



**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 10.0-3 on October 26, 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 The information in this document also applies to later LISTSERV Maestro versions unless a newer version of the document supersedes it.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 Introduction

LISTSERV and LISTSERV Maestro can be configured with “single sign-on”, to create a seamless user experience when working with the LISTSERV Web Interface and with LISTSERV Maestro.

This single sign-on consists of two parts that are summarized below and then explained in more detail in the following sections:

## 1. WA and LUI/HUB Interface Link:

This aspect deals with linking the user interfaces of LISTSERV (WA) and LISTSERV Maestro (LUI and HUB) 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 is automatically logged in at the other application. This is instead part of the other aspects (see below).

## 2. WA and LUI/HUB Single Sign-On:

This aspect depends on the first aspect, i.e., that a user interface link between WA and LUI/HUB has been defined. If such a link exists, single sign-on can be enabled too. If enabled, then if a user selects one of the menu items that exist because of the interface link (which allow him to switch over to the other application), the user is automatically logged in at the other application.

# 2 WA and LUI/HUB Interface Link

For users who 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 WA and LUI/HUB.

Once a link is defined, menu items appear both in the WA, LUI and 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:

**Main Menu → LUI Settings →  
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 happens:

- **For a normal account, in LUI:** All accounts which use this LISTSERV instance 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 do 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 includes 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 has one entry for each of these linked instances. If, however, there are no linked LISTSERV instances at all, the “LISTSERV” menu is hidden.
- **In WA:** All administrator, owner and moderator accounts have a special “LISTSERV 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 must 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 contains 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 are filled out automatically with values that apply to this LISTSERV host. Usually, you do not need to change 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 must 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 uses 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 uses the LUI access URL specified here on the LISTSERV Web Interface Link screen. If no URL is specified here, then the displayed default is 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 also has the effect that the special “LISTSERV” and “LISTSERV Maestro” menus in LISTSERV Maestro and WA 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 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 has 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 get the expected “LISTSERV” access menu (for the affected accounts) which also correctly sends users to the web interface of the linked LISTSERV instance.
- In the web interface (WA) of the linked LISTSERV instance, you similarly get the expected “LISTSERV Maestro” access menu which now sends all users to the second LISTSERV Maestro instance.
- The first LISTSERV Maestro instance however is unaware of this change, i.e., in this instance, the interface link definition remains in place in the Administration Hub and LISTSERV Maestro still shows the “LISTSERV” access menus. It also still allows 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 sends 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/HUB Single Sign-On**

The previous section describes how you can create a link between a LISTSERV web interface and LISTSERV Maestro’s LUI and HUB so that both contain menus that allow users to switch between the two interfaces. However, when using these menus, users are still 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 WA and LUI/HUB 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 effects:

- If the user logs in to LISTSERV Maestro with the LMA-account and then switches over to WA (with the “LISTSERV” menu), then he is automatically logged in at the WA with the WA-account. (Although he may have to re-login later, 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 is automatically 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:

**Main Menu → LUI Settings →  
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 are not even 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.

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 an 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 does 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 is automatically logged in at the WA with the WA-account mapped to the identity. (Although he may have to re-login later, 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 is 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 is then automatically 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 an LMA-account from the identity which uses a LISTSERV instance for which no interface link has been defined, then this user does not see the special “LISTSERV” access menu at all.
  - If a user logs in to LISTSERV Maestro with an 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 sees the special “LISTSERV” access menu. But if he clicks on any of its menu items, he still must provide the login information at the WA manually (if he accesses a protected page).
  - If a user logs in to LISTSERV Maestro with an 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 sees the special “LISTSERV” access menu. And if he clicks on any of its menu items, he is automatically logged in at the WA with the mapped WA-account. (Although he may have to re-login later, 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 WA and Subscriber Area Interface Link

In addition to the link between WA and LUI/HUB (as described above), it is also possible to link a subscriber list or list group (or several lists or groups) with the WA, so that the subscriber areas of the linked subscriber lists are accessible from the WA (and vice versa) with single sign-on.

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

- There must exist a normal interface link (as described above) between the LISTSERV Maestro that contains the subscriber list and the LISTSERV instance that is configured for the data admin who administrates the list (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 subscriber lists and the WA:

In the Administration Hub: **Main Menu → Account and Identities → User Accounts**, click on the data admin’s account, then **Main Menu → Account Settings → User Rights**. Then check the “**The user may link Subscriber Lists to the LISTSERV Web Interface**” user right.

