

# OARC Systems Update

DNS-OARC Workshop

Phoenix, USA

October 6, 2013

# DNS-OARC Services

- To recap, there are a number of services DNS-OARC provides
  - Access to data archives (mostly DITL captures)
  - Mailings lists, websites, collections, accounts, database servers, ODVR, ZFR, DSC, don't-probe, kitchen sinks, etc.,
  - Dedicated capture systems to receive and process imported data types (DSC, DITL data)
  - Various collections of support systems, like DNS, out-of-band management and network switches
  - Monitoring systems such as TLDMon and DSC

# System Status I

- Last time we acknowledged we have many aging servers that are in need of a refresh for themselves (simply new disks)
- We are still running on older versions of OS which are holding back the ability to adopt new technologies that would help OARC and its members, but this has now changed for the better
- A split occurred between the two new systems and the venerable in1:
  - Experiments and analysis (ODVR, Entropy, internal CVS, TFTP, etc) have moved to ix2 as of July 17, 2013
  - Dontprobe, and Etherpad-Lite are now on ix1 (with an eye to moving the Board and Portal websites there after this workshop ends)
  - Some administrative pages within Drupal on in1 are now in a wiki on ix1 with the intent being that the Drupal presence will be thinned to contain public pages only
- A major result of the experiments and analysis application migrations is that in1 is now far less busy and become very stable, giving OARC room to breath
  - Shuffling has indeed paid-off.

# System Status II

- The DNS Lab main server was also upgraded and is current
  - But we are using 4 systems within the DNS LAB as data-provider/DITL capture boxes due to a lack of compact, fast boxes
- DSC system is stable but a bit short on DSC upload data (more at about this at the end)
- Re-deploying one server to act as backup server with tape (along with using BackupPC)

# Other Migrations and Updates

- Dns-tender and the DNS lab need some extensive documenting and updates to available OSs for the lab
- The mail system itself and its inter-relationship with databases, the Drupal website and OARC Portal remain to be fully documented
- However, as the fog of having everything in one system is being lifted, we're better able to ascertain what is junk from what is precious to move forward

# “Collisions” boxes

- Donated hardware each consisting of
  - 64GB of RAM
  - 4.5TB disks
- Running as an3 and an4
- NFS mounts to fs2, fs3 and fs4 repositories of DITL data.

