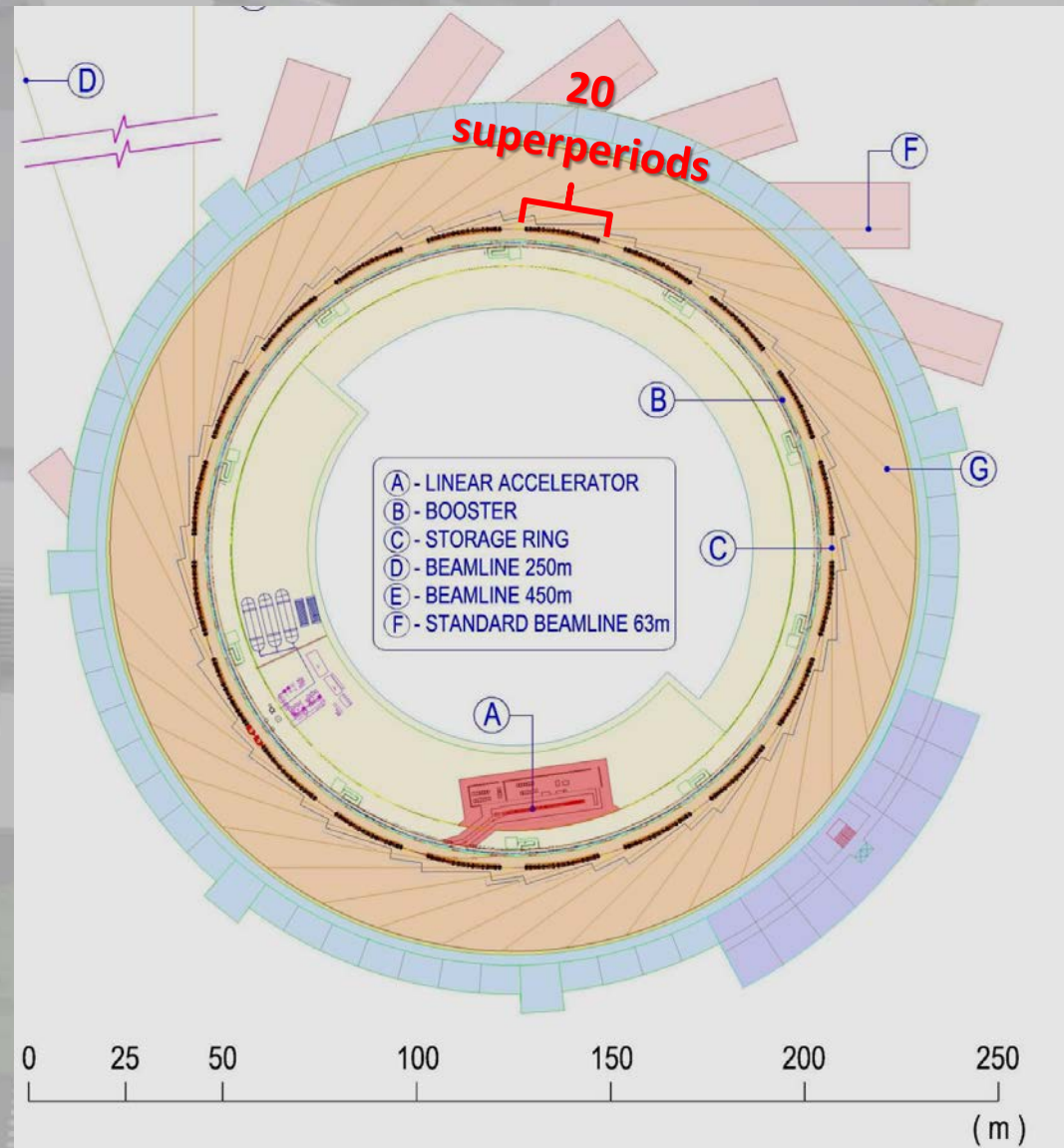


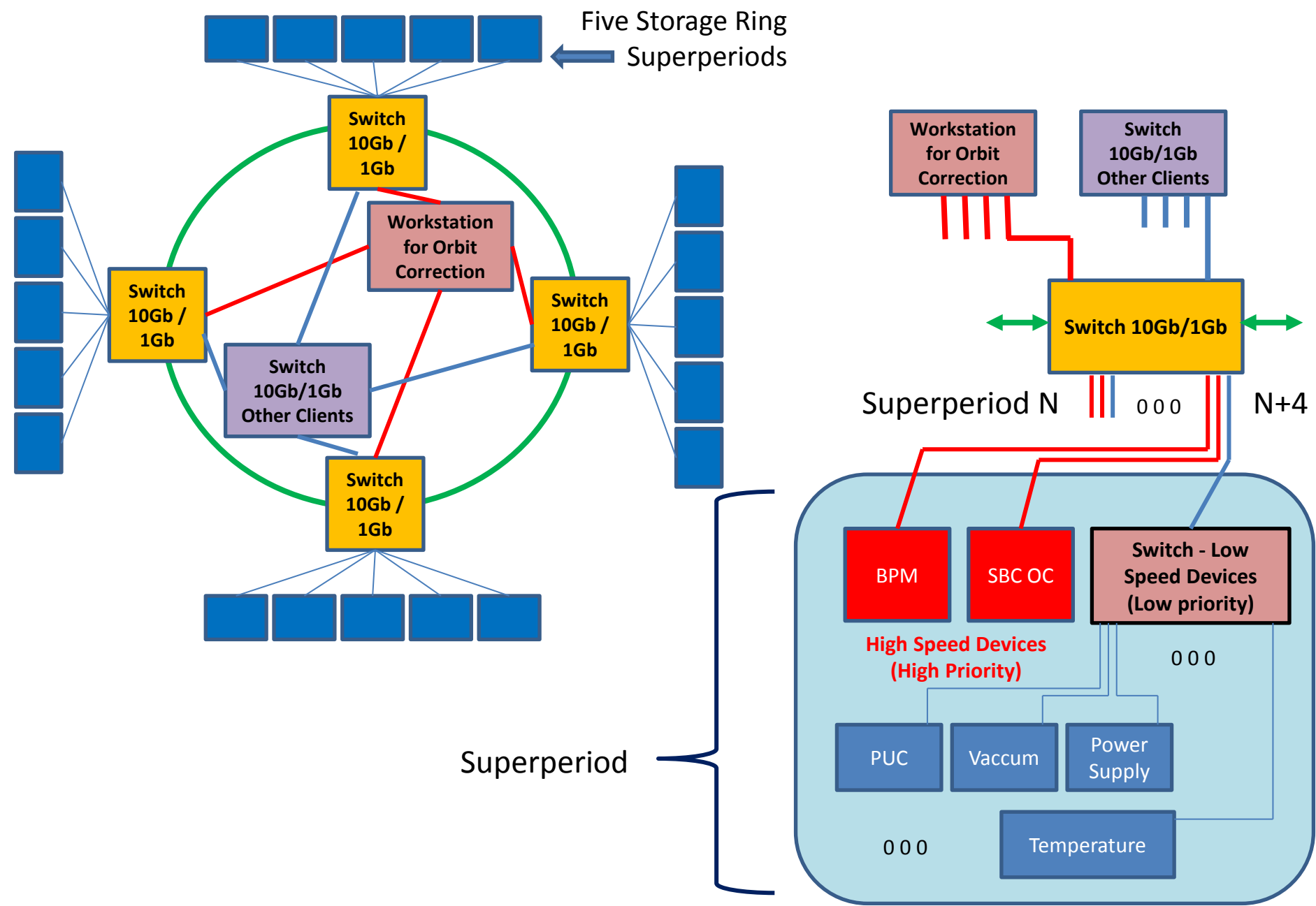
SIRIUS CONTROL SYSTEM: CONCEPTUAL DESIGN

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Round Trip Time for SBC from different manufactures

Processor	Network Interface	Average Time (uS) @ 100B payload (60 S test)	
		UDP	TCP
(a) AMD Geode LX800 #1core @500MHz - 0.5GB	82551ER @0.1Gbps	148.42	158.84
Intel Atom 530 #1core @1.6GHz - 1GB	82574IT @1.0Gbps	161.71	161.84
(b) AMD Geode LX800 #1core @500MHz - 0.5GB	RTL8100CL @0.1Gbps	132.98	143.00
Intel Celeron 847 #2cores @1.1GHz - 2GB	RTL8111F @1.0Gbps	227.61	229.12
(c) AMD Geode LX800 #1core @500MHz - 0.5GB	82551ER @0.1Gbps	153.21	164.64
Intel Core 2 Duo SL9400 #2cores @1.9GHz - 2GB	82574IT @1.0Gbps	61.60	80.42

Round Trip Time for SBC, plus latency time of unmanaged and managed switches

Processor	Average Time (uS) @ 100B payload TCP Protocol (60 S test)		
	Direct	Unmanaged	Managed
Intel Core 2 Duo SL9400 #2cores @1.9GHz - 2GB	80.42	101.69	105.41
(b) AMD Geode LX800 #1core @500MHz - 0.5GB	143.00	150.46	158.89
Intel Celeron 847 #2cores @1.1GHz - 2GB	229.12	231.61	245.45

Epics Training in UVX Control System

