

Secomea Remote Device Management *Fast-Track* BASIC Guide



This guide is intended for first time users of the Secomea Remote Device Management solution, who need a practical introduction to the Secomea RDM **BASIC** solution. The BASIC solution differentiates from the standard Secomea RDM solution by only utilizing the GateManager's primary function as a secure automated communication switch-board for the **SiteManager** and **LinkManager** components. Subsequently management access to the GateManager is not needed.

This guide will lead you through different roles and processes related to installing and configuring the **SiteManager** and the **LinkManager**.

Version: 1.0, October 2010



Table of Contents

| | |
|--|-----------|
| 1. Introduction | 3 |
| 1.1. Prerequisites for This Guide | 3 |
| 1.2. Component Analogies | 3 |
| 1.3. About Roles referred to in this Guide: | 4 |
| 1.4. Illustration of Role locations | 4 |
| 1.5. If something should not work out as expected | 5 |
| 2. ROLE: SiteManager Installer | 6 |
| 2.1. Configure GateManager settings using the Appliance Launcher | 6 |
| 2.2. Overview of Device connection methods | 10 |
| 3. ROLE: LinkManager User | 11 |
| 3.1. Install the LinkManager | 11 |
| 3.2. Configure the SiteManager from the LinkManager | 13 |
| 4. Summary | 18 |
| 5. Notices | 19 |



1. Introduction

1.1. Prerequisites for This Guide

Prerequisites for this guide are:

- You have administrator privileges to install a program on your Windows PC or laptop.
- Preferably you are located in a network that assigns IP addresses by DHCP (also for equipment other than PCs).
- Your PC has typical outgoing access to the Internet, such as http and https. This applies for both your corporate firewall and any personal firewall installed on your.
- You have received a SiteManager hardware appliance.
- You have access to a spare port on an Ethernet switch or wall outlet, to which you can connect the SiteManager (can be on the same network as your PC, but could also be in another “subnet”, as long as it has outgoing access to the Internet)
- You have a network enabled device in your network that you can use as “remote monitored device”. This could be a PLC or similar or just a web enabled network device, such as your workgroup printer.
- You have received, by email, a LinkManager certificate for installing into the LinkManager software.
- Preferably you have a login account for the Secomea partner web site, for download of supplementary information on <http://info.secomea.com/RDM-documentation>.

1.2. Component Analogies

With the Secomea Remote Management solution you are introduced to three components. To place them into a context you may be familiar with, we have made analogies to traditional modem solutions:

- **SiteManager Hardware appliance.** This compares to the traditional dial-up modem attached to the machine at the customer site. The big difference is that one SiteManager can provide access to multiple machines (both IP and Serial devices), and it utilizes the existing network infrastructure to obtain Internet connection.
- **LinkManager Client Software.** This compares to the modem dial-up software on the service engineers' PC. The big difference is that the service engineer does not need to administer a list of phone numbers. The list of devices the service engineer can connect to, is automatically updated when a new SiteManager is connected, and when the SiteManager is configured with new device agents. Point and click and the LinkManager user get instant access over the Internet.
- **GateManager Server.** This component acts as a switch-board for connections between LinkManagers and SiteManagers, and ensures that neither LinkManagers nor SiteManagers need to have public addresses on the Internet. The GateManager is a hosted service and operates automated in this context, but optionally you can have an administrator login account on the GateManager itself for checking logs, restrict LinkManager access to certain devices etc.



1.3. About Roles referred to in this Guide:

Through the document the header will indicate the role you are undertaking.

Roles will be marked as follows:



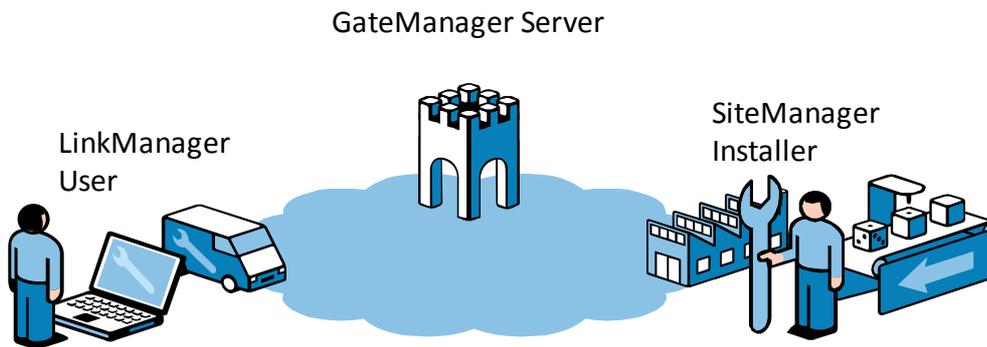
- **LinkManager User.** This role is held by the PLC programmer or service engineer:
 - Connect remotely to equipment for servicing/programming the equipment.



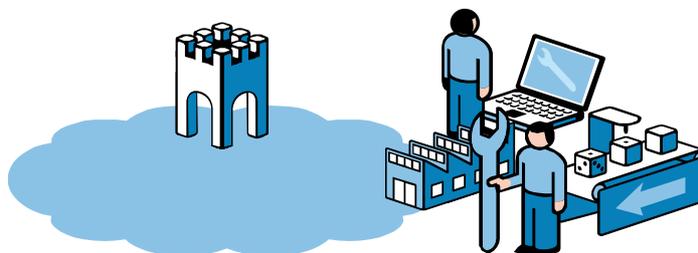
- **SiteManager Installer.** This role covers the following tasks:
 - Physically Install SiteManagers (often done by the service engineer or the customer)
 - Configure network settings (primarily GateManager access).

