VSIF	Description	Default Value	Format	Comments	Provisioning Modes Supported
4	Enable Access Protection Feature settings via Web Wizard	0	decimal	The field enables the subscriber to use the CM Access Protection feature via the Web Wizard 0 (disable CM Access Protection feature)(Default) 1 (enables subscriber to turn on CM Access Protection feature from Web Wizard)	ALL
5	Ethernet Mode	0	decimal	The value field contains the CM's Ethernet operating mode. This is used to decide the CM's Ethernet operating mode. 0 (Auto-Negotiation)(Default) 1 (10-Mbps/Half-duplex) 2 (10-Mbps/Full-duplex) 3 (100-Mbps/Half-duplex) 4 (100-Mbps/Full-duplex)	ALL
6	Enable Access Protection Feature and set mode	1.00	decimal. decimal (mode. timeout)	The value is used to enable the Cable Modem Access Protection modes to protect the CPE PC from Network Traffic. In "Auto" mode this field is also used to set the timeout period before the modem will go back to "protect" mode. When CM access protection is enabled, when the CPE is not transmitting data the data communications from the network side of the cable modem to the CPE will be blocked. When the CPE sends new traffic communications form the network side of the cable modem is enabled unit a timeout is reached. Each time the CPE sends new traffic the timeout period is restarted. If the timeout period is reached and no CPE traffic has been sent, communications from the network side is blocked again. The timeout period is specified in minutes (Minimum is 1 minute, Maximum is 255 minutes) Example: 1.00: Disable Protection (Default) 2.00: Always protect - block all upstream packets 3.05 Auto Protect - block all packets to PC after 5 second timeout with no traffic from PC	ALL
7	Web Wizard Access Control	0	decimal	If Web Access is enabled (see below) there are three operating modes to control WEB access after CM registration: 0 (No CPE access after registration)(Default) 1 (Restricted access after registration, only the "System" page can be accessed) 2 (All pages can be accessed after registration)	ALL
10	Cable Modem Certificate TFTP Server IP	0.0.0.0	IP Address hex.hex. hex.hex	This setting is used to set the IP address of a TFTP server used to download new Cable Modem digital certificates to the EMTA. Example: c0.a8.10.23 = 192.168.16.35	ALL
11	Web Wizard Disable	0	decimal	This setting disables the Web Wizard from access by both CPE and RF interfaces 0: (Web Wizard enable)(Default) 1: (Web Wizard disable)	ALL
16	Certificate Download Action Flag				
17	MTA Certificate - TFTP Server IP	0.0.0.0	IP Address hex.hex. hex.hex	This setting is used to set the IP address of a TFTP server used to download new MTA digital certificates to the EMTA. Example: c0.a8.10.23 = 192.168.16.35	ALL
18	MTA Certificate Date	None	hex.hex. hex.hex	This field is used to load new MTA certificates if the previous MTA certificates were loaded before the date/time specified in this field. When MTA certificates are loaded the current date/time is saved with the certificates. To re-load certificates one additional time specify this VSIF to be the current system date/time and reboot the EMTA. New certificates will be loaded and the new certificate loading date/time will be updated in the EMTA. Future reboots will not reload certificates unless the value in this VSIF is changed. To force certificate installation at boot time specify FF.FF.FF.FF. This value will cause MTA certificate to be loaded each time the EMTA is re-booted. The format is Year, Month, Day, Hour: Example 02.11.20.00 Load new certificate if the previous certificates were loaded before 2002, November, 20, 00 hour.	ALL
19	MTA Service Provider Root Certificate - File Name	None	ASCII string (up to 31 chars)	Normally using VSIF 17 and 18 all MTA certificates are loaded into the EMTA including MTA device certificate, MTA Manufacturer Certificates"Scie.MTA.CA.cer" and the Telephone Service Provider Root CA "Tele.Root.CA.cer". To only download a new Telephone Service Provider Root CA use this VSIF and specify the file name of Telephone Service Provider Root CA certificate to install. VSIFs 17, 18 are still used to specify the server IP address and loading date. Up to 31 characters can be used in VSIF 19.	ALL
