty subject and the following line in the e-mail body:
    `subscribe hepix-users <your first name> <your family name>`

- Co-chairs: Helge.Meinhard at CERN.ch, tony at BNL.gov

# Back to the Roots

- ## CHEP (Computing in High-Energy Physics) conference at KEK, Tsukuba (Japan), March 1991: Presentation by Les Cottrell (SLAC)

- Independent activities are in progress at many HEP sites to understand and define how to support Unix.
- At this meeting, people are talking in corridors, sessions etc., and recognizing common challenges & solutions in supporting Unix in the HEP community.
- We are learning much from one another & feel there is much to gain from further sharing of experiences and from coordinating or aligning our Unix activities.
- Most of those of us who have discussed this at this meeting feel that HEP is at an appropriate place in the Unix learning curve that it would be extremely valuable to
  - SHARE UNIX EXPERIENCE between HEP sites active in Unix
  - ENCOURAGE ALIGNMENT in the Unix user environment in the HEP community
- There is a critical need for mechanisms to be set up to provide information exchange
  - Within HEP via REAL FACE-TO-FACE MEETINGS, Email, netnews, info-servers,    remote conferencing documentation, newsletters etc.
  - With vendors - make sure they know about HEP needs
  - With standards bodies - encourage HEP representation on critical bodies
  - …

**PROPOSAL: Set up a HEP Unix Coordination Group:**
- **Brief:**
  - **Provide information exchange**
  - **Promote alignment of the Unix environment in the HEP community**
- **Recommend Regular Meetings:**
  - **Half Yearly**
  - **Aligned with CHEP & other meetings of relevance**
  - **1-2 people from HEP sites working on providing a Unix environment to users**
- **Name of Group:  HEPIX**
- First Meeting:  FNAL - 1st week October 1991

- Email: HEPNET::HEPIX_L  (after April); HEPIX_L@HEPNET.FNAL.GOV
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