DPDK Community Update

Jim St. Leger
Director, Software Product Marketing, Intel
DPDK Governing Board Chair
June 24, 2019

DPDK in the Media

DPDK Corporate Members

DPDK DATA PLANE DEVELOPMENT KIT

GOLD

arm

AT&T

ERICSSON

f5

intel

MARVELL

Mellanox TECHNOLOGIES

NXP

Red Hat

ZTE

SILVER

6WIND

BROADCOM

HUAWEI

YOUR LOGO HERE

ASSOCIATE

Eötvös Loránd University

iol University of New Hampshire InterOperability Laboratory

KAIST

University of Limerick OLLSCOIL LUIMNIGH

UMASS LOWELL

Who else is using DPDK

中国用户

Global User

欢迎大家加入**DPDK**会员，为社区贡献力量！

Software Projects Consuming DPDK

DPDK
DATA PLANE DEVELOPMENT KIT

vSwitches/vRouters

VPP
.io

OvS
Open vSwitch

BESS

Lagopus

tungstenfabric

CloudRouter

vmware

DPDK in OS Distros

redhat.
Version 7.1 +

ubuntu
Version 15.10 +

FreeBSD.
Version 10.1 +

WIND
Version 6 +

fedora
Version 22 +

CentOS
Version 7.1 +
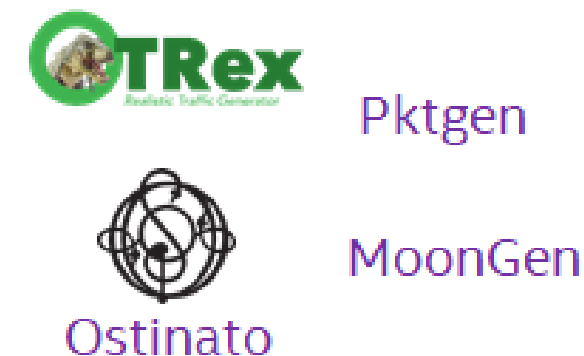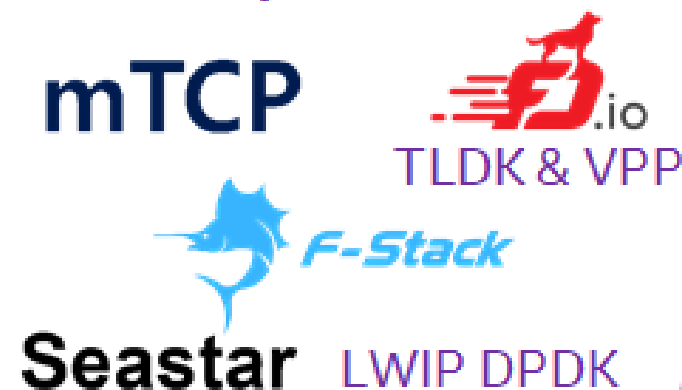
Windows

Storage

Storage Performance Development Kit (SPDK)

ceph

Packet Generators

TRex

Pktgen

Ostinato

MoonGen

TCP/IP Stacks

mTCP

.io
TLDK & VPP

F-Stack

Seastar LWIP DPDK

A Continuous Growing Community

What's new in the past year (just to name a few...)

vhost post-copy
better dynamic logging support
base band device
port representor
Windows support   vDPA
                         af_xdp driver
librte_telemetry
librte_stack ice driver   fpga bus driver
virtio1.1
musl compatibility improvements
ifc driver hotplug compress device
bpf support librte_ipsec   raw device
RCU support   ipn3ke driver
memory enhancements
virtio-user enhancements for container
better new offload API support
generic multi-process communication channel

Active Contributors

Microsoft   arm   SOLARFLARE
IBM   CISCO NXP   Mellanox TECHNOLOGIES
6WIND NETRONOME
BROCADE   CANONICAL   Linaro
intel Red Hat
QLOGIC Cloudius the sky is not enough   RehiveTech
BROADCOM   igel   MARVELL
SEMIHALF EMBEDDED SYSTEMS
Chelsio Communications Accelerate   EZ CHIP TECHNOLOGIES

