

DDM Dashboard 2.0

ATLAS SW&C Workshop April 2011

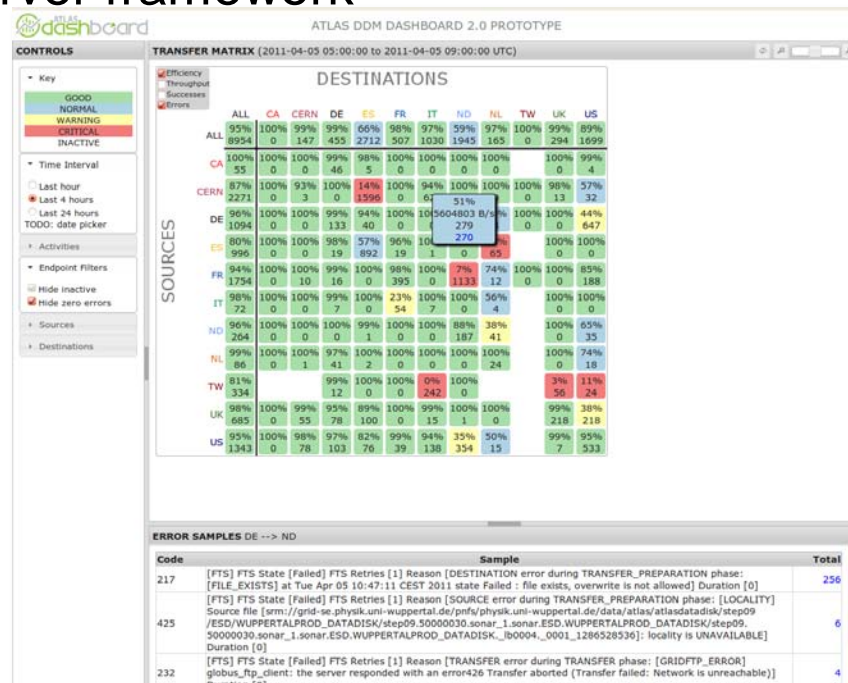
David Tuckett IT-ES-DNG

- SW&C Dec 2010 Review
 - DDM Dashboard 1.0
 - 2.0 PROTOTYPE
- Recent Developments
 - 2.0 M1
- Next steps
 - Feature Comparison
 - Roadmap
- Summary

- DDM Dashboard 1.0
 - Key tool for shifters to identify/investigate failures
 - Proved to be reliable and scalable
 - Issues
 - No view by source
 - Limited filtering
 - Poor quality plots
 - Ageing UI
 - Slow to develop



- 2.0 PROTOTYPE (December 2010)
 - Matrix for view by source & destination
 - Error samples
 - New UI based on AJAX / jQuery
 - Leverages existing server framework
 - Complements 1.0



- 2.0 M1 (April 2011)
 - Matrix of transfers by source & destination
 - Error samples
 - Client-side Model-View-Controller architecture
 - Full bookmarking support
 - Plots of transfers by source & destination
 - Filtering by activity
 - Filtering by tier / cloud / site / token
 - Grouping by tier / cloud / site / token

ATLAS DDM DASHBOARD 2.0 (BETA)

TRANSFERS (2011-04-04 07:40:00 to 2011-04-05 07:40:00 UTC)

Matrix | Source Plots | Destination Plots | Activity Plots

CONTROLS

Key

Time Interval

Activities

- Production
- TO Export
- Functional Test
- User Subscriptions
- Staging
- Data Consolidation
- Data Brokering
- Group Subscriptions

