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CCRC08 requirements from T1 sites

ATLAS Tier-1 Jamboree @CERN 6-Dec-2007

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- On Tuesday 4-Dec, experiments presented their storage requirements for CCRC08

  - *http://indico.cern.ch/conferenceDisplay.py?confId=20248*

- Sites present felt that the information presented was in general not detailed enough for the preparation of the CCRC08 services (specially SRMv2.2 endpoints)

- Yesterday the MB asked 3 T1 sites (CNAF, IN2P3, PIC) to produce a clear listing of the information we need to prepare for CCRC08

- This is very preliminary information we put together, just to try and get your immediate feedback today

General Information needed (for each VO)

- Summary table with the total amount of resources needed at each T1

Tier-1 Site	CPU (ksi2k)	Disk (TB)	Tape (TB)
site A			
site B			

- Data retention: can we delete some data after the exercise?
- Clear list of the different "**dataflows**" to be tested
  - e.g. Data Taking, Reprocessing, AOD Production, MC Reprocessing, Analysis, etc…
  - time schedule for each dataflow to be tested (gantt chart like)

| *(example from LHCb)*	Week1	Week2	Week3	Week4
Data Taking	███			
Stripping (while DT)	███			
Reprocessing		███		
Stripping (while R)		███		
Stripping (standalone)			███	
Analysis				███

Info needed for each dataflow

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1. A brief explanation (possibly a graphical schema) of the dataflow
2. Data rate in/out to various **storages** for each source/destination **node**
   - storages: (space token, storage class) pair
   - nodes: T0, T2s, other T1s, local WNs
3. The number of "1ksi2k CPU job slots" simultaneously running
4. How data is accessed from the WNs?
   - copied to the local disk vs. remotely opened?
5. For the data WNs read from T1D0 specify
   - If stage-in from tape will be needed, or read from disk cache before garbage collected
   - Lifetime of the files expected to stay in the disk cache
6. Do these jobs access the catalogues and databases? At which rate?

Stripping process during data taking

LHCb CCRC08 – December'07

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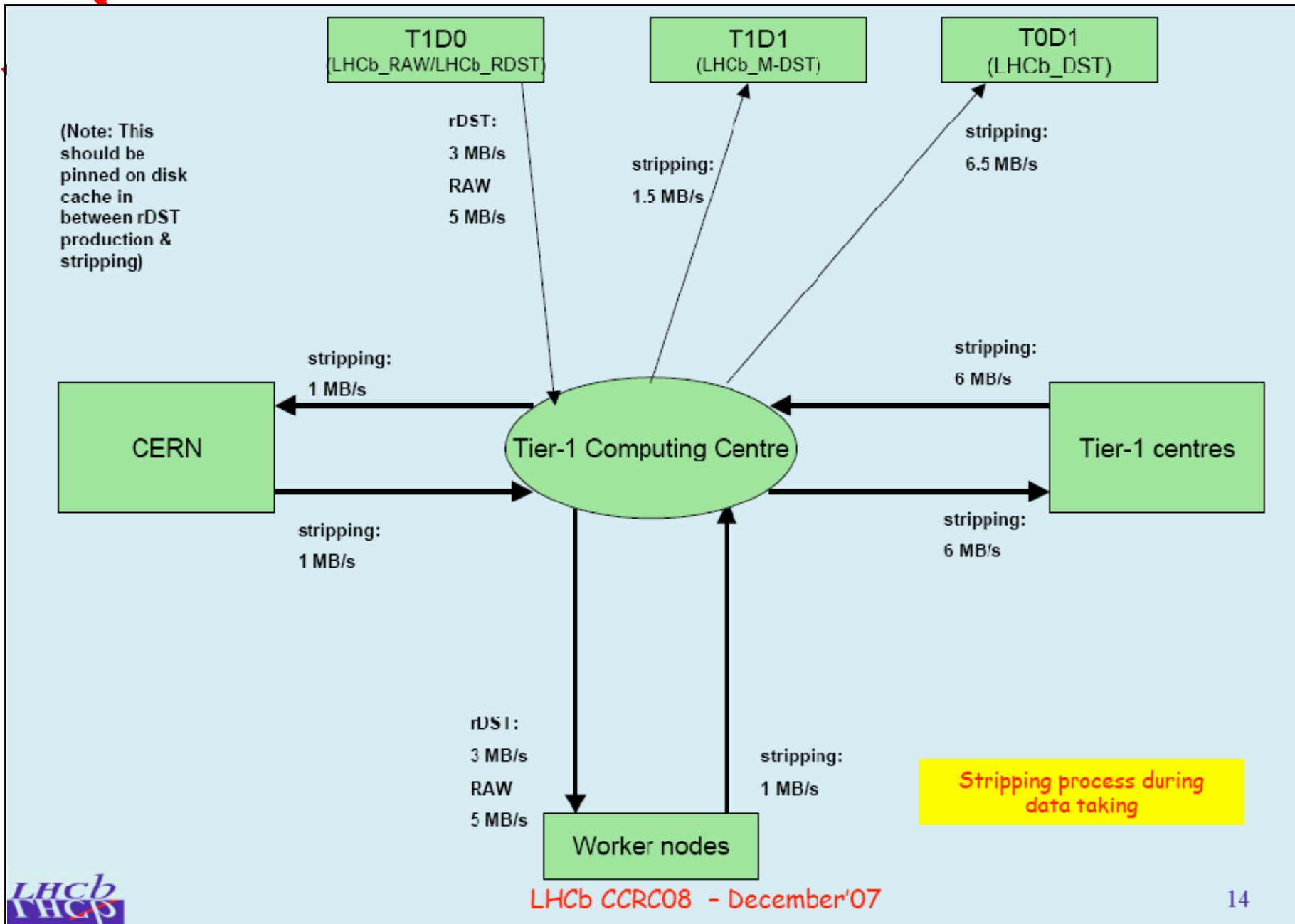
Example from LHCb
DataFlow: "stripping while data taking"

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For each of the dataflows, need a table similar to this for each T1 (or just for the avg. T1, plus the T1 shares, provided all the rates/sizes can then be trivially scaled)

rates (MB/s)	LHCb_RAW/T1D0		LHCb_RDST/T1D0		LHCb_M-DST/T1D1		LHCb_DST/T0D1	
	Get	Put	Get	Put	Get	Put	Get	Put
Tier-0					1			1
Other Tier-1s					6			6
Tier-2s								
Local WNs	5		3			1		

	LHCb_RAW/T1D0	LHCb_RDST/T1D0	LHCb_M-DST/T1D1	LHCb_DST/T0D1
Tot. Size (TB)	40	23	10	50

Next Steps

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- Consult the storage experts at some sites to make sure that our proposal is really the needed information for configuring the SRM endpoints.

- When validated we will send these requirements to the experiments represented in the CCRC group.