

LISTSERV Maestro Admin Tech Doc 4

Moving LISTSERV Maestro

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This document is a LISTSERV Maestro Admin Tech Doc. Each admin tech doc documents a certain facet of the LISTERV Maestro administration on a technical level. This document is number 4 of the collection of admin tech docs and explains the topic "Moving LISTSERV Maestro".

Last updated for LISTSERV Maestro 10.0-1 on September 29, 2021. The information in this document also applies to later LISTSERV Maestro versions, unless a newer version of the document supersedes it.

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1 Moving a LISTSERV Maestro Instance

The scenario of "moving a LISTSERV Maestro instance" covers a number of sub-cases, which are all handled in more or less the same way. Examples for these sub-cases are:

- All LISTSERV Maestro components are installed on the same server. This server is now getting
 old, and to preempt a system failure, it is to be replaced with a new server. Or the LISTSERV
 Maestro usage has increased and the old server shall be replaced with a more powerful
 server. In this case, the whole LISTSERV Maestro instance is to be moved to the new server,
 which may or may not have a different hostname than the old server.
- All LISTSERV Maestro components are installed on the same server. The LISTSERV Maestro usage has increased, and it has become desirable to split the system into two servers: One with LUI/HUB, the other with TRK. In this case, only the LUI/HUB components are to be moved to the new server, which obviously will have a different hostname than the old server, where the TRK component remains.
- LISTSERV Maestro is installed on two servers: LUI/HUB are on one server, TRK is on another server. The LUI/HUB server needs to be replaced, maybe because it is getting old, or maybe because a more powerful server is needed. In this case, only the LUI/HUB components are to be moved to the new server, which may or may not have a different hostname than the old LUI/HUB server. The TRK component remains on the same separate server as before.
- LISTSERV Maestro was installed on a certain set of servers, but this installation broke down (for whatever reason) and a backup has to be restored. However, the configuration of the new LISTSERV Maestro installation differs from the original installation. Maybe the component distribution over several servers is now different, or some or all of the servers have different host names.

All these cases (and other similar ones) are more or less handled in the same way:

- 1. Trigger a backup.
- 2. Wait until the backup finishes and verify that it was complete and successful.

(Obviously these first steps can be skipped if you want to restore an existing backup, for example if the original installation broke down, and you now have to recover from a backup by installing LISTSERV Maestro from scratch, only you are forced to re-install in a different configuration than the original LISTSERV Maestro.)

- 3. Copy the three backup ZIP-files (one each for LUI, HUB and TRK) to a safe location from where you can later get them to restore the backup.
- 4. Install your LISTSERV Maestro components as required.

Depending on your needs, this may require that you install LISTSERV Maestro, or some of its components, on a new server (or even several servers), and/or that you uninstall existing components on old servers. At the end, you should have one instance of each of the three components, each installed on the desired server.

Note: If you move a component from one server to another, take care to copy all related files that are not part of the backup, **before** you uninstall the component on the old server. For example the component's existing log files, or additional web content that you put into the "webapps" folder.

5. Restore the backup into the new LISTSERV Maestro installation. See "LMA Admin Tech Doc 2 – Backups" for details.

Important: It is necessary that you always completely restore the backup of **all three** components, even if you only moved some of the components to a new server.

In many cases, one or several of the components will end up on a server that has a different hostname than the old server on which it was originally located, when the backup was stored. In such a case, you have to deal with some special issues. See the following subsection "2 Dealing with Hostname Changes during a Backup Restore" for details.



Such a hostname change should be avoided unless absolutely necessary, especially if it involves moving the TRK or LUI components.

The reason for this is the following: When LISTSERV Maestro sends out e-mails with tracked links, then the URLs of these tracked links point back to the server where the TRK component is running, using the server's hostname. But if the hostname of the TRK server is changed, then all the already delivered e-mails still contain tracking links that point to the old hostname. Only now there is no TRK component with that hostname anymore. This has an effect both on the recipients of the already delivered messages and on the LISTSERV Maestro user who owns the mail jobs for these messages:

- Negative effect for the recipients: All tracked links in all e-mails that were delivered before the server was moved cease to function. If a recipient clicks one of these links, then instead of seeing the intended target page, he will see a "server not found" message (or similar).
- Negative effect for the LISTSERV Maestro user: Since the tracked links cease to function, no tracking events for these links will reach TRK. So all mail jobs that were delivered before the server was moved will no longer receive any new tracking events. Their tracking data will appear "frozen" in the state that it had at the moment the server was moved.

Mail jobs which are delivered after the server was moved are not affected by this.

Therefore, unless the negative effects described above are acceptable in your situation, you should never move TRK to a server with a new name. If you have to move to a new server, then consider if it is not possible to also "move" the hostname from the old server to the new server. I.e. assign a new hostname to the old server and assign the old hostname to the new server (possibly as an alias, if the new server already had a different hostname before).

For similar reasons, it may also not be a good idea to move the LUI component to a server with a different hostname.

This depends on your usage of LISTSERV Maestro: If you make use of LISTSERV Maestro's built in subscriber lists (and list groups) while using the public subscriber pages to allow users from the internet to interact with the list (to subscribe, unsubscribe or edit their subscription profile), then lots of links and URLs to these subscriber pages exist outside of LISTSERV Maestro. For example as links on websites, as bookmarks stored by users or as subscribe or unsubscribe links in delivered mail jobs.

All of these links use the original hostname of the server where the LUI component is running. If you now move the LUI component to a server with a different name, these links will cease to function. Such a move should therefore only be considered, if it is acceptable that all these existing links will not work anymore.

2 Dealing with Hostname Changes during a Backup Restore

Even though it should usually be avoided, in some situations, a backup needs to be restored on a server that has a different hostname than the server that initially stored the backup.