Apply Reset Default

DESTINATIONS

	TOTAL	CA	CERN	DE	ES	FR	IT	ND	NL	TW	UK	US
TOTAL	96% 27056	100% 0	100% 130	99% 801	57% 5925	99% 3267	95% 2108	98% 244	95% 1217	100% 0	99% 1224	91% 12140
CA	98% 804	100% 0	100% 0	100% 1	100% 0	85% 36	100% 0	100% 0	100% 0	99% 2	85% 765	
CERN	91% 3885	100% 0	100% 18	100% 0	30% 3187	100% 5	89% 625	100% 0	100% 0	100% 0	97% 40	99% 10
DE	98% 2279	100% 0	100% 0	99% 511	64% 160	100% 0	100% 1	100% 1	100% 1	802125 B/s 386	100% 0	88% 1365
ES	78% 2396	100% 0	97% 20	89% 80	66% 1753	85% 267	100% 1	100% 0	100% 76		100% 0	81% 199
FR	97% 7460	100% 0	100% 13	96% 45	100% 0	98% 2870	100% 0	98% 5	56% 156	100% 0	100% 3	78% 4368
IT	96% 710	100% 0	100% 0	99% 7	100% 0	66% 62	100% 0	100% 28	64% 121		100% 0	40% 492
ND	98% 418	100% 0	100% 0	79% 49	94% 4	100% 6	100% 2	98% 238	82% 98		100% 0	100% 21
NL	97% 857	100% 0	100% 1	100% 0	100% 0	100% 6	100% 3	100% 0	98% 356		100% 0	74% 491
TW	47% 2669			95% 88	2% 119	97% 9	0% 1262				17% 189	29% 1002
UK	97% 3465	100% 0	100% 49	99% 8	31% 700	100% 1	99% 15	100% 0	100% 0		99% 980	75% 1712
US	99% 2113	100% 0	100% 29	100% 12	100% 2	100% 5	93% 171	100% 0	65% 169		100% 10	98% 1715

Activity filter

Transfer matrix

Error samples

ERROR SAMPLES DE --> NL

Code	Sample	Total
190	[FTS] FTS State [Failed] FTS Retries [1] Reason [DESTINATION error during TRANSFER_PREPARATION phase: [FILE_EXISTS] at Mon Apr 04 14:05:28 MSD 2011 state Failed : file exists] Duration [0]	209
425	[FTS] FTS State [Failed] FTS Retries [1] Reason [SOURCE error during TRANSFER_PREPARATION phase: [LOCALITY] Source file [srm://grid-se.physik.uni-wuppertal.de/pnfs/physik.uni-wuppertal.de/data/atlas/atlasdatadisk/step09/ESD/WUPPERTALPROD_DATADISK/step09.50000030.sonar_1.sonar.ESD.WUPPERTALPROD_DATADISK/step09.50000030.sonar_1.sonar.ESD.WUPPERTALPROD_DATADISK/_lb0004_0001_1286528536]: locality is UNAVAILABLE] Duration [0]	20
191	[FTS] FTS State [Failed] FTS Retries [1] Reason [DESTINATION error during TRANSFER_PREPARATION phase: [FILE_EXISTS] at Mon Apr 04 11:55:39 CEST 2011 state Failed : file exists] Duration [0]	12



ATLAS DDM DASHBOARD 2.0 (BETA)

Destination plots

CONTROLS

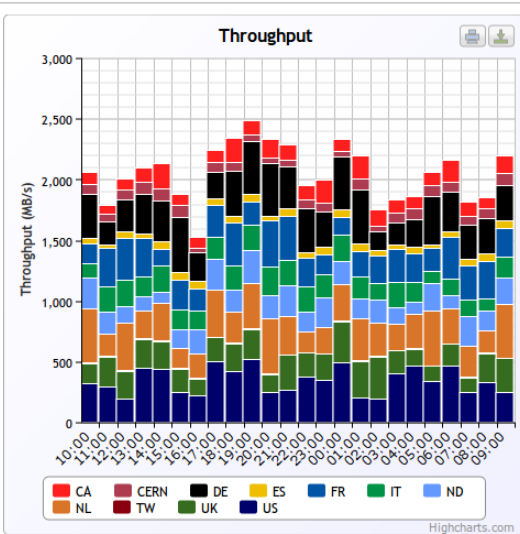
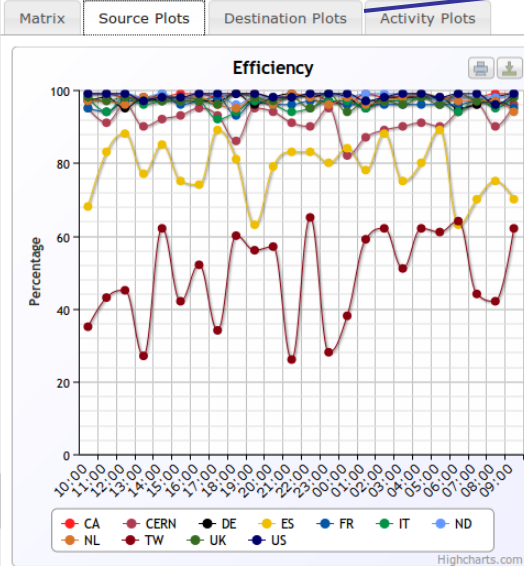
- Key
- Time Interval
- Activities
- Sources
 - Tiers
 - Clouds
 - Sites
 - Tokens
 - Grouping (drag to box)
CLOUD

