HIRSCHMANN
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GateManager™ PREMIUM Domain Administration

GateManager™ Premium
Release 2.2, 02/2016

Technical Support
https://hirschmann-support.belden.eu.com

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This document helps you get started with Hirschmann's hosted GateManager in relation to the GateManager Domain Administration. This guide assumes that you have worked with the ***GateManager FREE BASIC*** Starter Package and have ordered the ***GateManager PREMIUM*** upgrade, and subsequently had your GateManager administrator account upgraded with Domain Administration features.

This document does not explain all the features and possibilities of the GateManager Domain Administrator, but only the more commonly used features for administering SiteManagers and LinkManagers.

March 2016

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GateManager Administrator GUI FAQ

Q: Can any browser be used for accessing the GateManager administrator GUI?
A: Almost. The GateManager administrator GUI is using advanced Java script, which should be supported by most web browsers. We recommend Google Chrome, Mozilla Firefox, Apple Safari (for Apple OS). Microsoft Internet Explorer is not recommended due to slow and flawed processing of Java script. How-ever, IE 9-11 should work, while IE8 will not.

Q: Can I use my tablet or smart phone?
A: Yes. For Apple iPad and iPhone you may need to change your Administrator account to use user name and password only, since it may not be possible to store the x509 certificate onto the device. For newer Android based devices such as Samsung, you can store the certificate on the device. Note that drag and drop by default is disabled when GateManager detects a browser on an Android or iOS platform in order to prevent unintended reorganizing of contents. This can, however, be enabled under the My Account menu and is stored in a local cookie locally on the PC.

Q: Can I load the x509 certificate into my browser, so I do not have to browse for it each time I login?
A: Yes. GateManager uses a cookie to remember which file was used for the last login.

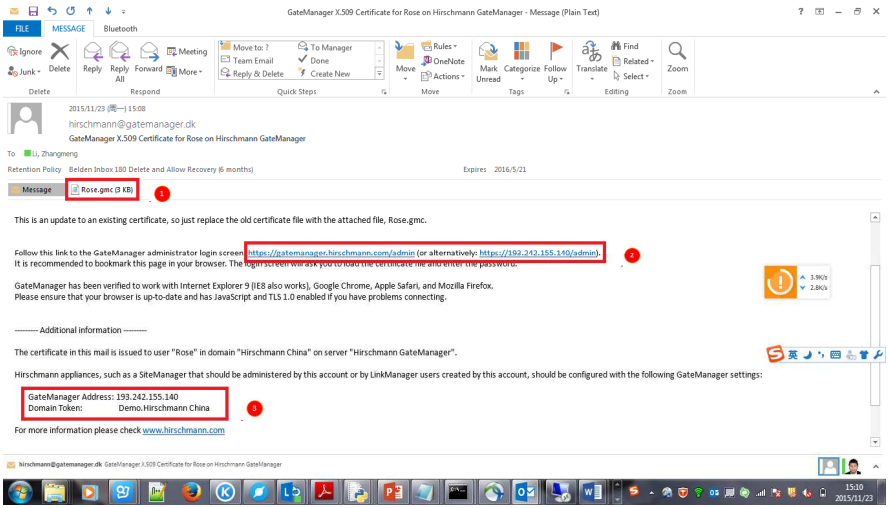
Q: Can GateManager administrators at the same level change or delete each other's accounts?
A: Yes. We have chosen to allow this by design, in order to let administrators help each other in case a password is forgotten. If you need to have an overall administrator, you can decide to create a sub-domain structure in which you create additional administrator accounts, and then have the initial administrator account in the "root-domain".

Q: I already have a GateManager FREE BASIC account. Do I need a new login, for my PREMIUM account?

A: No, we will typically just upgrade your account profile on the server. Next time you login you will notice that you have all the GateManager Domain administrator features applicable to the GateManager PREMIUM account.

1 First time login to the GateManager WEB GUI

When the administrator account was initially created for you, an email was automatically sent to you. It would look like this:



❶ If the account was defined to use two factor security with x509 certificate, the email will include the certificate as an attachment. Save the certificate on your PC in the “My Documents” folder, for example.

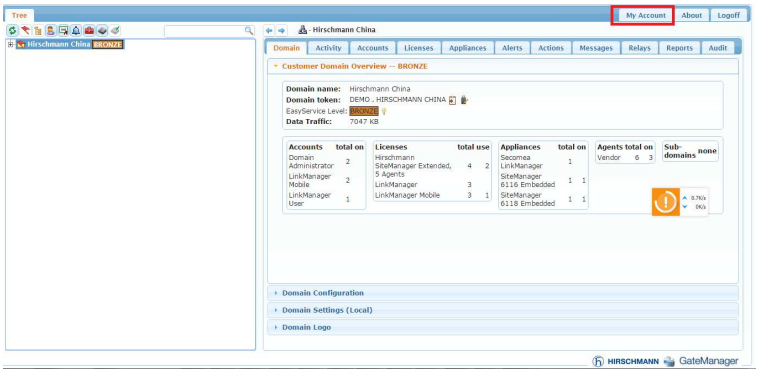
❷ The email will include a link to the GateManager’s DNS name and/or IP address. Click the link to connect to the GateManager. Bookmark the link in your browser.

❸ The email is sent with the GateManager server as sender, while the name in the greetings section indicates the GateManager administrator account that created your account. If you have not been notified about the password associated with your account, you will need to contact this person.

Follow the link in the email to open the GateManager login screen, and browse for the certificate you just saved.

Note:*The GateManager administrator portal requires minimum MS Internet Explorer 9, Apple Safari, Firefox or Google Chrome.*

During your very first login, you will see an empty tree. You should consider changing your password under **My Account**. Note that this will make the GateManager server issue a new email with a new certificate. Your existing certificate will subsequently be invalidated.



