

HCD_Firmware_Version	(version)
	The HCD_Firmware_Version attribute is a 16 byte field that follows the format for the Numeric Version in [PA-TNC] section 3.2.3 and can uniquely describe the current version of firmware loaded in the device.
HCD_Application_Version	(version)
	The HCD_Application_Version attribute is a 16 byte field that follows the format for the Numeric Version in [PA-TNC] section 3.2.3 and can uniquely describe the current version of an installed application in the device.

Mapping issues:

TNC specifies Version Major, Version Minor, Version Build, Patch Major, Patch Minor

NAP specifies Version Major, Version Minor, Version Build, and a separate attribute for Service Patch Major and Minor

Is there value in also providing addition date and time information?

Do we want to provide both numeric and string version information? Providing standard numeric information can facilitate the use of more generic health validation tools, while vendor-specific string version information may preclude this.

HCD_Certification_State	(string)
	<p>The HCD_Certification_State attribute is a 32 byte field that uniquely identifies the state of a particular set of configuration settings in the HCD that are included as part of a certification process (e.g., Common Criteria certification). A change to any configuration setting that is required for the device to maintain its certification status MUST cause a change in the attributes. Note: An example implementation of this attribute could be a SHA256 hash of the configuration (e.g., firmware version, port filter settings, protocols enabled/disabled etc.) that must be set to a specific state as part of the certification process.</p> <p><i>The HCD_Certification_State attribute state is intended to be used to provide a validation of compliance to a minimal set of (non-)functional system requirements, such as disable FTP, etc. Since it is being expanded, and is potentially a candidate for some form of remediation, the detailed definition of this is being deferred to Phase 2 of the IDS definition process.</i></p>
HCD_Configuration_State	(string)
	<p>The HCD_Configuration_State attribute is a 32 byte field that uniquely identifies the state of any configuration settings in the HCD that are included in creation of the attribute. A change to any configuration setting that is included in the creation of the attribute MUST cause a change in the attributes value. This configuration settings included as part of this attribute SHOULD be administratively configurable. Note: An example implementation of this attribute could be a SHA256 hash of the configuration settings.</p> <p><i>HCD_Configuration_State is a vendor-specific value intended to provide a method for a system administrator (site, local, device, etc) to snap shot a specific device configuration state. Examples of configuration information including in this attribute include such items as default settings (duplex, media type, color mode, language, etc) and enabled/disabled services and features (IPP, SSL support [or should this be under Certification?], Fax, etc). In conjunction with a system health validation agent, this value can be used to determine is the configuration has changed in any way from the last snapshot. No standardized values or behavior is defined by PWG, only the notification of a change. Any access control restrictions that a change may trigger are vendor or administrator defined. While a specific vendor may wish to provide mediation support for this attribute, no remediation support is defined or required.</i></p>