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## **Physical Computer System View Profile**

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## Foreword

109 The *Physical Computer System View Profile* (DSP1108) was prepared by the Server Desktop Mobile  
110 Platforms Working Group of the DMTF.

111 DMTF is a not-for-profit association of industry members dedicated to promoting enterprise and systems  
112 management and interoperability. For information about the DMTF, see <http://www.dmtf.org>.

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123

124

## Introduction

125 The information in this specification should be sufficient for a provider or consumer of this data to identify  
126 unambiguously the classes, properties, methods, and values that shall be instantiated and manipulated to  
127 represent and manage a physical computer system and its associated management information.

128 The target audience for this specification is implementers who are writing CIM-based providers or  
129 consumers of management interfaces that represent the components described in this document.

### 130 Document conventions

#### 131 Typographical conventions

132 The following typographical conventions are used in this document:

- 133 • Document titles are marked in *italics*.
- 134 • Important terms that are used for the first time are marked in *italics*.
- 135 • Terms include a link to the term definition in the "Terms and definitions" clause, enabling easy  
136 navigation to the term definition.
- 137 • ABNF rules are in `monospaced font`.

#### 138 ABNF usage conventions

139 Format definitions in this document are specified using ABNF (see [RFC5234](#)), with the following  
140 deviations:

- 141 • Literal strings are to be interpreted as case-sensitive Unicode characters, as opposed to the  
142 definition in [RFC5234](#) that interprets literal strings as case-insensitive US-ASCII characters.

143

# Physical Computer System View Profile

## 144 1 Scope

145 The *Physical Computer System View Profile* describes a view of the management capability of  
146 referencing profiles by adding the capability to represent a physical computer system view of a managed  
147 computer system. This profile includes a specification of the physical computer system view, extrinsic  
148 methods for management operations, and its associated relationships to referencing profiles. This profile  
149 is not intended to provide all details of referenced profiles.

## 150 2 Normative references

151 The following referenced documents are indispensable for the application of this document. For dated or  
152 versioned references, only the edition cited (including any corrigenda or DMTF update versions) applies.  
153 For references without a date or version, the latest published edition of the referenced document  
154 (including any corrigenda or DMTF update versions) applies.

155 DMTF DSP0004, *CIM Infrastructure Specification 2.6*,  
156 [http://www.dmtf.org/standards/published\\_documents/DSP0004\\_2.6.pdf](http://www.dmtf.org/standards/published_documents/DSP0004_2.6.pdf)

157 DMTF DSP0200, *CIM Operations over HTTP 1.3*,  
158 [http://www.dmtf.org/standards/published\\_documents/DSP0200\\_1.3.pdf](http://www.dmtf.org/standards/published_documents/DSP0200_1.3.pdf)

159 DMTF DSP0223, *Generic Operations 1.0*,  
160 [http://www.dmtf.org/standards/published\\_documents/DSP0223\\_1.0.pdf](http://www.dmtf.org/standards/published_documents/DSP0223_1.0.pdf)

161 DMTF DSP1001, *Management Profile Specification Usage Guide 1.0*,  
162 [http://www.dmtf.org/standards/published\\_documents/DSP1001\\_1.0.pdf](http://www.dmtf.org/standards/published_documents/DSP1001_1.0.pdf)

163 DMTF DSP1009, *Sensors Profile 1.0*,  
164 [http://dmtof.org/sites/default/files/standards/documents/DSP1009\\_1.0.pdf](http://dmtof.org/sites/default/files/standards/documents/DSP1009_1.0.pdf)

165 DMTF DSP1009, *Sensors Profile 1.1*,  
166 [http://dmtof.org/sites/default/files/standards/documents/DSP1009\\_1.1.pdf](http://dmtof.org/sites/default/files/standards/documents/DSP1009_1.1.pdf)

167 DMTF DSP1010, *Record Log Profile 1.0*,  
168 [http://www.dmtf.org/sites/default/files/standards/documents/DSP1010\\_1.0.pdf](http://www.dmtf.org/sites/default/files/standards/documents/DSP1010_1.0.pdf)

169 DMTF DSP1010, *Record Log Profile 2.0*,  
170 [http://www.dmtf.org/sites/default/files/standards/documents/DSP1010\\_2.0.pdf](http://www.dmtf.org/sites/default/files/standards/documents/DSP1010_2.0.pdf)

171 DMTF DSP1011, *Physical Asset Profile 1.0*,  
172 [http://www.dmtf.org/sites/default/files/standards/documents/DSP1011\\_1.0.pdf](http://www.dmtf.org/sites/default/files/standards/documents/DSP1011_1.0.pdf)

173 DMTF DSP1012, *Boot Control Profile 1.0*,  
174 [http://dmtof.org/sites/default/files/standards/documents/DSP1012\\_1.0.pdf](http://dmtof.org/sites/default/files/standards/documents/DSP1012_1.0.pdf)

175 DMTF DSP1022, *CPU Profile 1.0*,  
176 [http://dmtof.org/sites/default/files/standards/documents/DSP1022\\_1.0.pdf](http://dmtof.org/sites/default/files/standards/documents/DSP1022_1.0.pdf)

177 DMTF DSP1023, *Software Inventory Profile 1.0*,  
178 [http://dmtof.org/sites/default/files/standards/documents/DSP1023\\_1.0.pdf](http://dmtof.org/sites/default/files/standards/documents/DSP1023_1.0.pdf)

- 179 DMTF DSP1025, *Software Update Profile 1.0*,  
180 [http://dmtf.org/sites/default/files/standards/documents/DSP1025\\_1.0.pdf](http://dmtf.org/sites/default/files/standards/documents/DSP1025_1.0.pdf)
- 181 DMTF DSP1026, *System Memory Profile 1.0*,  
182 [http://dmtf.org/sites/default/files/standards/documents/DSP1026\\_1.0.pdf](http://dmtf.org/sites/default/files/standards/documents/DSP1026_1.0.pdf)
- 183 DMTF DSP1029, *OS Status Profile 1.0*,  
184 [http://dmtf.org/sites/default/files/standards/documents/DSP1029\\_1.0.pdf](http://dmtf.org/sites/default/files/standards/documents/DSP1029_1.0.pdf)
- 185 DMTF DSP1029, *OS Status Profile 1.1*,  
186 [http://dmtf.org/sites/default/files/standards/documents/DSP1029\\_1.1.pdf](http://dmtf.org/sites/default/files/standards/documents/DSP1029_1.1.pdf)
- 187 DMTF DSP1033, *Profile Registration Profile 1.0*,  
188 [http://www.dmtf.org/standards/published\\_documents/DSP1033\\_1.0.pdf](http://www.dmtf.org/standards/published_documents/DSP1033_1.0.pdf)
- 189 DMTF DSP1052, *Computer System Profile 1.0*,  
190 [http://www.dmtf.org/sites/default/files/standards/documents/DSP1052\\_1.0.pdf](http://www.dmtf.org/sites/default/files/standards/documents/DSP1052_1.0.pdf)
- 191 DMTF DSP1085, *Power Utilization Management Profile 1.0*,  
192 [http://dmtf.org/sites/default/files/standards/documents/DSP1085\\_1.0.pdf](http://dmtf.org/sites/default/files/standards/documents/DSP1085_1.0.pdf)
- 193 IETF RFC5234, *ABNF: Augmented BNF for Syntax Specifications, January 2008*,  
194 <http://tools.ietf.org/html/rfc5234>
- 195 ISO/IEC Directives, Part 2, *Rules for the structure and drafting of International Standards*,  
196 <http://isotc.iso.org/livelink/livelink.exe?func=ll&objId=4230456&objAction=browse&sort=subtype>
- 197

### 198 3 Terms and definitions

199 In this document, some terms have a specific meaning beyond the normal English meaning. Those terms  
200 are defined in this clause.

201 The terms "shall" ("required"), "shall not," "should" ("recommended"), "should not" ("not recommended"),  
202 "may," "need not" ("not required"), "can" and "cannot" in this document are to be interpreted as described  
203 in [ISO/IEC Directives, Part 2](#), Annex H. The terms in parenthesis are alternatives for the preceding term,  
204 for use in exceptional cases when the preceding term cannot be used for linguistic reasons. Note that  
205 [ISO/IEC Directives, Part 2](#), Annex H specifies additional alternatives. Occurrences of such additional  
206 alternatives shall be interpreted in their normal English meaning.

207 The terms "clause," "subclause," "paragraph," and "annex" in this document are to be interpreted as  
208 described in [ISO/IEC Directives, Part 2](#), Clause 5.

209 The terms "normative" and "informative" in this document are to be interpreted as described in [ISO/IEC](#)  
210 [Directives, Part 2](#), Clause 3. In this document, clauses, subclauses, or annexes labeled "(informative)" do  
211 not contain normative content. Notes and examples are always informative elements.

212 The terms defined in [DSP0004](#), [DSP0223](#), [DSP1001](#), and [DSP1033](#) apply to this document. The  
213 following additional terms are used in this document..

