



CO.IN. for HSNM

Quick Start Guide

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Glossary

The table below shows on the left the abbreviations used in this manual and on the right their meaning.

Term	Meaning
Cache	It is a system that allows you to store contents in a local memory to supply them directly to later requests without contacting the server again. It also reduces the used internet bandwidth significantly, improving performances and user experiences.
CO.IN.	Content Injector.  In order to use CO.IN. as a content injector, you must have a HSNM with the Welcome Portal & Advertising Module licenses.
GUID	Globally Unique Identifier. Term used to: identify the license of CO.IN.
HSNM	The HSNM.
Proxy	It is a software that is interposed between the client and the server and it acts as a vehicle for handling requests and responses from one to the other.
Sidebar	Sidebar on the left that contains the administration tabs.
Tab	A chart control that allows the user to switch from a group of controls to another within the same area.
Welcome Portal or WP	Welcome Portal is the set of the interface presented to users. In addition to the Login app, it can provide information content, weather forecast, places of interest, attractions, menus, promotions and anything else that have been set.
Gateway	Device that provide internet connection, through an hotspot service, to users

Information

Ethernet networking skills

The installer must have the ability to configure IP addressing on a PC and to set up and control products using a web browser interface.

Training

The installer needs to have basic knowledge about network installation and TCP/IP protocol. The specific requirements, applicable to the CO.IN., must be gained by reading this user guide and by performing sample setups at own lab before live deployments.

Product Overview


What is CO.IN.

CO.IN. is a system ready to use, easy to configure and supplied with an administration WEB interface. It has the most advanced technologies and it allows injecting advertising contents, information etc., defined in the HSNM advertising campaigns (Welcome Portal & Advertising optional modules), in the pages visited by users during their normal internet navigation.


In addition to the injection, the product can be used for other purposes:

- Cache: to reduce the internet bandwidth used by users and to improve the performances and experiences of the latter.
- Antivirus: the system analyzes HTTP contents visited by users and in case it intercepts contents considered damaging, it blocks the visualization and informs the user.
- Blacklist: selectable list of default categories containing hundreds of thousands of web-sites or IP addresses that can be blocked because the contents are not considered appropriate for use of the service provided.

Thanks to special and advanced techniques in encryption and decryption, the injection can be activated also for HTTPS. In practice, techniques like “Man in the middle” are used but “ONLY” for advertising and/or security purposes.

 **Warning!** To make sure that even HTTPS traffic is processed, it is necessary the users to install a security certificate. Given the difficulty of installing a certificate, the use of HTTPS is not considered appropriate for applications on HotSpot services. It is recommended to activate it if the product is used on corporate networks where devices or PCs that access the internet are known and recurring.

 **Warning!** Activating the injection also on the HTTPS can cause problems with certain web services.

 **To inject contents in the pages visited by users it is necessary to:** have a HSNM with the Welcome Portal & Advertising Module; have a Mikrotik devices (injection doesn't work with Ruckus, Cisco Meraki, LigoWave, etc); insert the injector's GUID in the gateway configuration; enable the gateways or the domains to the injection; create advertising campaigns.

Who is Using CO.IN.

CO.IN. is aimed at all users who have purchased HSNM and want to insert advertising campaigns, information, etc. during the users WEB navigation. It is recommended even if you want to add a Cache system to save internet bandwidth and to supply contents previously visited by users directly without requesting them to the server again.

Hardware Features

CPU: Intel® Celeron® Processor N3160 (2M Cache, up to 2.24 GHz)

2GB RAM

1 hard disk 32GB SSD;

2 network cards 10/100/1000

Certifications: CE; FCC.

Before Starting

This section will guide you through the procedure to follow for connecting for the first time to CO.IN.



Front view of CO.IN.



**Emergency IP
192.168.168.10
and COIN's IP**


Disabled-Not Used

Back view of CO.IN.

Package Contents

The following items are included into CO.IN. package:

- 1 x Appliance CO.IN.
- 1 x 12V Power pack
- 1 x Power cable
- 1 x bracket for wall mount

 Before to use, make sure the above items are included in the package. If anything is missing or damaged, please contact your CO.IN. dealer.

Connecting into the Electrical Outlet

After opening the package, connect CO.IN. into the AC power outlet using the supplied power pack.



Electrical connection

Turning On

Turn on CO.IN. using the appropriate switch in front of the appliance, near the “SW” inscription. If the LED’s button is off, it means that CO.IN. is turned OFF, while if it is blue it means that CO.IN. is ON. Switching and start last about one minute.