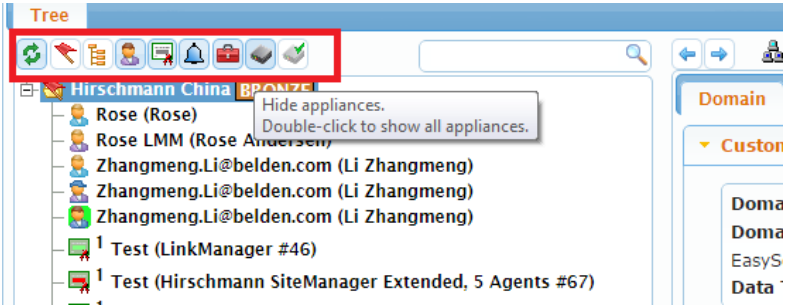
By default all items are displayed in the tree view.

In order to hide items in the tree view, you can **click on the icons** above the tree. When an icon has a blue background it means the item is activated and the associated objects will be shown in the tree.

The icon mouse-over message will indicate the function of an item.

The settings of the icons will be saved in a cookie on your PC and your tree-view will be restored when you login again.

This will allow you to customize your favorite view according to the functions you use most often.

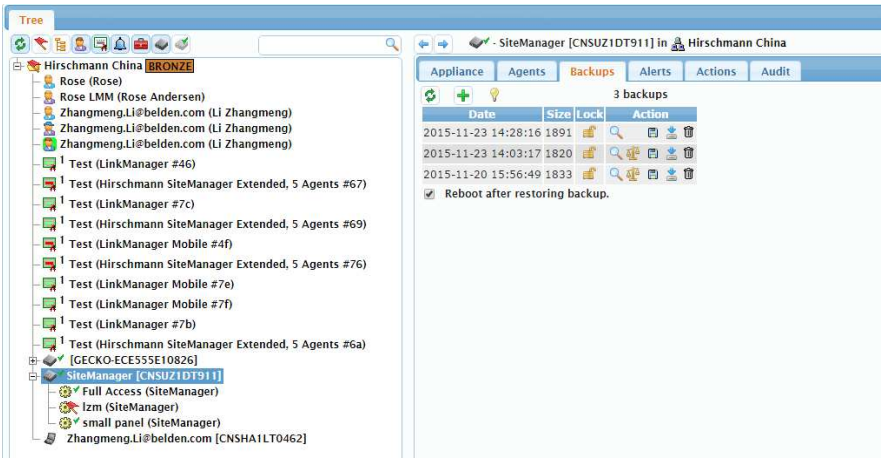


2 SiteManager configuration backup

With GateManager you do not need to set up configuration backup.

When a change is made to the SiteManager configuration, the GateManager server will automatically make a new backup of the configuration.

You can view the configuration by placing the cursor on a SiteManager and select the Backup tab:



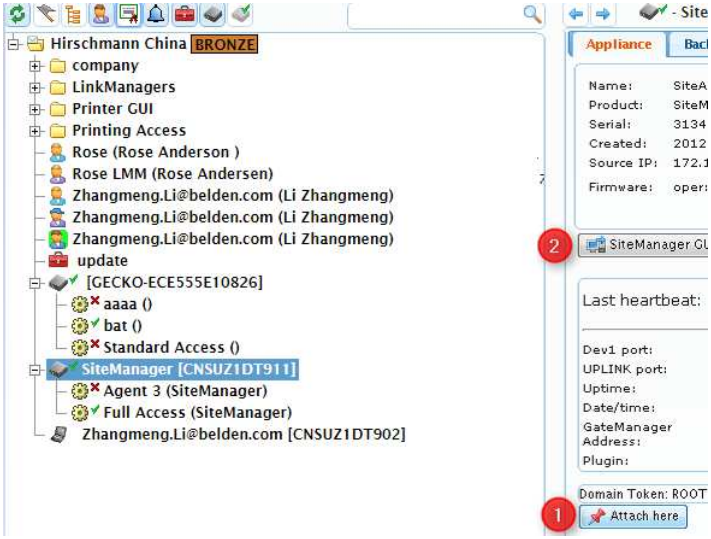
The GateManager will always store the 3 most recent configurations and over-write the oldest. If you wish to maintain a particular configuration, you can select the Lock function, which will prevent the configuration from being overwritten.

A useful feature is that you can use the scales symbol to compare differences between two configuration backups.

3 Accessing the Web GUI of a SiteManager

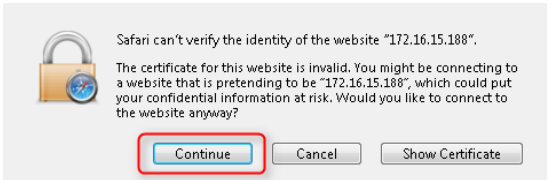
A SiteManager that has not been managed via the GateManager administrator GUI before will be marked with a red exclamation mark (!). Before you can connect to the SiteManager's web GUI you need to attach it to the GateManager.

You can either right click the SiteManager and select **Attach**, or select **Attach here** in the Appliance tab.

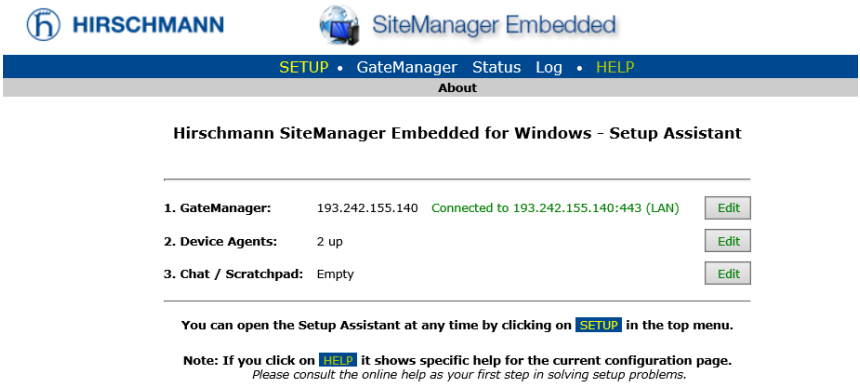


The first time you select the SiteManager GUI button for a given device, you will be met with a browser message saying that the certificate of the website is insecure (wording will depend on the browser).

This is because the SiteManager certificate and the temporary IP address to reach it, is not known by a public certificate authentication service. You can, however, safely accept.



This will bring you to the configuration interface of the SiteManager.

