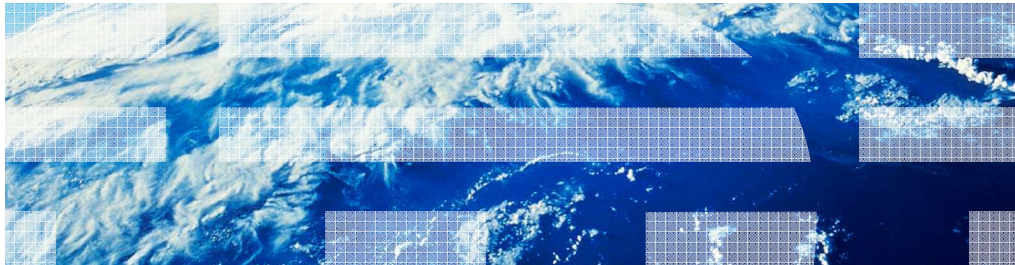


z/OS V1R13

CIM: Standards currency



Session objectives

- CIM Server Upgrade
- CIM Schema Update
- CIM Client for Java Version 2 Update
- Support for the WS-Management Protocol

Overview

- Problem Statement / Need Addressed
 - Keep up to date with latest CIM / WBEM systems management standard
- Solution
 - CIM Server updated to OpenPegasus 2.11
 - This is the latest version available in OpenSource as of 2011
 - Includes support for the Web Services-Management (**WS-Management**) SOAP based protocol.
 - Update supported CIM Schema version to 2.25
 - Update CIM Client for Java Version 2 to Version 2.1.5
- Benefit / Value
 - Enabled for open system management according to the latest standards

Usage and invocation

- There is no change in the way the CIM Server and command line tools are invoked.
- The z/OS 1.13 CIM Server implements **native support** for the WS-Management protocol (not just through a mapping proxy!):
 - WS-Transfer operation
 - WS-Enumeration operation
 - WS-Enumeration filter support
 - WS-Enumeration association support
 - Custom actions
 - wsmid:Identify
- The following WS-Management operations are not yet supported:
 - Fragment-Level WS-Transfer
 - Eventing

WS-Transfer. Support for transfer operation, mapping to getInstance in CIM.

WS-Enumeration. Support for enumeration operation, mapped to enumerateInstances in CIM.

WS-Enumeration filter support. Support for enumeration filters whose dialect is "http://schemas.dmtf.org/wbem/wsman/1/WQL". Filtering will be applied to the enumeration results.

WS-Enumeration association support.

Custom actions. Implements invocation of OpenPegasus extrinsic methods over WS-Management. Mapped to OpenPegasus invokeMethod requests/responses.

wsmid:Identify. Support for the WS-Management identify operation. This implementation requires HTTP authentication.

Known Limitations

The following WS-Management features are not supported:

- .wsman:OperationTimeout (not practical to implement in Pegasus)
- .wsman:OptionSet (not applicable)
- .UTF-16 XML encoding (may be considered in the future)
- .EPR selectors in WS-Enumeration requests other than “__cimnamespace” are not allowed.

Interactions and dependencies

- Software dependencies
 - None
- Hardware dependencies
 - None
- Exploiters
 - All management applications using the Common Information Model
 - Any management application that supports the WS-Management protocol.

Migration and coexistence considerations

- None

Installation

- There is **no** additional configuration required to enable support for the WS-Management protocol
 - Uses the configured http and https ports (by default 5988 and 5989)
 - The same authentication and authorization applies for the WS-Management operations as for the CIM-XML over HTTP operations.

Session summary

- CIM Standard Currency
 - CIM Server upgrade
 - WS-Management support
 - Java CIM Client upgrade
 - DMTF CIM Schema upgrade
 - Documentation enhancements

Appendix - References

- IBM z/OS Common Information Model Users Guide Book# SC33-7998
- CIM & WBEM Standards by the DMTF
 - <http://www.dmtf.org/standards>
- OpenPegasus CIM Server
 - <http://www.openpegasus.org>
- SBLIM CIM Client for Java
 - <http://sourceforge.net/apps/mediawiki/sblim/index.php?title=CimClient>



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