



DPDK Community Survey Results

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DPDK US Summit - San Jose - 2017



DPDK Community Survey



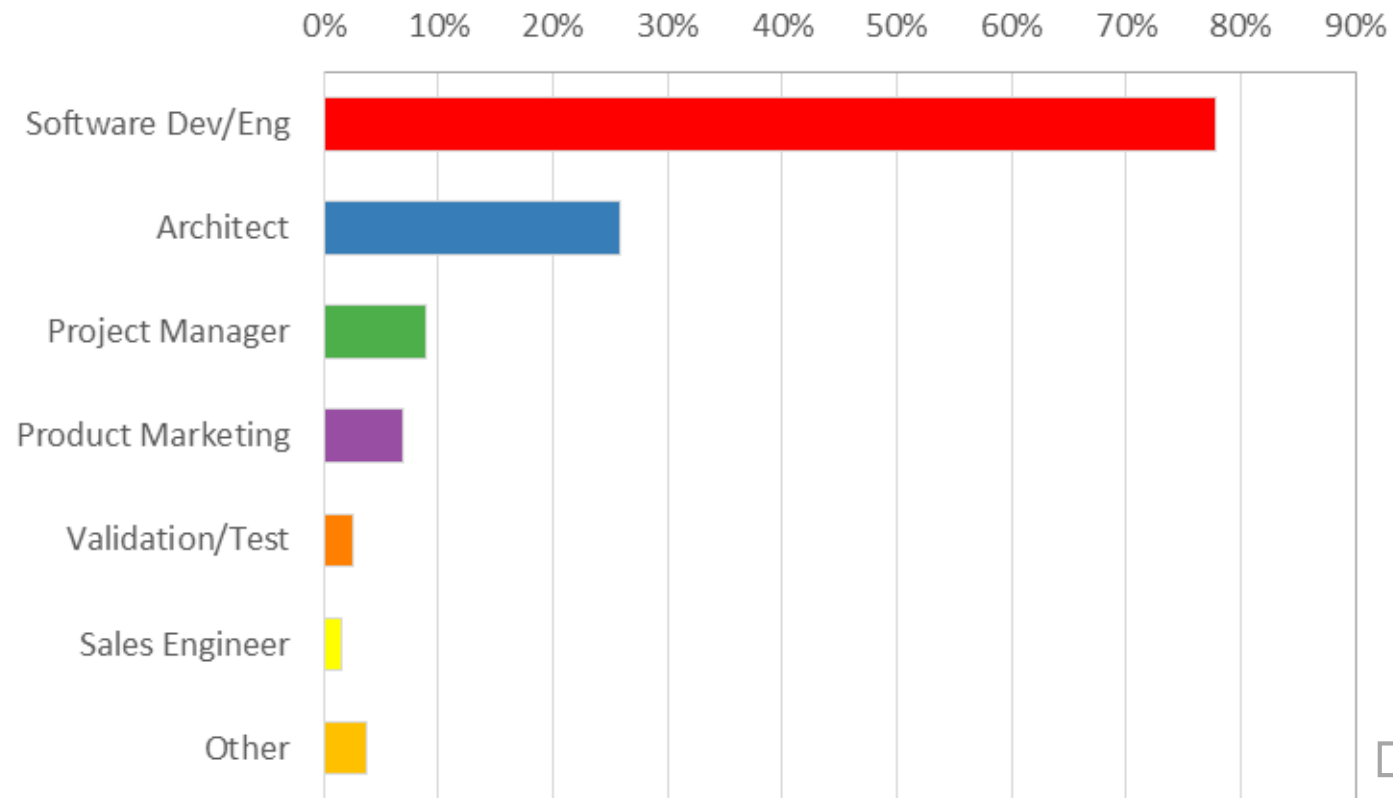
- ▶ Second DPDK community wide survey
- ▶ Survey was open from September - October 2017
- ▶ 32 Questions in 4 sections
 1. Usage
 2. Roadmap and Performance
 3. Patch submissions and Support Tools
 4. Documentation
- ▶ 190 participants (149 last year)
 - ▶ 80% self-identify as Developers

Main issues from last year



- ▶ Release support (need for Stable Releases, LTS). 😊 **Now in place.**
- ▶ Documentation - certain aspects. 😊 **Improvements.**
- ▶ Performance bottlenecks seen in certain areas. 😊 **Improvements.**
- ▶ Need for a continuous integration and test environment. 😊 **Initial phase in place.**

Which of the following best describes your role?

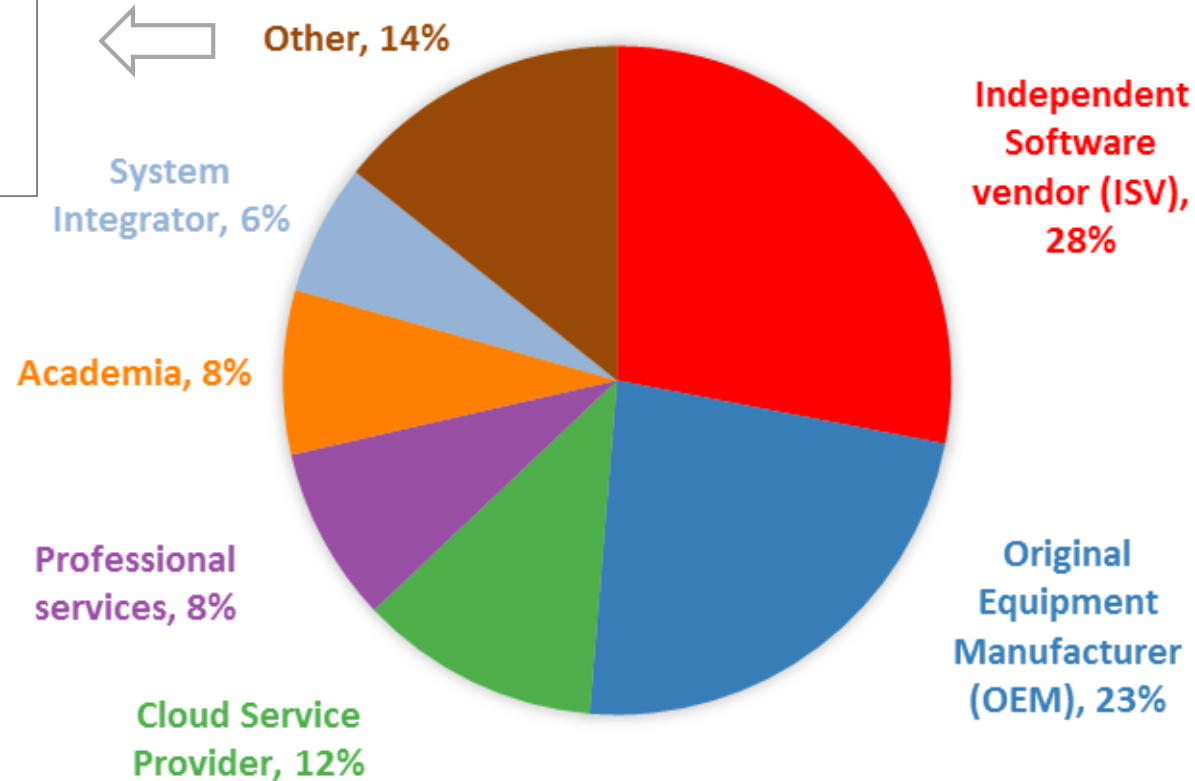


Consultants
Researchers
Academics
R&D
CTO

Which type of organization are you associated with?



