

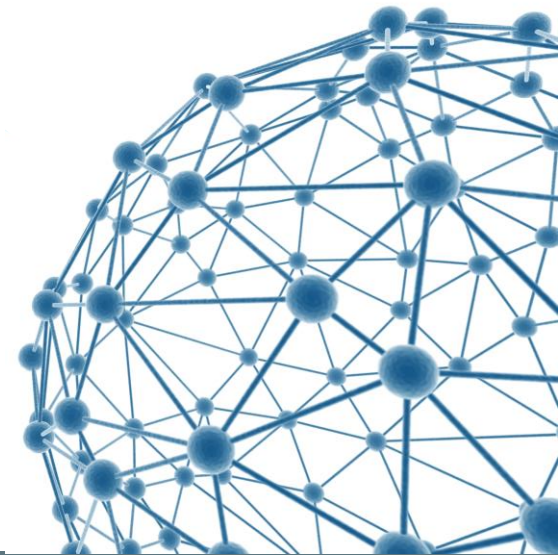


Network Monitoring

Simone Campana

David Tuckett

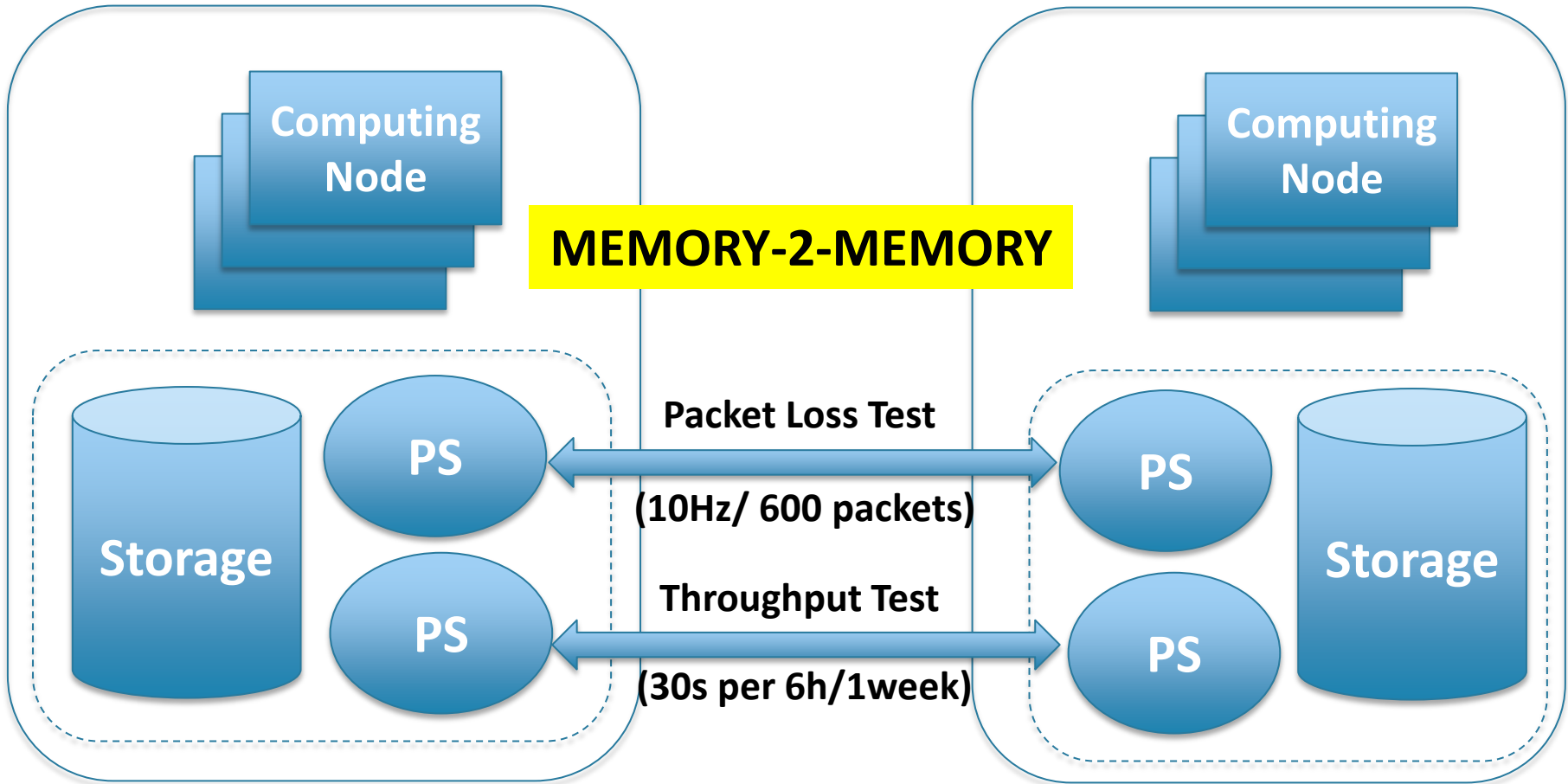
CERN IT-SDC



