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WORKSHOP

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AGREEMENT

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**Extensions for Financial Services (XFS) interface
specification Release 3.50 - Part 10: Sensors and Indicators
Unit Device Class Interface - Programmer's Reference**

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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European Foreword

This CEN Workshop Agreement has been developed in accordance with the CEN-CENELEC Guide 29 “CEN/CENELEC Workshop Agreements – The way to rapid consensus” and with the relevant provisions of CEN/CENELEC Internal Regulations – Part 2. It was approved by a Workshop of representatives of interested parties on 2022-11-08, the constitution of which was supported by CEN following several public calls for participation, the first of which was made on 1998-06-24. However, this CEN Workshop Agreement does not necessarily include all relevant stakeholders.

The final text of this CEN Workshop Agreement was provided to CEN for publication on 2022-11-18.

The following organizations and individuals developed and approved this CEN Workshop Agreement:

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- CIMA SPA
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or losses of any kind whatsoever which may arise from its application. Users of CWA 16926-10 do so on their own responsibility and at their own risk.

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 Device 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

Part 19: Biometrics Device Class Interface - Programmer's Reference

Parts 20 - 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 - Programmer's Reference

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

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

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

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

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

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

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

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

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

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

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

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

Part 42: Reserved for future use.

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

Part 44: XFS MIB Application Management

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

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

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

Part 48: XFS MIB Device Specific Definitions - Biometrics Device Class

Parts 49 - 60 are reserved for future use.

Part 61: Application Programming Interface (API) - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Service Provider Interface (SPI) - Programmer's Reference

Part 62: Printer and Scanning Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 63: Identification Card Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 64: Cash Dispenser Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 65: PIN Keypad Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 66: Check Reader/Scanner Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 67: Depository Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 68: Text Terminal Unit Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 69: Sensors and Indicators Unit Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 70: Vendor Dependent Mode Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 71: Camera Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 72: Alarm Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 73: Card Embossing Unit Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 74: Cash-In Module Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 75: Card Dispenser Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 76: Barcode Reader Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 77: Item Processing Module Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (this CWA) - Programmer's Reference

Part 78: Biometric Device Class Interface - Migration from Version 3.40 (CWA 16296:2020) to Version 3.50 (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: <https://www.cencenelec.eu/areas-of-work/cen-sectors/digital-society-cen/cwa-download-area/>.

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Revision History:

3.00	October 18, 2000	Initial Release.
3.10	November 29, 2007	For a description of changes from version 3.00 to version 3.10 see the SIU 3.10 Migration document.
3.20	March 2, 2011	For a description of changes from version 3.10 to version 3.20 see the SIU 3.20 Migration document.
3.30	March 19, 2015	For a description of changes from version 3.20 to version 3.30 see the SIU 3.30 Migration document.
3.40	December 06, 2019	For a description of changes from version 3.30 to version 3.40 see the SIU 3.40 Migration document.
3.50	November 18, 2022	For a description of changes from version 3.40 to version 3.50 see the SIU 3.50 Migration document.

1. Introduction

1.1 Background to Release 3.50

The CEN/XFS Workshop aims to promote a clear and unambiguous specification defining a multi-vendor software interface to financial peripheral devices. The XFS (eXtensions for Financial Services) specifications are developed within the CEN (European Committee for Standardization/Information Society Standardization System) Workshop environment. CEN Workshops aim to arrive at a European consensus on an issue that can be published as a CEN Workshop Agreement (CWA).

The CEN/XFS Workshop encourages the participation of both banks and vendors in the deliberations required to create an industry standard. The CEN/XFS Workshop achieves its goals by focused sub-groups working electronically and meeting quarterly.

Release 3.50 of the XFS specification is based on a C API and is delivered with the continued promise for the protection of technical investment for existing applications. This release of the specification extends the functionality and capabilities of the existing devices covered by the specification:

- Addition of E2E security
- PIN Password Entry

1.2 XFS Service-Specific Programming

The service classes are defined by their service-specific commands and the associated data structures, error codes, messages, etc. These commands are used to request functions that are specific to one or more classes of Service Providers, but not all of them, and therefore are not included in the common API for basic or administration functions.

When a service-specific command is common among two or more classes of Service Providers, the syntax of the command is as similar as possible across all services, since a major objective of XFS is to standardize function codes and structures for the broadest variety of services. For example, using the **WFSExecute** function, the commands to read data from various services are as similar as possible to each other in their syntax and data structures.

In general, the specific command set for a service class is defined as a superset of the specific capabilities likely to be provided by the developers of the services of that class; thus any particular device will normally support only a subset of the defined command set.

There are three cases in which a Service Provider may receive a service-specific command that it does not support:

The requested capability is defined for the class of Service Providers by the XFS specification, the particular vendor implementation of that service does not support it, and the unsupported capability is **not** considered to be fundamental to the service. In this case, the Service Provider returns a successful completion, but does no operation. An example would be a request from an application to turn on a control indicator on a passbook printer; the Service Provider recognizes the command, but since the passbook printer it is managing does not include that indicator, the Service Provider does no operation and returns a successful completion to the application.