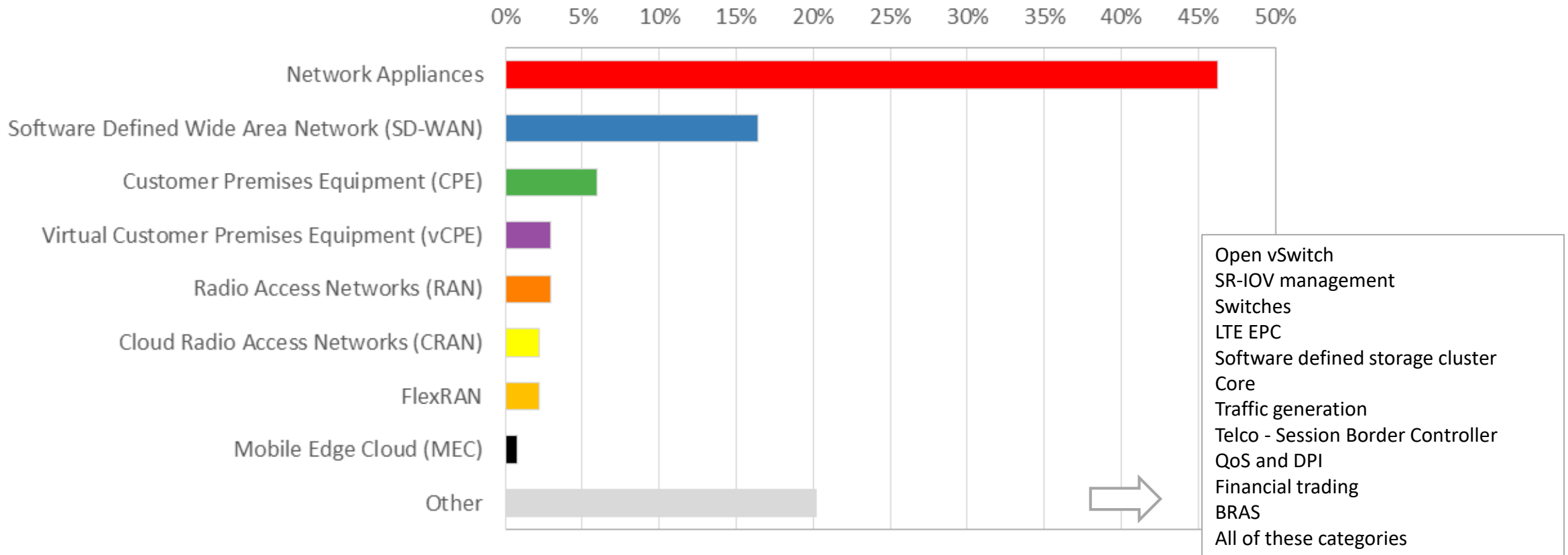
- NIC company
- Semiconductor company
- Silicon company
- Network operator
- Telecoms



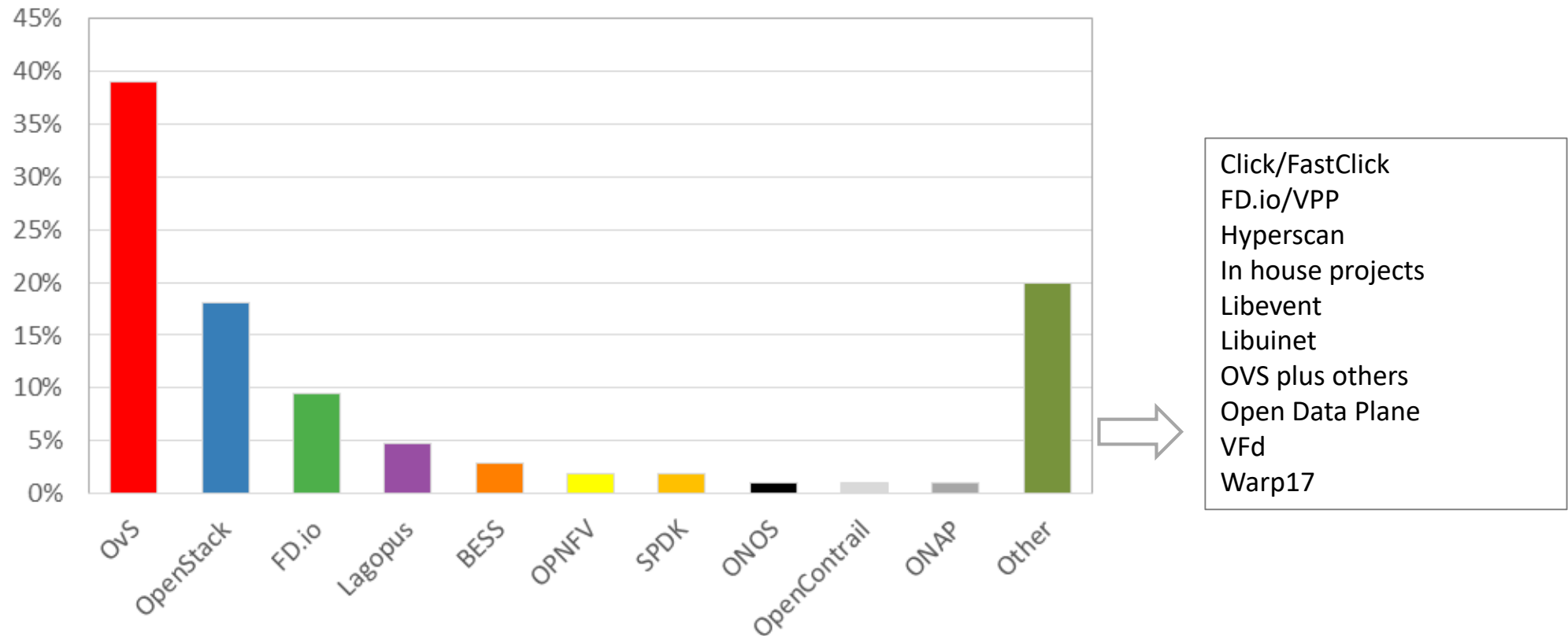
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Usage

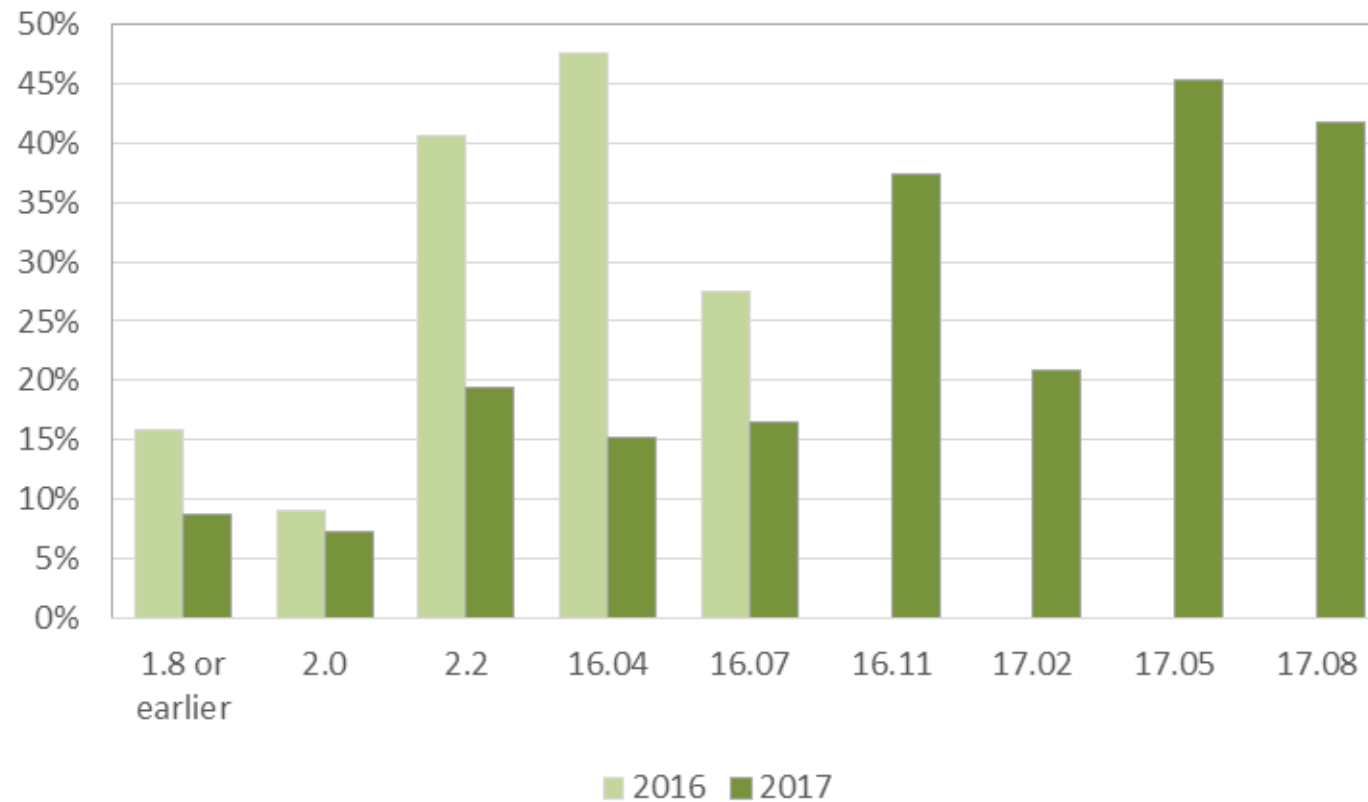
What types of applications are you building with DPDK



