DPDK SUMMIT CHINA 2017
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Welcome! This is 3\textsuperscript{rd} year of DPDK summit in China.

Aim to provide a regular update on data plane features and future work, use cases. A growing data plane ecosystem worldwide,

Please present on time.

Please ask questions and discuss offline

35 Tech blogs, 367 in group, 2400+ Subscribers, 32000+ read
The Growing DPDK Community
“In addition to OpenStack and SDN controllers (e.g., OpenDaylight, ONOS, OpenContrail), which upstream projects are most important to the success of OPNFV?”

Source: Heavy Reading Service Provider Survey, June 2017
Move to Linux Foundation

Broad industry support: hardware, software vendors, multiple industry verticals

8 founding Gold member supporters, 5 Silver members, 4 Associate members
DPDK Consumption

**vSwitches/vRouters**
- VPP
- Open vSwitch
- BESS
- Lagopus

**DPDK in OS Distros**
- Red Hat
- FreeBSD
- Ubuntu
- Fedora
- CentOS
- MIRANTIS
- Debian

**Packet Generators**
- TRex
- Pktgen
- MoonGen
- Ostinato
- WARp17

**TCP/IP Stacks**
- mTCP
- CloudRouter

**Storage**
- Storage Performance Development Kit

**+ Many more**
- ANS
- LWIP DPDK
DPDK Governance by two boards

Governance for DPDK is provided by two boards

A Governing Board which deals with budget, marketing, lab resources, administrative, legal and licensing issues. This includes representatives from the Gold project members, and a Silver member representative from Huawei.

A Technical Board which deals with technical issues including approval of new sub-projects, deprecating old sub-projects, and resolution of technical disputes. This includes representatives from Intel, Mellanox, 6WIND, Cavium, NXP, Microsoft and Brocade.

These two boards are peers and work together to oversee the DPDK project.

- Project is still hosted at dpdk.org.
- Patch submission, review, and release processes in good shape.
DPDK Performance Report

1. Performance testing is performed at the end of each release.
2. Official performance reports are uploaded to DPDK.org.

17.05 reports have already been uploaded to the Performance Reports section of http://dpdk.org/doc.
Open Lab

- The Governing Board has approved budget for creation of a new DPDK lab.
- The aim is to do automated performance testing of patches before they’re applied.
  - This will help to prevent cases where patches have unexpected performance impacts.
  - At the moment, any such performance impacts may not be identified until the end of a release cycle when performance testing is performed. This leaves very little time to fix the problems before the release.
  - Having performance data for patches before they’re applied will help the maintainers to identify any problems and decide which patches should/should not be accepted.
- The plan is to host at the University of New Hampshire Interoperability Lab.
Release Plan

- Since 16.04, releases use the Ubuntu numbering scheme of YY.MM.
- We’ve transitioned from 3 major releases per year to 4 in 2017.
- Frequency and dates of releases will be fixed from 2017 onwards.

- Plans for future LTS releases are being discussed. The current plan is to make every .11 release in an even numbered year (16.11, 18.11 etc.) an LTS release and maintain for 2 years.
Future Roadmap, DPDK Framework

Cryptodev
1. Asymmetric support
2. Inline crypto

Compression

Discussion on the dev@dpdk.org mailing list and in the Tech Board on the mechanism for supporting programmable devices in DPDK.

Acceleration Model
1. Virtualization
2. Container

Data Pata APIs
1. Flow APIs
2. QoS APIs
3. Tunnel APIs
4. ---
## Agenda for Morning

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<th>Presenter</th>
<th>Company</th>
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<td>8:30 - 8:45</td>
<td>15</td>
<td>Heqing Zhu</td>
<td>Intel</td>
<td>Opening</td>
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<td>8:45 - 9:10</td>
<td>25</td>
<td>Jianfeng Tan</td>
<td>Intel</td>
<td>DPDK in container: Status Quo and Future Directions</td>
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<tr>
<td>9:10 - 9:30</td>
<td>20</td>
<td>Hailong Wang</td>
<td>Tencent</td>
<td>F-Stack, a full user space network service on DPDK</td>
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<td>9:30 - 10:00</td>
<td>30</td>
<td>Cunming Liang</td>
<td>Intel</td>
<td>A Better Virtio towards NFV Cloud</td>
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<td>10:00 - 10:20</td>
<td>20</td>
<td>Changpeng Liu/Xing Zen</td>
<td>Intel</td>
<td>Accelerate VM I/O via SPDK and Crypto for Generic vHost</td>
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<td>10:20 - 10:40</td>
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<td>Break</td>
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<td>10:40 - 11:15</td>
<td>35</td>
<td>Huai Huang</td>
<td>Meituan</td>
<td>OVS-DPDK Practices in Meituan Cloud</td>
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<td>11:15 - 11:45</td>
<td>30</td>
<td>Fangliang Lou</td>
<td>ZTE</td>
<td>Network performance tuning, lesson learned.</td>
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<td>11:45 - 12:15</td>
<td>30</td>
<td>Liang Ma</td>
<td>Intel</td>
<td>OPDL: On The Path To Packet Processing Nirvana</td>
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## Agenda for Afternoon

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<tr>
<td>13:30 - 14:10</td>
<td>40</td>
<td>Helin Zhang</td>
<td>Intel</td>
<td>Intel® 25GbE Ethernet Adapter Advanced Features for NFV, Adaptive VF</td>
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<td>Jingjing Wu</td>
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<tr>
<td>14:10 - 14:30</td>
<td>20</td>
<td>Fan Zhang</td>
<td>Intel</td>
<td>Accelerate VPP workload with DPDK Cryptodev Framework</td>
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<td>14:30 - 14:45</td>
<td>15</td>
<td>Haohao Zhang</td>
<td>Tencent</td>
<td>Data Center Security Use Case with DPDK</td>
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<td>14:45 - 15:15</td>
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<td>Yunhong Jiang</td>
<td>Intel</td>
<td>Towards Low Latency Interrupt Mode PMD</td>
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<td>Wei Wang</td>
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<td>15:15 - 15:35</td>
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<td>Break</td>
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<td>15:35 - 16:05</td>
<td>30</td>
<td>Hao Lin</td>
<td>T1Networks</td>
<td>Telco data plane status, challenges and solutions</td>
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<td>16:05 - 16:35</td>
<td>30</td>
<td>Zhaohun Sun</td>
<td>Panabit</td>
<td>Support Millions users in vBRAS</td>
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<td>16:35 - 16:50</td>
<td>15</td>
<td>Jie Zheng</td>
<td>United Stack</td>
<td>A High speed DPDK PMD approach in LXC</td>
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<td>16:50 - 17:20</td>
<td>30</td>
<td>Kai Wang</td>
<td>Yunshan</td>
<td>Cloud Data Center, Network Security practices</td>
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<td>17:20 - 17:50</td>
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<td>DPDK Box Lucky Draw, Social</td>
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Further Info

- **Open source website** ([dpdk.org](https://dpdk.org)): Download the code, access the documentation, join the mailing lists etc.

- **DPDK Summit events**: Includes videos and presentations from previous events. Subscribe to quarterly newsletter.

- **Videos and training**:  
  - Intel® Network Builders University  
  - BrightTalk webinars

- **Meet-ups**

- **Interested in contributing?**  
  - Subscribe to the [mailing lists](mailto:).  
  - Review the [Contributor’s Guidelines](https://dpdk.org) and contribute patches!
Thanks!!