

New in Secomea Release 7.0



Nice to know information about the release:

- Secomea Release 7.0 build 16267 public 2016.07.04

Version: 0.94, 2016

NewInRelease7.0_0.94_Public.docx

Contents

1. RELEASE 7.0	4
2. GateManager	4
2.1. Usage data on all GateManagers	4
2.2. Usage Statistic	4
2.3. Updated USB Wizard	4
2.4. Minor GUI update on GM Portal	5
2.5. EasyService switch to BRONZE	6
2.6. Server already have Usage Statistics	6
2.7. Enabling EasyLogging Service on Customer domain	6
2.7.1. Server Administrator on a Hosting server	6
2.7.2. Distributor on hosting server:	6
2.7.3. Basic Administrator on Hosting server:	8
2.7.4. Domain Administrator on Hosting server:	8
2.7.5. Domain Observer on Hosting server:	9
2.8. GateManger Portal with new OK/Cancel prompt	9
2.9. CrashDump indication	9
2.10. Minimum password requirements	10
2.11. File system check information	10
3. SiteManager	11
3.1. New SHA2 signed Local Certificate	11
3.2. Major rework of Serial port driver	11
3.3. Added IMEI and IMSI information for broadband	11
3.4. Auto Search agent feature	12
3.4.1. Add button is GREY (disabled)	12
3.5. Auto Search USB devices inserted	12
3.5.1. Add button is GREY (disabled)	13
3.6. Identical USB devices are allowed	13
3.7. New "Subnet" Agent	13
3.8. New Link Box in Status > Extended	15
3.9. CrashDump indication	15
3.10. EasyLogging	16
3.11. Agent updates	16
3.12. DNS support in Forwarding Agents	16
4. SiteManager Embedded	17
4.1. EasyLogging	17
4.2. Suspend/Sleep/Hibernate support	17
4.3. New socket API for SiteManager Embedded	17
5. SiteManager (ALL)	18

6. Technical specification on EasyLogging.	19
6.1. EasyLogging require BRONZE	19
6.2. EasyLog port range	19
6.3. EasyLog port configuration	19
6.4. Number of concurrent sessions on each EasyLog Agent	19
6.5. UDP sessions	19
6.6. EasyLog and Idle Timeout	20
6.7. Protocol mix	20
6.8. FTP on EasyLogging	20
6.9. EasyLog Master (Pull)	20
6.9.1. EL-Master(Pull) troubleshooting Need to know	20 20
6.10. EasyLog Master (Push)	20
6.10.1. Troubleshooting who is pushing data on the EL-Master	21
6.11. EasyLog Client (Pull)	21
6.12. EasyLog Client (Push)	21
6.13. Buffering data (Backlog)	21
7. LinkManager	23
7.1. GateManager 4 support is EOL	23
7.2. Ability to Disable LinkManager and force logout	23
7.3. LinkManager API	23
8. LinkManager Mobile	24
9. APPENDIX A	25
10. APPENDIX B	25
10.1.1. EasyLog Master (PUSH) agent	25
10.1.2. EasyLog Master (PULL) agent	25
10.1.3. EasyLog Client (PULL)	26
10.1.4. EasyLog Client (PUSH)	27

Change log

Version	Change log
0.9	Initial version
0.94	Minor updates

1. RELEASE 7.0

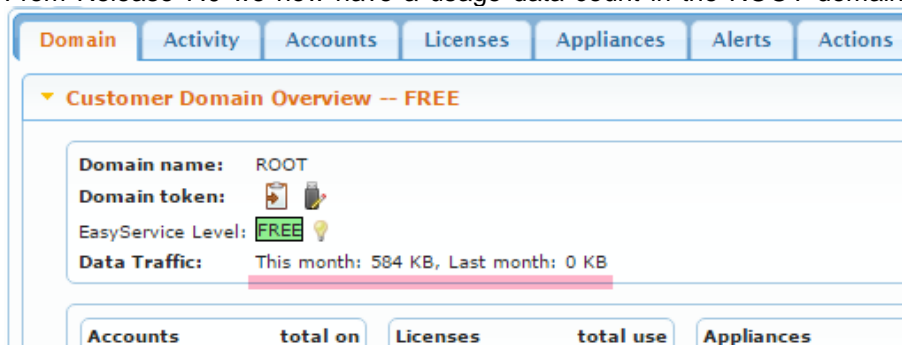
Release 7.0 includes several security related changes, details of which are not disclosed here. We strongly recommend that you upgrade all hardware and software devices to this release.

Notice that some SiteManagers may need to be restarted to free up internal memory before you can perform the firmware upgrade.

2. GateManager

2.1. Usage data on all GateManagers

From Release 7.0 we now have a usage data count in the ROOT domain.



GateManager show Data traffic counters for the root domain even if there is no Usage Statistic license installed.

2.2. Usage Statistic

From Release 7.0 an EasyLogging/Usage Statistic license will enable data logging for EasyLog agents.

Release 7.0 covers usage statistics for Easylogging meaning EasyLog Master and Easylog Client agents.

Release 7.1 or maybe 8.0 will enable usage statistics for static relays (Device and Server Relay) and WEB Proxy usage.

2.3. Updated USB Wizard

The USB Wizard now include DEV1 setup.

Create USB Configuration

Create a configuration file suitable for initializing an appliance via a USB flash stick.

Fill in some of the fields below, and then click on Create to download the configuration to your PC. You should save this file on a FAT32 formatted USB flash stick in a file named SITEMANAGER.CFG.

GateManager Address:

Domain Token:

Appliance Name:

Web Proxy:

UPLINK Port:

UPLINK2 UMTS/3G:

UPLINK2 WiFi:

DEV1 Port: Mode:

IP Address / Subnet mask: /

Admin Password:

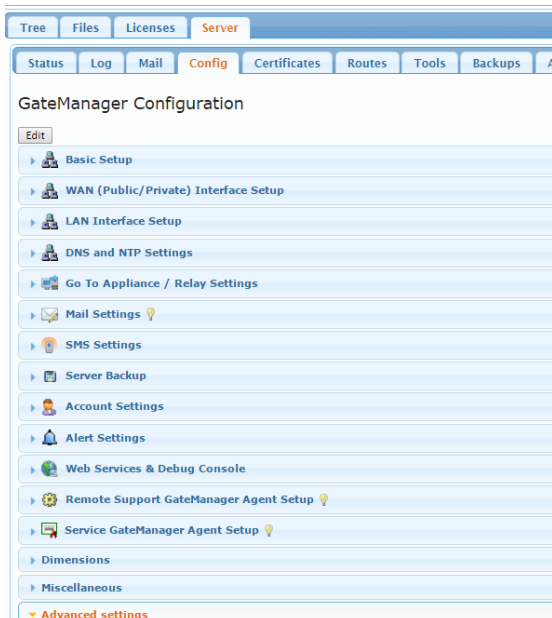
Enable debug log:

Disable USB Config:

2.4. Minor GUI update on GM Portal



Usage and Audit now show a "Progress bar" if the page takes some time to load.

