

MOSIX Installation and Configuration

1 Automatic installation

The simplest way to install MOSIX is to run “mosix.install”. This script can be used to install the MOSIX binaries either on the local node, or in a common root-directory that is shared by several nodes of a cluster.

2 Manual installation

Before beginning the installation, create the directories “etc/mosix” and “etc/mosix/var” (when “etc” is non-writeable, the later can be a symbolic link to a writeable directory such as “var/mosix”), then place each of the following files in the corresponding “Where” directory, then run the appropriate special instructions:

File	Where	chmod
man/*	where manuals are	suggest /usr/local/man
mos_checkconf	/sbin	
mos_in_job	/sbin	
mosbestnode	/bin	chmod u+s /bin/mosbestnode
mosconf*	/sbin	
mosctl	/bin	
mosd	/sbin	
mosenv	/bin	
mosixd	/sbin	
moskillall	/bin	chmod u+s /bin/moskillall
mosmigrate	/bin	chmod u+s /bin/mosmigrate
mosmon	/bin	
mosnative	/bin	
mospipe	/bin	
mospostald	/sbin	
mosps	/bin	chmod u+s /bin/mosps
mosremoted	/sbin	
mosrun	/bin	chmod u+s /bin/mosrun
mossetpe	/sbin	
mostestload	/bin	
mostimeof	/bin	chmod u+s /bin/mostimeof
man/*	where manuals are	suggest /usr/local/man

2.1 If you cannot modify /bin or /sbin

As a second choice, you may place the MOSIX binaries: instead of in /bin, in /usr/bin or in /usr/local/bin and instead of in /sbin, in /usr/sbin or in /usr/local/sbin.

If you do so, make sure that none of the above binaries already exists in /bin (or /sbin) from previous installations.

2.2 Another recommended program

“lzop” is a fast compression program used by MOSIX to reduce the communication overhead. “lzop” is freely available by courtesy of its author, Markus F.X.J. Oberhumer.

If you have a multi-cluster with nodes in different sites, or if your network is slow, “lzop” can improve the MOSIX performance.

To install “lzop” download it from “<http://www.lzop.org>” into “usr/bin/lzop”.

3 Configuration

The “mosconf” script lead you step-by-step through the various configuration items. It is usually first called by “mosix.install”.

If you prefer to edit the configuration files manually, the format of all configuration files is given in the “CONFIGURATION” section of “man mosix” and at least the following files must be present:

```
/etc/mosix/mosix.map (which nodes are in the local cluster)
/etc/mosix/secret (cloud-wide authentication - chmod 600)
```

Also very recommended:

```
/etc/mosix/userview.map (using node numbers, not just IPs)
```

If you intend to have a multi-cluster, you must also configure:

```
/etc/mosix/partners/* (multi-cluster partners)
```

The following configuration files are optional, but commonly used:

```
/etc/mosix/private.conf (allocating space for private temporary files)
/etc/mosix/retainpri (delay processes of lower priority)
/etc/mosix/speed (to set the processor speed)
/etc/mosix/freeze.conf (freezing policy)
```

The following configuration files are rarely used:

```
/etc/mosix/maxguests (limit the number of guests from another-cluster)
/etc/mosix/mosip (our IP - if not clear from “ifconfig”)
```

4 Starting MOSIX

To start MOSIX, just run “mosd” (this is what “etc/init.d/mosix start” does).