Introduction

ISPCS2012

- All about PTP
  - Implementations
  - Innovations
  - Standard issues
- Consists of
  - PlugFest
  - Paper presentation
  - Special Session
We want to standardize

Many possibilities
- Profile (ITU-T, IEEE, ...)
- AVB gen 2

Standardization Group
- John Eidson
- ITU-T people
- Companies (NI, Creotech, ...)

WR standardization

Introduction
We want to standardize

- Many possibilities
  - Profile (ITU-T, IEEE, ...)
  - AVB gen 2

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  - John Eidson
  - ITU-T people
  - Companies (NI, Creotech, ...)

John Eidson:

“Why don't you propose to include WR into PTPv3? You could do it in that way...”
Evil plan

- **Show** WR working and inter-operable @ PlugFest

- **Show** WR deployed in CNGS @ Paper Presentation

- **Propose** to include WR into PTPv3 @ Special Session
ISPCS2012 PlugFest

WR Testing
ISPCS2012

PlugFest

WR Testing

• Bugs found and fixed
WR Testing

- Bugs found and fixed
- Individual tests with 4 companies
ISPCS2012

PlugFest

WR Testing

• Bugs found and fixed
• Individual tests with 5 companies
• Plugged into PTP network – worked out of the box
WR Testing

- Bugs found and fixed
- Individual tests with 5 companies
- Plugged into PTP network – worked out of the box
- Reached measurement equipment resolution
White Rabbit Station

PPS signals on the scope (2xswitch + DIO)

Timestamping reference PPS with FineDelay

John Eidson encouraging guests to visit WR
WR papers presented (WR Session)

• Maciej
  Performance results of the first White Rabbit installation for CNGS

• Pedro
  Distributed DDS in a White Rabbit Network: An IEEE1588 Application

WR poster

• Cesar
  Implementation and Evaluation of a PTP Transparent Clock Based on White Rabbit Technology
Speakers often referring to WR, especially Distributed DDS by Pedro
Banquet
(bonus to evil plan)
Best Paper Award

Performance results of the first White Rabbit installation for CNGS

Banquet (bonus to evil plan)
Banquet
(bonus to evil plan)

Abusing microphone to say “Thank you”
Banquet
(bonus to evil plan)

Abusing microphone to say “Thank you”
WR-triggered presentations

John Eidson

Option to explicitly configure IEEE 1588 port state

Maciej

High Accuracy Extension/option/profile
WR-triggered presentations

John Eidson

Option to explicitly configure IEEE 1588 port state

Maciej

High Accuracy Extension/option/profile

- Different changes to Transport Annex
- Redoing calibration of fixed delays
- Multiple masters
Outcome:

- PTP will be opened for revision
- Explicit support of John Eidson for White Rabbit
- Invitation for CERN to standardization

Working Group
PTPv3 3rd revision of PTP (PTPv3)

- After standard validity period: revision or withdrawal
- Revision process: < ~5 years
PTPv3

Initiating the Project

- Project Authorization Request
- Character decided on ISPCS2012
  - Minor changes OR
  - Include new stuff
- Based on Special Session papers
- Prepared by Study Group
- Once submitted, work starts
PTPv3 Working Group and Drafting

- Open to anyone
- No IEEE membership required
- Broad representation
- Meetings
  - Weekly teleconferences
  - A few meetings a year (fee)
- Voting rights based on attendance
PTPv3

Balloting

- Starts when the draft of the full standard is stable
- Balloters: producers, users, general interest
- Votes only eligible by members of the balloting group
PTPv3

Done!

- Recommendation by Standards Review Committee
- IEEE-SA Standards Board approves or disapproves
- Final editing
- Publication
The End

Conclusions

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• White Rabbit is widely recognized in the PTP community
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  - the best possible solution
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• White Rabbit is widely recognized in the PTP community
• Strong invitation to participate in Working Group for PTPv3
• Including White Rabbit into PTPv3:
  • the best possible solution
  • seems feasible
The End

Thank you