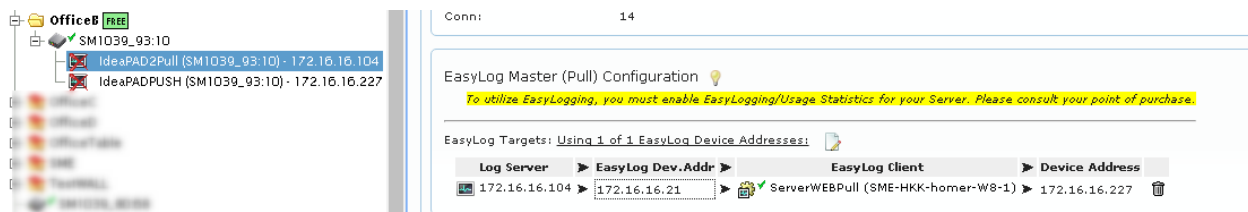


Added various ICONS for the Server Admin interface.

2.5. EasyService switch to BRONZE

The new EasyLogging service is installed as a license and will enable both EasyLogging and Usage Statistics and one and the same license. This will, as a minimum, raise the ES level to BRONZE.

If EasyLogging/Usage Statistics license is missing:

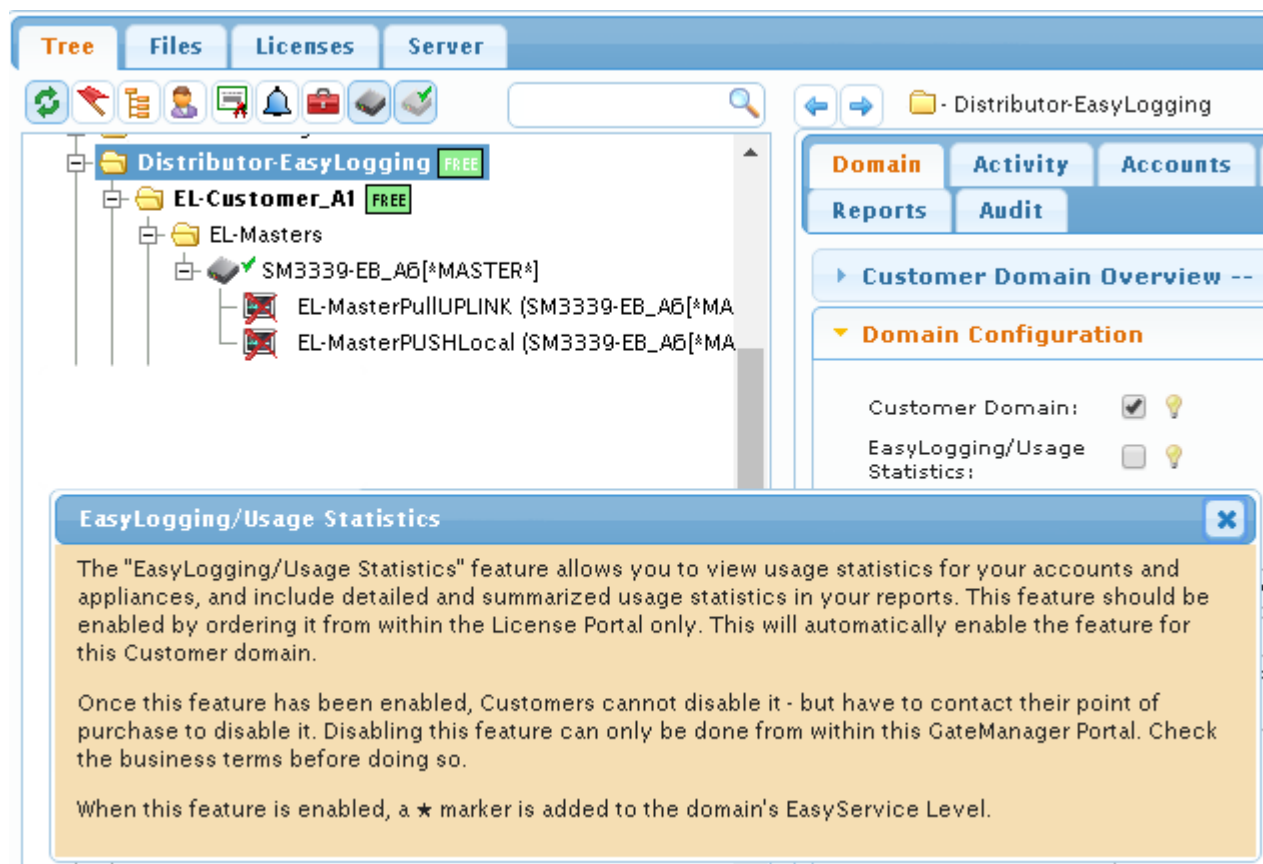


2.6. Server already have Usage Statistics

If a GateManager already have Usage Statistics / Advanced reporting and upgrading to Release 7.0 it will automatically get the EasyLogging support. EasyServer will also change to BRONZE or higher.

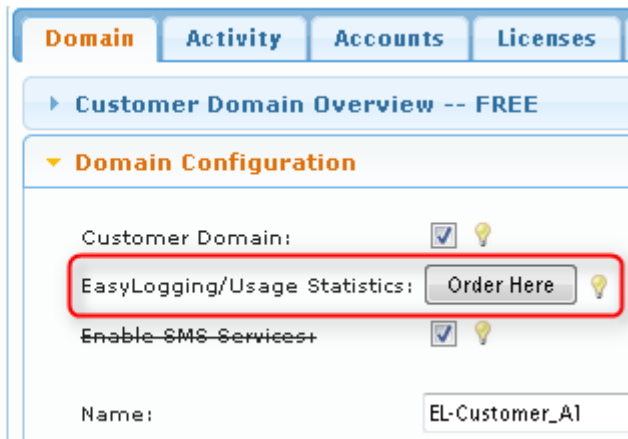
2.7. Enabling EasyLogging Service on Customer domain

2.7.1. Server Administrator on a Hosting server



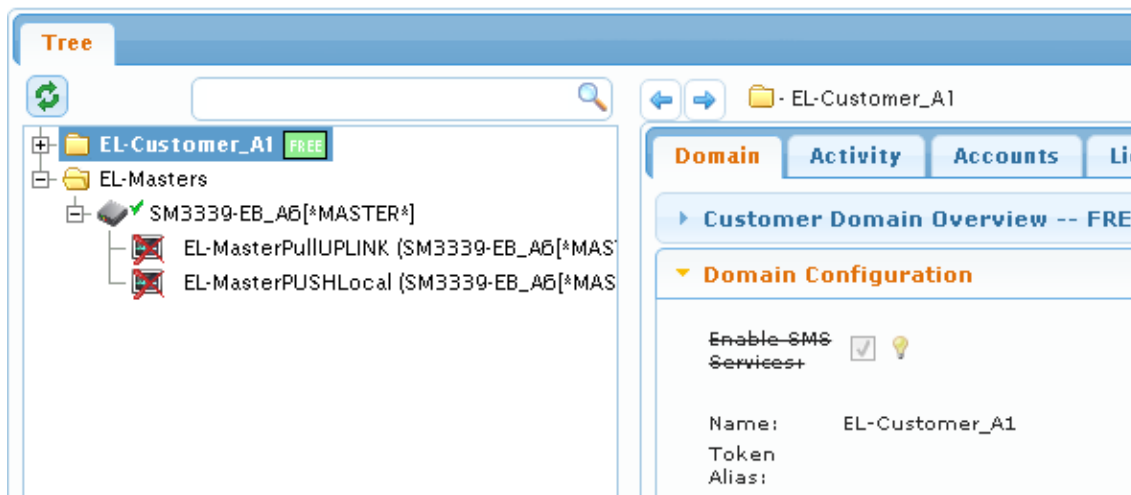
Only a Server Administrator can change the EasyLogging/Usage Statistics option without using the License Portal.