强大的开源社区，持续的前沿技术输入！
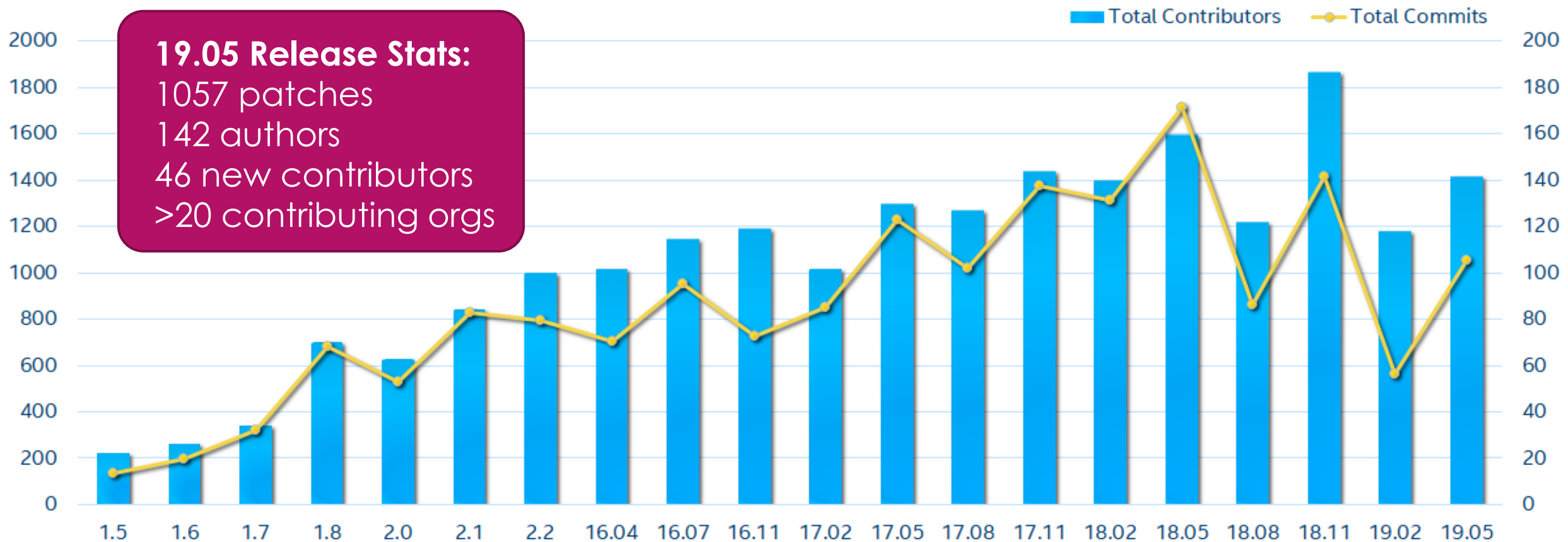
DPDK Release Growth

2014 — First non-IA contributions.
2015 — Non-Intel NIC support.
2016 — Significant ARM vendor engagement.
2017 — SoC enhancements. Non-Intel crypto.
2018 — Focus on generic APIs & additional accelerators

19.05 Release Stats:
1057 patches
142 authors
46 new contributors
>20 contributing orgs

Total Contributors — Total Commits

Full release stats http://mails.dpdk.org/archives/dev/2019-May/132193.html

DPDK 19.05 Release

- Deep community involvement! **1057** patches from **142** contributors!

- Main feature list
  - Updated driver support for various NICs
  - Asymmetric Crypto and compression enhancements
  - Virtio 1.1 initial support
  - Non-Blocking Stack Mempool Handler
  - Initial Windows Support
  - Power management
  - AF_XDP PMD

More details at https://doc.dpdk.org/guides/rel_notes/release_19_05.html

Upcoming Events in Bordeaux and US

DPDK Summit Userspace, Bordeaux
September 19-20, 2019
2-day event

DPDK US Summit, San Jose
December, 2019
2-day event

https://www.dpdk.org/events/

Agenda in the morning

Time	Duration	Presenter	Company	Topic
9:00 - 9:15	15	Jim St leger	Intel	Opening
9:15 - 9:40	25	Tao Yang Xuekun Hu	Intel	Archive stable high performance DPDK on modern multi-core CPU
9:40 - 10:05	25	Fan Zhang Ping Yu	Intel	DPDK IPsec: a scalable high performance library for your IPsec application
10:05 - 10:30	25	Yijun Hou	Alibaba	DPDK Slab Allocator and applied it to zero-copy stack
10:30 - 10:45	15	Shu Ma	Alibaba	DPDK based userspace TCP/IP stack testing
10:45 - 11:00	15			**Break**
11:00 - 11:20	20	Ben-Shahar Belkar	Huawei	Developing CI/CD for Huawei Smartnic DPDK PMD using DTS
11:20 - 11:45	25	Sharan Santhanam	NECLAB	Building DPDK Unikernels with Unikraft
11:45 - 12:10	25	Zijiang Zhou	JD	Networking Products Based on DPDK Integrated with Kubernetes Container Networking Contiv
12:10 - 13:10	60			**Lunch**

https://dpdkchina2019.sched.com/

Agenda in the afternoon

Time	Duration	Presenter	Company	Topic
13:10 - 13:35	25	Xiaohua Wang	Ericsson	5G Core network load test system with DPDK
13:35 - 14:00	25	Jingjing Wu Owen Zhang	Intel	DPDK: Accelerate Remote Rendering of Cloud Gaming
14:00 - 14:15	15	Rosen Xu	Intel	Flow and HQoS DPDK Acceleration Using 100GBE Intel Programmable Acceleration Card
14:15 - 14:35	20			**Break**
14:35 - 15:00	25	Tim O'Driscoll	Intel	Balancing Application Performance and Portability
15:00 - 15:25	25	Joyce Kong Gavin Hu	ARM	Vhost and virtio on ARMv8 performance tuning and optimization
15:25 - 15:40	15	Linsi Yuan	Baidu	Practice of ovsdpdk in Baidu
15:40 - 15:55	15	Xiaolong Ye	Intel	Integrating AF_XDP into DPDK

https://dpdkchina2019.sched.com/

Thank You – The DPDK Event Team

- Zhihong Wang, Intel
- Tim O'Driscoll, Intel
- Jim St. Leger, Intel
- Cunming Liang, Intel
- Ferruh Yigit, Intel
- Konstantin Ananyev, Intel
- Bruce Richardson, Intel
- George Zhao, Huawei
- Maxime Coquelin, Red Hat
- Philippe Robin, ARM
- Thomas Monjalon, Mellanox
- Yong Wang, ZTE
- Trishan de Lanerolle, The Linux Foundation
- Sana Ali, The Linux Foundation

Final Thoughts

- Focus here, multitask elsewhere

- Timing suggestion:
  - 25 min sessions: 20 min talk + 5 min Q&A
  - 15 min sessions: 12 min talk + 3 min Q&A

- Have fun! ☺

扫码关注**DPDK**微信公众号！