



LISTSERV Maestro Admin Tech Doc 16

Single Sign-On with LISTSERV WA

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This document is a LISTSERV Maestro Admin Tech Doc. Each admin tech doc documents a certain facet of the LISTSERV Maestro administration on a technical level. This document is number 16 of the collection of admin tech docs and explains the topic "Single Sign-On with LISTSERV WA".

Last updated for LISTSERV Maestro 7.1-1 on August 25, 2016. The information in this document also applies to later LISTSERV Maestro versions, unless a newer version of the document supersedes it.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 Introduction

The goal of the LISTSERV and LISTSERV Maestro convergence, including single sign-on, is, to make the user experience a seamless experience when working with the LISTSERV Web Interface and with LISTSERV Maestro, where users perceive the two applications as two parts of a greater whole.

When viewed more closely, the topic of LISTSERV and LISTSERV Maestro convergence and single sign-on has three aspects which in some parts depend on each other but which are also independent of each other in other parts. The three aspects are described here in short form and are then explained in more detail in the following sub sections.

1. LISTSERV and LISTSERV Maestro Interface Link:

This aspect deals with actually linking the user interfaces of LISTSERV (i.e. WA) and LISTSERV Maestro (i.e. LUI, HUB and the membership areas) so that there appear menu items or clickable links in each user interface which allow a user to switch over to the other application, and vice versa.

Note, that this does not yet mean that a user who selects such a menu item will automatically be logged in at the other application. This is instead part of the other aspects (see below).

2. WA and LISTSERV Maestro Single Sign-On:

This aspect depends on the first aspect, i.e. that a user interface link between WA and LISTSERV Maestro has been defined. If such a link exists, this aspect deals with enabling single sign-on for a user who selects one of the menu items that exist because of the interface link (which allow him to switch over to the other application), so that when he does this switch, he will automatically be logged in at the other application.

3. Membership Area as WA Subscriber's Corner:

This aspect also depends on the first aspect, i.e. that a user interface link between WA and LISTSERV Maestro has been defined. If such a link exists, this aspect deals with replacing the WA subscriber's corner with one or more of Maestro's membership areas, including the ability to switch from the membership area pages to the WA archive pages, or vice versa, with single sign-on, i.e. without the need to login again with each switch.

2 LISTSERV and LISTSERV Maestro Interface Link

For users which regularly work with both the LISTSERV Web Interface (WA) and LISTSERV Maestro (LUI and/or HUB), it is desirable to be able to switch from one to the other via direct menu items in each of the interfaces, so that you do not have to remember the URLs of each interface (or maintain your own bookmarks, or something similar).

This requirement is fulfilled by defining a link between the user interfaces of LISTSERV (WA) and LISTSERV Maestro (LUI/HUB).

Once a link is defined, menu items will appear both in the WA, LUI and the HUB, which allow the user of each interface to switch over to certain pages in the other interface (however, without single sign-on yet, which requires additional configuration and is dealt with in the following section).

The interface link is defined in the Administration Hub:

**Global Settings → Maestro User Interface →
LISTSERV Web Interface Access → LISTSERV Web Interface Links**

This page displays a list of all interface links which are currently defined for this LISTSERV Maestro instance. Each existing interface link is displayed with the following values:

- **LISTSERV Host:** The host at which the linked LISTSERV instance is running.
- **LISTSERV Web Interface Access URL:** The URL under which the web interface of this LISTSERV instance is accessible (see below for details).

It is possible to link one and the same LISTSERV Maestro instance to the interfaces of several LISTSERV instances. This may seem strange at first glance but is however logical, because you can have different accounts and/or groups in LISTSERV Maestro which all may be connected to different LISTSERV instances, and of course you want to be able to create interface links to all these LISTSERV instances.

In other words: You can create an interface link to any LISTSERV instance which is used by at least one of the accounts or groups in the Administration Hub (in the LISTSERV connection settings of the account or group), but each such LISTSERV instance can be linked only once.

