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AGREEMENT

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**Extensions for Financial Services (XFS) interface specification -
Release 3.10 - Part 30: XFS MIB Device Specific Definitions -
Printer Device Class MIB 3.10**

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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Foreword

This CWA is revision 3.10 of the XFS interface specification.

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties on 2007-11-29, the constitution of which was supported by CEN following the public call for participation made on 1998-06-24. 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 3.10.

A list of the individuals and organizations which supported the technical consensus represented by the CEN Workshop Agreement is available to purchasers from the CEN-CENELEC Management Centre. These organizations were drawn from the banking sector. The CEN/ISSS XFS Workshop gathered suppliers as well as banks and other financial service companies.

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 and Scanning 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: Card Dispenser Device Class Interface - Programmer's Reference

Part 17: Barcode Reader Device Class Interface - Programmer's Reference

Part 18: Item Processing Module Device Class Interface- Programmer's Reference

Parts 19 - 28: Reserved for future use.

Parts 29 through 47 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 MIB Version 3.10

Part 30: XFS MIB Device Specific Definitions - Printer Device Class MIB 3.10

Part 31: XFS MIB Device Specific Definitions - Identification Card Device Class MIB 3.10

Part 32: XFS MIB Device Specific Definitions - Cash Dispenser Device Class MIB 3.10

Part 33: XFS MIB Device Specific Definitions - PIN Keypad Device Class MIB 3.10

Part 34: XFS MIB Device Specific Definitions - Check Reader/Scanner Device Class MIB 3.10

Part 35: XFS MIB Device Specific Definitions - Depository Device Class MIB 3.10

Part 36: XFS MIB Device Specific Definitions - Text Terminal Unit Device Class MIB 3.10

Part 37: XFS MIB Device Specific Definitions - Sensors and Indicators Unit Device Class MIB 3.10

Part 38: XFS MIB Device Specific Definitions - Camera Device Class MIB 3.10

Part 39: XFS MIB Device Specific Definitions - Alarm Device Class MIB 3.10

Part 40: XFS MIB Device Specific Definitions - Card Embossing Unit Device Class MIB 3.10

Part 41: XFS MIB Device Specific Definitions - Cash-In Module Device Class MIB 3.10

Part 42: Reserved for future use.

Part 43: XFS MIB Device Specific Definitions - Vendor Dependent Mode Class MIB 3.10

Part 44: XFS MIB Application Management MIB 3.10

Part 45: XFS MIB Device Specific Definitions - Card Dispenser Device Class MIB 3.10

Part 46: XFS MIB Device Specific Definitions - Barcode Reader Device Class MIB 3.10

Part 47: XFS MIB Device Specific Definitions - Item Processing Module Device Class MIB 3.10

Parts 48 - 60 are reserved for future use.

Part 61: Application Programming Interface (API) - Service Provider Interface (SPI) - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 62: Printer and Scanning Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 63: Identification Card Device Class Interface - Migration from Version 3.02 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 64: Cash Dispenser Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 65: PIN Keypad Device Class Interface - Migration from Version 3.03 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 66: Check Reader/Scanner Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 67: Depository Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 68: Text Terminal Unit Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 69: Sensors and Indicators Unit Device Class Interface - Migration from Version 3.01 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 70: Vendor Dependent Mode Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 71: Camera Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 72: Alarm Device Class Interface - Migration from Version 3.0 (see CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 73: Card Embossing Unit Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 74: Cash-In Module Device Class Interface - Migration from Version 3.02 (see CWA 14050) to Version 3.10 (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.cen.eu/cen/pages/default.aspx>.

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.

The formal process followed by the Workshop in the development of the CEN Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN-CENELEC Management Centre can be held accountable for the technical content of the CEN Workshop Agreement or possible conflict with standards or legislation. This CEN Workshop Agreement can in no way be held as being an official standard developed by CEN and its members.

The final review/endorsement round for this CWA was started on 2010-06-17 and was successfully closed on 2010-12-22. The final text of this CWA was submitted to CEN for publication on 2011-01-27.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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

Revision History:

1.0	January 20, 2004	Initial release of XFS MIB specification.
1.10	April 15, 2007	Update of the MIB to add support for a Detailed Status Trap, a Device Reset capability and the support of SMIV2.
3.10	December 14, 2010	Update of the MIB to add support for a Capabilities table and to align the MIB with XFS 3.10.

1. Introduction

This document provides the device specific MIB definition (Management Information Base) variables for the xfsPTR sub-tree version one, as foreseen by the *XFS MIB Architecture and SNMP Extensions Programmer's Reference* document. All the attributes in all the MIBs are Mandatory. In the case where a vendor's device does not support an attribute then a request for this unsupported attribute should return NULL.

The xfsPTR version one sub-tree is identified by:

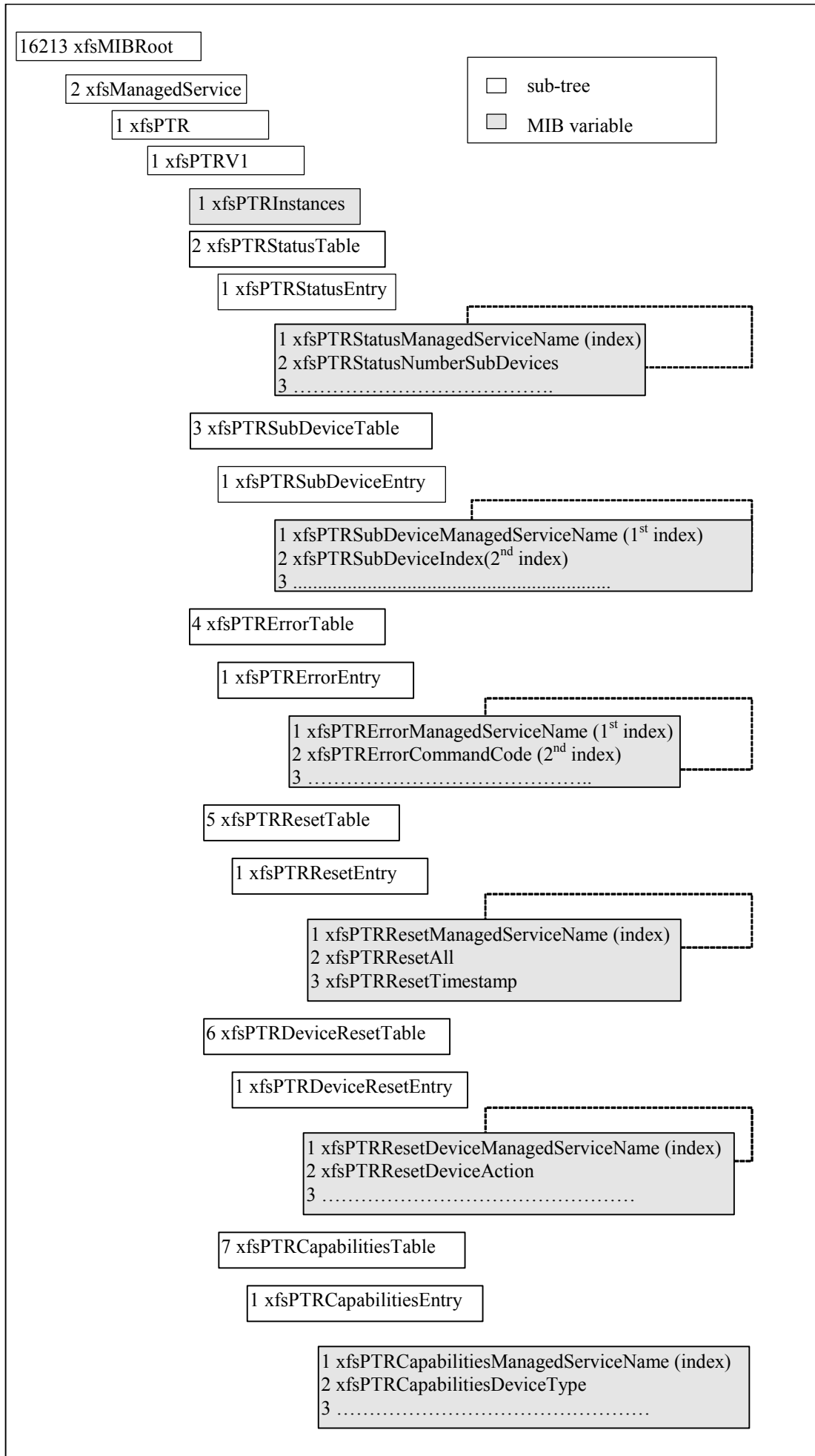
xfsMIBRoot

- xfsManagedService (2)
 - xfsPTR (1)
 - xfsPTRV1 (1)

The xfsPTRV1 sub-tree contains the following variables:

- * *xfsPTRInstances(1)* is the number of managed services for the PTR class installed on the XFS subsystem. It is a 32 bit numerical field.
- * *xfsPTRStatusTable(2)* identifies the table for the PTR variables.
- * *xfsPTRSubDeviceTable(3)* identifies the table for the PTR device.
- * *xfsPTRErrorTable(4)* identifies the table for the PTR error counters.
- * *xfsPTRResetTable(5)* identifies the table for the PTR reset variable.
- * *xfsPTRResetDeviceTable(6)* identifies the table for the PTR reset device variables.
- * *xfsPTRCapabilitiesTable(7)* identifies the table for the PTR capabilities 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 *xfsPTRV1* sub-tree.



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

2. XFS PTR MIB variables

This section describes the MIB variables for the tables of the PTR Class. The description of the variables listed below includes, where it is meaningful, a reference to relevant data structures and commands defined inside the *Printers 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_PTR_RESET command to be executed from the management station.

2.1 XFS PTR Status Table

The *xfsPTRStatusTable(2)* groups the variables identifying device status information, statistics and additional variables. It is indexed through a single parameter, *xfsPTRStatusManagedServiceName*. 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.

xfsPTRStatusManagedServiceName is the instance identifier of the managed service and uniquely identifies one instance of the PTR class.