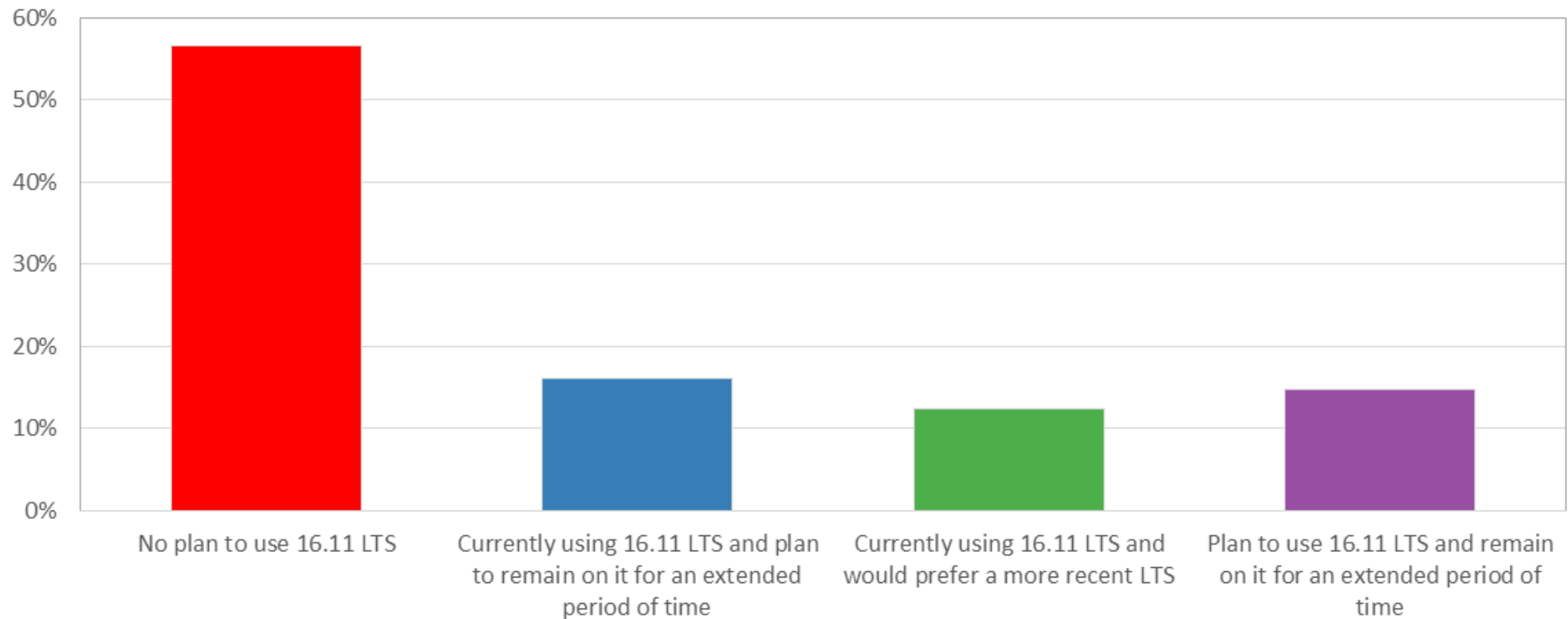
What other open source projects do you use with DPDK?



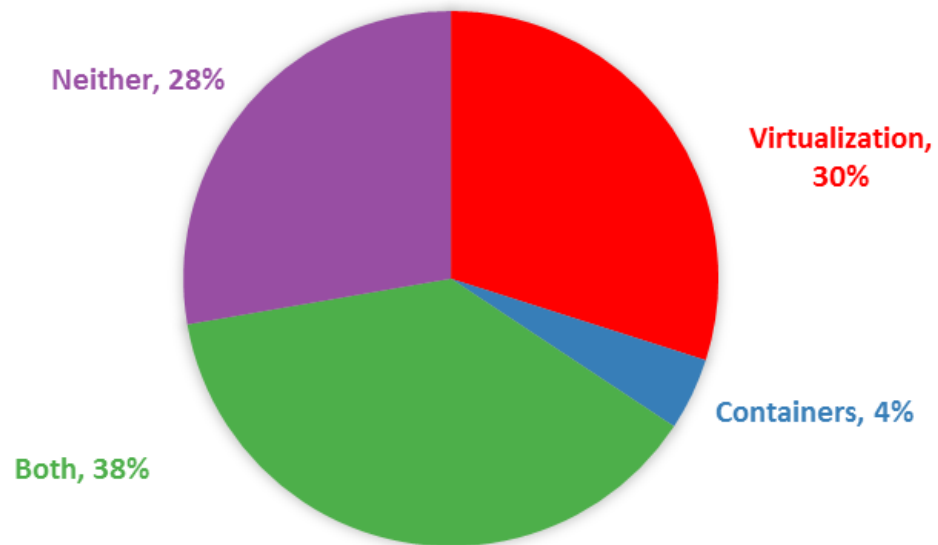
Which DPDK version(s) do you use?



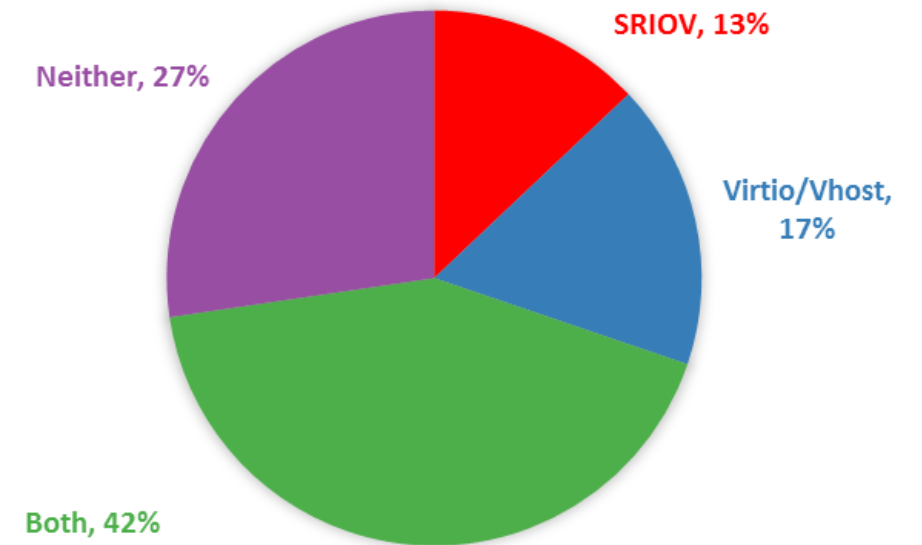
How do you plan to use DPDK 16.11 LTS?