#### 214 3.1

##### 215 **conditional**

216 indicates requirements to be followed strictly to conform to the document when the specified conditions  
217 are met



- 218 **3.2**  
219 **mandatory**  
220 indicates requirements to be followed strictly to conform to the document and from which no deviation is  
221 permitted
- 222 **3.3**  
223 **optional**  
224 indicates a course of action permissible within the limits of the document
- 225 **3.4**  
226 **referencing profile**  
227 indicates a profile that owns the definition of this class and can include a reference to this profile in its  
228 "Referenced Profiles" table
- 229 **3.5**  
230 **unspecified**  
231 indicates that this profile does not define any constraints for the referenced CIM element or operation

## 232 **4 Symbols and abbreviated terms**

233 The abbreviations defined in [DSP0004](#), [DSP0223](#), and [DSP1001](#) apply to this document. The following  
234 additional abbreviations are used in this document.

- 235 **4.1**  
236 **BIOS**  
237 Basic Input Output System
- 238 **4.2**  
239 **EFI**  
240 Extensible Firmware Interface
- 241 **4.3**  
242 **FRU**  
243 Field Replaceable Unit
- 244 **4.4**  
245 **SKU**  
246 Stock Keeping Unit  
247

## 248 5 Synopsis

249 **Profile name:** Physical Computer System View

250 **Version:** 1.0.1a

251 **Organization:** DMTF

252 **CIM schema version:** 2.36

253 **Central class:** CIM\_PhysicalComputerSystemView

254 **Scoping class:** CIM\_ComputerSystem

255 The *Physical Computer System View Profile* extends the management capability of referencing profiles  
 256 by adding the capability to represent a physical computer system view of a managed computer system.  
 257 This profile includes a specification of the physical computer system view, extrinsic methods for  
 258 management operations, and its associated relationships to referencing profiles.

259 Table 1 identifies profiles on which this profile has a dependency.

260

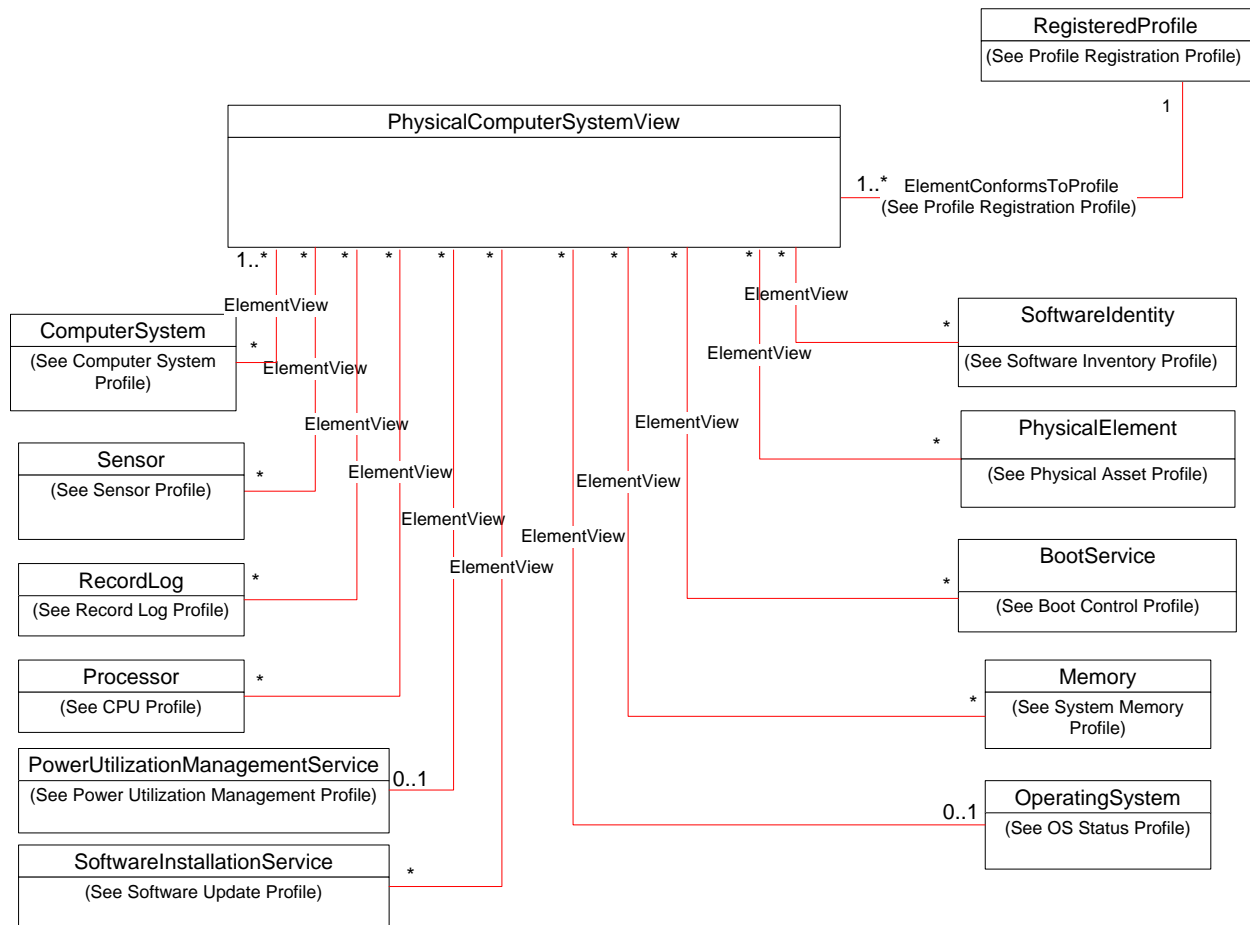
**Table 1 – Referenced profiles**

Profile Name	Organization	Version	Requirement	Description
Profile Registration	DMTF	1.0	Mandatory	None
Computer System	DMTF	1.0	Optional	None
Power Utilization Management	DMTF	1.0	Optional	None
Sensors	DMTF	1.0	Optional	None
Sensors	DMTF	1.1	Optional	None
Record Log	DMTF	1.0	Optional	None
Boot Control	DMTF	1.0	Optional	None
Software Inventory	DMTF	1.0	Optional	None
System Memory	DMTF	1.0	Optional	None
Physical Asset	DMTF	1.0	Optional	None
OS Status	DMTF	1.0	Optional	None
OS Status	DMTF	1.1	Optional	None
CPU	DMTF	1.0	Optional	None
Software Update	DMTF	1.0	Optional	None

261 **6 Description**

262 The *Physical Computer System View Profile* describes a physical computer system and associated  
 263 management information in a managed computer system.

264 Figure 1 represents the class schema for the *Physical Computer System View Profile*. For simplicity, the  
 265 CIM\_ prefix has been removed from the names of the classes.



266

267 **Figure 1 – Physical Computer System View Profile: Class diagram**

268 **7 Implementation**

269 This clause details the requirements related to the arrangement of instances and properties of instances  
 270 for implementations of this profile.

271 **7.1 Representing a physical computer system view**

272 A view of the managed computer system shall be represented by an instance of  
 273 CIM\_PhysicalComputerSystemView. The properties of the instance of  
 274 CIM\_PhysicalComputerSystemView shall reflect the current state and configuration of a managed  
 275 computer system conforming to the referenced profiles. When the ImplementedFeatures property of the  
 276 CIM\_RegisteredProfile instance contains the value listed in Table 2 below, the corresponding

277 CIM\_PhysicalComputerSystemView property shall conform to requirements for the corresponding  
278 property listed in the table as specified by the referenced profile.

### 279 **7.1.1 Representing information from multiple instances of the same class**

280 A subset of properties for CIM\_PhysicalComputerSystemView may represent information from multiple  
281 instances of same class. Indexed Arrays are used in CIM\_PhysicalComputerSystemView for such  
282 properties. The value in the array correspondence column in Table 2 identifies the class whose multiple  
283 instances are represented by the corresponding array property in CIM\_PhysicalComputerSystemView.

#### 284 **7.1.1.1 Properties of each instance**

285 The same index in properties with array correspondence with the same class shall represent a view of a  
286 single instance of that class.

#### 287 **7.1.1.2 Property correspondence**

288 The elements of properties with array correspondence with a class shall correspond to the respective  
289 properties of the corresponding instance of that class as in Table 2.

#### 290 **7.1.1.3 Matching property values to normalized instances**

291 For all properties with array correspondence with a class as in Table 2, the value at each index shall  
292 match the value of the corresponding property of the corresponding instance of that class.