As an example, the identifier for the device status value of *xfsPTRStatusMedia(4)* for a device with managed service name equal to "Printer1" is as follows:

Character	P	r	i	n	t	e	r	l
ASCII Hex	50	72	69	6E	74	65	72	31
ASCII Dec	80	114	105	110	116	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.2.1.1.2.1.4.8.80.114.105.110.116.101.114.49

2.1.1 xfsPTRStatusTable: States

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

xfsPTRStatusManagedServiceName (1)

Uniquely identifies the managed service.

xfsPTRStatusNumberSubDevices (2)

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

xfsPTRStatusDevice (3)

It contains the state of the print device. It is a numeric type field. Allowed values are:

Value	Meaning
<i>xfsDevOnline</i> (1)	The device is online (i.e. powered on and operable).
<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.
<i>xfsDevNoDevice</i> (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_PTR_DEVONLINE) or a permanent error condition has occurred (WFS_PTR_DEVHWERROR).
xfsDevBusy(7)	The device is busy and unable to process an execute command at this time.
xfsDevFraudAttempt(8)	The device is present but has detected a fraud attempt.

xfsPTRStatusMedia (4)

It contains the state of the print media (i.e. receipt, statement, passbook, etc.). This field does not apply to journal printers. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRMediaPresent(1)	Media is in the print position, on the stacker or on the transport (i.e. a passbook in the parking station is not considered to be present). On devices with continuous paper supplies, this value is set when paper is under the print head. On devices with individual sheet supplies, this value is set when paper is successfully inserted/loaded.
xfsPTRMediaNotPresent(2)	Media is not in the print position or on the stacker.
xfsPTRMediaJammed(3)	Media is jammed in the device.
xfsPTRMediaNotSupported(4)	The capability to report media position is not supported by the device.
xfsPTRMediaUnknown(5)	The state of the print media cannot be determined with the device in its current state.
xfsPTRMediaEntering(6)	Media is at the entry/exit slot of the device.
xfsPTRMediaRetracted(7)	Media was retracted during the reset operation.

xfsPTRStatusPaperSupplyUpper (5)

It contains the state of the only paper supply or the upper paper supply, if more than one. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The paper supply is full.
xfsPTRPaperLow(2)	The paper supply is low.
xfsPTRPaperOut(3)	The paper supply is empty.
xfsPTRPaperNotSupported(4)	Capability not supported by device.
xfsPTRPaperUnknown(5)	Status cannot be determined with device in its current state.
xfsPTRPaperJammed(6)	The paper supply is jammed.

xfsPTRStatusPaperSupplyLower (6)

It contains the state of the lower paper supply. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The paper supply is full.
xfsPTRPaperLow(2)	The paper supply is low.
xfsPTRPaperOut(3)	The paper supply is empty.
xfsPTRPaperNotSupported(4)	Capability not supported by device.
xfsPTRPaperUnknown(5)	Status cannot be determined with device in its current state.
xfsPTRPaperJammed (6)	The paper supply is jammed.

xfsPTRStatusPaperSupplyExternal (7)

It contains the state of the external paper supply. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The paper supply is full.
xfsPTRPaperLow(2)	The paper supply is low.
xfsPTRPaperOut(3)	The paper supply is empty.
xfsPTRPaperNotSupported(4)	Capability not supported by device.

xfsPTRPaperUnknown(5) Status cannot be determined with device in its current state.
 xfsPTRPaperJammed (6) The paper supply is jammed.

xfsPTRStatusPaperSupplyAux (8)

It contains the state of the auxiliary paper supply. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The paper supply is full.
xfsPTRPaperLow(2)	The paper supply is low.
xfsPTRPaperOut(3)	The paper supply is empty.
xfsPTRPaperNotSupported(4)	Capability not supported by device.
xfsPTRPaperUnknown(5)	Status cannot be determined with device in its current state.
xfsPTRPaperJammed (6)	The paper supply is jammed.

xfsPTRStatusPaperSupplyAux2 (9)

It contains the state of the second auxiliary paper supply. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The paper supply is full.
xfsPTRPaperLow(2)	The paper supply is low.
xfsPTRPaperOut(3)	The paper supply is empty.
xfsPTRPaperNotSupported(4)	Capability not supported by device.
xfsPTRPaperUnknown(5)	Status cannot be determined with device in its current state.
xfsPTRPaperJammed (6)	The paper supply is jammed.

xfsPTRStatusPaperSupplyPark (10)

It contains the state of the parking station. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRPaperFull(1)	The parking station is busy.
xfsPTRPaperOut(3)	The parking station is free.
xfsPTRPaperNotSupported(4)	Capability not supported by device.
xfsPTRPaperUnknown(5)	Status cannot be determined with device in its current state.
xfsPTRPaperJammed (6)	The paper station is jammed.

xfsPTRStatusToner (11)

It contains the state of the toner or ink supply or the state of the ribbon. It is a numeric type field.
 Allowed values are:

Value	Meaning
xfsPTRTonerFull(1)	The toner or ink supply is full or the ribbon is OK.
xfsPTRTonerLow(2)	The toner or ink supply is low or the print contrast with a ribbon is weak.
xfsPTRTonerOut(3)	The toner or ink supply is empty or the print contrast with a ribbon is not sufficient any more.
xfsPTRTonerNotSupported(4)	Capability not supported by device.
xfsPTRTonerUnknown(5)	Status of toner or ink supply or the ribbon cannot be determined with device in its current state.

xfsPTRStatusInk (12)

It contains the state of the stamping ink in the printer. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRInkFull(1)	Ink supply in device is full.
xfsPTRInkLow(2)	Ink supply in device is low.
xfsPTRInkOut(3)	Ink supply in device is empty.
xfsPTRInkNotSupported(4)	Capability not supported by device.
xfsPTRInkUnknown(5)	Status of the stamping ink supply cannot be determined with device in its current state.

xfsPTRStatusLamp (13)

It contains the state of the printer imaging lamp. It is a numeric type field. Allowed values are:

Value	Meaning
xfsPTRLampOK(1)	The lamp is OK.
xfsPTRLampFading(2)	The lamp should be changed.

xfsPTRLampInOp(3)	The lamp is inoperative.
xfsPTRLampNotSupported(4)	Capability not supported by device.
xfsPTRLampUnknown(5)	Status of the imaging lamp cannot be determined with device in its current state.

xfsPTRStatusMediaOnStacker (14)

It contains the number of media on stacker; applicable only to printers with stacking capability. It is a numeric type field.

xfsPTRStatusGuidancePrinter (15)

It contains the state of the guidance light on the printer.

Value	XFS Name	Meaning
0x00000000	WFS_PTR_GUIDANCE_NOT_AVAILABLE	The status is not available.
0x00000001	WFS_PTR_GUIDANCE_OFF	The light is turned off.
0x00000004	WFS_PTR_GUIDANCE_SLOW_FLASH	The light is blinking slowly.
0x00000008	WFS_PTR_GUIDANCE_MEDIUM_FLASH	The light is blinking medium frequency.
0x00000010	WFS_PTR_GUIDANCE_QUICK_FLASH	The light is blinking quickly.
0x00000080	WFS_PTR_GUIDANCE_CONTINUOUS	The light is turned on continuous (steady).
0x00000100	WFS_PTR_GUIDANCE_RED	The light is red.
0x00000200	WFS_PTR_GUIDANCE_GREEN	The light is green.
0x00000400	WFS_PTR_GUIDANCE_YELLOW	The light is yellow.
0x00000800	WFS_PTR_GUIDANCE_BLUE	The light is blue.
0x00001000	WFS_PTR_GUIDANCE_CYAN	The light is cyan.
0x00002000	WFS_PTR_GUIDANCE_MAGENTA	The light is magenta.
0x00004000	WFS_PTR_GUIDANCE_WHITE	The light is white.

xfsPTRStatusDevicePosition (16)

It contains the device position. It is a numeric type field. Allowed values are as follows:

Value	Meaning
xfsPTRDeviceInPosition(1)	The device is in its normal operating position, or is fixed in place and cannot be moved.
xfsPTRDeviceNotInPosition(2)	The device has been removed from its normal operating position.
xfsPTRDevicePosUnknown(3)	Due to a hardware error or other condition, the position of the device cannot be determined.
xfsPTRDevicePosNotSupported(4)	The physical device does not have the capability of detecting the position.

xfsPTRStatusPowerSaveRecoveryTime (17)

It contains the actual number of seconds required by the device to resume its normal operational state from the current power saving mode. This value is zero if either the power saving mode has not been activated or no power save control is supported. It is a numeric type field.

xfsPTRStatusExtraStatus (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. An empty list is indicated by two consecutive null characters.

2.2 XFS PTR Sub Device Table

The *xfsPTRSubDeviceTable(3)* groups the variables identifying information for the retract bins. It is indexed through two parameters, *xfsPTRSubDeviceManagedServiceName* and *xfsPTRSubDeviceIndex*. All sub-device status variables are read-only and, if maintained by the SP, persist across re-boots.

xfsPTRSubDeviceManagedServiceName is the instance identifier of the managed service and uniquely identifies one instance of the PTR class. In XFS this information comes from the WFS_INF_PTR_STATUS command.

As an example, the identifier for the sub-device status value of *xfsPTRSubDeviceRetractBin(3)* for a sub-device index 1 with managed service name equal to “Printer1” is as follows:

Character	P	r	i	n	t	e	r	l
ASCII Hex	50	72	69	6E	74	65	72	31
ASCII Dec	80	114	105	110	116	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 the sub-device. Therefore the OID of the above example is:

xfsMIBRoot.2.1.1.3.1.3.8.80.114.105.110.116.101.114.49.1

2.2.1 xfsPTRSubDeviceTable: States

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

xfsPTRSubDeviceManagedServiceName (1)
Uniquely identifies the managed service.

xfsPTRSubDeviceIndex (2)
Index into the table of sub-devices supported. This is an index (starting from 1) into the PTR Sub-Device table.

xfsPTRSubDeviceRetractBin (3)
It contains the retract bin state. It is a numeric type field. Allowed values are:

Value	Meaning
<i>xfsPTRRetractBinOK</i> (1)	The retract bin of the printer is in a healthy state.
<i>xfsPTRRetractBinFull</i> (2)	The retract bin of the printer is full.
<i>xfsPTRRetractNotSupported</i> (3)	Capability not supported by device.
<i>xfsPTRRetractBinUnknown</i> (4)	Status cannot be determined with device in its current state.
<i>xfsPTRRetractBinHigh</i> (5)	The retract bin of the printer is nearly full.
<i>xfsPTRRetractBinMissing</i> (6)	The retract bin is missing.

xfsPTRSubDeviceRetractCount(4)
It contains the number of media retracted to this bin. It is a numeric type field.

2.3 XFS PTR Error Table

The *xfsPTRErrorTable(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

xfsPTRErrorManagedServiceName
xfsPTRErrorCommandCode
xfsPTRErrorResponseCode

The *xfsPTRErrorTable* is defined as:

- *xfsPTRErrorManagedServiceName(1)* which provides the primary index to the service in question. It is Display String field. The *xfsPTRErrorManagedServiceName* parameter corresponds to the value of *xfsMIBRoot.xfsGeneral.xfsMIBV1.xfsManagedServiceTable.xfsManagedServiceEntry.xfsManagedServiceName* in the general table, e.g. “Printer1”.
- *xfsPTRErrorCommandCode(2)* is an index which identifies the command code that that response code is related to, e.g. WFS_CMD_PTR_CONTROL_MEDIA (101). It is a 32 bit numerical field.