Connecting to the Computer for the First Configuration

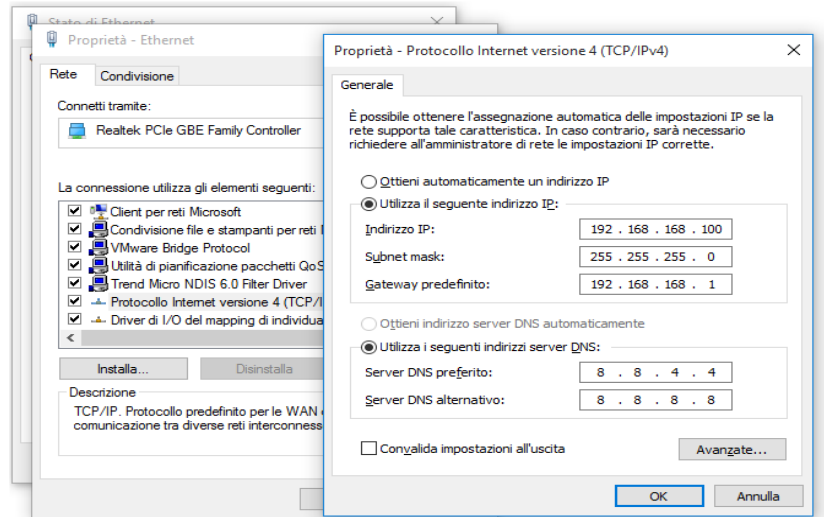
Connect CO.IN.’s ethernet port LAN1 to a PC.



PC connection

In the PC, define an IP address of the 192.168.168.0/24 class (e.g. 192.168.168.100).

Warning! In the PC, do not define the IP address 192.168.168.10 because it is assigned to the LAN1 of CO.IN.



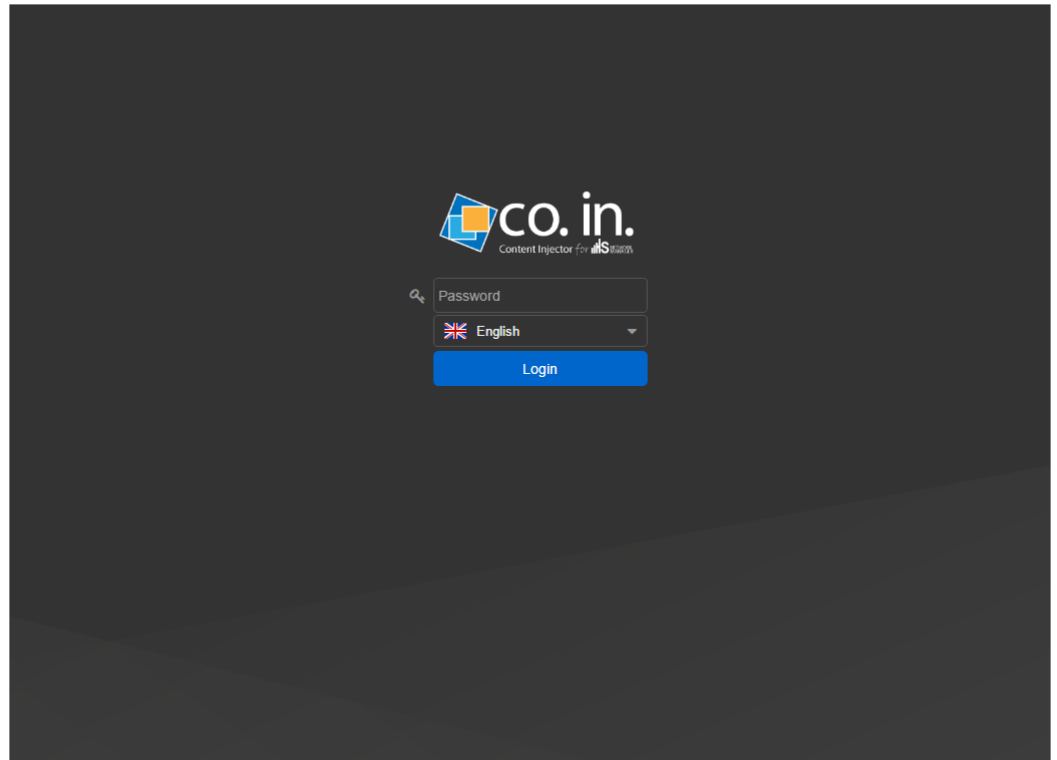
Configuration of the net in the PC

Configuring CO.IN. and HSNM to enable injection

First Login

To log in for the first time on the system and configure it according to your needs, open the web browser of the computer connected to CO.IN. and enter <http://192.168.168.10> in the address bar. The login page will appear in the CO.IN. web management interface.

Enter the default password "0000" then press "Enter" or click on the "Login" button.