**Table 2 – CIM\_PhysicalComputerSystemView property model correspondence**

Implemented Feature Value	CIM_Physical ComputerSystem View Property	Origin Class/Property or Model Correspondence	Referenced Profile
DMTF:Physical AssetView	FRUInfoSupported	CIM_PhysicalAssetCapabilities.FRUInfoSupported for CIM_Chassis	<a href="#">DSP1011 1.0</a> Clause 10.2
	Tag	CIM_Chassis.Tag	<a href="#">DSP1011 1.0</a> Clause 10.2
	Manufacturer	CIM_Chassis.Manufacturer	<a href="#">DSP1011 1.0</a> Clause 10.2
	Model	CIM_Chassis.Model	<a href="#">DSP1011 1.0</a> Clause 10.2
	SKU	CIM_Chassis.SKU	<a href="#">DSP1011 1.0</a> Clause 10.2
	SerialNumber	CIM_Chassis.SerialNumber	<a href="#">DSP1011 1.0</a> Clause 10.2
	Version	CIM_Chassis.Version	<a href="#">DSP1011 1.0</a> Clause 10.2
	PartNumber	CIM_Chassis.PartNumber	<a href="#">DSP1011 1.0</a> Clause 10.2
DMTF:CPUView	NumberOfProcessors	Number of CIM_Processor instances associated to associated CIM_ComputerSystem	<a href="#">DSP1022 1.0</a> Clause 10.11
	NumberOfProcessor Cores	CIM_ProcessorCapabilities.NumberOfProcessorCores	<a href="#">DSP1022 1.0</a> Clause 10.12
	NumberOfProcessor Threads	CIM_ProcessorCapabilities.NumberOfHardwareThreads	<a href="#">DSP1022 1.0</a> Clause 10.12
	ProcessorFamily	CIM_Processor.Family	<a href="#">DSP1022 1.0</a> Clause 10.11
	ProcessorCurrent ClockSpeed	CIM_Processor.CurrentClockSpeed	<a href="#">DSP1022 1.0</a> Clause 10.11
	ProcessorMaxClock Speed	CIM_Processor.MaxClockSpeed	<a href="#">DSP1022 1.0</a> Clause 10.11
DMTF:System MemoryView	MemoryBlockSize	CIM_Memory.BlockSize	<a href="#">DSP1026 1.0</a> Clause 10.3
	MemoryNumberOf Blocks	CIM_Memory.NumberOfBlocks	<a href="#">DSP1026 1.0</a> Clause 10.3
	MemoryConsumable Blocks	CIM_Memory.ConsumableBlocks	<a href="#">DSP1026 1.0</a> Clause 10.3
DMTF:Software InventoryView	CurrentBIOSMajor Version	CIM_SoftwareIdentity.MajorVersion representing the BIOS/EFI	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentBIOSMinor Version	CIM_SoftwareIdentity.MinorVersion representing the BIOS/EFI	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentBIOSRevision Number	CIM_SoftwareIdentity.Revision Number representing the BIOS/EFI	<a href="#">DSP1023 1.0</a> Clause 10.1

Implemented Feature Value	CIM_Physical ComputerSystem View Property	Origin Class/Property or Model Correspondence	Referenced Profile
	CurrentBIOSBuild Number	CIM_SoftwareIdentity.BuildNumber representing the BIOS/EFI	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentBIOSVersion String	CIM_SoftwareIdentity.VersionString representing the BIOS/EFI	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagement Firmware MajorVersion	CIM_SoftwareIdentity.MajorVersion representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagement Firmware MinorVersion	CIM_SoftwareIdentity.MinorVersion representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagement Firmware RevisionNumber	CIM_SoftwareIdentity.Revision Number representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagement Firmware BuildNumber	CIM_SoftwareIdentity.BuildNumber representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagementFirmwareElementName	CIM_SoftwareIdentity.Element Name representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
	CurrentManagement Firmware VersionString	CIM_SoftwareIdentity.VersionString representing the management firmware	<a href="#">DSP1023 1.0</a> Clause 10.1
DMTF:OSView	OSType	CIM_OperatingSystem.OSType	<a href="#">DSP1029 1.0</a> Clause 10.1
	OSEnabledState	CIM_OperatingSystem.Enabled State	<a href="#">DSP1029 1.0</a> Clause 10.1
	OSVersion	CIM_OperatingSystem.Version	<a href="#">DSP1029 1.1</a> Clause 10.1
DMTF:Computer SystemView	OtherIdentifyingInfo	CIM_ComputerSystem.Other IdentifyingInfo	<a href="#">DSP1052 1.0</a> Clause 10.1
	IdentifyingDescriptions	CIM_ComputerSystem.Identifying Descriptions	<a href="#">DSP1052 1.0</a> Clause 10.1
	Dedicated	CIM_ComputerSystem.Dedicated	<a href="#">DSP1108 1.0</a> Clause 7.1.2.10.1
	OtherDedicated Descriptions	CIM_ComputerSystem.Other DedicatedDescriptions	<a href="#">DSP1108 1.0</a> Clause 7.1.2.10.2
	EnabledState	CIM_ComputerSystem.Enabled State	<a href="#">DSP1052 1.0</a> Clause 10.1
	RequestedState	CIM_ComputerSystem.Requested State	<a href="#">DSP1052 1.0</a> Clause 10.1
	OperationalStatus	CIM_ComputerSystem.Operational Status	<a href="#">DSP1052 1.0</a> Clause 10.1

Implemented Feature Value	CIM_Physical ComputerSystem View Property	Origin Class/Property or Model Correspondence	Referenced Profile
	HealthState	CIM_ComputerSystem.HealthState	<a href="#">DSP1052 1.0</a> Clause 10.1
DMTF:Power Utilization ManagementView	PowerUtilizationModes Supported	CIM_PowerUtilizationManagement Capabilities.PowerUtilizationModes Supported	<a href="#">DSP1085 1.0</a> Clause 10.2
	PowerUtilizationMode	CIM_PowerUtilizationManagement Service.PowerUtilizationMode	<a href="#">DSP1085 1.0</a> Clause 10.1
	PowerAllocationLimit	CIM_PowerAllocationSettingData.Limit	<a href="#">DSP1085 1.0</a> Clause 10.6
DMTF:Numeric SensorView	NumericSensor ElementName	CIM_NumericSensor.ElementName	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensor EnabledState	CIM_NumericSensor.EnabledState	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensor Context	CIM_NumericSensor.Sensor Context	<a href="#">DSP1009 1.1</a> Clause 10.2
	NumericSensorHealth State	CIM_NumericSensor.HealthState	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensor CurrentState	CIM_NumericSensor.CurrentState	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensor PrimaryStatus	CIM_NumericSensor.PrimaryStatus	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorBase Units	CIM_NumericSensor.BaseUnits	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorUnit Modifier	CIM_NumericSensor.UnitModifier	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorRate Units	CIM_NumericSensor.RateUnits	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensor CurrentReading	CIM_NumericSensor.Current Reading	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorSensor Type	CIM_NumericSensor.SensorType	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorOther SensorType Description	CIM_NumericSensor.OtherSensor TypeDescription	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorUpper ThresholdNonCritical	CIM_NumericSensor.Upper ThresholdNonCritical	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorUpper ThresholdFatal	CIM_NumericSensor.Upper ThresholdFatal	<a href="#">DSP1009 1.0</a> Clause 10.2
NumericSensorUpper ThresholdCritical	CIM_NumericSensor.Upper ThresholdCritical	<a href="#">DSP1009 1.0</a> Clause 10.2	
NumericSensorLower ThresholdNonCritical	CIM_NumericSensor.Lower ThresholdNonCritical	<a href="#">DSP1009 1.0</a> Clause 10.2	

Implemented Feature Value	CIM_Physical ComputerSystem View Property	Origin Class/Property or Model Correspondence	Referenced Profile
	NumericSensorLowerThresholdFatal	CIM_NumericSensor.LowerThresholdFatal	<a href="#">DSP1009 1.0</a> Clause 10.2
	NumericSensorLowerThresholdCritical	CIM_NumericSensor.LowerThresholdCritical	<a href="#">DSP1009 1.0</a> Clause 10.2
DMTF:Record LogView	LogInstanceID	CIM_RecordLog.InstanceID	<a href="#">DSP1010 1.0</a> Clause 10.5
	LogMaxNumberOfRecords	CIM_RecordLog.MaxNumberOfRecords	<a href="#">DSP1010 1.0</a> Clause 10.5
	LogCurrentNumberOfRecords	CIM_RecordLog.CurrentNumberOfRecords	<a href="#">DSP1010 1.0</a> Clause 10.5
	LogOverWritePolicy	CIM_RecordLog.OverwritePolicy	<a href="#">DSP1010 1.0</a> Clause 10.5
	LogState	CIM_RecordLog.LogState	<a href="#">DSP1010 1.0</a> Clause 10.5
DMTF:Boot ControlView	StructuredBootString	CIM_BootSourceSetting.StructuredBootString	<a href="#">DSP1012 1.0</a> Clause 10.6
	OneTimeBootSource	n/a	<a href="#">DSP1108 1.0</a> Clause 7.1.2.9.2

## 294 7.1.2 Additional requirements

295 This subclause details additional requirements for some properties of  
296 CIM\_PhysicalComputerSystemView.

### 297 7.1.2.1 CIM\_PhysicalComputerSystemView.InstanceID

298 The InstanceID is the property that shall be used to opaquely and uniquely identify an instance of this  
299 class within the scope of the instantiating Namespace. This property shall not correspond to the  
300 InstanceID property of CIM\_ComputerSystem.

### 301 7.1.2.2 Representing system processor information

302 When implemented according to Table 2, the intent of this set of properties is to model the central  
303 processing unit.

304 The NumberOfProcessors property represents the number of homogenous processors on this physical  
305 computer system. Other types of processors (including GPUs) shall not be represented in the  
306 NumberOfProcessors property of CIM\_PhysicalComputerSystemView.