20	Cable Modem Certificates - Certificate Date	None	hex.hex. hex.hex	This field is used to load new Cable Modem certificates from the server specified with VSIF 10, if the previous CM certificates were loaded before the date/time specified in this field. When CM certificates are loaded the current date/time is saved with the certificates. To re-load certificates one additional time specify this VSIF to be the current system date/time and reboot the modem. New certificates will be loaded and the new certificate loading date/time will be updated in the modem. Future reboots will not reload certificates unless the value in this VSIF is changed. To force certificate installation at boot time specify FF.FF.FF.FF. This value will cause modem certificates to be loaded each time the EMTA is re-booted. The format is Year, Month, Day, Hour: Example 02.11.20.00 Load new certificate if the previous certificates were loaded before 2002, November, 20, 00 hour.	ALL
21	Call Agent IP address or FQDN	ca@[0.0.0.0]	ASCII String	Specifies the IP Address or FQDN of the Call Agent. If IP format is used, "[" and "] " MUST be included. Example: ca@mso.net ca@[10.10.10.1]	Mode 1 only
22	Client Receive Port Number	2427	hex.hex	The UDP port number to receive MGCP/NCS messages from the Call Agent. 2427 is expressed as hex.hex (18.1b)	Mode 1 only
23	Call Agent Receive Port Number	2727	hex.hex	The UDP port number for the call agent to receive MGCP/NCS traffic from the MTA. 2727 is expressed as hex.hex (1b.1b)	Mode 1 only
24	Call Agent ID	5	decimal	0: Undefined 1: Broadcom simple call agent or generic NCS call agent 2: Sonus 3: TollBridge 4: Syndeo 5: Standard PacketCable Call Agent (Default) 6: Commatch 7: General Bandwidth 8: Nuera v5.2 gateway Call Agent	ALL
25	Provisioning Mode	0	decimal	0: Full PacketCable Secure Provisioning 1: Single DOCSIS config file provisioning of CM and MTA 2: Dual File Provisioning using both DOCSIS and MTA config files without Kerberos Security	ALL
26	DQOS Mode	0	decimal	This setting controls the DQOS mode used for RTP/RTCP voice traffic 0 (default value): Use DQoS for both upstream and downstream. 1: Use Best Effort service for both upstream and downstream 2: Use DQoS for upstream traffic, use Best Effort for downstream traffic	ALL
27	Line1 Disable	0	decimal	Enable/Disable Per Endpoint by CM config file VSIF 0: Enable 1: Disable telephone line 1 Note: Endpoints that are not provisionined in the call agent should be disabled to prevent RSIP message traffic for the endpoint.	ALL
28	Line2 Disable	0	decimal	Enable/Disable Per Endpoint by CM config file VSIF 0: Enable (Default) 1: Disable telephone line 2 Note: Endpoints that are not provisionined in the call agent should be disabled to prevent RSIP message traffic for the endpoint.	ALL
29	Enable RTP PHS	0	decimal	Enable Payload Header Suppression for upstream RTP traffic 0: Disable (Default) 1: Enable Note: PHS is not supported by all CMTS vendors	ALL
30	CPE Data Enable	1	decimal	Control access to subscriber data services via Ethernet and USB 1:Enable (Default) 0:Disable	ALL
34	Disable Echo Cancellation	0	decimal	Enable/Disable echo cancellation for all calls 0: Enable (Default) 1: Disable	ALL
35	Max RTCP Gap	0	decimal	This setting is used to detect that RTP packets have not been received for a timeout period. If the timeout period is reached and no RTCP packets have been received, the calls will be disconnected. This feature can be used to stop billing for an abnormally terminated call. 0 indicates that this feature is disabled. 1-9 indicates number of seconds of no RTCP packets to force disconnect	ALL
36	Set A Law CODEC as default	0	decimal	Set which G.711 companding law should be used. 0: PCMU(u-Law)(Default) 1: PCMA(a-Law)	ALL
