



Welcome!

P4 Workshop 2022

Jeongkeun "JK" Lee

Program Chair
Member of P4 TST
Sr. Principal, Intel

From workshop chairs



+ me

Bruce Davie, Systems Approach
General chair

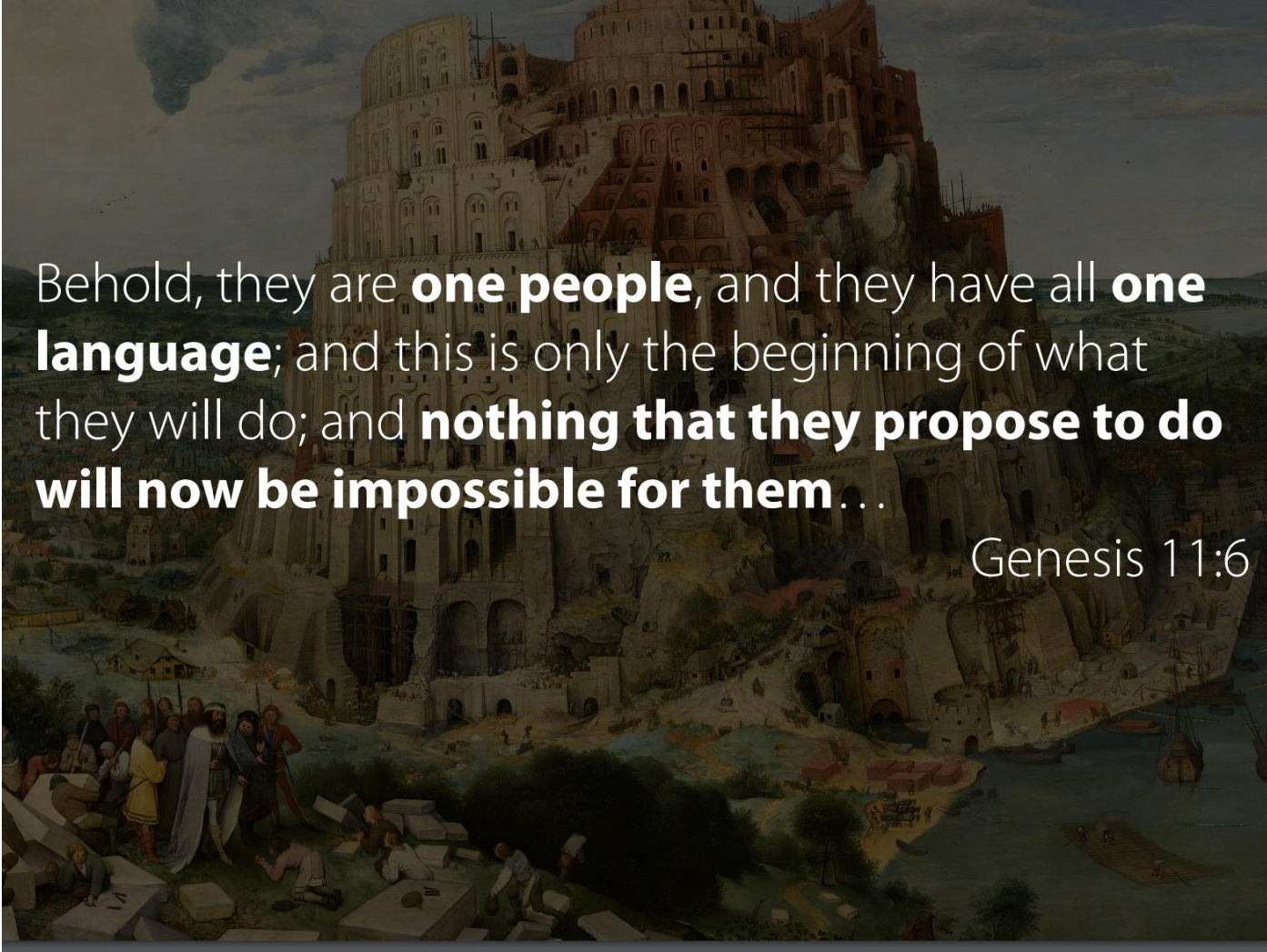
9th P4 workshop, since June 2015

- 6 workshops @ Stanford (2015~2019)
- Virtual & global (2020-2022)
- Total 31 P4 events
 - Regional Workshops and User Group events
 - Developer Day or Boot Camp events
 - Hackathons



At some level, we all know *why* we want
programmability....