1.4. Illustration of Role locations

The typical setup of the Secomea Remote Management Solution relative to the Internet would be like this (The GateManager server is hosted by Secomea):



However, following this guide for the first time, your roles will probably be physically located more like this:





1.5. If something should not work out as expected

We experience that this Fast-Track guide works for 95% of all users, whereas the last 5% may be subject for a little more advanced configurations depending on special infrastructure setup.

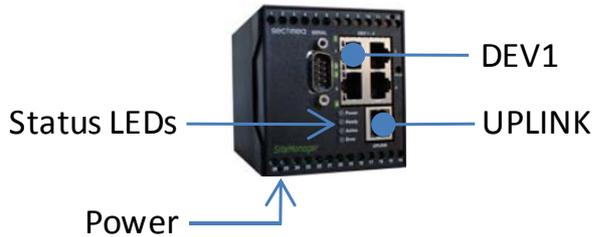
The Secomea Remote Management solution does allow for adaptation to highly complex and security restricted infrastructures, but it is out of scope of this guide to elaborate on this.

If you run into problems, then do not hesitate to give us a call and we will guide you in the right direction, or help you troubleshoot.



2. ROLE: SiteManager Installer

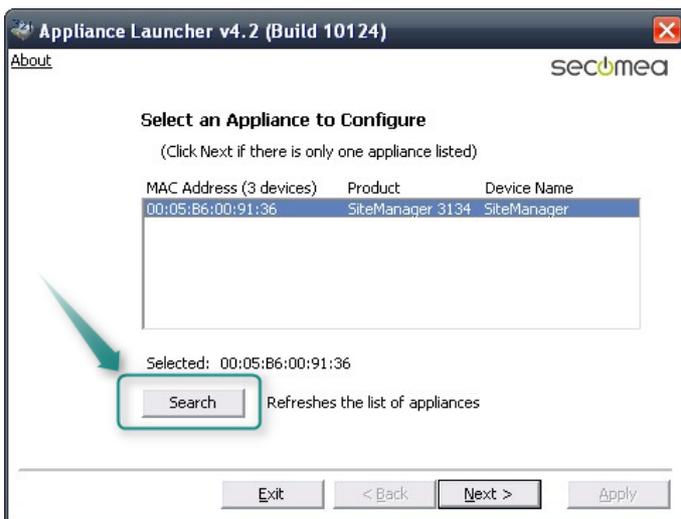
You should have received a new un-configured SiteManager 3134 unit.



2.1. Configure GateManager settings using the Appliance Launcher

Hint: The steps in this section can actually be performed before sending the SiteManager to its final destination.

1. Download and install the Secomea Appliance Launcher from this location: <http://info.secomea.com/appliance-launcher>
2. Use a standard Ethernet cable to connect the SiteManager's **DEV1** port to your local network. (Alternatively you can connect directly your PC LAN port to the SiteManager DEV1 port using an Ethernet cable. Both standard and cross-wired cables will work)
3. Connect power wires to the SiteManager screw terminals marked **GND** and **10..60 VDC**.
4. Power on, and in less than one minute the **Ready** LED will turn **Red**. This indicates that the SiteManager is operational but no GateManager settings have yet been configured.
5. Start the Appliance Launcher program, if the SiteManager does not appear immediately; press the **Search** button repetitively until the SiteManager appears.





- Click **Next** to get to the **LAN/DEV** configuration page. For now, we do not need to do anything here. We can configure this remotely via the LinkManager later if needed.

Appliance Launcher v4.2 (Build 10124)

About sec^omea

Enter LAN/DEV1 Parameters

Device Name (optional)

IP Address

Subnet Mask

To set LAN/DEV1 parameters only, press [Save/Reboot]

To continue the Launcher press [Next >]

[Advanced Options](#)

- Click **Next** to enter the **WAN/UPLINK** page. Since we assume the SiteManager to be connected to your corporate network, you can leave the setting to **DHCP**, and it will automatically get an IP address and an Internet gateway from your corporate DHCP server.

Appliance Launcher v4.2 (Build 10124)

About sec^omea

Enter WAN/UPLINK Parameters

WAN/UPLINK Settings

Mode:

IP Address:

Subnet Mask:

Default Gateway:

ISP Settings

Username:

Password:



- Click **Next** to enter the **WAN2/UPLINK2** page. This is only used for configuring a wireless uplink, which is only supported by some SiteManagers

Appliance Launcher v4.2 (Build 10124)

About secomea

Enter WAN2/UPLINK2 Parameters

WAN2/UPLINK2 Settings

Mode:

IP Address:

Subnet Mask:

Default Gateway:

ISP Settings

SIM PIN Code:

APN:

Exit < Back **Next >** Save/Reboot

- Click **Next** to get to the **GateManager Parameters** page. From where you received the SiteManager you should have received information about item 1:

1 **GateManager IP address.** E.g. **130.226.210.165**

GM Domain Token. This would be in the format:
<your reseller's company name>.<your company name>,
E.g. **secomeavar.acmeinc**

2 **GM Appliance Name.** This you decide yourself.
Provide a meaningful name such as the location of
the SiteManager. E.g. **SiteA**

Enter the information into the associated fields:

Appliance Launcher v4.2 (Build 10124)