307 The NumberOfProcessorThreads property shall correspond to the NumberOfHardwareThreads property  
308 in the CIM\_ProcessorCapabilities class defined in [DSP1022](#).

309 The properties of the central processing unit of the physical computer system shall be represented as  
310 properties defined in Table 3 from [DSP1022](#). When one or more instances of CIM\_Processor are  
311 instantiated and represented in the view class, each CIM\_Processor instance should be associated with  
312 the CIM\_PhysicalComputerSystemView instance through an instance of CIM\_ElementView where the



313 Antecedent property is a reference to the corresponding CIM\_Processor instance and the Dependent  
 314 property is a reference to the CIM\_PhysicalComputerSystemView instance.

315 **Table 3 – Property origins for processor**

CIM_PhysicalComputerSystemView property name	CIM_Processor property name (origin)
ProcessorFamily	Family
ProcessorMaxClockSpeed	MaxClockSpeed

316 **7.1.2.3 Representing system memory information**

317 When implemented according to Table 2, the properties of the memory of the physical computer system  
 318 shall be represented as properties defined in Table 4 from [DSP1026](#). When the instance of CIM\_Memory  
 319 representing total system memory is instantiated and represented in the view class, the CIM\_Memory  
 320 instance should be associated with the CIM\_PhysicalComputerSystemView instance through an instance of  
 321 CIM\_ElementView where the Antecedent property is a reference to the CIM\_Memory instance and the  
 322 Dependent property is a reference to the CIM\_PhysicalComputerSystemView instance.

323 **Table 4 – Property origins for memory**

CIM_PhysicalComputerSystemView property name	CIM_Memory property name (origin)
MemoryBlockSize	BlockSize
MemoryNumberOfBlocks	NumberOfBlocks
MemoryConsumableBlocks	ConsumableBlocks

324 **7.1.2.4 Representing system software inventory**

325 When implemented according to Table 2, the properties of the current BIOS or EFI firmware of the  
 326 physical computer system shall be represented as properties defined in Table 5. The current BIOS or EFI  
 327 firmware property values shall correspond to an instance of CIM\_SoftwareIdentity where the  
 328 Classifications property contains a value of 10 (Firmware) or 11 (BIOS/FCODE). If instantiated, this  
 329 corresponding instance of CIM\_SoftwareIdentity shall be associated with the underlying instance of  
 330 CIM\_ComputerSystem by an instance of CIM\_ElementSoftwareIdentity where the  
 331 ElementSoftwareStatus property has a value of 2 (Current).

332 When an instance of CIM\_SoftwareIdentity representing the current BIOS or EFI firmware is instantiated  
 333 and represented in the view class, the CIM\_SoftwareIdentity instance should be associated with the  
 334 CIM\_PhysicalComputerSystemView instance through an instance of CIM\_ElementView where the  
 335 Antecedent is a reference to the CIM\_SoftwareIdentity instance and the Dependent property is a  
 336 reference to the CIM\_PhysicalComputerSystemView instance.

337

Table 5 – Property origins for current BIOS or EFI firmware

CIM_PhysicalComputerSystemView property name	CIM_SoftwareIdentity property name (origin)
CurrentBIOSMajorVersion	MajorVersion
CurrentBIOSMinorVersion	MinorVersion
CurrentBIOSRevisionNumber	RevisionNumber
CurrentBIOSBuildNumber	BuildNumber
CurrentBIOSVersionString	VersionString

338 The properties of the current management firmware of the physical computer system shall be represented  
 339 as properties defined in Table 6 from [DSP1023](#). The current management firmware property values shall  
 340 correspond to the instance of CIM\_SoftwareIdentity referenced by the instance of  
 341 CIM\_ElementSoftwareIdentity where the ElementSoftwareStatus property has a value of 2 (Current).

342 When an instance of CIM\_SoftwareIdentity representing the current management firmware is instantiated  
 343 and represented in the view class, the CIM\_SoftwareIdentity instance should be associated with the  
 344 CIM\_PhysicalComputerSystemView instance through an instance of CIM\_ElementView where the  
 345 Antecedent is a reference to the CIM\_SoftwareIdentity instance and the Dependent property is a  
 346 reference to the CIM\_PhysicalComputerSystemView instance.

347

Table 6 – Property origins for current management firmware

CIM_PhysicalComputerSystemView property name	CIM_SoftwareIdentity property name (origin)
CurrentManagementFirmwareMajorVersion	MajorVersion
CurrentManagementFirmwareMinorVersion	MinorVersion
CurrentManagementFirmwareRevisionNumber	RevisionNumber
CurrentManagementFirmwareBuildNumber	BuildNumber
CurrentManagementFirmwareVersionString	VersionString
CurrentManagementFirmwareElementName	ElementName

#### 348 7.1.2.5 Representing operating system information

349 This subclause describes the requirements for representing the running operating system for the  
 350 CIM\_PhysicalComputerSystemView class.

351 When implemented according to Table 2, the properties of the operating system of the physical computer  
 352 system shall be represented as properties as defined in Table 7 from [DSP1029](#). When an instance of  
 353 CIM\_OperatingSystem is instantiated and represented in the view class, the CIM\_OperatingSystem  
 354 instance should be associated with the CIM\_PhysicalComputerSystemView instance through an instance  
 355 of CIM\_ElementView where the Antecedent property is a reference to the CIM\_OperatingSystem  
 356 instance and the Dependent property is a reference to the CIM\_PhysicalComputerSystemView instance.

357

**Table 7 – Property origins for the operating system**

CIM_PhysicalComputerSystemView property name	CIM_OperatingSystem property name (origin)
OSEnabledState	EnabledState
OSVersion	Version
OSType	OSType

358 **7.1.2.6 Representing power utilization information**

359 When implemented according to Table 2, the PowerAllocationLimit property shall correspond to the Limit  
 360 property of the CIM\_PowerAllocationSettingData class defined in [DSP1085](#) with the added  
 361 “PowerAllocation” prefix to logically group properties related to power utilization and avoid naming  
 362 collision.

363 The power allocation limit of the physical computer system shall be represented as the property as  
 364 defined in Table 8 from [DSP1085](#). When an instance of CIM\_PowerAllocationSettingData is instantiated  
 365 and represented in the view class, the CIM\_PowerUtilizationManagementService instance should be  
 366 associated with the CIM\_PhysicalComputerSystemView instance through an instance of  
 367 CIM\_ElementView where the Antecedent property is a reference to the  
 368 CIM\_PowerUtilizationManagementService instance and the Dependent property is a reference to the  
 369 CIM\_PhysicalComputerSystemView instance.

370

**Table 8 – Property origins for the power allocation limit**

CIM_PhysicalComputerSystemView property name	CIM_PowerAllocationSettingData property name (origin)
PowerAllocationLimit	Limit

371 **7.1.2.7 Representing system numeric sensors**

372 When implemented according to Table 2, the properties of a numeric sensor of the physical computer  
 373 system shall be represented as elements of a group of indexed array properties as defined in Table 9  
 374 from [DSP1009](#). For these properties, the array elements with same index shall present a view of the  
 375 same numeric sensor. When an instance of CIM\_NumericSensor is instantiated and represented in the  
 376 view class, the CIM\_NumericSensor instance should be associated with the  
 377 CIM\_PhysicalComputerSystemView instance through an instance of CIM\_ElementView where the  
 378 Antecedent property is a reference to the CIM\_NumericSensor instance and the Dependent property is a  
 379 reference to the CIM\_PhysicalComputerSystemView instance.

380

Table 9 – Property origins for numeric sensors

CIM_PhysicalComputerSystemView property name	CIM_NumericSensor property name (origin)
NumericSensorElementName[]	ElementName
NumericSensorEnabledState[]	EnabledState
NumericSensorHealthState[]	HealthState
NumericSensorCurrentState[]	CurrentState
NumericSensorPrimaryStatus[]	PrimaryStatus
NumericSensorBaseUnits[]	BaseUnits
NumericSensorUnitModifier[]	UnitModifier
NumericSensorRateUnits[]	RateUnits
NumericSensorCurrentReading[]	CurrentReading
NumericSensorSensorType[]	SensorType
NumericSensorOtherSensorTypeDescription[]	OtherSensorTypeDescription
NumericSensorUpperThresholdNonCritical[]	UpperThresholdNonCritical
NumericSensorUpperThresholdFatal[]	UpperThresholdFatal
NumericSensorUpperThresholdCritical[]	UpperThresholdCritical
NumericSensorLowerThresholdNonCritical[]	LowerThresholdNonCritical
NumericSensorLowerThresholdFatal[]	LowerThresholdFatal
NumericSensorLowerThresholdCritical[]	LowerThresholdCritical
NumericSensorContext[]	SensorContext

### 381 7.1.2.8 Representing system record logs

382 When implemented according to Table 2, the properties of a record log of the physical computer system  
 383 shall be represented as elements of a group of indexed array properties as defined in Table 10 from  
 384 [DSP1010](#). For these properties, the array elements with same index shall present a view of the same  
 385 record log.