TIER SITE TOKEN

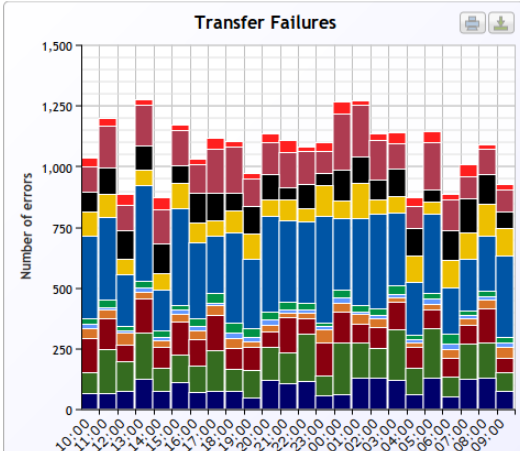
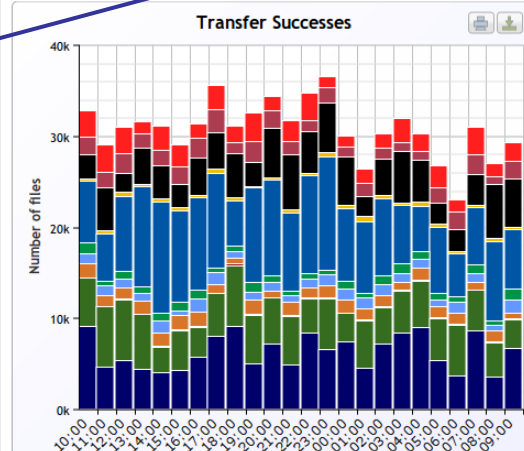
Apply Reset Default

Destinations

TRANSFERS (2011-04-04 07:40:00 to 2011-04-05 07:40:00 UTC)