- *xfSPTRErrorResponseCode(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_PTR_MEDIAJAMMED (-119) is represented by 119. It is a 32 bit numerical field.
- *xfSPTRErrorCount(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 error count value for WFS_ERR_PTR_MEDIAJAMMED (-119) error returned from the WFS_CMD_PTR_CONTROL_MEDIA (101) command for a device with managed service name equal to "Printer1" is as follows:

xfSMIBRoot.2.1.1.4.1.4.8.80.114.105.110.116.101.114.49.101.119

2.4 XFS PTR Reset Table

The *xfSPTRResetTable(5)* contains the *xfSPTRResetAll* and *xfSPTRResetTimestamp* variables and is indexed by the single variable, *xfSPTRResetManagedServiceName*. When the *xfSPTRResetAll* 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 *xfSPTRResetTable* is defined as:

- *xfSPTRResetManagedServiceName(1)* which provides the primary index to the service in question. It is Display String field. The *xfSPTRResetManagedServiceName* parameter corresponds to the value of *xfSMIBRoot.xfsGeneral.xfsMIBV1.xfsManagedServiceTable.xfsManagedServiceEntry.xfsManagedServiceName* in the general table, e.g. "Printer1".
- *xfSPTRResetAll(2)* is a read-write variable. Issue of a Set command on the *xfSPTRResetAll* 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 *xfSPTRResetAll* variable will return 0 (zero).
- *xfSPTRResetTimestamp(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 "Printer1" by setting the value zero in the *xfSPTRResetAll* variable represented by:

xfSMIBRoot.2.1.1.5.1.2. 8.80.114.105.110.116.101.114.49

2.5 XFS PTR Reset Device Table

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

The *xfSPTRResetDeviceAction* 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_PTR_RESET command will be issued.
4. Exclusive access to the device will be relinquished when the WFS_CMD_PTR_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 *xfSPTRResetDeviceCompleteTrap* trap will be generated to report the result of the Device Reset request.

The *xfSPTRResetDeviceTable* is defined as:

- *xfSPTRResetDeviceManagedServiceName(1)* which provides the index to the service in question. It is a Display String field. The *xfSPTRResetDeviceManagedServiceName* parameter corresponds to the value of *xfSMIBRoot.xfSGeneral.xfSMIBV1.xfSManagedServiceTable.xfSManagedServiceEntry.xfSManagedServiceName* in the general table, e.g. “Printer1”.
- *xfSPTRResetDeviceAction(2)* is a read-write variable. Issue of a Set command on the *xfSPTRResetDeviceAction* variable with value *executeReset(1)* will result in the device being reset as described above.
- *xfSPTRResetDeviceMediaControl(3)* is a read-only variable. This variable reports how any media found within the device is handled. The value of the *xfSPTRResetDeviceMediaControl* 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. PTR bin to retract media to) is configured through local SNMP Agent configuration.
- *xfSPTRResetDeviceStatus(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 “Printer1” is reset by setting the *xfSPTRResetDeviceAction* variable represented by:

xfSMIBRoot.2.1.1.6.1.2.8.80.114.105.110.116.101.114.49

2.6 XFS PTR Capabilities Table

The *xfSPTRCapabilitiesTable(7)* groups the variables identifying device capabilities information variables. It is indexed through a single parameter, *xfSPTRCapabilitiesManagedServiceName*. All device capabilities 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.

xfSPTRCapabilitiesManagedServiceName is the instance identifier of the managed service and uniquely identifies one instance of the PTR class.

As an example, the identifier for the device capabilities value of *xfSPTRCapabilitiesReadForm(5)* for a device with managed service name equal to “Printer1” is as follows:

Character	P	r	i	n	t	e	r	l
ASCII Hex	50	72	69	6E	74	65	72	31
ASCII Dec	80	114	105	110	116	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.2.1.1.7.1.5.8.80.114.105.110.116.101.114.49

2.6.1 xfSPTRCapabilitiesTable: Capabilities

The first capabilities variable is common across all device classes, the other variables are device class specific.

xfSPTRCapabilitiesManagedServiceName (1)
Uniquely identifies the managed service.

xfsPTRCapabilitiesDeviceType (2)

It specifies the type(s) of the physical device driven by the logical service. It is a numeric type field and will be set to a combination of hex values according to the values in the following table:

Value	XFS Name	Meaning
0x00000001	WFS_PTR_TYPERECEIPT	Device is a receipt printer.
0x00000002	WFS_PTR_TYPEPASSBOOK	Device is a passbook printer.
0x00000004	WFS_PTR_TYPEJOURNAL	Device is a journal printer.
0x00000008	WFS_PTR_TYPEDOCUMENT	Device is a document printer.
0x00000010	WFS_PTR_TYPERESCANNER	Device is a scanner with printing capabilities.

xfsPTRCapabilitiesCompoundDevice (3)

It specifies whether the logical device is part of a compound physical device. It is a TruthValue type field. Allowed values are:

Value	Meaning
True(1)	The logical device is a part of compound physical device.
False(2)	The logical device is not a part of compound physical device.

xfsPTRCapabilitiesResolution (4)

It specifies at which resolution(s) the physical device can print. Used by the application to select the level of print quality desired (e.g. as in Word for Windows); does not imply any absolute level of resolution, only relative. It is a numeric type field and will be set to a combination of hex values according to the values in the following table:

Value	XFS Name	Meaning
0x00000001	WFS_PTR_RESLOW	Can print with low resolution.
0x00000002	WFS_PTR_RESMED	Can print with medium resolution.
0x00000004	WFS_PTR_RESHIGH	Can print with high resolution.
0x00000008	WFS_PTR_RESVERYHIGH	Can print with very high resolution.

xfsPTRCapabilitiesReadForm (5)

It specifies whether the device can read data from a media. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_READOCR	Device has OCR capability.
0x00000002	WFS_PTR_READMICR	Device has MICR capability.
0x00000004	WFS_PTR_READMSF	Device has MSF capability.
0x00000008	WFS_PTR_READBARCODE	Device has Barcode capability.
0x00000010	WFS_PTR_READPAGEMARK	Device has Page Mark capability.
0x00000020	WFS_PTR_READIMAGE	Device has imaging capability.
0x00000040	WFS_PTR_READEMPTYLINE	Device has capability to detect empty print lines for passbook printing.

xfsPTRCapabilitiesWriteForm (6)

It specifies whether the device can write data to a media. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_WRITETEXT	Device has Text capability.
0x00000002	WFS_PTR_WRITEGRAPHICS	Device has Graphics capability.

Value	XFS Name	Meaning
0x00000004	WFS_PTR_WRITEOCR	Device has OCR capability.
0x00000008	WFS_PTR_WRITEMICR	Device has MICR capability.
0x00000010	WFS_PTR_WRITEMSF	Device has MSF capability.
0x00000020	WFS_PTR_WRITEBARCODE	Device has Barcode capability.
0x00000040	WFS_PTR_WRITESTAMP	Device has stamping capability.

xfsPTRCapabilitiesExtents (7)

It specifies whether the device can measure the inserted media. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_EXTHORIZONTAL	Device has horizontal size detection capability.
0x00000002	WFS_PTR_EXTVERTICAL	Device has vertical size detection capability.

xfsPTRCapabilitiesMediaControl (8)

It specifies in which manner the media can be controlled. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_CTRL EJECT	Device can eject media.
0x00000002	WFS_PTR_CTRL PERFORATE	Device can perforate media.
0x00000004	WFS_PTR_CTRL CUT	Device can cut media.
0x00000008	WFS_PTR_CTRL SKIP	Device can skip to mark.
0x00000010	WFS_PTR_CTRL FLUSH	Device can be sent data that is buffered internally, and flushed to the printer on request.
0x00000020	WFS_PTR_CTRL RETRACT	Device can retract media under application control.
0x00000040	WFS_PTR_CTRL STACK	Device can stack media items before ejecting as a bundle.
0x00000080	WFS_PTR_CTRL PARTIAL CUT	Device can partially cut the media.
0x00000100	WFS_PTR_CTRL ALARM	Device can ring a bell, beep or otherwise sound an audible alarm.
0x00000200	WFS_PTR_CTRL ATP FORWARD	Capability to turn one page forward.
0x00000400	WFS_PTR_CTRL ATP BACKWARD	Capability to turn one page backward.
0x00000800	WFS_PTR_CTRL TURN MEDIA	Device can turn inserted media.
0x00001000	WFS_PTR_CTRL STAMP	Device can stamp on media.
0x00002000	WFS_PTR_CTRL PARK	Device can park a document into the parking station.
0x00004000	WFS_PTR_CTRL EXPEL	Device can expel media out of the exit slot.
0x00008000	WFS_PTR_CTRL EJECT TOTRANSPORT	Device can move media to a position on the transport just behind the exit slot.

xfsPTRCapabilitiesMaxMediaOnStacker (9)

It specifies the maximum number of media items that the stacker can hold (zero if not available). It is a numeric field.

xfsPTRCapabilitiesAcceptMedia (10)

It specifies whether the device is able to accept media while no execute command is running that is waiting explicitly for media to be inserted in a TruthValue type field as follows:

Value	Meaning
True(1)	Printer can accept media.
False(2)	Printer cannot accept media.

xfsPTRCapabilitiesMultiPage (11)

It specifies whether the device is able to support multiple page print jobs in a TruthValue type field as follows:

Value	Meaning
True(1)	The device supports multiple page print jobs.
False(2)	The device does not support multiple page print jobs.

xfsPTRCapabilitiesPaperSources (12)

It specifies the paper sources available for this printer. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported)

Value	XFS Name	Meaning
0x00000002	WFS_PTR_PAPERUPPER	Indicates an upper paper source is available; devices with only one paper supply must indicate WFS_PTR_PAPERUPPER as being available.
0x00000004	WFS_PTR_PAPERLOWER	Indicates a lower paper source is available.
0x00000008	WFS_PTR_PAPEREXTERNAL	Indicates an external paper source (such as envelope tray or single sheet feed) is available.
0x00000010	WFS_PTR_PAPERPAUX	An auxiliary paper source is available.
0x00000020	WFS_PTR_PAPERPAUX2	A second auxiliary paper source is available.
0x00000040	WFS_PTR_PAPERPAUK	A parking station is available.

xfsPTRCapabilitiesMediaTaken (13)

It specifies whether the device can detect when a media is taken from the exit slot in a TruthValue type field as follows:

Value	Meaning
True(1)	The device can detect.
False(2)	The device cannot detect.

xfsPTRCapabilitiesRetractBins (14)

It specifies the number of retract bins (0 if not supported). It is a numeric field.

xfsPTRCapabilitiesMaxRetract (15)

It specifies the maximum number of media items that each retract bin can hold. It is an OCTET STRING where each media bin ID and maximum retract count pair is separated by a NULL terminator and the field is terminated by a double NULL terminator. For example, for a PTR device with *n* number of retract bins, this value will be as follows where <null> is a null terminator:

Bin0, retract Count<null>Bin1, retract Count <null>Bin2, retract Count <null>.....Bin_{n-1}, retract count <null><null>

If *n* is equal to 0, the value is as follows where <null> is null terminator:

<null><null>

xfsPTRCapabilitiesImageType (16)

It specifies the image formats supported by this device. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_IMAGE_TIF	The device can return scanned images in TIFF 6.0 format.
0x00000002	WFS_PTR_IMAGE_WMF	The device can return scanned images in WMF (Windows Metafile) format.
0x00000004	WFS_PTR_IMAGE_BMP	The device can return scanned images in Windows BMP format.
0x00000008	WFS_PTR_IMAGE_JPG	The device can return scanned images in JPG format.

xfsPTRCapabilitiesFrontImageColor (17)

It specifies the front image color formats supported by this device. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_IMAGE_COLOR_BINARY	The device can return scanned images in binary (image contains two colors, usually the colors black and white).
0x00000002	WFS_PTR_IMAGE_COLOR_GRAYSCALE	The device can return scanned images in gray scale (image contains multiple gray colors).
0x00000004	WFS_PTR_IMAGE_COLOR_FULL	The device can return scanned images in full color (image contains colors like red, green, blue etc.).

xfsPTRCapabilitiesBackImageColor (18)

It specifies the back image color formats supported by this device. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported)

Value	XFS Name	Meaning
0x00000001	WFS_PTR_IMAGE_COLOR_BINARY	The device can return scanned images in binary (image contains two colors, usually the colors black and white).
0x00000002	WFS_PTR_IMAGE_COLOR_GRAYSCALE	The device can return scanned images in gray scale (image contains multiple gray colors).
0x00000004	WFS_PTR_IMAGE_COLOR_FULL	The device can return scanned images in full color (image contains colors like red, green, blue etc.).

xfsPTRCapabilitiesCodelineFormat (19)

It specifies the code line (MICR data) formats supported by this device. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_CODELINE_CMC7	The device can read CMC7 code lines.
0x00000002	WFS_PTR_CODELINE_E13B	The device can read E13B code lines.

