

CEN

CWA 14050-32

WORKSHOP

July 2007

AGREEMENT

ICS 35.200; 35.240.15; 35.240.40

English version

**Extensions for Financial Services (XFS) interface specification -
Release 3.03 - Part 32: XFS MIB Device Specific Definitions -
Cash Dispenser Device Class MIB 1.1**

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

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Ref. No.:CWA 14050-32:2007 D/E/F

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Foreword

This CWA is revision 3.03 of the XFS interface specification.

The CEN/ISSS XFS Workshop gathers suppliers as well as banks and other financial service companies. A list of companies participating in this Workshop and in support of this CWA is available from the CEN/ISSS Secretariat.

This CWA was formally approved by the XFS Workshop meeting on 2003-05-21. The specification is continuously reviewed and commented in the CEN/ISSS Workshop on XFS. It is therefore expected that an update of the specification will be published in due time as a CWA, superseding this revision 3.03.

This document supersedes CWA 14050-32:2004.

The CWA is published as a multi-part document, consisting of:

Part 1: Application Programming Interface (API) - Service Provider Interface (SPI); Programmer's Reference

Part 2: Service Classes Definition; Programmer's Reference

Part 3: Printer Device Class Interface - Programmer's Reference

Part 4: Identification Card Device Class Interface - Programmer's Reference

Part 5: Cash Dispenser Device Class Interface - Programmer's Reference

Part 6: PIN Keypad Device Class Interface - Programmer's Reference

Part 7: Check Reader/Scanner Device Class Interface - Programmer's Reference

Part 8: Depository Device Class Interface - Programmer's Reference

Part 9: Text Terminal Unit Device Class Interface - Programmer's Reference

Part 10: Sensors and Indicators Unit Device Class Interface - Programmer's Reference

Part 11: Vendor Dependent Mode Device Class Interface - Programmer's Reference

Part 12: Camera Device Class Interface - Programmer's Reference

Part 13: Alarm Device Class Interface - Programmer's Reference

Part 14: Card Embossing Unit Class Interface - Programmer's Reference

Part 15: Cash In Module Device Class Interface- Programmer's Reference

Part 16: Application Programming Interface (API) - Service Provider Interface (SPI) - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 17: Printer Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 18: Identification Card Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.00 (see CWA 14050-4:2000; superseded) - Programmer's Reference

Part 19: Cash Dispenser Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 20: PIN Keypad Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.00 (see CWA 14050-6:2000; superseded) - Programmer's Reference

Part 21: Depository Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 22: Text Terminal Unit Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 23: Sensors and Indicators Unit Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.01 (this CWA) - Programmer's Reference

Part 24: Camera Device Class Interface - Migration from Version 2.0 (see CWA 13449) to Version 3.0 (this CWA) - Programmer's Reference

Part 25: Identification Card Device Class Interface - PC/SC Integration Guidelines

Part 26: Identification Card Device Class Interface - Migration from Version 3.0 (see CWA 14050-4:2000; superseded) to Version 3.02 (this CWA) - Programmer's Reference

Part 27: PIN Keypad Device Class Interface - Migration from Version 3.0 (see CWA 14050-6:2000; superseded) to Version 3.02 (this CWA) - Programmer's Reference

Part 28: Cash In Module Device Class Interface - Migration from Version 3.0 (see CWA 14050-15:2000; superseded) to Version 3.02 (this CWA) - Programmer's Reference

Part 42: PIN Keypad Device Class Interface - Migration from Version 3.02 (see CWA 14050-6:2003; superseded) to Version 3.03 (this CWA) - Programmer's Reference

In addition to these Programmer's Reference specifications, the reader of this CWA is also referred to a complementary document, called Release Notes. The Release Notes contain clarifications and explanations on the CWA specifications, which are not requiring functional changes. The current version of the Release Notes is available online from <http://www.cenorm.be/iss/Workshop/XFS>.

The following parts constitute an optional addendum to this CWA. They define the integration between the SNMP standard and the set of status and statistical information exported by the service providers.

Part 29: XFS MIB Architecture and SNMP Extensions – Programmer's Reference

Part 30: XFS MIB Device Specific Definitions - Printer Device Class

Part 31: XFS MIB Device Specific Definitions - Identification Card Device Class

Part 32: XFS MIB Device Specific Definitions - Cash Dispenser Device Class

Part 33: XFS MIB Device Specific Definitions - PIN Keypad Device Class

Part 34: XFS MIB Device Specific Definitions - Check Reader/Scanner Device Class

Part 35: XFS MIB Device Specific Definitions - Depository Device Class

Part 36: XFS MIB Device Specific Definitions - Text Terminal Unit Device Class

Part 37: XFS MIB Device Specific Definitions - Sensors and Indicators Unit Device Class

Part 38: XFS MIB Device Specific Definitions - Camera Device Class

Part 39: XFS MIB Device Specific Definitions - Alarm Device Class

Part 40: XFS MIB Device Specific Definitions - Card Embossing Unit Class

Part 41: XFS MIB Device Specific Definitions - Cash In Module Device Class

Part 43: XFS MIB Device Specific Definitions – Vendor Dependent Mode Device Class

Part 44: XFS MIB Application Management

The information in this document represents the Workshop's current views on the issues discussed as of the date of publication. It is furnished for informational purposes only and is subject to change without notice. CEN/ISSS makes no warranty, express or implied, with respect to this document.

Revision History:

1.0	20 January 2004	Initial release of XFS MIB specification
1.1	15 April 2007	Update of the MIB to add support for a Detailed Status Trap, a Device Reset capability, and the support of SMIV2. Also added CDM Exponent to Sub-Device.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN : AENOR, AFNOR, ASRO, BDS, BSI, CSNI, CYS, DIN, DS, ELOT, EVS, IBN, IPQ, IST, LVS, LST, MSA, MSZT, NEN, NSAI, ON, PKN, SEE, SIS, SIST, SFS, SN, SNV, SUTN and UNI

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre.

1. Introduction

This document provides the device specific MIB definition (Management Information Base) variables for the xfsCDM sub-tree version one, as foreseen by the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document.

The xfsCDM version one sub-tree is identified by:

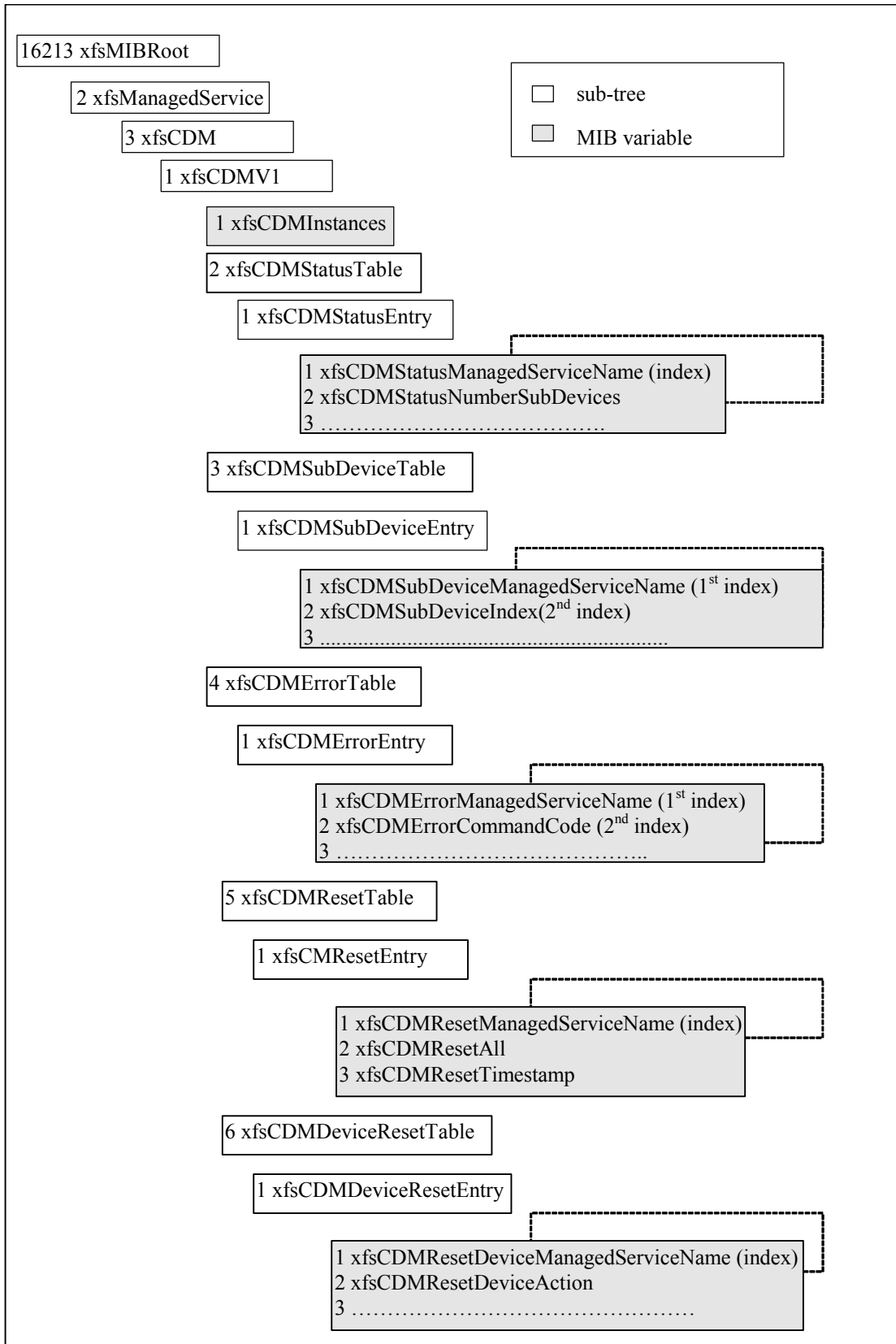
xfsMIBRoot

- xfsManagedService (2)
 - xfsCDM (3)
 - xfsCDMV1 (1)

The xfsCDMV1 sub-tree contains the following variables:

- *xfsCDMInstances(1)* is the number of managed services for the CDM class installed on the XFS subsystem. It is a 32 bit numerical field.
- *xfsCDMStatusTable(2)* identifies the table for the CDM variables.
- *xfsCDMSubDeviceTable(3)* identifies the sub-device table for the CDM device.
- *xfsCDMErrorTable(4)* identifies the table for the CDM error counters.
- *xfsCDMResetTable(5)* identifies the table for the CDM reset variable.
- *xfsCDMResetDeviceTable(6)* identifies the table for the CDM reset device variables.

The *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document provides an overview of the MIB structure. The following picture shows the structure of the *xfsCDMV1* sub-tree.



Section 2 describes how the Status, Sub-Device, Error and Reset tables apply to the CDM device class.

2. XFS CDM MIB variables

This section describes the MIB variables for the tables of the CDM Class. The description of the variables listed below includes, where it is meaningful, a reference to relevant data structures and commands defined inside the *Cash Dispenser Device Class Interface Programmer's Reference*. The following are some general notes pertaining to the MIB variables:

- All command response counters maintained by the service provider are persistent across re-boots.
- One application command may trigger only one command-related counter to be updated.
- One application command may trigger one or multiple status variables to be updated.
- All command response counters are read-writable unless otherwise specified.
- Each managed service has a Reset table that allows all the response counters to be reset.
- Each managed service has a Reset Device table that allows the WFS_CMD_CDM_RESET command to be executed from the management station.

2.1 XFS CDM Status Table

The *xfsCDMStatusTable(2)* groups the variables identifying device status information, statistics and additional variables. It is indexed through a single parameter, *xfsCDMStatusManagedServiceName*. All device status variables are read-only.

Additional variables can be used to contain vendor-dependent variables. These variables do not start immediately after the standard variables in order to allow for expansion of the standard variables, the first additional variable can be added at position 1000.

xfsCDMStatusManagedServiceName is the instance identifier of the managed service and uniquely identifies one instance of the CDM class.

As an example, the identifier for the device status value of *xfsCDMSafeDoorStatus(4)* for a device with managed service name equal to "Dispenser1" is as follows:

Character	D	i	s	p	e	n	s	e	r	l
ASCII Hex	44	69	73	70	65	6E	73	65	72	31
ASCII Dec	68	105	115	112	101	110	115	101	114	49

NOTE: SNMP OID representation of strings consists of a length field specifying the number of characters in the string followed by the ASCII code in decimal for each character in the string. Therefore the OID of the above example is:

xfsMIBRoot.2.3.1.2.1.4.10.68.105.115.112.101.110.115.101.114.49

2.1.1 xfsCDMStatusTable: States

The first three status variables are common across all device classes, the other variables are device class specific.

xfsCDMStatusManagedServiceName (1)
Uniquely identifies the managed service

xfsCDMStatusNumberSubDevices (2)
Defines how many sub-devices the service has. It is a numeric value.

xfsCDMStatusDevice (3)
It contains the device state. It is a numeric type field. Allowed values are:

Value	Meaning
<i>xfsDevOnline</i> (1)	The device is present, powered on and online (i.e., operational, not busy processing a request and not in an error state).
<i>xfsDevOffline</i> (2)	The device is offline (e.g., the operator has taken the device offline by turning a switch or pulling out the device).
<i>xfsDevPowerOff</i> (3)	The device is powered off or physically not connected.