P4 workshop, June 2015



Behold, they are **one people**, and they have all **one language**; and this is only the beginning of what they will do; and **nothing that they propose to do will now be impossible for them...**

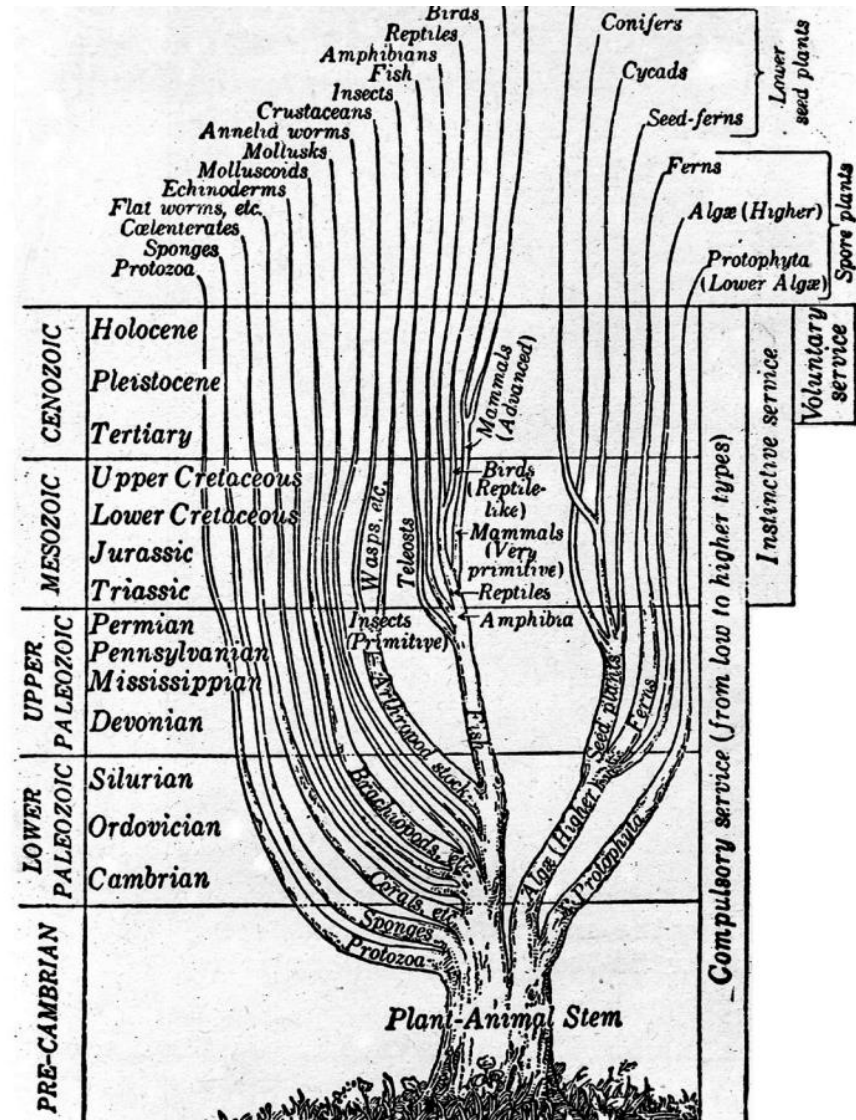
Genesis 11:6

State of P4

P4 workshop, 2019