386 Instances of CIM\_RecordLog that contain information about the underlying computer system should be  
 387 represented in the view class.

388 When instantiated, the CIM\_RecordLog instance shall be associated with the  
 389 CIM\_PhysicalComputerSystemView instance through an instance of CIM\_ElementView where the  
 390 Antecedent property is a reference to the CIM\_RecordLog instance and the Dependent property is a  
 391 reference to the CIM\_PhysicalComputerSystemView instance.

392

**Table 10 – Property origins for record logs**

CIM_PhysicalComputerSystemView property name	CIM_RecordLog property name (origin)
LogInstanceID[]	InstanceID
LogMaxNumberOfRecords[]	MaxNumberOfRecords
LogCurrentNumberOfRecords[]	CurrentNumberOfRecords
LogOverWritePolicy[]	OverwritePolicy
LogState[]	LogState

393 **7.1.2.9 Representing system boot configuration**

394 When implemented according to Table 2, the enabled boot sources of the boot configuration of the  
 395 physical computer system shall be represented as elements of an ordered array property as defined in  
 396 Table 11 from [DSP1012](#).

397 When an instance of CIM\_BootSourceSetting is instantiated and represented in the view class, the  
 398 CIM\_BootService instance should be associated with the CIM\_PhysicalComputerSystemView instance  
 399 through an instance of CIM\_ElementView where the Antecedent property is a reference to the  
 400 CIM\_BootService instance and the Dependent property is a reference to the  
 401 CIM\_PhysicalComputerSystemView instance.

402

**Table 11 – Property origin for boot sources**

CIM_PhysicalComputerSystemView property name	CIM_BootSourceSetting property name (origin)
StructuredBootString[]	StructuredBootString
OneTimeBootSource	n/a

403 **7.1.2.9.1 CIM\_PhysicalComputerSystemView.StructuredBootString**

404 This property represents the boot sources that are available to be used for the next one-time boot of the  
 405 physical computer system.

406 **7.1.2.9.2 CIM\_PhysicalComputerSystemView.OneTimeBootSource**

407 This property represents the boot source that is used for the next one-time boot of the physical computer  
 408 system. The value of this property is an index into the StructuredBootString property. A value of NULL  
 409 shall represent that the one-time boot source is not configured.

410 **7.1.2.10 Representing system identity information**

411 **7.1.2.10.1 CIM\_PhysicalComputerSystemView.Dedicated**

412 When implemented according to Table 2, the Dedicated property shall indicate the purposes to which the  
 413 physical computer system is dedicated, if any, and what functionality is provided. See the specialized  
 414 profiles of [DSP1052](#) for requirements (for example, DSP1004 and DSP1058).

415 **7.1.2.10.2 CIM\_PhysicalComputerSystemView.OtherDedicatedDescriptions**

416 When implemented according to Table 2, the OtherDedicatedDescriptions property shall contain strings  
 417 describing how or why the physical computer system is dedicated when the Dedicated property includes  
 418 “Other” (value=2). See the specialized profiles of [DSP1052](#) for requirements (for example, DSP1004 and  
 419 DSP1058).

420 **7.1.2.11 Representing system FRU information**421 **7.1.2.11.1 CIM\_PhysicalComputerSystemView.FRUInfoSupported**

422 When implemented according to Table 2, the FRUInfoSupported property shall correspond to the value of  
 423 the CIM\_PhysicalAssetCapabilities.FRUInfoSupported property value associated to the CIM\_Chassis  
 424 instance.

425 **8 Methods**

426 This clause details the requirements for supporting intrinsic operations and extrinsic methods for the CIM  
 427 elements defined by this profile.

428 **8.1 CIM\_PhysicalComputerSystemView.RequestStateChange( )**

429 When the ImplementedFeatures property of the CIM\_RegisteredProfile instance contains  
 430 “DMTF:ComputerSystemView”, RequestStateChange( ) shall be implemented and the implemented  
 431 method shall not return a value of 1 (Method is unsupported).

432 Invocation of the RequestStateChange( ) method changes the physical computer system’s state to the  
 433 value specified in the RequestedState parameter. A return code value of zero shall indicate that the  
 434 requested state change was initiated successfully.

435 Detailed requirements of the RequestStateChange( ) method are specified in Table 12 and Table 13.

436 No standard messages are defined.

437 Invoking the RequestStateChange( ) method multiple times could result in earlier requests being  
 438 overwritten or lost.

439 See CIM\_ComputerSystem.RequestStateChange( ) in [DSP1052](#) for additional details.

440 **Table 12 – CIM\_PhysicalComputerSystemView.RequestStateChange( ) method: Return code**  
 441 **values**

Value	Description
0	Request was successfully executed.
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob.

442

443 **Table 13 – CIM\_PhysicalComputerSystemView.RequestStateChange( ) method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	RequestedState	uint16	Valid state values (mapped to CIM_ComputerSystem.RequestStateChange( )) 2 (Enabled) – On 3 (Disabled) – Off-Soft 9 (Quiesce) – Sleep 11 (Reset) – Power-Cycle (Off-Soft)
IN	TimeoutPeriod	datetime	Client specified maximum amount of time the transition to a new state is supposed to take: 0 or NULL – No time requirements <interval> – Maximum time allowed
OUT	Job	CIM_ConcreteJob REF	Returned if job started

444 **8.2 CIM\_PhysicalComputerSystemView.ClearLog( )**

445 When the ImplementedFeatures property of the CIM\_RegisteredProfile instance contains  
446 “DMTF:RecordLogView”, ClearLog( ) may be implemented.

447 Invocation of the ClearLog( ) method deletes all the entries of the specified record log of the physical  
448 computer system identified by the LogInstanceID parameter. A return code value of zero shall indicate  
449 that the clearing of the log entries was initiated successfully.

450 Detailed requirements of the ClearLog( ) method are specified in Table 14 and Table 15.

451 No standard messages are defined.

452 **Table 14 – CIM\_PhysicalComputerSystemView.ClearLog( ) method: Return code values**

Value	Description
0	Request was successfully executed.
1	Method is unsupported.
2	Error occurred.

453 **Table 15 – CIM\_PhysicalComputerSystemView.ClearLog( ) method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	LogInstanceID	String	Identifier of record log that is requested to be cleared

454 **8.3 CIM\_PhysicalComputerSystemView.InstallSoftwareFromURI( )**

455 When the ImplementedFeatures property of the CIM\_RegisteredProfile instance contains  
456 “DMTF:SoftwareInventoryView”, InstallSoftwareFromURI( ) may be implemented.

457 Invocation of the InstallSoftwareFromURI( ) method starts a job to install software from the designated  
458 URI to the physical computer system. A return code value of zero shall indicate that the installation of  
459 software was initiated successfully. Based on the payloads, implementations shall determine whether the  
460 installation is intended for BIOS or Management Firmware.

461 Detailed requirements of the InstallSoftwareFromURI() method are specified in Table 16 and Table 17.

462 No standard messages are defined.

463 See CIM\_SoftwareInstallationService.InstallFromURI() in [DSP1025](#) for additional details.

464 **Table 16 – CIM\_PhysicalComputerSystemView.InstallSoftwareFromURI() method: Return code**  
465 **values**

Value	Description
0	Job completed with no error.
1	Method is unsupported.
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob.

466 **Table 17 – CIM\_PhysicalComputerSystemView.InstallSoftwareFromURI() method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	URI	string	A URI for the software.
IN	InstallOptions[]	uint16	Options to control the install process. See CIM_SoftwareInstallationService.InstallFromURI() in <a href="#">DSP1025</a> for additional details.
IN	Classifications[]	uint16	Identify the classification of software to install. See CIM_SoftwareIdentity.Classifications in <a href="#">DSP1023</a> for additional details.
IN	InstallOptionsValues[]	string	InstallOptionsValues is an array of strings providing additional information to InstallOptions for the method to install the software. See CIM_SoftwareInstallationService.InstallFromURI() in <a href="#">DSP1025</a> for additional details.
OUT	Job	CIM_ConcreteJob REF	Returned if job started

#### 467 **8.4 CIM\_PhysicalComputerSystemView.SetOneTimeBootSource( )**

468 When the ImplementedFeatures property of the CIM\_RegisteredProfile instance contains  
469 “DMTF:BootControlView”, SetOneTimeBootSource( ) may be implemented.

470 Invocation of the SetOneTimeBootSource() method sets the boot source for the next boot only. A return  
471 code value of zero shall indicate that the new one time boot source was set successfully.

472 If the StructuredBootString parameter contains a value not contained in the StructuredBootString property  
473 of the CIM\_PhysicalComputerSystemView instance, then the method shall return 2 (Error Occurred).

474 Detailed requirements of the SetOneTimeBootSource() method are specified in Table 18 and Table 19.

475 No standard messages are defined.



476 **Table 18 – CIM\_PhysicalComputerSystemView.SetOneTimeBootSource() method: Return code**  
 477 **values**

Value	Description
0	Completed with no error.
1	Method is unsupported.
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob.