xfsDevNoDevice(4)	There is no device intended to be there; e.g. this type of self service machine does not contain such a device or it is internally not configured.														
xfsDevHWError(5)	The device is present but inoperable due to a hardware fault that prevents it from being used.														
xfsDevUserError(6)	The device is present but a person is preventing proper device operation. The application should suspend the device operation or remove the device from service until the service provider generates a device state change event indicating the condition of the device has changed e.g. the error is removed (WFS_CDM_DEVONLINE) or a permanent error condition has occurred (WFS_CDM_DEVHWERROR).														
xfsDevBusy(7)	The device is busy and unable to process an Execute command at this time														
xfsCDMStatusSafeDoor (4)	The state of the safe door. It is a numeric type field. Allowed values are:														
	<table> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>xfsCDMDoorNotSupported(2)</td> <td>Physical device has no safe door or door state reporting is not supported.</td> </tr> <tr> <td>xfsCDMDoorOpen(3)</td> <td>Safe door is open.</td> </tr> <tr> <td>xfsCDMDoorClosed(4)</td> <td>Safe door is closed.</td> </tr> <tr> <td>xfsCDMDoorUnknown(6)</td> <td>Due to a hardware error or other condition, the state of the door cannot be determined.</td> </tr> </tbody> </table>	Value	Meaning	xfsCDMDoorNotSupported(2)	Physical device has no safe door or door state reporting is not supported.	xfsCDMDoorOpen(3)	Safe door is open.	xfsCDMDoorClosed(4)	Safe door is closed.	xfsCDMDoorUnknown(6)	Due to a hardware error or other condition, the state of the door cannot be determined.				
Value	Meaning														
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xfsCDMDoorClosed(4)	Safe door is closed.														
xfsCDMDoorUnknown(6)	Due to a hardware error or other condition, the state of the door cannot be determined.														
xfsCDMStatusDispenser (5)	The state of the dispenser. It is a numeric type field. Allowed values are:														
	<table> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>xfsCDMDispenserOK(1)</td> <td>All cash units present are in a good state</td> </tr> <tr> <td>xfsCDMDispenserCUState(2)</td> <td>The dispenser is operational, but one or more of the cash units is in a low, empty or inoperative condition. Items can still be dispensed from at least one of the cash units.</td> </tr> <tr> <td>xfsCDMDispenserCUStop(3)</td> <td>Due to a cash unit failure dispensing is impossible. The dispenser is operational, but no items can be dispensed because all of the cash units are in an empty or inoperative condition. This state also occurs when a reject/retract cash unit is full or no reject/retract cash unit is present, or a XFS application lock is set on every cash unit.</td> </tr> <tr> <td>xfsCDMDispenserCUUnknown(4)</td> <td>Due to a hardware error or other condition, the state of the cash units cannot be determined.</td> </tr> </tbody> </table>	Value	Meaning	xfsCDMDispenserOK(1)	All cash units present are in a good state	xfsCDMDispenserCUState(2)	The dispenser is operational, but one or more of the cash units is in a low, empty or inoperative condition. Items can still be dispensed from at least one of the cash units.	xfsCDMDispenserCUStop(3)	Due to a cash unit failure dispensing is impossible. The dispenser is operational, but no items can be dispensed because all of the cash units are in an empty or inoperative condition. This state also occurs when a reject/retract cash unit is full or no reject/retract cash unit is present, or a XFS application lock is set on every cash unit.	xfsCDMDispenserCUUnknown(4)	Due to a hardware error or other condition, the state of the cash units cannot be determined.				
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xfsCDMDispenserCUUnknown(4)	Due to a hardware error or other condition, the state of the cash units cannot be determined.														
xfsCDMStatusIntermediateStacker (6)	The state of the intermediate stacker. It is a numeric type field. Allowed values are:														
	<table> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>xfsCDMISEmpty(1)</td> <td>The intermediate stacker is empty.</td> </tr> <tr> <td>xfsCDMISNotEmpty(2)</td> <td>The intermediate stacker is not empty. The items have not been in customer access.</td> </tr> <tr> <td>xfsCDMISNotEmptyCust(3)</td> <td>The intermediate stacker is not empty. The items have been in customer access.</td> </tr> <tr> <td>xfsCDMISNotEmptyUnk(4)</td> <td>The intermediate stacker is not empty. It is not known if the items have been in customer access.</td> </tr> <tr> <td>xfsCDMISUnknown(5)</td> <td>Due to a hardware error or other condition, the state of the intermediate stacker cannot be determined.</td> </tr> <tr> <td>xfsCDMISNotSupported(6)</td> <td>The physical device has no intermediate stacker.</td> </tr> </tbody> </table>	Value	Meaning	xfsCDMISEmpty(1)	The intermediate stacker is empty.	xfsCDMISNotEmpty(2)	The intermediate stacker is not empty. The items have not been in customer access.	xfsCDMISNotEmptyCust(3)	The intermediate stacker is not empty. The items have been in customer access.	xfsCDMISNotEmptyUnk(4)	The intermediate stacker is not empty. It is not known if the items have been in customer access.	xfsCDMISUnknown(5)	Due to a hardware error or other condition, the state of the intermediate stacker cannot be determined.	xfsCDMISNotSupported(6)	The physical device has no intermediate stacker.
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xfsCDMISNotEmptyUnk(4)	The intermediate stacker is not empty. It is not known if the items have been in customer access.														
xfsCDMISUnknown(5)	Due to a hardware error or other condition, the state of the intermediate stacker cannot be determined.														
xfsCDMISNotSupported(6)	The physical device has no intermediate stacker.														
xfsCDMStatusShutterCenter (7)	The state of the center output position shutter. It is a numeric type field. Allowed values are:														
	<table> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>xfsCDMShtClosed(1)</td> <td>The shutter is closed.</td> </tr> <tr> <td>xfsCDMShtOpen(2)</td> <td>The shutter is opened.</td> </tr> <tr> <td>xfsCDMShtJammed(3)</td> <td>The shutter is jammed.</td> </tr> <tr> <td>xfsCDMShtUnknown(4)</td> <td>Due to a hardware error or other condition, the state of the shutter</td> </tr> </tbody> </table>	Value	Meaning	xfsCDMShtClosed(1)	The shutter is closed.	xfsCDMShtOpen(2)	The shutter is opened.	xfsCDMShtJammed(3)	The shutter is jammed.	xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter				
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xfsCDMShtJammed(3)	The shutter is jammed.														
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter														

cannot be determined.
 xfsCDMShtNotSupported(5) The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionCenter (8)

Information regarding items which may be at the center output position It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMPSEmpty(1)	The output position is empty.
xfsCDMPSNotEmpty(2)	The output position is not empty.
xfsCDMPSUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfsCDMPSNotSupported(4)	The device is not capable of reporting whether or not items are at the output position.

xfsCDMStatusTransportCenter (9)

The state of the center output position transport mechanism. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTUnknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTPNotSupported(4)	The physical device has no transport or transport state is not supported.

xfsCDMStatusTransportStatusCenter (10)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPStateEmpty(1)	The transport is empty.
xfsCDMTPStateNotEmpty(2)	The transport is not empty.
xfsCDMTPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMTPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMTPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport.

xfsCDMStatusShutterLeft (11)

The state of the shutter of left output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMShtClosed(1)	The shutter is closed.
xfsCDMShtOpen(2)	The shutter is opened.
xfsCDMShtJammed(3)	The shutter is jammed.
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfsCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionLeft (12)

The state of the cash tray of left output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMPSEmpty(1)	The output position is empty.
xfsCDMPSNotEmpty(2)	The output position is not empty.
xfsCDMPSUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfsCDMPSNotSupported(4)	The device is not capable of reporting whether or not items are in the output position or the output position is not supported.

xfsCDMStatusTransportLeft (13)

The state of the transport mechanism of left output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTPUknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTPNotsupported(4)	The physical device has no transport or transport state reported is not supported.

xfsCDMStatusTransportStatusLeft (14)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPEmpty(1)	The transport is empty.
xfsCDMPStateNotEmpty(2)	The transport is not empty.
xfsCDMPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or left transport is not supported.

xfsCDMStatusShutterRight (15)

The state of the shutter of right output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMShtClosed(1)	The shutter is closed.
xfsCDMShtOpen(2)	The shutter is opened.
xfsCDMShtJammed(3)	The shutter is jammed.
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfsCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionRight (16)

The state of the cash tray of right output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMPSEmpty(1)	The output position is empty.
xfsCDMPStateNotEmpty(2)	The output position is not empty.
xfsCDMPStateUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfsCDMPStateNotSupported(4)	The device is not capable of reporting whether or not items are at the output position or the right output position is not supported.

xfsCDMStatusTransportRight (17)

The state of the transport mechanism of right output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTPUknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTPNotsupported(4)	The physical device has no transport or transport state reported is not supported.

xfsCDMStatusTransportStatusRight (18)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPStateEmpty(1)	The transport is empty.
xfsCDMTPStateNotEmpty(2)	The transport is not empty.
xfsCDMTPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMTPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMTPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or right transport is not supported.

xfsCDMStatusShutterTop (19)

The state of the shutter of top output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMShtClosed(1)	The shutter is closed.
xfsCDMShtOpen(2)	The shutter is opened.
xfsCDMShtJammed(3)	The shutter is jammed.
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfsCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionTop (20)

The state of the cash tray of top output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMPSEmpty(1)	The output position is empty.
xfsCDMPSEmptyNot(2)	The output position is not empty.
xfsCDMPSEmptyUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfsCDMPSEmptyNotSupported(4)	The device is not capable of reporting whether or not items are at the output position or top output position is not supported.

xfsCDMStatusTransportTop (21)

The state of the transport mechanism of top output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTPUknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTPNotsupported(4)	The physical device has no transport or transport state reported is not supported.

xfsCDMStatusTransportStatusTop (22)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPStateEmpty(1)	The transport is empty.
xfsCDMTPStateNotEmpty(2)	The transport is not empty.
xfsCDMTPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMTPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMTPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or top transport is not supported.

xfsCDMStatusShutterBottom (23)

The state of the shutter of bottom output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMShtClosed(1)	The shutter is closed.
xfsCDMShtOpen(2)	The shutter is opened.
xfsCDMShtJammed(3)	The shutter is jammed.
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfsCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionBottom (24)

The state of the cash tray of bottom output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMPSEmpty(1)	The output position is empty.
xfsCDMPSNotEmpty(2)	The output position is not empty.
xfsCDMPSUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfsCDMPSNotSupported(4)	The device is not capable of reporting whether or not items are at the output position or bottom output position is not supported.

xfsCDMStatusTransportBottom (25)

The state of the transport mechanism of bottom output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTUnknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTNotSupported(4)	The physical device has no transport or transport state reported is not supported.

xfsCDMStatusTransportStatusBottom (26)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTStateEmpty(1)	The transport is empty.
xfsCDMTStateNotEmpty(2)	The transport is not empty.
xfsCDMTStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMTStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMTStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or the transport is not supported.

xfsCDMStatusShutterFront (27)

The state of the shutter of front output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMShtClosed(1)	The shutter is closed.
xfsCDMShtOpen(2)	The shutter is opened.
xfsCDMShtJammed(3)	The shutter is jammed.
xfsCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfsCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfsCDMStatusOutputPositionFront (28)

The state of the cash tray of front output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMPSEmpty(1)	The output position is empty.
xfxCDMPSNotEmpty(2)	The output position is not empty.
xfxCDMPSUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfxCDMPSNotSupported(4)	The device is not capable of reporting whether or not items are at the output position or the output position is not supported.

xfxCDMStatusTransportFront (29)

The state of the transport mechanism of front output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMTPOK(1)	The transport is in a good state.
xfxCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfxCDMTPUnknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfxCDMTPNotSupported(4)	The physical device has no transport or transport state reported is not supported.

xfxCDMStatusTransportStatusFront (30)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMTPStateEmpty(1)	The transport is empty.
xfxCDMTPStateNotEmpty(2)	The transport is not empty.
xfxCDMTPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfxCDMTPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfxCDMTPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or the transport is not supported.

xfxCDMStatusShutterRear (31)

The state of the shutter of rear output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMShtClosed(1)	The shutter is closed.
xfxCDMShtOpen(2)	The shutter is opened.
xfxCDMShtJammed(3)	The shutter is jammed.
xfxCDMShtUnknown(4)	Due to a hardware error or other condition, the state of the shutter cannot be determined.
xfxCDMShtNotSupported(5)	The physical device has no shutter or shutter state reported is not supported.

xfxCDMStatusOutputPositionRear (32)

The state of the cash tray of rear output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMPSEmpty(1)	The output position is empty.
xfxCDMPSNotEmpty(2)	The output position is not empty.
xfxCDMPSUnknown(3)	Due to a hardware error or other condition, the state of the output position cannot be determined.
xfxCDMPSNotSupported(4)	The device is not capable of reporting whether or not items are at the output position or the output position is not supported.

xfxCDMStatusTransportRear (33)

The state of the transport mechanism of rear output position. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPOK(1)	The transport is in a good state.
xfsCDMTPInop(2)	The transport is inoperative due to a hardware failure or media jam.
xfsCDMTPUknown(3)	Due to a hardware error or other condition, the state of the transport cannot be determined.
xfsCDMTPNotSupported(4)	The physical device has no transport or transport state reported is not supported.

xfsCDMStatusTransportStatusRear (34)

The state of the items in the transport. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMTPStateEmpty(1)	The transport is empty.
xfsCDMTPStateNotEmpty(2)	The transport is not empty.
xfsCDMTPStateNotEmptyCust(3)	Items which a customer has had access to are on the transport.
xfsCDMTPStateNotEmptyUnknown(4)	Due to a hardware error or other conditions, it is not known whether there are items on the transport.
xfsCDMTPStateNotSupported(5)	The device is not capable of reporting whether items are on the transport or the transport is not supported.

xfsCDMStatusExtraStatus (100)

It contains the vendor dependent additional device status information as an OCTET STRING. The information is returned as a series of "key=value" strings. Each string is null-terminated, with the final string terminating with two null characters.

2.2 XFS CDM SubDevice Table

The *xfsCDMSubDeviceTable(3)* groups the variables identifying information for the cash units. It is indexed through two values: *xfsCDMSubDeviceIndex*, and *xfsCDMSubDeviceManagedServiceName*. All SubDevice variables are read-only.

xfsCDMSubDeviceManagedServiceName is the instance identifier of the managed service and uniquely identifies one instance of the CDM class.

As an example, the identifier for the subdevice status value of *xfsCDMSubDeviceCUType(3)* for sub-device index 1 with managed service name equal to "Dispenser1" is as follows:

Character	D	i	s	p	e	n	s	e	r	l
ASCII Hex	44	69	73	70	65	6E	73	65	72	31
ASCII Dec	68	105	115	112	101	110	115	101	114	49

NOTE: SNMP OID representation of strings consists of a length field specifying the number of characters in the string followed by the ASCII code in decimal for each character in the string followed by which sub-device index is being referenced. Therefore the OID of the above example is:

xfsMIBRoot.2.3.1.3.1.3.10.68.105.115.112.101.110.115.101.114.49.1

2.2.1 xfsCDMSubDeviceTable:

The first two variables are common across all sub-devices, the other variables are sub-device specific.