The requested capability is defined for the class of Service Providers by the XFS specification, the particular vendor implementation of that service does not support it, and the unsupported capability **is** considered to be fundamental to the service. In this case, a `WFS_ERR_UNSUPP_COMMAND` error for Execute commands or `WFS_ERR_UNSUPP_CATEGORY` error for Info commands is returned to the calling application. An example would be a request from an application to a cash dispenser to retract items where the dispenser hardware does not have that capability; the Service Provider recognizes the command but, since the cash dispenser it is managing is unable to fulfil the request, returns this error.

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The requested capability is *not* defined for the class of Service Providers by the XFS specification. In this case, a WFS_ERR_INVALID_COMMAND error for Execute commands or WFS_ERR_INVALID_CATEGORY error for Info commands is returned to the calling application.

This design allows implementation of applications that can be used with a range of services that provide differing subsets of the functionalities that are defined for their service class. Applications may use the **WFSGetInfo** and **WFSAsyncGetInfo** commands to inquire about the capabilities of the service they are about to use, and modify their behavior accordingly, or they may use functions and then deal with error returns to make decisions as to how to use the service.

2. Sensors and Indicators Unit

This specification describes the functionality of the services provided by the Sensors and Indicators Unit (SIU) services under WOSA/XFS, by defining the service-specific commands that can be issued, using the **WFSGetInfo**, **WFSAsyncGetInfo**, **WFSExecute** and **WFSAsyncExecute** functions.

This section describes the functions provided by a generic Sensors and Indicators Unit service. This service allows for the operation of the following categories of ports:

- Door sensors, such as cabinet, safe or vandal shield doors.
- Alarm sensors, such as tamper, seismic or heat sensors.
- Generic sensors, such as proximity or ambient light sensors.
- Key switch sensors, such as the ATM operator switch.
- Lamp/sign indicators, such as fascia light or audio indicators.
Note that while the SIU device class provides some basic support for guidance lights, extended guidance light functionality is specified in the individual device class specifications. Therefore it is recommended that device guidance lights be supported and controlled via the individual device classes.
- Auxiliary indicators.
- Enhanced Audio Controller, for use by the partially sighted.

In self-service devices, the sensors and indicators unit is capable of dealing with external sensors, such as door switches, locks, alarms and proximity sensors, as well as external indicators, such as turning on lamps or heating.

2.1 Enhanced Audio Controller Overview

The Enhanced Audio Controller is provided to support the requirements of the American Disabilities Act. The Enhanced Audio Controller device controls how private and public audio are broadcast when a headset is inserted into/removed from the Audio Jack, and when the Handset is off-hook/on-hook. In the following ‘Privacy Device’ is used to refer to either the headset or handset. This device allows audio feedback publicly and/or via the consumer’s Privacy Device (vendor hardware permitting). For privacy, the device allows input to only be directed to the consumers’ Privacy Device. In ‘auto’ and ‘semi-auto’ mode (and where the vendor’s hardware allows), public transmission of audio can be automatically inhibited when the consumer’s Privacy Device is activated. In ‘auto’ mode (and where the vendor’s hardware allows), public transmission of audio can be automatically re-activated when the consumer’s Privacy Device is deactivated.

The Enhanced Audio Controller provides the application with the following information:

- If a Privacy Device is activated (headset connected/handset off the hook).
- Whether the audio output is to the speakers or to the Privacy Device.
- Privacy/public mode: i.e. whether the activation of the Privacy Device automatically switches public audio on or off.

The device is managed by the sensors WFS_SIU_ENHANCEDAUDIO, WFS_SIU_HANDSETSENSOR, and an auxiliary WFS_SIU_ENHANCEDAUDIOCONTROL.

The WFS_SIU_ENHANCEDAUDIO sensor is used to:

- Provide information on the presence of the Audio Jack device.
- To report whether a headset is currently attached.
- Report state change events when a headset is inserted or removed.

The WFS_SIU_HANDSETSENSOR sensor is used to:

- Provide information on the presence of the handset device.
- To report whether a handset is currently off the hook.
- Report state change events when a handset is taken off the hook or put on the hook.

The WFS_SIU_ENHANCEDAUDIOCONTROL auxiliary is used to control the behavior of the Enhanced Audio Controller. It allows the application to:

- Set the mode of the Enhanced Audio Controller - auto mode, semi-auto mode or manual mode.
- Set the state of the Enhanced Audio Controller- public or private.

A full description of auto, semi-auto and manual mode, as well as public and private states is contained in the following pages.

