



# GT4 Exercise

## GT4 Exercise

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# Grid Security Infrastructure - GSI (1)



- ❑ creating proxy for 200 hours and 30 minutes

```
$ grid-proxy-init -valid 200:30
```

```
Result: /tmp/x509up_u<UID>
```

```
Note: read and write permission only for the owner
```

- ❑ getting certificate information

```
$ grid-cert-info
```

```
Result: information including issuer, validity, ...
```

- ❑ getting proxy information

```
$ grid-proxy-info
```

```
Result: information including time left
```

## Grid Resource Allocation and Management - GRAM (1)



- ❑ **WS oriented job submission command (GT4):**

```
$ globusrun-ws -submit -c /bin/date
```

```
$ globusrun-ws -submit -F <host> -c /bin/date
```

- ❑ **streaming the output**

```
$ globusrun-ws -submit -s -c /bin/date
```

- ❑ **output go to a file**

```
$ globusrun-ws -submit -s -so job.out -c \  
/bin/date
```

# Using Resource Specification Language



## ❑ create RSL file

```
$ export GLOBUS_USER_HOME=$HOME ; vi job.rsl
```

```
<job>
```

```
  <executable>/bin/echo</executable>
```

```
  <argument>this is an example_string </argument>
```

```
  <argument>CoreGrid Globus Workshop</argument>
```

```
  <stdout>${GLOBUS_USER_HOME}/stdout</stdout>
```

```
  <stderr>${GLOBUS_USER_HOME}/stderr</stderr>
```

```
</job>
```

## ❑ rsl job submission

```
$ globusrun-ws -submit -job-description-file  
  job.rsl
```

# Using End Point References (EPR)



- ❑ **create a batch job**

```
$ vi batchJob.sh
#!/bin/sh
sleep 10
$ chmod +x batchJob.sh
```
- ❑ **create an end point reference file**

```
$ globusrun-ws -submit -b -o epr1.file \
-c $HOME/batchJob.sh
```
- ❑ **request the status of the job**

```
$ globusrun-ws -status -j epr1.file
```
- ❑ **cancel the job**

```
$ globusrun-ws -kill -j epr1.file
```



# Using Available Grid Service (1)

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- ❑ **creating a counter resource**

```
counter-create -s \  
https://<FQDN>:8443/wsrp/services/CounterService \  
-z none > epr1.file
```

- ❑ **using the created counter resource**

```
$ counter-add -e epr1.file 3  
Result: 3  
$ counter-add -e epr1.file 5  
Result: 8
```



## Using Available Grid Services (2)

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- ❑ creating another counter resource

```
counter-create -s \  
https://<FQDN>:8443/wsrp/services/CounterService \  
-z none > epr2.file
```

- ❑ using the newly created counter resource

```
$ counter-add -e epr2.file 4  
Result:4  
$ counter-add -e epr2.file 2  
Result:6
```

- ❑ using the previously created counter resource

```
$ counter-add -e epr1.file 7  
Result: 15
```

# GridFTP



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## ❑ copy: local → local

```
$ globus-url-copy gsiftp://localhost/etc/hosts \  
file:///tmp/hosts_copy
```

## ❑ copy: local → remote

```
$ globus-url-copy \  
file:///tmp/hosts_copy_<YourName> \  
gsiftp://<remote host name>/tmp
```

## ❑ copy: remote → remote (third party transfer)

```
$ globus-url-copy gsiftp://<remote host name1>\  
/hosts \  
gsiftp://<remote host name2>\  
/tmp/hosts_<login>
```



# Reliable File Transfer

---

❑ `vi /tmp/transfer.xfr`

- change some parameter to test

❑ **Test the changed transfer parameters**

```
$ rft -h <FQDN> -f /tmp/transfer.xfr
```

# Monitoring and Discovery Service (MDS4)

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## ❑ Test the registration

```
> wsrfe-query -s https://<FQDN>:8443/wsrfe/\  
  services/DefaultIndexService '/*' |wc -l  
Result: 6
```



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Vielen Dank für Ihre Aufmerksamkeit

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