478 **Table 19 – CIM\_PhysicalComputerSystemView.SetOneTimeBootSource() method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	StructuredBootString	string	A StructuredBootString value
OUT	Job	CIM_ConcreteJob REF	Returned if job started

479 **8.5 Profile conventions for operations**

480 For each profile class (including associations), the implementation requirements for operations, including  
 481 those in the following default list, are specified in class-specific subclauses of this clause.

482 The default list of operations is as follows:

- 483 • GetInstance
- 484 • EnumerateInstances
- 485 • EnumerateInstanceNames
- 486 • Associators
- 487 • AssociatorNames
- 488 • References
- 489 • ReferenceNames

490 **8.6 CIM\_PhysicalComputerSystemView**

491 Table 20 lists operations that either have special requirements beyond those from [DSP0200](#) or shall not  
 492 be supported.

493 **Table 20 – Operations: CIM\_PhysicalComputerSystemView**

Operation	Requirement	Description
InvokeMethod	Conditional	If “DMTF:ComputerSystemView”, “DMTF:RecordLogView”, “DMTF:BootControlView”, or “DMTF:SoftwareUpdateView” is an implemented feature, this operation shall be supported. See 8.

494 **8.7 CIM\_ElementView**

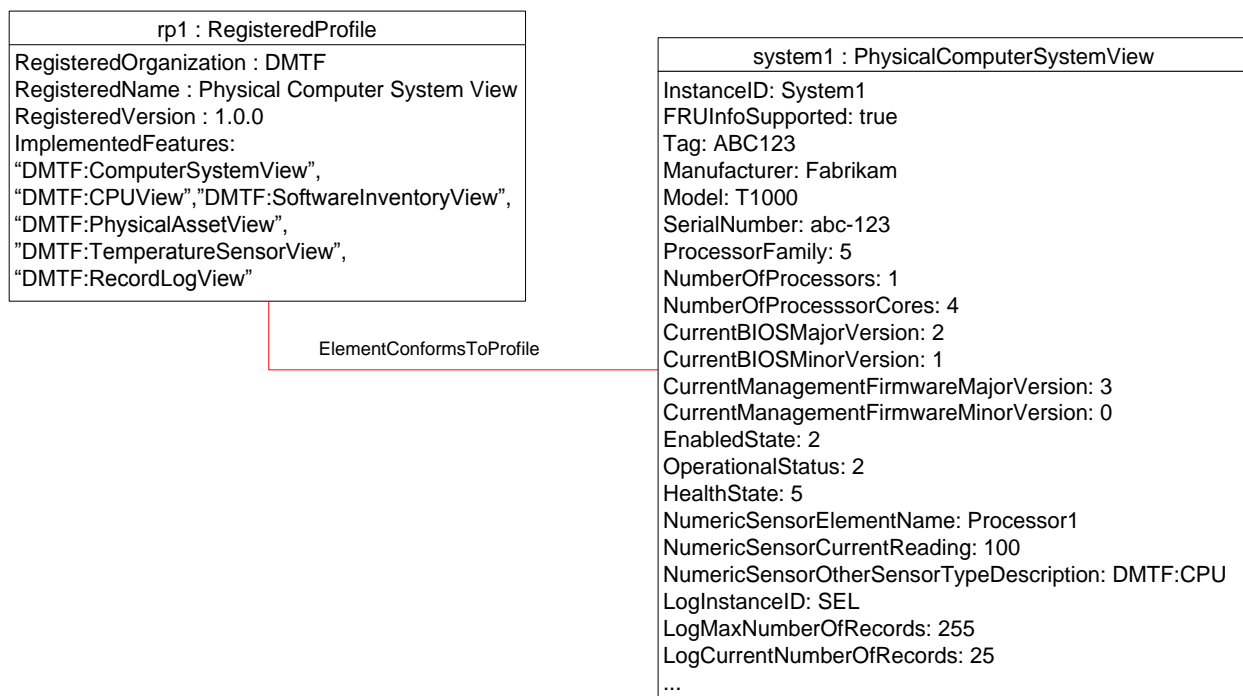
495 All operations in the default list in 8.5 shall be implemented as defined in [DSP0200](#).

## 496 9 Use cases

497 This clause contains object diagrams and use cases for the *Physical Computer System View Profile*.

### 498 9.1 Miscellaneous object diagrams

499 The object diagram in Figure 2 shows one possible method for advertising profile conformance. The  
 500 instances of CIM\_RegisteredProfile are used to identify the version of the *Physical Computer System  
 501 View Profile* with which an instance of CIM\_PhysicalComputerSystemView and its associated instances  
 502 are conformant. An instance of CIM\_RegisteredProfile exists for each profile that is instrumented in the  
 503 system. An instance of CIM\_RegisteredProfile identifies the “DMTF Physical Computer System View  
 504 Profile version 1.0.0”. This diagram represents a simple managed computer system that only implements  
 505 the Profile Registration Profile and the Physical Computer System View Profile. The implementation of  
 506 Physical Computer System View Profile indicates that properties and methods related to Computer  
 507 System, CPU, Software Inventory, Physical Asset, Sensors, and Record Log are implemented as  
 508 advertised by using the ImplementedFeatures property of the instance of CIM\_RegisteredProfile.

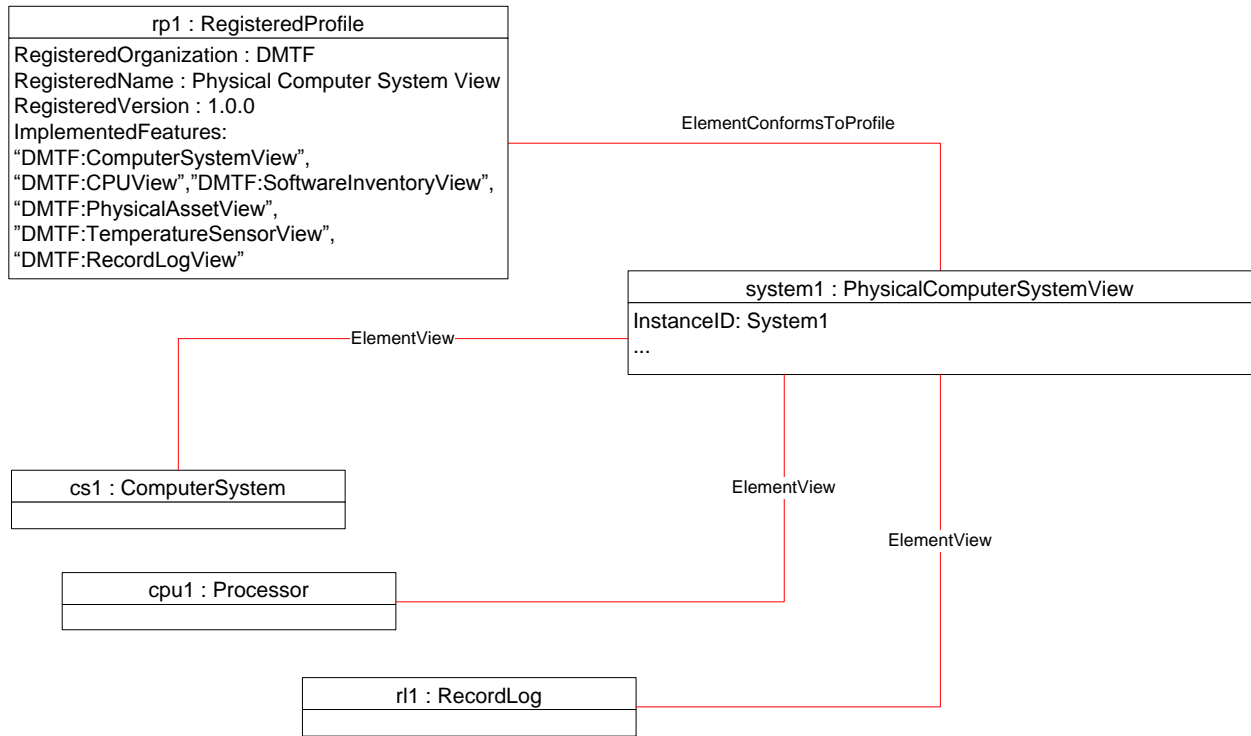


509

510 **Figure 2 – Simple PhysicalComputerSystemView implementation**

### 511 9.2 Small footprint managed computer system with additional CIM Schema 512 implemented

513 The object diagram in Figure 3 shows a small footprint managed computer system that implements the  
 514 same features as the managed computer system in Figure 2, but also implements CIM Schema that is  
 515 associated to specific properties. This managed computer system does not claim conformance to  
 516 additional profiles, but exposes additional properties/methods through the CIM classes associated to the  
 517 instance of CIM\_PhysicalComputerSystemView.