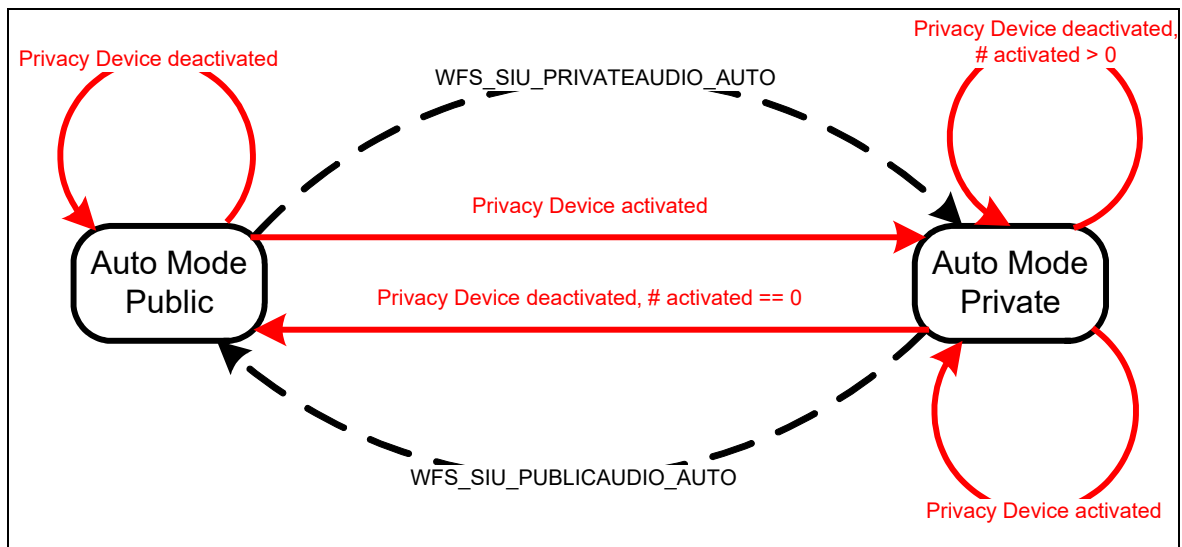
The following describes the device behavior during auto and manual mode.

Auto Mode

In auto mode, when a consumer activates a Privacy Device, the audio is automatically directed to the Privacy Device and the audio is no longer sent to the speakers. When the Privacy Device is deactivated, the audio is redirected to the speakers. If more than one Privacy Device has been activated, audio is not redirected to the speakers until all Privacy Devices have been deactivated. The following state diagram completely describes the behavior of the device in auto mode.

State Description

Auto Mode Public	Audio output is played through the public speakers only.
Auto Mode Private	Audio is played through the consumer’s Privacy Device only.

**Auto Mode State Diagram 1**

The dashed-line transitions are caused by application calls to `WFS_CMD_SIU_SET_PORTS` or `WFS_CMD_SIU_SET_AUXILIARY` for the `WFS_SIU_ENHANCEDAUDIOCONTROL` auxiliary with values of `WFS_SIU_PRIVATEAUDIO_AUTO` or `WFS_SIU_PUBLICAUDIO_AUTO`.

Note that some vendor implementations may not have the ability to allow the application to command the Service Provider to transition between public and private states. To determine if this feature is available, the application can query the field `fwAuxiliaries[WFS_SIU_ENHANCEDAUDIOCONTROL]` in the `WFSSIUCAPS` structure.

Semi-Auto Mode

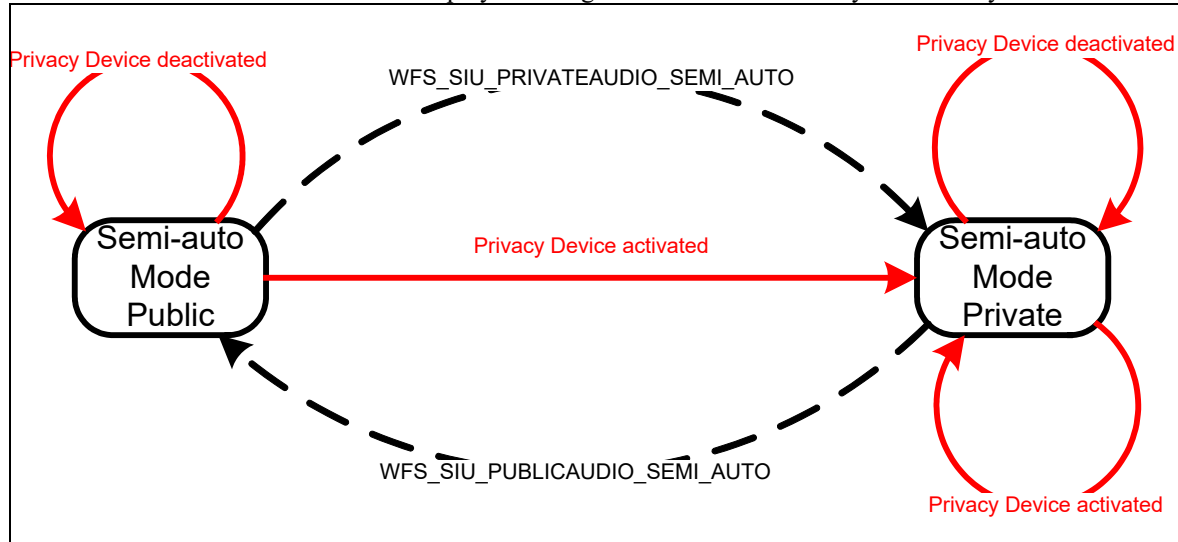
This mode is required to ensure customer sensitive information is not broadcast via the public speakers when the consumer's Privacy Device is deliberately or otherwise deactivated.

