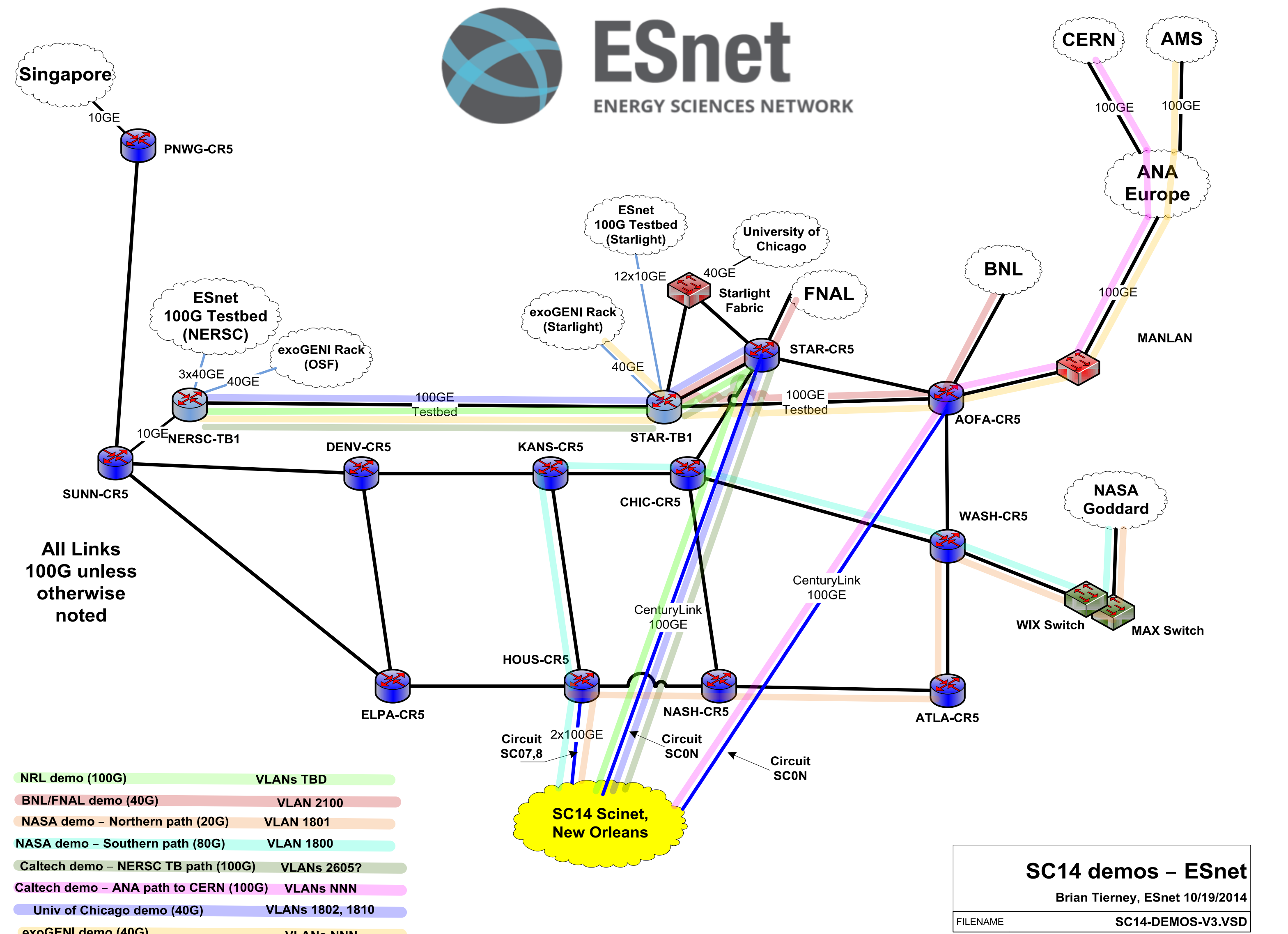
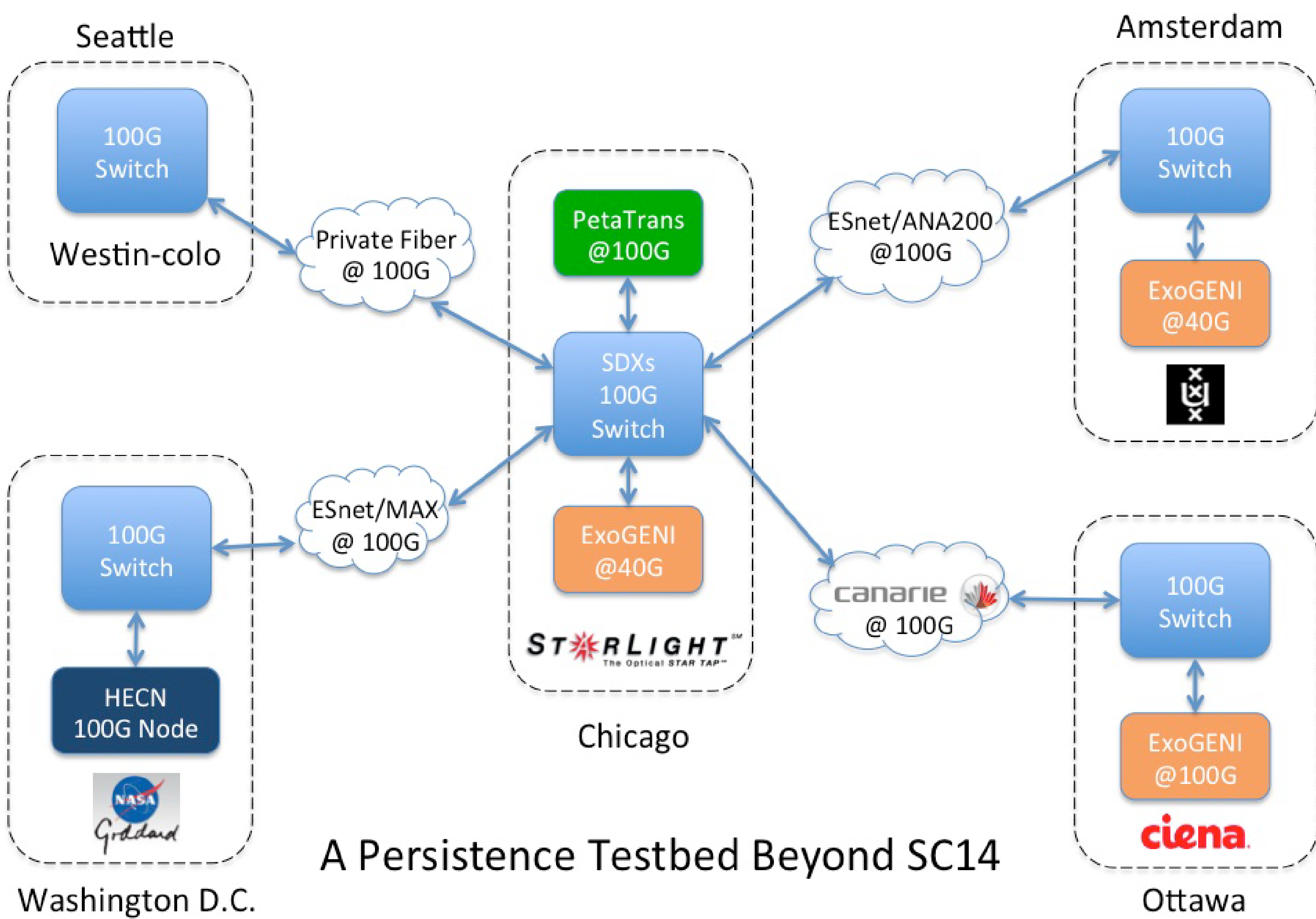


StarLight: High Performance Environment for Experimental Network Research

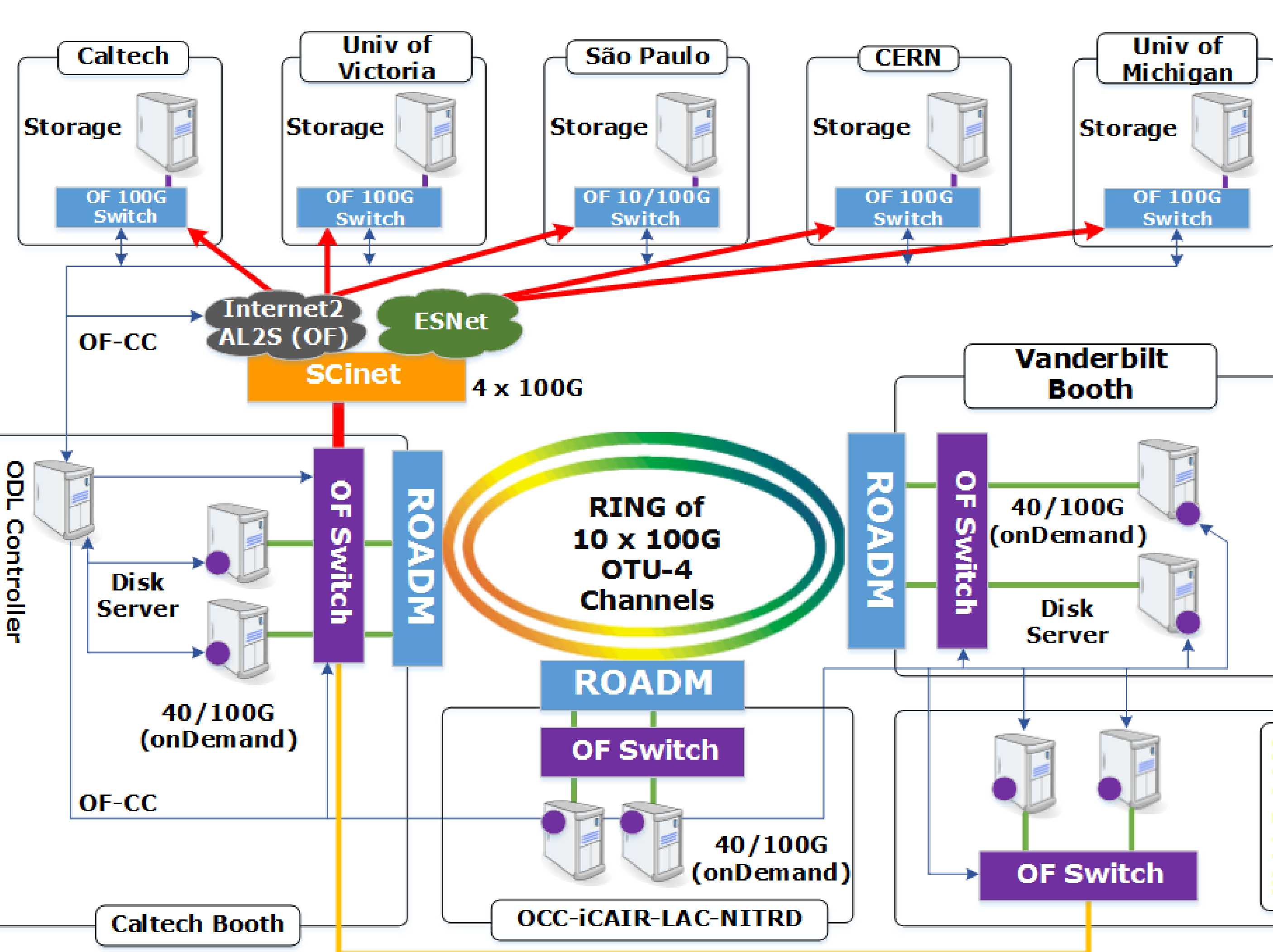
Selected StarLight 100G Testbeds

The International Center for Advanced Internet Research (iCAIR) at Northwestern University and its world-wide research partners are engaged in multiple initiatives that are creating 21st century communication services, architecture, and technologies in response to the demands of emerging and anticipated applications. This community is developing a new communication design model based on multiple emerging trends in advanced network research, including large scale distributed environments using service-oriented architecture along with sophisticated intermediate network middleware, which provides for exceptional flexibility, adjustability, and customization. This new model has been implemented at the StarLight International/National Communications Exchange facility, which is part of the Global Lambda Integrated Facility (GLIF). StarLight enables the development of globally distributed network environments within which it is possible to create customized integrated heterogeneous networks, which today supports dozens of major national and international advanced networks as well as many major experimental network research testbeds. Below are selected examples of StarLight supported testbeds.