It should be noted that in XFS the CDM specification uses a model whereby the Cash Units are represented in a logical /physical model where the data from one logical cash unit can be associated with the data from one or more physical cash units and vice versa. Therefore, in the CDM each Sub-Device represents data from one logical to one physical cash unit pairing. In XFS this information comes from the `WFS_INF_CDM_CASHUNITINFO` command.

xfxCDMSubDeviceManagedServiceName (1)
Uniquely identifies the managed service

xfxCDMSubDeviceIndex (2)
Index to the sub-device table only. This variable has no relationship to the cash unit. This is an index (starting from 1) into the CDM Sub-device table.

xfxCDMSubDeviceCUType (3)
Type of the cash unit. It is a numeric type field. Allowed values are:

Value	Meaning
xfxCDMTypeNA(2)	Not applicable. Typically means cash unit is missing.
xfxCDMTypeRejectCassette(3)	Reject cash unit.
xfxCDMTypeBillCassette(4)	Cash unit containing bills.
xfxCDMTypeCoinCylinder(5)	Coin cylinder.
xfxCDMTypeCoinDispenser(6)	Coin dispenser as a whole unit.
xfxCDMTypeRetractCassette(7)	Retract cash unit.
xfxCDMTypeCoupon(8)	Cash unit containing coupons or advertising materials.
xfxCDMTypeDocument(9)	Cash unit containing documents.
xfxCDMTypeRepContainer(12)	Replenishment container. A cash unit can be refilled from a replenishment container.
xfxCDMTypeRecycling(13)	Replenishment container. This unit is only present when the device is a compound device with a CIM.

xfxCDMSubDeviceCUName (4)
A name which helps to identify the logical type of the cash unit. It is a DisplayString field.

xfxCDMSubDeviceCULUnitID (5)
Cash unit identifier. It is an OCTET STRING field.

xfxCDMSubDeviceCUCurrencyID (6)
A three character array storing the ISO format Currency ID. It is an OCTET STRING field.

xfxCDMSubDeviceCUValues (7)
Supplies the value of a single item in the cash unit. It is a numeric type field.

xfxCDMSubDeviceCULInitialCount (8)
Initial number of items contained in the logical cash unit. It is a numeric type field.

xfxCDMSubDeviceCULCount (9)
Initial number of items contained in the logical cash unit. It is a numeric type field.

xfxCDMSubDeviceCULRejectCount (10)
Number of items from this logical cash unit that went to the reject cassette. It is a numeric type field.

xfxCDMSubDeviceCUMinimum (11)
A minimum threshold value for the logical cash unit. Not applicable for Retract and Reject Cash Units. It is a numeric type field.

xfxCDMSubDeviceCULMaximum (12)
A maximum threshold value for the logical cash unit. It is only applicable for Reject Cash Units. It is a numeric type field.

xfxCDMSubDeviceCUAppLock (13)
This field does not apply to reject or retract cash units. It is a TruthValue.
TRUE – items cannot be dispensed from the cash unit..
FALSE – items can be dispensed from the cash unit.

xfsCDMSubDeviceCULogicalStatus (14)

The status of the logical cash unit. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMCUStatusOK(1)	The cash unit is in a good state.
xfsCDMCUStatusFull(2)	The cash unit is full.
xfsCDMCUStatusHigh(3)	The cash unit is almost full (threshold defined by MaximumCount).
xfsCDMCUStatusLow(4)	The cash unit is almost empty (threshold define by MinimumCount).
xfsCDMCUStatusEmpty(5)	The cash unit is empty
xfsCDMCUStatusInop(6)	The cash unit is inoperative.
xfsCDMCUStatusMissing(7)	The cash unit is missing.
xfsCDMCUStatusNoval(8)	The values of the specified cash unit are not available.
xfsCDMCUStatusNoref(9)	There is no reference value available for the notes in this cash unit.
	The cash unit has not been calibrated.
xfsCDMCUStatusManip(10)	The cash unit has been changed when the device was not in the exchange state. This cash unit cannot be dispensed from.

xfsCDMSubDeviceCUPhysicalPositionName (15)

A name identifying the physical location of the cash unit within the CDM. This field can be used by CDMs which are compound with a CIM to identify shared cash units. It is a DisplayString field.

xfsCDMSubDeviceCUPUnitID (16)

Physical Cash unit identifier. It is an OCTET STRING field.

xfsCDMSubDeviceCUPInitialCount (17)

Initial number of items contained in the physical cash unit. It is a numeric type field.

xfsCDMSubDeviceCUPCount (18)

Actual number of items contained in the physical cash unit. It is a numeric type field.

xfsCDMSubDeviceCUPRejectCount (19)

Number of items that went to the reject bin from this physical cash unit. It is a numeric type field.

xfsCDMSubDeviceCUPMaximumCount (20)

The maximum number of items the physical cash unit can hold. It is a numeric type field.

xfsCDMSubDeviceCUPhysicalStatus (21)

The status of the physical cash unit. It is a numeric type field. Allowed values are:

Value	Meaning
xfsCDMCUStatusOK(1)	The cash unit is in a good state.
xfsCDMCUStatusFull(2)	The cash unit is full.
xfsCDMCUStatusHigh(3)	The cash unit is almost full (threshold defined by MaximumCount).
xfsCDMCUStatusLow(4)	The cash unit is almost empty (threshold define by MinimumCount).
xfsCDMCUStatusEmpty(5)	The cash unit is empty
xfsCDMCUStatusInop(6)	The cash unit is inoperative.
xfsCDMCUStatusMissing(7)	The cash unit is missing.
xfsCDMCUStatusNoval(8)	The values of the specified cash unit are not available.
xfsCDMCUStatusNoref(9)	There is no reference value available for the notes in this cash unit.
	The cash unit has not been calibrated.
xfsCDMCUStatusManip(10)	The cash unit has been changed when the device was not in the exchange state. This cash unit cannot be dispensed from.

xfsCDMSubDeviceCUHardwareSensor (22)

Specifies whether or not threshold events can be generated based on hardware sensor in the device. It is a TruthValue.

TRUE – threshold events generated on hardware sensors.

FALSE - threshold events NOT generated on hardware sensors.

xfscdmSubDeviceCUExponent (23)

The XFS Currency Exponent. It is a numeric type field.

2.3 XFS CDM Error Table

The *xfscdmErrorTable*(4) provides access to all command response counters supported by a device class. The error table contains the set of counters for every combination of executable command and associated response that the service provider supports. The counters report the number of times that a response has been returned from a particular command since the counts were last reset. Selection of the required counter is made by specifying the managed service name, command code and response code through the following parameters

xfscdmErrorManagedServiceName
xfscdmErrorCommandCode
xfscdmErrorResponseCode

The *xfscdmErrorTable* is defined as:

- *xfscdmErrorManagedServiceName*(1) which provides the primary index to the service in question. It is Display String field. The *xfscdmErrorManagedServiceName* parameter corresponds to the value of *xfsmibRoot.xfsGeneral.xfmibV1.xfsManagedServiceTable.xfsManagedServiceEntry.xfsManagedServiceName* in the general table. e.g. “Dispenser1”.
- *xfscdmErrorCommandCode*(2) is an index which identifies the command code that that response code related to, e.g. WFS_CMD_CDM_PRESENT (303). It is a 32 bit numerical field.
- *xfscdmErrorResponseCode*(3) is an index which identifies the response code that the count is required for. It is the absolute value of the error code e.g. WFS_ERR_CDM_SHUTTEROPEN (-313) is represented by 313. It is a 32 bit numerical field
- *xfscdmErrorCount*(4) is the count of the number of times that a particular response code has been generated while executing a specific command, since they were last reset. It is a 32 bit numerical field.

All counter variables are read-write. Issue of a Set command on a specific counter with value x will result in the individual counter being set to value x.

As an example, the identifier for the *xfscdmErrorCount*(4) value for WFS_ERR_CDM_SHUTTEROPEN (-313) error returned from the WFS_CMD_CDM_PRESENT (303) command for a device with managed service name equal to “Dispenser1” is as follows:

xfsmibRoot.2.3.1.4.1.4.10.68.105.115.112.101.110.115.101.114.49.303.313.

2.4 XFS CDM Reset Table

The *xfscdmResetTable*(5) contains the *xfscdmResetAll* and *xfscdmResetTimestamp* variables and is indexed by the single variable, *xfscdmResetManagedServiceName*. When the *xfscdmResetAll* variable is set to 0 (zero), all the counters in the error table for the managed service are reset to 0 (zero). All other values are ignored.

The *xfscdmResetTable*(5) is defined as:

- *xfscdmResetManagedServiceName*(1) which provides the primary index to the service in question. It is Display String field. The *xfscdmResetManagedServiceName* parameter corresponds to the value of *xfsmibRoot.xfsGeneral.xfmibV1.xfsManagedServiceTable.xfsManagedServiceEntry.xfsManagedServiceName* in the general table. E.g. “Dispenser1”.
- *xfscdmResetAll*(2) is a read-write variable. Issue of a Set command on the *xfscdmResetAll* variable with value 0 (zero) will result in all counters for the managed service being reset to value 0 (zero). Any other value will be ignored. A query of the *xfscdmResetAll* variable will return 0 (zero).
- *xfscdmResetTimestamp*(3) is a read-only variable which represents the UTC date and time when the counters in the error table was reset, it is a Display String field. The data is formatted in the following way: “DD/MM/YYYY HH:MM:SS +ZZZ” where DD/MM/YYYY HH:MM:SS is the local date and time. ZZZ is the bias, which is the difference, in minutes, between Coordinated Universal Time (UTC) and local time.

As an example, all the error counts can be reset for a device with managed service name equal to “Dispenser1” by setting the value zero in the *xfsCDMResetAll(2)* variable represented by:

xfsMIBRoot.2.3.1.5.1.2.10.68.105.115.112.101.110.115.101.114.49

2.5 XFS CDM Reset Device Table

The *xfsCDMResetDeviceTable(6)* is indexed by the single variable, *xfsCDMResetDeviceManagedServiceName*. This table contains variables which monitor and control the execution of the reset request.

The *xfsCDMResetDeviceAction* variable is used to initiate a reset. Setting this variable will cause the following to happen

1. The SNMP agent will determine if a Device Reset is allowed by checking the *RemoteDeviceResetAllowed* configuration flag (see XFS Common Management Configuration section, within the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document). If it is not allowed then the flow continues with step 5, otherwise the flow continues with step 2.
2. Exclusive access to the device will be obtained
3. A WFS_CMD_CDM_RESET command will be issued
4. Exclusive access to the device will be relinquished when the WFS_CMD_CDM_RESET command completes. Note: Exclusive access must be relinquished as soon as possible and implemented in such a way that deadlocks are avoided.
5. A *xfsCDMResetDeviceCompleteTrap* trap will be generated to report the result of the Device Reset request

The *xfsCDMResetDeviceMediaControl* variable is used to report how any media found within the device is handled.

The *xfsCDMResetDeviceTable(6)* is defined as:

- *xfsCDMResetDeviceManagedServiceName(1)* which provides the index to the service in question. It is a Display String field. The *xfsCDMResetDeviceManagedServiceName* parameter corresponds to the value of *xfsMIBRoot.xfsGeneral.xfsMIBV1.xfsManagedServiceTable.xfsManagedServiceEntry.xfsManagedServiceName* in the general table. E.g. “Printer1”.
- *xfsCDMResetDeviceAction(2)* is a read-write variable. Issue of a Set command on the *xfsCDMResetDeviceAction* variable with value *executeReset(1)* will result in the device being reset as described above.
- *xfsCDMResetDeviceMediaControl(3)* is a read only variable. This variable reports how any media found within the device is handled. The value of the *xfsCDMResetDeviceMediaControl* variable is configured through the *ResetDeviceMediaControl* configuration setting (see Managed Service Configuration section, within the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document). If this value is not configured then the variable defaults to the *mediaDefault* value that indicates that the Service Provider is responsible for media control. The detailed device specific media control information (e.g. CDM retract area to retract media to) is configured through local SNMP Agent configuration
- *xfsCDMResetDeviceStatus(4)* is a read only variable This variable can be used to check if a reset operation is still in progress. It is set when the reset is initiated and cleared when the reset command completes.

As an example, the device with managed service name equal to “Dispenser1” is reset by setting the *xfsCDMResetDeviceAction* variable represented by:

xfsMIBRoot.2.3.1.6.1.2.10.68.105.115.112.101.110.115.101.114.49

3. CDM Traps

The following sections define XFS Traps that are specific to the CDM device class.

3.1 CDM Detailed Device Status Change Trap

Status changes within managed services are reported as system events to the XFS Agent. The following section explicitly defines the format of the CDM Detailed Device Status Change trap. However, the format is split into two sections; the fields that are common to all device specific traps and the fields that are specific to each device class. The common fields are defined in the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document. The fields that are specific to the CDM reflect the CDM Status Table as defined in section 2.1.

The detailed device status change event is only generated when the top level status changes within a managed service, i.e. the trap is generated when the fwDevice value in the WFS_INF_CDM_STATUS response has changed. In addition, this trap is only generated on version 1.1 of the MIB and higher and is sent in addition to the summary device status change trap.

The SNMP Specific trap value 103 defines the trap as a CDM Detailed Device Status Change trap.

3.1.1 CDM Detailed Device Status Change Trap Format

The following defines the variable bindings included in the CDM Detailed Device Status Change Trap.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSysName (1)

This variable binding contains the system generating the alarm, it is a Display String field. It corresponds to lpszWorkstationName in the device status change event data from the service provider.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName (2)

This variable binding represents the managed service name generating the alarm, it is a Display String field. The agent derives this field from the device status change event.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass (3)

This variable binding represents the XFS service class identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the class identifier for the class name. The class name is identified from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class. This ID matches the class OID branch number i.e. PTR=1, IDC=2, CDM=3, etc. See the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document for a complete list of these values.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName (4)

This variable binding represents the XFS service class name generating the alarm, it is a Display String field. It corresponds to the three character representation of the XFS device class name, and it is useful for human interpretation of a trap. The class name is identified from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType (5)

This variable binding represents the XFS type identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the type identifier as defined in the WFS_INF_CDM_CAPABILITIES.fwType field.