Once an interface link to a certain LISTSERV instance is defined, the following will happen:

- **For a normal account, in LUI:** All accounts which use this LISTSERV instance will have a special “LISTSERV” menu in the main menu which allows them to directly access certain pages in the LISTSERV web interface of the linked LISTSERV instance (if the accessed LISTSERV web interface page is login protected, then the LISTSERV login information will have to be supplied after the menu item is clicked, unless single sign-on is also defined, see below). Any accounts that use a different LISTSERV instance will not see this menu, unless a link to their LISTSERV instance has also been defined.
- **For the admin account, in LUI and HUB:** The special “LISTSERV” menu in the main menu will include a sub-menu for this linked LISTSERV instance, that allows the administrator to directly access certain pages in this LISTSERV’s web interface (if the accessed LISTSERV web interface page is login protected, then the LISTSERV login information will have to be supplied after the menu item is clicked, unless single sign-on is also defined, see below). So if there are several linked LISTSERV instances, this “LISTSERV” menu will have one entry for each of these linked instances. If however there are no linked LISTSERV instances at all, the “LISTSERV” menu will be hidden.
- **In WA:** All accounts will have a special “Maestro” menu in the main menu which allows them to directly access certain pages of the LISTSERV Maestro instance from where the interface link was defined (the LISTSERV Maestro login information will have to be supplied after the menu item is clicked before the associated LISTSERV Maestro page is displayed, unless single sign-on is also defined, see below).

To create a new interface link, click on the **[Create New Link]** button. On the page that is displayed, select the LISTSERV instance that you want to link to from the drop-down list at the top. This list will contain the host names of exactly those LISTSERV instances which are used by any of the accounts or groups but which are not yet linked (which means that the list may also be empty if links for all LISTSERV instances are already defined, in which case you cannot create a new link).

Once you select a LISTSERV host to link to, the **Postmaster Address**, **Postmaster Password** and **TCPGUI Port** fields will be filled out automatically with values that apply to this LISTSERV host. Usually you will not need to changes these automatically provided values, but you can, if necessary.

You also need to enter the **Access URL** to the LISTSERV web interface of the LISTSERV instance that you are linking to. This has to be the same URL as you would enter into the address field of a browser if you wanted to access this LISTSERV web interface (WA) manually. Usually, this URL looks something like this:

```
http://HOST/scripts/wa.exe
```

(where you replace “HOST” with the correct host name and probably also the HTTP-port, if not the default port “80” is being used).

Optionally, you can also enter the **LUI Access URL** that is used for accounts **without** an account mapping, when switching from WA to LUI. When a user switches over from WA to LUI, then the access URL for LUI is determined in the following way:

- If there is an account mapping for the user account, then the system will use the access URL of the LUI account that is mapped to the logged in WA account.
- If there is **no** account mapping for the user account, then the system will use the LUI access URL specified here on the LISTSERV Web Interface Link screen. If no URL is specified here, then the displayed default will be used.

To edit or delete an existing interface link, click on the **Edit** link in the matching table row. The editing of an existing interface link is similar to what you do when creating a new interface link (see above), except for that the host name of the linked LISTSERV instance is now fixed.

Also when you edit an interface link there is a **Delete** button which you can use to delete this interface link (which will also have the effect that the special “LISTSERV” and “Maestro” menus in LISTSERV Maestro and WA will no longer appear).

2.1 Special Considerations When Working With Multiple LISTSERV Maestro Instances

Each LISTSERV instance can only be linked to one single LISTSERV Maestro instance, i.e. if you happen to have several LISTSERV Maestro instances which all use the same LISTSERV instance, and you define an interface link to this LISTSERV in the Administration Hub of the first LISTSERV Maestro, and then you try to also define an interface link to the same LISTSERV in the Administration Hub of the second LISTSERV Maestro, you will get an error message. This error message tells you, that the given LISTSERV instance has already been linked by another LISTSERV Maestro instance, with an option of overriding this previous link with the new link. This override however has a caveat: If you should choose to override an existing interface link to a different LISTSERV Maestro instance, then this will have the following negative effect:

- In the second LISTSERV Maestro instance (the one for which you define the second interface link which now overrides the first link), you will get the expected “LISTSERV” access menu (for the affected accounts) which will also correctly send users to the web interface of the linked LISTSERV instance.
- In the web interface (WA) of the linked LISTSERV instance, you will similarly get the expected “Maestro” access menu which now will send all users to the second LISTSERV Maestro instance.
- The first LISTSERV Maestro instance however will be unaware of this change, i.e. in this instance, the interface link definition will still remain in place in the Administration Hub and LISTSERV Maestro will still show the “LISTSERV” access menus. It will also still allow users to switch from LISTSERV Maestro to the web interface of LISTSERV. However, if a user does this and switches from the first LISTSERV Maestro to WA, and he then tries to go back to

LISTSERV Maestro with the menu provided in WA, then this menu will send him to the second LISTSERV Maestro instance, not the first instance that he came from.

