A.Bobyshev (bobyshev@fnal.gov)

1. Logical network layout
	1. Each VLAN of same logical networks is available everywhere, both caverns, CUC, RossDry and Yates
	2. There might be also the need to extend the selected DAQ VLANs to Batavia site
2. Bandwidth requirements between Underground and Surface
	1. Typical packet sizes ( this is to calculate the required Packet per second rates that switch HW needs to handle to achieve the required BW
	2. All network devices should be capable to support wiring speed for minimal size ethernet frames of 88 bytes/packet
	3. 100% load on all ports
3. Network infrastructure should have enough capacity to support redundant connections for all servers
4. Non-blocking fabric dataflow, read-out networks
5. Port latency
6. Port buffering
	1. Packet loss fabric in case all servers are sending simultaneously to a single egress link
7. Packet data rates
8. QoS support to give different priorities to different types of traffic
9. Resilience:
	1. Should Network underground be fully operational and the full capacity with RossDry building down?
	2. Should network be at 100% capacity with fiber in a single shaft broken for an extended period
	3. All network gears for dataflow and readout networks should support redundant and hot-swappable power supplies and fans
10. Operational environment
	1. Temperature, cooling, vibration
11. In-Service software upgrade
12. IPv6 support
13. Programmability (POAP, Zero-Touch)