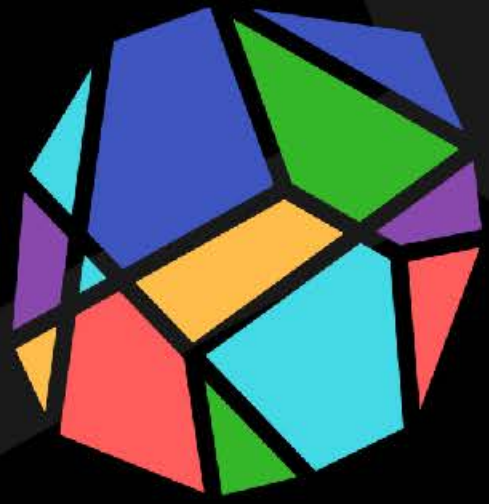


SC19

Denver, CO | hpc is now.

The SC19 Conference will return to the Colorado Convention Center in Denver this year.

- Program
  - November 17th – 22nd
- Exhibits
  - November 18th – 21st
- As in previous years, SCinet will build the world's fastest temporary network to support the SC conference.
- Long before conference attendees ascend into Denver, SCinet team members will be hard at work building and testing SCinet infrastructure.
  - Pre-staging work at remote sites throughout August.
  - Staging in Denver starting October 23rd.
  - Setup the week before the official conference opening.

WAN Team Leads Introductions

- The SCinet WAN team's primary responsibility is to provide high capacity, low latency connectivity between key remote locations and the convention center NOC. This year's SCinet WAN leadership team is comprised of the following:

SC19 SCinet WAN Chair – Hans Addleman – Indiana University International Networks: Network Architect

SC19 SCinet WAN Deputy Chair – Kate Robinson – ESnet: Systems Engineer

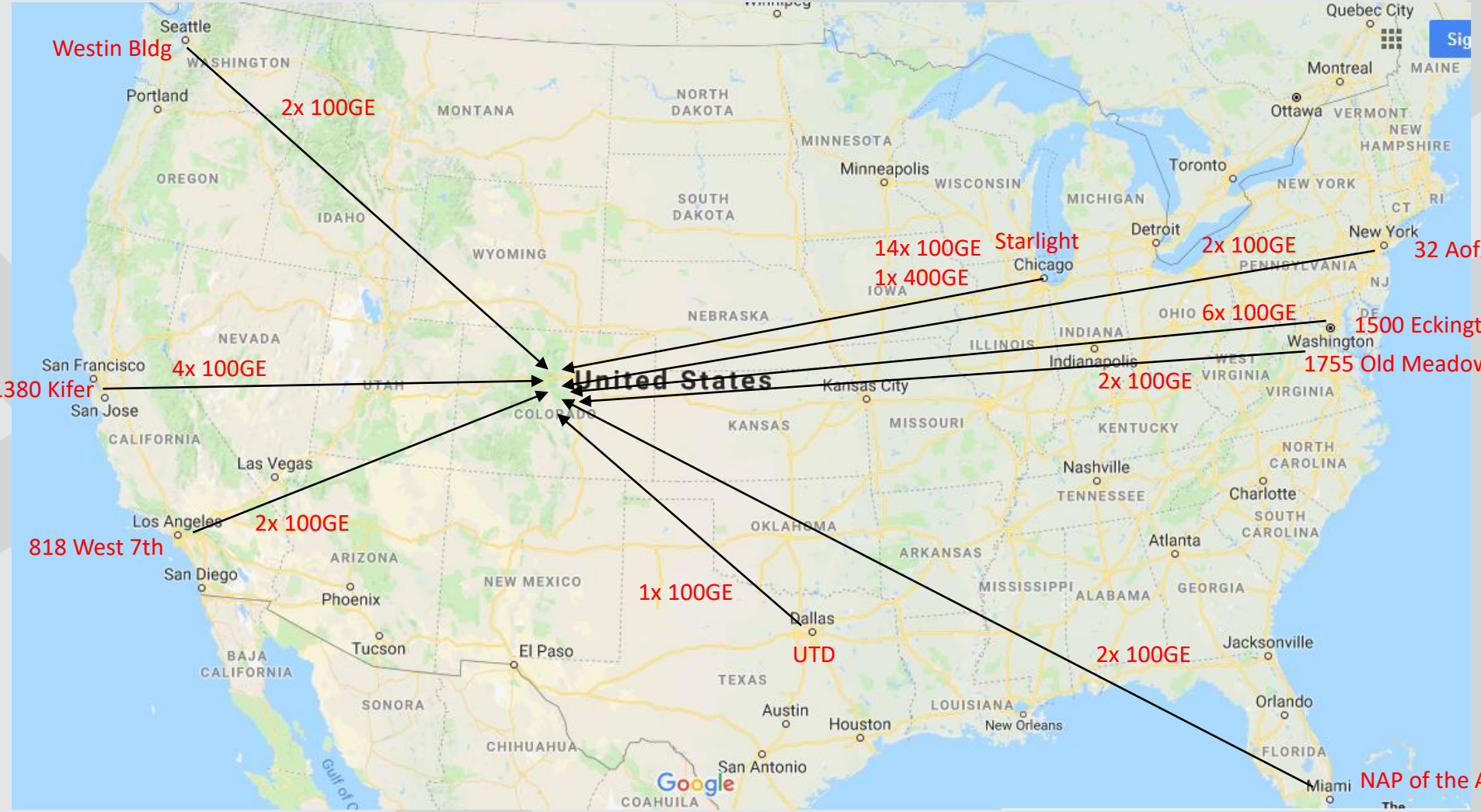
SC19 SCinet WAN Deputy Chair – Scott Kohlert – Ciena: Senior Systems Design Engineer

