

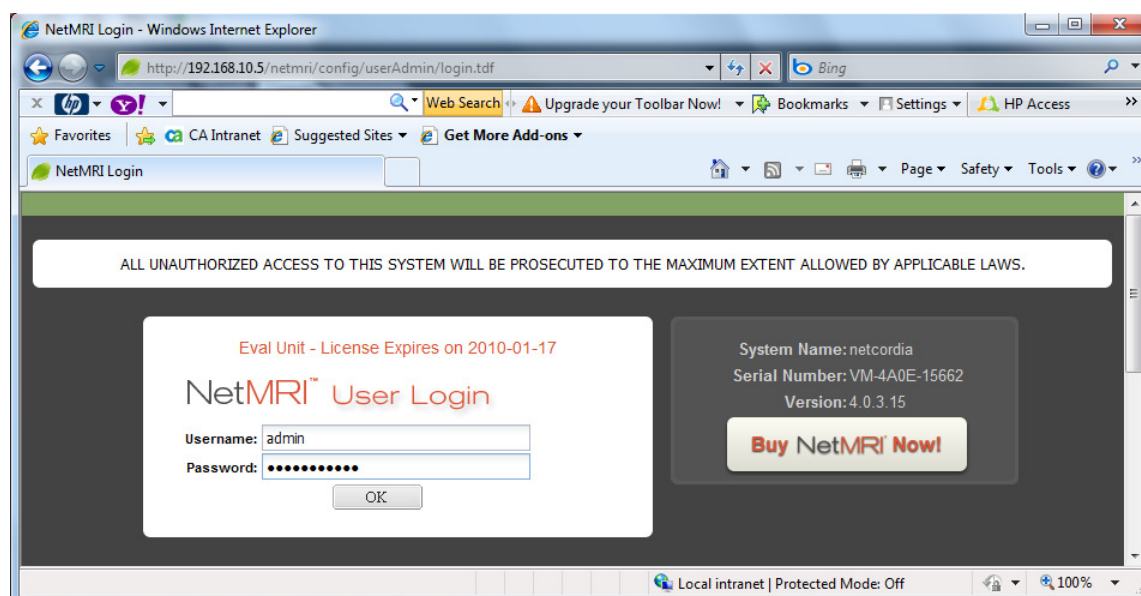
# Retrieve Cisco Router Configuration through Netcordia's NetMRI

created by: Rainer Bemsel - Version 1.0 - Dated: DEC/18/2009

I've downloaded a trial version from Netcordia to learn, what NetMRI is about. I'm using a Virtual Appliance on my VMWare Server. A detailed Step-by-Step instruction of the installation of that Virtual Appliance can be found: [www.bemsel.com/TechTip/RBE-NetMRI-30min.PDF](http://www.bemsel.com/TechTip/RBE-NetMRI-30min.PDF)

There are many tasks and options possible with NetMRI. The purpose of this document is to outline the steps to retrieve a Cisco Router Configuration and track changes by Change Management solution.

## 1. Log into the virtual appliance



I've added through the initial configuration the IP Addresses of my routers. Also, SNMP community and telnet access as been provided as well.

## Managed Devices

**Network:** Home-Network  
**Date Range:** Dec 18, 2009 00:00:00 to Dec 18, 2009 23:59:59  
**Device Groups:** Routing



This report summarizes and lists the network devices managed by NetMRI during a specific time period.

Name	IP Address	OS Version	First Found	Last Seen
Total Device Count: 2				
Cisco (2)				
1801 (2)				
cisco-1801-10	192.168.10.81	12.4(22)T	Dec 18, 2009 18:36:39	Dec 19, 2009 09:54:44
cisco-1801-192	10.0.0.81	12.4(22)T	Dec 18, 2009 18:37:42	Dec 19, 2009 09:32:45



