



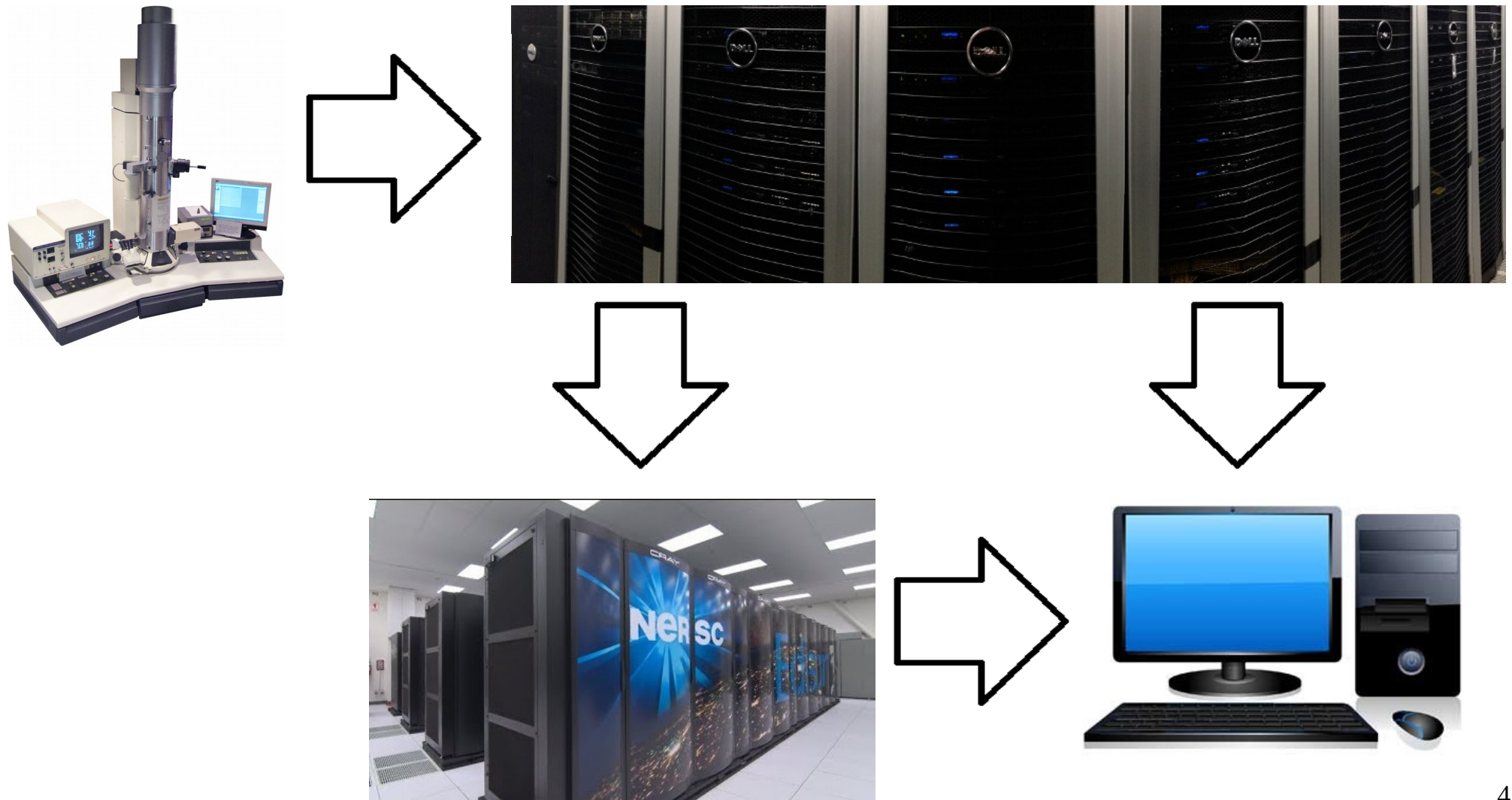
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What is Globus?