2.7.2. Distributor on hosting server:



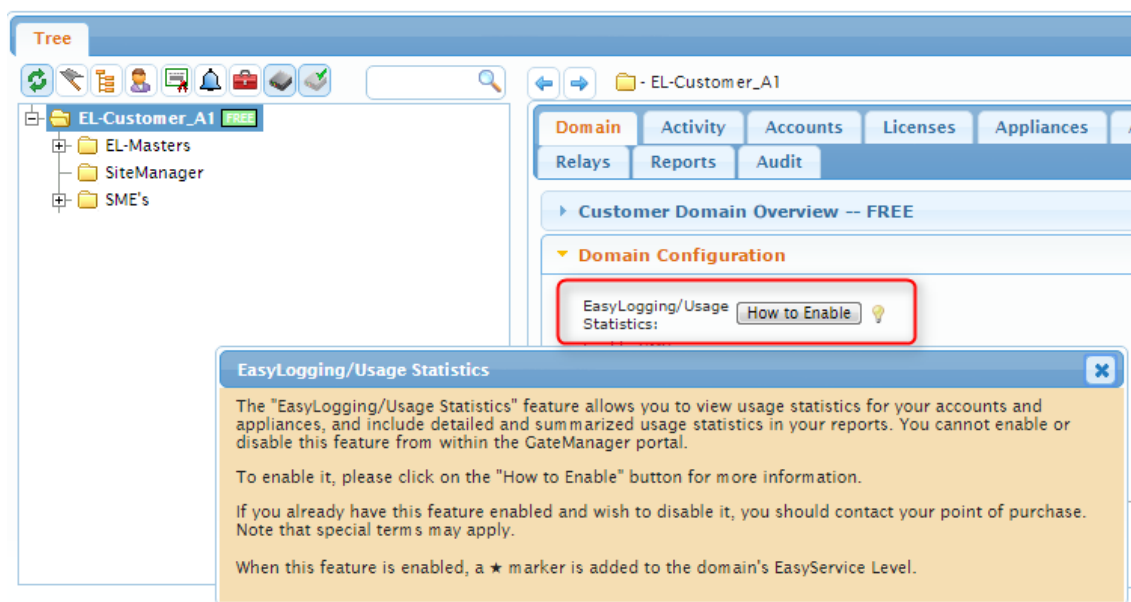
Order Here button link to: <https://license.secomea.com/OrderLicense>

2.7.3. Basic Administrator on Hosting server:

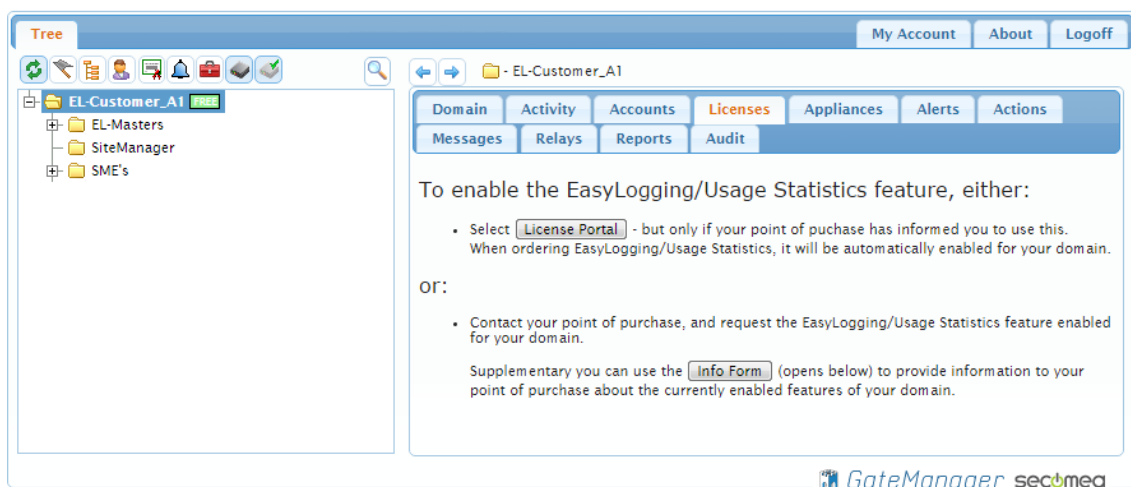


The option to enable EasyLogging is not present for the Basic Administrator. They will have to contact their point of purchase and order a Premium service.

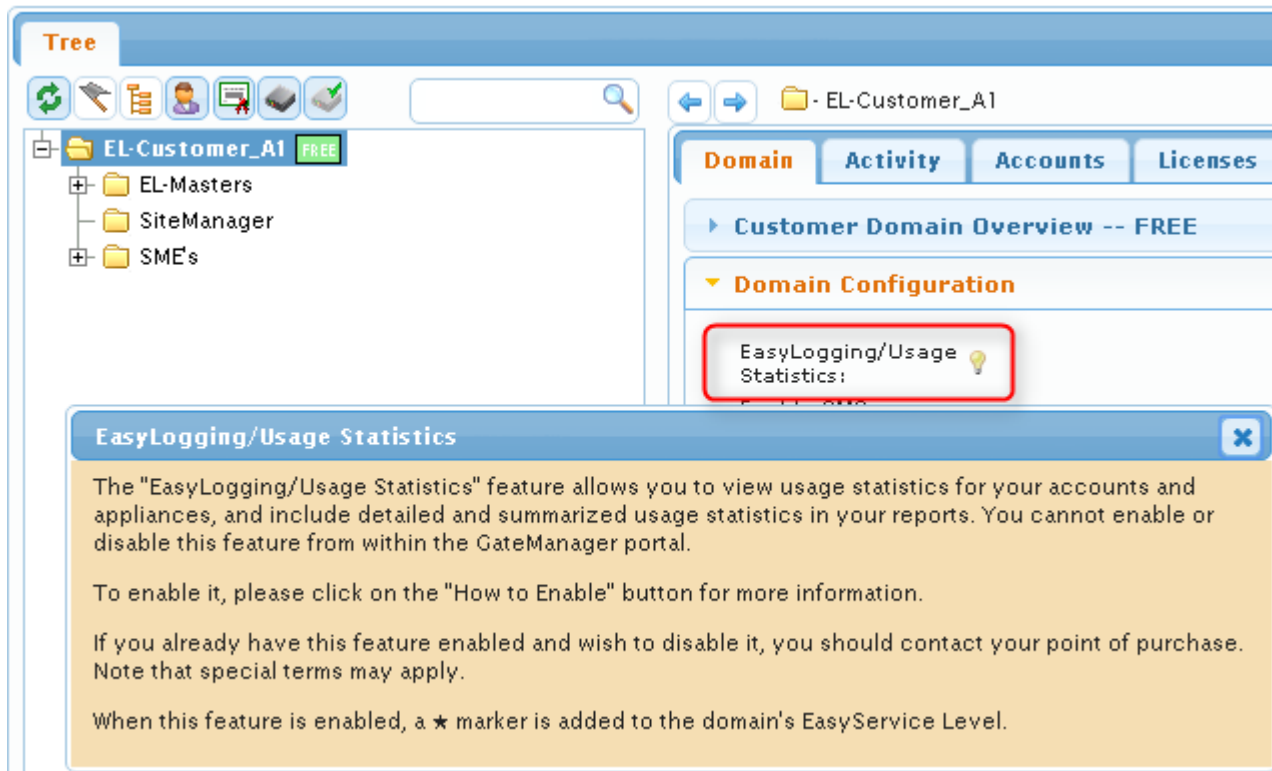
2.7.4. Domain Administrator on Hosting server:



