SCOREF Management Module
Configuration and Configuration File Manual

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1. **Configuration File**
    SCOREF Management Module's (SCOREF-MGMT) configuration file is named by-default "MGMT.conf" and may be supplied as the first parameter to the SCOREF-MGMT binary as shown below:

    $ SCOREF-MGMT <configurationFile>

    Otherwise a configuration file with the default name will be looked for in the current directory.

    Parameters and values must adhere to following format for MGMT.conf file,

    <parameter> = <value>

    Example: CONF_SERVER_PORT = 1402

2. **Configuration File for FACilities**
    There may be more than one configuration file provided to MGMT module carrying configuration information for FACilities, and MGMT is going to traverse ./configuration/ directory's content upon its start and parse every configuration file found therein. Yet the format for configuration parameter and configuration value tuple is a little different than those defined in main configuration file MGMT.conf. The reason is the necessity of having/knowing configuration ID values for every configuration parameter (see continuous or bulk versions definition of CONFIGURATION_RESPONSE message defined elsewhere). Since we need to have a dynamic configuration file parsing ability, and since we need to incorporate any new/old/updated configuration items into the Management Information Base (MIB) I designed a specific format for FACilities configuration files where other developers can provide new configuration files to MGMT module that are completely unknown to it. In order to introduce a FACilities configuration file one has to name it adhering to following naming scheme,

    MGMT.<applicationName>.conf

    Then the content, that is to say configuration parameter and value tuples have to be given in the following format,

    <configurationParameterName>|<configurationParameterID> = <value>

where we already have configuration parameter ID so MGMT can build a CONFIGURATION_RESPONSE (continuous or bulk) packet, for example, without needing any further information. The only thing any developer who wants to introduce a configuration file to MGMT should be concerned is to adhere to the range that s/he creates configuration parameter IDs in. As an example, the configuration IDs of the sample configuration file I provided for IHM starts from 0xC100 and goes on up to 0xC116. Currently, I do not have a solution to keep different configuration ID spaces tidy for different FACilities since there may be a new facility configuration that MGMT introduced tomorrow. Apparently the best option is to have a common place for all configuration items like a Wiki page. Here is a sample for further reference on configuration file format, please notice that the configuration ID is in hexadecimal notation,

```
# IHM Configuration
MIB_MC002_GROUPNUM|0xC100 = 0
MIB_MC002_GROUP1|0xC101 = NULL
MIB_MC002_GROUP2|0xC102 = NULL
MIB_MC002_GROUP3|0xC103 = NULL
MIB_MC002_GROUPN|0xC104 = NULL

MIB_MC002_CRITICLIMIT|0xC105 = 15
MIB_MC002_PLUG|0xC106 = 1
MIB_MC002_VEHICLETYPE|0xC107 = 1
MIB_MC002_CHARGETYPE|0xC108 = 1
```

Contrary to GN configuration, there is more than one data type that may be supplied in a configuration file of some FACility, such as string and floating point types besides integer values. Float values may be provided as,

MIB_MC002_PI|0xC120 = 3.14

or a string value may be provided as follows, please notice that string value has to be given with quotes,

MIB_MC002_LANG|0xC121 = "en-us"

Finally, as a string value, NULL may be provided as above given in the sample and without quotes.

3. **Generic Configuration Parameters**
   Currently there are three generic configuration parameters which are used to set the port number of UDP server, and intervals for wireless state update and location update messages.

A snipped from the current version of configuration file showing these configuration items follows,

```
CONF_SERVER_PORT = 1402
CONF_WIRELESS_STATE_UPDATE_INTERVAL = 120
CONF_LOCATION_UPDATE_INTERVAL = 60;
```

4. **Management Information Base / Common Parameters**
Common parameters are for both Facilities and Networking and they have "MIB_GN_ALL_" prefix in their names.

5. **Management Information Base / Network Parameters**
Network parameters are present to set Networking configuration and they have "MIB_GN_NET_" prefix in their names.

6. **Management Information Base / Facilities Parameters**
See section 2.

7. **Communication Profiles**
Communication profile parameters adhere to the configuration parameter syntax mentioned in Section 1 but their value part is a complex value and can be comma and/or semicolon separated. This will be explained through the profiles defined in SCOREF-L221 section *4.1.3 Les Profils de Communication*.

CP1 = BTP,GN,ITSG5,CCH

This first communication profile has BTP as transport layer protocol, GN as network layer protocol, ITS G5 as access layer protocol, and CCH as channel, and all these configuration items are separated by a comma.

CP11 = TCP:UDP,IPv4/v6:DSMIPv4/v6,3G

This eleventh communication profile has both TCP and UDP as transport layer protocols, IPv4/v6 and DSM IPv4/v6 as network layer protocols, and 3G as access layer protocol. So as seen here, each profile's layer information is comma-separated, but each layer's protocol information is semi-colon separated. Leaving spaces around comma and semi-colon characters will cause syntax errors.

All the strings necessary to define a communication profile is given below,

Transport	Network	Access	Channel
BTP_A	GN	ITSG5	CCH
BTP_B	IPv6_GN	3G	SCH1
TCP	IPv6	11n	SCH2
UDP	IPv4	Ethernet	SCH3
RTP	IPv4/v6		SCH4
STCP	DSMIPv4/v6		

Please refer to SCOREF-L221 file for further reference.

8. **Version History**
   1. Initial version (06/07/2012)
   2. FACilities configuration file format definition added (11/10/2012)