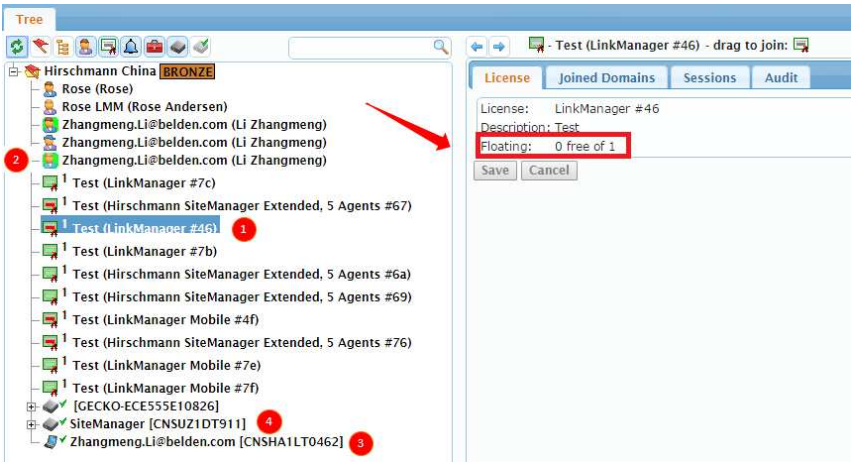


Hint. Refer to the Hirschmann GateManager BASIC Guide for an introduction to configuring SiteManager network settings and setting up Device Agents.

The guide can be downloaded from this location:
http://www.hirschmann.com/en/QR/SRA-Basic-Setup-Guide

4 Accessing the Web GUI of a LinkManager

When a LinkManager is connected to the GateManager server, you will see a number of things:



❶ Firstly a License will be pulled from the LinkManager license pool. The "progress bar" of the certificate icon will show with red, how many licenses are left. If all licenses of the pool are used no other LinkManager will be able to connect until the currently connected LinkManager disconnects.

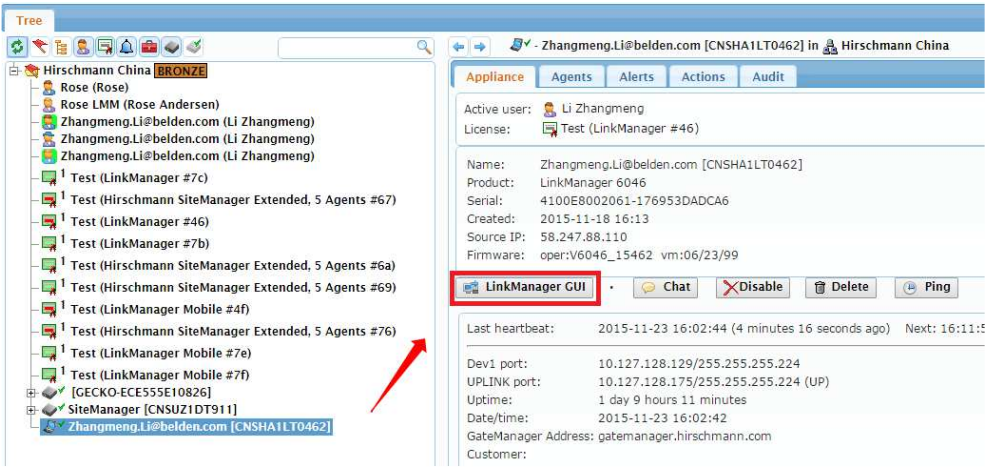
❷ The account icon of the connected LinkManager will get a light-green background, which makes it easier to identify users that are logged in.

❸ Simultaneously a "LinkManager appliance" icon will appear with a laptop symbol with a green checkmark. In square brackets the Windows computer name is shown.

Hint: Right-clicking and disabling and enabling the appliance will free the license in case the user has forgotten to logout and is unintentionally blocking the license.

❹ If the LinkManager user has logged in and also has connected to a device via a SiteManager agent, a green lightning symbol will appear over the SiteManager icon.

If you select the laptop icon, you will see the “LinkManager GUI” button

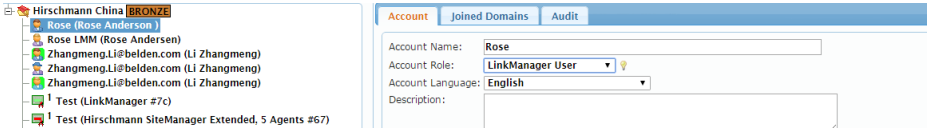


If you click it, it will warn you about the usual certificate issue, which you can safely ignore and continue to the administrator interface of the LinkManager. You will not be able to remote control the user console.

5 Organize equipment in domains and provide Link Manager access to specific equipment

One of the key features of the GateManager is the ability to create domains for organizing equipment based on purpose, access level, customer, location etc., and then create accounts for which differentiated access to the various domains is defined.

If we take a look at our example we have the LinkManager user Rose who, due to being created in the root domain (Hirschmann China) , has access to any device that may appear in this domain and any sub-domain.



For this exercise we therefore want to do the following:

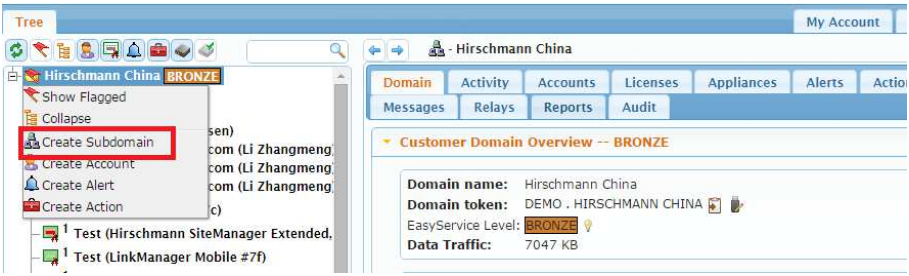
1. Create some domains, and move device agents configured on the SiteManager “SiteA” into these domains.