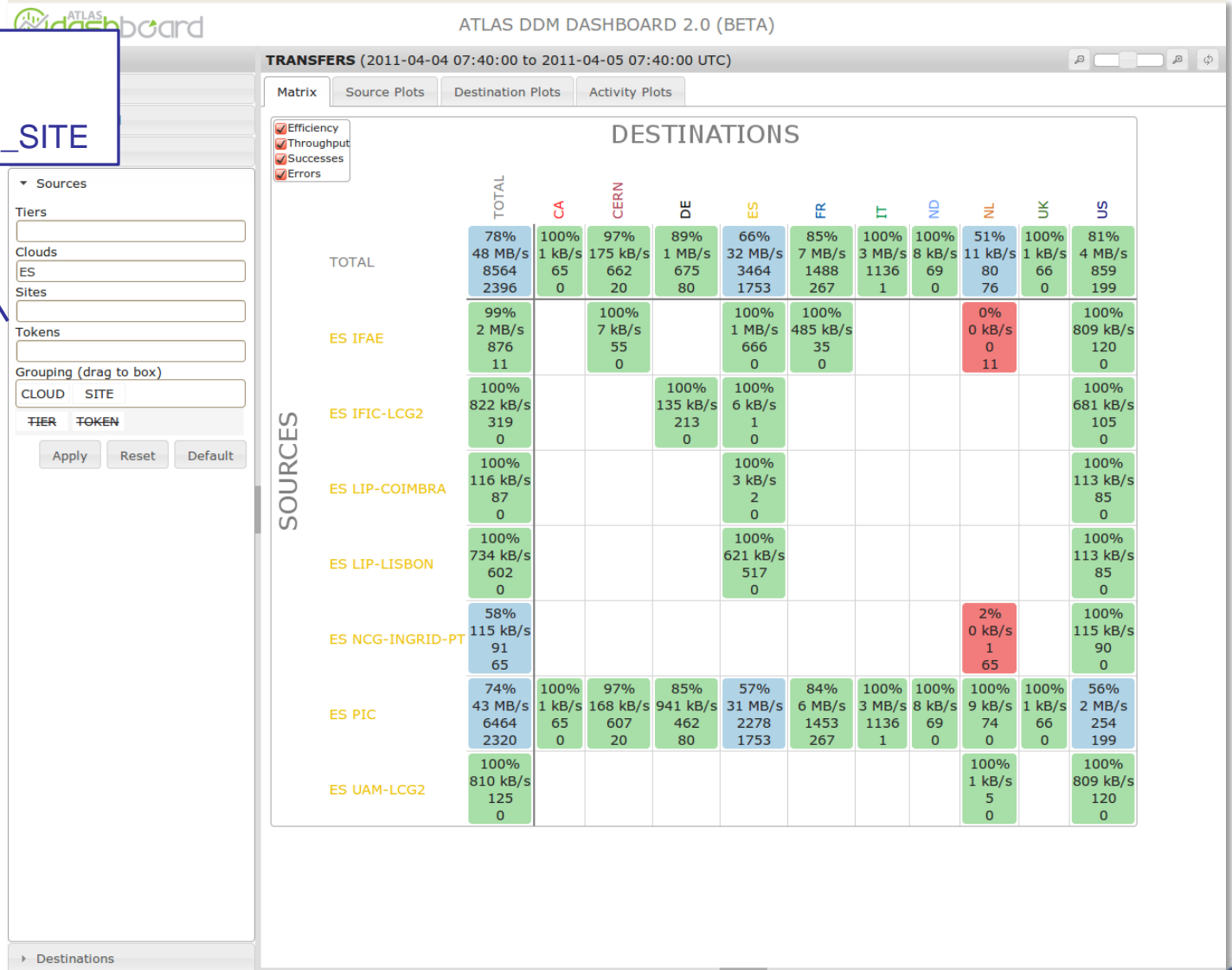
Source plots



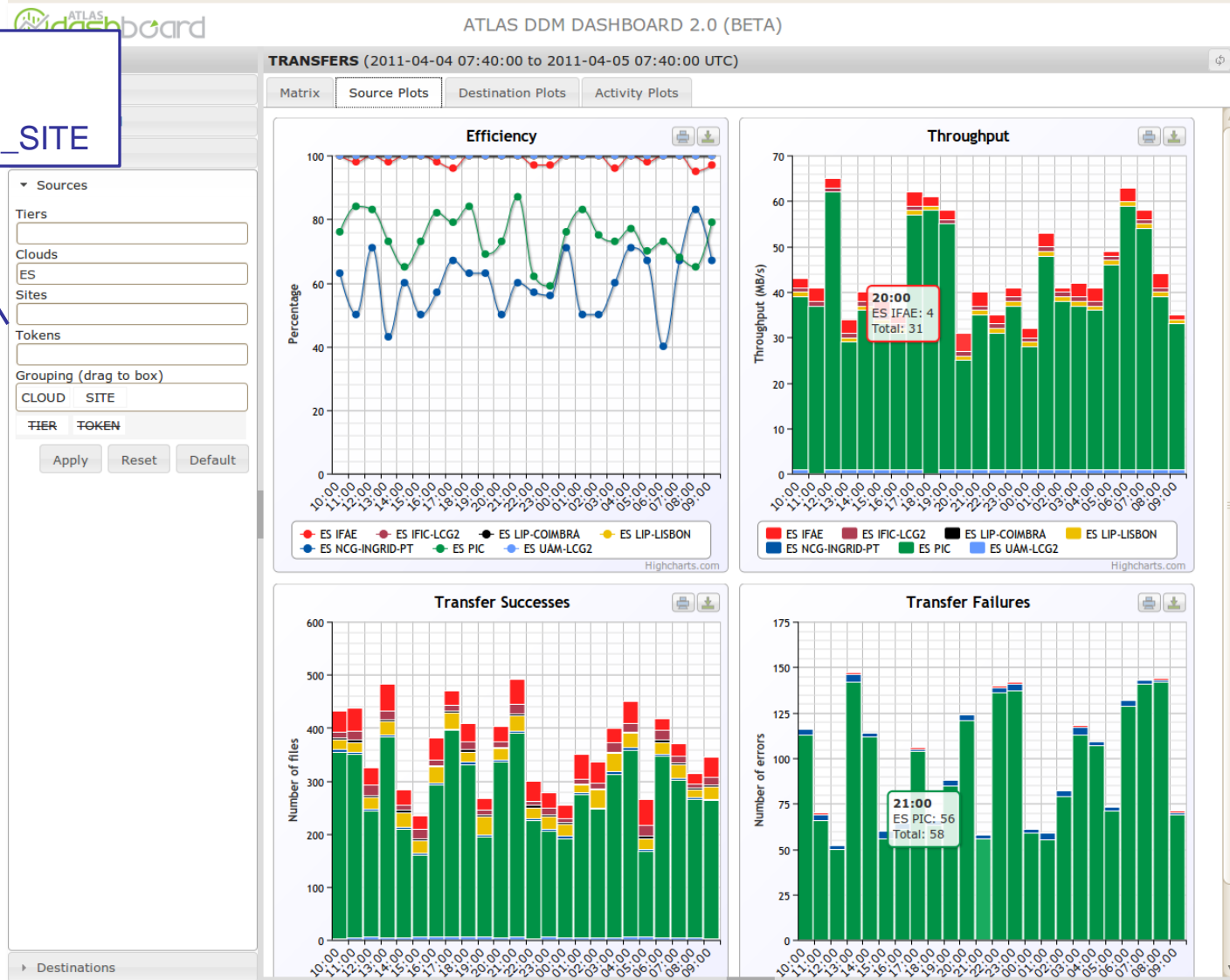
(Smoke and mirrors disclaimer: plot data are not real)



