DPDK

DATA PLANE DEVELOPMENT KIT

Welcome and Opening Remarks

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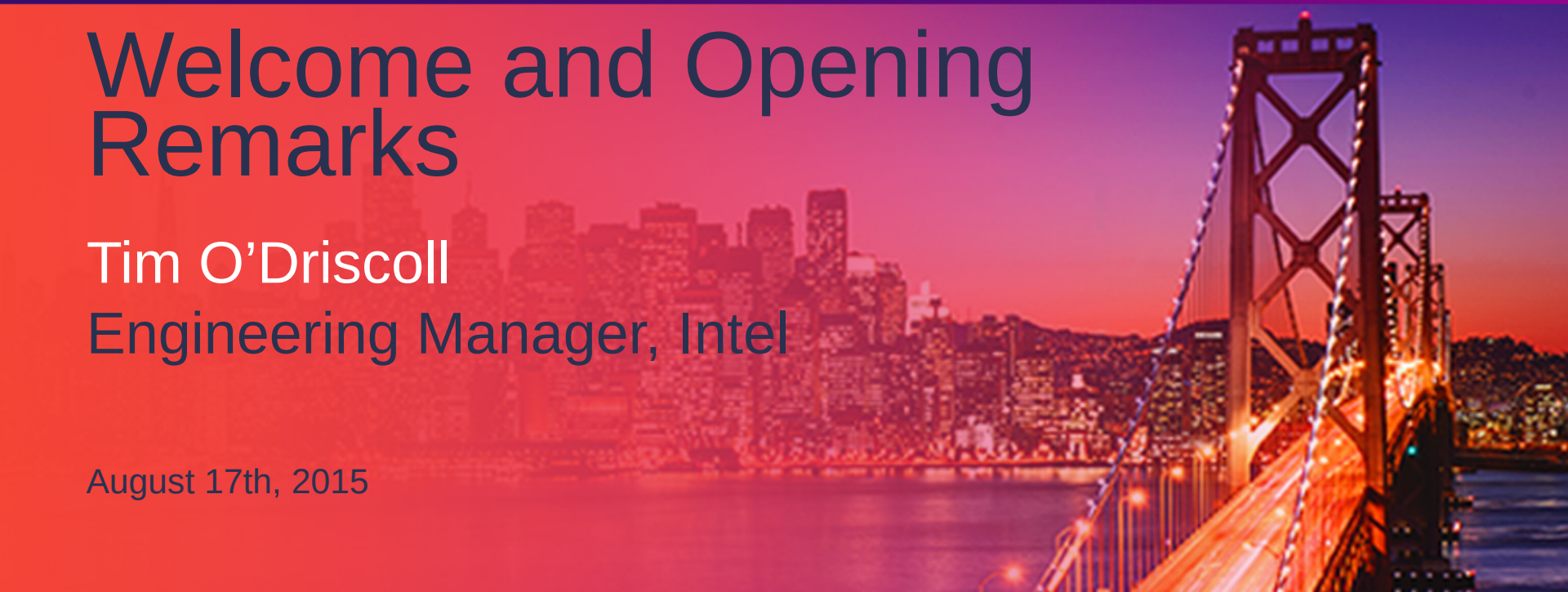

Objectives

- Bring the DPDK open source community together.
- Share DPDK usage, implementation and other info.
- Hear from DPDK developers, contributors and users.
- Help to build a stronger community.

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Guidelines

- Respect the presenters: Be on time, phones on silent etc.
- Be engaged: This is intended to be an interactive event, so please feel free to ask questions.
- Provide feedback: We'd like honest feedback on the Summit, what went well, what could be improved, where and when future events should be held etc.
- Become more engaged in the community: Contribute patches, contribute to mailing list discussions, attend/present at future events etc.

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What's Changed Since Last Year

- CPU support: x86, Power, Tile.
- NIC support: Intel, Mellanox, Broadcom, Chelsio, Cisco.
- Linux distros: DPDK now part of the RHEL Extras repo.
- Hardware accelerators/SOC support: First patches to support crypto accelerators are ready.
- Bigger community: More contributions, and more contributors.
- Processes/Tools: Lots of improvements including ABI policy, test framework, maintainers file, patchwork etc.
- More events: First PRC Summit held this year, Developers' Conference (DPDK Userspace 2015) planned for Dublin in October. Hands-on DPDK training days being planned.

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2.1 Highlights

Key Stats

- ~810 commits, an increase of over 50% on 2.0.
- 82 committers, an increase of over 33% on 2.0.

Major Features

- Chelsio & Broadcom PMDs, plus enhancements to Mellanox, i40e and fm10k PMDs.
- Support for Tile architecture.
- PCI Hot Plug Enhancements.
- Cuckoo Hash and other hash improvements.
- Packet Framework enhancements.
- Interrupt Mode.

Major Contributors

IBM

Mellanox TECHNOLOGIES

WIND

CISCO

Linaro

BROCADE

redhat

freescale semiconductor

intel

Cloudius the sky is not enough

infinite io

Chelsio Communications Accelerate

igel

EZCHIP TECHNOLOGIES

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Agenda

Time	Subject	Presenter
8:45 – 9:00	Opening Remarks and Kickoff to DPDK Summit	Tim O'Driscoll
9:00 – 10:00	Leveraging DPDK to Scale-Out Network Functions Without Sacrificing Networking Performance	Tim Mortsolf Scott Myelle
10:00 - 10:15	Break/Networking	
10:15 – 11:15	Aspera's FASP Protocol Uses Standard Hardware and DPDK to Achieve 80 Git/s Data Transfer	Charles Shiflett
11:15 – 12:15	Future Enhancements to the DPDK Framework	Keith Wiles
12:15 – 1:00	Networking Lunch	

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Lunch Topics

Roundtable Discussion Topic	Hosted By
DPDK Use for NFV/SDN	Tim Mortsolf & Scott Myelle
DPDK Roadmap Features	Tim O'Driscoll
Code Contributions, Community, & Upstreaming	John McNamara
Optimizations, Tips, & Tricks	M Jay
Virtual Switches (vSwitches)	Pranali Hande
Virtualization and Containers	Rashmin Patel
Network Quality of Service	Edwin Verplanke
Acceleration Enhancements	Keith Wiles
Validation and Testing	Michael Qiu

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Agenda

Time	Subject	Presenter
1:00 – 2:00	It's kind of fun to do the impossible with DPDK	Yoshihiro Nakajima
2:00 – 3:00	Design Considerations for a High-Performing Virtualized LTE Core Infrastructure	Arun Rajagopal Sameh Gobrial
3:00 – 3:15	Break/Networking	
3:15 – 4:15	Evaluation and Characterization of NFV Infrastructure Solutions on Hewlett-Packard Server Platforms	Al Sanders
4:15 – 5:15	Open Discussion (Q&A with Speakers)	Moderator: Jim St. Leger
5:15 – 5:30	Closing Remarks	
5:30 – 7:30	Evening Reception Imperial Floor (32nd Floor of Tower Building)	


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