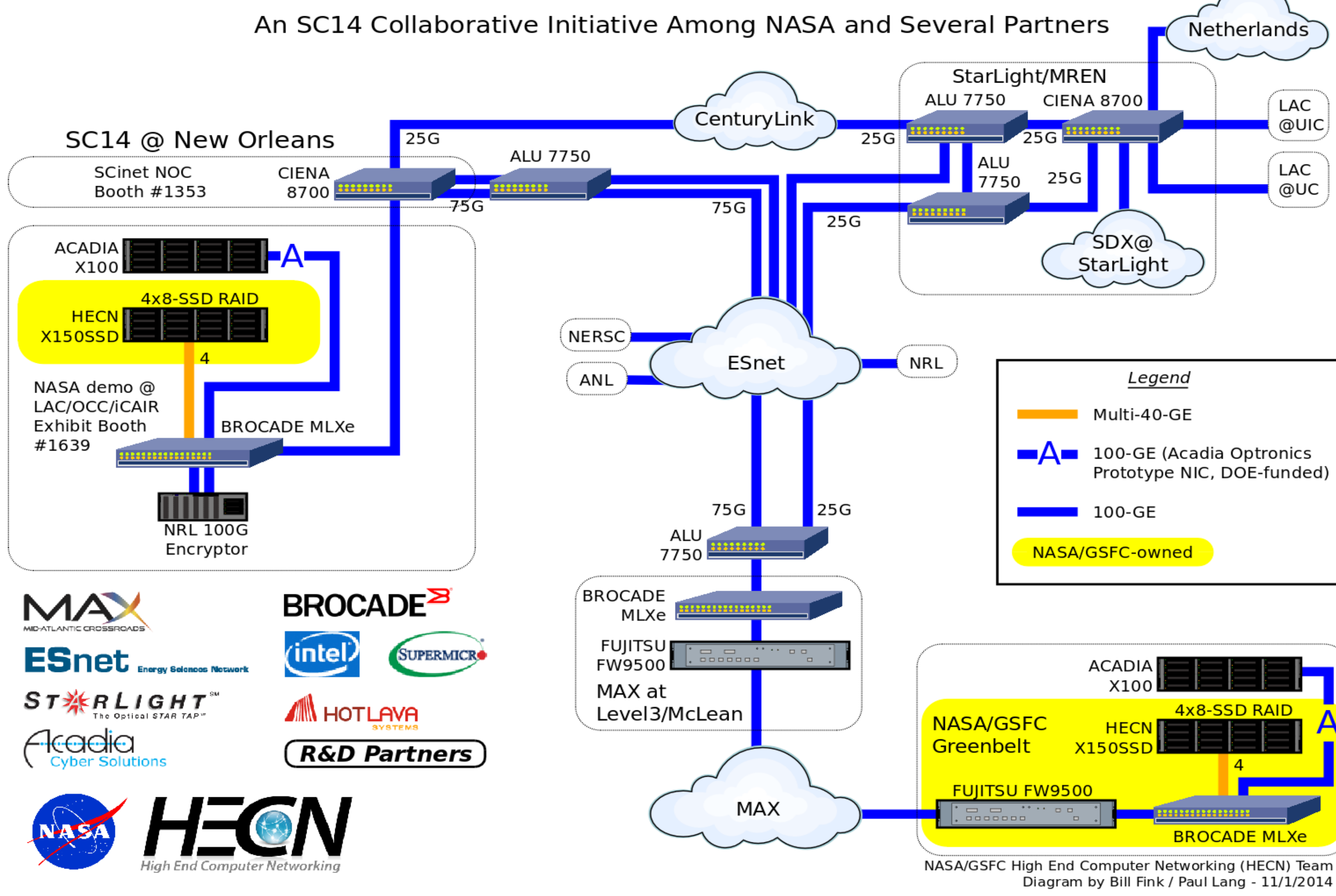
PetaTrans: Petascale Science Data Transfer



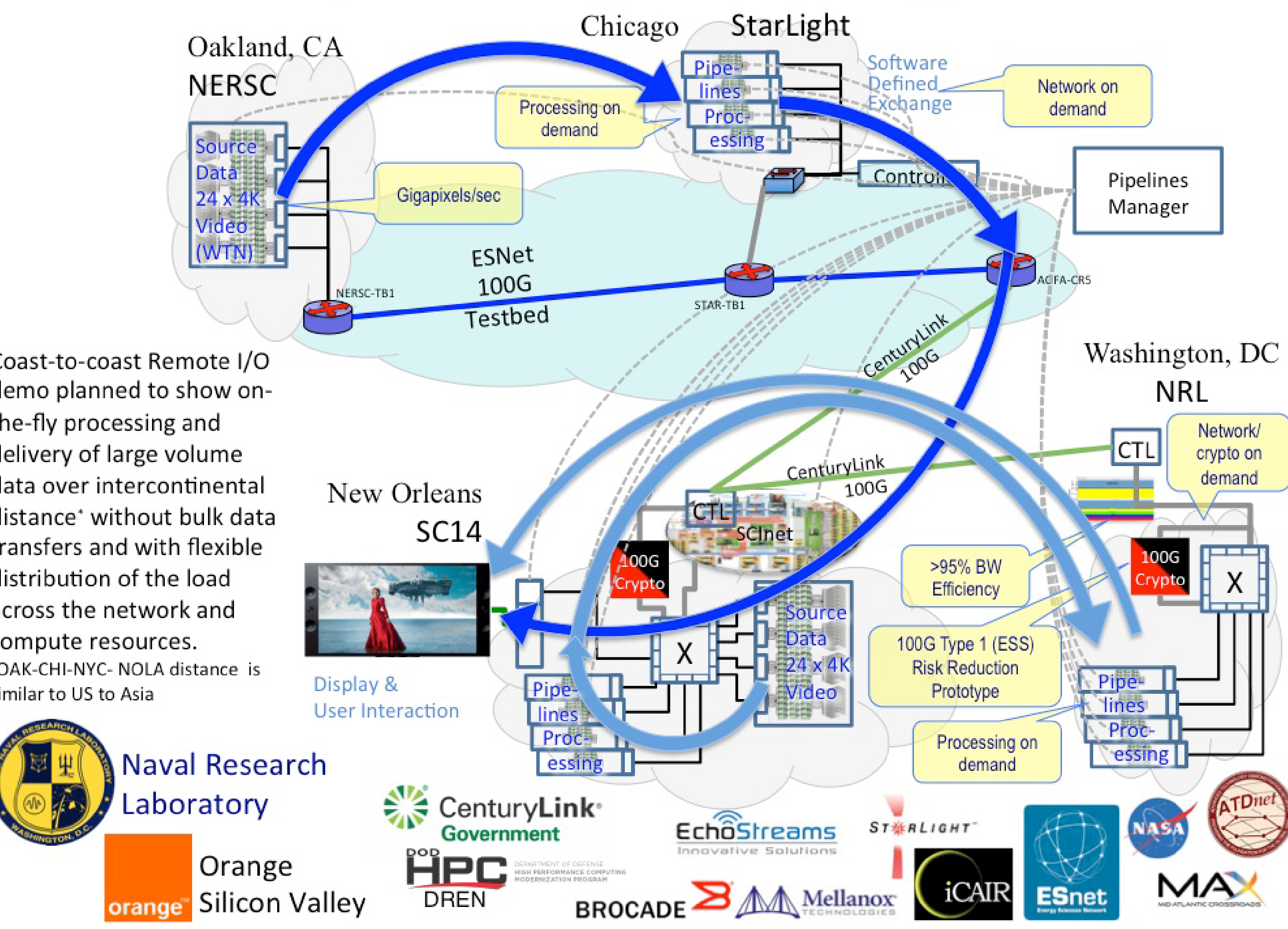