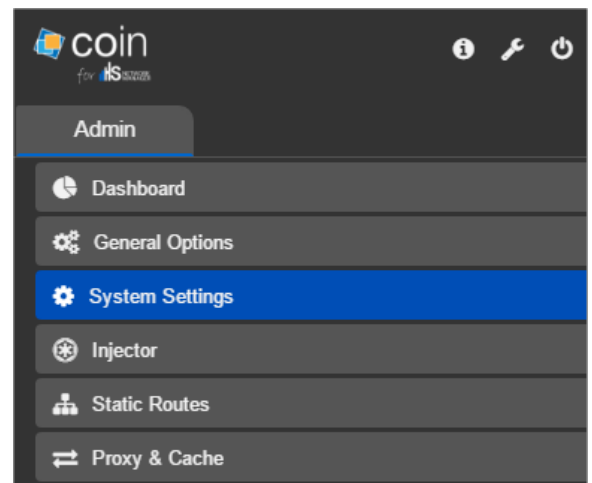


The first task you have to perform is changing the admin password in order to customize it. Click on the "Admin" tab, and then on "🔍 Change Password". A new page will appear that allows you to enter your new password, confirming it in the repeat password. Then press on the "Save" button on the top right to save and change the password.

✎ We suggest to keep your credentials safe as they are the only ones that allow access to the appliance.

Assigning Network Parameters

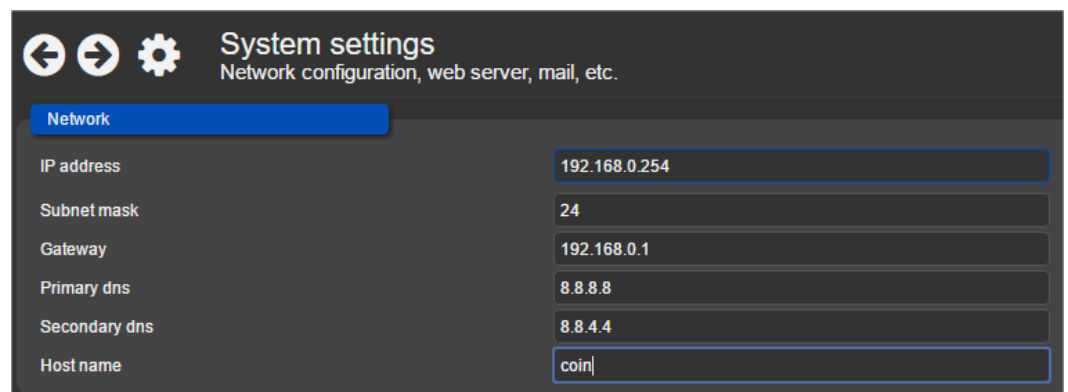
To define the IP address to be assigned to the CO.IN. LAN1 interface, click on the "Admin" tab and select "⚙️ System Settings".



Configuration options for the administrator

Follow these steps:

- Enter, in the "IP address" field, the IP address that you want to assign to CO.IN. in order to connect it to the Gateway network (e.g. 192.168.0.254);
- On "Subnet mask" enter the network mask in CIDR format (example: 24);
- On the "Gateway" enter your network gateway (e.g. 192.168.0.1);
- On "Primary DNS" and "Secondary DNS", enter valid DNSs (example: 8.8.8.8);
- In the "Host name" field, enter the name for your device (example: COIN).



Now on the upper right corner in the command bar, click on the "Save" button, and then on the "Apply" button to assign the new IP address to CO.IN.

Now you can log in to the appliance web administration interface using either the IP address 192.168.168.10, or the new IP address assigned to the CO.IN. LAN1

✎ You must configure the appliance with an IP on the same network of the WAN IP Gateway where you want to install CO.IN. otherwise it cannot work. So, before to change the CO.IN.'s IP address, check, on HSNM, which is the WAN IP set for the Gateway.

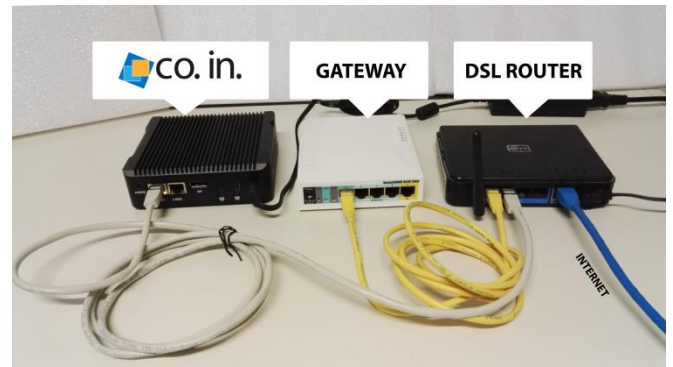
✎ The default IP address 192.168.168.10 will remain configured for emergency.

✎ When you connect CO.IN. to Gateway network, you will have to connect it through the LAN1

Installing CO.IN. to the Gateway network

Now you can connect CO.IN., using the Ethernet port LAN1, on the same network where is connected the Gateway.


Simply you have to connect the CO.IN.'s LAN1 on the same switch/router where the Ether1 of the Gateway is connected.