When they click How to Enable the information seen below is displayed:

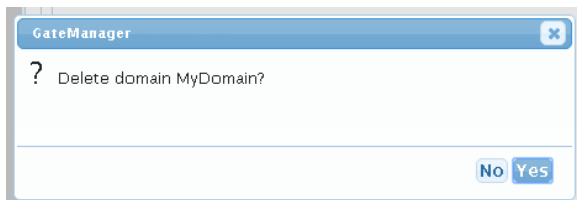


2.7.5. Domain Observer on Hosting server:



2.8. GateManger Portal with new OK/Cancel prompt

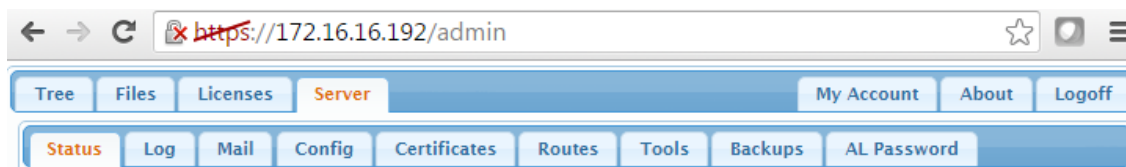
To overcome various browser prompts that could be hidden, the new release introduces a new prompt popup with no option to hide the window.



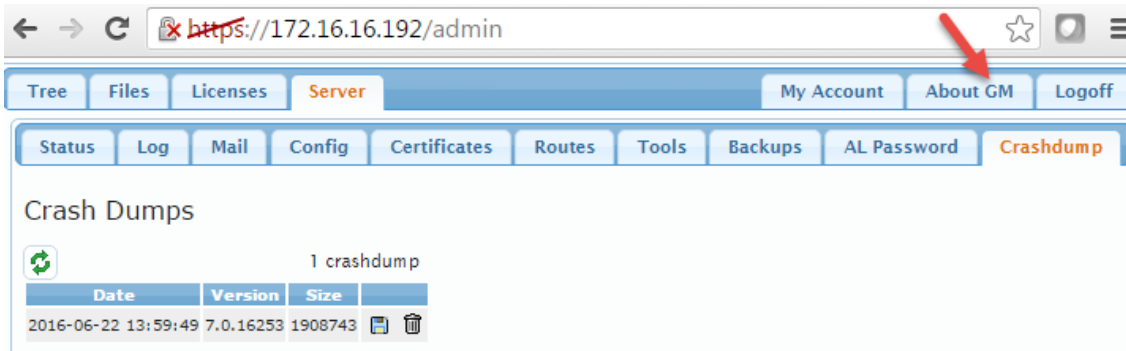
2.9. CrashDump indication

There is now a visual indication if the GateManager has a CrashDump file, that has not been downloaded yet. The "About" tab will read "About GM".

Before:



After:



2.10. Minimum password requirements

There is now a lower limit to how “weak” passwords can be. They now have a minimum set of requirements:

Password content: (in no special order)

1. Lower case letters
2. upper case letters
3. Digits
4. Special characters

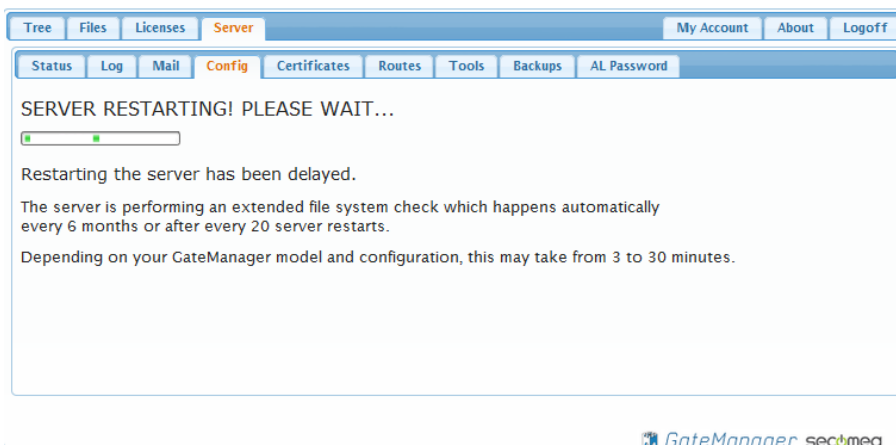
Password length

Password length	Min. # of password contents
9+	2
7-8	3
4-6	4
0-3	Illegal

2.11. File system check information

The GateManager will now inform if a file check is in progress, instead of timing out.

When rebooting the server will now display the following text:



3. SiteManager

3.1. New SHA2 signed Local Certificate

The new firmware will re-sign the local certificate with a SHA256 signature as part of the firmware upgrade. This is to overcome the global discontinuation of SHA1 WEB certificates.

Certificate will not be resigned if:

- 1) The SiteManager is an EasyTunnel Client. In this case the EasyTunnel server will handle the re-signing of the certificate.
- 2) The Local Certificate is signed by a CA. This is the case if the SiteManager previously have been connected to a EasyTunnel server. If the SiteManager is no longer connected to the EasyTunnel Server, you just change the Device Name and the SM will automatically re-sign the local certificate.

This has no impact on GTA from GateManager and is only related to connecting directly to the SiteManager Admin GUI.

3.2. Major rework of Serial port driver

This SiteManger firmware include an updated serial port driver. This fix solve several issues seen with Serial Agents failing to exchange data on connection with just a minimum of latence.

From this release and forward we should be seeing a major improvement when connecting a Serial Agent to any PLC/remote device.

3.3. Added IMEI and IMSI information for broadband

Last heartbeat:	2016-05-08 21:19:41 (57 seconds ago)
Organization:	Secomea
Location:	Denmark
Contact:	hkk
DEV1 port:	10.2.2.9/255.255.255.0
UPLINK port:	192.168.123.199/255.255.255.0 (UP)
UPLINK2 port:	10.108.74.194/255.255.255.255 (UP)
Expansion Slot:	3G [TDC MOBIL DATA ONLY]; Signal: 17
Modem ID (IMEI):	866802020020261
SIM ID (IMSI):	901280028004999
Uptime:	22 hours 44 minutes 24 seconds
Date/time:	2016-05-08 21:19:40
CPU Load:	0.5%
Temperature:	42.3°C
GateManager Address:	172.16.16.59 172.16.17.101
Inputs:	<input type="checkbox"/> 1 <input type="checkbox"/> 2

Both GM and SM has to be upgraded to release 7.0.