The WAN team works closely with optical transport vendors, and network service providers to build and test the required WAN circuits for the SC conference.

- The details of the WAN network are still in the process of being finalized.
- We are currently in discussions with the following organizations in order to provide this WAN connectivity; without their generous support and donations, the SCinet network would not be possible:

CenturyLink
INTERNET2
Infinera
JUNIPER NETWORKS
Spirent Promise. Assured.
Zayo
ESnet ENERGY SCIENCES NETWORK
ciena
CISCO
VIAVI
AT&T
FRGP Front Range GigaPop
NOKIA
DELL
EXFO
LEARN LONESTAR EDUCATION AND RESEARCH NETWORK
FUJITSU
CALIENT 3D MEMS

Planned WAN Network Map



Bandwidth will be sourced from outside of the continental U.S. over the following networks:

- PACWAVE
  - TransPAC/PacificWave Seattle – Tokyo
  - SINET LA - Tokyo
- PIREN
  - L.A. – Oahu – Guam
    - (and on to Hong Kong via TransPAC)
- JGN
  - Seattle to Tokyo
- CERNET
  - China to L.A.
- AMLight
  - Miami
- ANA links to Europe
- GEANT, Netherlight, Surfnet, etc.
- New York / MALAN
- Washington,DC / WIX
- Canarie

Map courtesy of Pacific Wave.

http://pacificwave.net/files/map/Pacific_Wave_2019.pdf

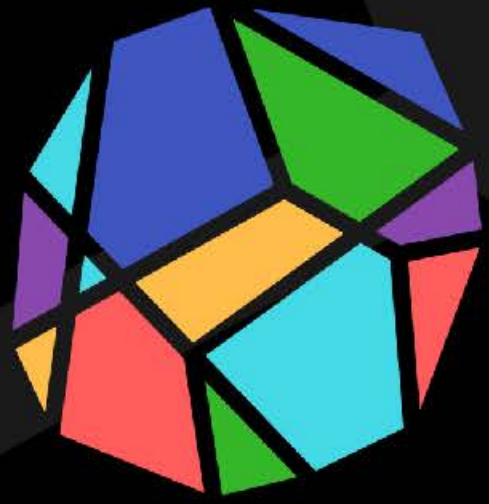
The current bandwidth plan is contingent on a number of factors

- Confirmation of committed equipment from vendors.
- Confirmation of committed circuits from long-haul service providers.
- Planned upgrade of service provider network to support higher bandwidth signals.
  - Mostly impacts bandwidth from Chicago.
    - Bandwidth per wave is cut in half without upgrade.
    - 400GE is not feasible without upgrade.
  - Potential prioritization to backfill some of the lost Chicago bandwidth could potentially have some impact on other locations.
- There will be some additional bandwidth provided into the convention center via I2/ESnet routed and switched networks.
- 2x 10G commodity circuits are also planned to be brought into the convention center from local providers.

Any questions or comments related to SC19 WAN bandwidth can be directed to:

wan-leads@scinet.supercomputing.org

Thank You



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The Networking and Information Technology Research and Development (NITRD) Program

Mailing Address: NCO/NITRD, 2415 Eisenhower Avenue, Alexandria, VA 22314

Physical Address: 490 L'Enfant Plaza SW, Suite 8001, Washington, DC 20024, USA Tel: 202-459-9674, Fax: 202-459-9673, Email: nco@nitrd.gov, Website: https://www.nitrd.gov