Do you use DPDK with Virtualization or Containers?

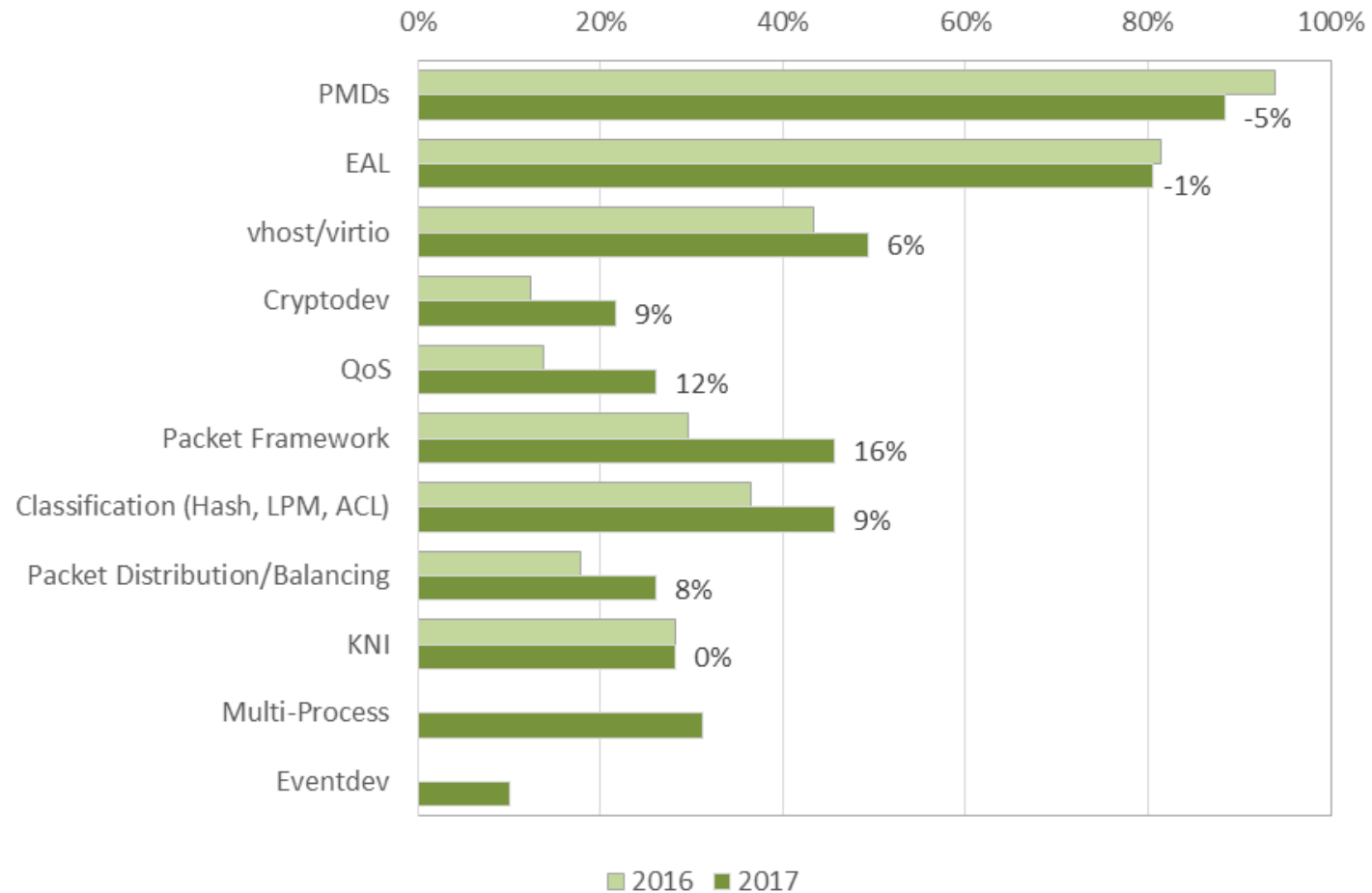


Do you use DPDK with Virtualization or Containers?



Do you use DPDK with SRIOV or Virtio/vHost?

Which parts of DPDK do you use currently?



Which PMDs do you use?

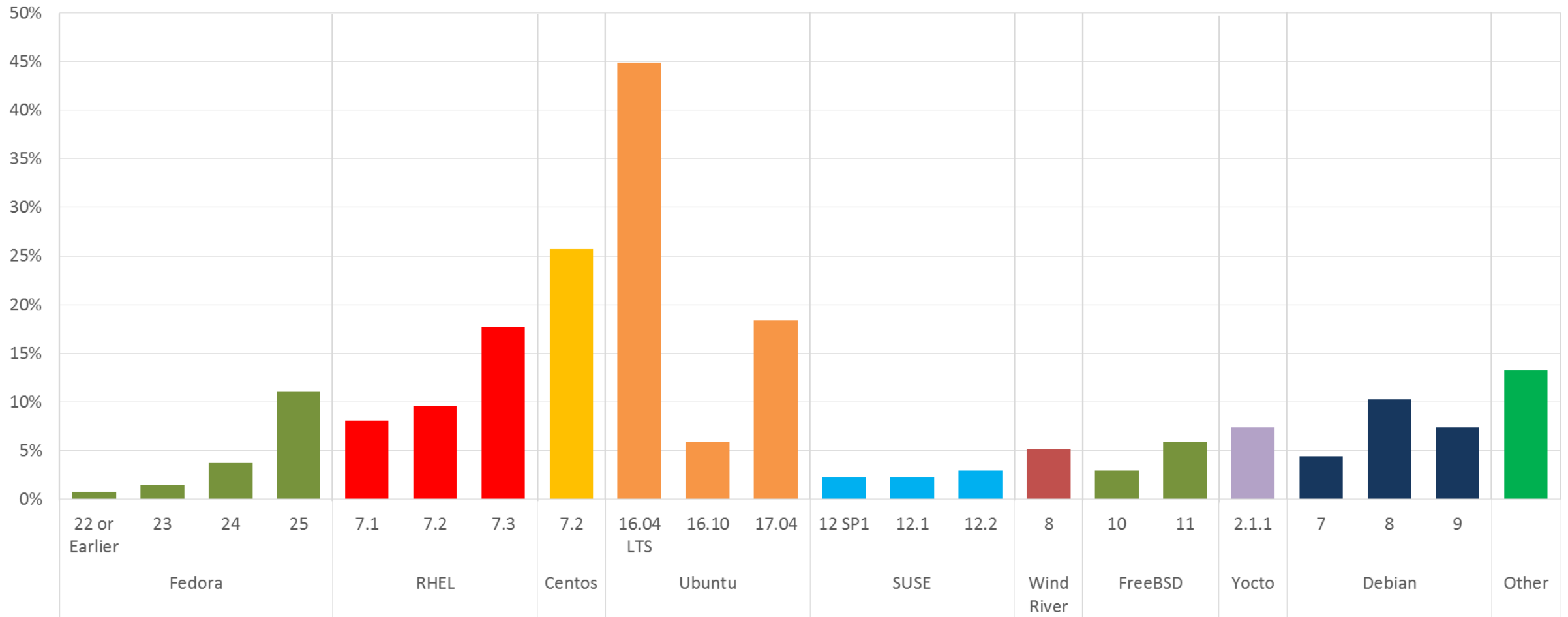


IXGBE	73%
I40E	56%
VIRTIO	49%
VHOST	35%
E1000	34%
PCAP	23%
MLX5	21%
VMXNET3	20%
MLX4	19%
RING	19%
KNI	17%
TAP	15%
AF_PACKET	14%
ENIC	9%
AESNI_GCM	8%

AESNI_MB	8%
ENA	8%
FM10K	8%
NULL	8%
QAT	8%
SCHEDULER	8%
BONDING	7%
DPAA2	7%
OPENSSL	7%
ARMV8	6%
BNXT	5%
DPAA2_SEC	5%
BNX2X	4%
FAILSAFE	4%

NULL	4%
THUNDERX	4%
CXGBE	3%
LIQUIDIO	3%
AVP	2%
NFP	2%
QEDE	2%
SFC	2%
ARK	2%
KASUMI	2%
SZEDATA2	1%
XENVIRT	1%
SNOW3G	0%
ZUC	0%

What are the most common Operating Systems do you use?