Last heartbeat:	2016-05-03 06:36:52 (12 seconds ago)
Organization:	Secomea
Location:	Denmark
Contact:	hkk
DEV1 port:	10.2.2.9/255.255.255.0
UPLINK port:	192.168.123.199/255.255.255.0 (UP)
UPLINK2 port:	0.0.0.0/255.255.255.255 (DOWN)
Expansion Slot:	3G [TDC MOBIL DATA ONLY]; Signal: 15
Uptime:	1 minute 51 seconds
Date/time:	2016-05-03 06:36:51
CPU Load:	5.5%
Temperature:	42.7°C
GateManager Address:	172.16.17.241
Inputs:	1 2
Imsi:	901280028004999
Imei:	866802020020261


Old GateManagers will only show IMSI and IMEI.

3.4. Auto Search agent feature

Available for all 10xx, 14xx, 32xx, 34xx, 11xx and 33xx models.

GateManager Agents - Setup Assistant

You can configure an agent to monitor a device connected to the SiteManager Serial port and TCP/IP enabled devices located on either the DEV network or Uplink network of the SiteManager.

Click [New], and give the Agent a name (this name will be what the LinkManager user will see), and select a suitable device type (first vendor, then model). Then click on  to specify the device address and other relevant parameters.

The SiteManager will instantly try to connect to the device, and if successful the Agent will go IDLE and appear on the GateManager and any LinkManager that have been granted access to the domain of the SiteManager.

If not successful, the Agent will report an error, and the agent will not be registered on the GateManager and subsequently not on LinkManagers either.

Press the [Search] button to search for Ethernet devices that are not yet handled by any Agent.

Pressing the search button will make MAC address search on the device net(s) only and the result will be shown as:

Unhandled Ethernet devices		
IP Address	MAC Address	Manufacturer
192.168.229.2	00:90:0b:3b:73:a5	LANNER ELECTRONICS, INC. <input type="button" value="Add"/>
192.168.229.196	78:a5:dd:06:74:d7	Shenzhen Smarteye Digital Electronics Co., Ltd <input type="button" value="Add"/>

In this example the SiteManager do not know any of these devices, meaning that there is no vendor agent created for these devices.

3.4.1. Add button is GREY (disabled)

This indicate that there is not free agent on this SiteManager.

3.5. Auto Search USB devices inserted

If a USB device is attached to the SiteManager (ie. a USB flash disk), the device will be listed as an “Unhandled USB Device” until an agent is created.

SiteManager 3439 [Mobile broadband] - Setup Assistant

1. GateManager:	172.16.17.101	Connected to 172.16.17.101:443 (UPLINK)	<input type="button" value="Edit"/>
2. Uplink port:	192.168.124.197/24 (DHCP)	Up	<input type="button" value="Edit"/>
3. Uplink2 (Mobile broadband):		No SIM	<input type="button" value="Fix"/>
4. DEV port:	12.0.0.2/24		<input type="button" value="Edit"/>
5. Device Agents:	1 up	Unhandled USB device(s)	<input type="button" value="Fix"/>
6. Chat / Scratchpad:	Updated 4 months ago		<input type="button" value="Edit"/>
7. Admin Password:	OK		<input type="button" value="Edit"/>

Press **Fix**.

GateManager Agents - Setup Assistant

You can configure an agent to monitor a device connected to the SiteManager Serial port and TCP/IP enabled devices located on either the DEV network or Uplink network of the SiteManager.

Click [New], and give the Agent a name (this name will be what the LinkManager user will see), and select a suitable device type (first vendor, then model). Then click on  to specify the device address and other relevant parameters.

The SiteManager will instantly try to connect to the device, and if successful the Agent will go IDLE and appear on the GateManager and any LinkManager that have been granted access to the domain of the SiteManager.



If not successful, the Agent will report an error, and the agent will not be registered on the GateManager and subsequently not on LinkManagers either.

Press the [Search] button to search for Ethernet devices that are not yet handled by any Agent.

Unhandled USB devices

Bus	V:P ID	Manufacturer	Product	
1-1	126f:0163	USBest Technology	USB Mass Storage Device	<input type="button" value="Add"/>

Press **Add**.

Status	Disable	S/N	Device Name	Device Type	Device IP & Parameters	EasyLog
IDLE	<input type="checkbox"/>	#05	A-NewUSBmemoryKEY	CUSTOM (Advanced) USB	126f:0163	 

The Agent will be auto-created if possible.

3.5.1. Add button is GREY (disabled)

This indicate that there is not free agent on this SiteManager.

3.6. Identical USB devices are allowed

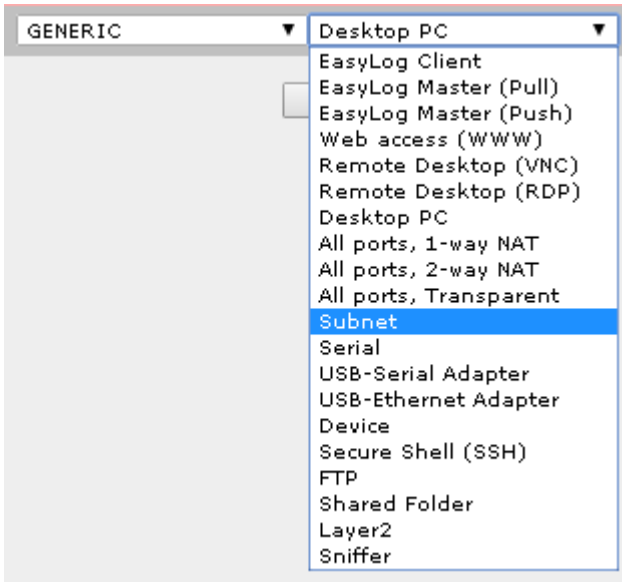
Multiple USB devices with the same Vendor/Product ID's are allowed and handled by the SiteManager.

Attaching two of the same PLC's using a USB connection to a SiteManager will likely show that the two PLC's are using the same USB identification. In this release we now can handle this scenario and an PLC agent can be created for each of the PLC's.

Note that devices with identical V/P numbers, identical Description and no serial numbers can fail agent detection order if they switch ports after installation.

3.7. New "Subnet" Agent

Available on all SM3xxx models. The agent does not replace the configurable "Auto Subnet Agent", on DEVx. but with a Subnet Agent it is easier to comprehend and still facilitate the same (or extended) functionality.



The subnet agent will only allow IP ranges directly configured on a port on the SiteManager. The picture below shows a 4 port model, with 5 IP ranges in total.

(172.24.2.0/24, 172.26.2.0/24, 192.168.248.0/24, 192.168.66.0/24 and 172.16.17.0/24)

Note that the two red lines in the picture below are not directly configured on the SM.

