

# WAU Dashboard

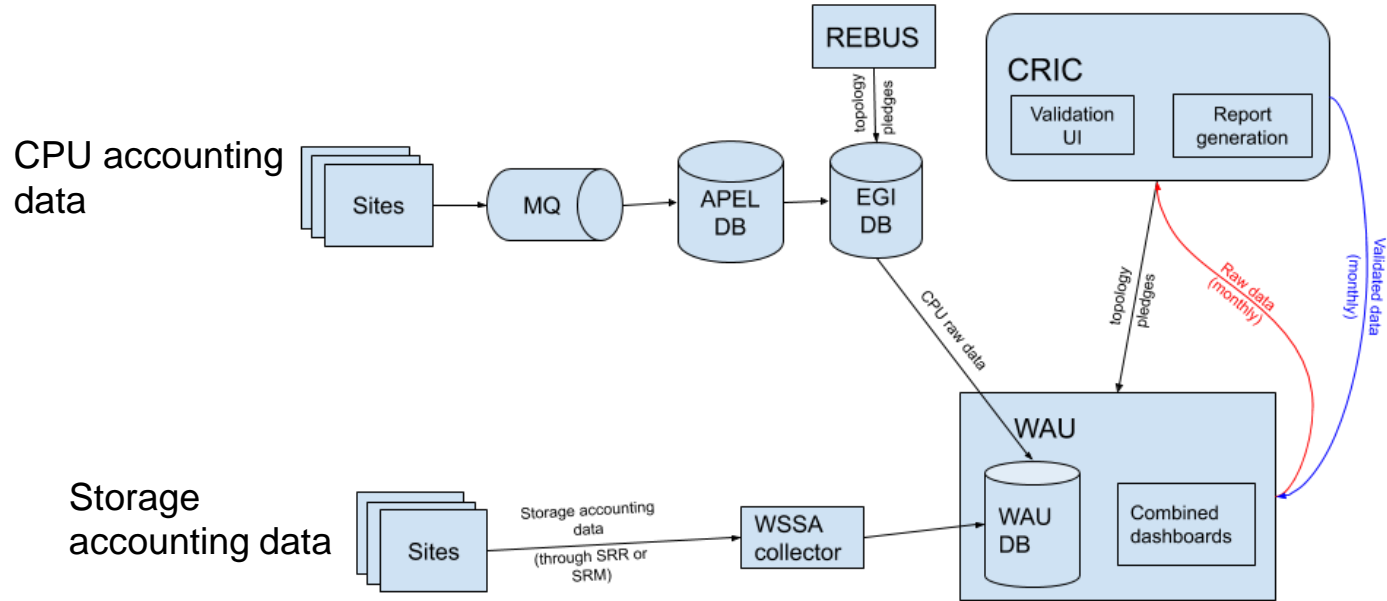
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Julia Andreeva  
Dimitrios Christidis  
Panos Paparrigopoulos

# WAU Dashboard Overview

WAU (WLCG Accounting Utility) Dashboard

WAU = Combination of WSSA and CPU accounting data.