Connecting to the network

After that please verify:

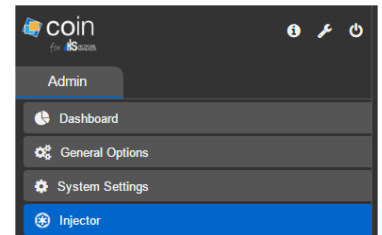
- it is reachable by trying to access using the CO.IN.'s IP previously set (see "Assigning Network Parameters"). In case it was unreachable, you can always access through the emergency IP address 192.168.168.10 and then check the CO.IN.'s IP set.
- CO.IN. is able to go to Internet. To do that you can make a ping from the CO.IN.'s "System Informations"

 If CO.IN. will not be able to go to Internet or to reach HSNM, injection cannot work

Enabling Injection on CO.IN.

If you want to use CO.IN. as “Content Injection” inside the webpages viewed by the users (for example to inject advertising), you need to enable it.

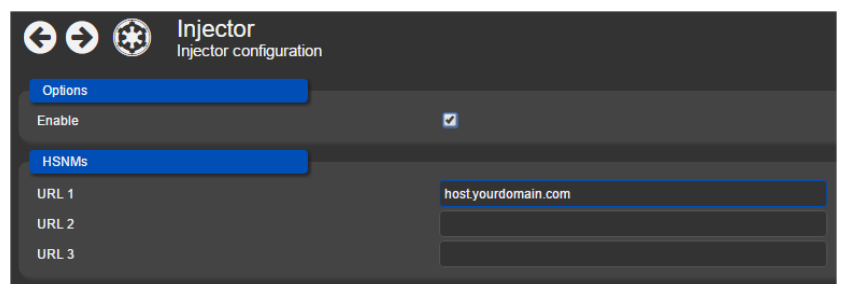
To do that, login to CO.IN. using the CO.IN.’s IP previously set (see “Assigning Network Parameters”), then go to the “Admin” tab on the upper left side menu and select “⚙️ Injector”



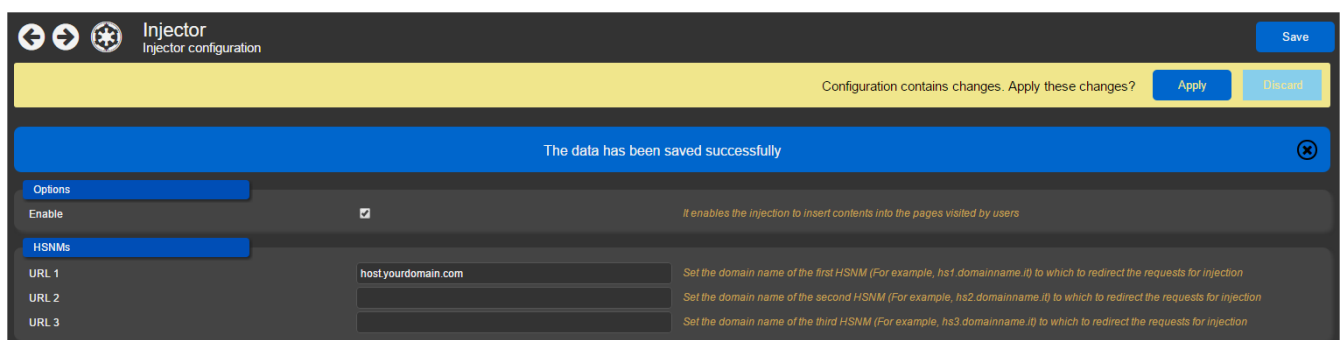
CO.IN. on the HSNM’s Different Network

If CO.IN. is not on the same HSNM’s network (for example you are installing CO.IN. to a hotel and HSNM is installed on ISP), first of all, check that your HSNM is reachable through a FQDN and that CO.IN. is able to reach it through internet.

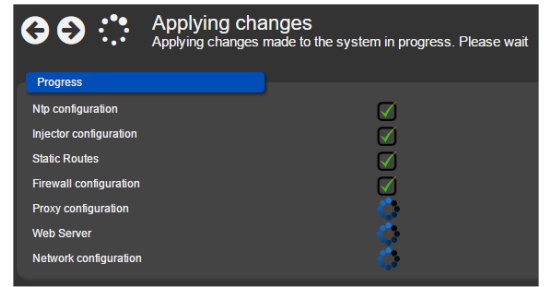
Then enable the “Enable” checkbox and set, on URL1, the FQDN domain name used by CO.IN. to reach HSNM in order to have the injection content.



Click on “Save” button and then on “Apply” button to apply the changes.