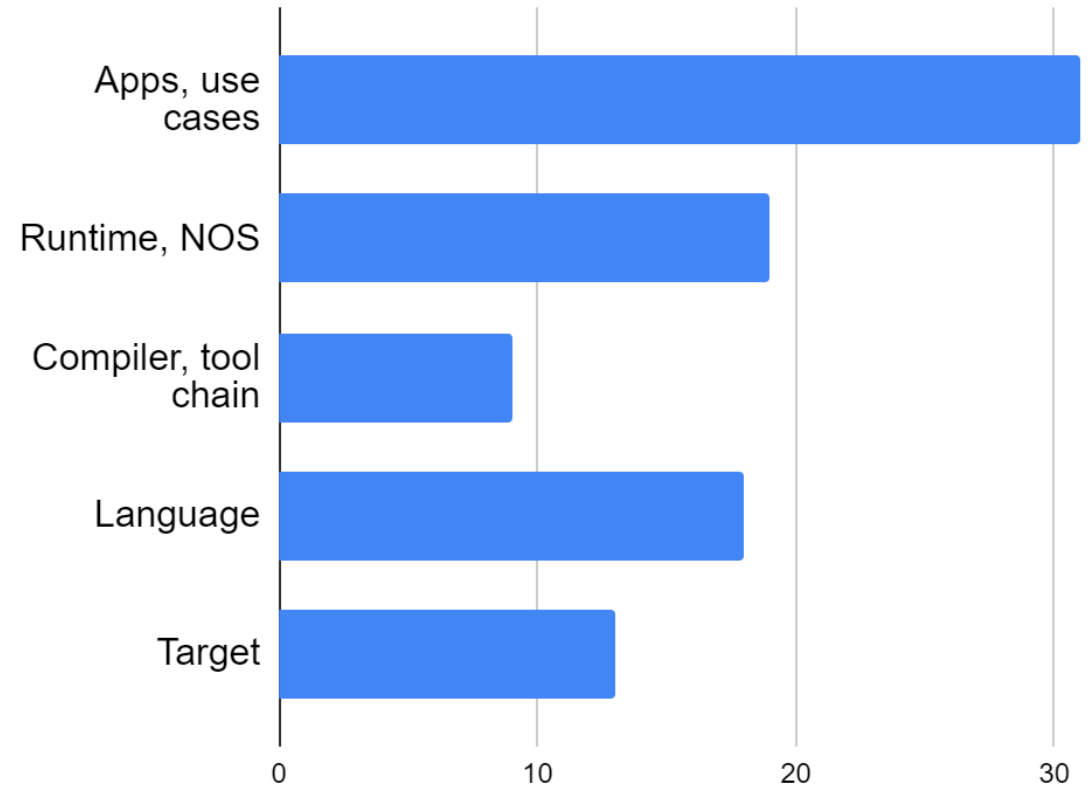
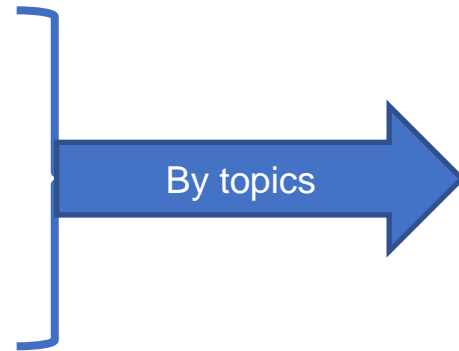
Behold! We are one community, and we now have all of the ingredients we need to design, build, and operate networks with P4. Nothing that we propose to do will be impossible for us!

We are on the cusp of a Cambrian explosion!