In semi-auto mode, when a consumer's Privacy Device is activated, the audio is automatically directed to the Privacy Device and the audio is no longer sent to the speakers. When the Privacy Device is deactivated the audio remains directed at the existing interface (i.e. not the speakers). If required, the application must explicitly return the device to its public state if audio is required via the speakers. The following state diagram completely describes the behavior of the device in auto mode.

State Description

Semi-Auto Mode Public Audio output is played through the public speakers only.

Semi-Auto Mode Private Audio is played through the consumer's Privacy Device only.



Semi-Auto Mode State Diagram 2

The dashed-line transitions are caused by application calls to WFS_CMD_SIU_SET_PORTS or WFS_CMD_SIU_SET_AUXILIARY for the WFS_SIU_ENHANCEDAUDIOCONTROL auxiliary with values of WFS_SIU_PRIVATEAUDIO_SEMI_AUTO or WFS_SIU_PUBLICAUDIO_SEMI_AUTO.

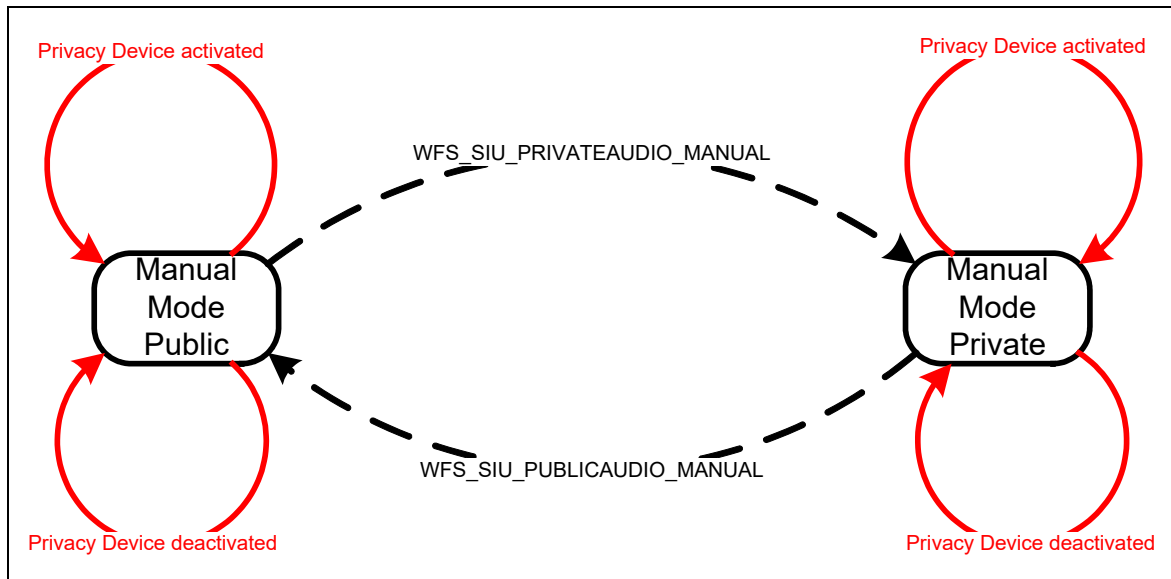
Manual Mode

In manual mode, when a consumer's Privacy Device is activated, the audio remains directed at the existing interface (i.e. the speaker). The application must explicitly change to the other mode, if required. Note that the application must explicitly return the device to its public state if audio is required via the speakers. The following state diagram completely describes the behavior of the device in manual mode.

State Description

Manual Mode Public Audio output is played through the public speakers only.

Manual Mode Private Audio is played through the consumer's Privacy Device only.



Manual Mode State Diagram 1

The dashed-line transitions are caused by application calls to `WFS_CMD_SIU_SET_PORTS` or `WFS_CMD_SIU_SET_AUXILIARY` for the `WFS_SIU_ENHANCEDAUDIOCONTROL` auxiliary with values of `WFS_SIU_PRIVATEAUDIO_MANUAL` or `WFS_SIU_PUBLICAUDIO_MANUAL`.

Inter-Mode Behavior

The values described in the previous sections (`_AUTO`, `_SEMI_AUTO`, and `_MANUAL`, etc.) can also be used to move from one mode to another. This will then change the mode of the device.