Value	XFS Name	Meaning
0x00000004	WFS_PTR_CODELINEOCR	The device can read code lines using Optical Character Recognition.

xfsPTRCapabilitiesImageSource (20)

It specifies the source for the read image command supported by this device. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_IMAGEFRONT	The device can scan the front image of the document.
0x00000002	WFS_PTR_IMAGEBACK	The device can scan the back image of the document.
0x00000004	WFS_PTR_CODELINE	The device can recognize the code line.

xfsPTRCapabilitiesSupportedChars (21)

One or more flags specifying the character sets, in addition to single byte ASCII, that is supported by the Service Provider. It is a numeric type field and will be set to a combination of hex values according to the values in the following table (zero if none of the choices is supported):

Value	XFS Name	Meaning
0x00000001	WFS_PTR_ASCII	ASCII is supported for XFS forms.
0x00000002	WFS_PTR_UNICODE	UNICODE is supported for XFS forms.

xfsPTRCapabilitiesDispensePaper (22)

It specifies whether the device is able to dispense paper in a TruthValue type field as follows:

Value	Meaning
True(1)	The device can dispense.
False(2)	The device cannot dispense.

xfsPTRCapabilitiesGuidancePrinter (23)

It specifies the capability of the printer guidance light. Possible states are reported as a combination of hex values according to the values in the following table:

Value	XFS Name	Meaning
0x00000000	WFS_PTR_GUIDANCE_NOT_AVAILABLE	There is no guidance control available at this position.
0x00000001	WFS_PTR_GUIDANCE_OFF	The light can be off.
0x00000004	WFS_PTR_GUIDANCE_SLOW_FLASH	The light can blink slowly.
0x00000008	WFS_PTR_GUIDANCE_MEDIUM_FLASH	The light can blink medium frequency.
0x00000010	WFS_PTR_GUIDANCE_QUICK_FLASH	The light can blink quickly.
0x00000080	WFS_PTR_GUIDANCE_CONTINUOUS	The light can be continuous (steady).
0x00000100	WFS_PTR_GUIDANCE_RED	The light can be red.
0x00000200	WFS_PTR_GUIDANCE_GREEN	The light can be green.
0x00000400	WFS_PTR_GUIDANCE_YELLOW	The light can be yellow.
0x00000800	WFS_PTR_GUIDANCE_BLUE	The light can be blue.
0x00001000	WFS_PTR_GUIDANCE_CYAN	The light can be cyan.
0x00002000	WFS_PTR_GUIDANCE_MAGENTA	The light can be magenta.
0x00004000	WFS_PTR_GUIDANCE_WHITE	The light can be white.

xfsPTRCapabilitiesWindowsPrinter (24)

It specifies the name of the default logical Windows printer that is associated with this Service Provider.

xfsPTRCapabilitiesMediaPresented (25)

It specifies whether the device is able to detect when the media is presented to the user for removal in a TruthValue type field as follows:

Value	Meaning
True(1)	The device can detect when media is presented to the user for removal.
False(2)	The device cannot detect when media is presented to the user for removal.

xfsPTRCapabilitiesAutoRetractPeriod (26)

It specifies the number of seconds before the device will automatically retract the presented media.

xfsPTRCapabilitiesRetractToTransport (27)

It specifies whether the device is able to retract the previously ejected media to the transport in a TruthValue type field as follows:

Value	Meaning
True(1)	The device can retract previously ejected media to the transport.
False(2)	The device cannot retract previously ejected media to the transport.

xfsPTRCapabilitiesPowerSaveControl (28)

It contains the capability of the power saving control. It is a TruthValue type field. Allowed values are:

Value	Meaning
True(1)	Power saving is supported.
False(2)	Power saving is not supported.

xfsPTRCapabilitiesExtraCapability (100)

It specifies vendor dependent additional device capability 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. PTR Traps

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

3.1 PTR 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 PTR 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 PTR reflect the PTR 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_PTR_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 101 defines the trap as a PTR Detailed Device Status Change 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.

3.1.1 PTR Detailed Device Status Change Trap Format

The following defines the variable bindings included in the PTR 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_PTR_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 PTR MIB class is represented by .1.3.6.1.4.1.16213.2.1

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, e.g. "ABC Printer Engine, ABC Transport".

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.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusDevice.xfsPTRStatusManagedServiceName (13)

It contains the state of the print device. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusNumberSubDevices.xfsPTRStatusManagedServiceName (14)

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

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusMedia.xfsPTRStatusManagedServiceName (15)

It contains the state of the print media (i.e. receipt, statement, passbook, etc.). This field does not apply to journal printers. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyUpper.xfsPTRStatusManagedServiceName (16)

It contains the state of the only paper supply or the upper paper supply, if more than one. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyLower.xfsPTRStatusManagedServiceName (17)

It contains the state of the lower paper supply. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyExternal.xfsPTRStatusManagedServiceName (18)

It contains the state of the external paper supply. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyAux.xfsPTRStatusManagedServiceName (19)

It contains the state of the auxiliary paper supply. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyAux2.xfsPTRStatusManagedServiceName (20)

It contains the state of the second auxiliary paper supply. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyPark.xfsPTRStatusManagedServiceName (21)

It contains the state of the parking station. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusToner.xfsPTRStatusManagedServiceName (22)

It contains the state of the toner or ink supply or the state of the ribbon. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusInk.xfsPTRStatusManagedServiceName (23)

It contains the state of the stamping ink in the printer. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusLamp.xfsPTRStatusManagedServiceName (24)

It contains the state of the printer imaging lamp. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusMediaOnStacker.xfsPTRStatusManagedServiceName (25)

It contains the number of media on stacker; applicable only to printers with stacking capability. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusExtraStatus.xfsPTRStatusManagedServiceName (26)

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.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusGuidancePrinter.xfsPTRStatusManagedServiceName (27)

It contains the state of the guidance light indicator on the printer unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusDevicePosition.xfsPTRStatusManagedServiceName (28)

It contains the device position. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPowerSaveRecoveryTime.xfsPTRStatusManagedServiceName (29)

It contains the actual number of seconds required by the device to resume its normal operational state from the current power saving mode. It is a numeric type field.

3.1.2 PTR Detailed Device Status Change Trap: an example

As an example, the following variable binding list represents a detailed device status change trap (6, 101) that is generated for a PTR with a managed service name of "Printer1". It reports that the device is OFFLINE because the media is jammed.

xfMIBRoot.3.1.3.1	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapSysName)
	"SST System 1"
xfMIBRoot.3.1.3.2	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName)
	"Printer1"
xfMIBRoot.3.1.3.3	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass)
	1 (WFS_SERVICE_CLASS_PTR)
xfMIBRoot.3.1.3.4	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass)

	sName)
	“PTR”
xfsMIBRoot.3.1.3.5	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType) 1 (WFS_PTR_TYPERECEIPT)
xfsMIBRoot.3.1.3.6	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid) “.1.3.6.1.4.1.16213.2.1”
xfsMIBRoot.3.1.3.7	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName) “ABC Corp Receipt Printer”
xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor) “Best Printers 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.2.1.1.2.1.3.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusDevice.xfsPTRStatusManagedServiceName) 2 (WFS_STAT_DEVOFFLINE)
xfsMIBRoot.2.1.1.2.1.2.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusNumberSubDevices.xfsPTRStatusManagedServiceName) 1 (One sub device)
xfsMIBRoot.2.1.1.2.1.4.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusMedia.xfsPTRStatusManagedServiceName) 3 (xfsPTRMediaJammed)
xfsMIBRoot.2.1.1.2.1.5.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyUpper.xfsPTRStatusManagedServiceName) 1 (xfsPTRPaperFull)
xfsMIBRoot.2.1.1.2.1.6.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyLower.xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1.7.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyExternal.xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1.8.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyAux.xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1.9.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyAux2.xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1.10.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfsPTRStatusPaperSupplyPark.xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)

xfsmIBRoot.2.1.1.2.1. 11.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusToner.xfsPTRStatusManagedServiceName)
	1 (xfsPTRTonerFull)
xfsmIBRoot.2.1.1.2.1. 12.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusInk.xfsPTRStatusManagedServiceName)
	4 (xfsPTRInkNotSupported)
xfsmIBRoot.2.1.1.2.1. 13.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusLamp.xfsPTRStatusManagedServiceName)
	4 (xfsPTRLampNotSupported)
xfsmIBRoot.2.1.1.2.1. 14.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusMediaOnStacker.xfsPTRStatusManagedServiceName)
	0
xfsmIBRoot.2.1.1.2.1. 100.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusExtraStatus.xfsPTRStatusManagedServiceName)
	"0"0' (No extra data)
xfsmIBRoot.2.1.1.2.1. 15.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusGuidancePrinter.xfsPTRStatusManagedServiceName)
	1 (value corresponding to WFS_PTR_GUIDANCE_OFF)
xfsmIBRoot.2.1.1.2.1. 16.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusDevicePosition.xfsPTRStatusManagedServiceName)
	1 (xfsPTRDeviceInPosition)
xfsmIBRoot.2.1.1.2.1. 17.Index	(xfsmIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPowerSaveRecoveryTime.xfsPTRStatusManagedServiceName)
	3 (3 seconds to recover from power saving mode)

3.2 PTR Sub-Device Status Change Trap

On the PTR device class the Sub Device Status change traps are sent when a WFS_USRE_PTR_RETRACTBINTHRESHOLD event is generated. This trap is sent in addition to the threshold event defined in the architecture specification.

The definition of the content of the device specific fields within the Sub-Device Status trap (fields 12-14) is defined in section 2.2.

The SNMP Specific trap value 201 defines the trap as a PTR Sub-Device Status Change trap.

3.2.1 PTR Sub-Device Status Change Trap Format

The following defines the variable bindings included in the PTR 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>*\c lass. 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>*\c lass.