After that system will apply changes and restart the services



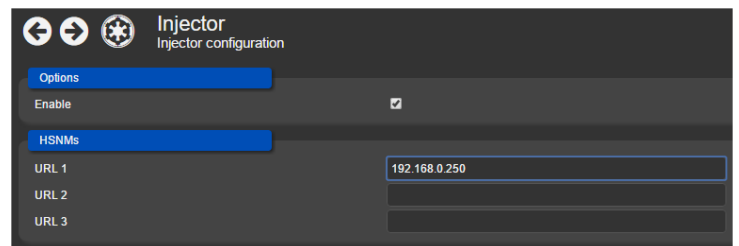
- ✎ If CO.IN. can't reach HSNM through ones of the URLs set, injection cannot be enabled and so it doesn't work, so please pay attention to write a right value on URLs and that CO.IN. is able to go to Internet.
- ✎ If you have more than 1 HSNM configured in round robin (fail-over mode), you can set the FQDN used to reach other HSNMs inside the URL2 and URL3 fields.

CO.IN. on the HSNM's Same Network

If CO.IN. is on the same HSNM's network (for example you are installing CO.IN. on a hotel and HSNM is installed locally on the hotel's network), probably HSNM or HSNMs are not reachable by a domain so, enter in the URL1, URL2 or URL3 fields, the private IP addresses of the HSNMs.

In this case, the system will contact the HSNMs via IP, into giving the domain name defined in the System Settings of the HSNM, it will automatically create a match between IP addresses and domains in the system hosts file, in order to use the domains to reach the HSNM.

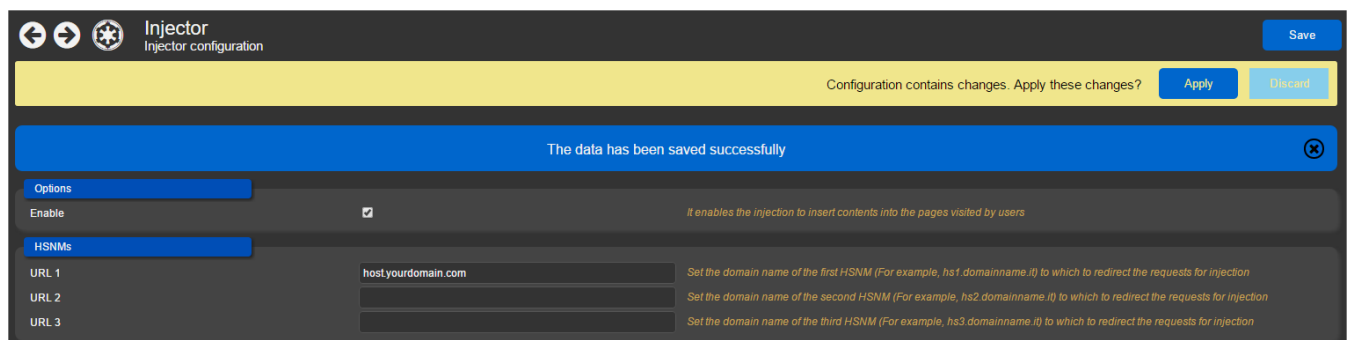
After this processing, the values of the IPs will be overwritten by the corresponding domain names.



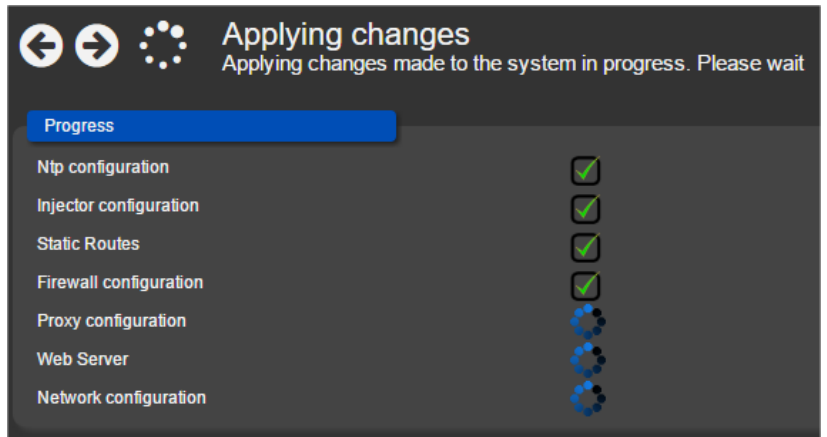
In this case HSNM IP is 192.168.0.250

Clicking on "Save" button, the system contact HSNM via IP and then automatically set the "domain name" defined in the System Settings of the HSNM.

Click on "Apply" button to apply the changes.