Notes:

- Note that if a vendor device does not support auto mode, or semi-auto mode then the `WFS_EXEE_SIU_PORT_ERROR` event is received on any attempt to call `WFS_CMD_SIU_SET_PORTS`, etc. with the `WFS_SIU_PUBLICAUDIO_AUTO`, `WFS_SIU_PRIVATEAUDIO_AUTO`, `WFS_SIU_PUBLICAUDIO_SEMI_AUTO`, and `WFS_SIU_PRIVATEAUDIO_SEMI_AUTO` settings. The same event is generated if calls to change the mode to manual are received when the vendor device does not support manual mode.
- The existing `WFS_SIU_VOLUME` auxiliary can be used to control the volume setting of any audio delivered to a connected Privacy Device, as well as the speakers. Independent volume control of the speakers and Privacy Device is not supported.
- Any 'beep' tones generated by the PINPAD, etc. will be fed to a connected Privacy Device (vendor hardware permitting).

2.2 Enhanced Microphone Controller Overview

The Enhanced Microphone Controller is provided to support a system of one or more microphones. Its behavior is very similar to that of the Enhanced Audio Controller. The Enhanced Microphone Controller device controls how private and public audio input behave when a headset microphone is inserted into/removed from the Audio/Microphone Jack, and when the Handset with an integrated microphone is off-hook/on-hook. The device allows audio input publicly (via a microphone in the fascia) and/or via the consumer's Privacy Device (vendor hardware permitting). For improved audio clarity or privacy, the device allows input to only be directed to the consumers' Privacy Device. In 'auto' and 'semi-auto' mode (and where the vendor's hardware allows), public transmission of audio can be automatically inhibited when the consumer's Privacy Device is activated. In 'auto' mode (and where the vendor's hardware allows), public transmission of audio can be automatically re-activated when the consumer's Privacy Device is deactivated.

The Enhanced Microphone Controller provides the application with the following information:

- If a Privacy Device is activated (headset connected/handset off the hook).
- Whether the audio input is from the fascia microphone or from the Privacy Device.
- Privacy/public mode: i.e. whether the activation of the Privacy Device automatically switches public microphone on or off.

The device is managed by the sensors WFS_SIU_HEADSETMICROPHONE, WFS_SIU_HANDSETSENSOR, and an auxiliary WFS_SIU_ENHANCEDMICROPHONECONTROL.

The WFS_SIU_HEADSETMICROPHONE sensor is used to:

- Provide information on the presence of the Microphone Jack device.
- To report whether a headset/external microphone is currently attached.
- Report state change events when a headset/external microphone is inserted or removed.

Some systems may contain a headset jack that enables both audio input and output via a single jack. In this case, the WFS_SIU_ENHANCEDAUDIO capability will report WFS_SIU_BIDIRECTIONAL, and when a bi-directional headset is inserted into the jack, the status for both the WFS_SIU_ENHANCEDAUDIO and WFS_SIU_HEADSETMICROPHONE ports will change appropriately.

The WFS_SIU_HANDSETSENSOR sensor is the same sensor used for private audio output. However, the WFS_SIU_HANDSETSENSOR capability flag WFS_SIU_MICROPHONE indicates whether the Handset also contains an integrated microphone for audio input.

The WFS_SIU_ENHANCEDMICROPHONECONTROL auxiliary is used to control the behavior of the Enhanced Microphone Controller. It allows the application to:

- Set the mode of the Enhanced Microphone Controller - auto mode, semi-auto mode or manual mode.
- Set the state of the Enhanced Microphone Controller- public or private.

The Enhanced Microphone Controller modes and state transitions are very much like those for the Enhanced Audio Controller. The Enhanced Microphone Controller can be set to auto, semi-auto or manual modes. State transitions occur in the same way that they are described in the state diagrams in the previous section, either when changed manually by the application or when a Privacy Devices is activated/deactivated (depending on the mode). Note that if the WFS_SIU_FASCIAMICROPHONE indicates WFS_SIU_NOT_AVAILABLE, none of the public modes for the microphone will be supported. The Enhanced Audio Controller and Enhanced Microphone Controller states are independent of each other, but can be linked under certain transitions while in auto mode or semi-auto mode. For example, if a handset that contains microphone is activated, both controllers can transition to the private state. On the other hand, if a handset that does not contain a microphone is activated, the Enhanced Audio Controller may transition to the private state while the Enhanced Microphone Controller remains in the public state. Likewise, if a headset that contains a microphone is plugged into a jack that supports integrated audio input and output, both controllers can transition to the private state. Note that in this case, both the WFS_SIU_ENHANCEDAUDIO and WFS_SIU_HEADSETMICROPHONE sensors would change state to WFS_SIU_PRESENT regardless of the mode.

3. References

- | |
|---|
| 1. XFS Application Programming Interface (API)/Service Provider Interface (SPI), Programmer's Reference
Revision 3.50 |
| 2. PCI Security Standards Council PCI DSS v3.1 Requirements and Security Assessment Procedures
https://www.pcisecuritystandards.org/documents/PCI_DSS_v3-1.pdf |

4. Info Commands

4.1 WFS_INF_SIU_STATUS

Description This command reports the full range of information available, including the information that is provided by the Service Provider.

Input Param None.