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_PTR_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 PTR MIB class is represented by .1.3.6.1.4.1.16213.2.1

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, e.g. "ABC Printer Engine, ABC Transport".

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 PTR this corresponds to the WFS_USRE_PTR_RETRACTBINTHRESHOLD 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.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceIndex.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex (12)

Index into the table of sub-device supported.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceRetractBin.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex (13)

It contains the retract bin state. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceRetractCount.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex (14)

It contains the number of media items retracted to this bin. It is a numeric type field.

3.2.2 PTR Sub-Device Status Change Trap: an example

As an example, the following variable binding list represents a PTR sub-device status change trap (6, 201) generated from a generic XFS SST system. This trap sends an alarm to the SNMP Manager when a Retract Bin changes status from OK to HIGH on a PTR of type receipt and managed service name "Printer1".

xfsMIBRoot.3.1.3.2	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName)
	"Printer1"
xfsMIBRoot.3.1.3.3	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass)
	1 (WFS_SERVICE_CLASS_PTR)
xfsMIBRoot.3.1.3.4	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName)
	"PTR"
xfsMIBRoot.3.1.3.5	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType)
	1 (WFS_PTR_TYPERECEIPT)
xfsMIBRoot.3.1.3.6	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid)
	".1.3.6.1.4.1.16213.2.1"
xfsMIBRoot.3.1.3.7	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName)
	"ABC Corp Receipt Printer"
xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor)

	“Best Printers Incorporated”
xfsMIBRoot.3.1.3.9	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapMIBVersion)
	“1.10”
xfsMIBRoot.3.1.3.10	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapEvent)
	105 (WFS_USRE_PTR_RETRACTBINTHRESHOLD)
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.2.1.1.3.1.2.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceIndex.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex)
	1 (Index to first sub device)
xfsMIBRoot.2.1.1.3.1.3.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceRetractBin.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex)
	5 (xfsPTRRetractBinHigh)
xfsMIBRoot.2.1.1.3.1.4.Index1.Index2	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRSubDeviceTable.xfsPTRSubDeviceEntry.xfsPTRSubDeviceRetractCount.xfsPTRSubDeviceManagedServiceName.xfsPTRSubDeviceIndex)
	30 (30 receipts captured)

3.3 PTR Reset Device Complete Trap

On the PTR 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 301 defines the trap as a PTR Reset Device Complete trap.

3.3.1 PTR Reset Device Complete Trap Format

The following defines the variable bindings included in the PTR 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 **xfsxfsPTRStatusDevice** 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_PTR_CAPABILITIES.fvType 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 PTR MIB class is represented by .1.3.6.1.4.1.16213.2.1

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, e.g. "ABC Printer Engine, ABC Transport".

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.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**xfsPTRStatusDevice**.xfsPTRStatusManagedServiceName (12)

It contains the state of the print device. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusNumberSubDevices**.xfsPTRStatusManagedServiceName (13)

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

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusMedia**.xfsPTRStatusManagedServiceName (14)

It contains the state of the print media (i.e. receipt, statement, passbook, etc.). This field does not apply to journal printers. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyUpper**.xfsPTRStatusManagedServiceName (15)

It contains the state of the only paper supply or the upper paper supply, if more than one. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyLower**.xfsPTRStatusManagedServiceName (16)

It contains the state of the lower paper supply. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyExternal**.xfsPTRStatusManagedServiceName (17)

It contains the state of the external paper supply. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyAux**.xfsPTRStatusManagedServiceName (18)

It contains the state of the auxiliary paper supply. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyAux2**.xfsPTRStatusManagedServiceName (19)

It contains the state of the second auxiliary paper supply. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusPaperSupplyPark**.xfsPTRStatusManagedServiceName (20)

It contains the state of the parking station. It is a numeric type field.

xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.xfs**PTRStatusToner**.xfsPTRStatusManagedServiceName (21)

It contains the state of the toner or ink supply or the state of the ribbon. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusInk**.xfPTRStatusManagedServiceName (22)

It contains the state of the stamping ink in the printer. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusLamp**.xfPTRStatusManagedServiceName (23)

It contains the state of the printer imaging lamp. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusMediaOnStacker**.xfPTRStatusManagedServiceName (24)

It contains the number of media on stacker; applicable only to printers with stacking capability. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusExtraStatus**.xfPTRStatusManagedServiceName (25)

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.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusGuidancePrinter**.xfPTRStatusManagedServiceName (26)

It contains the state of the guidance light indicator on the printer unit. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusDevicePosition**.xfPTRStatusManagedServiceName (27)

It contains the device position. It is a numeric type field.

xfMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.**xfPTRStatusPowerSaveRecoveryTime**.xfPTRStatusManagedServiceName (28)

It contains the actual number of seconds required by the device to resume its normal operational state from the current power saving mode. It is a numeric type field.

3.3.2 PTR Reset Device Complete: an example

As an example, the following variable binding list represents a Reset Device Complete trap (6, 301) generated as the result of a request to reset the device from the remote management station. The device in question has a managed service name "Printer1".

xfMIBRoot.3.1.3.13	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapResetDeviceResult)
	0 (resetExecuted)
xfMIBRoot.3.1.3.2	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceName)
	"Printer1"
xfMIBRoot.3.1.3.3	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClass)
	1 (WFS_SERVICE_CLASS_PTR)
xfMIBRoot.3.1.3.4	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceClassName)
	"PTR"
xfMIBRoot.3.1.3.5	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceType)
	1 (WFS_PTR_TYPERECEIPT)
xfMIBRoot.3.1.3.6	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapManagedServiceOid)
	".1.3.6.1.4.1.16213.2.1"
xfMIBRoot.3.1.3.7	(xfMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapPhysicalDeviceName)
	"ABC Corp Receipt Printer"

xfsMIBRoot.3.1.3.8	(xfsMIBRoot.xfsTrap.xfsTrapV1.xfsCommonTrapVars.xfsCommonTrapDeviceVendor) "Best Printers 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.2.1.1.2.1. 3.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusDevice .xfsPTRStatusManagedServiceName) 1 (WFS_STAT_DEVONLINE)
xfsMIBRoot.2.1.1.2.1. 2.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusNumberSubDevices .xfsPTRStatusManagedServiceName) 1 (One sub device)
xfsMIBRoot.2.1.1.2.1. 4.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusMedia .xfsPTRStatusManagedServiceName) 2 (xfsPTRMediaNotPresent)
xfsMIBRoot.2.1.1.2.1. 5.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyUpper .xfsPTRStatusManagedServiceName) 1 (xfsPTRPaperFull)
xfsMIBRoot.2.1.1.2.1. 6.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyLower .xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1. 7.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyExternal .xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1. 8.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyAux .xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1. 9.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyAux2 .xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1. 10.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusPaperSupplyPark .xfsPTRStatusManagedServiceName) 4 (xfsPTRPaperNotSupported)
xfsMIBRoot.2.1.1.2.1. 11.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusToner .xfsPTRStatusManagedServiceName) 1 (xfsPTRTonerFull)
xfsMIBRoot.2.1.1.2.1. 12.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusInk .xfsPTRStatusManagedServiceName) 4 (xfsPTRInkNotSupported)
xfsMIBRoot.2.1.1.2.1. 13.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusLamp .xfsPTRStatusManagedServiceName) 4 (xfsPTRLampNotSupported)
xfsMIBRoot.2.1.1.2.1. 14.Index	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry. xfsPTRStatusMediaOnStacker .xfsPTRStatusManagedServiceName) 0
xfsMIBRoot.2.1.1.2.1.	(xfsMIBRoot.xfsManagedService.xfsPTR.xfsPTRV1.xfsPTRStatusTable.xfsPTRStatusEntry.

100.Index	xfSPTRStatusExtraStatus.xfSPTRStatusManagedServiceName)
	"0"0' (No extra data)
xfMIBRoot.2.1.1.2.1. 15.Index	(xfMIBRoot.xfManagedService.xfPTR.xfPTRV1.xfPTRStatusTable.xfPTRStatusEntry. xfSPTRStatusGuidancePrinter.xfSPTRStatusManagedServiceName)
	1 (value corresponding to WFS_PTR_GUIDANCE_OFF)
xfMIBRoot.2.1.1.2.1. 16.Index	(xfMIBRoot.xfManagedService.xfPTR.xfPTRV1.xfPTRStatusTable.xfPTRStatusEntry. xfSPTRStatusDevicePosition.xfSPTRStatusManagedServiceName)
	1 (xfPTRDeviceInPosition)
xfMIBRoot.2.1.1.2.1. 17.Index	(xfMIBRoot.xfManagedService.xfPTR.xfPTRV1.xfPTRStatusTable.xfPTRStatusEntry. xfSPTRStatusPowerSaveRecoveryTime.xfSPTRStatusManagedServiceName)
	3 (3 seconds to recover from power saving mode)

4. Appendix A - PTR MIB sub-tree

In the following paragraph contains the definition of the XFS PTR MIB sub-tree in ASN-V1 format.

4.1 PTR MIB in SMIV2 and SMIV1 format



SMIV1_xfsPTR.mib



SMIV2_xfsPTR.mib

The following text is the content of xfsPTR.MIB in SMIV2 format.

```
--*****
-- XFS MIB for PTR
-- Management Information Base for XFS PTR Device
--
-- The PTR Number is 1
-- The ASN.1 prefix to, and including the PTR is: 1.3.6.1.4.1.16213.2.1
--
--*****

XFS-PTR-MIB DEFINITIONS ::= BEGIN

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

--
-- Type definitions
--
-- *****
-- PTR #defines
-- *****
    IxfsPTRMediaStatus ::= INTEGER
    {
        xfsPTRMediaPresent(1),
        xfsPTRMediaNotPresent(2),
        xfsPTRMediaJammed(3),
        xfsPTRMediaNotSupported(4),
        xfsPTRMediaUnknown(5),
        xfsPTRMediaEntering(6),
        xfsPTRMediaRetracted(7)
    }

    IxfsPTRPaperStatus ::= INTEGER
    {
        xfsPTRPaperFull(1),
        xfsPTRPaperLow(2),
        xfsPTRPaperOut(3),
        xfsPTRPaperNotSupported(4),
        xfsPTRPaperUnknown(5),
        xfsPtrPaperJammed(6)
    }

    IxfsPTRTonerStatus ::= INTEGER
    {
        xfsPTRTonerFull(1),
        xfsPTRTonerLow(2),
        xfsPTRTonerOut(3),
        xfsPTRTonerNotSupported(4),
        xfsPTRTonerUnknown(5)
    }

    IxfsPTRInkStatus ::= INTEGER
    {
        xfsPTRInkFull(1),
```

```

    xfsPTRInkrLow(2),
    xfsPTRInkOut(3),
    xfsPTRInkNotSupported(4),
    xfsPTRInkUnknown(5)
}

IxfSPTRLampStatus ::= INTEGER
{
    xfsPTRLampOK(1),
    xfsPTRLampFading(2),
    xfsPTRLampInOp(3),
    xfsPTRLampNotSupported(4),
    xfsPTRLampUnknown(5)
}

IxfSPTRDevicePositionStatus ::= INTEGER
{
    xfsPTRDeviceInPosition(1),
    xfsPTRDeviceNotInPosition(2),
    xfsPTRDevicePosUnknown(3),
    xfsPTRDevicePosNotSupported(4)
}

IxfSPTRRetractBinStatus ::= INTEGER
{
    xfsPTRRetractBinOK(1),
    xfsPTRRetractBinFull(2),
    xfsPTRRetractBinNotSupported(3),
    xfsPTRRetractBinUnknown(4),
    xfsPTRRetractBinHigh(5),
    xfsPTRRetractBinMissing(6)
}

--
-- Node definitions
--
-- *****
-- Version 1 of PTR MIB
--
-- The ASN.1 prefix to, and including the Version 1 of PTR is:
1.3.6.1.4.1.16213.2.1.1
--
-- *****
xfsPTRV1 OBJECT IDENTIFIER ::= { xfsPTR 1 }

xfsPTRInstances OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number that represents the number of PTR managed services."
    ::= { xfsPTRV1 1 }

-- *****
-- PTR Device Status Table
-- *****
xfsPTRStatusTable OBJECT-TYPE
    SYNTAX SEQUENCE OF XfsPTRStatusEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Define the set of MIB Variables for the PTR status table."
    ::= { xfsPTRV1 2 }

xfsPTRStatusEntry OBJECT-TYPE
    SYNTAX XfsPTRStatusEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "PTR Device Status Table Entry."