2. Move LinkManager user “Rose” to a sub-domain and grant her access to the agent “Printer Web GUI” only.

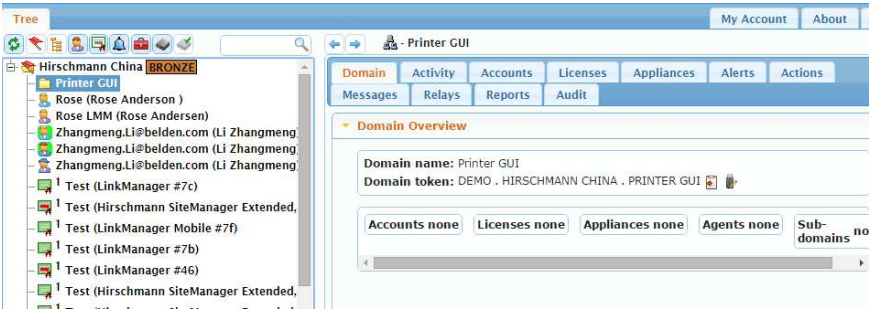
3. Create a new LinkManager user “Jeff”, who will have access to both the agent “Printer Web GUI” and also the agent “Printer Print 9100”, but he should not have access to the SiteManager itself.

5.1 Create new domains and move device agents to them

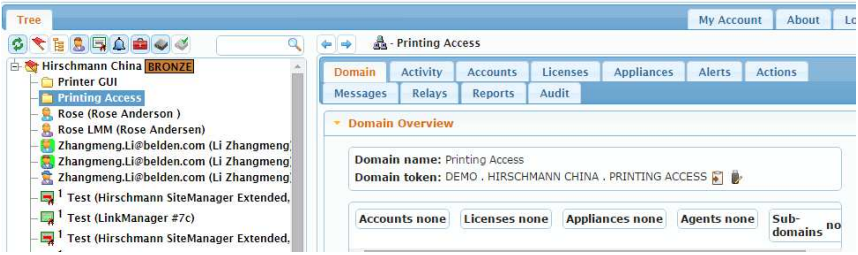
First we right click the root domain and select Create Subdomain.



We name the new domain “Printer GUI”

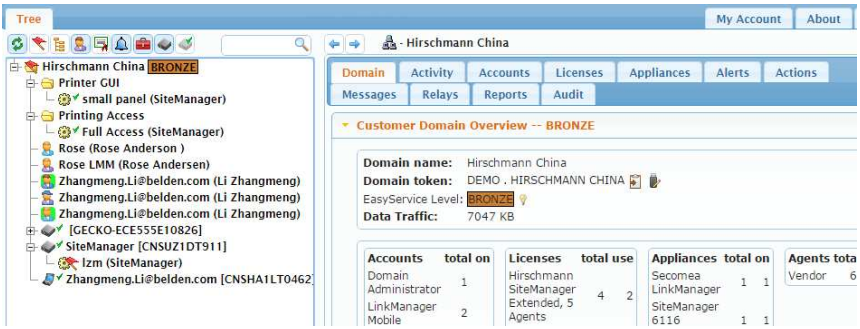


We use the same procedure to create the domain “Printing Access”



We select the agent “Printer Web GUI” and while holding down the left mouse button, we drag the agent to the domain “Printer GUI”.

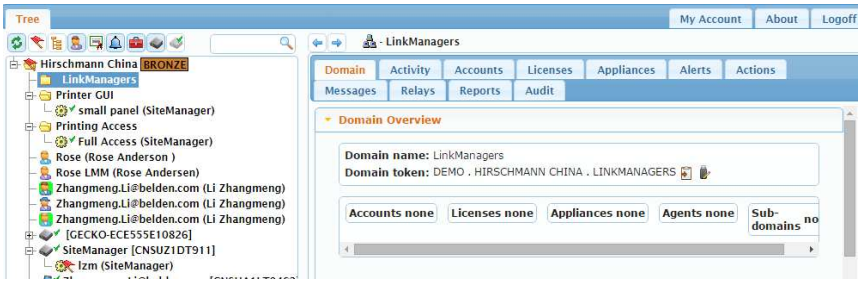
We do the same for moving the agent to the domain “Printing Access”



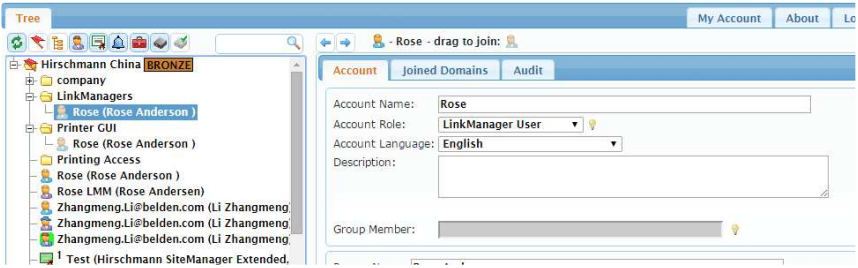
Notice that the SiteManager itself stays in the root domain.

5.2 Create a domain to hold LinkManager accounts

We right click the root domain and select Create Subdomain, and we create a domain called “LinkManagers”



Now we select the account Rose, and while holding down the left mouse button, we drag the account into the new domain.