Usage Section - Summary

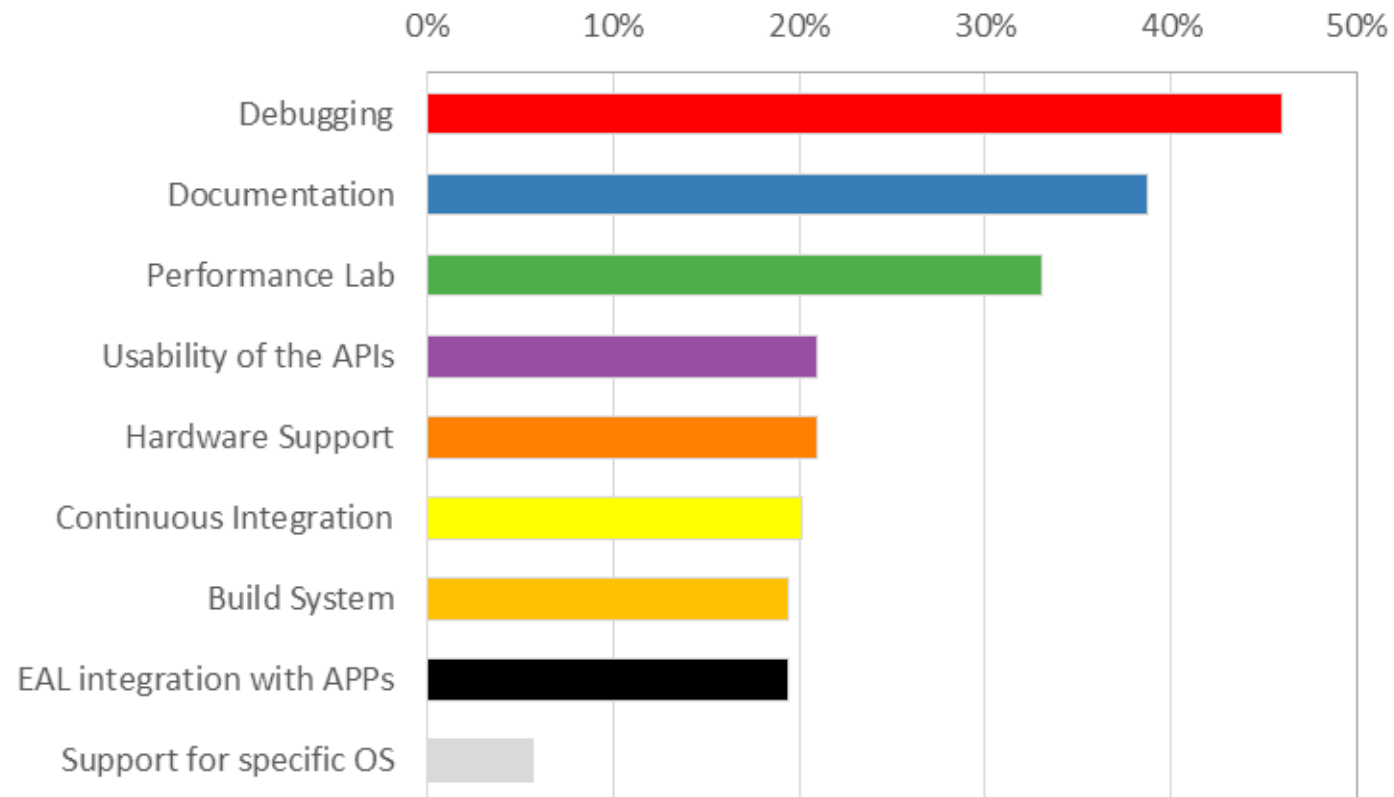


- ▶ Main respondents were developers - but not only
- ▶ People stay up to date with the latest versions
- ▶ 16.11 LTS is popular with participants who want stability
- ▶ DPDK used in lots of different applications: SD-WAN, CPE, vCPE, RAN, CRAN, FlexRAN, MEC, BRAS
- ▶ Virtio/vHost is a popular interface

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Features

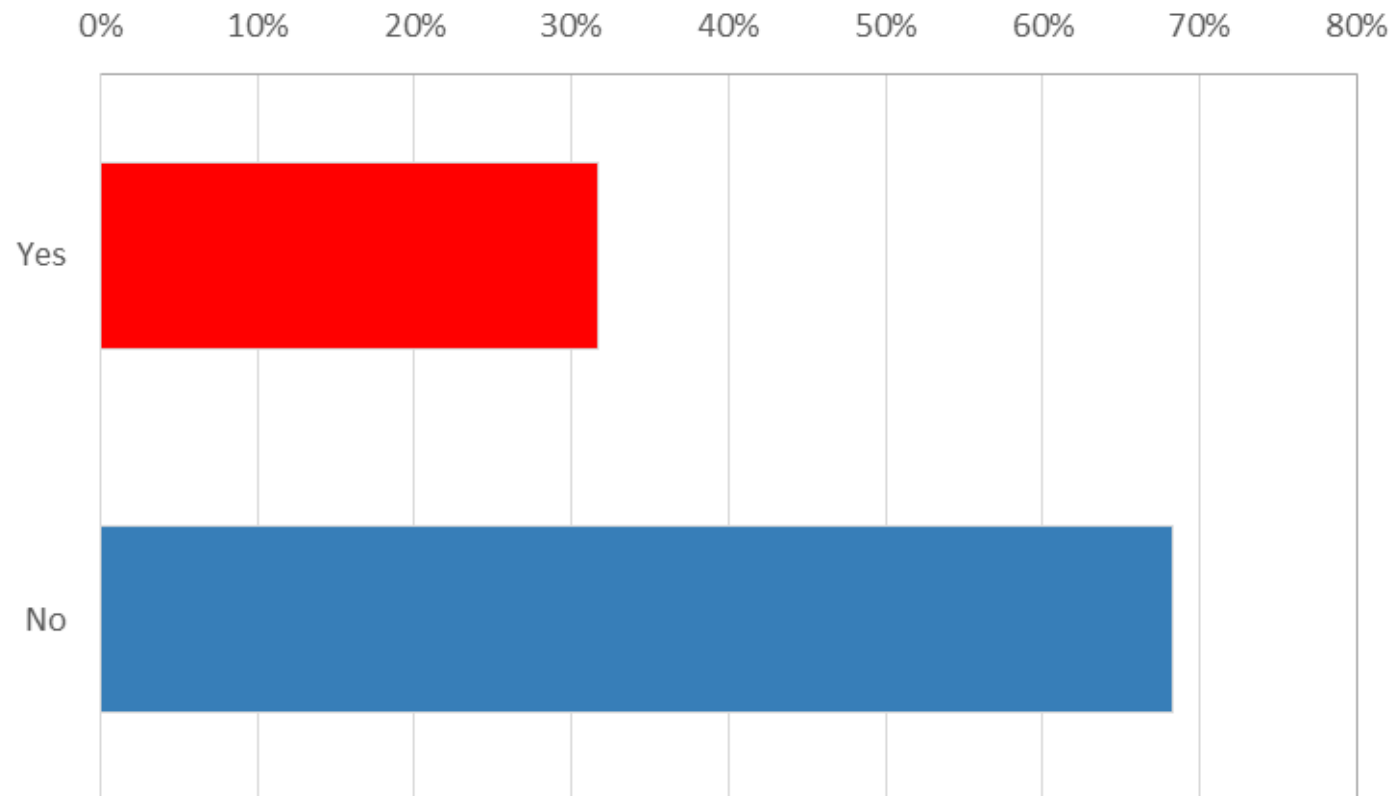
Which parts of DPDK do you think need to be improved the most?