Global Software-Defined Dynamic Circuits for Data Intensive Science (PhEDEx - ANSE - PANDA - OpenDayLight)



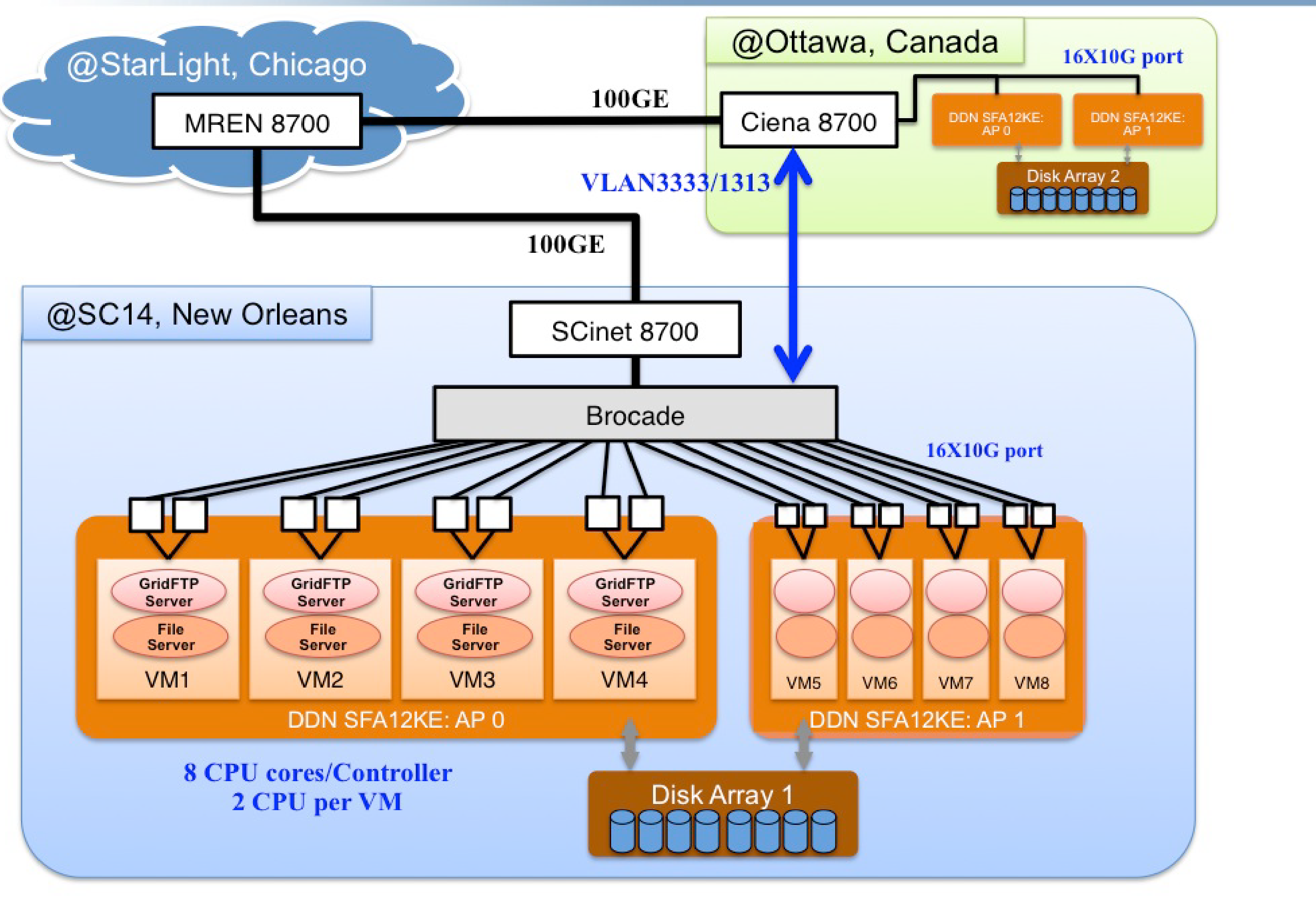