About secomea

Enter GateManager Parameters

GateManager IP address: 1

GM Domain Token: 1

GM Appliance Name: 2

Web-Proxy IP address:

Web-Proxy Account:

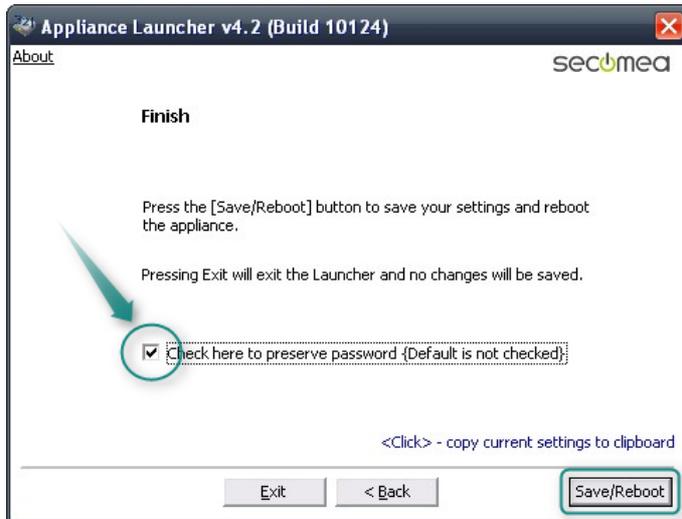
Web-Proxy Password:

To disable the GateManager functionality - clear the GM Address field.

Exit < Back **Next >** Save/Reboot

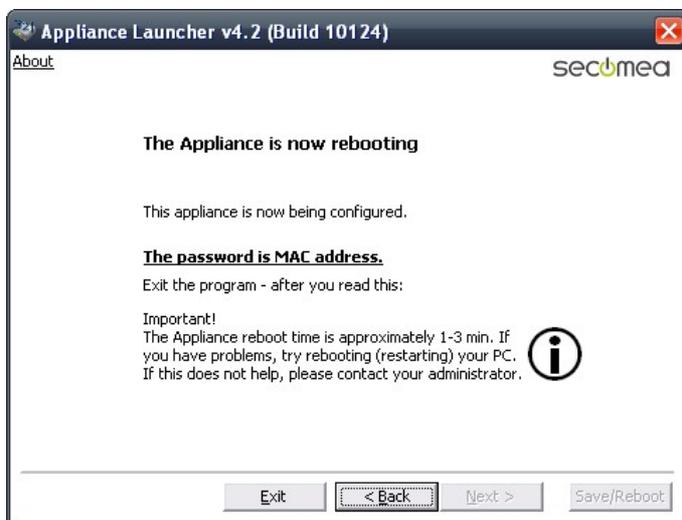


- Click **Next** to get to the **Finish** screen, Check the box to **preserve password**:



Note: by selecting “preserve password” the password for local login to administration Web interface of the SiteManager will remain **admin**. (if unchecked. Otherwise the password would have been changed to the SiteManager’s MAC address)

- When clicking **Save/Reboot** you should get the following page (if not, you can try to click Back, until the first screen, and click Next until the Save/Reboot screen)



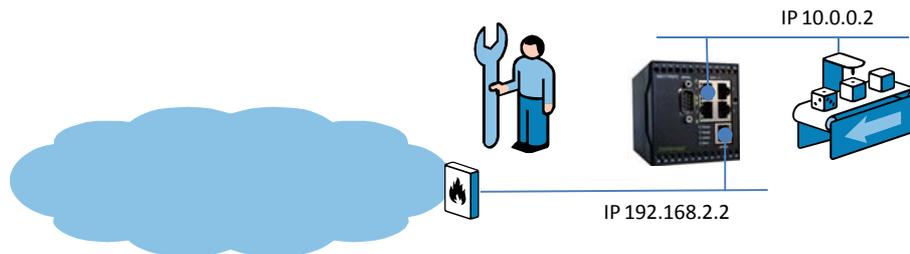
- Remove the Ethernet cable from the DEV1 port and connect it to the **UPLINK** port (the other end connects to your corporate network)
- The SiteManager presumably now needs to reboot once more, in order to obtain a DHCP address in the corporate network. So you should recycle the power of the SiteManager.
- If the SiteManager has received a DHCP assigned IP address, and it is not blocked by a firewall, the Ready LED should turn **Green**. This indicates that the SiteManager is now connected to the GateManager.



You do not need to do more local to the SiteManager. In reality you could now ship the SiteManager to a new site. Once the Uplink port is connected at the new site, the SiteManager will receive a new DHCP address from that local network, and attempt connecting to the GateManager.

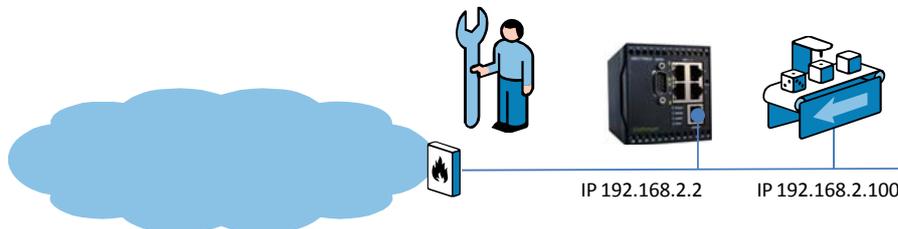
2.2. Overview of Device connection methods

The typical way of deploying a SiteManager and the devices to be managed, is to utilize the SiteManager's ability to completely isolate the devices from the corporate network, like this (IP addresses are just examples):



Hint: The device depicted as 10.0.0.2, can be attached through a switch, or directly with an Ethernet cable. Optionally, the SiteManager can be configured to assign the address to the device by DHCP.