Therefore, if you should choose to override an existing interface link (from a different LISTSERV Maestro instance), then you should not forget to also log in into the Administration Hub of this other LISTSERV Maestro instance and there delete the interface link to the same LISTSERV instance.

3 WA and LUI Single Sign-On

The previous section describes how you can create a link between a LISTSERV web interface and LISTSERV Maestro so that both contain menus that allow users to switch between the two interfaces. However, when using these menus, users will still be required to log in at the other interface manually, which can be quite cumbersome.

To avoid this, the single sign-on feature can be configured. This feature allows you to define, that if a user logs in to LISTSERV Maestro with a certain LISTSERV Maestro account, and then this user switches over to the WA, then the user shall automatically be logged in at the WA with a certain LISTSERV account (and vice versa). For this, the following preconditions must be fulfilled:

- An interface link between LISTSERV and LISTSERV Maestro must have been defined as described above. (Because single sign-on when switching between interfaces does not make sense if there are no actual menu items which allow this switch in the first place.)
- For a normal user, there must exist a LISTSERV Maestro account at the linked LISTSERV Maestro instance. The account must be configured to use the linked LISTSERV instance (so that the “LISTSERV” menu appears when the user logs in with this account). For the administrator, no additional preconditions must be fulfilled. Below, we call this account (either the standard or the admin account) the “LMA-account”.
- For the user (either standard or admin), there must exist a LISTSERV account at the linked LISTSERV instance. This account takes the form of an e-mail address for which a password must have been registered at the linked LISTSERV instance. We call this the WA-account below.

With these conditions fulfilled, you can now define the single sign-on feature for these two accounts, with the following effect:

- If the user logs in to LISTSERV Maestro with the LMA-account and then switches over to WA (with the “LISTSERV” menu), then he will be automatically logged in at the WA with the WA-account. (Although he may have to re-login at a later time, once his automatically created login-ticket expires. This can be avoided by allowing the WA to store the login information in a cookie so that this re-login may happen automatically.)
- If the user logs in at the WA with the WA-account and then switches over to LISTSERV Maestro (with the “LISTSERV Maestro” menu), then he will automatically be logged in at LISTSERV Maestro with the LMA-account.

Such a single sign-on for a pair of LMA- and WA-accounts is defined by creating a mapping between these two accounts. The account mapping is defined in the Administration Hub:

**Global Settings → Maestro User Interface →
LISTSERV Web Interface Access → LISTSERV Web Interface Account Mappings**

This page displays a list of all account mappings which are currently defined. Each existing account mapping is displayed with the following values:

- **LISTSERV Maestro Account:** The LISTSERV Maestro account (the “LMA-account”) that is part of the mapping (see above).
- **Mapped LISTSERV Account:** The LISTSERV account (the “WA-account”) that is part of the mapping (see above), in form of an e-mail address.
- **At LISTSERV Host:** The LISTSERV host that is being used by the given LMA-account. For the single sign-on to work, the given WA-account must be a valid account at this LISTSERV instance, i.e. there must be a password registered for the e-mail address that constitutes this WA-account.
- **Host Is Linked:** Contains either the value “Yes” or “No”, depending on if an interface link has been defined for the given LISTSERV host or not. For the single sign-on to work, this value must appear as “Yes” (because otherwise there will not even be any access menu items either in LUI or the WA, which would leave the account mapping a moot point).

To create a new account mapping, click the **[Create New Mapping]** button. On the page that is displayed, select the LISTSERV Maestro user account (the “LMA-account”) from the drop-down list at the top. The list contains all unmapped standard accounts, as well as entries for all unmapped admin accounts (although there is of course only a single admin account, it can be mapped individually for each available LISTSERV instance, so the list contains one admin account entry for each LISTSERV instance).

Then you need to enter the e-mail address that constitutes the LISTSERV account (the “WA-account”) that you want to map to.

Note, that each LMA-account can only be mapped once.

Also you can only create one mapping for each WA-account (e-mail address) on one and the same LISTSERV instance. In other words: If you have two LMA-accounts which use the same LISTSERV instance, then those two LMA-accounts must be mapped to two different WA-accounts (e-mail addresses), since both WA-accounts are then interpreted as belonging to the same LISTSERV instance. If however you have two LMA-accounts which use different LISTSERV instances, then you can map those two LMA-accounts to one and the same WA-account (e-mail address), since this one address is actually interpreted as two different accounts at two different LISTSERV instances, which only happen to use the same e-mail address.