Output Param LPWFSSIUSTATUS lpStatus;

```
typedef struct _wfs_siu_status
{
    WORD          fwDevice;
    WORD          fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD          fwDoors [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
    USHORT        usPowerSaveRecoveryTime;
    WORD          wAntiFraudModule;
    DWORD         fwGuidLightsEx [WFS_SIU_GUIDLIGHTS_SIZE_EX];
} WFS_SIU_STATUS, *LPWFSSIUSTATUS;
```

fwDevice

Specifies the state of the Sensors and Indicators Unit device as one of the following flags:

Value	Meaning
WFS_SIU_DEVONLINE	The device is online (i.e. powered on and operable).
WFS_SIU_DEVOFFLINE	The device is offline (e.g. the operator has taken the device offline by turning a switch).
WFS_SIU_DEVPOWEROFF	The device is powered off or physically not connected.
WFS_SIU_DEVNODEVICE	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.
WFS_SIU_DEVHWERROR	The device is inoperable due to a hardware error.
WFS_SIU_DEVUSERERROR	The device is present but a person is preventing proper operation.
WFS_SIU_DEVBUSY	The device is busy and unable to process an execute command at this time.
WFS_SIU_DEVFRAUDATTEMPT	The device is present but is inoperable because it has detected a fraud attempt.
WFS_SIU_DEVPOTENTIALFRAUD	The device has detected a potential fraud attempt and is capable of remaining in service. In this case the application should make the decision as to whether to take the device offline.

fwSensors [...]

Specifies the state of the sensors. A number of sensor types are defined below. Vendor specific sensors are defined starting from the end of the array. The maximum sensor index is WFS_SIU_SENSORS_MAX.

fwSensors [WFS_SIU_OPERATORSWITCH]

Specifies the state of the Operator Switch(es). This switch is used to tell the terminal if an operator/supervisor wants to change the state from Run to Operators/Supervisors mode or vice versa. The Run mode is used for normal consumer operations/transactions. The Maintenance mode is used when replenishing the terminal. The Supervisor mode is used when operating the terminal for service and testing. Supervisor mode has higher priority than Maintenance mode. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_RUN	The switch is in Run mode.
WFS_SIU_MAINTENANCE	The switch is in Maintenance mode.
WFS_SIU_SUPERVISOR	The switch is in Supervisor mode.

fwSensors [WFS_SIU_TAMPER]

Specifies the state of the Tamper Sensor for the terminal. This sensor indicates whether the terminal has been tampered with (such as a burglar attempt). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	There is no indication of a tampering attempt.
WFS_SIU_ON	There has been a tampering attempt.

fwSensors [WFS_SIU_INTTAMPER]

Specifies the state of the Internal Tamper Sensor for the internal alarm. This sensor indicates whether the internal alarm has been tampered with (such as a burglar attempt). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	There is no indication of a tampering attempt.
WFS_SIU_ON	There has been a tampering attempt.

fwSensors [WFS_SIU_SEISMIC]

Specifies the state of the Seismic Sensor. This sensor indicates whether the terminal has been shaken (e.g. burglar attempt or seismic activity). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The seismic activity has not been high enough to trigger the sensor.
WFS_SIU_ON	The seismic or other activity has triggered the sensor.

fwSensors [WFS_SIU_HEAT]

Specifies the state of the Heat Sensor. This sensor is triggered by excessive heat (fire) near the terminal. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The heat has not been high enough to trigger the sensor.
WFS_SIU_ON	The heat has been high enough to trigger the sensor.

fwSensors [WFS_SIU_PROXIMITY]

Specifies the state of the Proximity Sensor. This sensor is triggered by movements around the terminal. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_PRESENT	The sensor is showing that there is someone present at the terminal.
WFS_SIU_NOT_PRESENT	The sensor can not sense any people around the terminal.

fwSensors [WFS_SIU_AMBLIGHT]

Specifies the state of the Ambient Light Sensor. This sensor indicates the level of ambient light around the terminal. Interpretation of this value is vendor-specific and therefore it is not guaranteed to report a consistent actual ambient light level across different vendor hardware. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_VERY_DARK	The level of light is: very dark.
WFS_SIU_DARK	The level of light is: dark.
WFS_SIU_MEDIUM_LIGHT	The level of light is: medium light.
WFS_SIU_LIGHT	The level of light is: light.
WFS_SIU_VERY_LIGHT	The level of light is: very light.

fwSensors [WFS_SIU_ENHANCEDAUDIO]

Specifies the presence or absence of a consumer's headphone connected to the Audio Jack.
Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_PRESENT	There is a headset connected.
WFS_SIU_NOT_PRESENT	There is no headset connected.

fwSensors [WFS_SIU_BOOT_SWITCH]

Specifies the state of the Boot Switch Sensor. This sensor is triggered whenever the terminal is about to be rebooted or shutdown due to a delayed effect switch. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The sensor has not been triggered.
WFS_SIU_ON	The terminal is about to be rebooted or shutdown.

fwSensors [WFS_SIU_CONSUMER_DISPLAY]