# Where data comes from?



# Current state of the dashboard

\_user bvasilev was\_test1 -

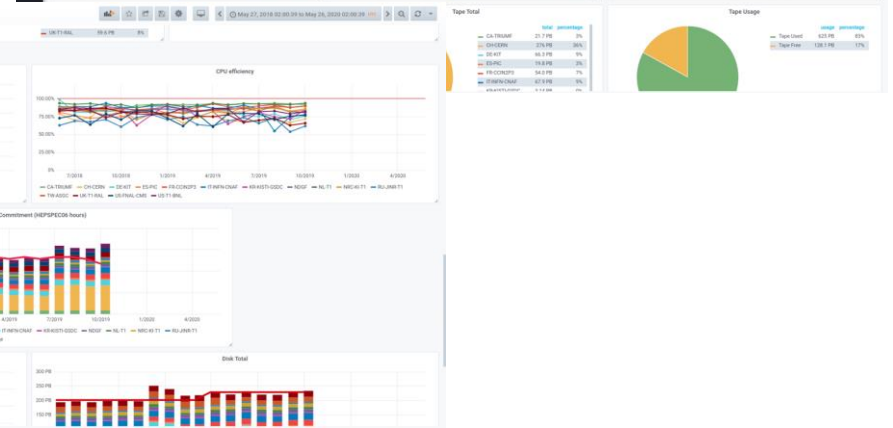
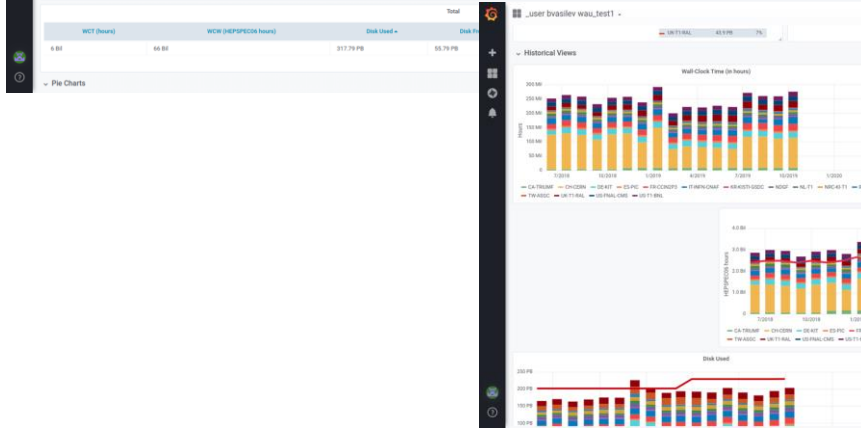
Table View

Summary

Reference	WCT (hours)	WCR (HWP/SPCCS hours)	Disk Used	Disk Free	Disk Total	Types Used	Types Free	Types Total
AT-HEPVM-VENNA-USER	8 MB	88 MB	-	-	-	-	-	-
AU-ATLAS	19 MB	149 MB	1.21 PB	156.28 TB	1.37 PB	-	-	-
BE-TDRS	48 MB	393 MB	-	-	-	-	-	-
BR-SP-SPACE	17 MB	156 MB	-	-	-	-	-	-
CA-EAST12	19 MB	267 MB	1.88 PB	249.13 TB	2.13 PB	-	-	-
CA-TRIAMF	93 MB	2 MB	970.70 TB	10.74 PB	16.43 PB	5.24 PB	21.47 PB	
CA-WEST12	31 MB	502 MB	3.09 PB	408.86 TB	3.50 PB	-	-	-
CH-CERN	1 MB	11 MB	58.00 PB	69.14 PB	247.40 PB	28.35 PB	275.95 PB	
CH-CHIPP-CDCS	70 MB	763 MB	2.63 PB	994.37 TB	3.63 PB	-	-	-
CH-HEP	8 MB	85 MB	296.09 TB	462.73 TB	-	-	-	-
CE-PPHAG-T2	50 MB	540 MB	631.57 TB	4.09 PB	-	-	-	-
DE-DESY-ATLAS-T2	-	-	425.44 TB	2.38 PB	-	-	-	-
DE-DESY-ATLAS-T2	15 MB	151 MB	267.32 TB	1.97 PB	-	-	-	-
DE-DESY-LHC	24 MB	425 MB	-	-	-	-	-	-
DE-DESY-RWTH-AAS-T2	178 MB	2 MB	-	-	-	-	-	-

Total

WCT (hours)	WCR (HWP/SPCCS hours)	Disk Used	Disk Free
6.80	64.80	317.79 PB	55.79 PB