To edit or delete an existing account mapping, click on the **Edit** link in the matching table row. The editing of an existing account mapping is similar to what you do when creating a new account mapping (see above), except for that the selected LUI-account is now fixed.

Also when you edit an account mapping there is a **[Delete]** button which you can use to delete this account mapping.

3.1 Special Considerations When Working With Identities

The above describes the account mapping for normal LISTSERV Maestro accounts only, and how this enables single sign-on for accounts which are mapped.

There is however another topic here, in case you are using the **Identity** feature of LISTSERV Maestro. With identities, the following additional considerations apply:

- If a LMA-account is part of an identity, then you can no longer define a mapping for this account individually. Therefore, on the “Create New Mapping” page, the drop-down list from which you can select the account to map will not contain this account.

- You can however create a mapping for a whole identity. Therefore, if you have any identities defined, on the “Create New Mapping” page, the drop-down list from which you can select the account to map does not only contain the available user accounts, but also the available identities (if any – available are all those identities which are not already mapped).
- If a mapping is defined with an identity instead of an account, then the single sign-on works as follows instead:
 - If the user logs in to LISTSERV Maestro with any of the LMA-accounts from the identity and then switches over to WA (with the “LISTSERV” menu), then he will be automatically logged in at the WA with the WA-account mapped to the identity. (Although he may have to re-login at a later time, once his automatically created login-ticket expires. This can be avoided by allowing the WA to store the login information in a cookie so that this re-login may happen automatically.)
 - If the user logs in at the WA with the WA-account and then switches over to LISTSERV Maestro (with the “LISTSERV Maestro” menu), then he will be presented with a selection page that shows all LMA-accounts in the mapped identity. Once the user has selected one of the LMA-accounts from this list, he will then automatically be logged in at LISTSERV Maestro with this LMA-account.
- It is allowed to combine LMA-accounts into an identity which do not all use the same LISTSERV instance. Combined with the fact that an identity can only be mapped to only a single WA-account (e-mail address), the following situations may arise:
 - If a user logs in to LISTSERV Maestro with a LMA-account from the identity which uses a LISTSERV instance for which no interface link has been defined, then this user will not see the special “LISTSERV” access menu at all.
 - If a user logs in to LISTSERV Maestro with a LMA-account from the identity which uses a LISTSERV instance for which an interface link has actually been defined, but at this LISTSERV there exists no account that matches the mapped WA-account (i.e. there is no password registered for this e-mail address), then this user will see the special “LISTSERV” access menu. But if he clicks on any of its menu items, he will still have to provide the login information at the WA manually (if he accesses a protected page).
 - If a user logs in to LISTSERV Maestro with a LMA-account from the identity which uses a LISTSERV instance for which an interface link as actually been defined, and at this LISTSERV there actually exists an account that matches the mapped WA-account (i.e. there is a password registered for this e-mail address), then this user will see the special “LISTSERV” access menu. And if he clicks on any of its menu items, he will automatically be logged in at the WA with the mapped WA-account. (Although he may have to re-login at a later time, once his automatically created login-ticket expires. This can be avoided by allowing the WA to store the login information in a cookie so that this re-login may happen automatically.)

4 Membership Area as WA Subscriber’s Corner

In addition to the link between the LISTSERV and LISTSERV Maestro interfaces (as described above), it is also possible to link a dataset (or several datasets) with the WA, so that the membership areas of the linked datasets act as a replacement for the WA’s normal subscriber’s corner and that subscribers who login to a member area can access the archive pages of WA.

Such a link between a dataset and the WA is defined on dataset level, i.e. by the data admin who has administrative access to the dataset in question. Before the data admin can however define such a link for a given dataset, the following preconditions must be met:

- There must exist a normal interface link (as described above) between the LISTSERV Maestro that contains the dataset and the LISTSERV instance that is configured for the data admin who administrates the dataset (i.e. the LISTSERV instance configured in the LISTSERV connection settings of the data admin's account or group).
- The data admin must have been granted the additional user right to create links between datasets and the WA:

In the Administration Hub: "Account and Identities" → "Accounts and Identities Overview", click on the data admin's account, then "User Account" "User Right Settings". Then check the "**The user may link Subscriber Datasets to the LISTSERV Web Interface**" user right.