Created on: Dec 19, 2009 9:57 AM



### DISCLAIMER

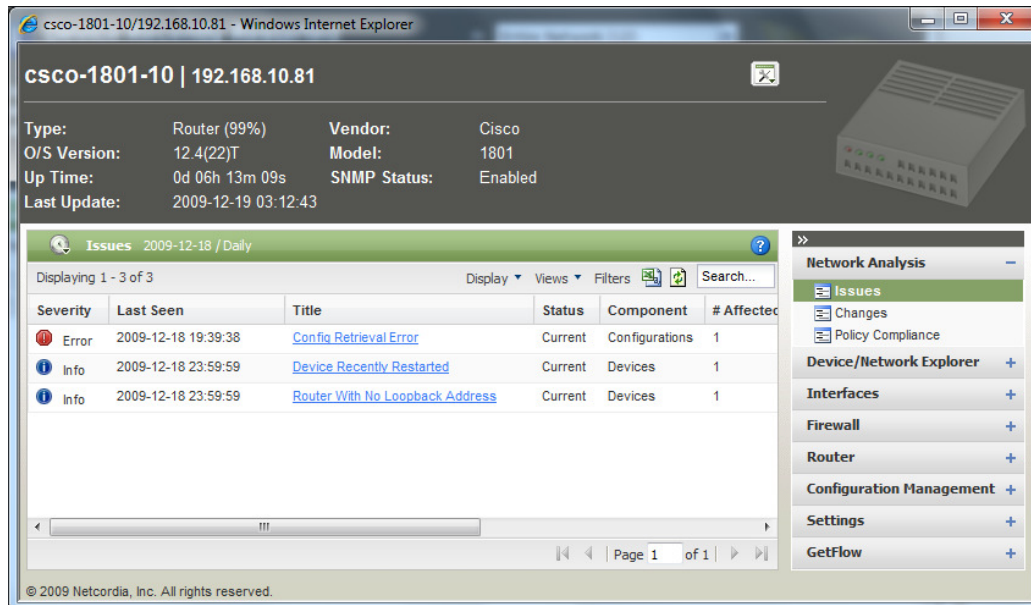
This Technical Tip or TechNote is provided as information only. I cannot make any guarantee, either explicit or implied, as to its accuracy to specific system installations / configurations. Readers should consult each Vendor for further information or support.

Although I believe the information provided in this document to be accurate at the time of writing, I reserve the right to modify, update, retract or otherwise change the information contained within for any reason and without notice. This technote has been created after studying the material and / or practical evaluation by myself. All liability for use of the information presented here remains with the user.

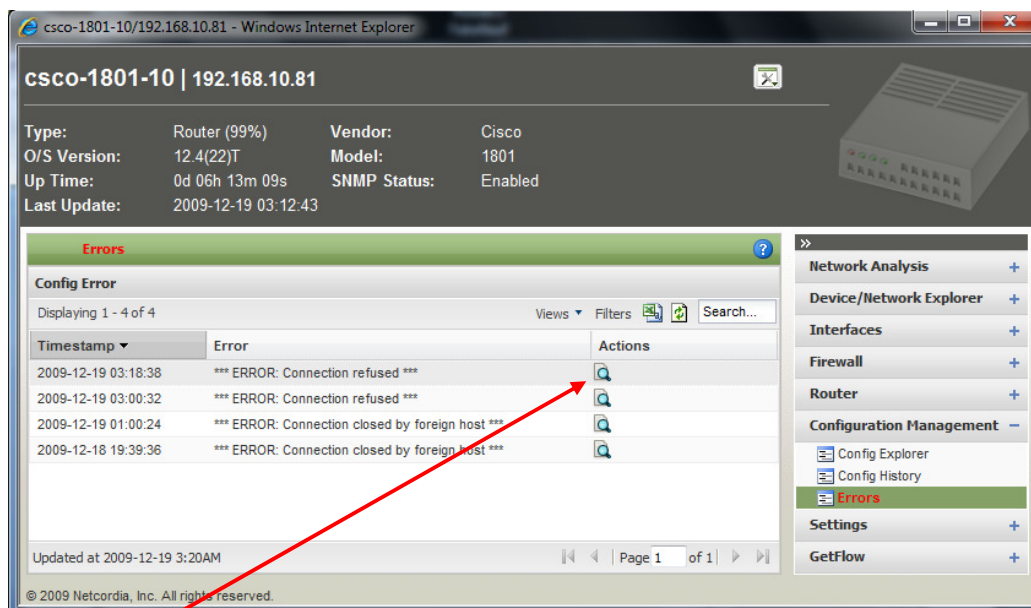
## Retrieve Cisco Router Configuration through Netcordia's NetMRI

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Next, I had the system doing its job and discover all my routers and some more hosts, I have added. However, when I tried to see the automatic configuration retrieval there has been an error displayed.



Checking the error log, it was telling me the reason why. The connection was refused.



By clicking on Actions, I could see the details.

**Config Error @ 2009-12-19 03:18:38**

```
ssh: connect to host 192.168.10.81 port 22: Connection refused
```

It seems that my router does not allow SSH connections.

## How to enable SSH on a Cisco Router ? -> here you go

First, you want to check whether SSH has already been enabled.

```
CSCO-1801-10# show ip ssh
SSH Disabled - version 1.99
```

If you see the result above it obviously means that SSH has not already been enabled on this device.