# Current state of the dashboard

## CPU data (from EGI)

Summary

## Storage data (from WSSA)

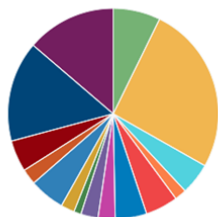
federation ▲	WCT (hours)	WCW (HEPSPEC06 hours)	Disk Used	Disk Free	Disk Total	Tape Used	Tape Free	Tape Total
CA-TRIUMF	121 Mil	2 Bil	8.76 PB	926.25 TB	9.69 PB	16.15 PB	5.32 PB	21.47 PB
CH-CERN	2 Bil	18 Bil	56.31 PB	10.45 PB	66.76 PB	242.25 PB	36.78 PB	279.04 PB
DE-KIT	323 Mil	4 Bil	22.09 PB	2.62 PB	24.70 PB	52.13 PB	13.26 PB	65.39 PB
ES-PIC	91 Mil	1 Bil	4.01 PB	659.47 TB	4.67 PB	16.26 PB	3.72 PB	19.98 PB
FR-CCIN2P3	333 Mil	4 Bil	14.06 PB	1.56 PB	15.62 PB	42.44 PB	10.14 PB	52.59 PB
IT-INFN-CNAF	321 Mil	4 Bil	17.10 PB	4.00 PB	21.10 PB	49.36 PB	18.25 PB	67.61 PB
KR-KISTI-GSDC	44 Mil	456 Mil	2.54 PB	1.22 PB	3.76 PB	3.14 PB	0 B	3.14 PB
NDGF	88 Mil	1 Bil	8.91 PB	418.49 TB	9.33 PB	10.03 PB	4.95 PB	14.98 PB
NL-T1	111 Mil	2 Bil	6.27 PB	831.49 TB	7.11 PB	16.73 PB	3.92 PB	20.65 PB
NRC-KI-T1	105 Mil	1 Bil	9.82 PB	1.55 PB	11.37 PB	8.55 PB	5.83 PB	14.37 PB
RU-JINR-T1	90 Mil	1 Bil	-	-	-	7.05 PB	1.93 PB	8.98 PB
TW-ASGC	40 Mil	502 Mil	4.66 PB	830.17 TB	5.49 PB	-	-	-
UK-T1-RAL	321 Mil	3 Bil	15.19 PB	2.91 PB	18.10 PB	43.88 PB	15.71 PB	59.59 PB
US-FNAL-CMS	257 Mil	3 Bil	-	-	-	63.59 PB	16.71 PB	80.30 PB
US-T1-BNL	229 Mil	3 Bil	17.63 PB	1.92 PB	19.56 PB	47.46 PB	3.00 PB	50.46 PB

Total

WCT (hours)	WCW (HEPSPEC06 hours)	Disk Used ▲	Disk Free	Disk Total	Tape Used	Tape Free	Tape Total
4 Bil	49 Bil	187.35 PB	29.90 PB	217.25 PB	604.30 PB	134.11 PB	738.41 PB

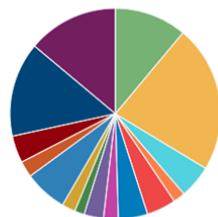
# Distribution of resources

Wall-Clock Time (in hours)



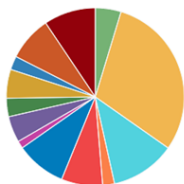
	total	percentage
CA-TRIUMF	120.7 Mil	7%
CH-CERN	432 Mil	26%
DE-KIT	80.7 Mil	5%
ES-PIC	30.2 Mil	2%
FR-CCIN2P3	83.2 Mil	5%
IT-INFN-CNAF	80.3 Mil	5%
KR-KISTI-GSDC	43.7 Mil	3%
NDGF	43.9 Mil	3%
NL-T1	18.5 Mil	1%
NRC-KI-T1	35.0 Mil	2%
RU-JINR-T1	90.3 Mil	5%
TW-ASGC	40.0 Mil	2%

Wall-Clock Work (HEPSPEC06 hours)



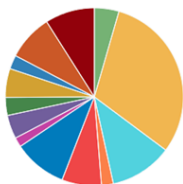
	total	percentage
CA-TRIUMF	2.243 Bil	11%
CH-CERN	4.57 Bil	23%
DE-KIT	1.027 Bil	5%
ES-PIC	369 Mil	2%
FR-CCIN2P3	910 Mil	4%
IT-INFN-CNAF	914 Mil	5%
KR-KISTI-GSDC	456 Mil	2%
NDGF	604 Mil	3%
NL-T1	304 Mil	2%
NRC-KI-T1	417 Mil	2%
RU-JINR-T1	1.336 Bil	7%
TW-ASGC	502 Mil	2%

Disk Used



	total	percentage
CA-TRIUMF	8.76 PB	5%
CH-CERN	56.3 PB	30%
DE-KIT	22.1 PB	12%
ES-PIC	4.01 PB	2%
FR-CCIN2P3	14.06 PB	8%
IT-INFN-CNAF	17.1 PB	9%
KR-KISTI-GSDC	2.541 PB	1%
NDGF	8.91 PB	5%
NL-T1	6.27 PB	3%
NRC-KI-T1	9.82 PB	5%
TW-ASGC	4.66 PB	2%
UK-TI-RAL	15.2 PB	8%