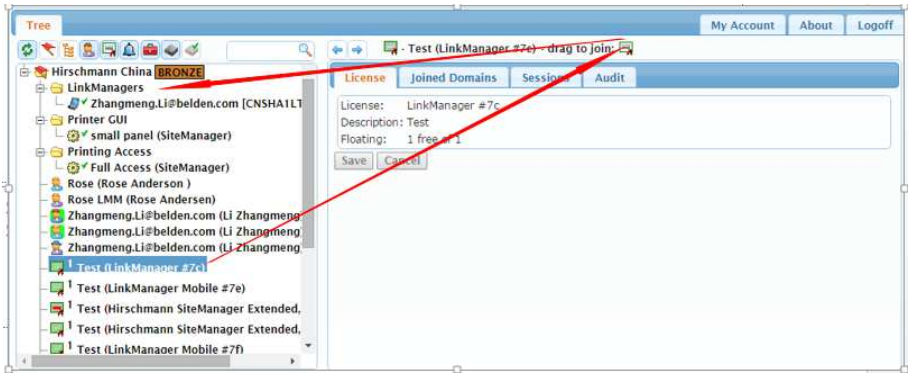


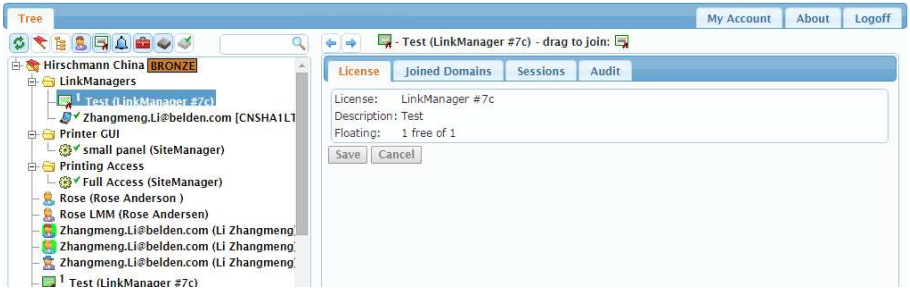
We now need to ensure that a LinkManager license is available in the domain “LinkManagers”. In our case we only have one “license pool” called “Hirschmann China”, and which contains only one license.

We can choose to simply drag the license into the LinkManagers domain. This, however, means that other LinkManager accounts that potentially could be created in the root domain Hirschmann China will not be able to use the license.

Therefore we leave the license in the root domain, and instead we “join” the license to the LinkManagers domain.

We select the license, and we drag the icon on the right, into the domain for which the license should be available:

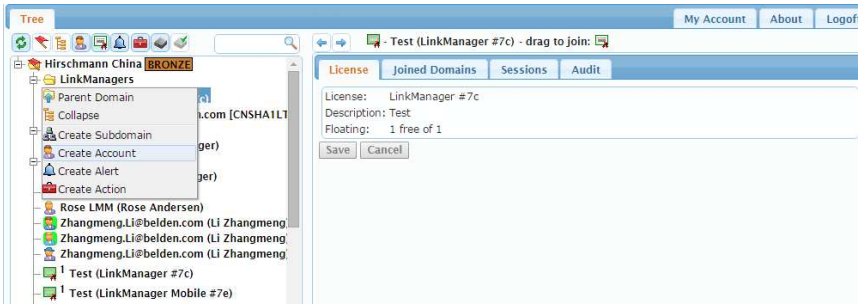




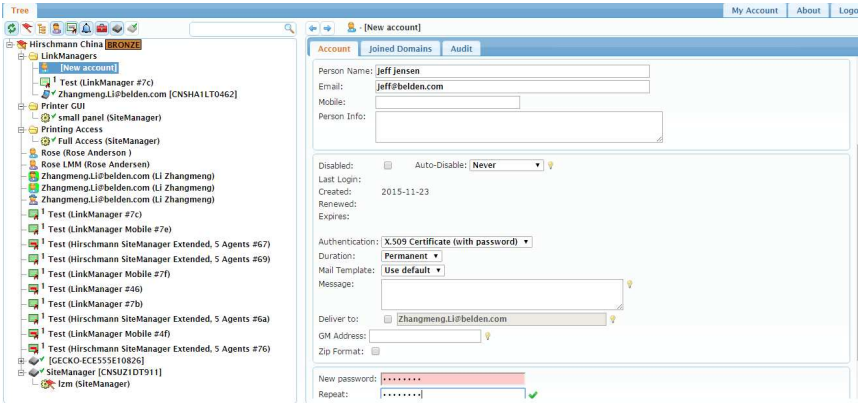
Now the license can be used for LinkManager accounts in both the root domain, and the domain “LinkManagers”.

We now want to create our LinkManager account “Jeff”.

We select the domain LinkManagers, right-click and select Create Account.



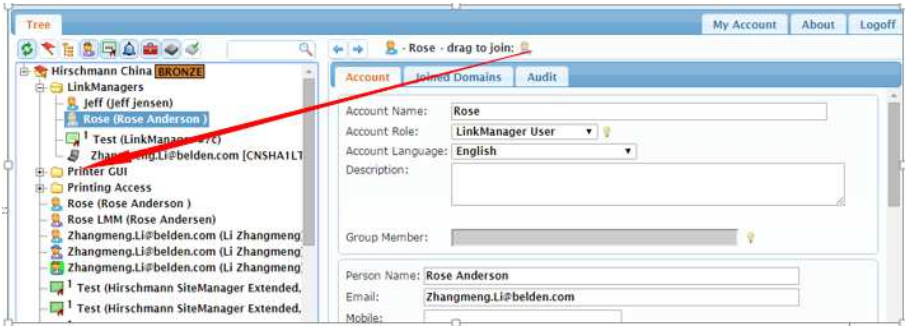
We fill in the minimum details for the account:

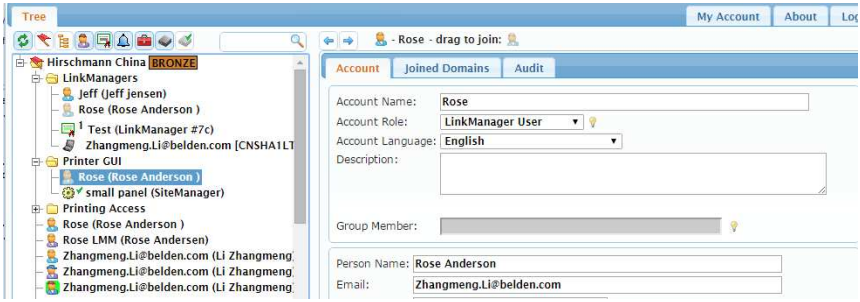


Note: The password must be provided to the user verbally or in a separate email.

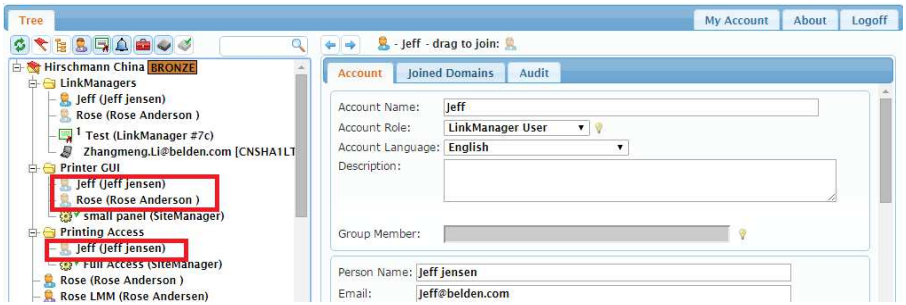
5.3 Grant domain access to LinkManagers using “Joined Domains”

We select the account icon for Rose on the right and we drag it into the domain that the account should have access to.