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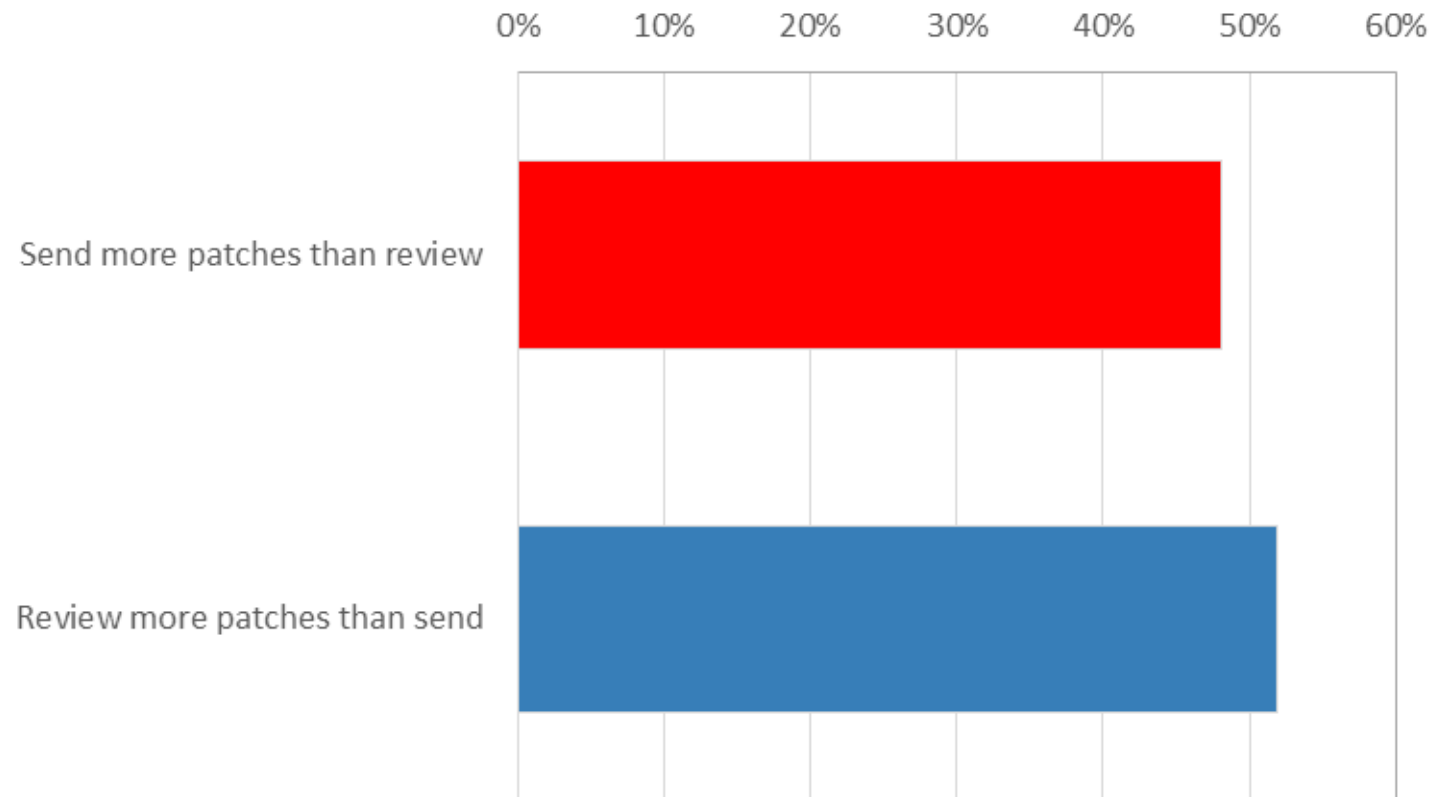
Patch Submission
and
Support Tools

Are there aspects of submitting a patch which could be improved?