Disk Total



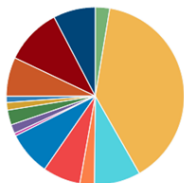
	total	percentage
CA-TRIUMF	9.69 PB	4%
CH-CERN	66.8 PB	31%
DE-KIT	24.7 PB	11%
ES-PIC	4.67 PB	2%
FR-CCIN2P3	15.6 PB	7%
IT-INFN-CNAF	21.1 PB	10%
KR-KISTI-GSDC	3.76 PB	2%
NDGF	9.33 PB	4%
NL-T1	7.11 PB	3%
NRC-KI-T1	11.37 PB	5%
TW-ASGC	5.49 PB	3%
UK-TI-RAL	18.1 PB	8%

Disk Usage



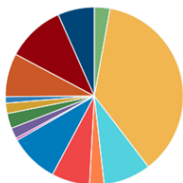
	usage	percentage
Disk Used	187 PB	86%
Disk Free	29.9 PB	14%

Tape Used



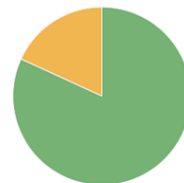
	used	percentage
CA-TRIUMF	16.1 PB	3%
CH-CERN	242 PB	39%
DE-KIT	52.1 PB	8%
ES-PIC	16.3 PB	3%
FR-CCIN2P3	42.4 PB	7%
IT-INFN-CNAF	49.4 PB	8%
KR-KISTI-GSDC	3.14 PB	1%
NDGF	10.03 PB	2%
NL-T1	16.7 PB	3%
NRC-KI-T1	8.55 PB	1%
RU-JINR-T1	7.05 PB	1%
UK-TI-RAL	43.9 PB	7%

Tape Total



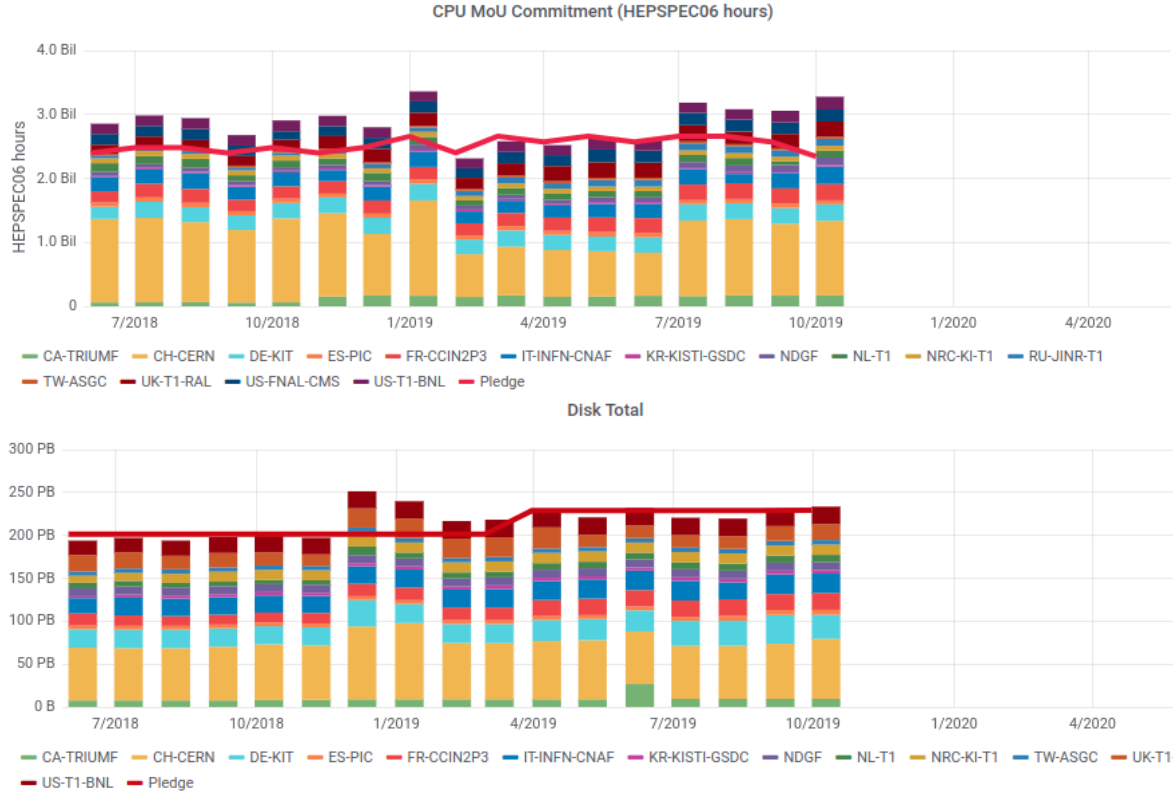
	total	percentage
CA-TRIUMF	21.5 PB	3%
CH-CERN	279 PB	37%
DE-KIT	65.4 PB	9%
ES-PIC	20.0 PB	3%
FR-CCIN2P3	52.6 PB	7%
IT-INFN-CNAF	67.6 PB	9%
KR-KISTI-GSDC	3.14 PB	0%
NDGF	14.98 PB	2%
NL-T1	20.7 PB	3%
NRC-KI-T1	14.37 PB	2%
RU-JINR-T1	8.98 PB	1%
UK-TI-RAL	59.6 PB	8%