Source filters:
 Cloud = ES
 Grouping = CLOUD_SITE

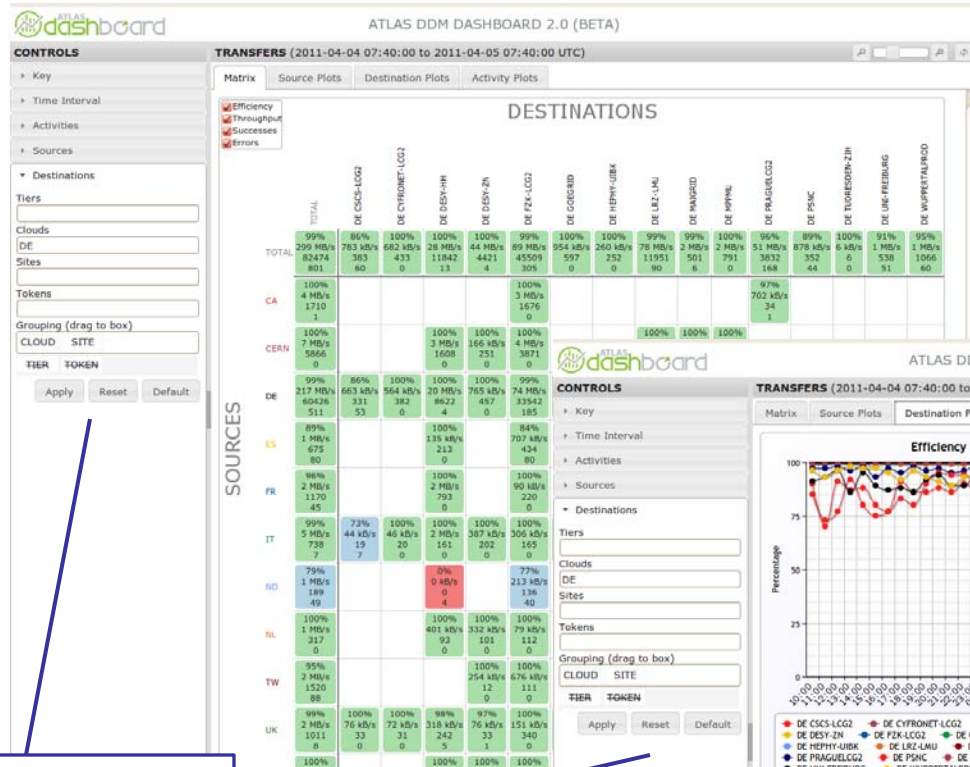


Source filters:
 Cloud = ES
 Grouping = CLOUD_SITE

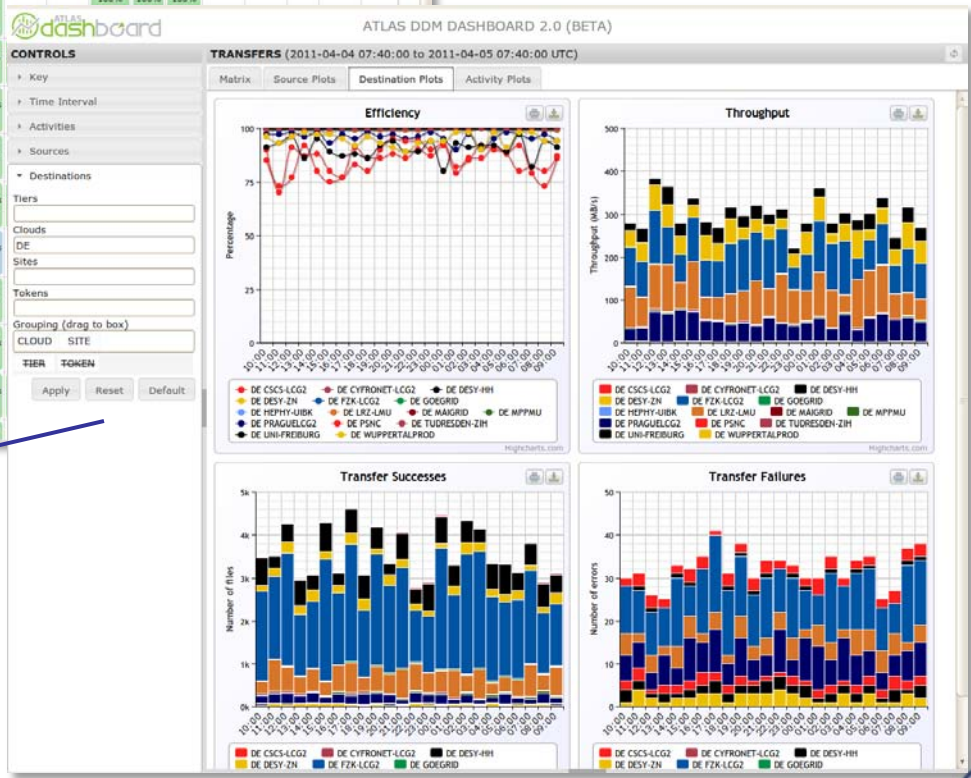


(Smoke and mirrors disclaimer: plot data are not real)