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid (6)

This variable binding represents the OID of the sub-tree within xfsManagedService defining the management information for this class of managed service. This variable, along with the managed service name as an index, prevents the need for additional querying to find the service specific MIB branch. The CDM MIB class is represented by .1.3.6.1.4.1.16213.2.3

xfsmibRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName (7)

This variable binding represents the physical device name or names associated with the managed service generating the alarm, it is a Display String field. It corresponds to the physical device name or names identified by the managed service. The managed service name is used to identify the physical device name or names, from registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\PhysicalDeviceName. Multiple physical device names are comma separated

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor (8)

This variable binding represents the XFS device vendor name of the device generating the alarm, it is a Display String field. It corresponds to the vendor name for the service provider. The service provider is identified from the managed service name and the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\ServiceProvider.

The service provider name is then used to identify the vendor, from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS*<ServiceProviderName>*\vendor_name.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion (9)

This variable binding represents the XFS MIB version of the device generating the alarm, it is a Display String field. It corresponds to the XFS MIB version for the managed service. The managed service name is used to identify the XFS MIB version, from registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\MibVersion.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapEvent (10)

In case of XFS this variable binding represents the XFS event generating the alarm, it is a 32-bit integer (INT32). It corresponds to u.dwEventID in the event data from the service provider. See the Application Programming Interface (API) - Service Provider Interface (SPI); Programmer's Reference for a complete description of the event structure.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate (11)

This variable represents the UTC and bias for local translation of the date and time when the event was generated. It is a Display String field. The data is formatted in the following way: "DD/MM/YYYY HH:MM:SS +ZZZ" where DD/MM/YYYY HH:MM:SS is the local date and time. ZZZ is the bias, which is the difference, in minutes, between Co-ordinated Universal Time (UTC) and local time.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion (12)

This variable represents the vendor-defined version of the service provider generating the alarm, it is a Display String field. The service provider is identified from the managed service name and the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\ServiceProvider.

The service provider name is then used to identify the version, from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS*<ServiceProviderName>*\version.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.

xfsCDMStatusDevice.xfsCDMStatusManagedServiceName (13)

This variable binding represents the current state of the physical device managed by the service. It is a 32 bit integer (INT32).

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusNumberSubDevices.xfsCDMStatusManagedServiceName** (14)

Defines how many sub-devices the service has. This is the number of cash units the device supports.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusSafeDoor.xfsCDMStatusManagedServiceName** (15)

It contains the state of the safe door. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusDispenser.xfsCDMStatusManagedServiceName** (16)

It contains the state of the dispenser. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusIntermediateStacker.xfsCDMStatusManagedServiceName** (17)

It contains the state of the intermediate stacker. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterCenter.xfsCDMStatusManagedServiceName (18)

It contains the state of the center output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionCenter.xfsCDMStatusManagedServiceName (19)

It contains information regarding items which may be at the center output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportCenter.xfsCDMStatusManagedServiceName (20)

It contains the state of the center output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusCenter.xfsCDMStatusManagedServiceName (21)

It contains the state of the items in the center output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterLeft.xfsCDMStatusManagedServiceName (22)

It contains the state of the left output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionLeft.xfsCDMStatusManagedServiceName (23)

It contains information regarding items which may be at the left output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportLeft.xfsCDMStatusManagedServiceName (24)

It contains the state of the left output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusLeft.xfsCDMStatusManagedServiceName (25)

It contains the state of the items in the left output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterRight.xfsCDMStatusManagedServiceName (26)

It contains the state of the right output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionRight.xfsCDMStatusManagedServiceName (27)

It contains information regarding items which may be at the right output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportRight.xfsCDMStatusManagedServiceName (28)

It contains the state of the right output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusRight.xfsCDMStatusManagedServiceName (29)

It contains the state of the items in the right output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterTop.xfsCDMStatusManagedServiceName (30)

It contains the state of the top output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionTop.xfsCDMStatusManagedServiceName (31)

It contains information regarding items which may be at the top output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportTop.xfsCDMStatusManagedServiceName (32)

It contains the state of the top output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusTop.xfsCDMStatusManagedServiceName (33)

It contains the state of the items in the top output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterBottom.xfsCDMStatusManagedServiceName (34)

It contains the state of the bottom output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionBottom.xfsCDMStatusManagedServiceName (35)

It contains information regarding items which may be at the bottom output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportBottom.xfsCDMStatusManagedServiceName (36)

It contains the state of the bottom output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusBottom.xfsCDMStatusManagedServiceName (37)

It contains the state of the items in the bottom output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterFront.xfsCDMStatusManagedServiceName (38)

It contains the state of the front output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionFront.xfsCDMStatusManagedServiceName (39)

It contains information regarding items which may be at the front output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportFront.xfsCDMStatusManagedServiceName (40)

It contains the state of the front output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusFront.xfsCDMStatusManagedServiceName (41)

It contains the state of the items in the front output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterRear.xfsCDMStatusManagedServiceName (42)

It contains the state of the rear output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionRear.xfsCDMStatusManagedServiceName (43)

It contains information regarding items which may be at the rear output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportRear.xfsCDMStatusManagedServiceName (44)

It contains the state of the rear output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusRear.xfsCDMStatusManagedServiceName (45)

It contains the state of the items in the rear output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusExtraStatus.xfsCDMStatusManagedServiceName (46)

It contains the vendor dependent additional device status information as an OCTET STRING. The information is returned as a series of "key=value" strings. Each string is null-terminated, with the final string terminating with two null characters.

3.1.2 CDM Detailed Device Status Change Trap: an example

As an example, the following variable binding list represents a detailed device status change trap (6, 103) that is generated for a CDM with a managed service name of “Dispenser1”. It reports that the device is OFFLINE because the front shutter is jammed.

xfsMIBRoot.3.1.3.1	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSysName) “SST System 1”
xfsMIBRoot.3.1.3.2	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName) “Dispenser1”
xfsMIBRoot.3.1.3.3	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClasses) 3 (WFS_SERVICE_CLASS_CDM)
xfsMIBRoot.3.1.3.4	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassesName) “CDM”
xfsMIBRoot.3.1.3.5	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType) 3 (WFS_CDM_SELFSERVICEBILL)
xfsMIBRoot.3.1.3.6	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid) “.1.3.6.1.4.1.16213.2.3”
xfsMIBRoot.3.1.3.7	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName) “ABC Corp Dispenser”
xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor) “Best Devices Incorporated”
xfsMIBRoot.3.1.3.9	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion) “1.10”
xfsMIBRoot.3.1.3.10	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapEvent) 4 (WFS_SYSE_DEVICE_STATUS)
xfsMIBRoot.3.1.3.11	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate) “20/03/2003 15:40:53 -300”
xfsMIBRoot.3.1.3.12	(xfsMIBRoot.xfsTrap. xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion) “1.23”
xfsMIBRoot.2.3.1.2.1. 3.Index	(xfsMIBRoot. xfsManagedService. xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusDevice.xfsCDMStatusManagedServiceName) 2 (WFS_STAT_DEVOFFLINE)
xfsMIBRoot.2.3.1.2.1. 2.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusNumberSubDevices.xfsCDMStatusManagedServiceName) 2 (Two sub device)
xfsMIBRoot.2.3.1.2.1. 4.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusSafeDoor.xfsCDMStatusManagedServiceName) 2 (xfsCDMDoorNotSupported)
xfsMIBRoot.2.3.1.2.1. 5.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusDispenser.xfsCDMStatusManagedServiceName) 1 (xfsCDMDispenserOK)

xfsMIBRoot.2.3.1.2.1. 6.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusIntermediateStacker .xfsCDMStatusManagedServiceName)
	1 (xfsCDMIsEmpty)
xfsMIBRoot.2.3.1.2.1. 7.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterCenter .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 8.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionCenter .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 9.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportCenter .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 10.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusCenter .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 11.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterLeft .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 12.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionLeft .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 13.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportLeft .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 14.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusLeft .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 15.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterRight .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 16.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionRight .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 17.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportRight .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 18.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusRight .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 19.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterTop .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 20.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionTop .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 21.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportTop .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTPNotSupported)

xfsMIBRoot.2.3.1.2.1. 22.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusTop .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 23.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterBottom .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 24.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionBottom .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 25.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportBottom .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 26.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusBottom .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 27.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterFront .xfsCDMStatusManagedServiceName)
	3 (xfsCDMShtJammed)
xfsMIBRoot.2.3.1.2.1. 28.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionFront .xfsCDMStatusManagedServiceName)
	1 (xfsCDMPSEmpty)
xfsMIBRoot.2.3.1.2.1. 29.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportFront .xfsCDMStatusManagedServiceName)
	1 (xfsCDMTPOK)
xfsMIBRoot.2.3.1.2.1. 30.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusFront .xfsCDMStatusManagedServiceName)
	1 (xfsCDMTTPStateEmpty)
xfsMIBRoot.2.3.1.2.1. 31.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterRear .xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 32.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionRear .xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 33.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportRear .xfsCDMStatusManagedServiceName)
	4 (xfsCDMTTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 34.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusRear .xfsCDMStatusManagedServiceName)
	5 (xfsCDMTTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 100.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusExtraStatus .xfsCDMStatusManagedServiceName)
	"0"0' (No extra data)

3.2 CDM Sub-Device Status Change Trap

On the CDM device class the Sub Device Status change traps are sent when WFS_SRVE_CDM_CASHUNITINFOCHANGED event is generated..

The definition of the content of the device specific fields within the Sub-Device Status trap (fields 12-33) is defined in section 2.2.

The SNMP Specific trap value 203 defines the trap as a CDM Sub-Device Status Change trap.

3.2.1 CDM Sub-Device Status Change Trap Format

The following defines the variable bindings included in the CDM Sub-Device Status Change Trap.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName (1)

This variable binding represents the managed service name generating the alarm, it is a Display String field. The agent derives this field from the device status change event.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass (2)

This variable binding represents the XFS service class identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the class identifier for the class name. The class name is identified from the registry value
HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class. This ID matches the class OID branch number i.e. PTR=1, IDC=2, CDM=3, etc.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName (3)

This variable binding represents the XFS service class name generating the alarm, it is a Display String field. It corresponds to the three character representation of the XFS device class name, and it is useful for human interpretation of a trap. The class name is identified from the registry value
HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType (4)

This variable binding represents the XFS type identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the type identifier as defined in the WFS_INF_CDM_CAPABILITIES.fwType field.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid (5)

This variable binding represents the OID of the sub-tree within xfsManagedService defining the management information for this class of managed service. This variable, along with the managed service name as an index, prevents the need for additional querying to find the service specific MIB branch. The CDM MIB class is represented by .1.3.6.1.4.1.16213.2.3

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName (6)

This variable binding represents the physical device name or names associated with the managed service generating the alarm, it is a Display String field. It corresponds to the physical device name or names identified by the managed service. The managed service name is used to identify the physical device name or names, from registry value
HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\PhysicalDeviceName. Multiple physical device names are comma separated.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor (7)

This variable binding represents the XFS device vendor name of the device generating the alarm, it is a Display String field. It corresponds to the vendor name for the service provider. The service provider is identified from the managed service name and the registry value
HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\ServiceProvider.
The service provider name is then used to identify the vendor, from the registry value
HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS\<ServiceProviderName>\vendor_name.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion (8)

This variable binding represents the XFS MIB version of the device generating the alarm, it is a Display String field. It corresponds to the XFS MIB version for the managed service. The managed service name is used to

identify the XFS MIB version, from registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\MibVersion.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapEvent (9)

The XFS event generating the alarm, it is a 32-bit integer (INT32). It corresponds to the message identifier associated with the XFS event generated by the service provider. For the CDM this corresponds to the WFS_SRVE_CDM_CASHUNITINFOCHANGED event.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate (10)

This variable represents the UTC and bias for local translation of the date and time when the event was generated. It is a Display String field. The data is formatted in the following way: "DD/MM/YYYY HH:MM:SS +ZZZ" where DD/MM/YYYY HH:MM:SS is the local date and time. ZZZ is the bias, which is the difference, in minutes, between Co-ordinated Universal Time (UTC) and local time.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion (11)

This variable represents the vendor-defined version of the service provider generating the alarm, it is a Display String field. The service provider is identified from the managed service name and the registry value HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\ServiceProvider.

The service provider name is then used to identify the version, from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS*<ServiceProviderName>*\version.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceIndex**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (12)

Index identifying the sub-device.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCUType**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (13)

Type of the cash unit. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCUName**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (14)

A name which helps to identify the logical type of the cash unit. It is a DisplayString field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCULUnitID**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (15)

Cash unit identifier. It is an OCTET STRING field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCUCurrencyID**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (16)

A three character array storing the ISO format Currency ID. It is an OCTET STRING field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCUValues**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (17)

Supplies the value of a single item in the cash unit. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCULInitialCount**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (18)

Initial number of items contained in the logical cash unit. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCULCount**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (19)

Initial number of items contained in the logical cash unit. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCULRejectCount**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (20)

Number of items from this logical cash unit that went to the reject cassette. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.**xfsCDMSubDeviceCUMinimum**.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (21)

A minimum threshold value for the logical cash unit. Not applicable for Retract and Reject Cash Units. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULMaximum.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (22)

A maximum threshold value for the logical cash unit. It is only applicable for Reject Cash Units. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUAppLock.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (23)

This field does not apply to reject or retract cash units. It is a TruthValue.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULogicalStatus.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (24)

The status of the logical cash unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPhysicalPositionName.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (25)

A name identifying the physical location of the cash unit within the CDM. This field can be used by CDMs which are compound with a CIM to identify shared cash units. It is a DisplayString field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPUnitID.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (26)

Physical Cash unit identifier. It is an OCTET STRING field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPInitialCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (27)

Initial number of items contained in the physical cash unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (28)

Actual number of items contained in the physical cash unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPRejectCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (29)

Number of items that went to the reject bin from this physical cash unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPMaximumCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (30)

The maximum number of items the physical cash unit can hold. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPhysicalStatus.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (31)

The status of the physical cash unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUHardwareSensor.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (32)

Specifies whether or not threshold events can be generated based on hardware sensor in the device. It is a TruthValue.

xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUExponent.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceTrapIndex (33)

The XFS Currency Exponent. It is a numeric type field.