Tape Usage

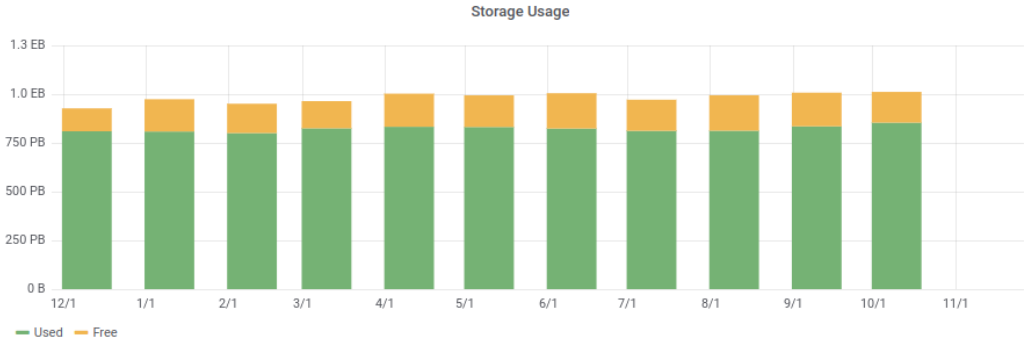
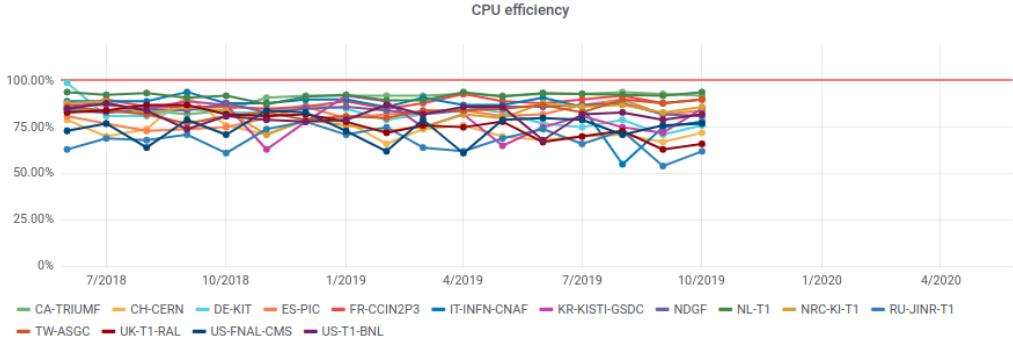


	usage	percentage
Tape Used	604 PB	82%
Tape Free	134.1 PB	18%

# Historical view of the MoU commitments



# Resource utilization





**DEMO:** <https://monit-grafana.cern.ch/d/6rLvYKhZk/wlwg-accounting-utility-generated?orgId=20>

# Future improvements

Add a dashboard to display validated data

Consistent color scheme across all plots

Import experiment accounting data into WAU and enable possibility to compare them with those which are generated by APEL/WSSA and those which are measured by the site.

Implementation of the dashboard which would expose comparison between different sources and allow to easily spot inconsistencies

Thank you for your attention!