Destination filters:
 Cloud = DE
 Grouping = CLOUD_SITE



(Smoke and mirrors disclaimer: plot data are not real)



Source filters:
 Cloud = CERN DE ES FR UK
 Grouping = CLOUD_TIER



ATLAS DDM DASHBOARD 2.0 (BETA)

TRANSFERS (2011-04-04 07:40:00 to 2011-04-05 07:40:00 UTC)

Matrix Source Plots Destination Plots Activity Plots

Efficiency
 Throughput
 Successes
 Errors

DESTINATIONS

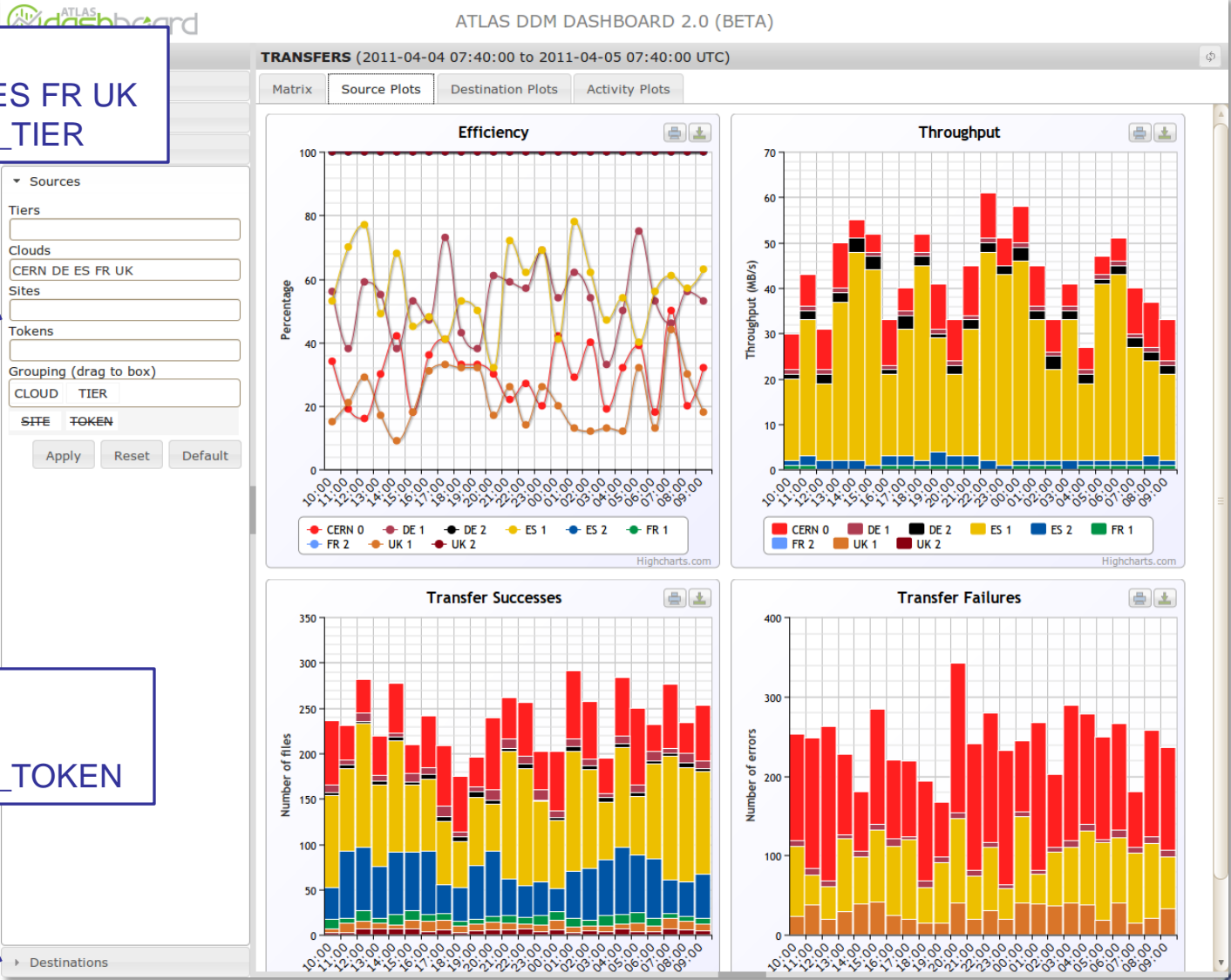
	TOTAL	ES CALIBDISK	ES DATADISK	ES HOTDISK	ES PHYS-TOP	ES PRODDISK	ES SCRATCHDISK
TOTAL	49% 44 MB/s 5800	16% 27 kB/s 3187	43% 8 MB/s 2598	100% 42 kB/s 0	99% 7 MB/s 5	100% 2 MB/s 0	100% 26 MB/s 10
CERN 0	30% 7 MB/s 3187	16% 27 kB/s 3187	100% 7 MB/s 0	100% 12 kB/s 0	100% 9 kB/s 0		
DE 1	53% 893 kB/s 160		37% 1 kB/s 155		76% 200 kB/s 5		100% 692 kB/s 0
DE 2	100% 2 MB/s 0		100% 28 kB/s 0				100% 2 MB/s 0
ES 1	57% 31 MB/s 1753		21% 16 kB/s 1743	100% 24 kB/s 0	100% 7 MB/s 0	100% 2 MB/s 0	99% 22 MB/s 10
ES 2	100% 2 MB/s 0		100% 146 kB/s 0	100% 6 kB/s 0			100% 2 MB/s 0
FR 1	100% 525 kB/s 0		100% 397 kB/s 0		100% 6 kB/s 0		100% 122 kB/s 0
FR 2	100% 14 kB/s 0				100% 14 kB/s 0		
UK 1	21% 177 kB/s 700		21% 106 kB/s 700				100% 71 kB/s 0
UK 2	100% 278 kB/s 0		100% 278 kB/s 0				