For this exercise we can, however, just choose to monitor a device already on the corporate network, and no further network configuration is required on the SiteManager:



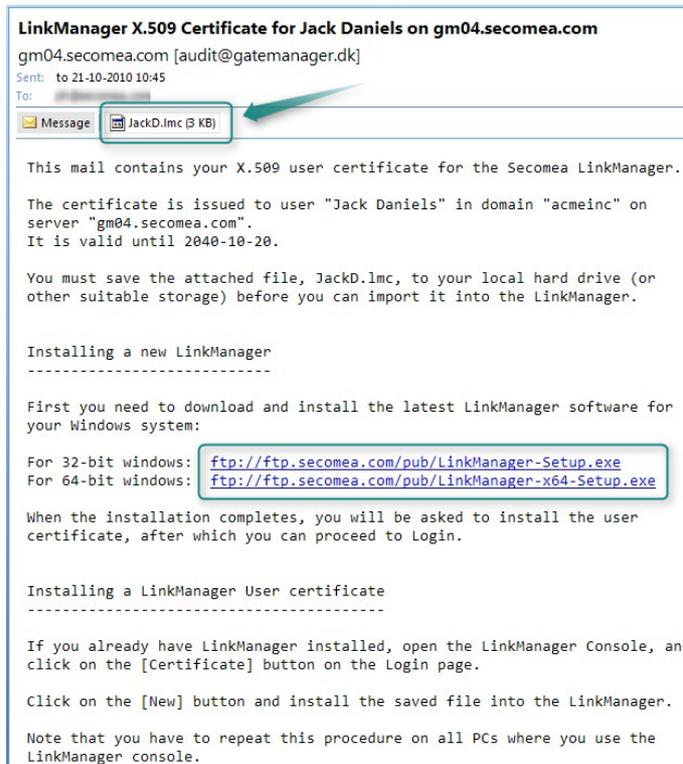
The machine depicted above, represents the network device you want to use as "remote monitored device" for this exercise, such as a PLC or similar.



3. ROLE: LinkManager User

3.1. Install the LinkManager

15. You should have received an email from the GateManager with a LinkManager certificate (.lmc). Save the certificate on your computer.



16. Download and install the LinkManager by clicking the appropriate link in the email.

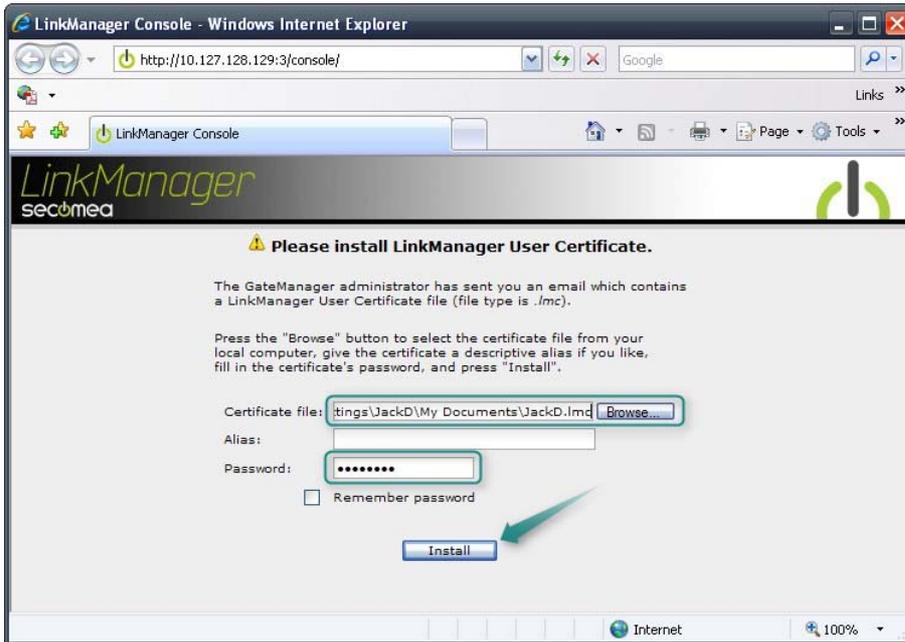
NOTE: You must have administrator privileges on the PC in order to install LinkManager.

17. Eventually, when you click **Finish** in the installation wizard, your default web browser will open showing the LinkManager Console screen.