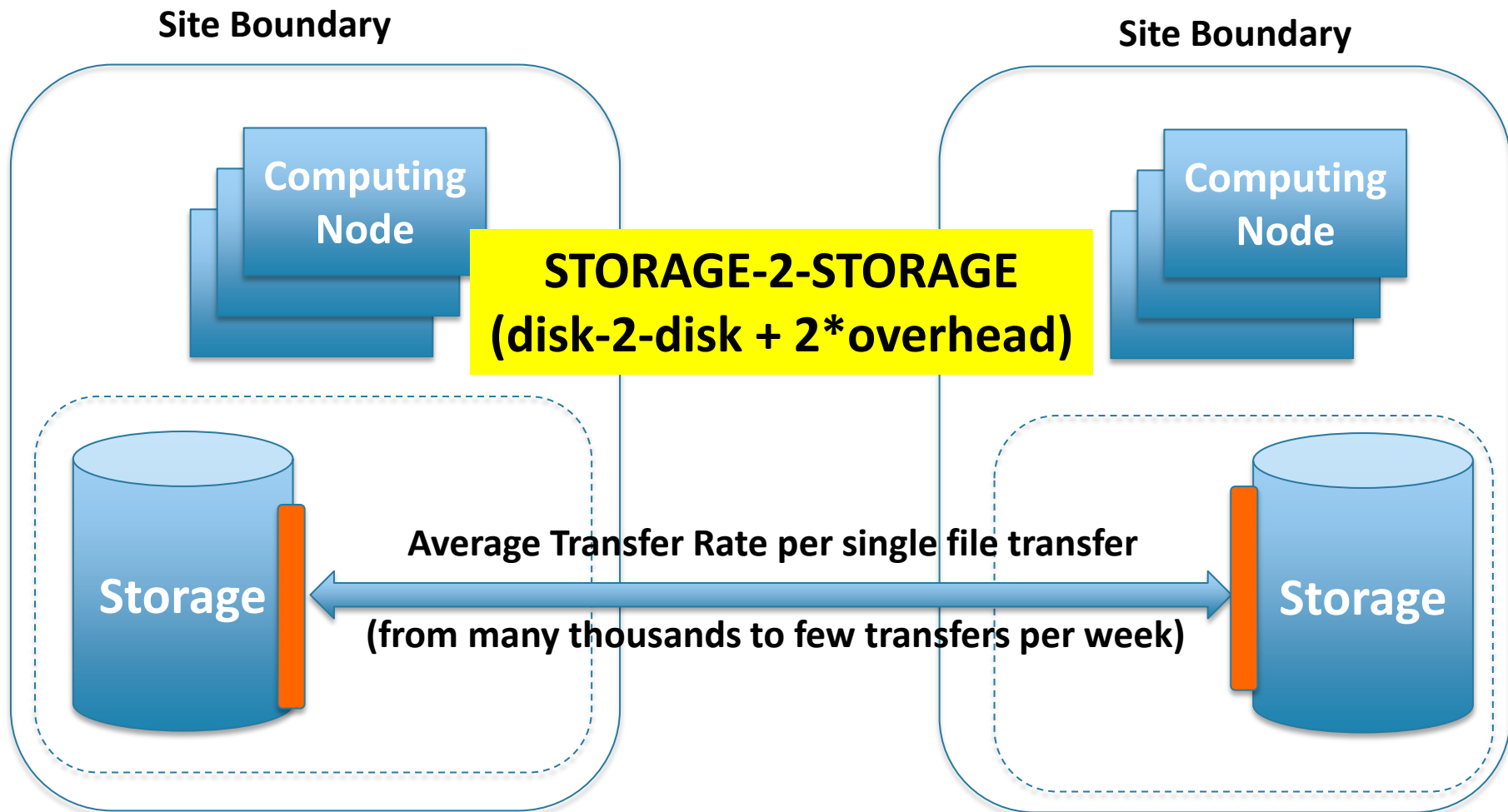
perfSONAR

Site Boundary

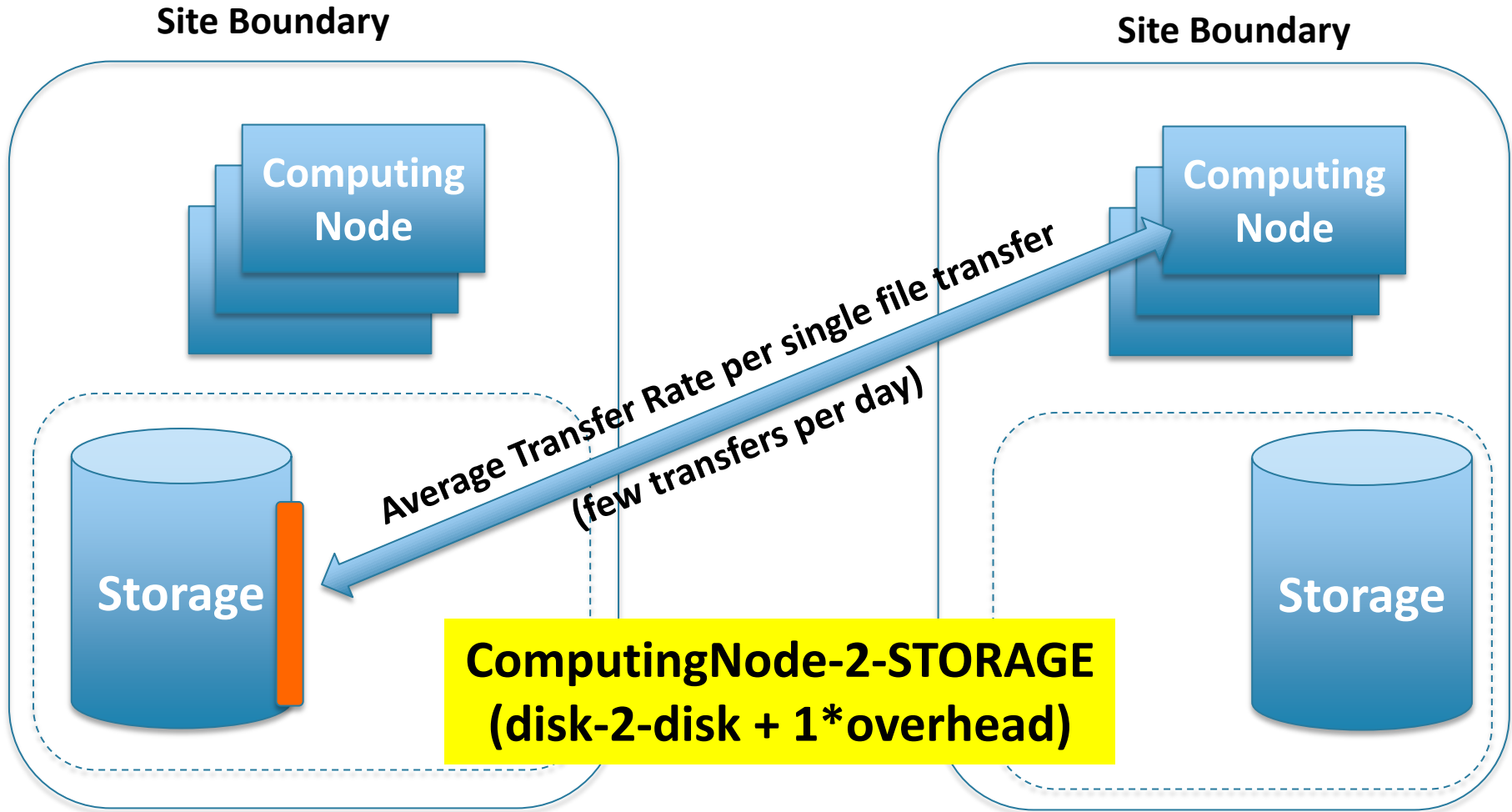
Site Boundary



FTS transfers



WAN data access tests



Alice Network Monitoring

- Based on VOBOXes at sites + Monalisa
- I know little about it, but I believe it should be looked at

Putting stuff together ...