3.2.2 CDM Sub-Device Status Change Trap: an example

As an example, the following variable binding list represents a CDM sub-device status change trap (6, 203) generated from a generic XFS SST system. This trap sends an alarm to the SNMP Manager when a WFS_SRVE_CDM_CASHUNITINFOCHANGE event is generated.

xfsMIBRoot.3.1.3.2	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName)
	"Dispenser1"
xfsMIBRoot.3.1.3.3	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass)
	1 (WFS_SERVICE_CLASS_CDM)
xfsMIBRoot.3.1.3.4	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName)
	"CDM"
xfsMIBRoot.3.1.3.5	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType)
	1 (WFS_CDM_SELFSERVICEBILL)
xfsMIBRoot.3.1.3.6	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid)
	"1.3.6.1.4.1.16213.2.3"
xfsMIBRoot.3.1.3.7	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName)
	"ABC Corp Dispenser"
xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor)
	"Best Devices Incorporated"
xfsMIBRoot.3.1.3.9	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion)
	"1.10"
xfsMIBRoot.3.1.3.10	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapEvent)
	304 (WFS_SRVE_CDM_CASHUNITINFOCHANGED)
xfsMIBRoot.3.1.3.11	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate)
	"20/03/2003 15:40:53 -300"
xfsMIBRoot.3.1.3.12	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion)
	"1.23"
xfsMIBRoot.2.3.1.3.1.2.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceIndex.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	1 (Index to first sub device)
xfsMIBRoot.2.3.1.3.1.3.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUType.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	4 (xfsCDMTypeBillCassette)
xfsMIBRoot.2.3.1.3.1.4.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUName.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	"10 Euro Cash Unit"
xfsMIBRoot.2.3.1.3.1.5.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULUnitID.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	"BC001"

xfsMIBRoot.2.3.1.3.1.6.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUCurrencyID.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	“EUR”
xfsMIBRoot.2.3.1.3.1.7.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUValues.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	10 (10 Minimum Dispense Units, i.e. 10 Euros)
xfsMIBRoot.2.3.1.3.1.8.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULInitialCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	10000 (10000 notes)
xfsMIBRoot.2.3.1.3.1.9.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	90000 (9000 Notes)
xfsMIBRoot.2.3.1.3.1.10.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULRejectCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	10 (10 Notes Rejected)
xfsMIBRoot.2.3.1.3.1.11.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUMinimum.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	100 (100 Note Threshold)
xfsMIBRoot.2.3.1.3.1.12.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULMaximum.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	0 (Not Applicable to Bill Cassettes)
xfsMIBRoot.2.3.1.3.1.13.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUAppLock.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	22 (FALSE)
xfsMIBRoot.2.3.1.3.1.14.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCULogicalStatus.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	1 (xfsCDMCUStatusOK)
xfsMIBRoot.2.3.1.3.1.15.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPhysicalPositionName.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	“TOP”
xfsMIBRoot.2.3.1.3.1.16.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPUnitID.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	“BC001”
xfsMIBRoot.2.3.1.3.1.17.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPInitialCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	4000 (4000 Notes)
xfsMIBRoot.2.3.1.3.1.18.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry.xfsCDMSubDeviceCUPCount.xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	1000 (1000 Notes)

xfMIBRoot.2.3.1.3.1. 19 .Index1.Index2	(xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1. xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry. xfsCDMSubDeviceCUPRejectCount .xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	5 (5 Notes Rejected)
xfMIBRoot.2.3.1.3.1. 20 .Index1.Index2	(xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1. xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry. xfsCDMSubDeviceCUPMaximum .xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	0 (Not Applicable to Bill Cassettes)
xfMIBRoot.2.3.1.3.1. 21 .Index1.Index2	(xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1. xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry. xfsCDMSubDeviceCUPhysicalStatus .xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	1 (xfsCDMCUStatusOK)
xfMIBRoot.2.3.1.3.1. 22 .Index1.Index2	(xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1. xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry. xfsCDMSubDeviceCUHardwareSensor .xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	2 (FALSE)
xfMIBRoot.2.3.1.3.1. 23 .Index1.Index2	(xfMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1. xfsCDMSubDeviceTable.xfsCDMSubDeviceEntry. xfsCDMSubDeviceCUExponent .xfsCDMStatusManagedServiceName.xfsCDMSubDeviceIndex)
	0 (Exponent is 0, so $10^0 = 1$)

3.3 CDM Reset Device Complete Trap

On the CDM device class this trap reports the completion of the reset device request and includes the status of the device at that point. If the reset has changed the status of the device then the Device Status Change and a Detail Device Status traps will also be generated.

The SNMP Specific trap value 303 defines the trap as a CDM Reset Device Complete trap.

3.3.1 CDM Reset Device Complete Trap Format

The following defines the variable bindings included in the CDM Reset Device Complete Trap. In the following section, the numbers in parenthesis at the end of each binding just indicate the sequence of the variable bindings within the trap, they do not represent an OID value.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapResetDeviceResult (1)

This variable binding contains a value indicating if the reset was executed, and if not provides a reason. It does not report the status of the device (i.e. the result of the reset), the current status of the device is reported within the **xfsxfsCDMStatusDevice** binding (var bind 12 below).

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName (2)

This variable binding represents the managed service name generating the alarm, it is a Display String field. The agent derives this field from the device status change event.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass (3)

This variable binding represents the XFS service class identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the class identifier for the class name. The class name is identified from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class. This ID matches the class OID branch number i.e. PTR=1, IDC=2, CDM=3, etc. See the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document for a complete list of these values.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName (4)

This variable binding represents the XFS service class name generating the alarm, it is a Display String field. It corresponds to the three character representation of the XFS device class name, and it is useful for human interpretation of a trap. The class name is identified from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\class.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType (5)

This variable binding represents the XFS type identifier generating the alarm, it is a 32-bit integer (INT32). It corresponds to the type identifier as defined in the WFS_INF_CDM_CAPABILITIES.fwType field.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid (6)

This variable binding represents the OID of the sub-tree within xfsManagedService defining the management information for this class of managed service. This variable, along with the managed service name as an index, prevents the need for additional querying to find the service specific MIB branch. The CDM MIB class is represented by .1.3.6.1.4.1.16213.2.3

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName (7)

This variable binding represents the physical device name or names associated with the managed service generating the alarm, it is a Display String field. It corresponds to the physical device name or names identified by the managed service. The managed service name is used to identify the physical device name or names, from registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS\<ManagedServiceName>\PhysicalDeviceName. Multiple physical device names are comma separated.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor (8)

This variable binding represents the XFS device vendor name of the device generating the alarm, it is a Display String field. It corresponds to the vendor name for the service provider. The service provider is identified from the managed service name and the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\ServiceProvider.

The service provider name is then used to identify the vendor, from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS*<ServiceProviderName>*\vendor_name.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion (9)

This variable binding represents the XFS MIB version of the device generating the alarm, it is a Display String field. It corresponds to the XFS MIB version for the managed service. The managed service name is used to identify the XFS MIB version, from registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\MibVersion.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate (10)

This variable represents the UTC and bias for local translation of the date and time when the event was generated. It is a Display String field. The data is formatted in the following way: "DD/MM/YYYY

HH:MM:SS +ZZZ" where DD/MM/YYYY HH:MM:SS is the local date and time. ZZZ is the bias, which is the difference, in minutes, between Co-ordinated Universal Time (UTC) and local time.

xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion (11)

This variable represents the vendor-defined version of the service provider generating the alarm, it is a Display String field. The service provider is identified from the managed service name and the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\MANAGEMENT_PROVIDERS*<ManagedServiceName>*\ServiceProvider.

The service provider name is then used to identify the version, from the registry value

HKEY_LOCAL_MACHINE\SOFTWARE\XFS\SERVICE_PROVIDERS*<ServiceProviderName>*\version.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.

xfsxfsCDMStatusDevice.xfsCDMStatusManagedServiceName (12)

This variable binding represents the current state of the physical device managed by the service. It is a 32 bit integer (INT32).

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusNumberSubDevices.xfsCDMStatusManagedServiceName** (13)

Defines how many sub-devices the service has. This is the number of retract bins the device supports.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusSafeDoor.xfsCDMStatusManagedServiceName** (14)

It contains the state of the safe door. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusDispenser.xfsCDMStatusManagedServiceName** (15)

It contains the state of the dispenser. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusIntermediateStacker.xfsCDMStatusManagedServiceName** (16)

It contains the state of the intermediate stacker. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusShutterCenter.xfsCDMStatusManagedServiceName** (17)

It contains the state of the center output position shutter. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusOutputPositionCenter.xfsCDMStatusManagedServiceName** (18)

It contains information regarding items which may be at the center output position. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.**xfsCDMStatusTransportCenter.xfsCDMStatusManagedServiceName** (19)

It contains the state of the center output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusCenter.xfsCDMStatusManagedServiceName (20)

It contains the state of the items in the center output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterLeft.xfsCDMStatusManagedServiceName (21)

It contains the state of the left output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionLeft.xfsCDMStatusManagedServiceName (22)

It contains information regarding items which may be at the left output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportLeft.xfsCDMStatusManagedServiceName (23)

It contains the state of the left output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusLeft.xfsCDMStatusManagedServiceName (24)

It contains the state of the items in the left output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterRight.xfsCDMStatusManagedServiceName (25)

It contains the state of the right output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionRight.xfsCDMStatusManagedServiceName (26)

It contains information regarding items which may be at the right output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportRight.xfsCDMStatusManagedServiceName (27)

It contains the state of the right output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusRight.xfsCDMStatusManagedServiceName (28)

It contains the state of the items in the right output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterTop.xfsCDMStatusManagedServiceName (29)

It contains the state of the top output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionTop.xfsCDMStatusManagedServiceName (30)

It contains information regarding items which may be at the top output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportTop.xfsCDMStatusManagedServiceName (31)

It contains the state of the top output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusTop.xfsCDMStatusManagedServiceName (32)

It contains the state of the items in the top output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterBottom.xfsCDMStatusManagedServiceName (33)

It contains the state of the bottom output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionBottom.xfsCDMStatusManagedServiceName (34)

It contains information regarding items which may be at the bottom output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportBottom.xfsCDMStatusManagedServiceName (35)

It contains the state of the bottom output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusBottom.xfsCDMStatusManagedServiceName (36)

It contains the state of the items in the bottom output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterFront.xfsCDMStatusManagedServiceName (37)

It contains the state of the front output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionFront.xfsCDMStatusManagedServiceName (38)

It contains information regarding items which may be at the front output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportFront.xfsCDMStatusManagedServiceName (39)

It contains the state of the front output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusFront.xfsCDMStatusManagedServiceName (40)

It contains the state of the items in the front output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterRear.xfsCDMStatusManagedServiceName (41)

It contains the state of the rear output position shutter. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionRear.xfsCDMStatusManagedServiceName (42)

It contains information regarding items which may be at the rear output position. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportRear.xfsCDMStatusManagedServiceName (43)

It contains the state of the rear output position transport mechanism. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportStatusRear.xfsCDMStatusManagedServiceName (44)

It contains the state of the items in the rear output position transport. It is a numeric type field.

xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusExtraStatus.xfsCDMStatusManagedServiceName (45)

It contains the vendor dependent additional device status information as an OCTET STRING. The information is returned as a series of "key=value" strings. Each string is null-terminated, with the final string terminating with two null characters.

3.3.2 CDM Reset Device Complete: an example

As an example, the following variable binding list represents a Reset Device Complete trap (6, 303) generated as a result of a request to reset the device from the remote management station. The device in question is of type self-service bill with a managed service name "Dispenser".

xfsmIBRoot.3.1.3.13	(xfsmIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapResetDeviceResult)
	0 (resetExecuted)
xfsmIBRoot.3.1.3.2	(xfsmIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName)
	"Dispenser1"

xfsMIBRoot.3.1.3.3	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClasses)
	3 (WFS_SERVICE_CLASS_CDM)
xfsMIBRoot.3.1.3.4	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName)
	"CDM"
xfsMIBRoot.3.1.3.5	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType)
	3 (WFS_CDM_SELFSERVICEBILL)
xfsMIBRoot.3.1.3.6	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid)
	".1.3.6.1.4.1.16213.2.3"
xfsMIBRoot.3.1.3.7	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName)
	"ABC Corp Dispenser"
xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor)
	"Best Devices Incorporated"
xfsMIBRoot.3.1.3.9	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion)
	"1.10"
xfsMIBRoot.3.1.3.11	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDate)
	"20/03/2003 15:40:53 -300"
xfsMIBRoot.3.1.3.12	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSPVersion)
	"1.23"
xfsMIBRoot.2.3.1.2.1.3.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusDevice.xfsCDMStatusManagedServiceName)
	2 (WFS_STAT_DEVOFFLINE)
xfsMIBRoot.2.3.1.2.1.2.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusNumberSubDevices.xfsCDMStatusManagedServiceName)
	2 (Two sub device)
xfsMIBRoot.2.3.1.2.1.4.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusSafeDoor.xfsCDMStatusManagedServiceName)
	2 (xfsCDMDoorNotSupported)
xfsMIBRoot.2.3.1.2.1.5.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusDispenser.xfsCDMStatusManagedServiceName)
	1 (xfsCDMDispenserOK)
xfsMIBRoot.2.3.1.2.1.6.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusIntermediateStacker.xfsCDMStatusManagedServiceName)
	1 (xfsCDMISEmpty)
xfsMIBRoot.2.3.1.2.1.7.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusShutterCenter.xfsCDMStatusManagedServiceName)
	5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1.8.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusOutputPositionCenter.xfsCDMStatusManagedServiceName)
	4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1.9.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry.xfsCDMStatusTransportCenter.xfsCDMStatusManagedServiceName)
	4 (xfsCDMTPNotSupported)