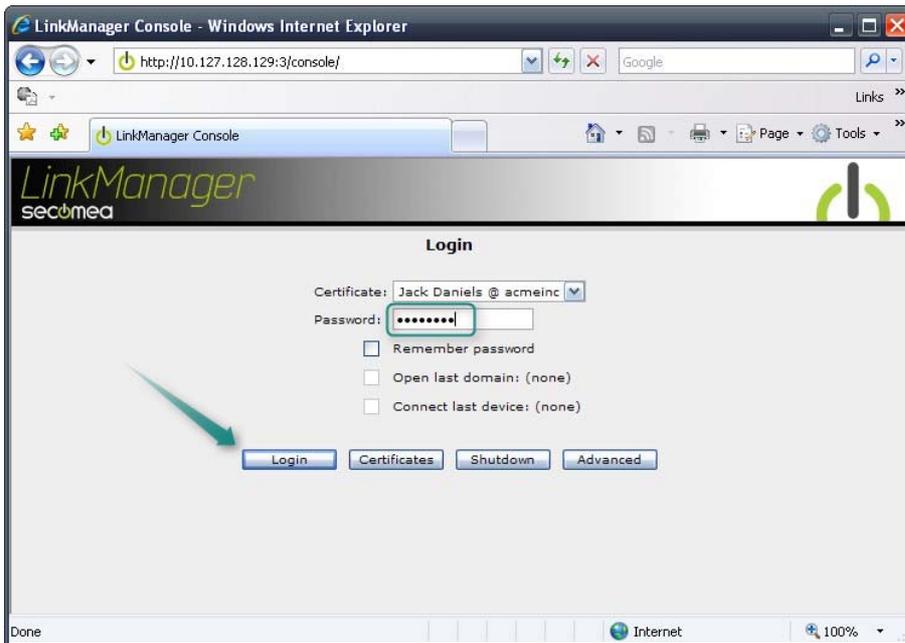
Hint: You can view the status and control the LinkManager by right clicking the  icon in the Windows System Tray.



18. **Browse** for the certificate you just saved and enter the password **12345678**



19. When clicking **Install**, you will be prompted to login. Repeat the password from above, and click **Login**:

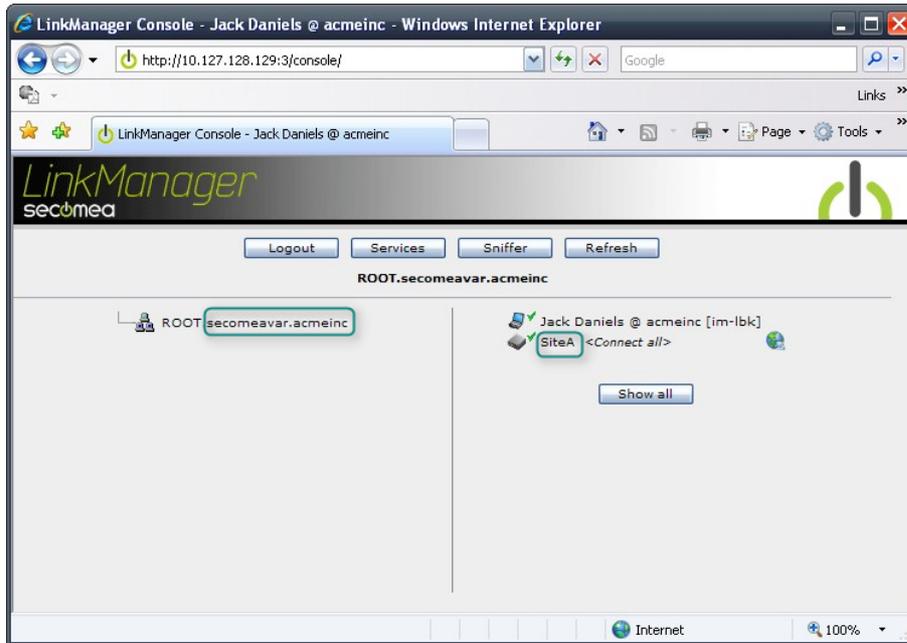




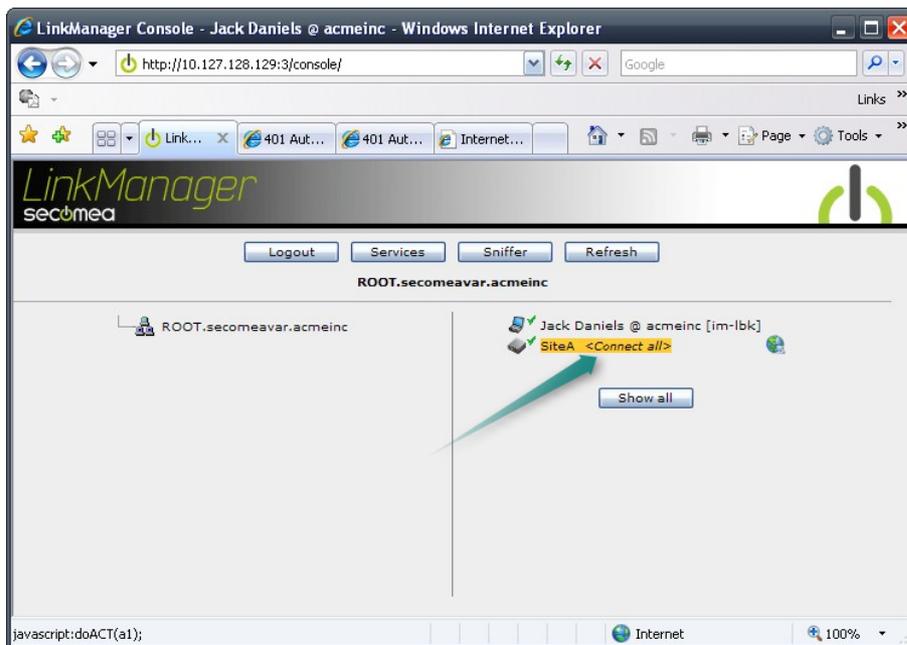
3.2. Configure the SiteManager from the LinkManager

20. When you are successfully logged in via the LinkManager Console, you will get menu where the left frame display the domain on the GateManager. You will notice that it is the same domain as you defined earlier as "GM Domain Token" in the SiteManager.