ATLAS aggregates complementary network information in the Site Status Board

Topology						FTS transfer (per file)						perfSONAR						FAX xrdcp rate	WAN data access (WN-SE)
SrcSite	SrcCloud	SrcTier	DstSite	DstCloud	DstTier	DDM Sonar						perfSONAR							
						AvgBRS (MB/s)	EvS	AvgBRM (MB/s)	EvM	AvgBRL (MB/s)	EvL	MinThr (MB/s)	AvgThr (MB/s)	MaxThr (MB/s)	MinPL	AvgPL	MaxPL		
Taiwan- LCG2	TW	T1	RAL-LCG2	UK	T1	0.51+/-0.63	285	7.25+/-5.02	336	7.88+/-5.47	649	0.3	0.3	0.3	0.0	65.7	329.0	n/a	
Taiwan- LCG2	TW	T1	IN2P3-CC	FR	T1	0.52+/-0.66	55886	6.34+/-2.94	6121	16.10+/-6.07	1617	0.5	0.5	0.5	600.0	600.0	600.0	1.33	
TRIUMF- LCG2	CA	T1	Taiwan- LCG2	TW	T1	0.41+/-0.41	400	1.25+/-0.24	38	2.89+/-1.30	5	0.4	0.5	0.6	0.0	0.0	1.0	n/a	
pic	ES	T1	Taiwan- LCG2	TW	T1	0.04+/-0.09	162	0.00+/-0.00	0	0.00+/-0.00	0	0.3	0.6	0.8	0.0	0.0	0.0	n/a	
FZK-LCG2	DE	T1	Taiwan- LCG2	TW	T1	0.17+/-0.24	1178	1.01+/-0.23	505	16.93+/-11.49	5	0.5	1.3	2.2	0.0	0.0	0.0	n/a	
BNL-ATLAS	US	T1	RAL-LCG2	UK	T1	0.29+/-0.51	45183	3.71+/-1.71	2697	21.06+/-15.41	879	1.5	1.7	1.9	0.0	18.2	229.0	n/a	
Taiwan- LCG2	TW	T1	FZK-LCG2	DE	T1	0.83+/-1.08	280	4.70+/-2.82	36	16.37+/-9.10	125	1.9	2.0	2.3	0.0	0.1	2.0	1.15	
INFN-T1	IT	T1	Taiwan- LCG2	TW	T1	0.29+/-0.46	540	1.87+/-0.76	6	0.00+/-0.00	0	1.7	2.0	2.3	0.0	0.0	0.0	n/a	
pic	ES	T1	RAL-LCG2	UK	T1	0.61+/-0.31	5202	6.32+/-2.22	216	20.80+/-9.55	4	1.5	2.4	2.5	0.0	57.5	357.0	n/a	
BNL-ATLAS	US	T1	IN2P3-CC	FR	T1	1.63+/-2.05	101375	15.30+/-6.78	28627	39.26+/-12.94	5481	2.5	3.3	4.4	0.0	0.0	0.0	1.34	
NDGF-T1	ND	T1	Taiwan- LCG2	TW	T1	0.09+/-0.13	4488	1.40+/-0.62	67	19.33+/-0.81	5	3.7	3.8	4.3	0.0	0.0	0.0	n/a	
IN2P3-CC	FR	T1	Taiwan- LCG2	TW	T1	0.36+/-0.57	4641	3.58+/-2.00	3840	9.12+/-6.52	1067	3.3	4.2	5.3	0.0	0.0	0.0	n/a	
FZK-LCG2	DE	T1	RAL-LCG2	UK	T1	0.47+/-0.74	70705	7.44+/-6.32	7598	14.03+/-16.74	6770	2.8	4.4	9.9	0.0	24.2	193.0	n/a	
RAL-LCG2	UK	T1	Taiwan- LCG2	TW	T1	0.06+/-0.19	13355	0.96+/-0.34	528	0.00+/-0.00	0	6.7	6.7	6.7	0.0	0.6	5.0	n/a	

WAN data access (WN-SE)

Ideas for a common network monitoring system

- Deploy a “WLCG” SSB instance hosting network monitoring view
 - Deal with topologies from different experiments
- perfSONAR information
 - Need some rationalization, especially for throughput tests
- FTS information
 - Take them from the FTS monitoring from all VOs
 - Abandon the small-medium-large files breakdown, but fit transfer rate and overhead from measurements
- WAN access (Se to WN) information
 - Take them from the AAA+FAX monitoring. Easy for xrdcp use case, to be thought for directI/O
- Look at possibly integrating Alice data