2022 Workshop, largest program ever

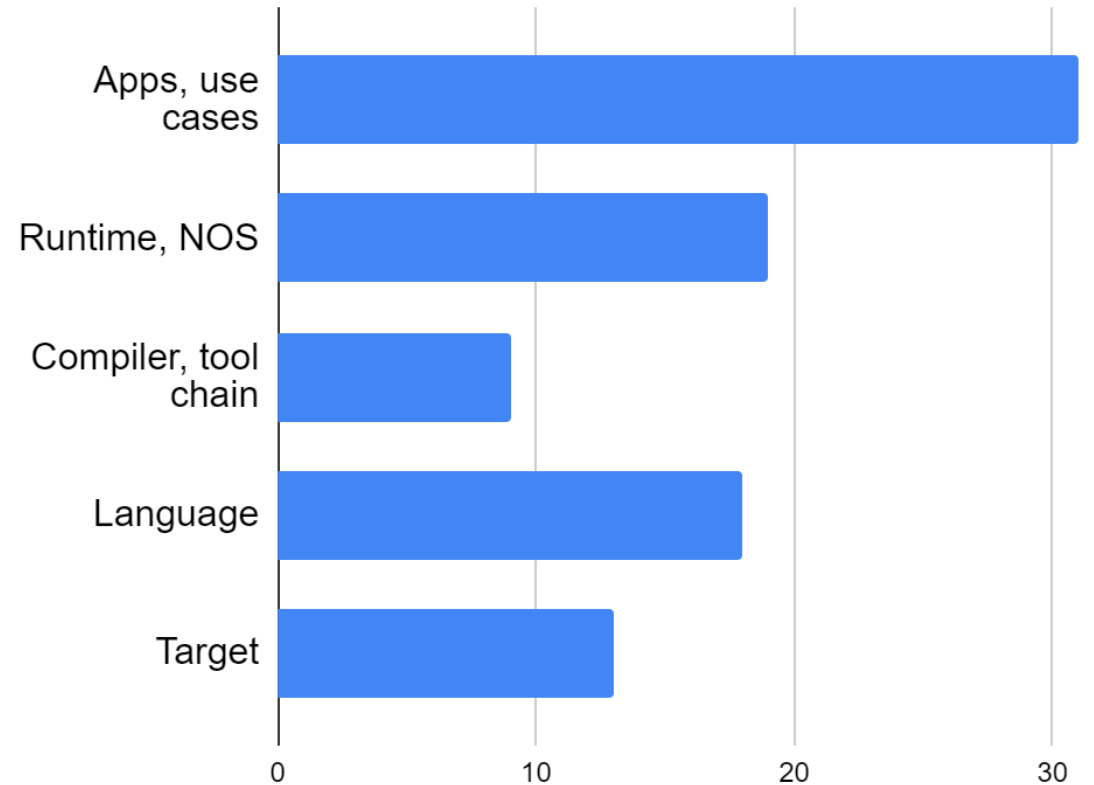
- > 1400 registrations (as of 5/25)
- 7 keynotes
- 27 in-depth talks
- 5 tech briefs
- 7 demos
- 4 tutorials



Note) one or more topics per talk

Workshop keywords

- Apps towards production, open-source
 - SRv6, service mesh, SD-Fabric
 - INT for control
- NOS for P4: PINS, DASH, P4-OVS
- Unified and performant runtime
 - TDI, high-perf p4runtime
- P4 designer and tester
- Modular and dynamic P4
- New targets: IPU, DPUs, Linux TC, eBPF



Speakers from

Academia, opensource org

- Beijing University of Posts and Telecommunications
- Cornell University
- ELTE Eötvös Loránd University
- INESC-ID
- Instituto Federal do Espirito Santo
- IST
- NYU
- ONF
- Purdue University
- Tsinghua University
- UNICAMP
- University of Central Florida
- University of Lisbon
- University of Virginia

Service providers

- Alibaba Cloud
- Baidu
- China Mobile
- Google
- Microsoft
- Softbank

Vendors

- AMD
- Arista Networks
- Broadcom
- Cisco Systems
- Futurwei Technologies
- Intel (+ ONF)
- Keysight IXIA
- Mojatatu Networks
- Nvidia
- Orange Labs
- Pensando Systems
- VMware



Thank You! re: workshop

Program Committee & Moderators

- Jeremias Blendin, Intel
- Mihai Budiu, VMware
- Thomas Calvert, AMD
- Charles Chan, Intel (former ONF)
- Bruce Davie, Systems Approach
- Xin Jin, Peking University
- Daehyeok Kim, Microsoft
- Alan Lo, Nvidia
- Fernando Ramos, IST, University of Lisbon
- #Chris Sommers, Keysight
- Robert Soule, Yale University

ONF staff

- #Denise Barton
- Brian O'Connor (now Intel)
- #Michelle Roth
- Timon Sloane

Guest Moderators

- Dan Daly, Intel
- Nate Foster, Cornell

Special thanks for jumping on last-minute bursts



Thank You! re: P4.org

Working Group Co-chairs

- Nate Foster, Language
- Mihai Budiu, Language
- Antonin Bas, API
- Steffen Smolka, API
- Gordon Brebner, Arch
- Andy Fingerhut, Arch
- Nandita Dukkupati, Apps
- Rong Pan, Apps
- Noa Zilberman, Education
- Fernando Ramos, Education

Technical Steering Team

- Andy Fingerhut
- JK Lee
- Larry Peterson
- Steffen Smolka
- Robert Soule
- Noa Zilberman

Advisory Board

- Nate Foster
- Nick McKeown
- Guru Parulkar
- Jen Rexford
- Amin Vahdat



Thank YOU!



Day 1 Keynote Speakers



Andy Fingerhut



Kenneth Duda



Panel – IPU/DPU

Brad Burres



Matty Kadosh



Krishna Doddapaneni



Gordon Brebner