```

```
INDEX { xfsPTRStatusManagedServiceName }
 ::= { xfsPTRStatusTable 1 }
```

```
XfsPTRStatusEntry ::=
SEQUENCE {
  xfsPTRStatusManagedServiceName
    DisplayString,
  xfsPTRStatusNumberSubDevices
    Integer32,
  xfsPTRStatusDevice
    IxfsMIBDeviceStatus,
  xfsPTRStatusMedia
    IxfsPTRMediaStatus,
  xfsPTRStatusPaperSupplyUpper
    IxfsPTRPaperStatus,
  xfsPTRStatusPaperSupplyLower
    IxfsPTRPaperStatus,
  xfsPTRStatusPaperSupplyExternal
    IxfsPTRPaperStatus,
  xfsPTRStatusPaperSupplyAux
    IxfsPTRPaperStatus,
  xfsPTRStatusPaperSupplyAux2
    IxfsPTRPaperStatus,
  xfsPTRStatusPaperSupplyPark
    IxfsPTRPaperStatus,
  xfsPTRStatusToner
    IxfsPTRTonerStatus,
  xfsPTRStatusInk
    IxfsPTRInkStatus,
  xfsPTRStatusLamp
    IxfsPTRLampStatus,
  xfsPTRStatusMediaOnStacker
    Integer32,
  xfsPTRStatusGuidancePrinter
    Integer32,
  xfsPTRStatusDevicePosition
    IxfsPTRDevicePositionStatus,
  xfsPTRStatusPowerSaveRecoveryTime
    Integer32,
  xfsPTRStatusExtraStatus
    OCTET STRING
}
```

```
xfsPTRStatusManagedServiceName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Uniquely identifies the managed service."
 ::= { xfsPTRStatusEntry 1 }
```

```
xfsPTRStatusNumberSubDevices OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "Defines how many sub-devices the service has. This is the number of
retract bins the device supports."
 ::= { xfsPTRStatusEntry 2 }
```

```
xfsPTRStatusDevice OBJECT-TYPE
SYNTAX IxfsMIBDeviceStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "It contains the state of the print device."
 ::= { xfsPTRStatusEntry 3 }
```

```
xfsPTRStatusMedia OBJECT-TYPE
SYNTAX IxfsPTRMediaStatus
MAX-ACCESS read-only
```

```

STATUS current
DESCRIPTION
  "It contains the state of the print media (i.e. receipt, statement,
passbook, etc.). This field does not apply to journal printers. Allowed values are:
  xfsPTRMediaPresent(1),
  xfsPTRMediaNotPresent(2),
  xfsPTRMediaJammed(3),
  xfsPTRMediaNotSupported(4),
  xfsPTRMediaUnknown(5),
  xfsPTRMediaEntering(6),
  xfsPTRMediaRetracted(7)."
 ::= { xfsPTRStatusEntry 4 }

```

```

xfsPTRStatusPaperSupplyUpper OBJECT-TYPE
SYNTAX IxfsPTRPaperStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "It contains the state of the only paper supply or the upper paper
supply, if more than one. Allowed values are:
  xfsPTRPaperFull(1),
  xfsPTRPaperLow(2),
  xfsPTRPaperOut(3),
  xfsPTRPaperNotSupported(4),
  xfsPTRPaperUnknown(5),
  xfsPtrPaperJammed(6)."
 ::= { xfsPTRStatusEntry 5 }

```

```

xfsPTRStatusPaperSupplyLower OBJECT-TYPE
SYNTAX IxfsPTRPaperStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "It contains the state of the lower paper supply. Allowed values are:
  xfsPTRPaperFull(1),
  xfsPTRPaperLow(2),
  xfsPTRPaperOut(3),
  xfsPTRPaperNotSupported(4),
  xfsPTRPaperUnknown(5),
  xfsPtrPaperJammed(6)."
 ::= { xfsPTRStatusEntry 6 }

```

```

xfsPTRStatusPaperSupplyExternal OBJECT-TYPE
SYNTAX IxfsPTRPaperStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "It contains the state of the external paper supply. Allowed values are:
  xfsPTRPaperFull(1),
  xfsPTRPaperLow(2),
  xfsPTRPaperOut(3),
  xfsPTRPaperNotSupported(4),
  xfsPTRPaperUnknown(5),
  xfsPtrPaperJammed(6)."
 ::= { xfsPTRStatusEntry 7 }

```

```

xfsPTRStatusPaperSupplyAux OBJECT-TYPE
SYNTAX IxfsPTRPaperStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
  "It contains the state of the auxiliary paper supply. Allowed values are:
  xfsPTRPaperFull(1),
  xfsPTRPaperLow(2),
  xfsPTRPaperOut(3),
  xfsPTRPaperNotSupported(4),
  xfsPTRPaperUnknown(5),
  xfsPtrPaperJammed(6)."
 ::= { xfsPTRStatusEntry 8 }

```

```

xfsPTRStatusPaperSupplyAux2 OBJECT-TYPE
    SYNTAX IxfsPTRPaperStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It contains the state of the second auxiliary paper supply. Allowed
values are:
        xfsPTRPaperFull(1),
        xfsPTRPaperLow(2),
        xfsPTRPaperOut(3),
        xfsPTRPaperNotSupported(4),
        xfsPTRPaperUnknown(5),
        xfsPtrPaperJammed(6)."
    ::= { xfsPTRStatusEntry 9 }

xfsPTRStatusPaperSupplyPark OBJECT-TYPE
    SYNTAX IxfsPTRPaperStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It contains the state of the parking station. Allowed values are:
        xfsPTRPaperFull(1),
        xfsPTRPaperOut(3),
        xfsPTRPaperNotSupported(4),
        xfsPTRPaperUnknown(5),
        xfsPTRPaperJammed(6)."
    ::= { xfsPTRStatusEntry 10 }

xfsPTRStatusToner OBJECT-TYPE
    SYNTAX IxfsPTRTonerStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It contains the state of the toner or ink supply or the state of the
ribbon. Allowed values are:
        xfsPTRTonerFull(1),
        xfsPTRTonerLow(2),
        xfsPTRTonerOut(3),
        xfsPTRTonerNotSupported(4),
        xfsPTRTonerUnknown(5)."
    ::= { xfsPTRStatusEntry 11 }

xfsPTRStatusInk OBJECT-TYPE
    SYNTAX IxfsPTRInkStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It contains the state of the stamping ink in the printer. Allowed values
are:
        xfsPTRInkFull(1),
        xfsPTRInkrLow(2),
        xfsPTRInkOut(3),
        xfsPTRInkNotSupported(4),
        xfsPTRInkUnknown(5)."
    ::= { xfsPTRStatusEntry 12 }

xfsPTRStatusLamp OBJECT-TYPE
    SYNTAX IxfsPTRLampStatus
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It contains the state of the printer imaging lamp. Allowed values are:
        xfsPTRLampOK(1),
        xfsPTRLampFading(2),
        xfsPTRLampInOp(3),
        xfsPTRLampNotSupported(4),
        xfsPTRLampUnknown(5)."
    ::= { xfsPTRStatusEntry 13 }

xfsPTRStatusMediaOnStacker OBJECT-TYPE

```

```

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the number of media on stacker; applicable only to printers
with stacking capability."
    ::= { xfsPTRStatusEntry 14 }

xfsPTRStatusGuidancePrinter OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the state of the guidance light indicator on the printer
unit."
    ::= { xfsPTRStatusEntry 15 }

xfsPTRStatusDevicePosition OBJECT-TYPE
SYNTAX IxfsPTRDevicePositionStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the device position. Allowed values are:
    xfsPTRDeviceInPosition(1),
    xfsPTRDeviceNotInPosition(2),
    xfsPTRDevicePosUnknown(3),
    xfsPTRDevicePosNotSupported(4)."
```

```

    ::= { xfsPTRStatusEntry 16 }

xfsPTRStatusPowerSaveRecoveryTime OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the actual number of seconds required by the device to
resume its normal operational state from the current power saving mode. This value
is zero if either the power saving mode has not been activated or no power save
control is supported."
    ::= { xfsPTRStatusEntry 17 }

xfsPTRStatusExtraStatus OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the vendor dependent additional device status information as
an OCTET STRING."
    ::= { xfsPTRStatusEntry 100 }

-- *****
-- PTR Sub Device Status Table
--
-- Note that the PTR device does not currently have sub-devices. The
-- sub-device table is not required for this device and is shown as an
-- example for those devices that do support sub-devices.
--
-- Note, to ensure consistency across all MIB extensions OID 16213.2.1.1.3
-- must be reserved for the sub-device table.
-- *****
xfsPTRSubDeviceTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsPTRSubDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Define the set of MIB Variables for the PTR status table."
    ::= { xfsPTRV1 3 }

xfsPTRSubDeviceEntry OBJECT-TYPE
SYNTAX XfsPTRSubDeviceEntry
```



```

MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "PTR Sub-Device Status Table Entry."
INDEX { xfsPTRSubDeviceManagedServiceName, xfsPTRSubDeviceIndex }
 ::= { xfsPTRSubDeviceTable 1 }

XfsPTRSubDeviceEntry ::=
SEQUENCE {
    xfsPTRSubDeviceManagedServiceName
        DisplayString,
    xfsPTRSubDeviceIndex
        INTEGER,
    xfsPTRSubDeviceRetractBin
        IxfsPTRRetractBinStatus,
    xfsPTRSubDeviceRetractCount
        Integer32
}

xfsPTRSubDeviceManagedServiceName OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Uniquely identifies the managed service."
 ::= { xfsPTRSubDeviceEntry 1 }

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

xfsPTRSubDeviceRetractBin OBJECT-TYPE
SYNTAX IxfsPTRRetractBinStatus
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the retract bin state. Allowed values are:
    xfsPTRRetractBinOK(1),
    xfsPTRRetractBinFull(2),
    xfsPTRRetractBinNotSupported(3),
    xfsPTRRetractBinUnknown(4),
    xfsPTRRetractBinHigh(5),
    xfsPTRRetractBinMissing(6)."
 ::= { xfsPTRSubDeviceEntry 3 }

xfsPTRSubDeviceRetractCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It contains the number of media retracted to this bin."
 ::= { xfsPTRSubDeviceEntry 4 }

-- *****
-- PTR Error Table
-- *****
xfsPTRErrorTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsPTRErrorEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Define the set of MIB Variables for the PTR Error Table."
 ::= { xfsPTRV1 4 }

xfsPTRErrorEntry OBJECT-TYPE