Specifies the state of the Consumer Display. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Consumer Display is switched off.
WFS_SIU_ON	The Consumer Display is in a good state and is turned on.
WFS_SIU_DISPLAY_ERROR	The Consumer Display is in an error state.

fwSensors [WFS_SIU_OPERATOR_CALL_BUTTON]

Specifies the state of the Operator Call Button as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Operator Call Button is released (not pressed).
WFS_SIU_ON	The Operator Call Button is being pressed.

fwSensors [WFS_SIU_HANDSETSENSOR]

Specifies the state of the Handset, which is a device similar to a telephone receiver. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF_THE_HOOK	The Handset is off the hook.
WFS_SIU_ON_THE_HOOK	The Handset is on the hook.

fwSensors [WFS_SIU_GENERALINPUTPORT]

Specifies the state of the vendor dependent General-Purpose Input Ports as a bitmap. Before making use of the General-Purpose Input Ports the vendor should examine if the required functionality is covered in this or other device classes as a vendor independent feature. Each bit of this value represents one General-Purpose Input Port and is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Input Port is turned off.
1	The General-Purpose Input Port is turned on.

The following flags can be used to reference each General-Purpose Input Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Input Port 1.
WFS_SIU_GPP2	General-Purpose Input Port 2.
...	
WFS_SIU_GPP16	General-Purpose Input Port 16.

fwSensors [WFS_SIU_HEADSETMICROPHONE]

Specifies the presence or absence of a consumer's headset microphone connected to the Microphone Jack. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_PRESENT	There is a headset microphone connected.
WFS_SIU_NOT_PRESENT	There is no headset microphone connected.

fwSensors [WFS_SIU_FASCIAMICROPHONE]

Specifies the state of the Fascia Microphone as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Fascia Microphone is turned off.
WFS_SIU_ON	The Fascia Microphone is turned on.

fwDoors [...]

Specifies the state of the doors. A number of door types are defined below. Vendor specific doors are defined starting from the end of the array. The maximum door index is WFS_SIU_DOORS_MAX.

fwDoors [WFS_SIU_CABINET]

Specifies a summary of the states of the Cabinet Doors. A more detailed status may be available through the door specific state for e.g. WFS_SIU_CABINET_REAR. Cabinet Doors are doors that open up for consumables, and hardware that does not have to be in a secure place. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	All Cabinet Doors are closed.
WFS_SIU_OPEN	At least one of the Cabinet Doors is open.
WFS_SIU_LOCKED	All Cabinet Doors are closed and locked.
WFS_SIU_BOLTED	All Cabinet Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Cabinet Doors has potentially been tampered with.

fwDoors [WFS_SIU_SAFE]

Specifies the state of the Safe Doors. Safe Doors are doors that open up for secure hardware, such as the note dispenser, the security device, etc. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	The Safe Doors are closed.
WFS_SIU_OPEN	At least one of the Safe Doors is open.
WFS_SIU_LOCKED	The Safe Doors are closed and locked.
WFS_SIU_BOLTED	The Safe Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Safe Doors has potentially been tampered with.

fwDoors [WFS_SIU_VANDALSHIELD]

Specifies the state of the Vandal Shield. The Vandal Shield is a door that open up for consumer access to the terminal. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	The Vandal Shield is closed.

WFS_SIU_OPEN	The Vandal Shield is open.
WFS_SIU_LOCKED	The Vandal Shield is closed and locked.
WFS_SIU_SERVICE	The Vandal Shield is in service position.
WFS_SIU_KEYBOARD	The Vandal Shield position permits access to the keyboard.
WFS_SIU_AJAR	The Vandal Shield is ajar.
WFS_SIU_JAMMED	The Vandal Shield is jammed.
WFS_SIU_TAMPERED	The Vandal Shield has potentially been tampered with

fwDoors [WFS_SIU_CABINET_FRONT]

Specifies the overall state of the Front Cabinet Doors (the overall status for all cabinet doors is available through the status for WFS_SIU_CABINET). The front is defined as the side facing the customer/consumer. Cabinet Doors are doors that open up for consumables, and hardware that does not have to be in a secure place. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	All Front Cabinet Doors are closed.
WFS_SIU_OPEN	At least one of the Front Cabinet Doors is open.
WFS_SIU_LOCKED	All Front Cabinet Doors are closed and locked.
WFS_SIU_BOLTED	All Front Cabinet Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Front Cabinet Doors has potentially been tampered with.

fwDoors [WFS_SIU_CABINET_REAR]

Specifies the overall state of the Rear Cabinet Doors (the overall status for all cabinet doors is available through the status for WFS_SIU_CABINET). The rear is defined as the side opposite the side facing the customer/consumer. Cabinet Doors are doors that open up for consumables, and hardware that does not have to be in a secure place. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	All Rear Cabinet Doors are closed.
WFS_SIU_OPEN	At least one of the Rear Cabinet Doors is open.
WFS_SIU_LOCKED	All Rear Cabinet Doors are closed and locked.
WFS_SIU_BOLTED	All Rear Cabinet Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Rear Cabinet Doors has potentially been tampered with.

