PhEDEx Administrator Guide
For the Texas A&M University USCMS Tier 3 Site

By:
Jorge D Morales
(georgemm01@physics.tamu.edu)

This guide will teach the new CMSSW administrator some basics about keeping track of the PhEDEx transfers. It serves as an introduction, but the best way to learn is to actually start using the system. PhEDEx (https://cmsweb.cern.ch/phedex) is the manager for the information flux in the GRID, in here users request transfers and deletions of datasets, but also the administrator will manage such requests, as well as keep track of the load tests and subscriptions. Remember that to access you should already have a personal CERN certificate installed on your computer. On Brazos, PhEDEx transfers run as processes from the user ext-snihar, which is Rob Snihar’s account.

First of all you need to be added to the list of T3_US_TAMU managers/administrators, on:
https://cmsweb.cern.ch/sitedb/
Send an email to the current admins so they can add you.
(georgemm01@physics.tamu.edu vaikunth@tamu.edu)

1. Debug Mode. On the upper right corner, just above your name click on the arrows and change DB Instance from production to debug. This will activate the possibility to keep track of SUM/SAM load tests on any cluster, as well as other administrator features.

2. Under the Activity link you can see all the transfers and their properties live, also you can produce plots, similar to the ones on the monitor website.
http://brazos.tamu.edu/~ext-jww004/mon/

3. Quality Plots. Under Activity, select "Quality Plots", some options will appear right below. "Graph" should be selected to "Quality Map". Right next to it you'll see a "by" -- that is, the complete instruction is "Graph" <Select> "by" <Select>. If you select "Destination" -- that is, Graph Quality Map by Destination -- the plot that will appear will have the destination of load tests (those sites that receive load tests) plotted on the left-hand side (the x axis is always time). Selecting "Source" instead of "Destination" will plot all those sites that send load tests on the left-hand side. Next you'll see "filter source" <empty block> "destination" <empty
In the empty blocks you'll put in whatever site you want if you want to filter. Lastly, the last option allows you to select the period for graphing: last 12 hours, last 96 hours, last 7 days, etc. The default is always 96 hours. Some values you can use for destination or sources are: T3_US_TAMU (our site), T2_* (any T2 site, using the * as the wildcard character), T3_US_* , etc.

Examples:

   This a plot of the quality of all load tests sent by all sites, and have them enumerated by site, to all US T3's.

   Overall quality of all incoming transfers to T3_US_TAMU from ONLY T2's

   Same as b but showing each of the T2 sites on the left.

4. Managing Requests. When users request a transfer or deletion, it is straight forward approving or not by clicking on the email you should receive as an administrator. Also you can click on the website under Requests ➔ View/Manage Requests. Next you should filter for the node: T3_US_TAMU

5. Keeping Track of Subscriptions. You can keep track of the stored datasets on the cluster by clicking on: Data ➔ Subscriptions. Then you must click on Show Options ➔ Select Data. You should choose T3_US_TAMU only. You can choose the time frame under Created since. By clicking Apply, you should see the datasets stored in the Cluster.
   Notice you can see the size and the number of files of each dataset, as well as the request number and all details when you click on it (It is useful when you want to know who made the request).

6. Notice that the relevant PhEDEx information on the monitor website is under sections
   I-Data Transfers
   http://brazos.tamu.edu/~ext-jww004/mon/page_1.html
   II- Data Holdings
   http://brazos.tamu.edu/~ext-jww004/mon/page_2.html