# Data Archives Status

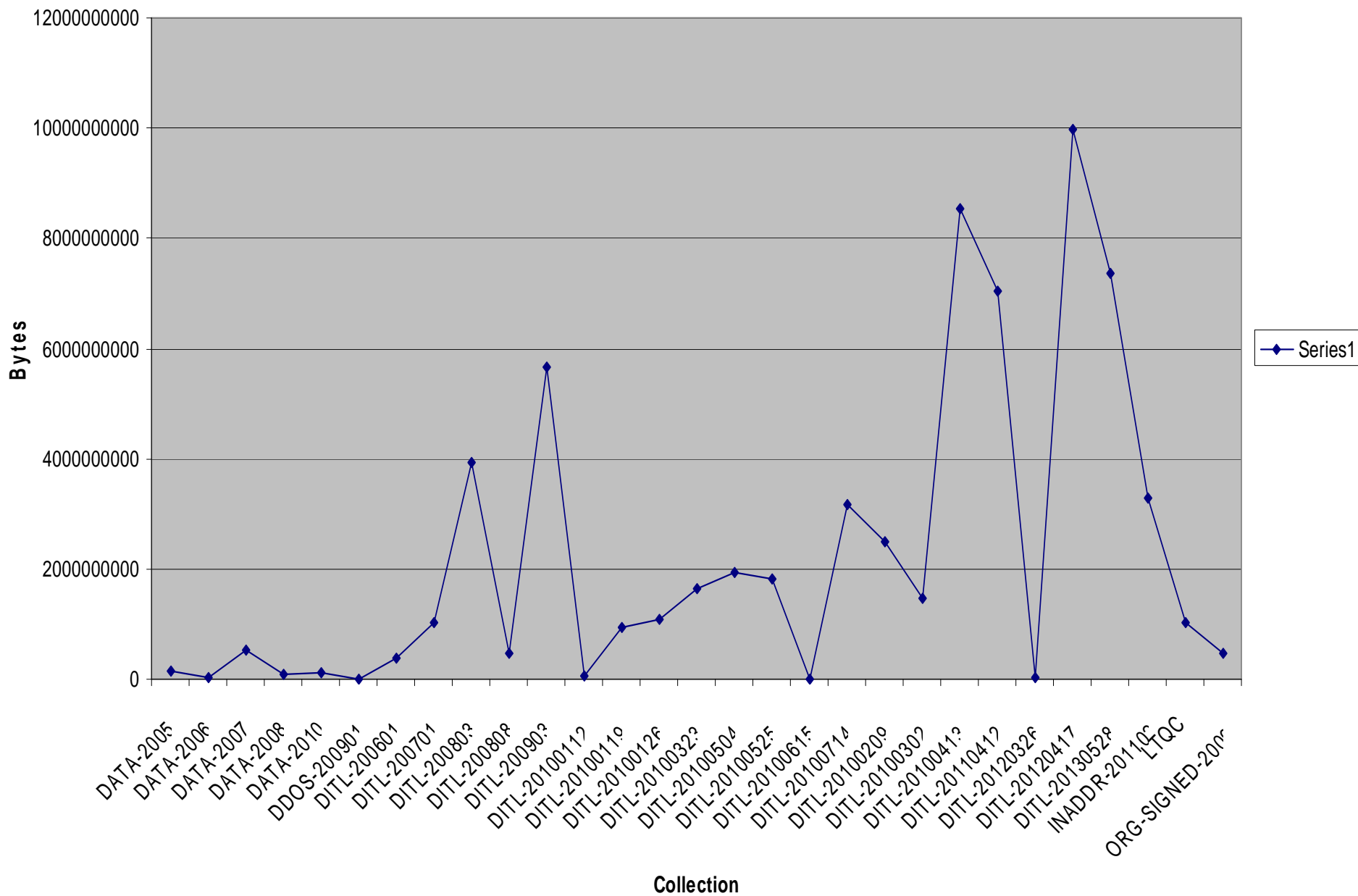
- fs2, 13.5TB of 17TB used
- fs3, 20TB of 22TB used
- fs4, 42TB of 45TB used
- Total: 75.5TB used, 84TB possible
- Put another way, the file servers are now full
  - (Each DITL run can consume 10TB when all is said and done depending on duration of contribution and how many contribute.)
- Access to that data available via an1, an3 and an4!
- Fs1, planned box for some time next year
  - To become the holder of all archived data freeing fs2, fs3 and fs4 for any capture runs we require.

# Growth Rate of Data

- Given those capacities, what is our data growth like for the foreseeable future?
- What is the impact of a special collection triggered by a predicted event or DDOS attack in progress?



### DNS-OARC Data Collection Sizes



# DITL Collection Interpretation

- In 6 years the amount of data collected looks to have more than doubled, from 4TB to 10TB
- This trend is however dictated by:
  - Different contributors for every event;
  - The amount of data varies with the DITL duration;
  - The type of additional data requested.
- Nonetheless, the next purchase of hardware needs to be adequate for the next 5 years, assuming no deletion of any data

# Future Considerations

- Consideration must be given first of all to the data:
  - What to do with this data (old versus new, retention)?
  - Where else on the planet to store a copy?
  - What to do about where it resides today?
- Second, is there any value in continuing DSC?
  - Many uploads from various providers seemed to have stopped on March 28, 2010 (meteor impact?)
  - Seems to suggest uploads had ceased before that time
  - Is this a service of value to members any more?
  - If not, then that's a hardware resourced aimed for something else.