Subsequently the SiteManager has also shown up in the right frame with the name you defined for it. In this case **SiteA**

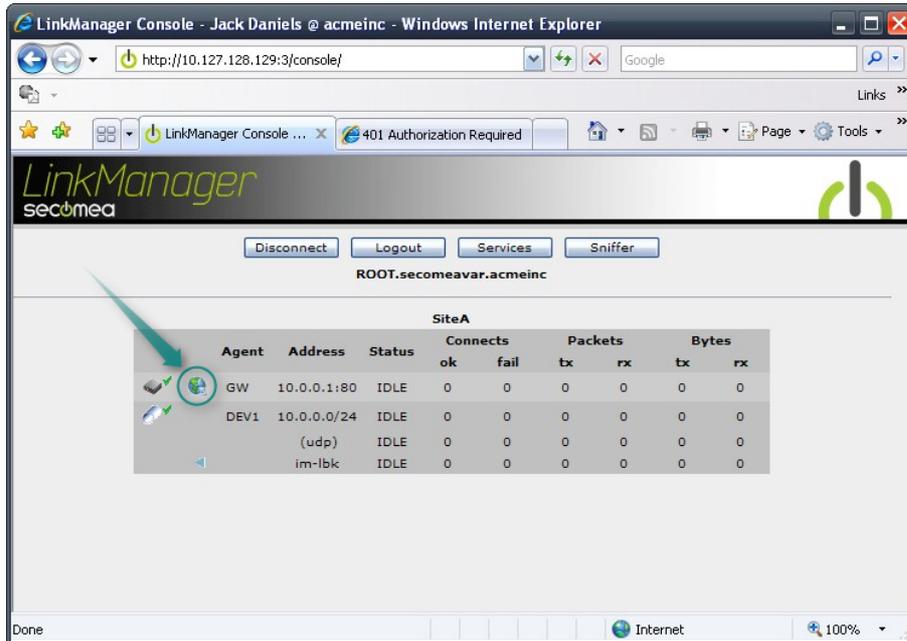


21. Click the text **<Connect all>**, to establish a secure connection to the SiteManager.





22. Now click on the Globe icon for the **GW** agent (GW indicates the SiteManager acting as **GateWay** to the monitored devices)

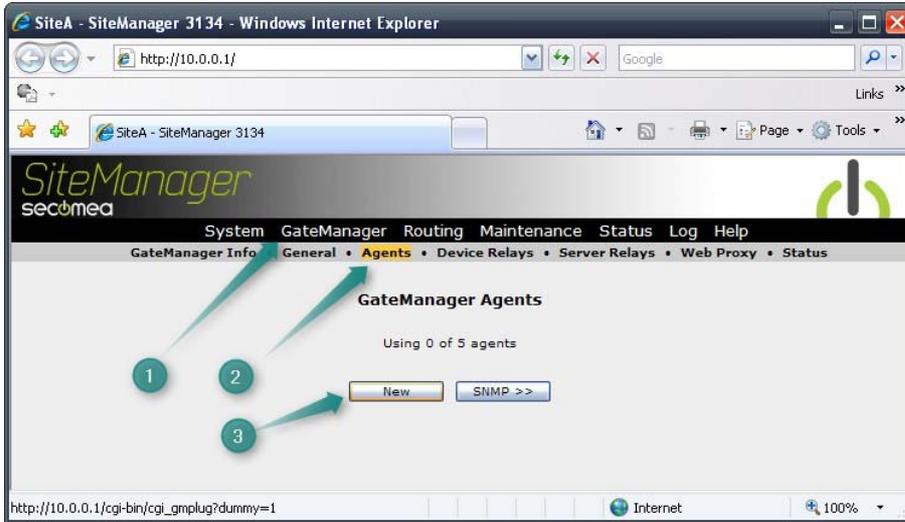


23. You will be prompted to login. Enter User name **admin** and Password **admin**. (The “preserve password” you checked previously in the Appliance Launcher have ensured that the password is still the factory default password “admin”)