Managed File Transfer

- Ease of Use
- Reliable, Fire and Forget
- Parallelism and Concurrency
- Secure
- Notifications
- Performance Monitoring
- Accountability
- Can be used behind firewall/NAT

Managed File Transfer



Globus Web Transfers

Sign up for Globus.org

- Go to globus.org
- Click “Log in”
- Click “Sign up”
- Fill out information
- Submit and enter verification code

Globus CLI Transfers

- No need to install software
- Must configure SSH public/private key pair
- Easily automated

Setting up CLI Access

- `$ ssh-keygen -t rsa`
- Enter passphrase (optional)
- Browse to “Account” -> “manage SSH and X.509 keys”
- “Add a New Key”
- Add the contents of `~/.ssh/id_rsa.pub`

Basic CLI Structure

- \$ ssh <username>@cli.globusonline.org <command> <options> <params>

Getting Help

- `$ ssh <username>@cli.globusonline.org <command> help`
- `$ ssh <username>@cli.globusonline.org man <command>`

Activating an Endpoint

- `$ ssh <username>@cli.globusonline.org endpoint-activate <endpoint_name>`
- `$ ssh -t workshop-001@cli.globusonline.org endpoint-activate fsurcc#panfs`
- `-t` option prevents passphrase from being echoed to stdout

Listing Files

- `$ ssh <username>@cli.globusonline.org ls <endpoint_name>/path`
- `$ ssh workshop-001@cli.globusonline.org ls
fsurcc#panfs/panfs/storage.local/xsede/home/workshop-001`

Basic Transfer

- `$ ssh <username>@cli.globusonline.org transfer -- <ep1_name>/path <ep2_name>/path`
- `$ ssh -t workshop-001@cli.globusonline.org transfer -- fsurcc#panfs/panfs/storage.local/xsede/home/workshop-001/testfile.bin <username>#<endpoint_name>/~/Desktop/testfile.bin`
- Use `-label` to label your transfer

Files to Transfer as STDIN

- `$ echo "<ep1#/path> <ep2#path>
| ssh <username>@cli.globusonline.org transfer`
- `$ echo "fsurcc#panfs/panfs/storage.local/xsede/home/workshop-001/test_fold
<username>#<endpoint_name>/~/Desktop/1"
| ssh workshop-001@cli.globusonline.org transfer`
- `$ cat ./files_to_transfer.txt | ssh <username>@cli.globusonline.org transfer`

Synchronization Modes

- `$ ssh <username>@cli.globusonline.org transfer -- <ep1_name>/path <ep1_name>/path -s <n>`
- `-s 0` Copy files that do not exist at the destination
- `-s 1` Copy files if the size of the destination does not match the size of the source
- `-s 2` Copy files if the destination timestamp is older than the source timestamp
- `-s 3` Copy files if checksums of source and destination do not match
- `--delete` Delete files and directories in the destination that are not in the source
- `-r` Copy a directory recursively

Encryption

- `$ ssh <username>@cli.globusonline.org transfer --
<ep1_name>/path <ep1_name>/path --encrypt`

Deadline

- `$ ssh <username>@cli.globusonline.org transfer -- <ep1_name>/path <ep1_name>/path -d <n>h`
- Deadline to complete transfer in hours

Monitoring Transfers

- `$ ssh <username>@cli.globusonline.org status <job ID>`
- `$ ssh <username>@cli.globusonline.org`
`$ status -l <n transfers> -a`
- `$ ssh <username>@cli.globusonline.org details <job ID>`
- `$ ssh <username>@cli.globusonline.org events <job ID>`

Canceling a Job

- `$ ssh <username>@cli.globusonline.org cancel <job ID>`

Globus REST API

- General Information: <https://docs.globus.org/api/transfer/>
- Python Interface: <https://github.com/globusonline/transfer-api-client-python>
- Java Interface: <https://github.com/globusonline/transfer-api-client-java>

End Of Presentation

Any Questions?