Features:

- The Device port itself is also accessible, even though no cable is connected.
- Grouping are allowed
- "Connect All" are possible on all ports (see picture below)
- Connecting to the Uplink network through the subnet agent are possible

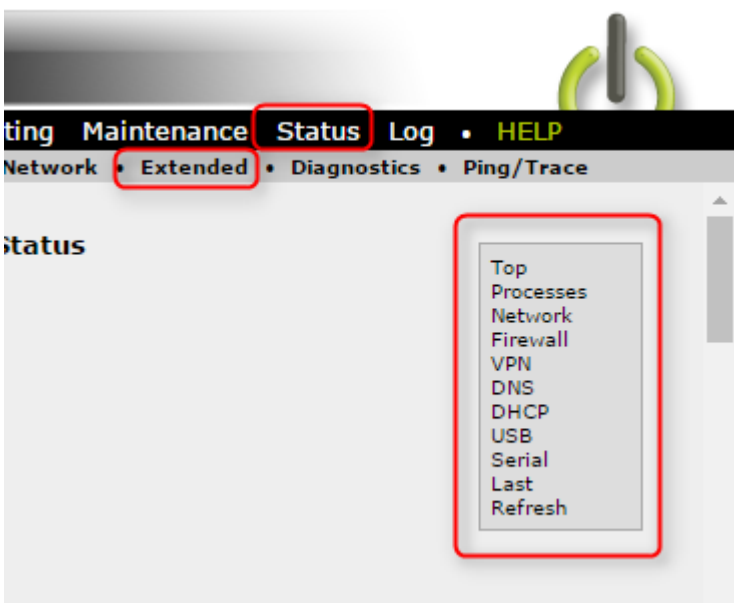
Example of Subnet Agents:

ERROR	#13	SNA 7	GENERIC	Subnet	172.16.16.0/24	
⚠ Subnet not matched by any DEV port or static route						
IDLE	#11	Subnet Agent 16.17	GENERIC	Subnet	172.16.17.0/24	Subnet agent #5
ERROR	#12	Subnet Agent none	GENERIC	Subnet	172.45.89.0/24	Subnet agent #6
⚠ Subnet not matched by any DEV port or static route						
IDLE	#07	Subnet Agent Port 1	GENERIC	Subnet	172.26.2.0/24 UDPD=* +BCD UDPS=* +BC	Subnet agent #1
IDLE	#08	Subnet Agent Port 2	GENERIC	Subnet	172.24.2.0/24	Subnet agent #2
IDLE	#09	Subnet Agent Port 3	GENERIC	Subnet	192.168.248.0/24	Subnet agent #3
IDLE	#10	Subnet Agent Port 4	GENERIC	Subnet	192.168.66.0/24	Subnet agent #4

Example of Subnet Agents with Connect All:

Agent	Address	Status	Connects		Packets		Bytes	
			ok	fail	tx	rx	tx	rx
Group1:Subnet Agent Port 1	Subnet agent #1 172.26.2.0/24	IDLE	0	0	0	0	0	0
	(udp)	UP:2	0	0	5	0	401	0
	SECOL23 (udp)	IDLE	0	0	0	0	0	0
Group1:Subnet Agent Port 2	Subnet agent #2 172.24.2.0/24	IDLE	0	0	0	0	0	0
GW/SiteManager	172.26.2.55:80	IDLE	0	0	0	0	0	0
Subnet Agent 16.17	Subnet agent #5 172.16.17.0/24	IDLE	0	0	0	0	0	0
	SECOL23	IDLE	0	0	0	0	0	0
Subnet Agent Port 3	Subnet agent #3 192.168.248.0/24	IDLE	0	0	0	0	0	0
Subnet Agent Port 4	Subnet agent #4 192.168.66.0/24	IDLE	0	0	0	0	0	0
DEV1	172.26.2.0/24	IDLE	0	0	0	0	0	0
	(udp)	IDLE	0	0	0	0	0	0
	SECOL23	IDLE	0	0	0	0	0	0
DEV2	SECOL23 <-- 172.24.2.54	IDLE	0	0	0	0	0	0
DEV2	172.24.2.0/24	IDLE	0	0	0	0	0	0
	(udp)	IDLE	0	0	0	0	0	0
DEV3	SECOL23 <-- 192.168.248.200	IDLE	0	0	0	0	0	0
	192.168.248.0/24	IDLE	0	0	0	0	0	0
DEV3	(udp)	IDLE	0	0	0	0	0	0
	SECOL23 <-- 192.168.66.66	IDLE	0	0	0	0	0	0
DEV4	192.168.66.0/24	IDLE	0	0	0	0	0	0
	(udp)	IDLE	0	0	0	0	0	0

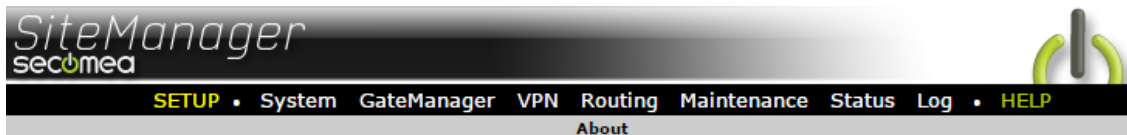
3.8. New Link Box in Status > Extended



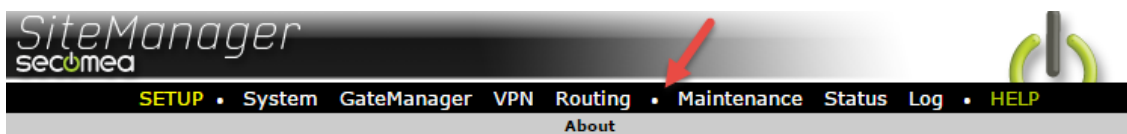
3.9. CrashDump indication

There is now a visual indication if the SiteManager has a CrashDump file, that has not been downloaded yet. The "Maintenance" menu will have a dot in front of it.

Before:



After:



3.10. EasyLogging

SiteManager all models:

- Support for EasyLog Client and Easylog Master

SiteManager Embedded:

- Support for EasyLog Client with Extended 5,10 licenses

3.11. Agent updates

The following vendor agents have been updated:

- Beijer -> iX HMI agent (iX Developer 2)
- GE -> QuickPanel+ (VNC + SNMP)
- Siemens -> Ethernet (Siemens Inverter G120C PN + S7 Comm protocol)
- Exor -> Ethernet (HMI) (Jmobile)
- Cognex -> Ethernet (ports)
- Wago -> Ethernet (ports)

3.12. DNS support in Forwarding Agents

DNS names are now supported on either side of the ">" or ">>" in forwarding agents.

In this release, DNS is queried during agent startup only. If the DNS names used in the Forwarding agent change later on it will not be updated. With other words, Forwarding Agent don't support dynamic DNS names but only static DNS names.

4. SiteManager Embedded

4.1. EasyLogging

SiteManager all models:

- Support for EasyLog Client and EasyLog Master

SiteManager Embedded:

- **Support for EasyLog Client with Extended 5,10 licenses**

4.2. Suspend/Sleep/Hibernate support

All SiteManager Embedded now support Hibernation/Sleep/Suspend/Hybrid Hibernation modes.

When a SiteManager Embedded enter Suspend state, it will detach from the GateManager with the following message: "Disconnected by operator".

It is then able to quickly reattach to the GateManager, even if the IP scope has changed.

4.3. New socket API for SiteManager Embedded

There is a new socket API for SiteManager Embedded for all platforms (Linux, Windows and Windows CE).

The API can be reached by issuing HTML commands to the SME on the Loopback IP (172.0.0.1). Either by using a browser or another application (ie. cURL).