xfsMIBRoot.2.3.1.2.1. 10.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusCenter .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 11.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterLeft .xfsCDMStatusManagedServiceName) 5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 12.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionLeft .xfsCDMStatusManagedServiceName) 4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 13.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportLeft .xfsCDMStatusManagedServiceName) 4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 14.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusLeft .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 15.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterRight .xfsCDMStatusManagedServiceName) 5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 16.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionRight .xfsCDMStatusManagedServiceName) 4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 17.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportRight .xfsCDMStatusManagedServiceName) 4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 18.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusRight .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 19.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterTop .xfsCDMStatusManagedServiceName) 5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 20.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionTop .xfsCDMStatusManagedServiceName) 4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 21.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportTop .xfsCDMStatusManagedServiceName) 4 (xfsCDMTPNotSupported)
xfsMIBRoot.2.3.1.2.1. 22.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusTop .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsMIBRoot.2.3.1.2.1. 23.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterBottom .xfsCDMStatusManagedServiceName) 5 (xfsCDMShtNotSupported)
xfsMIBRoot.2.3.1.2.1. 24.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionBottom .xfsCDMStatusManagedServiceName) 4 (xfsCDMPSNotSupported)
xfsMIBRoot.2.3.1.2.1. 25.Index	(xfsMIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportBottom .xfsCDMStatusManagedServiceName) 4 (xfsCDMTPNotSupported)

xfsmIBRoot.2.3.1.2.1. 26.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusBottom .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsmIBRoot.2.3.1.2.1. 27.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterFront .xfsCDMStatusManagedServiceName) 1 (xfsCDMShtClosed)
xfsmIBRoot.2.3.1.2.1. 28.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionFront .xfsCDMStatusManagedServiceName) 1 (xfsCDMPSEmpty)
xfsmIBRoot.2.3.1.2.1. 29.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportFront .xfsCDMStatusManagedServiceName) 1 (xfsCDMTPOK)
xfsmIBRoot.2.3.1.2.1. 30.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusFront .xfsCDMStatusManagedServiceName) 1 (xfsCDMTPStateEmpty)
xfsmIBRoot.2.3.1.2.1. 31.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusShutterRear .xfsCDMStatusManagedServiceName) 5 (xfsCDMShtNotSupported)
xfsmIBRoot.2.3.1.2.1. 32.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusOutputPositionRear .xfsCDMStatusManagedServiceName) 4 (xfsCDMPSNotSupported)
xfsmIBRoot.2.3.1.2.1. 33.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportRear .xfsCDMStatusManagedServiceName) 4 (xfsCDMTPNotSupported)
xfsmIBRoot.2.3.1.2.1. 34.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusTransportStatusRear .xfsCDMStatusManagedServiceName) 5 (xfsCDMTPStateNotSupported)
xfsmIBRoot.2.3.1.2.1. 100.Index	(xfsmIBRoot.xfsManagedService.xfsCDM.xfsCDMV1.xfsCDMStatusTable.xfsCDMStatusEntry. xfsCDMStatusExtraStatus .xfsCDMStatusManagedServiceName) "0"0' (No extra data)

4. Appendix A - CDM MIB sub-tree

The following paragraph contains the definition of the XFS CDM MIB sub-tree in ASN-1 format.

4.1 CDM MIB in SMIv2 and SMIv1 ASN-1 format

The following object contains the xfsCDM.MIB file in SMIv2 format.



SMIv2\xfsCDM.mib

The following object contains the xfsCDM.MIB file in SMIv1 format.



SMIv1\xfsCDM.mib

The following text is the content of xfsCDM.MIB in SMIv2 format.

```
--*****
-- XFS MIB for CDM
-- Management Information Base for XFS CDM Device
--
-- The CDM Number is 3
-- The ASN.1 prefix to, and including the CDM is: 1.3.6.1.4.1.16213.2.3
--
--*****

XFS-CDM-MIB DEFINITIONS ::= BEGIN

    IMPORTS
        Integer32, OBJECT-TYPE, OBJECT-IDENTITY, NOTIFICATION-TYPE
            FROM SNMPv2-SMI
        DisplayString, TruthValue
            FROM SNMPv2-TC
        xfsCDM, xfsTrap, IxfsMIBDeviceStatus
            FROM XFSMIB;

-- *****
-- CDM Status #defines
-- *****
    IxfsCDMSafeDoorStatus ::= INTEGER
    {
        xfsCDMSafeDoorNotSupported(2),
        xfsCDMSafeDoorOpen(3),
        xfsCDMSafeDoorClosed(4),
        xfsCDMSafeDoorUnknown(6)
    }

    IxfsCDMDispenserStatus ::= INTEGER
    {
        xfsCDMDispenserOK(1),
        xfsCDMDispenserCUState(2),
        xfsCDMDispenserCUStop(3),
        xfsCDMDispenserCUUnknown(4)
    }

    IxfsCDMIntermediateStackerStatus ::= INTEGER
    {
        xfsCDMISEmpty(1),
        xfsCDMISNotEmpty(2),
        xfsCDMISNotEmptyCust(3),
        xfsCDMISNotEmptyUnknown(4),
        xfsCDMISUnknown(5),
        xfsCDMISNotSupported(6)
    }

    IxfsCDMShutterStatus ::= INTEGER
    {
```

```

    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)
}

IxfscDMOutputPositionStatus ::= INTEGER
{
    xfsCDMPSEmpty(1),
    xfsCDMPSEmpty(2),
    xfsCDMPSEmpty(3),
    xfsCDMPSEmpty(4)
}

IxfscDMTransportStatus ::= INTEGER
{
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)
}

IxfscDMTransportStateStatus ::= INTEGER
{
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)
}

-- *****
-- CDM SubDevice #defines
-- *****
IxfscDMCUType ::= INTEGER
{
    xfsCDMTypeNA(2),
    xfsCDMTypeRejectCassette(3),
    xfsCDMTypeBillCassette(4),
    xfsCDMTypeCoinCylinder(5),
    xfsCDMTypeCoinDispenser(6),
    xfsCDMTypeRetractCassette(7),
    xfsCDMTypeCoupon(8),
    xfsCDMTypeDocument(9),
    xfsCDMTypeRepContainer(12),
    xfsCDMTypeRecycling(13)
}

IxfscDMCUStatus ::= INTEGER
{
    xfsCDMCUStatusOK(1),
    xfsCDMCUStatusFull(2),
    xfsCDMCUStatusHigh(3),
    xfsCDMCUStatusLow(4),
    xfsCDMCUStatusEmpty(5),
    xfsCDMCUStatusInop(6),
    xfsCDMCUStatusMissing(7),
    xfsCDMCUStatusNoval(8),
    xfsCDMCUStatusNoref(9),
    xfsCDMCUStatusManip(10)
}

IxfscDMCUHardwareSensor ::= INTEGER
{
    hardwareSensorOn(1),
    hardwareSensorOff(2)
}

IxfscDMCUAppLock ::= INTEGER
{
    appLockOn(1),
    appLockOff(2)
}

```



```

-- *****
-- Version 1 of CDM MIB
--
-- The ASN.1 prefix to, and including the Version 1 of CDM is:
1.3.6.1.4.1.16213.2.3.1
--
-- *****
xfsCDMV1 OBJECT IDENTIFIER ::= { xfsCDM 1 }

xfsCDMInstances OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number that represents the number of CDM managed services."
    ::= { xfsCDMV1 1 }

-- *****
-- CDM Device Status Table
-- *****
xfsCDMStatusTable OBJECT-TYPE
    SYNTAX SEQUENCE OF XfsCDMStatusEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Define the set of MIB Variables for the CDM status table."
    ::= { xfsCDMV1 2 }

xfsCDMStatusEntry OBJECT-TYPE
    SYNTAX XfsCDMStatusEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "CDM Device Status Table Entry."
    INDEX { xfsCDMStatusManagedServiceName }
    ::= { xfsCDMStatusTable 1 }

XfsCDMStatusEntry ::=
    SEQUENCE {
        xfsCDMStatusManagedServiceName
            DisplayString,
        xfsCDMStatusNumberSubDevices
            Integer32,
        xfsCDMStatusDevice
            IxfsMIBDeviceStatus,
        xfsCDMStatusSafeDoor
            IxfsCDMSafeDoorStatus,
        xfsCDMStatusDispenser
            IxfsCDMDispenserStatus,
        xfsCDMStatusIntermediateStacker
            IxfsCDMIntermediateStackerStatus,
        xfsCDMStatusShutterCenter
            IxfsCDMShutterStatus,
        xfsCDMStatusOutputPositionCenter
            IxfsCDMOutputPositionStatus,
        xfsCDMStatusTransportCenter
            IxfsCDMTransportStatus,
        xfsCDMStatusTransportStatusCenter
            IxfsCDMTransportStateStatus,
        xfsCDMStatusShutterLeft
            IxfsCDMShutterStatus,
        xfsCDMStatusOutputPositionLeft
            IxfsCDMOutputPositionStatus,
        xfsCDMStatusTransportLeft
            IxfsCDMTransportStatus,
        xfsCDMStatusTransportStatusLeft
            IxfsCDMTransportStateStatus,
        xfsCDMStatusShutterRight
            IxfsCDMShutterStatus,

```

```

xfsCDMStatusOutputPositionRight
  IxfsCDMOutputPositionStatus,
xfsCDMStatusTransportRight
  IxfsCDMTransportStatus,
xfsCDMStatusTransportStatusRight
  IxfsCDMTransportStateStatus,
xfsCDMStatusShutterTop
  IxfsCDMShutterStatus,
xfsCDMStatusOutputPositionTop
  IxfsCDMOutputPositionStatus,
xfsCDMStatusTransportTop
  IxfsCDMTransportStatus,
xfsCDMStatusTransportStatusTop
  IxfsCDMTransportStateStatus,
xfsCDMStatusShutterBottom
  IxfsCDMShutterStatus,
xfsCDMStatusOutputPositionBottom
  IxfsCDMOutputPositionStatus,
xfsCDMStatusTransportBottom
  IxfsCDMTransportStatus,
xfsCDMStatusTransportStatusBottom
  IxfsCDMTransportStateStatus,
xfsCDMStatusShutterFront
  IxfsCDMShutterStatus,
xfsCDMStatusOutputPositionFront
  IxfsCDMOutputPositionStatus,
xfsCDMStatusTransportFront
  IxfsCDMTransportStatus,
xfsCDMStatusTransportStatusFront
  IxfsCDMTransportStateStatus,
xfsCDMStatusShutterRear
  IxfsCDMShutterStatus,
xfsCDMStatusOutputPositionRear
  IxfsCDMOutputPositionStatus,
xfsCDMStatusTransportRear
  IxfsCDMTransportStatus,
xfsCDMStatusTransportStatusRear
  IxfsCDMTransportStateStatus,
xfsCDMStatusExtraStatus
  OCTET STRING
}

xfsCDMStatusManagedServiceName OBJECT-TYPE
  SYNTAX DisplayString
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION
    "Instance identifier of the managed service."
  ::= { xfsCDMStatusEntry 1 }

xfsCDMStatusNumberSubDevices OBJECT-TYPE
  SYNTAX Integer32
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION
    "Number of sub devices supported by the CDM device."
  ::= { xfsCDMStatusEntry 2 }

xfsCDMStatusDevice OBJECT-TYPE
  SYNTAX IxfsMIBDeviceStatus
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION
    "Device status."
  ::= { xfsCDMStatusEntry 3 }

xfsCDMStatusSafeDoor OBJECT-TYPE
  SYNTAX IxfsCDMSafeDoorStatus
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION
    "Safedoor Status.

```

```

    xfsCDMSafeDoorNotSupported(2),
    xfsCDMSafeDoorOpen(3),
    xfsCDMSafeDoorClosed(4),
    xfsCDMSafeDoorUnknown(6)."
 ::= { xfsCDMStatusEntry 4 }

xfsCDMStatusDispenser OBJECT-TYPE
SYNTAX IxfsCDMDispenserStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Dispenser Status.
    xfsCDMDispenserOK(1),
    xfsCDMDispenserCUState(2),
    xfsCDMDispenserCUStop(3),
    xfsCDMDispenserCUUnknown(4)."
 ::= { xfsCDMStatusEntry 5 }

xfsCDMStatusIntermediateStacker OBJECT-TYPE
SYNTAX IxfsCDMIntermediateStackerStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Intermediate Stacker Status.
    xfsCDMISEmpty(1),
    xfsCDMISNotEmpty(2),
    xfsCDMISNotEmptyCust(3),
    xfsCDMISNotEmptyUnknown(4),
    xfsCDMISUnknown(5),
    xfsCDMISNotSupported(6)."
 ::= { xfsCDMStatusEntry 6 }

xfsCDMStatusShutterCenter OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in center position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
 ::= { xfsCDMStatusEntry 7 }

xfsCDMStatusOutputPositionCenter OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in center position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
 ::= { xfsCDMStatusEntry 8 }

xfsCDMStatusTransportCenter OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in center position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
 ::= { xfsCDMStatusEntry 9 }

```

```

xfsCDMStatusTransportStatusCenter OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the center transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
```

```

 ::= { xfsCDMStatusEntry 10 }

xfsCDMStatusShutterLeft OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in left position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
```

```

 ::= { xfsCDMStatusEntry 11 }

xfsCDMStatusOutputPositionLeft OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in left position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
```

```

 ::= { xfsCDMStatusEntry 12 }

xfsCDMStatusTransportLeft OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in left position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
```

```

 ::= { xfsCDMStatusEntry 13 }

xfsCDMStatusTransportStatusLeft OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the left transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
```

```

 ::= { xfsCDMStatusEntry 14 }

xfsCDMStatusShutterRight OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in right position.
    xfsCDMShtClosed(1),
```

```

    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
 ::= { xfsCDMStatusEntry 15 }

xfsCDMStatusOutputPositionRight OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in right position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
 ::= { xfsCDMStatusEntry 16 }

xfsCDMStatusTransportRight OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in center position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
 ::= { xfsCDMStatusEntry 17 }

xfsCDMStatusTransportStatusRight OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the right transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
 ::= { xfsCDMStatusEntry 18 }

xfsCDMStatusShutterTop OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in top position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
 ::= { xfsCDMStatusEntry 19 }

xfsCDMStatusOutputPositionTop OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in top position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
 ::= { xfsCDMStatusEntry 20 }