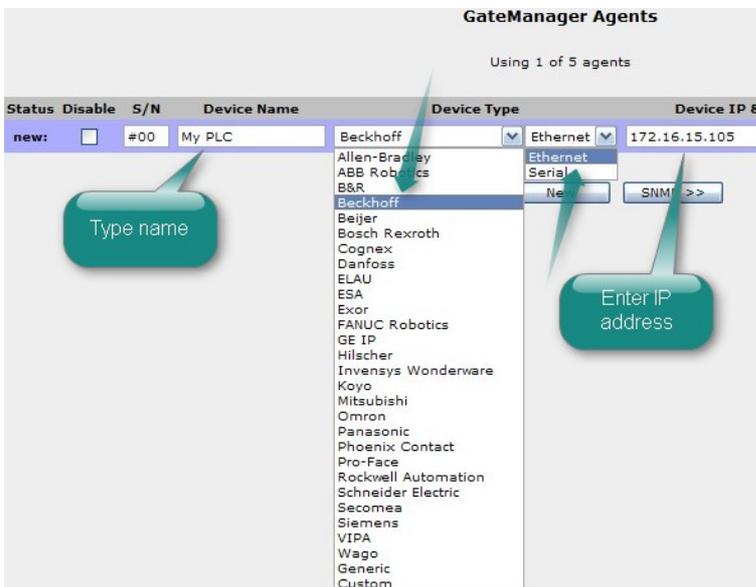


24. In the SiteManager GUI, select menu **GateManager** → **Agents**, and click **New**:



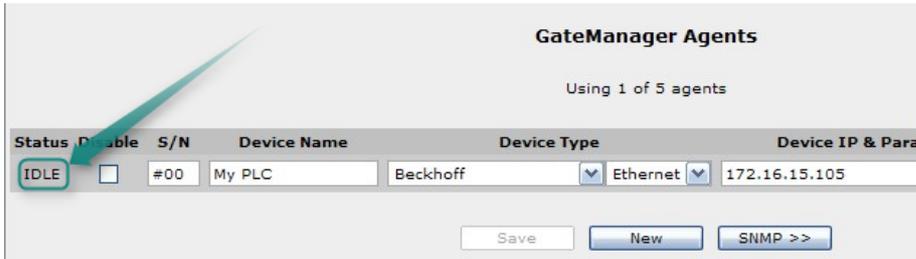
25. Now we get to the point where you need to select a network device to monitor. Since we assume the SiteManager is currently only connected to your local network (via the Uplink port), you must choose a device in that network. It could be a PLC or similar, or even a Web enabled network device, such as your workgroup printer.

In this example we have chosen a Beckhoff PLC and the **Device Type** should subsequently be **Beckhoff / Ethernet**. Type an appropriate **Device Name**, and enter the **IP address** of the device.

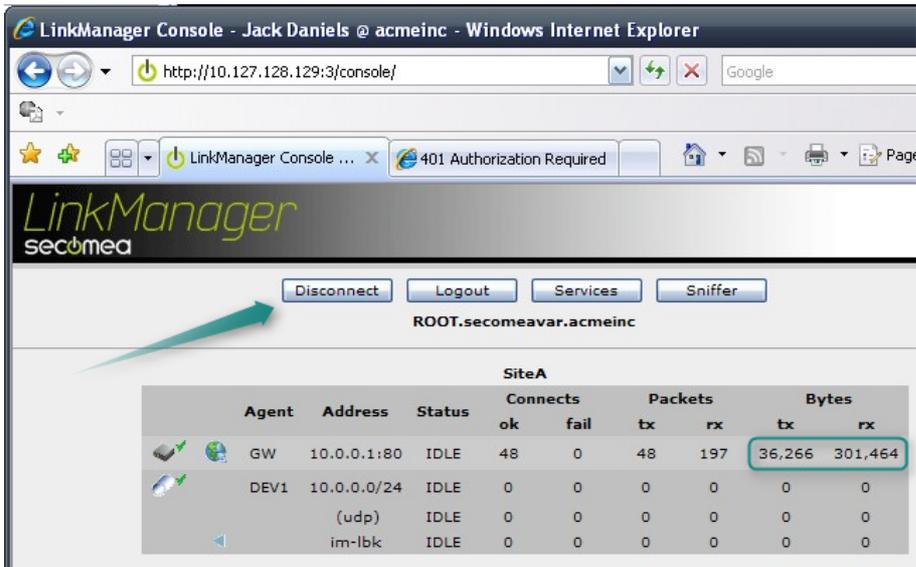




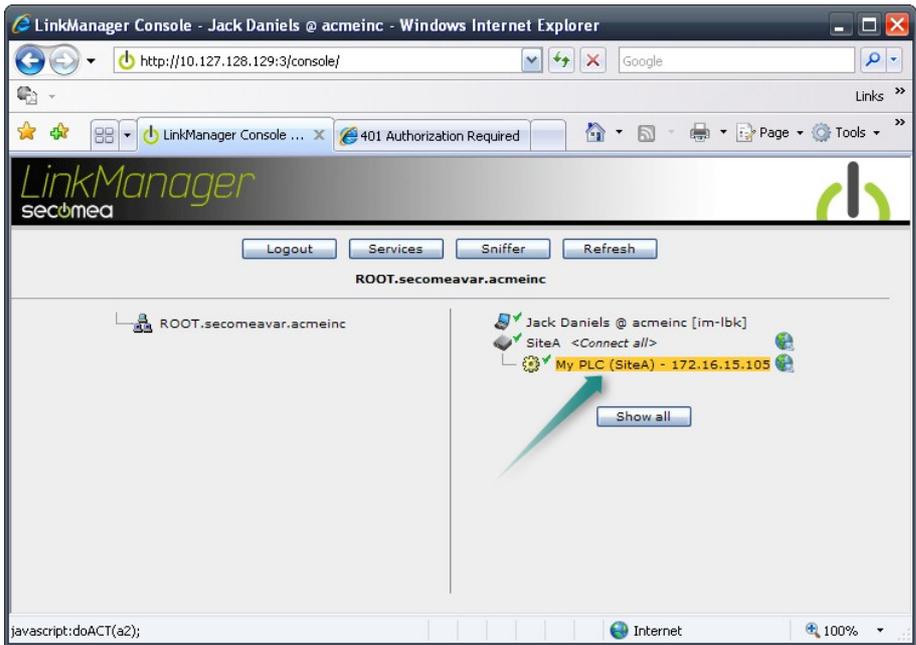
26. Click **Save** and click the **Refresh** Button, until you see the agent go **IDLE**:



27. Locate the browser window with the LinkManager. (You will see that some traffic has occurred, resulting from the web browser session we just had with the SiteManager Web GUI). Click **Disconnect**