Examples of use:

- <http://127.0.0.1:11444/status?status=System>
Display the status page of the web GUI
- <http://127.0.0.1:11444/status?status=GM>
Show GateManager status
- <http://127.0.0.1:11444/log>
Display the System Log (HTML)
- <http://127.0.0.1:11444/api/log>
Display the System Log (TEXT)
- <http://127.0.0.1:11444/icon>
Show the Tray icon status
- <http://127.0.0.1:11444/api/config>
Display the SME configuration
- <http://127.0.0.1:11444/api/status>
Display the SME status

5. SiteManager (ALL)

All SiteManagers will now support “Cross Platform Configurations Scripts” (CPCS).

This means that an ACTION on the GateManager can include both a configuration profile for SiteManager hardware and SiteManager Embedded in one and the same ACTION / SITEMANAGER.CFG.

This is an example of a CPCS:

```
<config>
<basic>
<subject label="General" id="512">
<string label="GateManager Address" id="737">193.242.155.117</string>
<string label="Domain Token" id="743">SiteManager-HW</string>
</subject>
</basic>
<gm>
</gm>
</config>
```

```
Windows Registry Editor Version 5.00
```

```
[HKEY_USERS\.DEFAULT\Software\Secomea\V6110]
"Server"="193.242.155.117"
"Domain"="SiteManagers-SME"
```

Uploading this profile to both a SME and a SM will place the SME in the SiteManagers-SME domain and the SM in the SiteManager-HW domain.

6. Technical specification on EasyLogging.

6.1. Primary guide for EasyLogging

http://ftp.gatemanager.dk/DP_GM-SM-0117-EasyLogging_Deployment_Guide.pdf

6.2. EasyLogging require BRONZE

Hosting GateManager

- Enabling Easylogging on a customer domain will as minimum raise the EasyService level to BRONZE. If ES is already BRONZE it will NOT change.

Own GateManager

- Installing EasyLogging license will also as minimum raise the EasyService level (root) to BRONZE. If ES is already BRONZE it will NOT change.

6.3. EasyLog port range

SiteManager hardware has NO limit to the port range. All ports can be specified using the term: 0-99999 (5 x 9).

SiteManager Embedded is limited to a range of 16 ports.

Specifying a port on a EL-Master larger of 16 ports will automatically be adjusted in the SME to match the first 16 ports. The priority is TCP first and then UDP.

IMPORTANT: we strongly advice NOT to use all ports(0-99999) because data/traffic on unnecessary ports will occupy port sessions that are limited. See 6.5.

6.4. EasyLog port configuration

SiteManager hardware is limited to 16 port configurations like.

- 21,80,443,5000-6000,64000-64010

Where this is 5 port configurations where the last 2 are port ranges.

SiteManager Embedded is limited to in all 16 ports, meaning it will start opening ports and stop when it reaches number 16. SME is reading TCP ports first and if there are more ports left is start reading UDP.

6.5. Number of concurrent sessions on each EasyLog Agent

An EasyLog Master or EasyLog Client is equipped to maintain up to 20 concurrent sessions. This should be sufficient for any log system. Logging is sweeping each remote client one by one and that should not exceed more than 20 sessions.

6.6. UDP sessions

A UDP session will stay open for 20 seconds in case the remote device should reply from the same source IP and source port.

UDP fragmentation is supported but limited to <4K meaning payloads less than 3840 bytes are possible.

GateManager Server > Log will show:

```
Drop too large datagram (4096) from ip4:127.240.11.127:63461 => 00C0A200EBA6#EL#04
```

6.7. EasyLog and Idle Timeout

Idle timeout defaults are: TCP: 120, UDP: 30 and TCP/UDP: 30

Idle time is all configured on EL-Master and copied to EL-Client so both Master and Client is using the same timing

6.8. Protocol mix

EasyLog support protocol mix meaning that it can handle both TCP and UDP on the same port or port range.

6.9. FTP on EasyLogging

Both Active and Passive mode are supported as long as the FTP control is on port 21.

FTP awareness is supported for both PUSH and PULL mode meaning FTP server in Active or Passive mode can be running on EL-Master or EL-Client site with no limit.

6.10. EasyLog Master (Pull)

The EL-Master(Pull) can be based on a port range or IP range.

If using IP range a range of 254 IP addresses ex. 10.1.1.1-254 is max.

EL-Master will create IP aliases on DEV or UPLINK **but first when it is needed**. This is when the EL-Client is linked to this EL-Master via the GM Portal.

The IP Alias can be part of the DEV subnet but a completely different alias can also be used. It is not limited to the DEV or UPLINK subnet.

DEV1 = 10.1.1.1/24

Alias = 10.2.2.1-254

Using an alias scope out side the DEV subnet only require that the log server is using the DEV1 as default gateway.

6.10.1. EL-Master(Pull) troubleshooting

On the SiteManager you will see:

If removed EL-Client is offline then EL-Master will log:

```
May 10 16:53:03 cron.debug ACM[1058]: tcp server connect from 192.168.229.3:58359 => 192.168.229.132:80
May 10 16:53:03 cron.err ACM[1058]: Failed to connect to remote end-point at 0.0.0.0:0 (err: BUSY)
```

If there is no EL-Client linked to the address on the EL-Master:

```
May 10 16:03:42 cron.err ACM[1058]: Failed to connect to remote end-point at 0.0.0.0:0 (err: BLOCKED)
```

SM debug enabled will show:

```
May 10 16:14:43 cron.debug ACM[1058]: tcp server connect from 192.168.229.3:54623 => 192.168.229.132:80
May 10 16:14:43 cron.err ACM[1058]: Failed to connect to remote end-point at 0.0.0.0:0 (err: BLOCKED)
```

Need to know:

As for this release there is no log entry if a wrong device is trying to transmit to the EasyLog Master port. The Log Server Address configured on the Master agent is the only one allowed to transmit on the Master Agent connection.

6.11. EasyLog Master (Push)

Data from all the EL-Clients are pushed to the log server on the EL-Master.

6.11.1. Troubleshooting who is pushing data on the EL-Master

If an EL-Client is pushing data to the EL-Master the sniffer on the EL-Master will only see in that data is passed to the log-server like this:

From	Source	Target	Protocol	Port	Count	Last entry
INTERN	172.16.17.150	172.16.16.1	TCMP	8	1	May 10 17:45:41
		172.16.16.104	TCP	8000	5	May 10 17:45:47
		172.16.16.104	UDP	515	2	May 10 17:45:47
DEV1	192.168.229.1	224.0.1.24	UDP	42	1	May 10 17:45:45
UPLINK	172.16.17.160	172.16.17.255	UDP	137	1	May 10 17:45:40
UPLINK	172.16.17.243	172.16.17.150	TCP	443	2	May 10 17:45:47
		172.16.17.255	UDP	17500	1	May 10 17:45:44
		255.255.255.255	UDP	17500	1	May 10 17:45:44

Source 172.16.17.150 (UPLINK) transmit to 172.16.16.104 (log-server) but you will not see that the EL-Client did that.

To see what EL-Client is actually transmitting through the EL-Master, just add the -D option to the EL-Master agent (-D172.16.16.104 port=8000 proto=TCP):

```
May 10 17:43:29 cron.debug ACM[1058]: open_service ':8000:192.168.2.98'  
May 10 17:43:29 cron.debug ACM[1058]: #EL#02.17: open relay => 172.16.16.104:8000  
May 10 17:43:29 cron.debug ACM[1058]: #EL#02.17: connected to 172.16.16.104  
May 10 17:43:29 cron.debug ACM[1058]: TCP.17: ui_close 2 (rx=923072 tx=939456 c=0)
```

Now the system log will show that the client EL#02:17 or 192.168.2.98 is the actual client transmitting data – this is the IP Alias on the EL-Client Site-Manager (not the Device Address - usually the PLC).