After that system will apply changes and restart the services

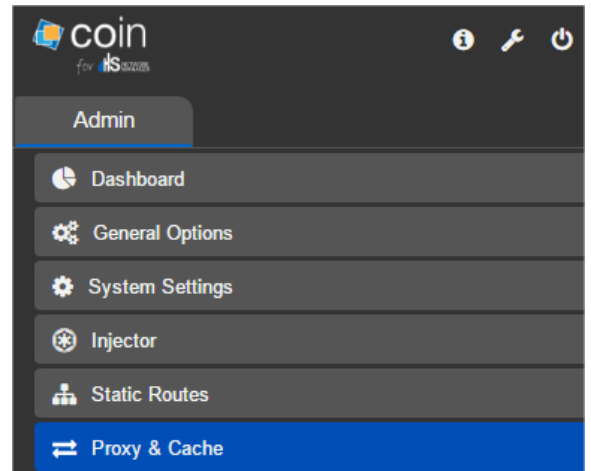


✎ If CO.IN. can't reach HSNM through ones of the URLs set, injection cannot be enabled and so it doesn't work

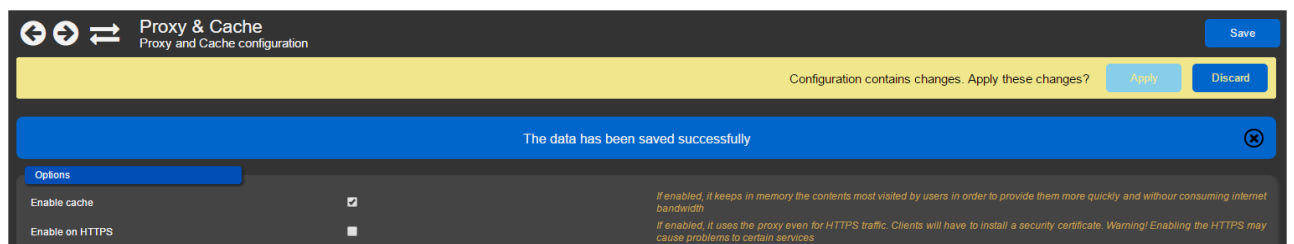
If you have more than 1 HSNM configured in round robin (fail-over mode), you can set the IPs used to reach other HSNMs inside the URL2 and URL3 fields

Enabling Cache on CO.IN.

If you want to use CO.IN. to “cache” the webpages viewed by the users, you have to enable it. To do that, first of all, login to CO.IN. using the IP set previously on LAN1 (see “Assigning Network Parameters”) or using the emergency IP 192.168.168.10, then go to the “Admin” tab on the upper left side menu and select “⇌ Proxy & Cache”



Enable the “Enable cache” checkbox to enable it, then click on “Save” button and then “Apply” to save and apply the changes.



✎ It is not mandatory, but recommended to reduce bandwidth and speed up internet, enable the cache option in order to have Content Injection working

✎ Warning! On Hotspot system, it is not recommended to enable HTTPS checkbox because clients should install a security certificate in order to have HTTPS working through the CO.IN.’s proxy. Certificate can be downloaded from <http://COINDomainOrIP/data/proxy.crt>.

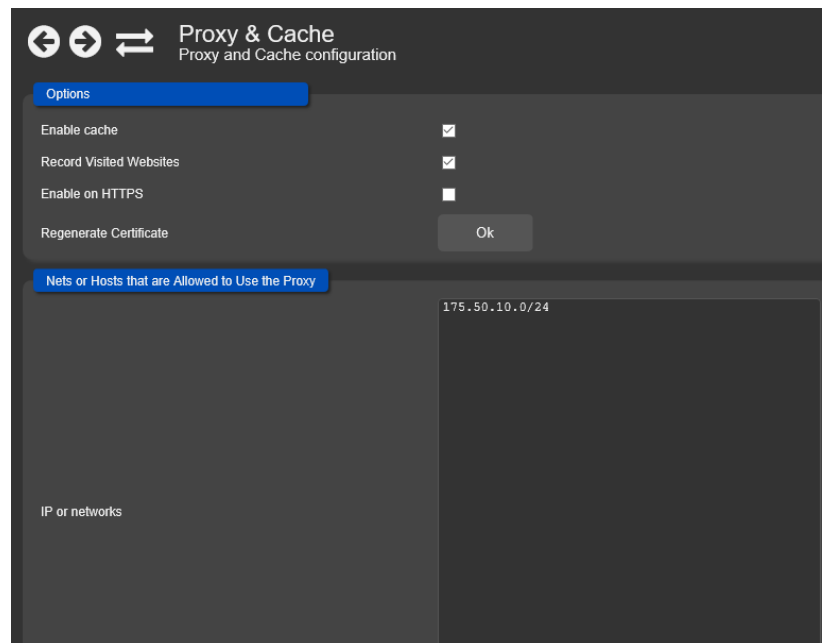
✎ Warning! Enabling HTTPS can cause problems with some services (for example APP Store, Play Store, Teamviewer, WhatsApp, ecc).


Entering Hosts and/or Networks Allowed to Use CO.IN.

