

# Inbound File Transfer through SFEs Examples

## Category: File Transfers

### Lou2 Note:

This article is currently being edited to reflect the [changes to Lou2](#) which take effect on December 6, 2012. A finalized version will be posted soon.

Inbound file transfers through SFEs require SecurID fob authentication, and the transfer can be done in two steps or one step depending on whether you have [set up SSH passthrough](#).

To simplify the instructions, the approaches will be described in terms of transfers to/from one of the Pleiades front-end node, *pfe20*, but they also apply to any of the other systems that are in the enclave (such as other Pleiades front-end or bridge nodes, Columbia or Lou). For each method described, two commands are provided. The first one is used when (1) the user have identical username between his/her localhost and the NAS HECC systems, or (2) the usernames are different but the user has set up his/her local `~/.ssh/config` file to include the NAS username. To learn how to set this up, download the [~/ssh/config template](#). The second one is used when the usernames are different and the user does not include the NAS username in his/her local `~/.ssh/config` file.

## Two-Step File Transfers

If you have not set up SSH passthrough, this will be your only option for inbound file transfers. It requires you to use `scp` twice: once on your localhost to transfer files to/from one of the SFEs (for example, *sfe1*), and the second one on the SFE or the host inside the HECC Enclave to transfer files between SFEs and the HECC host such as *pfe20*.

To push files out of your localhost:

### Step 1:

```
your_localhost% scp foo sfe1.nas.nasa.gov:  
your_localhost% scp foo nas_username@sfe1.nas.nasa.gov:
```

### Step 2:

```
sfe1% scp foo pfe20:  
or  
pfe20% scp sfe1:foo .
```

To pull files into your localhost:

**Step 1:**

```
sfel% scp pfe20:foo .  
or  
pfe20% scp foo sfel:
```

**Step 2:**

```
your_localhost% scp sfel.nas.nasa.gov:foo .  
your_localhost% scp nas_username@sfel.nas.nasa.gov:foo .
```

## One-Step File Transfers

If you have set up SSH passthrough correctly, you can use either **scp**, **bbftp** or **bbscp** to transfer files between your localhost and a NAS HECC host.

### Using scp

Using **scp** to push files out of your localhost:

```
your_localhost% scp foo pfe20.nas.nasa.gov:  
your_localhost% scp foo nas_username@pfe20.nas.nasa.gov:
```

Using **scp** to pull files into your localhost:

```
your_localhost% scp pfe20.nas.nasa.gov:foo .  
your_localhost% scp nas_username@pfe20.nas.nasa.gov:foo .
```

### Using bbftp

This requires that you have a bbFTP client installed on your localhost.

Using **bbftp** to push files out of your localhost:

```
your_localhost% bbftp -s -e 'setnbstream 8; put foo' pfe20.nas.nasa.gov  
your_localhost% bbftp -s -u nas_username  
-e 'setnbstream 8; put foo' pfe20.nas.nasa.gov
```

Because of a formatting issue, the second command above was broken into two lines. In reality, it should be in one line.

Using **bbftp** to pull files into your localhost:

```
your_localhost% bbftp -s -e 'setnbstream 8; get foo' pfe20.nas.nasa.gov  
your_localhost% bbftp -s -u nas_username  
-e 'setnbstream 8; get foo' pfe20.nas.nasa.gov
```

Because of a formatting issue, the second command above was broken into two lines. In reality, it should be in one line.

See [bbftp](#) for more instructions.

## Using bbscp

This requires that you have the bbFTP client version 3.2.0 and the NAS bbSCP script installed on your localhost.

To push files out of your localhost:

```
your_localhost% bbscp foo pfe20.nas.nasa.gov:  
your_localhost% bbscp foo nas_username@pfe20.nas.nasa.gov:
```

To pull files into your localhost:

```
your_localhost% bbscp pfe20.nas.nasa.gov:foo .  
your_localhost% bbscp nas_username@pfe20.nas.nasa.gov:foo .
```

See [bbscp](#) for more instructions.

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<http://www.nas.nasa.gov/hecc/support/kb/entry/144/?ajax=1>