518  
519

520

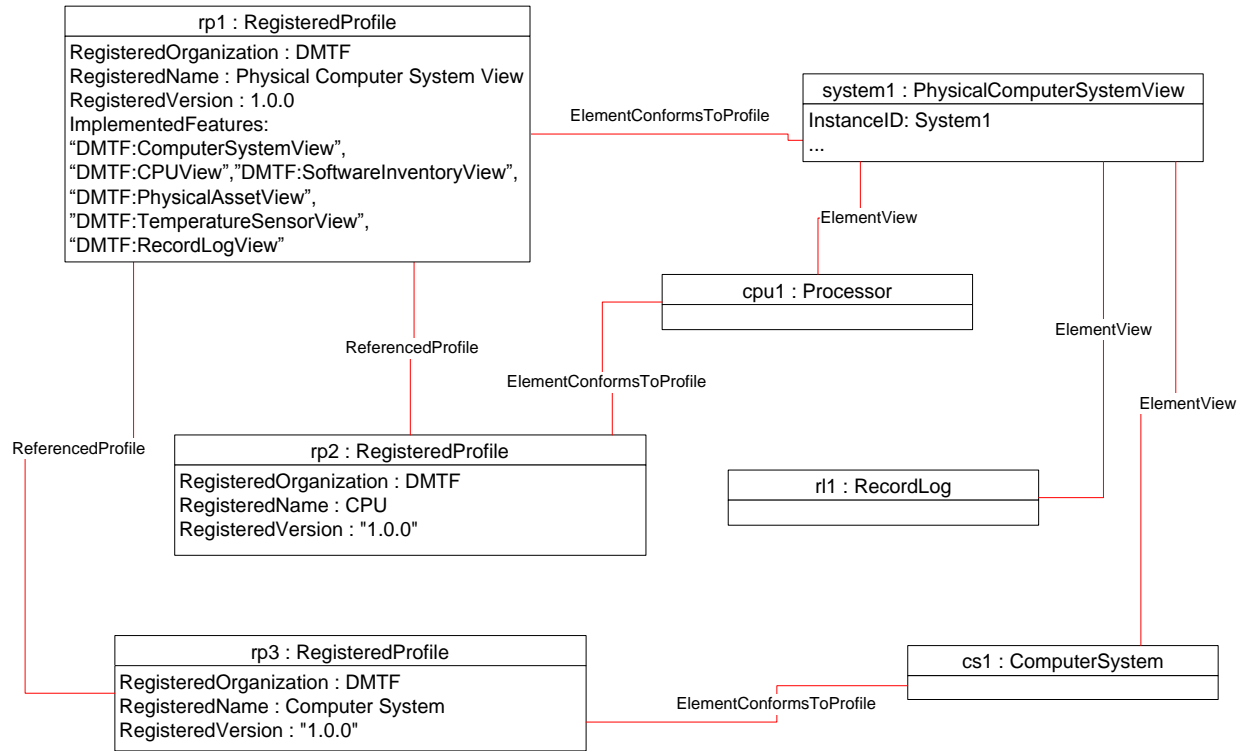
**Figure 3 – Small footprint PhysicalComputerSystemView implementation**

521

### 9.3 Large managed computer system with additional CIM Profiles implemented

522  
523  
524

The object diagram in Figure 4 shows a large managed computer system that implements the same features as the managed computer system in Figure 3, but also implements CIM Schema that is conformant to CIM Profiles providing richer management capabilities.



525

526

Figure 4 – Rich PhysicalComputerSystemView implementation

527

### 9.4 Managed system exposing multiple temperature sensors

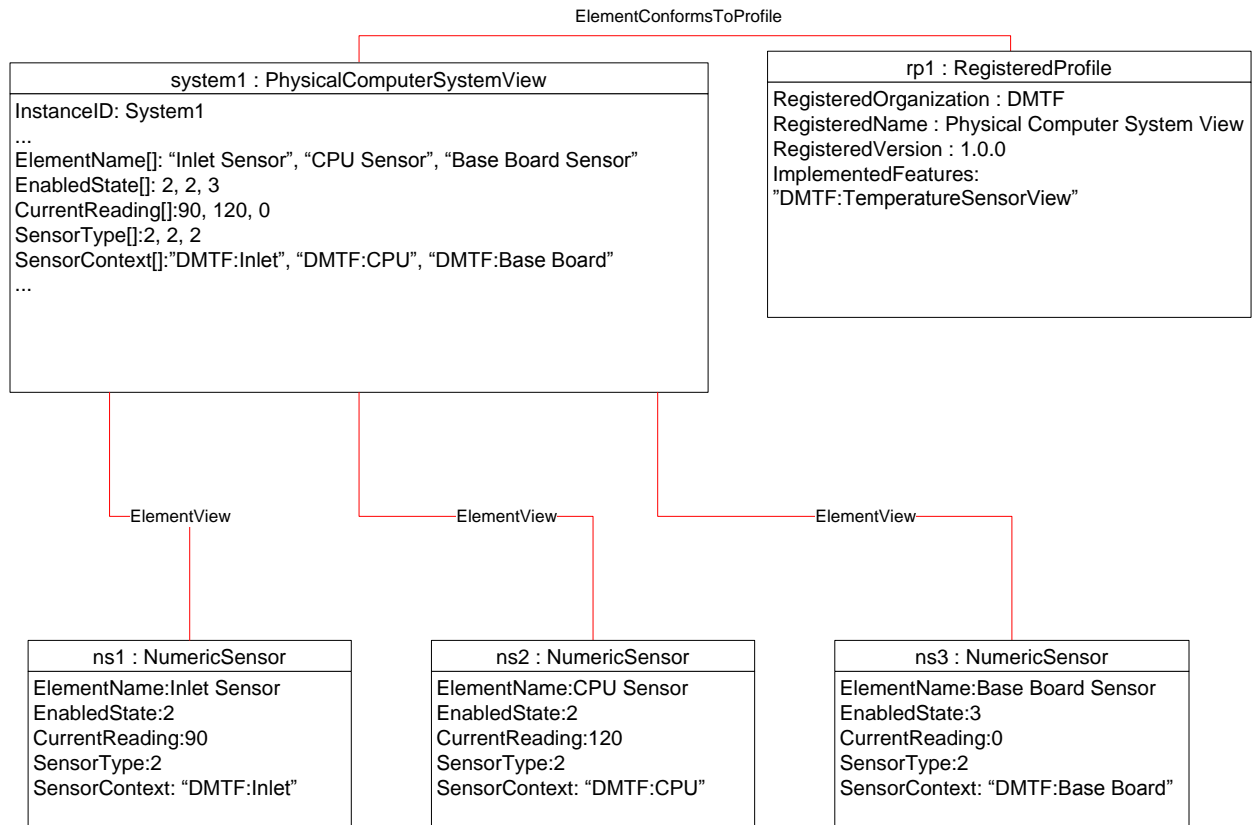
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531

The object diagram in Figure 5 shows a managed computer system that implements multiple temperature sensors for Inlet, CPU, and Base Board. Although the instances of CIM\_NumericSensor and corresponding association are not required, they illustrate how to represent multiple numeric sensors as an indexed array in the CIM\_PhysicalComputerSystemView instance.



532

533

**Figure 5 – PhysicalComputerSystemView implementation of multiple temperature sensors**

**534 9.5 Determine the enabled state of the physical computer system**

535 To determine the enabled state:

- 536 1) Verify that the managed computer system implements the DMTF:ComputerSystemView feature  
537 by reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 538 2) Read the EnabledState property of the instance of CIM\_PhysicalComputerSystemView.

**539 9.6 Change the enabled state of the physical computer system**

540 To change the enabled state:

- 541 1) Verify that the managed computer system implements the DMTF:ComputerSystemView feature  
542 by reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 543 2) Invoke the RequestStateChange( ) method of the instance of CIM\_PhysicalComputerSystemView  
544 providing the new requested state.
- 545 3) See Table 13 for the supported list of requested enabled states.

**546 9.7 Get properties of a specific record log of the physical computer system**

547 To get the properties of a specific record log:

- 548 1) Verify that the managed computer system implements the DMTF:RecordLogView feature by  
549 reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 550 2) Identify the index to the specific log that matches the LogInstanceID.
- 551 3) Use this index to read the ordered arrays MaxNumberOfRecords, CurrentNumberOfRecords,  
552 OverWritePolicy, and LogState for that specific record log.

**553 9.8 Browse the records of a log of the physical computer system**

554 To browse log entries:

- 555 1) Verify that the managed computer system implements the DMTF:RecordLogView feature by  
556 reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 557 2) Verify that an instance of CIM\_RegisteredProfile for Record Log Profile exists.
- 558 3) Traverse the association to the CIM\_RecordLog instance with the LogInstanceID by using the  
559 CIM\_ElementView association class.
- 560 4) Enumerate instances of CIM\_LogEntry that are associated through the CIM\_LogManagesRecord  
561 association to the given instance of CIM\_RecordLog.  
562

## 563 **9.9 Monitor temperature sensor readings of the physical computer system**

564 To monitor CPU temperature sensor readings:

- 565 1) Verify that the managed computer system implements the DMTF:NumericSensorView feature by  
566 reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 567 2) Identify the index to a specific sensor that contains "DMTF:CPU" as the value for  
568 NumericSensorContext.
- 569 3) Use this index to read the ordered arrays NumericSensorBaseUnits, NumericSensorUnitModifier,  
570 NumericSensorRateUnits, and NumericSensorCurrentReading to compute the reading value for  
571 that specific sensor.