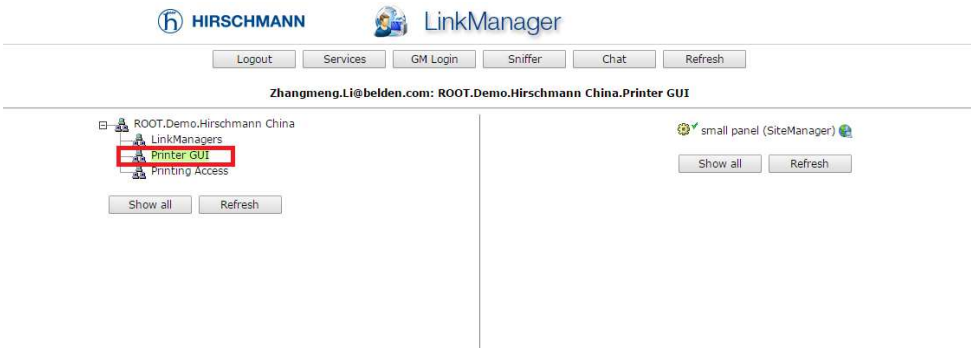




We now select account “Jeff”, and do the same for his account. But for Jeff we join him to both the “Printer GUI” and the “Printing Access” domain.



The end result is that when Rose logs in with her LinkManager, she will be able to access the Printer GUI domain only and connect to the “Web GUI” agent only:



And when Jeff logs in, he has access to both domains and subsequently both agents:

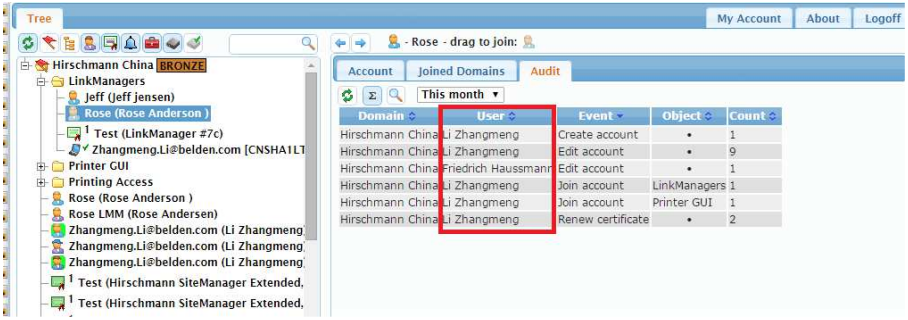
6 Understanding Audit logs

All the actions on the SiteManager we made in the previous sections are logged on the GateManager.

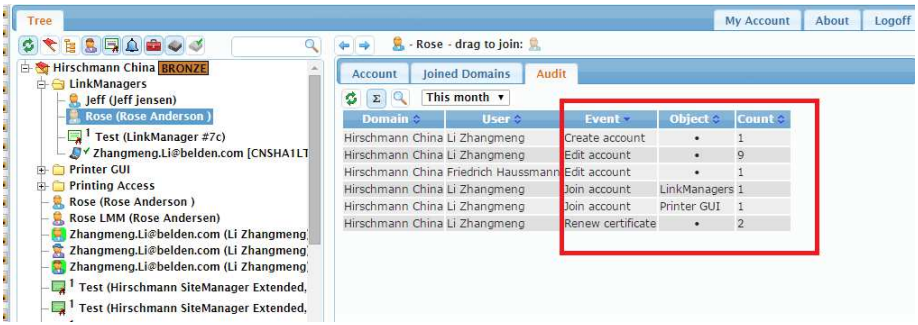
It does, however, require some explanation to understand what is logged where.

For instance we want to check what devices Jeff has connected to recently.

If we look at Jeff's account we see what events have occurred on Jeff's account, and not what Jeff has done.



So what we should look at instead is Jeff's LinkManager appliance object, which represents the specific PC on which Jeff's account has been activated:



The reason for this is that Jeff's account could be installed on different PCs that are operated by different people.

7 Working with Alerts

7.1 Generally about Alerts

Alerts can be used to submit an alert to a specific email address.

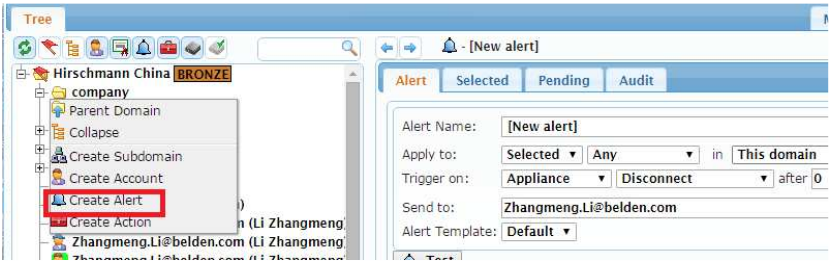
Alert processing depends on the GateManager connection to the SiteManager being available or not.

Alerts that are associated with the SiteManager itself, such as an "Appliance Disconnect" alert, will only be triggered based on the following criteria:

1. If the next expected heartbeat does not arrive (default up to 10 minutes), or…
2. If the SiteManager has sent an off-line heartbeat, and has not reconnected within 2 minutes (offline heartbeats are generated based on a controlled reboot/reconnect activated from the local SiteManager web menu or an applied GateManager reboot action, or as a result of an automatic reboot in conjunction with a firmware upgrade).

If a SiteManager is disconnected, and has Disconnect alerts associated with devices controlled by the SiteManager (such as a SiteManager agents), the alerts for these devices will be triggered based on the above two criteria also. Note that the devices may in fact be connected locally at the remote site, but since the GateManager cannot determine the cause for the general disconnect, it has no other choice than to trigger the device alerts also.