Once these preconditions are fulfilled, the data admin can define a link between a given dataset and the WA at any time, via the dataset's definition wizard ("Edit Dataset Settings..." in the "Dataset" menu): On the "**General**" page of the dataset wizard, check or uncheck the "**LISTSERV Interface Link**" option to create or remove a link between the selected dataset and the WA. (This option is only available if the above preconditions are fulfilled.)

Note: Linking a dataset in this fashion has the additional effect that the "Member Password" option of the dataset is automatically set to "The member will get a system defined password", which can also not be changed anymore (until the link to the WA is removed again).

Such a link can be defined for one or more datasets and has the following effects:

- In the membership areas of the linked datasets there will appear two additional links which allow the subscribers to access the "LISTSERV Archives" and "Archive Search" pages in the WA.
- In the WA, the links/menu-entries to point to the normal subscriber's corner of WA will be hidden, instead there will appear a menu that contains links to all membership areas which are linked to this WA.

So essentially, the linked member areas "take over" the subscriber's corner functionality of WA: The normal subscriber's corner will no longer be accessible, instead there will be links/menu-entries to the linked membership areas, which offer the subscriber the functionality that is normally offered by the subscriber's corner.

- These links and menu-entries between the membership areas and the WA archive-pages can be used by subscribers with "single sign-on" automatically enabled, i.e. a subscriber who logs into the membership area can switch to the WA archive-pages without having to login again. (Although he may have to re-login at a later time, once his automatically created login-ticket expires. This can be avoided by allowing the WA to store the login information in a cookie so that this re-login may happen automatically.)

Similarly, if the subscriber first logs into the WA, he can then switch to any of the linked membership areas without having to login again.

4.1 Additional Considerations for the Subscriber's Corner

As described above, it is possible to create a link between a dataset and the WA for several datasets at once. In this case, the WA will contain a menu which lists the membership areas of all linked datasets (by name), and the user can select to which membership area he wants to go, simply by selecting it from the menu.

This means, that in the WA the user will see the names of **all** linked datasets (and will be able to switch to all of them, provided he is actually a member of the selected dataset).

As a result, when linking several datasets to the same WA, you need to carefully consider which datasets you actually link, as to avoid confusing or probably even offending combinations.

Consider the caveats in the following situations:

- A football organization which uses LISTSERV Maestro to offer mailing lists for the fan clubs of various rivaling football teams. All datasets are administrated by one data admin who is a member of the actual organization (not of one of the clubs).

Being sensible about the rivalries between the clubs, the data admin has of course created separate datasets for each of the clubs, so that the fans of one team do not see the mailing lists dedicated to the other teams.

If the data admin would now link several (or all) of these datasets to WA, then this separation would be broken on WA's side, because there, in the menu with the menu entries for the various linked membership areas, there would appear the membership areas of all clubs, possibly angering some of the fans.

So the data admin should take care to link at most one of the fan club datasets to the WA, to avoid this.

Of course a better solution would be to create different LISTSERV Maestro groups and have each of the fan club datasets in a separate group, with a separate LISTSERV instance for each group. That way, the data admin could then link all fan club datasets to WA, as they would be using different WAs anyway.

- A similar situation, where however the data admin is not a member of the organization, but each fan club shall administrate its own datasets and mailing lists.

Because of this, the LISTSERV Maestro administrator has created separate LISTSERV Maestro groups, one for each fan club. In these groups he has created various accounts one of which has the data admin rights for that group, so that a member of each fan club can administrate the datasets and lists of that club. So there is a data admin in each group, one for each fan club.

If all groups are connected to the same LISTSERV instance (via their LISTSERV connection settings in the Administration Hub), and the LISTSERV Maestro administrator grants the "The user may link Subscriber Datasets to the LISTSERV Web Interface" user right to the data admins of all groups, then it could happen that each data admin decides independently to link his dataset to the WA. Which would again have the effect that the links to various membership areas (of the various fan clubs) all appear in the same menu in the WA, which is probably not a good idea.

And since the various data admins would not even know that the data admins of other fan clubs have also connected their dataset (until they have a look at the WA menu), the data admins would not even be aware of this (and even if they were aware of this, each of them would probably demand that the *other* data admins shall again remove *their* links).

So the LISTSERV Maestro administrator must take care to not simply grant the "The user may link Recipient Datasets to the LISTSERV Web Interface" user right to just any data admin, to avoid such conflicting situations.

Of course here too the best solution would be to have separate LISTSERV instances for each of the groups (and fan clubs), in which case it would then be no problem if all data admins have this right, since they would all only affect their own WA.