```

```

xfsCDMStatusTransportTop OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in top position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
```

```

 ::= { xfsCDMStatusEntry 21 }
```

```

xfsCDMStatusTransportStatusTop OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the top transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
```

```

 ::= { xfsCDMStatusEntry 22 }
```

```

xfsCDMStatusShutterBottom OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in bottom position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
```

```

 ::= { xfsCDMStatusEntry 23 }
```

```

xfsCDMStatusOutputPositionBottom OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in bottom position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
```

```

 ::= { xfsCDMStatusEntry 24 }
```

```

xfsCDMStatusTransportBottom OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in bottom position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
```

```

 ::= { xfsCDMStatusEntry 25 }
```

```

xfsCDMStatusTransportStatusBottom OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the bottom transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
```

```

        xfsCDMTPStateNotEmptyCust(3),
        xfsCDMTPStateNotEmptyUnknown(4),
        xfsCDMTPStateNotSupported(5)."
 ::= { xfsCDMStatusEntry 26 }

xfsCDMStatusShutterFront OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in front position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
 ::= { xfsCDMStatusEntry 27 }

xfsCDMStatusOutputPositionFront OBJECT-TYPE
SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in front position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
 ::= { xfsCDMStatusEntry 28 }

xfsCDMStatusTransportFront OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in front position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
 ::= { xfsCDMStatusEntry 29 }

xfsCDMStatusTransportStatusFront OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the front transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
 ::= { xfsCDMStatusEntry 30 }

xfsCDMStatusShutterRear OBJECT-TYPE
SYNTAX IxfsCDMShutterStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the shutter in rear position.
    xfsCDMShtClosed(1),
    xfsCDMShtOpen(2),
    xfsCDMShtJammed(3),
    xfsCDMShtUnknown(4),
    xfsCDMShtNotSupported(5)."
 ::= { xfsCDMStatusEntry 31 }

xfsCDMStatusOutputPositionRear OBJECT-TYPE

```

```

SYNTAX IxfsCDMOutputPositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the output position in rear position.
    xfsCDMPSEmpty(1),
    xfsCDMPSNotEmpty(2),
    xfsCDMPSUnknown(3),
    xfsCDMPSNotSupported(4)."
```

```

::= { xfsCDMStatusEntry 32 }
```

```

xfsCDMStatusTransportRear OBJECT-TYPE
SYNTAX IxfsCDMTransportStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the transport in rear position.
    xfsCDMTPOK(1),
    xfsCDMTPInop(2),
    xfsCDMTPUnknown(3),
    xfsCDMTPNotSupported(4)."
```

```

::= { xfsCDMStatusEntry 33 }
```

```

xfsCDMStatusTransportStatusRear OBJECT-TYPE
SYNTAX IxfsCDMTransportStateStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the items in the rear transport.
    xfsCDMTPStateEmpty(1),
    xfsCDMTPStateNotEmpty(2),
    xfsCDMTPStateNotEmptyCust(3),
    xfsCDMTPStateNotEmptyUnknown(4),
    xfsCDMTPStateNotSupported(5)."
```

```

::= { xfsCDMStatusEntry 34 }
```

```

xfsCDMStatusExtraStatus OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Vendor dependent additional device status information."
```

```

::= { xfsCDMStatusEntry 100 }
```

```

-- *****
-- CDM Sub Device Status Table
--
-- The ASN.1 prefix for Version 1 of CDM is: 1.3.6.1.4.1.16213.2.3.1.3
-- *****
xfsCDMSubDeviceTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsCDMSubDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Define the set of MIB Variables for the CDM status table."
```

```

::= { xfsCDMV1 3 }
```

```

xfsCDMSubDeviceEntry OBJECT-TYPE
SYNTAX XfsCDMSubDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "CDM Sub-Device Status Table Entry."
```

```

INDEX { xfsCDMSubDeviceManagedServiceName, xfsCDMSubDeviceIndex }
::= { xfsCDMSubDeviceTable 1 }
```

```

XfsCDMSubDeviceEntry ::=
SEQUENCE {
    xfsCDMSubDeviceManagedServiceName
```



```

        DisplayString,
xfsCDMSubDeviceIndex
    INTEGER,
xfsCDMSubDeviceCUType
    IxfsCDMCUType,
xfsCDMSubDeviceCUName
    DisplayString,
xfsCDMSubDeviceCULUnitID
    OCTET STRING,
xfsCDMSubDeviceCUCurrencyID
    OCTET STRING,
xfsCDMSubDeviceCUValues
    Integer32,
xfsCDMSubDeviceCULInitialCount
    Integer32,
xfsCDMSubDeviceCULCount
    Integer32,
xfsCDMSubDeviceCULRejectCount
    Integer32,
xfsCDMSubDeviceCUMinimum
    Integer32,
xfsCDMSubDeviceCULMaximum
    Integer32,
xfsCDMSubDeviceCUAppLock
    TruthValue,
xfsCDMSubDeviceCULogicalStatus
    IxfsCDMCUStatus,
xfsCDMSubDeviceCUPhysicalPositionName
    DisplayString,
xfsCDMSubDeviceCUPUnitID
    OCTET STRING,
xfsCDMSubDeviceCUPInitialCount
    Integer32,
xfsCDMSubDeviceCUPCount
    Integer32,
xfsCDMSubDeviceCUPRejectCount
    Integer32,
xfsCDMSubDeviceCUPMaximumCount
    Integer32,
xfsCDMSubDeviceCUPhysicalStatus
    IxfsCDMCUStatus,
xfsCDMSubDeviceCUHardwareSensor
    TruthValue,
xfsCDMSubDeviceCUExponent
    Integer32
    }

xfsCDMSubDeviceManagedServiceName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Instance identifier of the managed service."
    ::= { xfsCDMSubDeviceEntry 1 }

xfsCDMSubDeviceIndex OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Index into the array of sub devices supported."
    ::= { xfsCDMSubDeviceEntry 2 }

xfsCDMSubDeviceCUType OBJECT-TYPE
    SYNTAX IxfsCDMCUType
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Type of cash unit.
        xfsCDMTypeNA(2),
        xfsCDMTypeRejectCassette(3),
        xfsCDMTypeBillCassette(4),
        xfsCDMTypeCoinCylinder(5),

```

```

        xfsCDMTypeCoinDispenser(6),
        xfsCDMTypeRetractCassette(7),
        xfsCDMTypeCoupon(8),
        xfsCDMTypeDocument(9),
        xfsCDMTypeRepContainer(12),
        xfsCDMTypeRecycling(13) "
 ::= { xfsCDMSubDeviceEntry 3 }

xfsCDMSubDeviceCUName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Name of cash unit."
 ::= { xfsCDMSubDeviceEntry 4 }

xfsCDMSubDeviceCULUnitID OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Cash unit identifier."
 ::= { xfsCDMSubDeviceEntry 5 }

xfsCDMSubDeviceCUCurrencyID OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Three character array storing the ISO format Currency ID."
 ::= { xfsCDMSubDeviceEntry 6 }

xfsCDMSubDeviceCUValues OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Value of the single item in the cash unit."
 ::= { xfsCDMSubDeviceEntry 7 }

xfsCDMSubDeviceCULInitialCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 8 }

xfsCDMSubDeviceCULCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 9 }

xfsCDMSubDeviceCULRejectCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 10 }

xfsCDMSubDeviceCUMinimum OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
  "When this valued is reached a threshold event is generated.
  Not applicable for Retract and Reject cash units."
 ::= { xfsCDMSubDeviceEntry 11 }

xfsCDMSubDeviceCULMaximum OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "When this valued is reached a threshold event is generated.
  Only applicable for Retract and Reject cash units."
 ::= { xfsCDMSubDeviceEntry 12 }

xfsCDMSubDeviceCUAppLock OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Not applicable for Reject or Retract cash unit..
  TRUE - can NOT dispense from cash unit without errors,
  FALSE- items can be dispensed from the cash unit ."
 ::= { xfsCDMSubDeviceEntry 13 }

xfsCDMSubDeviceCULogicalStatus OBJECT-TYPE
SYNTAX IxfsCDMCUStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Status of the logical cassette.
  xfsCDMCUStatusOK(1),
  xfsCDMCUStatusFull(2),
  xfsCDMCUStatusHigh(3),
  xfsCDMCUStatusLow(4),
  xfsCDMCUStatusEmpty(5),
  xfsCDMCUStatusInop(6),
  xfsCDMCUStatusMissing(7),
  xfsCDMCUStatusNoval(8),
  xfsCDMCUStatusNoref(9),
  xfsCDMCUStatusManip(10)."
```

```

 ::= { xfsCDMSubDeviceEntry 14 }

xfsCDMSubDeviceCUPhysicalPositionName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Name identifying the physical location of the cash unit."
 ::= { xfsCDMSubDeviceEntry 15 }

xfsCDMSubDeviceCUPUnitID OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Cash unit identifier."
 ::= { xfsCDMSubDeviceEntry 16 }

xfsCDMSubDeviceCUPInitialCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 17 }

xfsCDMSubDeviceCUPCount OBJECT-TYPE

```

```

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 18 }

xfsCDMSubDeviceCUPRejectCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial number of items contained in the cash unit."
 ::= { xfsCDMSubDeviceEntry 19 }

xfsCDMSubDeviceCUPMaximumCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "When this valued is reached a threshold event is generated.
    Only applicable for Retract and Reject cash units."
 ::= { xfsCDMSubDeviceEntry 20 }

xfsCDMSubDeviceCUPhysicalStatus OBJECT-TYPE
SYNTAX IxfsCDMCUStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Status of the physical cassette.
    xfsCDMCUStatusOK(1),
    xfsCDMCUStatusFull(2),
    xfsCDMCUStatusHigh(3),
    xfsCDMCUStatusLow(4),
    xfsCDMCUStatusEmpty(5),
    xfsCDMCUStatusInop(6),
    xfsCDMCUStatusMissing(7),
    xfsCDMCUStatusNoval(8),
    xfsCDMCUStatusNoref(9),
    xfsCDMCUStatusManip(10)."
```

```

 ::= { xfsCDMSubDeviceEntry 21 }

xfsCDMSubDeviceCUHardwareSensor OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Specifies whether or not thresholds events are generated based
    on hardware sensors in the device .
    TRUE - threshold events generated on hardware sensors,
    FALSE - threshold events NOT generated on hardware sensors."
 ::= { xfsCDMSubDeviceEntry 22 }

xfsCDMSubDeviceCUExponent OBJECT-TYPE
SYNTAX Integer32
ACCESS read-only
STATUS current
DESCRIPTION
    "The XFS currency exponent."
 ::= { xfsCDMSubDeviceEntry 23 }

-- *****
-- CDM Error Table
-- *****
xfsCDMErrorTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsCDMErrorEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Define the set of MIB Variables for the CDM Error Table."
 ::= { xfsCDMV1 4 }

```

```

xfsCDMErrorEntry OBJECT-TYPE
    SYNTAX XfsCDMErrorEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "CDM Error Table Entry."
    INDEX { xfsCDMErrorManagedServiceName, xfsCDMErrorCommandCode,
xfsCDMErrorResponseCode }
    ::= { xfsCDMErrorTable 1 }

```

```

XfsCDMErrorEntry ::=
    SEQUENCE {
        xfsCDMErrorManagedServiceName
            DisplayString,
        xfsCDMErrorCommandCode
            INTEGER,
        xfsCDMErrorResponseCode
            INTEGER,
        xfsCDMErrorCount
            Integer32
    }

```

```

xfsCDMErrorManagedServiceName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Instance identifier of the managed service."
    ::= { xfsCDMErrorEntry 1 }

```

```

xfsCDMErrorCommandCode OBJECT-TYPE
    SYNTAX INTEGER (301..400)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The executable command code supported by the service
        provider associated with the error count of interest."
    ::= { xfsCDMErrorEntry 2 }

```

```

xfsCDMErrorResponseCode OBJECT-TYPE
    SYNTAX INTEGER (0..99 | 300..399)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The response code supported by service provider for the
        corresponding command code associated with the error count
        of interest."
    ::= { xfsCDMErrorEntry 3 }

```

```

xfsCDMErrorCount OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The counter value corresponding to the managed service,
        command code and response code."
    ::= { xfsCDMErrorEntry 4 }

```

```

-- *****
-- CDM Reset Table
-- *****
xfsCDMResetTable OBJECT-TYPE
    SYNTAX SEQUENCE OF XfsCDMResetEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Defines the set of MIB Variables for the CDM Reset Table."
    ::= { xfsCDMV1 5 }

```

```

xfsCDMResetEntry OBJECT-TYPE
    SYNTAX XfsCDMResetEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "CDM Reset Table Entry."
    INDEX { xfsCDMResetManagedServiceName }
    ::= { xfsCDMResetTable 1 }

XfsCDMResetEntry ::=
    SEQUENCE {
        xfsCDMResetManagedServiceName
            DisplayString,
        xfsCDMResetAll
            Integer32,
        xfsCDMResetTimestamp
            DisplayString
    }

xfsCDMResetManagedServiceName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Instance identifier of the managed service."
    ::= { xfsCDMResetEntry 1 }

xfsCDMResetAll OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Returns all counter values for this managed service to
         zero when set to zero and returns zero when read."
    ::= { xfsCDMResetEntry 2 }

xfsCDMResetTimestamp OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Date and time the last reset of the counters was
         performed."
    ::= { xfsCDMResetEntry 3 }

-- *****
-- CDM Reset Device Table
-- *****
xfsCDMResetDeviceTable OBJECT-TYPE
    SYNTAX SEQUENCE OF XfsCDMResetDeviceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Define the set of MIB Variables for the CDM Reset Device Table."
    ::= { xfsCDMv1 6 }

xfsCDMResetDeviceEntry OBJECT-TYPE
    SYNTAX XfsCDMResetDeviceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "CDM Reset Device Table Entry."
    INDEX { xfsCDMResetDeviceManagedServiceName }
    ::= { xfsCDMResetDeviceTable 1 }

XfsCDMResetDeviceEntry ::=
    SEQUENCE {