For example if the old server broke down and the backup is restored in a fresh LISTSERV Maestro installation on a new server that has a different hostname. Or if previously all components were on the same server, but now the backup is restored in such a way, that some components remain on the old server, but the other components are on a new server, with a new hostname.

In these situations, you have to deal with the following special cases during the restoration of the backup.

Note: This does not apply if you simply restore a backup into exactly the same LISTSERV Maestro installation that originally stored the backup. But if you restore the backup into a new configuration, or on a server with a new hostname, then one, or several, of the cases below may apply.

2.1 HUB Hostname Changed

If the HUB hostname has changed, then during the last step of the backup restore procedure (when LISTSERV Maestro is started), you may receive startup errors in the LUI and/or TRK components because these components cannot find the HUB on its new host. To fix this problem, do the following:

• If TRK did not start because it could not find the HUB:

On the server where the TRK component is installed, edit the file

[maestro_install_folder]/trk/tracker.ini

and correct the entry "RegistryHubHost". This entry must point to the new hostname of the server where the HUB component is now running (add the entry if it is not already present).

This change requires a restart of LISTSERV Maestro to become effective.

• If LUI did not start because it could not find the HUB:

Similar to the TRK component above, the problem is that the "lui.ini" that is restored from the backup contains a "RegistryHubHost" entry that points to the incorrect old hostname. However, fixing this entry in the "lui.ini" is a bit more involved¹.

You need to trigger the backup restore process for the LUI component (and **only** the LUI component!) a second time, only this time with an additional special configuration.

Create the required INI-file:

[maestro_install_folder]/lui/backupRestore.ini

¹ Simply editing the INI-file, similar to the TRK component above, would not work: Changing the INI-file would require a restart to make the change effective, but restarting LUI at this point is too early, because the backup restore procedure has not finished yet. The restart would leave LUI in an only partially restore state. It is also not possible to simply restart LUI while doing another backup restore (to reach a fully restored state) because that would mean that the edited INI-file would once again be replaced by the un-edited original from the backup. It is therefore necessary to integrate the modification of the INI-file into the backup restore process. Which is exactly what the procedure described above does.

In this INI-file, you now need to include the following two lines (while a normal backup restore only requires the first line):

```
BackupFile=PATH_TO_BACKUP_FILE
lui.ini! RegistryHubHost=YOUR HUB HOSTNAME
```

Where you replace:

"PATH_TO_BACKUP_FILE" with the full path and filename of the LUI backup ZIP-file (see "LMA Admin Tech Doc 2 – Backups" for details on how to specify this path).

"YOUR_HUB_HOSTNAME" with the correct new hostname for the HUB component.

Having the second additional line in the "backupRestore.ini" tells the backup restore process to write this entry into the "lui.ini", *after* the INI-file has been restored from the backup. This allows you to overwrite the entry that is already in the INI-file (and that points to the old hostname) with a new value.

You need to restart LISTSERV Maestro to trigger the second backup restore process. If you correctly added the special second entry to the "backupRestore.ini" in the step above, then during this second backup restore of the LUI component, the system will be able to correctly access the HUB with the new host name and thus complete the backup restore process.

In addition, the access URL for the HUB is now most likely incorrect, as it still contains the old hostname. To fix it, wait until LISTSERV Maestro has restarted. Then login to the HUB with the following URL (where you replace the hostname and http-port accordingly):

http://HOSTNAME_OF_HUB_SERVER/hub/?loginOverride

Then check the **"HUB Access URL for Admin"**. Make sure that this URL uses the correct new hostname of the server where the HUB component is installed.

You can find this URL on the following page:

Main Menu \rightarrow LUI Settings \rightarrow Application Default Settings \rightarrow URL Settings

2.2 LUI Hostname Changed

If the LUI hostname has changed, then the access URLs for LUI and the subscriber pages are now most likely incorrect as they still contain the old hostname. To fix this, wait until LISTSERV Maestro is running (after the backup restore). Then login to the HUB with the following URL (where you replace the hostname and http-port accordingly):

http://HOSTNAME_OF_HUB_SERVER/hub/?loginOverride

Then check the "LUI Access URL for Users", "LUI Access URL for Admin" and "URL for Recipients, Subscribers and Others". Make sure that all these URLs use the correct new hostname of the server where the LUI component is installed.

You can find these URLs on the following pages:

- Main Menu → LUI Settings → Application Default Settings → URL Settings
- Main Menu → Accounts and Identities →
 Select a non-group account or a group → Main Menu → Account Settings → URL Settings

2.3 TRK Hostname Changed

If the TRK hostname has changed, then after LISTSERV Maestro has started, and the backup has been restored, LUI will most likely not be able to connect to TRK to transfer the tracking events. To fix this problem, do the following:

• If LUI fails to open a tracking event transfer connection to TRK:

On the server where the LUI component is installed, edit the file

[maestro_install_folder]/lui/lui.ini

and correct the entry "TrackerHost". This entry must point to the new hostname of the server where the TRK component is now running (add the entry if it is not already present).

This change requires a restart of LISTSERV Maestro to become effective.

In addition, the tracking URL is now most likely incorrect, as it still contains the old hostname. To fix it, wait until LISTSERV Maestro has restarted. Then login to the HUB with the following URL (where you replace the hostname and http-port accordingly):

http://HOSTNAME OF HUB SERVER/hub/?loginOverride

Then check the **"Tracking URL"**. Make sure that this URL uses the correct new hostname of the server where the TRK component is installed.

You can find this URL on the following pages:

- Main Menu → LUI Settings → Application Default Settings → URL Settings
- Main Menu → Accounts and Identities →
 Select a non-group account or a group → Main Menu → Account Settings → URL Settings