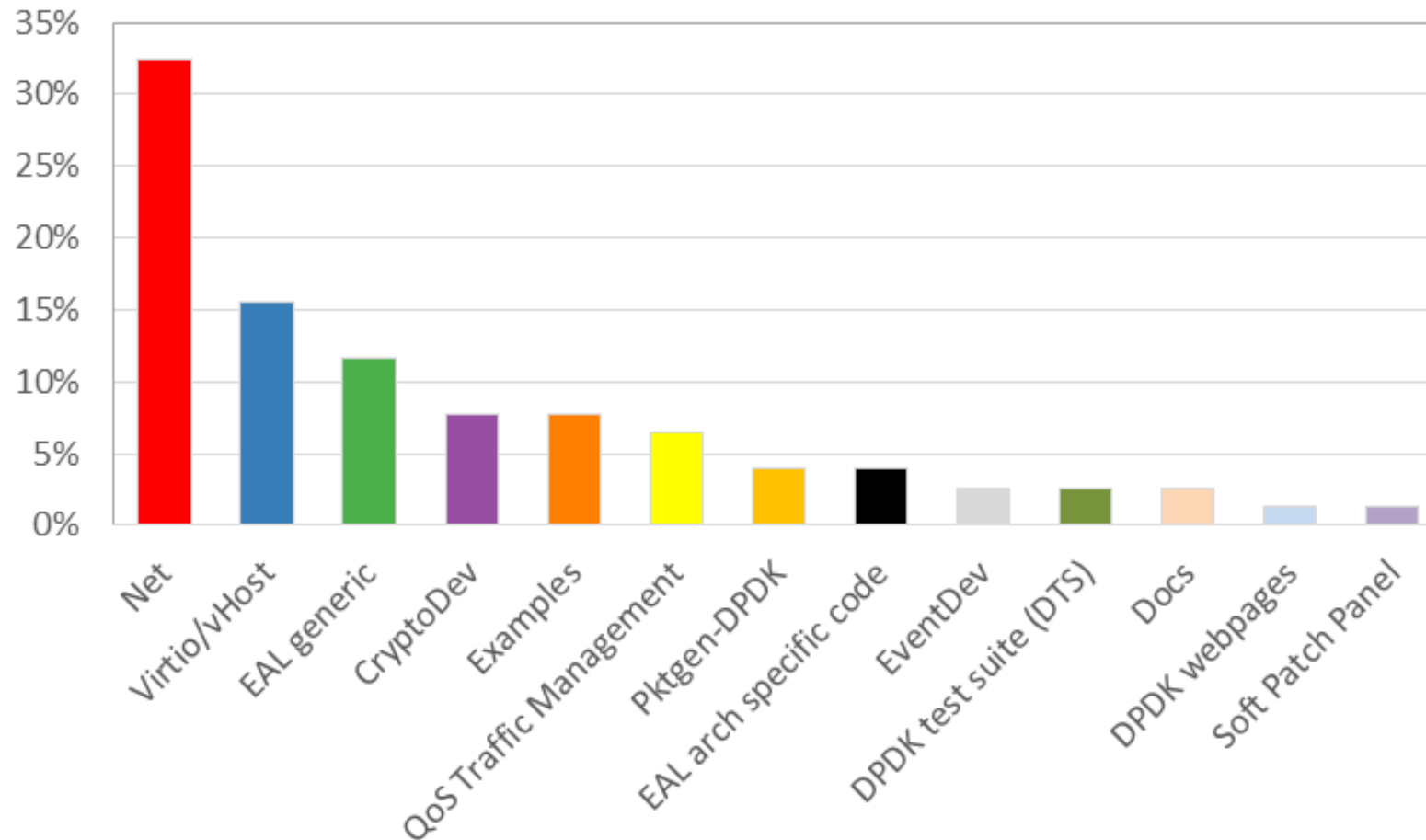


Use Github
Use Gerrit
Improve review time

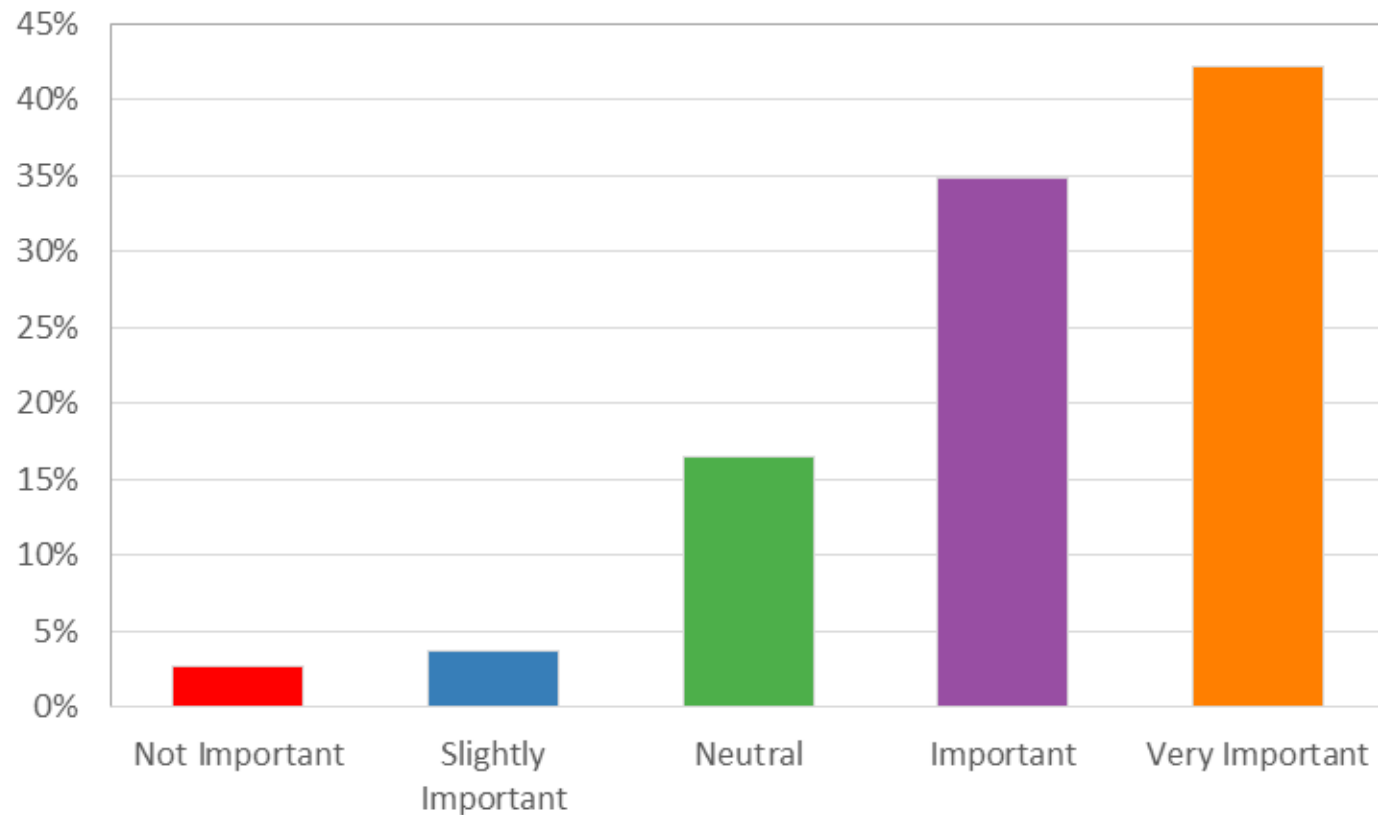
Do you do more or less community reviews than patch submissions?



To which component do you contribute most to in DPDK?



How important is having a continuous integration and testing environment?



Patch submission and Tools - Summary

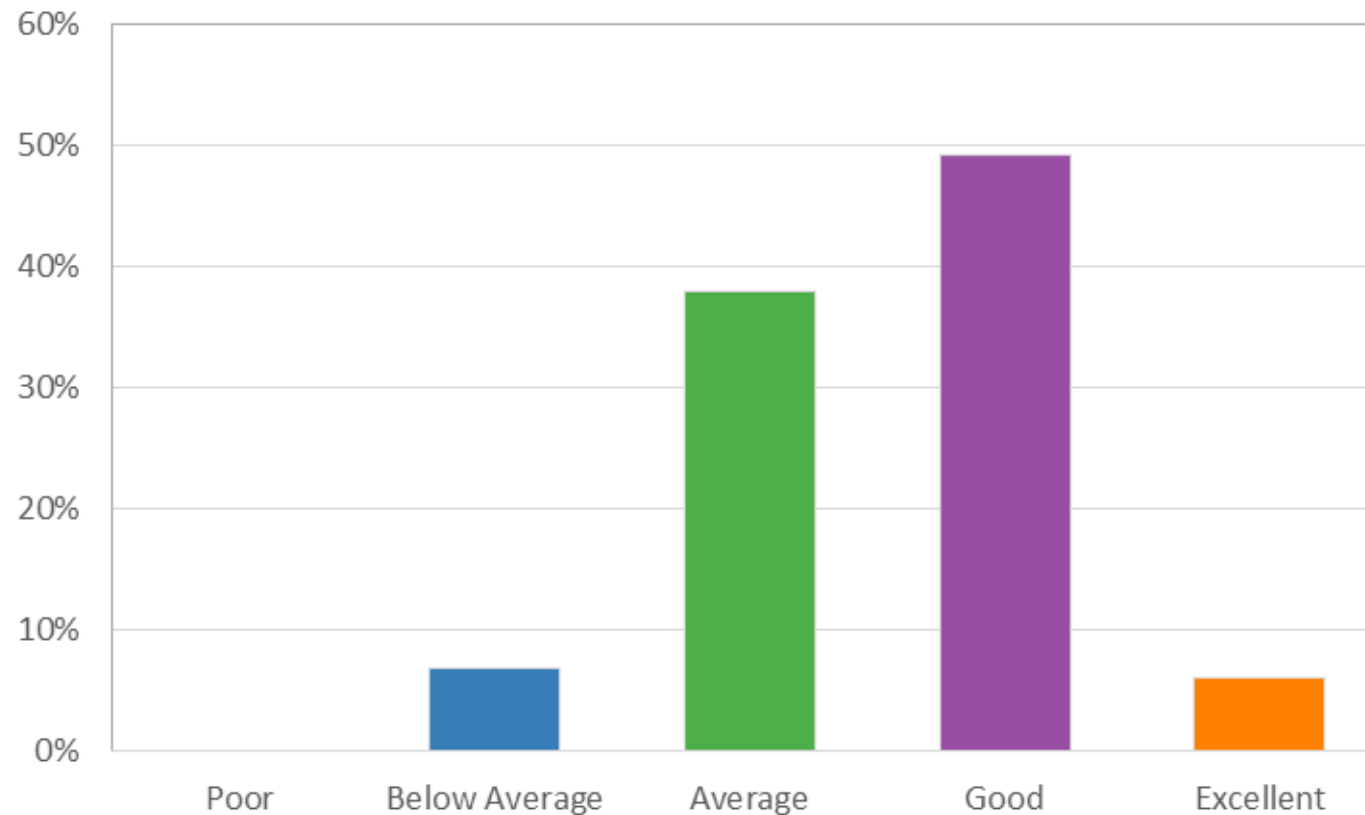


- ▶ Most people like the current Kernel Style patch system
- ▶ Of those who don't most would prefer GitHub
- ▶ A continuous test environment is very important to people