By default, the use of proxy of CO.IN. is enabled for the following networks/private subnet:

- 10.0.0.0/8
- 172.16.0.0/12
- 192.168.0.0/16

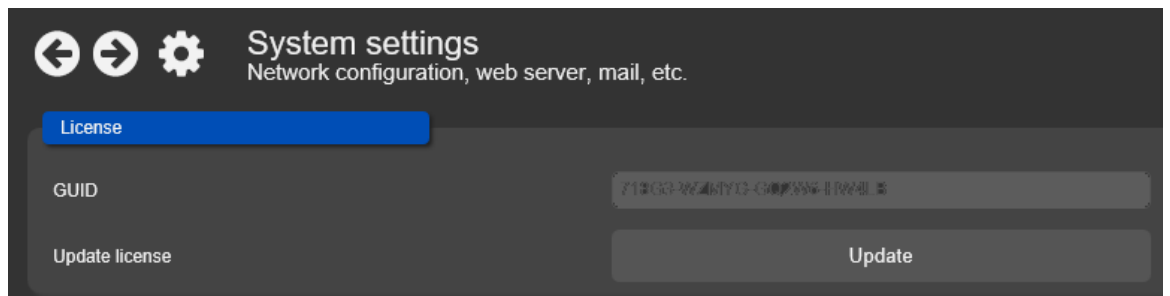
If CO.IN. and/or the "WAN" interface and "Hotspot" of the Gateway have an IP of a network/subnet different from the previous ones (for example 196.195.194.x/24), you have to set, in the "Nets or Hosts are Allowed to Use the Proxy" section, in the "IP or networks" field, that IP or the network/subnet.



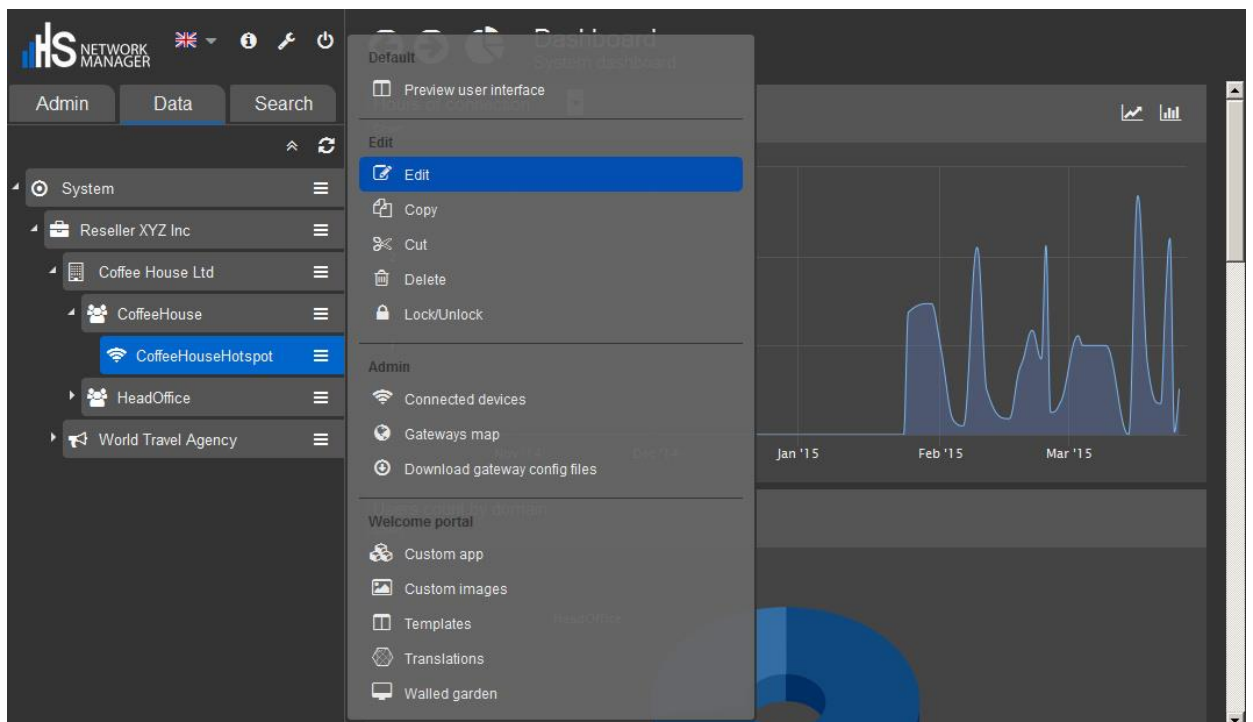
 If CO. IN. and/or the "WAN" interface and "Hotspot" of the Gateway have an IP of a network/private subnet (10.0.0.0/8 o 172.16.0.0/12 o 192.168.0.0/16), you will not have to enter anything.