```

```

        xfsCDMResetDeviceManagedServiceName
            DisplayString,
        xfsCDMResetDeviceAction
            INTEGER,
        xfsCDMResetDeviceMediaControl
            INTEGER,
        xfsCDMResetDeviceStatus
            INTEGER
    }

xfsCDMResetDeviceManagedServiceName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Instance identifier of the managed service."
    ::= { xfsCDMResetDeviceEntry 1 }

xfsCDMResetDeviceAction OBJECT-TYPE
    SYNTAX INTEGER { executeReset(1) }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Variable that initiates the device reset."
    ::= { xfsCDMResetDeviceEntry 2 }

xfsCDMResetDeviceMediaControl OBJECT-TYPE
    SYNTAX INTEGER
        {
            mediaDefault(1),
            mediaIn(2),
            mediaOut(3)
        }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Variable that reports the media handling during the device reset."
    ::= { xfsCDMResetDeviceEntry 3 }

xfsCDMResetDeviceStatus OBJECT-TYPE
    SYNTAX INTEGER
        {
            resetIdle(1),
            resetInProgress(2)
        }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Variable that reports the progress of the device reset."
    ::= { xfsCDMResetDeviceEntry 4 }

xfsTrapV2 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Root node for the converted TRAP-TYPES."
    ::= { xfsTrap 0 }

-- *****
-- Trap definitions
-- *****
xfsCDMDetailedDSCTrap NOTIFICATION-TYPE
    OBJECTS { xfsCommonTrapSysName, xfsCommonTrapManagedServiceName,
              xfsCommonTrapManagedServiceClass,
              xfsCommonTrapManagedServiceClassName,
              xfsCommonTrapManagedServiceType,
              xfsCommonTrapManagedServiceOid, xfsCommonTrapPhysicalDeviceName,
              xfsCommonTrapDeviceVendor, xfsCommonTrapMIBVersion,
              xfsCommonTrapEvent,
              xfsCommonTrapDate, xfsCommonTrapSPVersion, xfsCDMStatusDevice,
              xfsCDMStatusNumberSubDevices, xfsCDMStatusSafeDoor,

```

```

xfsCDMStatusDispenser, xfsCDMStatusIntermediateStacker,
xfsCDMStatusShutterCenter, xfsCDMStatusOutputPositionCenter,
xfsCDMStatusTransportCenter,
xfsCDMStatusTransportStatusCenter, xfsCDMStatusShutterLeft,
xfsCDMStatusOutputPositionLeft, xfsCDMStatusTransportLeft,
xfsCDMStatusTransportStatusLeft,
xfsCDMStatusShutterRight, xfsCDMStatusOutputPositionRight,
xfsCDMStatusTransportRight, xfsCDMStatusTransportStatusRight,
xfsCDMStatusShutterTop,
xfsCDMStatusOutputPositionTop, xfsCDMStatusTransportTop,
xfsCDMStatusTransportStatusTop, xfsCDMStatusShutterBottom,
xfsCDMStatusOutputPositionBottom,
xfsCDMStatusTransportBottom, xfsCDMStatusTransportStatusBottom,
xfsCDMStatusShutterFront, xfsCDMStatusOutputPositionFront,
xfsCDMStatusTransportFront,
xfsCDMStatusTransportStatusFront, xfsCDMStatusShutterRear,
xfsCDMStatusOutputPositionRear, xfsCDMStatusTransportRear,
xfsCDMStatusTransportStatusRear,
xfsCDMStatusExtraStatus }
STATUS current
DESCRIPTION
    "This trap indicates a change in the status of a managed
    service."
 ::= { xfsTrapV2 103 }

xfsCDMSubDeviceTrap NOTIFICATION-TYPE
OBJECTS { xfsCommonTrapManagedServiceName,
          xfsCommonTrapManagedServiceClass,
          xfsCommonTrapManagedServiceClassName,
          xfsCommonTrapManagedServiceType, xfsCommonTrapManagedServiceOid,
          xfsCommonTrapPhysicalDeviceName, xfsCommonTrapDeviceVendor,
          xfsCommonTrapMIBVersion, xfsCommonTrapEvent, xfsCommonTrapDate,
          xfsCommonTrapSPVersion, xfsCDMSubDeviceTrapIndex,
          xfsCDMSubDeviceCUType, xfsCDMSubDeviceCUName,
          xfsCDMSubDeviceCULUnitID,
          xfsCDMSubDeviceCUCurrencyID, xfsCDMSubDeviceCUValues,
          xfsCDMSubDeviceCULInitialCount, xfsCDMSubDeviceCULCount,
          xfsCDMSubDeviceCULRejectCount,
          xfsCDMSubDeviceCUMinimum, xfsCDMSubDeviceCULMaximum,
          xfsCDMSubDeviceCUAppLock, xfsCDMSubDeviceCULogicalStatus,
          xfsCDMSubDeviceCUPhysicalPositionName,
          xfsCDMSubDeviceCUPUnitID, xfsCDMSubDeviceCUPInitialCount,
          xfsCDMSubDeviceCUPCount, xfsCDMSubDeviceCUPRejectCount,
          xfsCDMSubDeviceCUPMaximumCount,
          xfsCDMSubDeviceCUPhysicalStatus, xfsCDMSubDeviceCUHardwareSensor,
          xfsCDMSubDeviceCUExponent }
STATUS current
DESCRIPTION
    "This trap indicates a change in the status of sub-device within
    a managed service."
 ::= { xfsTrapV2 203 }

xfsCDMResetDeviceCompleteTrap NOTIFICATION-TYPE
OBJECTS { xfsCommonTrapResetDeviceResult, xfsCommonTrapManagedServiceName,
          xfsCommonTrapManagedServiceClass,
          xfsCommonTrapManagedServiceClassName,
          xfsCommonTrapManagedServiceType,
          xfsCommonTrapManagedServiceOid, xfsCommonTrapPhysicalDeviceName,
          xfsCommonTrapDeviceVendor, xfsCommonTrapMIBVersion,
          xfsCommonTrapDate,
          xfsCommonTrapSPVersion, xfsCDMStatusDevice,
          xfsCDMStatusNumberSubDevices, xfsCDMStatusSafeDoor,
          xfsCDMStatusDispenser,
          xfsCDMStatusIntermediateStacker, xfsCDMStatusShutterCenter,
          xfsCDMStatusOutputPositionCenter, xfsCDMStatusTransportCenter,
          xfsCDMStatusTransportStatusCenter,
          xfsCDMStatusShutterLeft, xfsCDMStatusOutputPositionLeft,
          xfsCDMStatusTransportLeft, xfsCDMStatusTransportStatusLeft,
          xfsCDMStatusShutterRight,
          xfsCDMStatusOutputPositionRight, xfsCDMStatusTransportRight,
          xfsCDMStatusTransportStatusRight, xfsCDMStatusShutterTop,
          xfsCDMStatusOutputPositionTop,

```



```
    xfsCDMStatusTransportTop, xfsCDMStatusTransportStatusTop,  
    xfsCDMStatusShutterBottom, xfsCDMStatusOutputPositionBottom,  
    xfsCDMStatusTransportBottom,  
    xfsCDMStatusTransportStatusBottom, xfsCDMStatusShutterFront,  
    xfsCDMStatusOutputPositionFront, xfsCDMStatusTransportFront,  
    xfsCDMStatusTransportStatusFront,  
    xfsCDMStatusShutterRear, xfsCDMStatusOutputPositionRear,  
    xfsCDMStatusTransportRear, xfsCDMStatusTransportStatusRear,  
    xfsCDMStatusExtraStatus  
  }  
STATUS current  
DESCRIPTION  
  "This trap indicates the Reset action has complete and reports the  
  state of the device after the reset."  
 ::= { xfsTrapV2 303 }
```

END

5. Appendix B - C-Header files



xfsmibcdm.h

```

/*****
*
* xfsmibcdm.h          WOSA/XFS - MIB CDM counters
*
*                      Version 1.01  --  Jan 20, 2004
*
*****/

#ifndef __inc_xfsmibcdm_h
#define __inc_xfsmibcdm_h

#ifdef __cplusplus
extern "C" {
#endif

/*****
* CDM Status #defines
*****/
enum IxfsCDMDoorStatus
{
    xfsCDMDoorNotSupported    =2,
    xfsCDMDoorOpen,
    xfsCDMDoorClosed,
    xfsCDMDoorUnknown        =6
} xfsCDMSafeDoorStatus;

enum IxfsCDMDispenserStatus
{
    xfsCDMDispenserOK        =1,
    xfsCDMDispenserCUState,
    xfsCDMDispenserCUStop,
    xfsCDMDispenserCUUnknown
} xfsCDMDispenserStatus;

enum IxfsCDMIntermediateStackerStatus
{
    xfsCDMISEmpty            =1,
    xfsCDMISNotEmpty,
    xfsCDMISNotEmptyCust,
    xfsCDMISNotEmptyUnknown,
    xfsCDMISUnknown,
    xfsCDMISNotSupported
} xfsCDMIntermediateStackerStatus;

enum IxfsCDMShutterStatus
{
    xfsCDMShtClosed          =1,
    xfsCDMShtOpen,
    xfsCDMShtJammed,
    xfsCDMShtUnknown,
    xfsCDMShtNotSupported
} xfsCDMShutterStatus;

enum IxfsCDMOutputPositionStatus
{
    xfsCDMPSEmpty =1,
    xfsCDMPSEmpty,
    xfsCDMPSEmptyUnknown,
    xfsCDMPSEmptyNotSupported
} xfsCDMOutputPositionStatus;

```

```

enum IxfsCDMTransportStatus
{
    xfsCDMTPOK      =1,
    xfsCDMTPInop,
    xfsCDMTPUnknown,
    xfsCDMTPNotSupported
} xfsCDMTransportStatus;

enum IxfsCDMTransportStateStatus
{
    xfsCDMTPStateEmpty  =1,
    xfsCDMTPStateNotEmpty,
    xfsCDMTPStateNotEmptyCust,
    xfsCDMTPStateNotEmptyUnknown,
    xfsCDMTPStateNotSupported
} xfsCDMTransportStateStatus;

/*****
*   CDM SubDevice #defines
*****/
enum IxfsCDMCUType
{
    xfsCDMTypeNA      =2,
    xfsCDMTypeRejectCassette,
    xfsCDMTypeBillCassette,
    xfsCDMTypeCoinCylinder,
    xfsCDMTypeCoinDispenser,
    xfsCDMTypeRetractCassette,
    xfsCDMTypeCoupon,
    xfsCDMTypeDocument,
    xfsCDMTypeRepContainer      =12,
    xfsCDMTypeRecycling =13
} xfsCDMCUType;

enum IxfsCDMCUStatus
{
    xfsCDMCUStatusOK      =1,
    xfsCDMCUStatusFull,
    xfsCDMCUStatusHigh,
    xfsCDMCUStatusLow,
    xfsCDMCUStatusEmpty,
    xfsCDMCUStatusInop,
    xfsCDMCUStatusMissing,
    xfsCDMCUStatusNoval,
    xfsCDMCUStatusNoref,
    xfsCDMCUStatusManip
} xfsCDMCUStatus;

/*****
*
*   MIB Variables for the Status Table
*
*****/
#define xfsCDMStatusManagedServiceName      (1)
#define xfsCDMStatusNumberSubDevices        (2)
#define xfsCDMStatusDevice                   (3)
#define xfsCDMStatusSafeDoor                 (4)
#define xfsCDMStatusDispenser                (5)
#define xfsCDMStatusIntermediateStacker     (6)

#define xfsCDMStatusShutterCenter            (7)
#define xfsCDMStatusOutputPositionCenter    (8)
#define xfsCDMStatusTransportCenter         (9)
#define xfsCDMStatusTransportStatusCenter   (10)

#define xfsCDMStatusShutterLeft             (11)
#define xfsCDMStatusOutputPositionLeft      (12)
#define xfsCDMStatusTransportLeft          (13)
#define xfsCDMStatusTransportStatusLeft     (14)

#define xfsCDMStatusShutterRight            (15)

```

```

#define xfsCDMStatusOutputPositionRight      (16)
#define xfsCDMStatusTransportRight          (17)
#define xfsCDMStatusTransportStatusRight    (18)

#define xfsCDMStatusShutterTop              (19)
#define xfsCDMStatusOutputPositionTop      (20)
#define xfsCDMStatusTransportTop           (21)
#define xfsCDMStatusTransportStatusTop     (22)

#define xfsCDMStatusShutterBottom          (23)
#define xfsCDMStatusOutputPositionBottom   (24)
#define xfsCDMStatusTransportBottom        (25)
#define xfsCDMStatusTransportStatusBottom  (26)

#define xfsCDMStatusShutterFront           (27)
#define xfsCDMStatusOutputPositionFront    (28)
#define xfsCDMStatusTransportFront         (29)
#define xfsCDMStatusTransportStatusFront   (30)

#define xfsCDMStatusShutterRear            (31)
#define xfsCDMStatusOutputPositionRear     (32)
#define xfsCDMStatusTransportRear          (33)
#define xfsCDMStatusTransportStatusRear    (34)

#define xfsCDMStatusExtraStatus            (100)

/*****
*
*      MIB Variables for the SubDevice Table
*
*****/
#define xfsCDMSubDeviceManagedServiceName (1)
#define xfsCDMSubDeviceIndex               (2)
#define xfsCDMSubDeviceCUType              (3)
#define xfsCDMSubDeviceCUName              (4)
#define xfsCDMSubDeviceCULUnitID           (5)
#define xfsCDMSubDeviceCUCurrencyID        (6)
#define xfsCDMSubDeviceCUValues            (7)
#define xfsCDMSubDeviceCULInitialCount     (8)
#define xfsCDMSubDeviceCULCount            (9)
#define xfsCDMSubDeviceCULRejectCount      (10)
#define xfsCDMSubDeviceCUMinimum           (11)
#define xfsCDMSubDeviceCULMaximum         (12)
#define xfsCDMSubDeviceCUAppLock           (13)
#define xfsCDMSubDeviceCULogicalStatus     (14)

#define xfsCDMSubDeviceCUPhysicalPositionName (15)
#define xfsCDMSubDeviceCUPUnitID           (16)
#define xfsCDMSubDeviceCUPInitialCount     (17)
#define xfsCDMSubDeviceCUPCount            (18)
#define xfsCDMSubDeviceCUPRejectCount      (19)
#define xfsCDMSubDeviceCUPMaximumCount     (20)
#define xfsCDMSubDeviceCUPhysicalStatus    (21)
#define xfsCDMSubDeviceCUHardwareSensor    (22)
#define xfsCDMSubDeviceCUExponent          (23)

/*****
*
*      MIB Variables for the Error Table
*
*****/
//Command codes and error codes correspond to the Service Provider definitions.

#ifdef __cplusplus
} /*extern "C"*/
#endif

#endif /* __inc_xfsmibcdm__h */

```