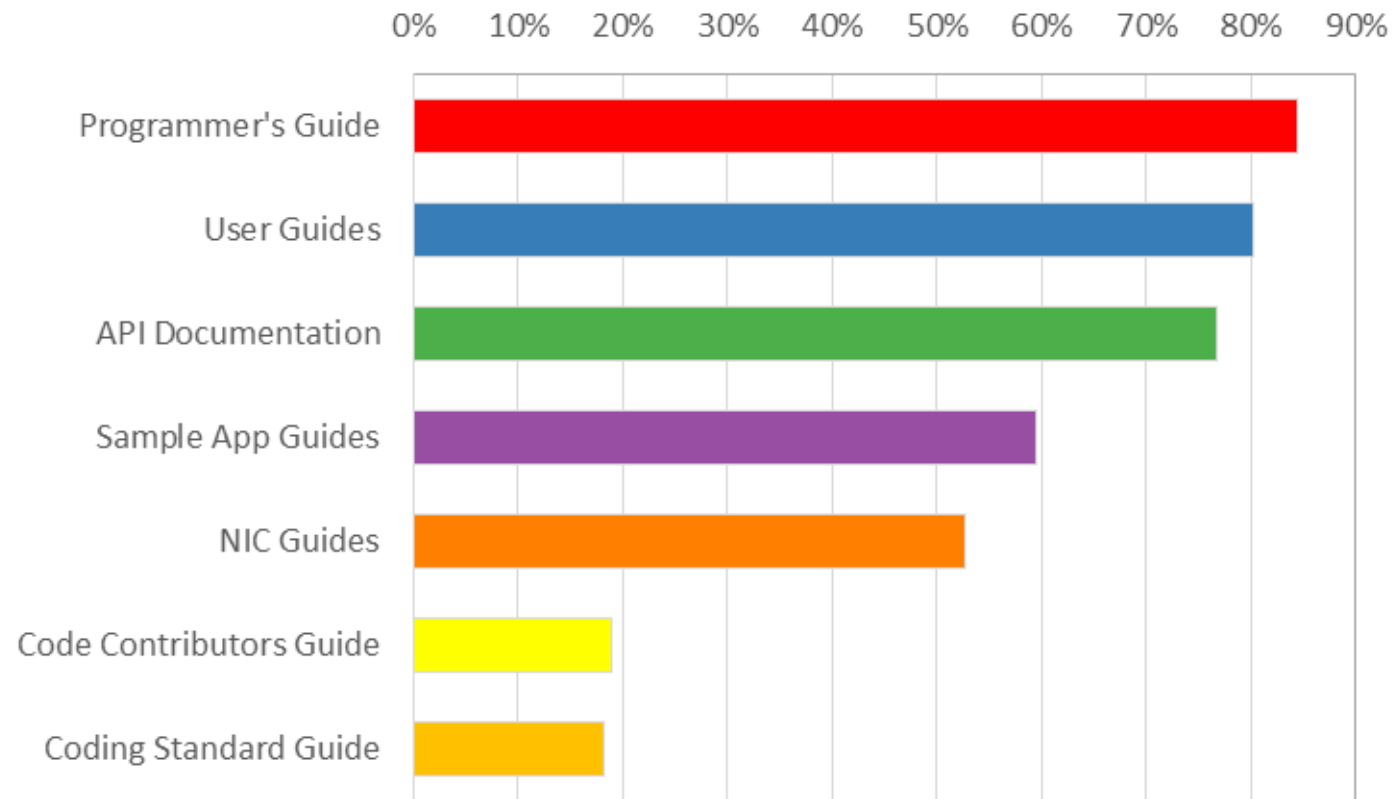
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Documentation

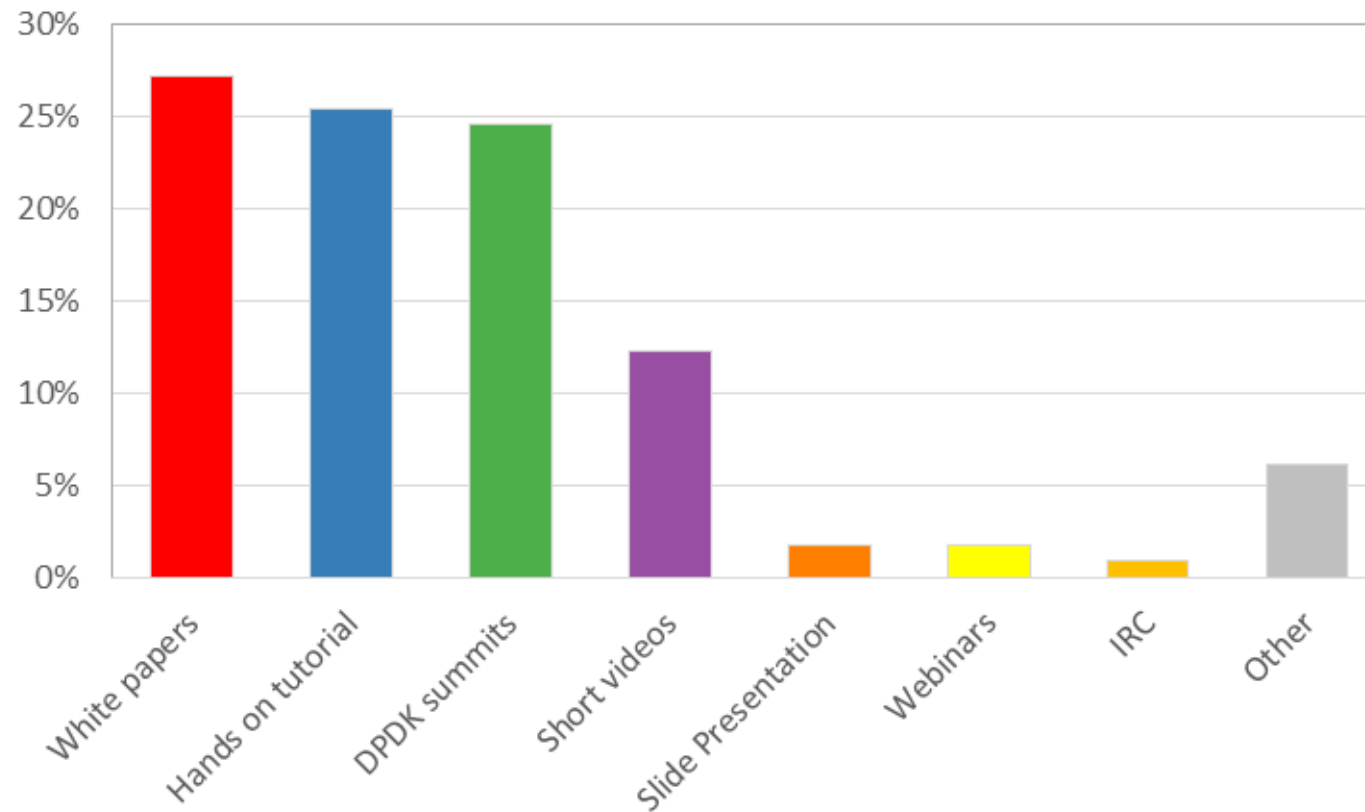
How would you rate the quality of the DPDK Documentation?



What parts of DPDK documentation do you use?



In what format you would like to have information about features in DPDK?



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Overall Summary

Overall Summary



- ▶ 190 participants
- ▶ 95% said that DPDK is meeting their business requirements
- ▶ There is a wide range of usage
- ▶ Virtio/vHost increasing in popularity
- ▶ A continuous test environment is very important to people

- ▶ Thanks to everyone who participated!

Questions?

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