Destination filters:
 Cloud = ES
 Grouping = CLOUD_TOKEN

Destinations



Source filters:
 Cloud = CERN DE ES FR UK
 Grouping = CLOUD_TIER



Destination filters:
 Cloud = ES
 Grouping = CLOUD_TOKEN

(Smoke and mirrors disclaimer: plot data are not real)



Source filters:
 Cloud = CERN DE ES FR UK
 Grouping = CLOUD_TIER

Destination filters:
 Cloud = ES
 Grouping = CLOUD_TOKEN



(Smoke and mirrors disclaimer: plot data are not real)



Key Features	1.0	2.0 Prototype	2.0 M1
Transfer statistics by source	x	✓	✓
Transfer statistics by destination	✓	✓	✓
Transfer error samples	✓	✓	✓
Transfer plots by source	x	x	✓
Transfer plots by destination	✓	x	✓
Filter transfers by activity	✓	x	✓
Filter source by tier/cloud/site/token	x	limited	✓
Filter destination by tier/cloud/site/token	limited	limited	✓
Group statistics by tier/cloud/site/token	x	x	✓
Registration statistics	✓	x	x
Customizable historical plots	limited	x	x
Event details	✓	x	x

- 2.0 M1 – April 2011
 - Plots: source, destination
 - Filters: activity, tier, cloud, site, token
 - Grouping: tier, cloud, site, token
 - Complements DDM Dashboard 1.0 UI
- 2.0 M2 – July 2011
 - QA and Tuning
 - Transpose: sources \leftrightarrow destinations
 - Customizable historical plots
 - Complements DDM Dashboard 1.0 UI
- 2.0 FINAL– Oct 2011
 - See comparison on previous slide
 - Replaces DDM Dashboard 1.0 UI

- DDM Dashboard 2.0 M1
 - Plots by source & destination
 - Flexible filtering, grouping and sorting
 - April 2011 release
- Roadmap
 - Incremental releases
 - Currently complements DDM Dashboard 1.0 UI
 - Ultimately replaces DDM Dashboard 1.0 UI
- Feedback
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