

Overview:

This workshop will give attendees an overview of the Science DMZ architecture, different implementation models, how Science DMZ can help data intensive research and drive data Intensive research outcomes.

Attendees will learn the data transfer node (DTN) architecture and implementation requirements of these systems.

There will also be a hands on component of high bandwidth network monitoring, and tools that can be used to actively monitor and trouble shoot the Science DMZ environment.

The Science DMZ security and usecases will be discussed.

****BONUS**** All attendees will leave the workshop with a 1Gbps fully functioning perfsonar mini server.

Topics:

Session 1

Science-DMZ

What is a Science DMZ.

What is the architecture of a science DMZ

Why do I need a science DMZ.

How do I get a science DMZ.

What are the security implication of a science DMZ

Session 2

DTN Server

Hardware architecture of a DTN.

Tuning of DTN servers.

Transfer software implementations.

Solution demonstration using the AARNet Benchmarking capability.

Session 3

Testing and Monitoring Hands on

Perfsonar

What is it

Why is it valuable to me.

How do I use it.

Now build one.

iPerf

What is it

Why is it valuable to me.

How do I use it.

NUTTCP

What is it

Why is it valuable to me.

How do I use it.

Session 4

Security

How is it different.

Why is it different.

How does this complement existing polices and procedures?

User cases

EXAMPLES OF CURRENT AND FUTURE USER CASE THAT REQUIRE A SCIENCE
DMZ SOLUTION.