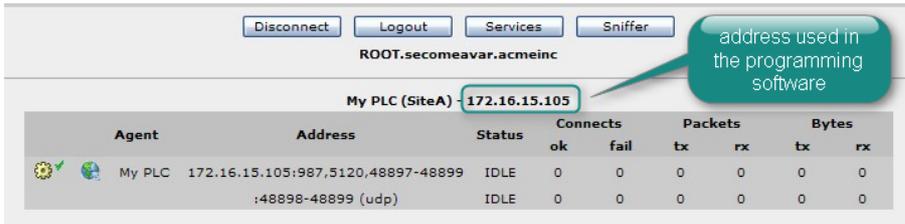


28. You will now notice that the LinkManager has been updated with the newly configured Agent. Click on the text for the Agent to connect to it:



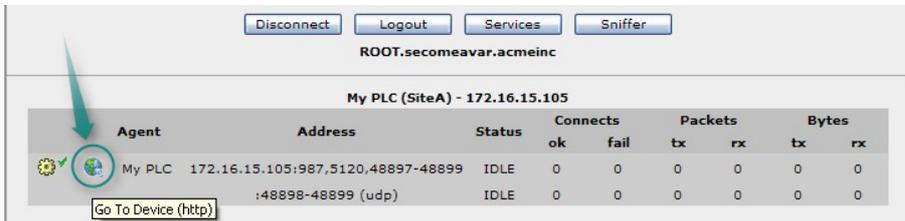


29. The agent will now open all relevant ports for programming this type of PLC.

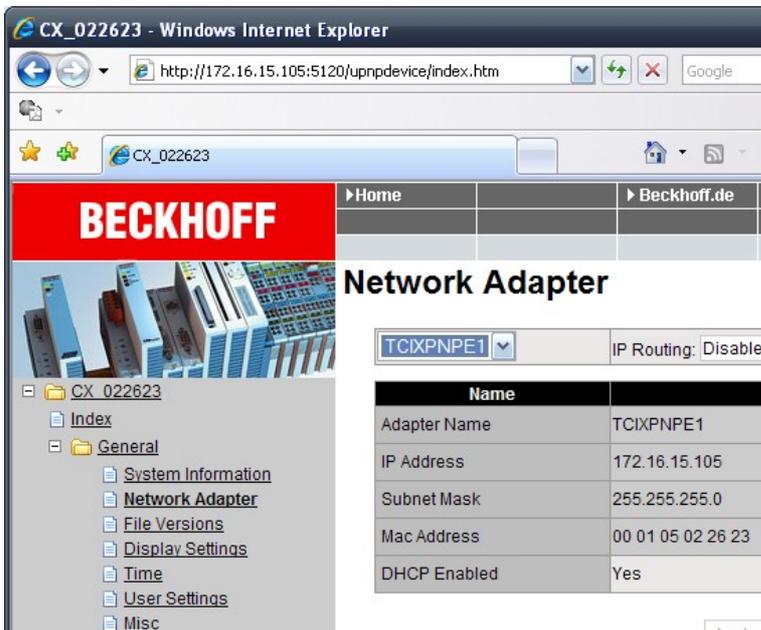


30. You now have TCP/IP access to the device from your PC through the Link-Manager via the GateManager and SiteManager. You can now therefore now connect directly to the IP address using the native PLC software. For more details, check the guides here: <http://info.secomea.com/quick-start>

31. You will also be able to connect to the Web GUI of the device by clicking on the Globe Icon, just as you did to connect to the SiteManager web GUI:



32. And it will bring you straight to the local Web interface of the device:





4. Summary

If the IP address in the above example represented a PLC in your network, you would just have to configure this address in your PLC programming software; just as if you were sitting local to it.

In this exercise your LinkManager, SiteManager and the managed device are connected to the same network, so you may think: “is the connection not just done directly, and not via the LinkManager, GateManager and SiteManager?”

In fact, all communications always travels encrypted via the GateManager, so no matter where you place the SiteManager and the PLC device on the Internet, you will get the same experience; the device will seem like it was sitting local to your PC, and be represented by its local IP address.

You could even have all devices of a certain type placed on different sites use the same local IP address. This will allow you to have one PLC project with the same IP address for all PLCs.

If you experienced that things worked out as described in this guide, we suggest you go ahead and deploy the SiteManager at a real production site, configure real industrial devices, and try it out using your own programming software.

Everything is fully functional, and ready for production use.

5. Notices

Publication and copyright

Secomea Remote Management Fast-Track BASIC Guide, Version 1.0, October 2010

© **Copyright Secomea A/S 2010**. All rights reserved. You may download and print a copy for your own use. As a high-level administrator, you may use whatever you like from contents of this document to create your own instructions for deploying our products. Otherwise, no part of this document may be copied or reproduced in any way, without the written consent of Secomea A/S. We would appreciate getting a copy of the material you produce in order to make our own material better and – if you give us permission – to inspire other users.

Trademarks

SiteManager™, LinkManager™ and GateManager™ are trademark of Secomea A/S. Other trademarks are the property of their respective owners.

Disclaimer

Secomea A/S reserves the right to make changes to this publication and to the products described herein without notice. The publication of this document does not represent a commitment on the part of Secomea A/S. Considerable effort has been made to ensure that this publication is free of inaccuracies and omissions but we cannot guarantee that there are none.

The following paragraph does not apply to any country or state where such provisions are inconsistent with local law:

SECOMEA A/S PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

SECOMEA A/S SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGE ALLEGED IN CONNECTION WITH THE FURNISHING OR USE OF THIS INFORMATION.

Secomea A/S
Denmark

CVR No. DK 31 36 60 38

E-mail: sales@secomea.com
www.secomea.com