Once these preconditions are fulfilled, the data admin can define a link between a given subscriber list and the WA at any time, via the list’s public website settings. With the list selected in the explorer, select **Main Menu → Public Website Settings**, then click the **Edit Settings** link in the top right, check the “**LISTSERV Interface Link**” checkbox and click the **[Save]** button. (This option is only available if the above preconditions are fulfilled.)

**Note:** Linking a subscriber list in this fashion has the additional effect that the “Subscriber Password” option of the list is automatically set to “No additional fields shown on subscribe page, defined later

when needed for login”, 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 subscriber lists (or list groups) and has the following effects:

- In the WA, an additional “Subscriber Area” menu appears in the navigation bar (in LISTSERV 17.0) with menu entries for each of the linked subscriber lists, that point directly to the subscriber areas of the lists.  
(In LISTSERV 16.5 the menu is called “Membership Area” instead and it replaces the original “Subscriber’s Corner” menu in the drop-down menu.)
- The login password is shared between LISTSERV (WA) and the subscriber area. To the effect that any email address that has a password at the LISTSERV instance can use the same password to identify itself for the subscriber list (for example to subscribe or to login to the subscriber area) and vice versa.  
The shared password also enables single sign-on between the WA and the subscriber area, so subscribers can freely use the “Subscriber Area” menu described above, or any links in the subscriber area that point to the WA archive (created with the `{{maestro:serverArchives}}` and `{{maestro:archiveSearch}}` placeholders), to switch between the two user interfaces without the need to login again.

## 5 Differences between LISTSERV 16.5 and 17.0

The interface link works both with the WA of LISTSERV 16.5 as well as with the newer LISTSERV 17.0.

In the former, the menu items appear as part of the standard pulldown menu. In LISTSERV 17.0, they appear as part of the navigation bar on the left. However, only if the HTML structure of the navigation bar has not been customized too much (by customizing the WA web templates). If the WA pages have been customized in a way that changes the navigation bar too much, the menu items are not added.

Also, in LISTSERV 17.0 you can use the WA web template customization to control the appearance of the LISTSERV Maestro menu items in the navigation bar.

It allows you to hide each of the two menus (“LISTSERV Maestro” or “Subscriber Area”) altogether, or to selectively hide menu items from the “LISTSERV Maestro” menu, or to show different names for the menus or menu items, other than the English standard names.

This is done by using the web template customization to add Javascript that defines certain Javascript variables. The recommended location for this Javascript is in the `BODY-GLOBAL-SUBNAV` template, just **before** the `+IM MAESTRO_MENU` line at the end (this line is only present if an interface link has already been defined).

In this script, you can customize the menus by setting certain global variables. By setting a variable to a text string, you change the text of the corresponding menu or menu item. By setting the variable to `null`, you hide the corresponding menu or menu item. If you do not set a certain variable at all, then the corresponding menu or menu item appears normally and is shown with an English default text.

The possible variables are as follows:

<code>lma_subscriberAreaMenu_name</code>	for the “Subscriber Area” menu
<code>lma_maestroMenu_name</code>	for the “LISTSERV Maestro” menu and in this menu:
<code>lma_maestroMenu_dashboard</code>	for the “Dashboard” menu item
<code>lma_maestroMenu_mailJobs</code>	for the “Mail Jobs” menu item
<code>lma_maestroMenu_createJob</code>	for the “New Mail Job” menu item
<code>lma_maestroMenu_trackingStatistics</code>	for the “Tracking Statistics” menu item
<code>lma_maestroMenu_deliveryStatistics</code>	for the “Delivery Statistics” menu item
<code>lma_maestroMenu_trackingReports</code>	for the “Tracking Reports” menu item
<code>lma_maestroMenu_subscriberWarehouse</code>	for the “Subscriber Warehouse” menu item
<code>lma_maestroMenu_hub</code>	for the “Administration Hub” menu item

For example, the following script hides the “Subscriber Area” menu (if it otherwise would appear), changes the name of the “LISTSERV Maestro” menu and the name of the “New Mail Job” entry in this menu, and hides the “Tracking Report” and “Administration Hub” entries in this menu:

```
<script>
var lma_subscriberAreaMenu_name = null;
var lma_maestroMenu_name = "My Maestro";
var lma_maestroMenu_createJob = "Create New Job";
var lma_maestroMenu_trackingReports = null;
var lma_maestroMenu_hub = null;
</script>
```