37	Disable DTMF relay	1	decimal	In band DTMF tone transmission 0 : Disable (Filter DTMF tones and use DTMF relay via MGCP)Out of Band 1: Enable (Send DTMF tones)(Default)In band	ALL
38	Allow software download without CVC	0	decimal	0: Restrict software downloads and don't accept un-signed images without CVC (Default) 1: allow software download without CVC (as in DOCSIS 1.0),	ALL
51	TOS Value for MGCP/NCS	0	Hex	6 bit field to set the value of the diff-serve byte for transmitted MGCP packets To set the diff-serve byte to 0x80 in outgoing packets, set this field to 0x20 0x80 = 1000 0000 (binary)	ALL
52	TOS Value for RTP	28	Hex	6 bit field to set the value of the diff-serve byte for transmitted RTP packets To set the diff-serve byte to 0xA0 in outgoing packets, set this field to 0x28 0xA0 = 1010 0000 (binary)	ALL

53	TOS Value for RTCP	0	Hex	6 bit value to set the value of the diff-serve byte for transmitted RTP packets To set the diff-serve byte to 0xA0 in outgoing packets, set this field to 0x28 0xA0 = 1010 0000 (binary)	ALL
54	MTA Disable	0		This setting is used to disable the MTA function and use the EMTA as a data only modem. 0: Enable (Default) 1: Disable	None - Disables MTA
55	Hook Flash Minimum detection time	40ms (00.28)	Hex.Hex	Minimum time in milliseconds to detect hook flash. Shorter loop current breaks will be ignored. Hex.Hex (=Hex*100+Hex) ; EX. 1210ms = (0c.0a)	ALL
56	Hook Flash Maximum detection time	250ms (02.32)	Hex.Hex	Maximum time in milliseconds to detect hook flash. Longer loop current breaks will be interpreted as on-hook. Hex.Hex (=Hex*100+Hex) ; EX. 1210ms = (0c.0a)	ALL
59	Max Call Agent disconnects to ignore	0	decimal	When a call agent does not respond to MGCP/NCS messages, several retries and timeout periods are used to try to reestablish communications. If all retries fail and no backup call agent is available the call agent is declared unreachable. This setting is used to specify the number of times to ignore an unreachable Call Agent before disconnecting a telephone line and recovering resources and existing DQOS sessions. Example: 0: (Default) Once all retries are exhausted on a call agent and it is declared un-reachable, disconnect any existing telephone call in progress on this endpoint, recover resources and tear down DQOS sessions. 2: Ignore the first 2 times that the call agent becomes un-reachable and continue any phone calls in progress on this endpoint while attempting to reestablish communications with the call agent.	ALL
60	R0 Cadence	Use PacketCable MIB definition (2000mS ON, 4000mS OFF)	hex string	DESCRIPTION "This object represents a ring cadence in bit string format to define the cadence for R0. The ring cadence representation starts with the first 1 in the pattern (the leading 0s in the MSB are padding and are to be ignored). Each bit represents 100ms of tone; 1 is tone, 0 is no tone. 60 bits are used for cadence representation, LSB 4 bits are used for representing repeatable characteristics. 0000 means repeatable, and 1000 means non repeatable. Example: The hex representation of a ring cadence of	ALL
61	Rg Cadence	Use PacketCable MIB definition (2000mS ON, 4000mS OFF)	hex string	Ring cadence for Rg. Uses same format as R0 cadence	ALL
62	Log Control	0	decimal	0: Depends on the current setting of the cwizard.htm web page for access to the Console port 1 – Enable console port for Write access 2 – Disable console port (no access)	ALL
63	MediaSecDisable	0	decimal	Use to disable Media Security for Voice Calls 0: Enabled if supported by Call Agent (Default) 1: Media Security Disabled	ALL