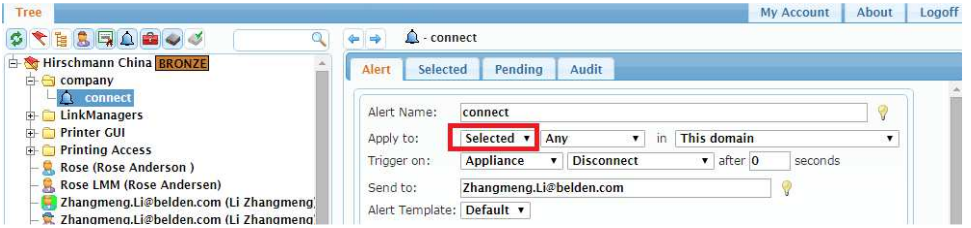
Alerts are created by right clicking the domain where the alert should be created.



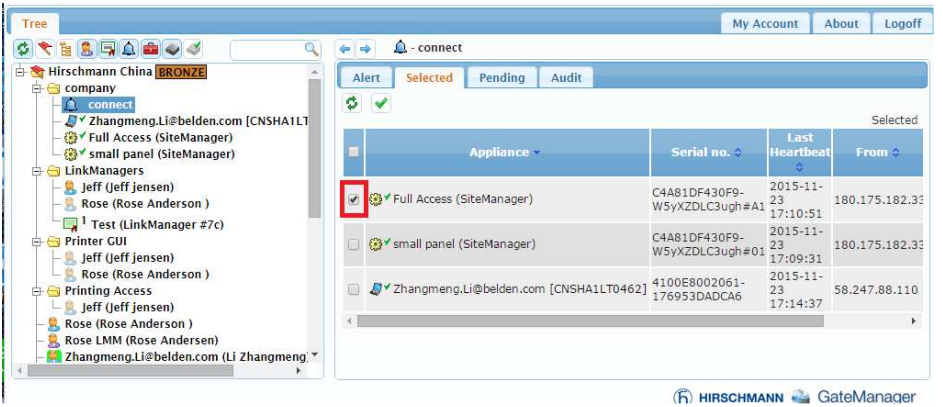
7.2 Example of a CONNECTED Alert for selected appliances

This example illustrates creation of an Alert that is triggered when certain appliances connect.

Create the Alert definition as follows:



Now click the **Selected** TAB and checkmark the appliances that should have this alert associated.



NOTE: Combining the “Apply to” and “Trigger on” option should cover most of the needs for an Alert.

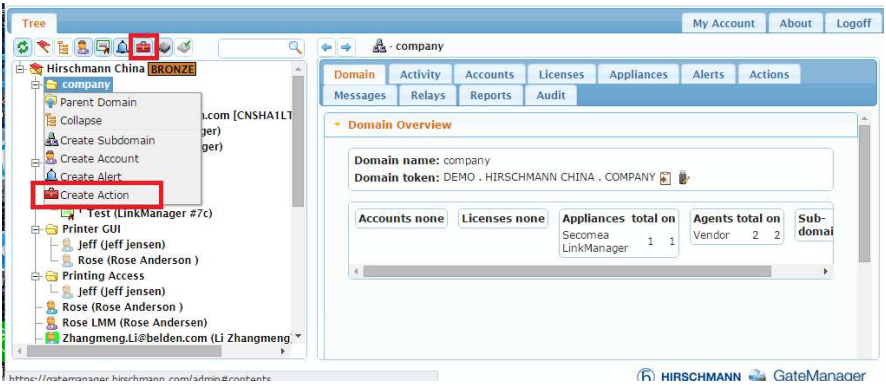
8 Working with Actions

With Actions you can perform firmware upgrades, restore configuration backups or parts of configurations and/or rebooting appliances.

An Action is only performed on selected appliances so there is no danger of creating a firmware upgrade action. You cannot break anything by applying a wrong firmware to a SiteManager.

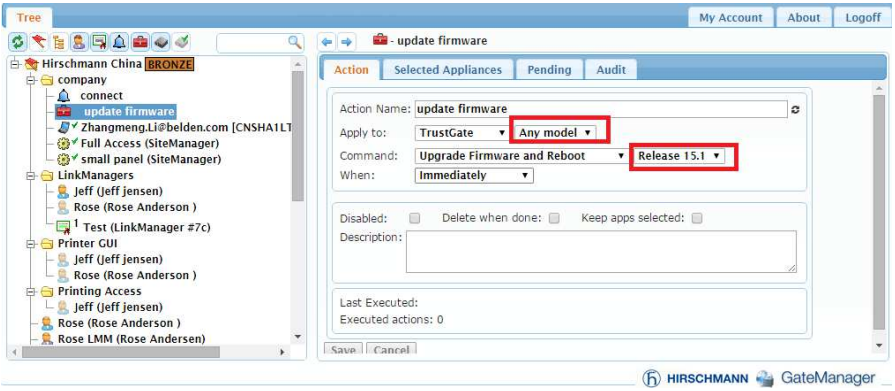
A SiteManager will not be upgraded before the appliance is selected. However you can combine Actions and Alerts (see next section).

To create an Action, remember to select the Actions Icon at the top to make Actions visible in the tree view. Right click on the domain where the action should be created.

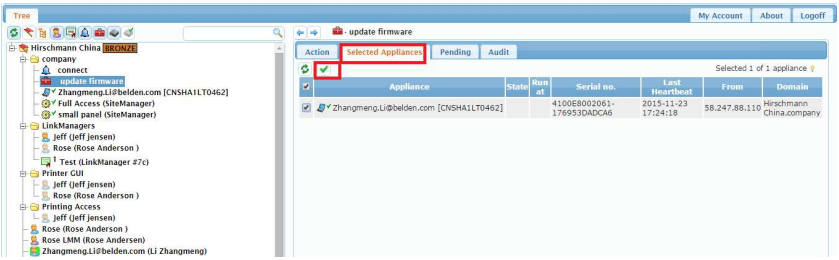


8.1 Upgrade firmware on multiple appliances:

Create an Action for SiteManagers and select the firmware to upgrade with:



Now click the **Selected Appliances** tab and select the appliances you want to upgrade.