```

CWA 15748-30:2011 (E)

```
SYNTAX XfsPTRErrorEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "PTR Error Table Entry."
INDEX { xfsPTRErrorManagedServiceName, xfsPTRErrorCommandCode,
xfsPTRErrorResponseCode }
 ::= { xfsPTRErrorTable 1 }

XfsPTRErrorEntry ::=
SEQUENCE {
    xfsPTRErrorManagedServiceName
        DisplayString,
    xfsPTRErrorCommandCode
        INTEGER,
    xfsPTRErrorResponseCode
        INTEGER,
    xfsPTRErrorCount
        Integer32
}

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

xfsPTRErrorCommandCode OBJECT-TYPE
SYNTAX INTEGER (101..200)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The executable command code supported by the Service Provider associated
with the error count of interest."
 ::= { xfsPTRErrorEntry 2 }

xfsPTRErrorResponseCode OBJECT-TYPE
SYNTAX INTEGER (0..99 | 100..199)
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."
 ::= { xfsPTRErrorEntry 3 }

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

-- *****
-- PTR Reset Table
-- *****
xfsPTRResetTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsPTRResetEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Defines the set of MIB Variables for the PTR Reset Table."
 ::= { xfsPTRV1 5 }

xfsPTRResetEntry OBJECT-TYPE
SYNTAX XfsPTRResetEntry
```

```

MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "PTR Reset Table Entry."
INDEX { xfsPTRResetManagedServiceName }
 ::= { xfsPTRResetTable 1 }

XfsPTRResetEntry ::=
SEQUENCE {
    xfsPTRResetManagedServiceName
        DisplayString,
    xfsPTRResetAll
        Integer32,
    xfsPTRResetTimestamp
        DisplayString
}

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

xfsPTRResetAll 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."
 ::= { xfsPTRResetEntry 2 }

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

-- *****
-- PTR Reset Device Table
-- *****
xfsPTRResetDeviceTable OBJECT-TYPE
SYNTAX SEQUENCE OF XfsPTRResetDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Define the set of MIB Variables for the PTR Reset Device Table."
 ::= { xfsPTRV1 6 }

xfsPTRResetDeviceEntry OBJECT-TYPE
SYNTAX XfsPTRResetDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "PTR Reset Device Table Entry."
INDEX { xfsPTRResetDeviceManagedServiceName }
 ::= { xfsPTRResetDeviceTable 1 }

XfsPTRResetDeviceEntry ::=
SEQUENCE {
    xfsPTRResetDeviceManagedServiceName
        DisplayString,
    xfsPTRResetDeviceAction
        INTEGER,
    xfsPTRResetDeviceMediaControl

```

```

        INTEGER,
        xfsPTRResetDeviceStatus
        INTEGER
    }

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

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

xfsPTRResetDeviceMediaControl 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."
    ::= { xfsPTRResetDeviceEntry 3 }

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

-- *****
-- PTR Device Capabilities Table
-- *****
xfsPTRCapabilitiesTable OBJECT-TYPE
    SYNTAX SEQUENCE OF XfsPTRCapabilitiesEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Define the set of MIB Variables for the PTR capabilities table."
    ::= { xfsPTRV1 7 }

xfsPTRCapabilitiesEntry OBJECT-TYPE
    SYNTAX XfsPTRCapabilitiesEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "PTR Device Capabilities Table Entry."
    INDEX { xfsPTRCapabilitiesManagedServiceName }
    ::= { xfsPTRCapabilitiesTable 1 }

XfsPTRCapabilitiesEntry ::=
    SEQUENCE {
        xfsPTRCapabilitiesManagedServiceName

```

```

    DisplayString,
xfsPTRCapabilitiesDeviceType
    Integer32,
xfsPTRCapabilitiesCompoundDevice
    TruthValue,
xfsPTRCapabilitiesResolution
    Integer32,
xfsPTRCapabilitiesReadForm
    Integer32,
xfsPTRCapabilitiesWriteForm
    Integer32,
xfsPTRCapabilitiesExtents
    Integer32,
xfsPTRCapabilitiesMediaControl
    Integer32,
xfsPTRCapabilitiesMaxMediaOnStacker
    Integer32,
xfsPTRCapabilitiesAcceptMedia
    TruthValue,
xfsPTRCapabilitiesMultiPage
    TruthValue,
xfsPTRCapabilitiesPaperSources
    Integer32,
xfsPTRCapabilitiesMediaTaken
    TruthValue,
xfsPTRCapabilitiesRetractBins
    Integer32,
xfsPTRCapabilitiesMaxRetract
    OCTET STRING,
xfsPTRCapabilitiesImageType
    Integer32,
xfsPTRCapabilitiesFrontImageColor
    Integer32,
xfsPTRCapabilitiesBackImageColor
    Integer32,
xfsPTRCapabilitiesCodelineFormat
    Integer32,
xfsPTRCapabilitiesImageSource
    Integer32,
xfsPTRCapabilitiesSupportedChars
    Integer32,
xfsPTRCapabilitiesDispensePaper
    TruthValue,
xfsPTRCapabilitiesGuidancePrinter
    Integer32,
xfsPTRCapabilitiesWindowsPrinter
    DisplayString,
xfsPTRCapabilitiesMediaPresented
    TruthValue,
xfsPTRCapabilitiesAutoRetractPeriod
    Integer32,
xfsPTRCapabilitiesRetractToTransport
    TruthValue,
xfsPTRCapabilitiesPowerSaveControl
    TruthValue,
xfsPTRCapabilitiesExtraCapability
    OCTET STRING
}

xfsPTRCapabilitiesManagedServiceName OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uniquely identifies the managed service."
    ::= { xfsPTRCapabilitiesEntry 1 }

xfsPTRCapabilitiesDeviceType OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the type(s) of the physical device driven by the logical
service."

