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# Mapping

*Release 1*

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<i>Mapping.build_ip_mac_dict</i> (tftp_Content)	Building Ip 2 @Mac dictionnarry from tftp boot server files (connected people).
<i>Mapping.get_content</i> (switch_name)	Get content from file since the switch_name argument.
<i>Mapping.write_in_tmp</i> (ip_switch)	Get SNMP informations and store it into the tmp file.
<i>Mapping.Get_switch_port_dict</i> (ip_switch)	Read the tmp file containing SNMP informations and sort and store them into a Dictionnary with form : @Mac : Hardware Port Number
<i>Mapping.Get_Port_and_GB</i> (ip_switch, Final_dict)	Populate the Final Dictionnary with Hardware Port Number values from Cisco SNMP Values (as verification of configuration...).
<i>Mapping.Cisco2Socket</i> (Cisco_name, *args)	Getting the exact Room Socket Name from the GigabitEthernet Triolet provided by Cisco informations.
<i>Mapping.update_Room_Sockets</i> (ip_switch, ...)	Updating the Room Sockets Name field of the Dictionary using the Cisco2Socket Procedure.



## MAPPING.BUILD\_IP\_MAC\_DICT

Mapping.**build\_ip\_mac\_dict**(*tftp\_Content*)

Building Ip 2 @Mac dictionnarry from tftp boot server files (connected people). We are getting the full connected Users Mac => IP dictionnary using regular expression :

- **[0-9a-z]{4}.**[0-9a-z]{4}.[0-9a-z]{4} : Give us the MAC adress since the tftpboot files
- **([0-9]/){2}[0-9]\*** : Give us the Hardware Cisco Port Number since the tftpboot files
- **d+.d+.d+.d+** : Give us the IP Adress since the tftpboot files

Parameters	Type	Description
<i>tftp_Content</i>	string	The tftpboot file raw content

**Returns** Dictionary : The dictionary with ip/mac correspondance





## MAPPING.GET\_CONTENT

Mapping.**get\_content**(*switch\_name*)

Get content from file since the *switch\_name* argument. This function read the file and store informations into the return value.

Parameters	Type	Description
<i>switch_name</i>	String	The exact <i>switch_name</i> from <i>switch_dict</i> keys

**Returns** String : The full Content of the file stored into a String Variable



## MAPPING.WRITE\_IN\_TMP

Mapping.**write\_in\_tmp**(*ip\_switch*)

Get SNMP informations and store it into the tmp file.

Parameters	Type	Description
<i>ip_switch</i>	String	The exact IP adress of the current switch

**Returns** None



## **MAPPING.GET\_SWITCH\_PORT\_DICT**

**Mapping.Get\_switch\_port\_dict**(*ip\_switch*)

Read the tmp file containing SNMP informations and sort and store them into a Dictionnary with form : @Mac  
: Hardware Port Number

<b>Parameters</b>	<b>Type</b>	<b>Description</b>
<i>ip_switch</i>	String	The exact IP adress of the current switch

**Returns** Dictionnary : The dictionnary associating a @mac to the hardware port number



## **MAPPING.GET\_PORT\_AND\_GB**

**Mapping.Get\_Port\_and\_GB**(*ip\_switch*, *Final\_dict*)

Populate the Final Dictionnary with Hardware Port Number values from Cisco SNMP Values (as verification of configuration...).

<b>Parameters</b>	<b>Type</b>	<b>Description</b>
<i>ip_switch</i>	String	The exact IP adress of the current switch
<i>Final_dict</i>	Dictionnary	The Final Dictionnary to be updated

**Returns** Dictionnary : The Final Dictionnary to be write updated





## MAPPING.CISCO2SOCKET

Mapping.**Cisco2Socket**(*Cisco\_name*, \**args*)

Getting the exact Room Socket Name from the GigabitEthernet Triolet provided by Cisco informations.

Parameters	Type	Description
<i>Cisco_name</i>	String	The exact name of the Switch
<i>args</i>	String	A long string containing all the Hardware Cisco Port Number separated with a space key

**Returns** List : A List containing all the Room Socket Exact Name



## MAPPING.UPDATE\_ROOM\_SOCKETS

Mapping.**update\_Room\_Sockets**(*ip\_switch*, *Final\_dict*)

Updating the Room Sockets Name field of the Dictionnary using the Cisco2Socket Procedure. Each Switch will be treated **independantly** from each others. It must be applied to each Switch to get the full Contents updated.

Parameters	Type	Description
<i>ip_switch</i>	String	The exact IP adress of the current switch
<i>Final_dict</i>	Dictionnary	The Final Dictionnary to be updated

**Returns** Dictionnary : The updated Dictionnary



## INDICES AND TABLES

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