Press the **Save Changes** icon to execute the action.

Appliances that are currently not connected will automatically be upgraded the next time they come online.

9 Combining Alerts and Actions

It is possible to create an Alert that triggers an Action.

Example: the next time a SiteManager appliance connects to the GateManager it should get a new GateManager address, automatically reboot and subsequently connect to another GateManager. This is useful when migrating from one GateManager to another.

Example: When a new SiteManager appliance appears in a domain it should be configured with a special configuration profile (e.g. a special Agent definitions on a SiteManager).

Note: that you cannot append a single Agent to the existing table. A configuration profile will always overwrite the entire section (e.g. the Agent list)

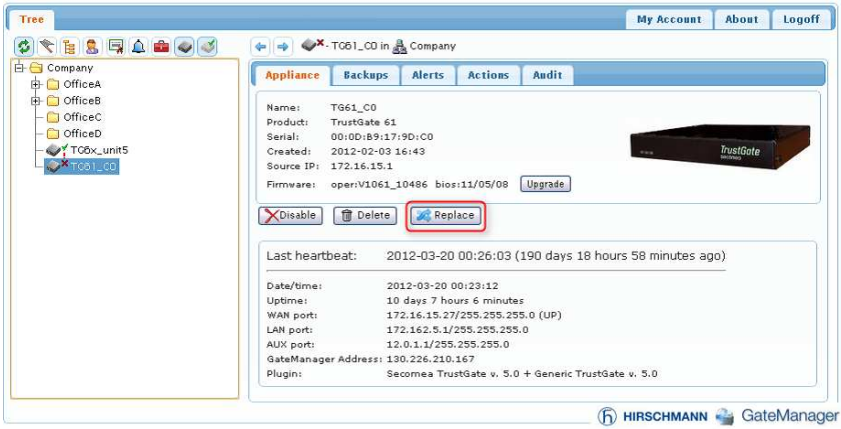
10 Working with the Replace Appliance function

If you have a SiteManager appliance that needs to be replaced for any reason, you just use the Replace function in GateManager.

The Replace function will restore the configuration from the old appliance to the new one.

All settings will be restored including Agents, passwords and certificates. The old and the new appliances do not have to be the same model.

The Replace button will only show on failed units (marked with a red cross):



Select the failed appliance in the tree view and press the **Replace** button. A Wizard will guide you through the replacement procedure.

Appendix A: Supplementary publications

This document is kept updated at this location:

http://www.hirschmann.com/en/QR/SRA-Premium-Setup-Guide

This document assumes you had performed the steps of the **GateManager FREE BASIC guide** and is therefore a natural extension to the guide found here:

http://www.hirschmann.com/en/QR/SRA-Basic-Setup-Guide

Appendix B: Third-Party Software

The software solution uses open source software originated from third parties that is subject to their respective licenses.

Firmware/Software for SiteManager, LinkManager and GateManager

(NOTE: The list below represents a common denominator for all product categories. Each of the products contains only a subset of these software components)

Linux – http://www.kernel.org
Apache httpd – http://httpd.apache.org
OpenSSL – http://www.openssl.org
mod_ssl – http://www.modssl.org
axTLS (originating from BSD) – http://axtls.sourceforge.net
busybox – http://www.busybox.net
tinylogin – http://tinylogin.busybox.net
ISC DHCP – http://www.isc.org/software/dhcp
DNRD – http://dnrd.sourceforge.net/
ethtool – http://freshmeat.net/projects/ethtool
expat – http://expat.sourceforge.net
FreeS/WAN – http://www.freeswan.org
hping – http://www.hping.org
hwclock – http://freshmeat.net/projects/hwclock
iproute2 – http://www.linuxfoundation.org/collaborate/workgroups/networking/iproute2
traceroute – http://www.linuxfoundation.org/collaborate/workgroups/networking/traceroute
bridge-utils – http://www.linuxfoundation.org/collaborate/workgroups/networking/bridge
vconfig – http://www.candelatech.com/~greear/vlan.html
iptables – http://www.netfilter.org
OSSP mm – http://www.ossp.org/pkg/lib/mm
Net-SNMP – http://net-snmp.sourceforge.net
ntpdate – http://www.eecis.udel.edu/~mills/ntp/html/index.html
pppd – http://freshmeat.net/projects/pppd
RP-PPPoE – http://www.roaringpenguin.com/products/pppoe
e2compr – http://e2compr.sourceforge.net
lilo – http://freshmeat.net/projects/lilo
U-Boot – http://www.denx.de/wiki/U-Boot
lm_sensors – http://www.lm-sensors.org
pcmcia_cs – http://pcmcia-cs.sourceforge.net

ez-ipupdate – http://ez-ipupdate.com
Open1X – http://open1x.sourceforge.net
FreeRADIUS – http://freeradius.org
ser2net – http://sourceforge.net/projects/ser2net
Squid – http://www.squid-cache.org
glibc – http://www.gnu.org/software/libc
libGD – http://www.libgd.org
uClibc – http://www.uclibc.org
SquashFS – http://squashfs.sourceforge.net
UnionFS – http://www.fsl.cs.sunysb.edu/project-unionfs.html
VirtualBox – http://www.virtualbox.org
SDL – http://www.libsdl.org
com0com – http://com0com.sourceforge.net
gSOAP – http://gsoap2.sourceforge.net
NSIS – http://nsis.sourceforge.net
AES crypto routines – http://www.gladman.me.uk/
Cntlm – http://cntlm.sourceforge.net/
wcecompat (SM-E for WinCE only) – http://wcecompat.sourceforge.net

Appendix C: Further Support

Technical Questions

For technical questions, please contact any Hirschmann dealer in your area or Hirschmann directly.
You will find the addresses of our partners on the Internet at
http://www.hirschmann.com
Contact our support at
https://hirschmann-support.belden.eu.com

You can contact us in the EMEA region at

- Tel.: +49 (0)1805 14-1538
- E-mail: hac.support@belden.com

in the America region at

- Tel.: +1 (717) 217-2270
- E-mail: inet-support@belden.com

in the Asia-Pacific region at

- Tel.: +65 68549860
- E-mail: inet-ap@belden.com

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