```

```
 ::= { xfsPTRCapabilitiesEntry 2 }

xfsPTRCapabilitiesCompoundDevice OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the logical device is part of a compound physical
device. Allowed values are:
        True(1),
        False(2)."
```

```
 ::= { xfsPTRCapabilitiesEntry 3 }

xfsPTRCapabilitiesResolution OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies at which resolution(s) the physical device can print. Used
by the application to select the level of print quality desired (e.g. as in Word
for Windows); does not imply any absolute level of resolution, only relative."
```

```
 ::= { xfsPTRCapabilitiesEntry 4 }

xfsPTRCapabilitiesReadForm OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device can read data from a media."
```

```
 ::= { xfsPTRCapabilitiesEntry 5 }

xfsPTRCapabilitiesWriteForm OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device can write data to a media."
```

```
 ::= { xfsPTRCapabilitiesEntry 6 }

xfsPTRCapabilitiesExtents OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device can measure the inserted media."
```

```
 ::= { xfsPTRCapabilitiesEntry 7 }

xfsPTRCapabilitiesMediaControl OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies in which manner the media can be controlled."
```

```
 ::= { xfsPTRCapabilitiesEntry 8 }

xfsPTRCapabilitiesMaxMediaOnStacker OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the maximum number of media items that the stacker can hold
(zero if not available)."
```

```
 ::= { xfsPTRCapabilitiesEntry 9 }

xfsPTRCapabilitiesAcceptMedia OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
```

```

STATUS current
DESCRIPTION
    "It specifies whether the device is able to accept media while no execute
command is running that is waiting explicitly for media to be inserted. Allowed
values are:
    True(1),
    False(2)."
```

```

::= { xfsPTRCapabilitiesEntry 10 }
```

```

xfsPTRCapabilitiesMultiPage OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies whether the device is able to support multi-page print
jobs. Allowed values are:
    True(1),
    False(2)."
```

```

::= { xfsPTRCapabilitiesEntry 11 }
```

```

xfsPTRCapabilitiesPaperSources OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies the paper sources available for this printer."
```

```

::= { xfsPTRCapabilitiesEntry 12 }
```

```

xfsPTRCapabilitiesMediaTaken OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies whether the device can detect when a media is taken from
the exit slot. Allowed values are:
    True(1),
    False(2)."
```

```

::= { xfsPTRCapabilitiesEntry 13 }
```

```

xfsPTRCapabilitiesRetractBins OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies the number of retract bins (0 if not supported)."
```

```

::= { xfsPTRCapabilitiesEntry 14 }
```

```

xfsPTRCapabilitiesMaxRetract OBJECT-TYPE
SYNTAX OCTET STRING
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies the maximum number of media items that each retract bin can
hold."
```

```

::= { xfsPTRCapabilitiesEntry 15 }
```

```

xfsPTRCapabilitiesImageType OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "It specifies the image formats supported by this device."
```

```

::= { xfsPTRCapabilitiesEntry 16 }
```

```

xfsPTRCapabilitiesFrontImageColor OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
```

```
DESCRIPTION
    "It specifies the front image color formats supported by this device."
    ::= { xfsPTRCapabilitiesEntry 17 }

xfsPTRCapabilitiesBackImageColor OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the back image color formats supported by this device."
    ::= { xfsPTRCapabilitiesEntry 18 }

xfsPTRCapabilitiesCodelineFormat OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the code line (MICR data) formats supported by this
device."
    ::= { xfsPTRCapabilitiesEntry 19 }

xfsPTRCapabilitiesImageSource OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the source for the read image command supported by this
device."
    ::= { xfsPTRCapabilitiesEntry 20 }

xfsPTRCapabilitiesSupportedChars OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "One or more flags specifying the character sets, in addition to single
byte ASCII that is supported by the Service Provider."
    ::= { xfsPTRCapabilitiesEntry 21 }

xfsPTRCapabilitiesDispensePaper OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device is able to dispense paper. Allowed
values are:
        True(1),
        False(2)."
```

```
    ::= { xfsPTRCapabilitiesEntry 22 }

xfsPTRCapabilitiesGuidancePrinter OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the capability of the printer unit guidelight."
    ::= { xfsPTRCapabilitiesEntry 23 }

xfsPTRCapabilitiesWindowsPrinter OBJECT-TYPE
    SYNTAX DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the name of the default logical Windows printer that is
associated with this Service Provider."
    ::= { xfsPTRCapabilitiesEntry 24 }
```



```

xfsPTRCapabilitiesMediaPresented OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device is able to detect when the media is
presented to the user for removal. Allowed values are:
        True(1),
        False(2)."
```

```

 ::= { xfsPTRCapabilitiesEntry 25 }
```

```

xfsPTRCapabilitiesAutoRetractPeriod OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies the number of seconds before the device will automatically
retract the presented media."
```

```

 ::= { xfsPTRCapabilitiesEntry 26 }
```

```

xfsPTRCapabilitiesRetractToTransport OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether the device is able to retract the previously
ejected media to the transport. Allowed values are:
        True(1),
        False(2)."
```

```

 ::= { xfsPTRCapabilitiesEntry 27 }
```

```

xfsPTRCapabilitiesPowerSaveControl OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies whether or not power saving control is available. Allowed
values are:
        True(1),
        False(2)."
```

```

 ::= { xfsPTRCapabilitiesEntry 28 }
```

```

xfsPTRCapabilitiesExtraCapability OBJECT-TYPE
    SYNTAX OCTET STRING
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "It specifies vendor dependent additional device capability information
as an OCTET STRING."
```

```

 ::= { xfsPTRCapabilitiesEntry 100 }
```

```

xfsTrapV2 OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "Root node for the converted TRAP-TYPES."
```

```

 ::= { xfsTrap 0 }
```

```

-- *****
-- Trap definitions
-- *****
xfsPTRDetailedDSCTrap NOTIFICATION-TYPE
    OBJECTS { xfsCommonTrapSysName, xfsCommonTrapManagedServiceName,
              xfsCommonTrapManagedServiceClass,
              xfsCommonTrapManagedServiceClassName,
              xfsCommonTrapManagedServiceType,
              xfsCommonTrapManagedServiceOid, xfsCommonTrapPhysicalDeviceName,
              xfsCommonTrapDeviceVendor, xfsCommonTrapMIBVersion,
              xfsCommonTrapEvent,
              xfsCommonTrapDate, xfsCommonTrapSPVersion, xfsPTRStatusDevice,
              xfsPTRStatusNumberSubDevices, xfsPTRStatusMedia,
```

```

        xfsPTRStatusPaperSupplyUpper, xfsPTRStatusPaperSupplyLower,
        xfsPTRStatusPaperSupplyExternal, xfsPTRStatusPaperSupplyAux,
        xfsPTRStatusPaperSupplyAux2,
        xfsPTRStatusPaperSupplyPark, xfsPTRStatusToner, xfsPTRStatusInk,
        xfsPTRStatusLamp, xfsPTRStatusMediaOnStacker,
        xfsPTRStatusExtraStatus, xfsPTRStatusGuidancePrinter,
        xfsPTRStatusDevicePosition, xfsPTRStatusPowerSaveRecoveryTime }
STATUS current
DESCRIPTION
    "This trap indicates a change in the status of a managed
    service."
 ::= { xfsTrapV2 101 }

xfsPTRSubDeviceTrap NOTIFICATION-TYPE
OBJECTS { xfsCommonTrapManagedServiceName,
          xfsCommonTrapManagedServiceClass,
          xfsCommonTrapManagedServiceClassName,
          xfsCommonTrapManagedServiceType, xfsCommonTrapManagedServiceOid,
          xfsCommonTrapPhysicalDeviceName, xfsCommonTrapDeviceVendor,
          xfsCommonTrapMIBVersion, xfsCommonTrapEvent, xfsCommonTrapDate,
          xfsCommonTrapSPVersion, xfsPTRSubDeviceIndex,
          xfsPTRSubDeviceRetractBin, xfsPTRSubDeviceRetractCount }
STATUS current
DESCRIPTION
    "This trap indicates a change in the status of sub-device within
    a managed service."
 ::= { xfsTrapV2 201 }

xfsPTRResetDeviceCompleteTrap NOTIFICATION-TYPE
OBJECTS { xfsCommonTrapResetDeviceResult, xfsCommonTrapManagedServiceName,
          xfsCommonTrapManagedServiceClass,
          xfsCommonTrapManagedServiceClassName,
          xfsCommonTrapManagedServiceType,
          xfsCommonTrapManagedServiceOid, xfsCommonTrapPhysicalDeviceName,
          xfsCommonTrapDeviceVendor, xfsCommonTrapMIBVersion,
          xfsCommonTrapDate,
          xfsCommonTrapSPVersion, xfsPTRStatusDevice,
          xfsPTRStatusNumberSubDevices, xfsPTRStatusMedia,
          xfsPTRStatusPaperSupplyUpper,
          xfsPTRStatusPaperSupplyLower, xfsPTRStatusPaperSupplyExternal,
          xfsPTRStatusPaperSupplyAux, xfsPTRStatusPaperSupplyAux2,
          xfsPTRStatusPaperSupplyPark,
          xfsPTRStatusToner, xfsPTRStatusInk, xfsPTRStatusLamp,
          xfsPTRStatusMediaOnStacker,
          xfsPTRStatusExtraStatus, xfsPTRStatusGuidancePrinter,
          xfsPTRStatusDevicePosition, xfsPTRStatusPowerSaveRecoveryTime }
STATUS current
DESCRIPTION
    "This trap indicates the Reset action has complete and reports the
    state of the device after the reset."
 ::= { xfsTrapV2 301 }

```

END

5. Appendix B - C-Header files

5.1 XFSMIBPTR.H

```

/*****
*
* xfsmibptr.h          CEN/XFS - MIB PTR
*
*                      Version 3.10  --  Dec 14, 2010
*
*****/

#ifndef __inc_xfsmibptr_h
#define __inc_xfsmibptr_h

#ifdef __cplusplus
extern "C" {
#endif

/*****
* PTR Status #defines
*****/
enum IxfsPTRMediaStatus
{
    xfsPTRMediaPresent          =1,
    xfsPTRMediaNotPresent,
    xfsPTRMediaJammed,
    xfsPTRMediaNotSupported,
    xfsPTRMediaUnknown,
    xfsPTRMediaEntering,
    xfsPTRMediaRetracted
} xfsPTRMediaStatus;

enum IxfsPTRPaperStatus
{
    xfsPTRPaperFull             =1,
    xfsPTRPaperLow,
    xfsPTRPaperOut,
    xfsPTRPaperNotSupported,
    xfsPTRPaperUnknown,
    xfsPTRPaperJammed
} xfsPTRPaperStatus;

enum IxfsPTRTonerStatus
{
    xfsPTRTonerFull             =1,
    xfsPTRTonerLow,
    xfsPTRTonerOut,
    xfsPTRTonerNotSupported,
    xfsPTRTonerUnknown
} xfsPTRTonerStatus;

enum IxfsPTRInkStatus
{
    xfsPTRInkFull               =1,
    xfsPTRInkrLow,
    xfsPTRInkOut,
    xfsPTRInkNotSupported,
    xfsPTRInkUnknown
} xfsPTRInkStatus;

enum IxfsPTRLampStatus
{
    xfsPTRLampOK                =1,
    xfsPTRLampFading,
    xfsPTRLampInOp,
    xfsPTRLampNotSupported,
    xfsPTRLampUnknown
} xfsPTRLampStatus;

enum IxfsPTRRetractBinStatus
{

```

CWA 15748-30:2011 (E)

```
    xfsPTRRetractBinOK          =1,
    xfsPTRRetractBinFull,
    xfsPTRRetractBinNotSupported,
    xfsPTRRetractBinUnknown,
    xfsPTRRetractBinHigh,
    xfsPTRRetractBinMissing
} xfsPTRRetractBinStatus;

enum IxfsPTRDevicePositionStatus
{
    xfsPTRDeviceInPosition      =1,
    xfsPTRDeviceNotInPosition,
    xfsPTRDevicePosUnknown,
    xfsPTRDevicePosNotSupported
} xfsPTRDevicePositionStatus;

/*****
*
*   MIB Variables for the Status Table
*
*****/
#define xfsPTRStatusManagedServiceName    (1)
#define xfsPTRStatusNumberSubDevices      (2)
#define xfsPTRStatusDevice                 (3)
#define xfsPTRStatusMedia                  (4)
#define xfsPTRStatusPaperSupplyUpper      (5)
#define xfsPTRStatusPaperSupplyLower      (6)
#define xfsPTRStatusPaperSupplyExternal   (7)
#define xfsPTRStatusPaperSupplyAux        (8)
#define xfsPTRStatusPaperSupplyAux2       (9)
#define xfsPTRStatusPaperSupplyPark       (10)
#define xfsPTRStatusToner                  (11)
#define xfsPTRStatusInk                    (12)
#define xfsPTRStatusLamp                   (13)
#define xfsPTRStatusMediaOnStacker        (14)
#define xfsPTRStatusGuidancePrinter       (15)
#define xfsPTRStatusDevicePosition        (16)
#define xfsPTRStatusPowerSaveRecoveryTime (17)
#define xfsPTRStatusExtraStatus           (100)

/*****
*
*   MIB Variables for the SubDevice Table
*
*****/
#define xfsPTRSubDeviceManagedServiceName (1)
#define xfsPTRSubDeviceIndex              (2)
#define xfsPTRSubDeviceRetractBin         (3)
#define xfsPTRSubDeviceRetractCount       (4)

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

/*****
*
*   MIB Variables for the Capabilities Table
*
*****/
#define xfsPTRCapabilitiesManagedServiceName (1)
#define xfsPTRCapabilitiesDeviceType         (2)
#define xfsPTRCapabilitiesCompoundDevice     (3)
#define xfsPTRCapabilitiesResolution         (4)
#define xfsPTRCapabilitiesReadForm          (5)
#define xfsPTRCapabilitiesWriteForm         (6)
#define xfsPTRCapabilitiesExtents           (7)
#define xfsPTRCapabilitiesMediaControl      (8)
#define xfsPTRCapabilitiesMaxMediaOnStacker (9)
#define xfsPTRCapabilitiesAcceptMedia       (10)
#define xfsPTRCapabilitiesMultiPage         (11)
#define xfsPTRCapabilitiesPaperSources      (12)
#define xfsPTRCapabilitiesMediaTaken        (13)
```

```
#define xfsPTRCapabilitiesRetractBins (14)
#define xfsPTRCapabilitiesMaxRetract (15)
#define xfsPTRCapabilitiesImageType (16)
#define xfsPTRCapabilitiesFrontImageColor (17)
#define xfsPTRCapabilitiesBackImageColor (18)
#define xfsPTRCapabilitiesCodelineFormat (19)
#define xfsPTRCapabilitiesImageSource (20)
#define xfsPTRCapabilitiesSupportedChars (21)
#define xfsPTRCapabilitiesDispensePaper (22)
#define xfsPTRCapabilitiesGuidancePrinter (23)
#define xfsPTRCapabilitiesWindowsPrinter (24)
#define xfsPTRCapabilitiesMediaPresented (25)
#define xfsPTRCapabilitiesAutoRetractPeriod (26)
#define xfsPTRCapabilitiesRetractToTransport (27)
#define xfsPTRCapabilitiesPowerSaveControl (28)
#define xfsPTRCapabilitiesExtraCapability (100)

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

#endif /* __inc_xfsmibptr__h */
```