PSNC

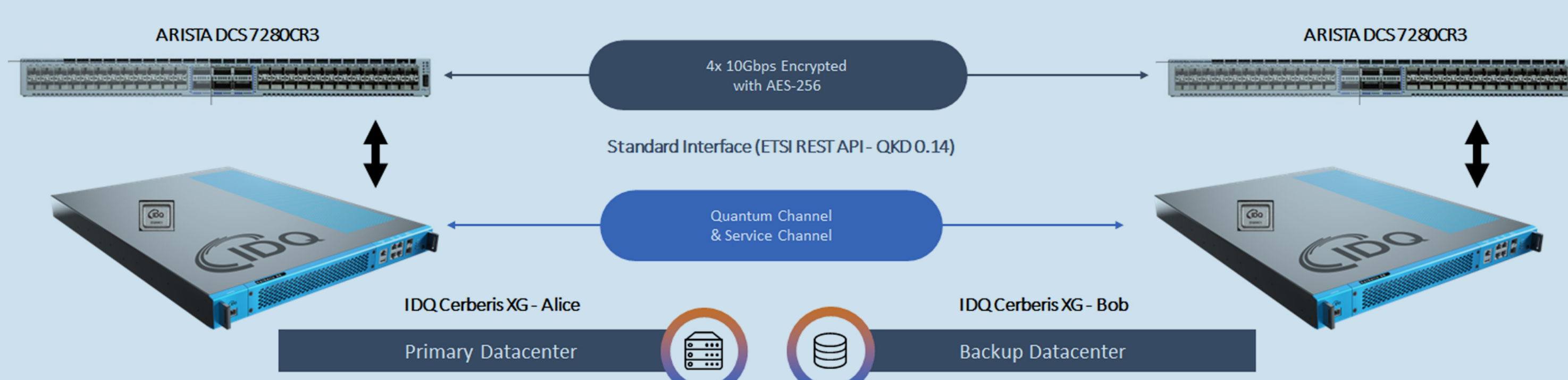**POZNAN SUPERCOMPUTING AND NETWORKING CENTER**

Where Innovation Is Everyday

MACsec protocol and Quantum Key Distribution integration in operational environment and devices

- Live IDQ QKD system operation together with ARISTA networking equipment
- Example of ETSI GS 014 QKD protocol implementation
- QKD keys integrated with MACsec system
- MACsec keys rotated using external QKD keys
- Possibility to work woth all QKD devices that use ETSI 014 interface

SC22 LIVE DEMO

ARISTA DCS 7280CR3 — 4x 10Gbps Encrypted with AES-256 — Standard Interface (ETSI REST API - QKD 0.14) — Quantum Channel & Service Channel — ARISTA DCS 7280CR3

IDQ Cerberis XG - Alice — Primary Datacenter — IDQ Cerberis XG - Bob — Backup Datacenter
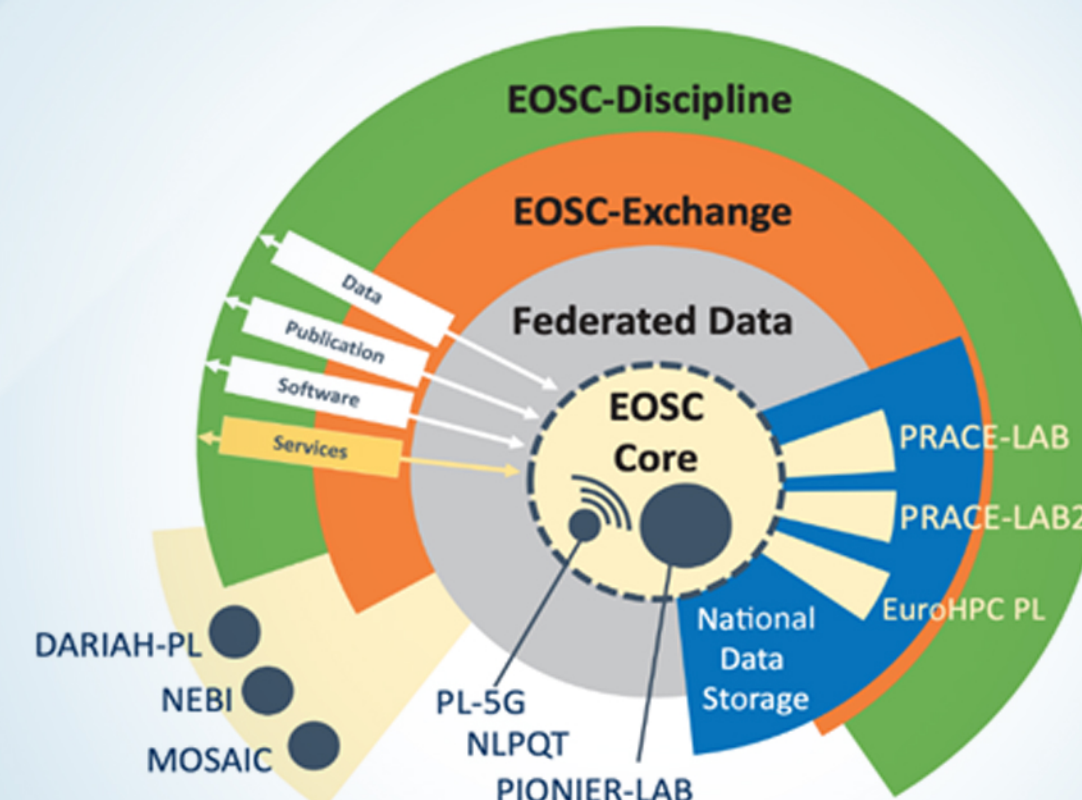
HPC, Cloud and Data services

- National HPC infrastructure and services for scientific applications
- Cloud on demand for industry
- Big data analysis
- Monitoring of resources
- Platform for peer review process
- Platform for user handling and services customisation

SC22 LIVE DEMO

European Open Science Cloud

EOSC is an environment for hosting and processing research data to support EU science.

The ambition of EOSC is to provide European researchers, innovators, companies and citizens with a federated and open multi-disciplinary environment where they can publish, find and re-use data, tools and services for research, innovation and educational purposes.

EOSC-Discipline — EOSC-Exchange — Federated Data — EOSC Core — PRACE-LAB — PRACE-LAB2 — EuroHPC PL — National Data Storage — DARIAH-PL — NEBI — MOSAIC — PL-SG — NLPQT — PIONIER-LAB

IBM Quantum Hub

First IBM Quantum Hub in Central and Eastern Europe is located in Poznan.

PSNC joined the IBM Quantum Network, to explore the development of quantum computing applications including advancing artificial intelligence solutions, space technologies, metrology and crisis modeling.

Intel AI 4 Youth

The pilot educational project for general secondary schools is implemented by the Consortium of the PSNC IBCh PAS and the Software Development Academy operating for the Ministry of Development and Technology.

It is based on Intel's global program aimed at increasing digital awareness, especially in the field of artificial intelligence, and promoting the competences of the future among young people.