6.12. EasyLog Client (Pull)

In PULL mode the device IP address on EL-Client is specified all other configurations are handled on the EL-Master(Pull).

6.13. EasyLog Client (Push)

In PUSH mode the device will push data to the log server. If nothing is specified then DEV1 will be associated with the log server. Any IP address can be specified a EasyLog Server Address to associate the native log server address on the EL-Master site.

If specifying an IP address not on the DEV subnet the device must be using DEV1 as default gateway.

SiteManager Embedded DON'T don't support IP alias and will always associate its DEV IP as EasyLog Server Address. The field is removed from SM GUI.

SiteManager Embedded is configured to handle 16 TCP/UDP sessions on one agent.

If the EL-Master is configured for a port range of ex. 8000-8100 the SME will automatically limit the range to 16 ports:

```
Too many server ports; ignoring ports: 8016-8100
```

6.14. Buffering data (Backlog)

The EasyLog system is using a backlog system that can buffer data on the pipe. Backlog is used if SiteManager receives more sessions than actually can be transmitted at the moment.

A scenario is then the EasyLog Master receive data from 20 client all available sessions are occupied. When the 21'th client start transmitting it will be hold in Backlog and if possible as soon as one if the 20 clients disconnect the 21'th clients backlog'ed data will be released.

7. LinkManager

7.1. GateManager 4 support is EOL

LinkManager support for GateManager 4 has ended. All GM4 related features (such as Activation Codes) have been removed. LinkManager will no longer connect to a GM version 4.x server.

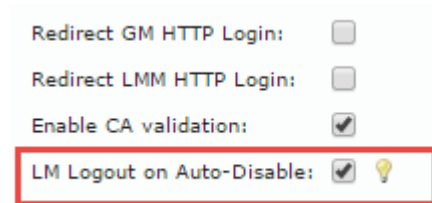
7.2. Ability to Disable LinkManager and force logout

There is a new Server Config option to force LinkManager logout if the LinkManager Account is disabled.

The default setting makes the current LinkManager connection continue until the LinkManager logs out. But enabling this setting will force the LinkManager to log out and close all connections.

This option should be used with caution, setting the option will affect all LinkManagers on the GateManager.

The option can be found under "Server -> Config -> Account Settings"



7.3. LinkManager API

It is now possible to access LinkManager functionality through an API and build your own application as front end.

Please contact Secomea Development if you want more information on the subject as we are not going public with this information yet.

8. LinkManager Mobile

Only minor fix to LinkManager Mobile interface.

- The Devices tab didn't always update correctly after viewing the Audit tab.

9. APPENDIX A

The following is nice to know for working with Easylogging.


- Debug agent: use the -D in front of the Device IP to enable debugging.

10. APPENDIX B

EasyLog help bulbs.





10.1.1. EasyLog Master (PUSH) agent

EasyLog Master Push Information


Drag the  icon to associate this EasyLog Master with an EasyLog Client.


EasyLog Master Push Information

The following EasyLog information describes how remote Devices can deliver (Push) data to the central Log Server configured for this EasyLog Master:

 10.2.0.100   EL-Client_OmronCX-98 (SM1039_299E_PC-Omron)  192.168.2.100

where:


 10.2.0.100 is the IP address of the Log Server configured in this EasyLog Master (Push) agent.

 ... is the EasyLog Client agent defining a specific remote Device Address that is allowed to connect to the Log Server via an EasyLog Server Address controlled by the EasyLog Client agent (click on an agent to see its configured EasyLog Server Address).

192.168.2.100 is the remote device's local Device Address.

10.1.2. EasyLog Master (PULL) agent

EasyLog Master Pull Information

Drag the  icon to associate this EasyLog Master with an EasyLog Client.

EasyLog Master Pull Information



The following EasyLog information describes how a central Log Server (e.g. a SCADA system) connects via this EasyLog Master to remote devices to collect (Pull) data:



where:

10.2.0.100 is the local IP address of the Log Server defined for this EasyLog Master (Pull) agent. Only this IP address is allowed to connect to remote devices.

10.2.0.20 specifies (for each remote device) a virtual IP address (EasyLog Device Address) that the Log Server connects to locally for reaching remote devices. The address (or address range) is configured in the EasyLog Master agent.

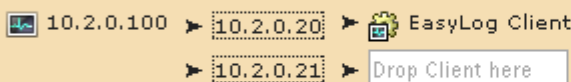
... is an EasyLog Client agent defining a remote Device Address that has been associated with a given EasyLog Device Address.

10.0.0.2 is the remote device's local Device Address.

EasyLog Master Pull Information



This is the Master Pull **Edit** view, which gives you full control over which EasyLog Clients are assigned to each of the Master's EasyLog Device Addresses:



where:

10.2.0.100 is the local IP address of the Log Server defined for this EasyLog Master (Pull) agent. Only this IP address is allowed to connect to remote devices.

10.2.0.20 specifies (for each remote device) a virtual IP address (EasyLog Device Address) that the Log Server connects to locally for reaching remote devices. The address (or address range) is configured in the EasyLog Master agent.

... is an EasyLog Client agent defining a remote Device Address that has been associated with a given EasyLog Device Address.

Drop Client here is the area where you can drag and drop an EasyLog Client agent from the domain tree to link it with to the corresponding EasyLog Device Address.

To change the EasyLog Device Address of an existing EasyLog Client in the list, simply drag and drop it onto another entry in the list. If you drop it on another Client, the two clients swap places in the list.

Note: You must use the [Save] button to commit the changes you make in this list.

10.1.3. EasyLog Client (PULL)

EasyLog Client Information



Drag or click the icon to associate this EasyLog Client with an EasyLog Master.

EasyLog Client Information



The following EasyLog information

10.2.0.100 ➤ 10.2.0.20 ➤ EL-MasterPull (SM1139_82) ➤ 192.168.115.100

describes how a central Log Server (e.g. a SCADA system) connects to this EasyLog Client's remote device to collect (Pull) data:

10.2.0.100 is the Log Server's local IP address.

10.2.0.20 is a specific virtual IP address (EasyLog Device Address) that has been linked to a specific remote Device Address in this GateManager Portal.

... is the EasyLog Master (Pull) agent controlling the EasyLog Device Addresses that the Log Server connects to reach the corresponding remote devices.

192.168.115.100 is this EasyLog Client agent that defines the Device Address of the remote device.

10.1.4. EasyLog Client (PUSH)

EasyLog Client Information



Drag or click the icon to associate this EasyLog Client with an EasyLog Master.

EasyLog Client Information



The following EasyLog information

10.2.0.100 ◀ EL-MasterPush (SM1139_82) ◀ 192.168.2.1 ◀ 192.168.2.100

describes how this EasyLog Client's Remote Device can deliver (Push) data to a central Log Server:

10.2.0.100 is the Log Server's local IP address.

... is the EasyLog Master (Push) agent that defines the Log Server IP address.

192.168.2.1 is this EasyLog Client agent and its EasyLog Server Address that a remote device connects to locally for reaching the Log Server.

192.168.2.100 is the remote device's local Device Address.

/end

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