SC14 Evaluations/Demonstrations of 100 Gbps Disk-to-Disk WAN File Transfer Performance



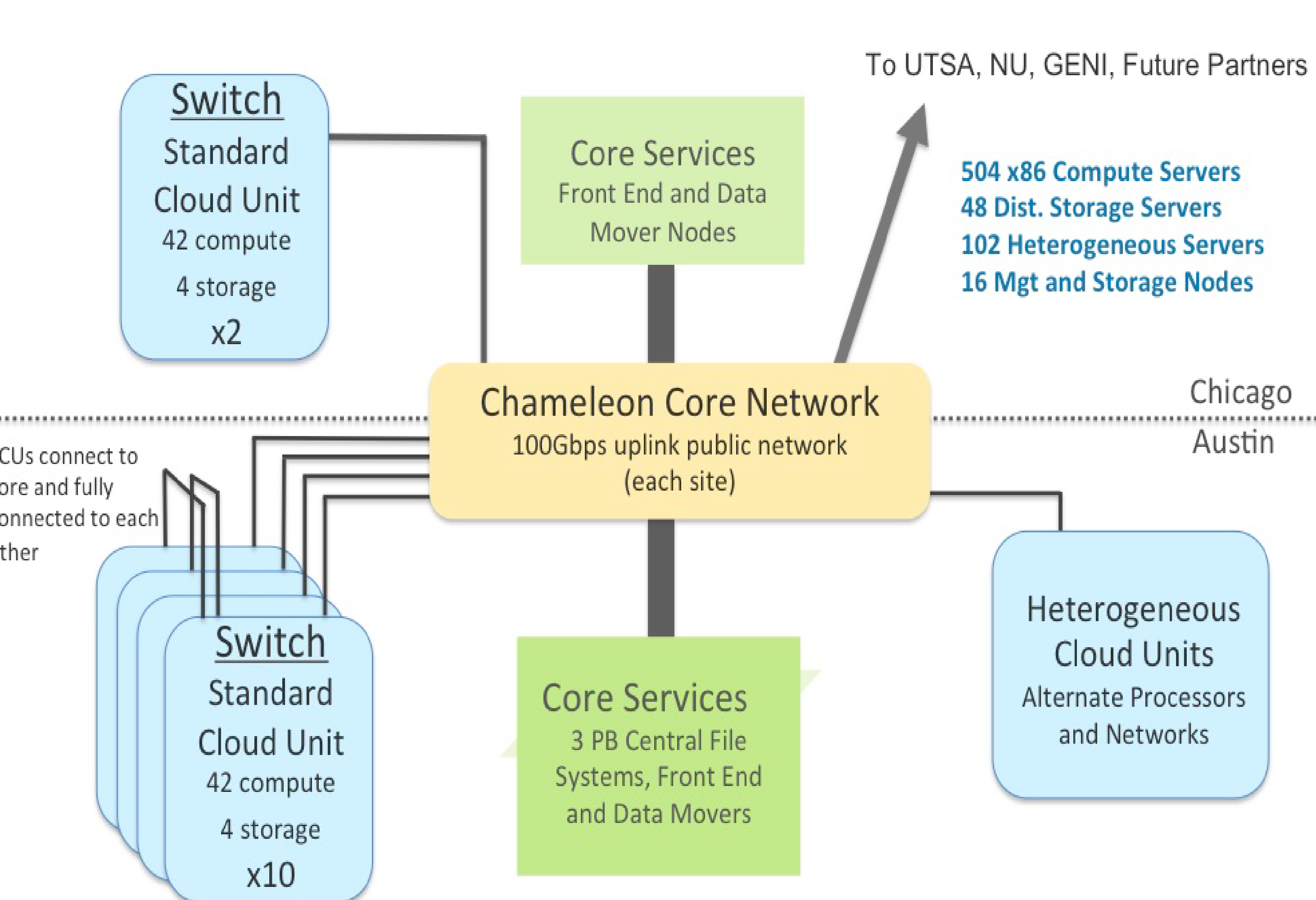
Remote I/O Pipeline Processing Network



100G+ Data Transfer via Embedded GridFTP in a DDN Disk Controller



CHAMELEON ENVIRONMENT



Trans-Atlantic Experiment @ SC14