64	Set DHCP Requirements	3	decimal	This VSIF is used to allow the MTA to be enabled when the Cable Modem accepts a DHCP offer without the PacketCable DHCP option (122). If the first 3 DHCP offers do not contain the Pktc option these DHCP offers will be rejected to comply with the PacketCable spec. If the 4th DHCP offer does not contain option 122 it will be accepted by the Cable Modem. Normally the CM will disable the MTA if the CM accepts a DHCP offer without the Pktc option. If this VSIF parameter is set to 1 or 2, the CM will allow the MTA to operate without the Pktc DHCP option 122. This mode will allow the EMTA to operate with provisioning servers that do not support option 122. This VSIF parameter is stored in the modem in NonVol memory and becomes the default for operation during the next boot time. 0: Require Pktc DHCP option 122. Disable MTA if 4 DHCP offers to the CM do not contain the Pktc DHCP option 122. 1: Enable MTA without the Pktc option. (The Initial boot will require 4 DHCP offers to comply with the PacketCable spec) 2: Require old Pktc DHCP option (177) (The initial boot will require 4 DHCP offers to comply with the PacketCable spec) 3: Determined by ProvType(VSIF-25) , this is for backward compatible and default setting. If VSIF-25=0 , the this VSIF is set automaticlly as 0. This is for current PacketCable Spec. If VSIF-25 is 1 or 2 , the this VSIF is set automaticlly as 1 for minimun requirement for DHCP options.	ALL
57	Tx Audio Volume	???		Set the telephone line audio volume transmitted to the local user.	ALL
6?	LCS/RFC2833	???		Enable LCS/RFC2833 support	ALL
67	Telephone Line Parameters	0: DPX2203 6: EPX2203	decimal	Set country specific telephone line parameters: 0: NORTH_AMERICA (DPX2203 default) 1: JAPAN 2. UK 3: SWEDEN 4: GERMANY 5: FRANCE 6: TR57 (EPX2203 default) 7: BELGIUM 8: FINLAND 9: ITALY 10: SWISS	ALL
68	Dial Pulse Detection	0	decimal	0: Disable 1: Enable	ALL
69	Max CPE Definition	0		VSIF to not count MTA in Max-Count of CPEs (Time Warner Requirement) 0 – Count MTA as a CPE (default) 1 – Do not count MTA as a CPE	
70	Enforce RFC2833	0	decimal	0 - Use LocalconnectionOptions to enable DTMF relay 1 - Force enable of in-band RTP signaling without LocalConnectionOptions , this use 144,149,159 three events as default.	ALL
71	Config Gate-ID usage in DQoS	0	decimal	0: Use the gate-id base on the configuration of provisioning mode.(default) GateID should default to enabled in mode 0 and default to disabled in mode 1 and 2. 1: Enforce the gate-id to create the DQoS. 2: Don't care the gate-id to create the DQoS. Will use gate-id if it is present , else create the DQoS without the gate-id	ALL
72	DOCSIS1.0+ mode enable	0	decimal	0: Disable Docsis1.0+ mode. 1 : Enable Docsis1.0+ mode. This enable will be ignored if the CM configuration file is DOCSIS1.1.	ALL
73	PacketCable Spec compliant (DQOS.NCS.PROV.CODEC.SEC)	0.0.0.0.0	decimal	0: Determined by ProvType.(backward compatible) This mode is designed for backward compatible.If ProvType is 0 , then it will follow PacketCable , the behavior is exactly the same as VSIF-73 is 1.If ProvType is 1 or 2 , then it will use the experience value , the behavior is exactly the same as VSIF-73 is 2. 1 : All follow the PacketCable Spec. 2: Field-ID1(Base on the past experience in the field. MayAdd more extra Field-ID for future field trial.). The parameters list : DqoS : Max DS sustained rate(256k) DqoS : Min DS reserved rate(256k) DqoS : US tolerated grant jitter(5000us) DqoS : US tolerated polling jitter(5000us) DqoS : US nominal polling interval (period*1000us) NCS : provisional response enable(NO) NCS : b:AS parsing(NO) NCS : MWD(Set by VSIF-65) PROV : FQDN Format check(NO)	ALL
74	Best Effort Transferrable if SF failure	0	decimal	0 : no switch to BE if UGS fails. 1: allow to switch to primary SF.	ALL
101	Web page password	string	ASCII	Set the password for all web pages with password. If this is different from the previous password, this password is stored in non-vol memory	ALL
106	Telnet Control			Support VSIF number 106 and cwizard.htm page to enable Telnet and console port. (default is - depend on cwizard.htm) 0 - Depends on cwizard.htm page for access to Telnet and console port. (default) Store cwizard.htm setting in NonVol 1 - Enable console port and Telnet for Write access 2 - Disable console port and telnet (no access)	ALL
107	Telnet user name	string	ASCII	set Telnet user name	ALL
108	Telnet Password	string	ASCII	set Telnet password	ALL