On with the configuration:

You will want to configure a hostname on your router. This will be performed in configuration mode. (note the prompt)

```
CSCO-1801-10# conf t
```

If you want to change the hostname, now it's the time to do so. Command would be `hostname Router1`  
I am not changing the hostname and will now configure a domain name for the device.

```
CSCO-1801-10(config)#ip domain-name bemsel.home
```

The domain name has been set. Now we want to generate a RSA key pair.

```
CSCO-1801-10(config)#crypto key generate rsa modulus 1024
```

Next we will set a timeout interval.

```
CSCO-1801-10(config)#ip ssh time-out 120
```

This will set a time limit of 120 seconds for the SSH session to negotiate. You can also set a maximum number of retry attempts in case of a failed negotiation.

```
CSCO-1801-10(config)#ip ssh authentication-retries 3
```

This will set the maximum amount of retries to 3. Once you've logged in and verified the connection is good you can disable telnet access.

```
CSCO-1801-10(config)#line vty 0 4
CSCO-1801-10(config)#transport input ssh
```

Finally, before you save the configuration you need to create a user being used for SSH access.

```
CSCO-1801-10(config)#aaa new-model
CSCO-1801-10(config)#aaa authentication login default local
CSCO-1801-10(config)#username netuser privilege 15 password nopell
CSCO-1801-10(config)#exit
```

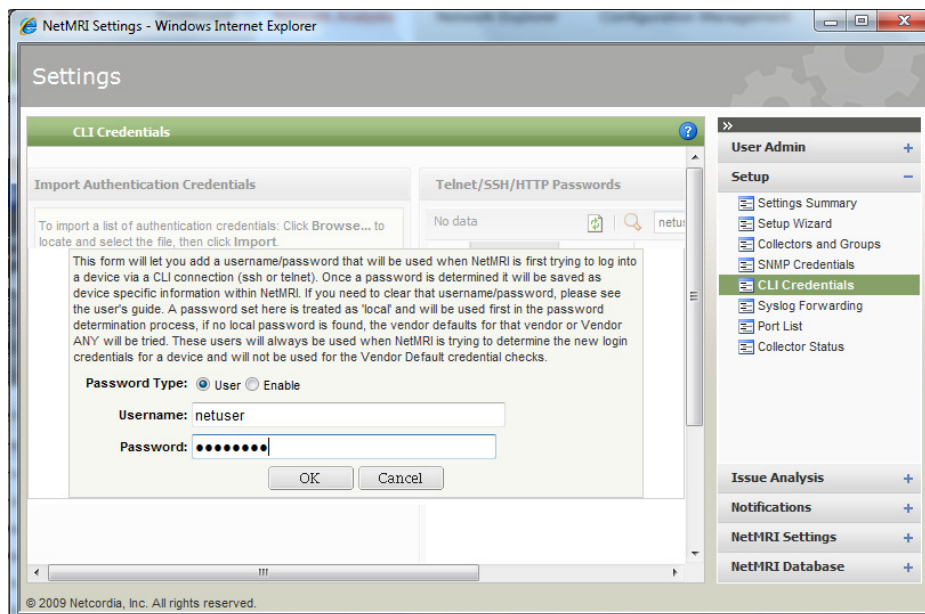
Now to save your configuration changes to the Cisco device, you want to save the running-config to the startup config.

```
CSCO-1801-10#write mem
```

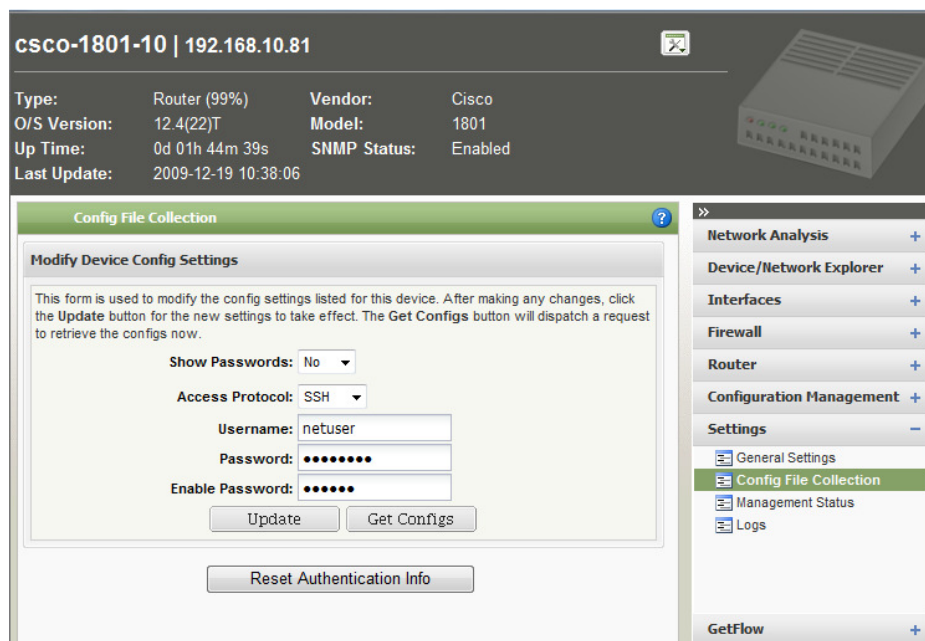
```
CSCO-1801-10#show ip ssh
SSH Enabled - version 1.99
Authentication timeout: 120 secs; Authentication retries: 3
Minimum expected Diffie Hellman key size : 1024 bits
```