Entering the GUID in Configuring the Gateway in the HSNM

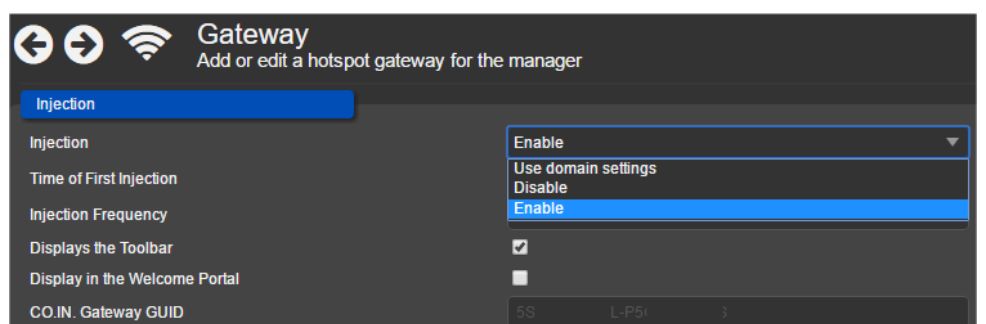
Write down or copy the CO.IN. GUID, going on the "Admin" tab and then "**System Settings**". You can find it under "License" section





Now to enable and configure injection on the Gateway, you have to login into HSNM, go to the "Data" tab on the upper left side menu, then click the ▶ arrow next to "YourResellerName", click the ▶ arrow next to "YourManagerName", click the ▶ arrow next to "YourDomain", click the context properties button ≡ of "YourGatewayName". Here you have to click "Edit" to enter the hotspot gateway settings section





In "Injection" section, scroll down to "Injection" field and choose "Enable" or "use domain settings", then on "CO.IN. Gateway GUID" field, write the GUID of CO.IN and click on "Save" button



-  You must be sure to put the CO.IN. GUID inside the Gateway where you want to enable injection, i.e. on the Gateway where you will install CO.IN.

-  If you choose “use domain settings” as “injection”, you must enable it on the domain, otherwise it doesn’t work.

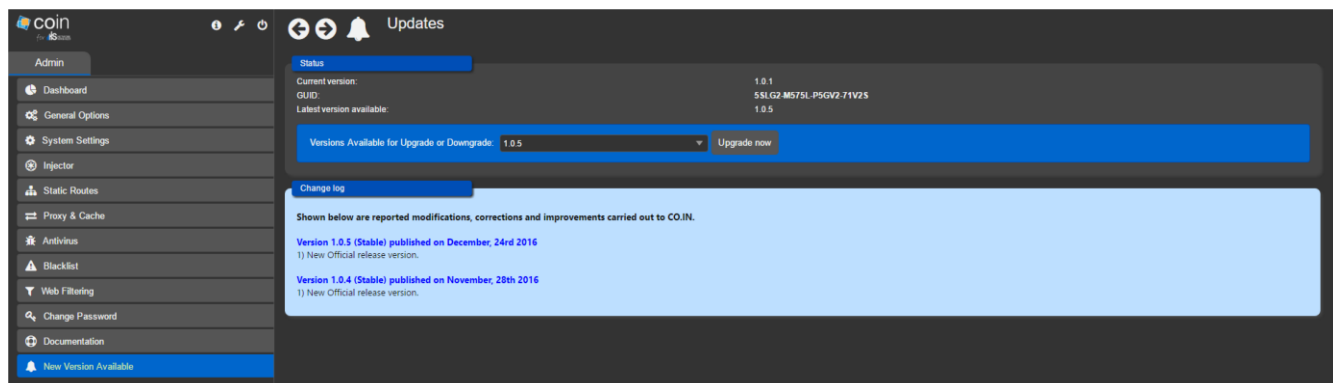
-  Within the minutes set on the “minutes for the update” field inside the “Walled Gardens (free URLs)” section, the Gateway will be configured for CO.IN; so if you don’t install, power on and configure properly your CO.IN., the Gateway can’t work and load HSNM Welcome Portal.
To disable the configuration for CO.IN., inside the Gateway, you have to simply choose “disable” on “Injection” field.

-  Check that the “WAN Ip address” of the Gateway is on the same IP network of the CO.IN.’s IP.

Updating CO.IN.

We recommend to update CO.IN. software as to have the latest version including the updated manuals.

After having logged to the web administration interface, click on the "Admin" tab and select "🔔 New version Available", then click on the "Upgrade now" button and confirm the update by pressing the "OK" button.



✎ The update is available only if you are within the Software Maintenance and Update period or if you have purchased a Software Maintenance and Update contract for the CO.IN. For more information, please contact your dealer.

Documentation

For detailed documentation on the CO.IN. configuration, please click the "Admin" tab on the upper left side menu, then press the "📖 Documentation" button where you will find the "Administrator Manual".