## 572 **9.10 Configure a source of the physical computer system for next reboot only**

573 To configure the boot source for next reboot only:

- 574 1) Verify that the managed computer system implements the DMTF:BootControlView feature by  
575 reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 576 2) Invoke the SetOneTimeBootSource( ) method of the instance of  
577 CIM\_PhysicalComputerSystemView to reflect the desired boot source based on an index value  
578 from the StructedBootString array.

## 579 **9.11 Update the BIOS firmware of the physical computer system**

580 To update the BIOS firmware:

- 581 1) Verify that the managed computer system implements the DMTF:SoftwareUpdateView feature by  
582 reading the ImplementedFeatures property of the CIM\_RegisteredProfile instance.
- 583 2) Invoke the InstallSoftwareFromURI( ) method of the instance of  
584 CIM\_PhysicalComputerSystemView providing the classification value of 6 (Firmware/BIOS),  
585 location of the software, and required options.  
586

587 **10 CIM Elements**

588 Table 21 shows the instances of CIM Elements for this profile. Instances of the CIM Elements shall be  
 589 implemented as described in Table 21.

590 **Table 21 – CIM Elements: Physical Computer System View Profile**

Element Name	Requirement	Description
<b>Classes</b>		
CIM_PhysicalComputerSystemView	Mandatory	See 10.1.
CIM_RegisteredProfile	Mandatory	See 10.2.
CIM_ElementView	Optional	See 10.3
CIM_ElementConformsToProfile	Mandatory	See 10.4
<b>Indications</b>		
None defined in this profile		

591 **10.1 CIM\_PhysicalComputerSystemView**

592 CIM\_PhysicalComputerSystemView describes a physical computer system and associated management  
 593 information in a managed computer system.

594 **Table 22 – Class: CIM\_PhysicalComputerSystemView**

Elements	Requirement	Description
InstanceID	Mandatory	Key. See 7.1.2.1.
OtherIdentifyingInfo	Conditional	See Table 2.
IdentifyingDescriptions	Conditional	See Table 2.
EnabledState	Mandatory	See Table 2.
RequestedState	Conditional	See Table 2.
OperationalStatus	Mandatory	See Table 2.
HealthState	Mandatory	See Table 2.
Dedicated	Mandatory	See Table 2.
OtherDedicatedDescriptions	Conditional	See Table 2.
FRUInfoSupported	Conditional	See Table 2.
Tag	Conditional	See Table 2.
Manufacturer	Conditional	See Table 2.
Model	Conditional	See Table 2.
SKU	Conditional	See Table 2.
SerialNumber	Conditional	See Table 2.
Version	Conditional	See Table 2.
PartNumber	Conditional	See Table 2.



Elements	Requirement	Description
PowerUtilizationModesSupported	Conditional	See Table 2.
PowerUtilizationMode	Conditional	See Table 2.
PowerAllocationLimit	Conditional	See Table 2.
NumericSensorElementName	Conditional	See Table 2.
NumericSensorEnabledState	Conditional	See Table 2.
NumercSensorHealthState	Conditional	See Table 2.
NumericSensorCurrentState	Conditional	See Table 2.
NumericSensorPrimaryStatus	Conditional	See Table 2.
NumericSensorBaseUnits	Conditional	See Table 2.
NumericSensorUnitModifier	Conditional	See Table 2.
NumericSensorRateUnits	Conditional	See Table 2.
NumericSensorCurrentReading	Conditional	See Table 2.
NumericSensorSensorType	Conditional	See Table 2.
NumericSensorOtherSensorTypeDescription	Conditional	See Table 2.
NumericSensorContext	Conditional	See Table 2.
NumericSensorUpperThresholdNonCritical	Conditional	See Table 2.
NumericSensorUpperThresholdCritical	Conditional	See Table 2.
NumericSensorUpperThresholdFatal	Conditional	See Table 2.
NumericSensorLowerThresholdNonCritical	Conditional	See Table 2.
NumericSensorLowerThresholdCritical	Conditional	See Table 2.
NumericSensorLowerThresholdFatal	Conditional	See Table 2.
LogInstanceID	Conditional	See Table 2.
LogMaxNumberOfRecords	Conditional	See Table 2.
LogCurrentNumberOfRecords	Conditional	See Table 2.
LogOverWritePolicy	Conditional	See Table 2.
LogState	Conditional	See Table 2.
StructuredBootString	Conditional	See Table 2.
OneTimeBootSource	Conditional	See Table 2.
NumberOfProcessors	Conditional	See Table 2.
NumberOfProcessorCores	Conditional	See Table 2.
NumberOfProcessorThreads	Conditional	See Table 2.
ProcessorFamily	Conditional	See Table 2.
ProcessorCurrentClockSpeed	Conditional	See Table 2.
ProcessorMaxClockSpeed	Conditional	See Table 2.
MemoryBlockSize	Conditional	See Table 2.

Elements	Requirement	Description
MemoryNumberOfBlocks	Conditional	See Table 2.
MemoryConsumableBlocks	Conditional	See Table 2.
CurrentBIOSMajorVersion	Conditional	See Table 2.
CurrentBIOSMinorVersion	Conditional	See Table 2.
CurrentBIOSRevisionNumber	Conditional	See Table 2.
CurrentBIOSBuildNumber	Conditional	See Table 2.
CurrentBIOSVersionString	Conditional	See Table 2.
CurrentManagementFirmwareMajorVersion	Conditional	See Table 2.
CurrentManagementFirmwareMinorVersion	Conditional	See Table 2.
CurrentManagementFirmwareRevisionNumber	Conditional	See Table 2.
CurrentManagementFirmwareBuildNumber	Conditional	See Table 2.
CurrentManagementFirmwareElementName	Conditional	See Table 2.
CurrentManagementFirmwareVersionString	Conditional	See Table 2.
OSType	Conditional	See Table 2.
OSVersion	Conditional	See Table 2.
OSEnabledState	Conditional	See Table 2.
RequestStateChange( )	Mandatory	See 8.1.
ClearLog( )	Conditional	See 8.2.
InstallSoftwareFromURI( )	Conditional	See 8.3.
SetOneTimeBootSource( )	Conditional	See 8.4.

## 595 10.2 CIM\_RegisteredProfile

596 CIM\_RegisteredProfile identifies the *Physical Computer System View Profile* in order for a client to  
 597 determine whether an instance of CIM\_PhysicalComputerSystemView is conformant with this profile. The  
 598 CIM\_RegisteredProfile class is defined by the *Profile Registration Profile* ([DSP1033](#)). With the exception  
 599 of the mandatory values specified for the properties in Table 23, the behavior of the  
 600 CIM\_RegisteredProfile instance is in accordance with [DSP1033](#).

601 **Table 23 – Class: CIM\_RegisteredProfile**

Elements	Requirement	Description
RegisteredName	Mandatory	This property shall have a value of "Physical Computer System View".
RegisteredVersion	Mandatory	This property shall have a value of "1.0.0".
RegisteredOrganization	Mandatory	This property shall have a value of "DMTF".

Elements	Requirement	Description
ImplementedFeatures	Mandatory	This property shall contain "DMTF:ComputerSystemView". This property may contain one or more of these values "DMTF:RecordLogView", "DMTF:NumericSensorView", "DMTF:CPUView", "DMTF:BootControlView", "DMTF:SoftwareInventoryView", "DMTF:PhysicalAssetView", "DMTF:SystemMemoryView", "DMTF:PowerUtilizationManagementView", "DMTF:OSView", "DMTF:SoftwareUpdateView". Presences of values in this property only indicate implemented properties/methods in CIM_PhysicalComputerSystemView and do not indicate conformance to additional CIM Profiles.

602 **10.3 CIM\_ElementView**

603 CIM\_ElementView associates additional CIM Schema to the CIM\_PhysicalComputerSystemView  
604 instance.

605 **Table 24 – Class: CIM\_ElementView**

Elements	Requirement	Description
Antecedent	Mandatory	This property shall be a reference to the CIM_ManagedElement that is an instance in the normalized representation of the managed resource.
Dependent	Mandatory	This property shall be a reference to the CIM_PhysicalComputerSystemView instance.

606 **10.4 CIM\_ElementConformsToProfile**

607 CIM\_ElementConformsToProfile associates the instance of CIM\_RegisteredProfile to the  
608 CIM\_PhysicalComputerSystemView instance.

609 **Table 25 – Class: CIM\_ElementConformsToProfile**

Elements	Requirement	Description
ConformantStandard	Mandatory	This property shall be a reference to the CIM_RegisteredProfile instance for the Physical Computer System View Profile.
ManagedElement	Mandatory	This property shall be a reference to the CIM_PhysicalComputerSystemView instance.

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## ANNEX A (informative)

### Change log

Version	Date	Description
1.0.0	2013-08-22	
1.0.1	2014-05-22	<p>This errata addresses these issues:</p> <ul style="list-style-type: none"><li>• Added clarifying language that RequestStateChange() shall not return 1 (Method is unsupported) as it is mandatory to be implemented. In addition, removed return value 1 (Method is unsupported) from Table 12</li><li>• Clarified language that all other methods may be implemented and not conditional as requirements are based on referenced profiles</li><li>• Corrected language of use cases referring to power state to enabled state</li><li>• Fixed incorrect table reference in 9.6</li></ul>

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