## Tell NetMRI the new SSH credentials for the Cisco Router

This is the global settings

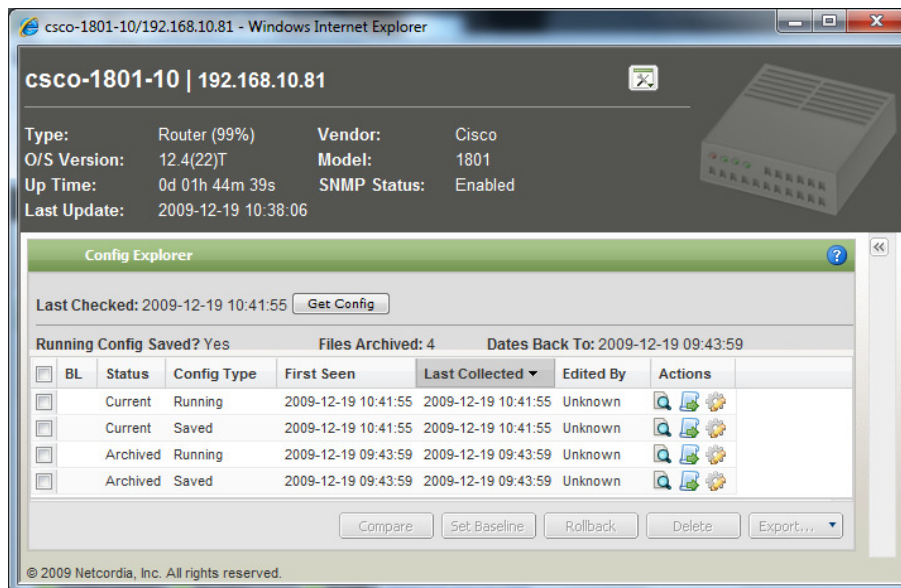



This is the router specific settings. If you have devices with different SSH users/passwords, than you can modify those device settings locally.

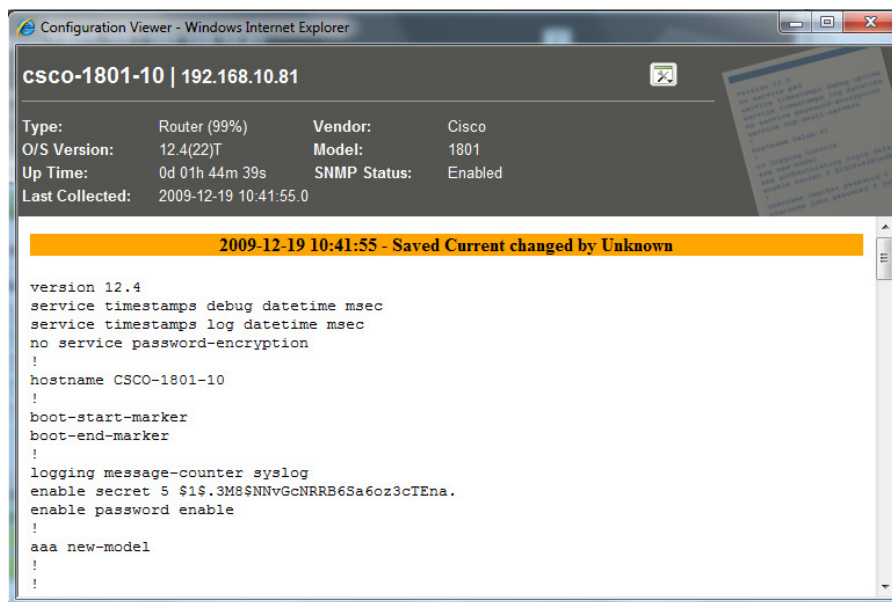




## Check the Configuration Files



Also, you can read the configuration files by clicking on  under Actions



Optional, you can also mark what configuration should be your baseline (BL) configuration.