fwDoors [WFS_SIU_CABINET_LEFT]

Specifies the overall state of the Left Cabinet Doors (the overall status for all cabinet doors is available through the status for WFS_SIU_CABINET). The left is defined as the side to the left as seen by the customer/consumer. Cabinet Doors are doors that open up for consumables, and hardware that does not have to be in a secure place. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	All Left Cabinet Doors are closed.
WFS_SIU_OPEN	At least one of the Left Cabinet Doors is open.
WFS_SIU_LOCKED	All Left Cabinet Doors are closed and locked.
WFS_SIU_BOLTED	All Left Cabinet Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Left Cabinet Doors has potentially been tampered with

fwDoors [WFS_SIU_CABINET_RIGHT]

Specifies the overall state of the Right Cabinet Doors (the overall status for all cabinet doors is available through the status for WFS_SIU_CABINET). The right is defined as the side to the right as seen by the customer/consumer. Cabinet Doors are doors that open up for consumables, and hardware that does not have to be in a secure place. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	All Right Cabinet Doors are closed.
WFS_SIU_OPEN	At least one of the Right Cabinet Doors is open.
WFS_SIU_LOCKED	All Right Cabinet Doors are closed and locked.
WFS_SIU_BOLTED	All Right Cabinet Doors are closed, locked and bolted.
WFS_SIU_TAMPERED	At least one of the Right Cabinet Doors has potentially been tampered with

fwIndicators [...]

Specifies the state of the indicators. A number of indicator types are defined below. Vendor specific indicators are defined starting from the end of the array. The maximum indicator index is WFS_SIU_INDICATORS_MAX.

fwIndicators [WFS_SIU_OPENCLOSE]

Specifies the state of the Open/Closed Indicator as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_CLOSED	The terminal is closed for a consumer.
WFS_SIU_OPEN	The terminal is open to be used by a consumer.

fwIndicators [WFS_SIU_FASCIALIGHT]

Specifies the state of the Fascia Light as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Fascia Light is turned off.
WFS_SIU_ON	The Fascia Light is turned on.

fwIndicators [WFS_SIU_AUDIO]

Specifies the state of the Audio Indicator as one of the following flags of type A and B, or as WFS_SIU_CONTINUOUS in combination with one of the flags of type B: Interpretation of this value is vendor-specific and therefore it is not possible to guarantee a consistent actual sound pattern across different vendor hardware.

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	The status is not available.	A
WFS_SIU_OFF	The Audio Indicator is turned off.	A
WFS_SIU_KEYPRESS	The Audio Indicator sounds a key click signal.	B
WFS_SIU_EXCLAMATION	The Audio Indicator sounds an exclamation signal.	B
WFS_SIU_WARNING	The Audio Indicator sounds a warning signal.	B
WFS_SIU_ERROR	The Audio Indicator sounds an error signal.	B
WFS_SIU_CRITICAL	The Audio Indicator sounds a critical signal.	B
WFS_SIU_CONTINUOUS	The Audio Indicator sound is turned on continuously.	C

fwIndicators [WFS_SIU_HEATING]

Specifies the state of the Internal Heating as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Internal Heating is turned off.
WFS_SIU_ON	The Internal Heating is turned on.

fwIndicators [WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT]

Specifies the state of the Consumer Display Backlight as one of the following:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Consumer Display Backlight is turned off.
WFS_SIU_ON	The Consumer Display Backlight is turned on.

fwIndicators [WFS_SIU_SIGNAGEDISPLAY]

Specifies the state of the Signage Display. The Signage Display is a lighted banner or marquee that can be used to display information or an advertisement. Any dynamic data displayed must be loaded by a means external to the Service Provider. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Signage Display is turned off.
WFS_SIU_ON	The Signage Display is turned on.

fwIndicators [WFS_SIU_TRANSINDICATOR]

Specifies the state of the Transaction Indicators as a bitmap. Each bit of this value represents one Transaction Indicator and is specified as one of the following binary values:

Value	Meaning
0	The Transaction Indicator is turned off.
1	The Transaction Indicator is turned on.

The following flags can be used to reference each Transaction Indicator.

Value	Meaning
WFS_SIU_LAMP1	Transaction Indicator 1.
WFS_SIU_LAMP2	Transaction Indicator 2.
...	
WFS_SIU_LAMP16	Transaction Indicator 16.

fwIndicators [WFS_SIU_GENERALOUTPUTPORT]

Specifies the state of the vendor dependent General-Purpose Output Ports as a bitmap. Before making use of the General-Purpose Output Ports the vendor should examine if the required functionality is covered in this or other device classes as a vendor independent feature. Each bit of this value represents one General-Purpose Output Port and is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Output Port is turned off.
1	The General-Purpose Output Port is turned on.

The following flags can be used to reference each General-Purpose Output Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Output Port 1.
WFS_SIU_GPP2	General-Purpose Output Port 2.
...	
WFS_SIU_GPP16	General-Purpose Output Port 16.

fwAuxiliaries [...]

Specifies the state of the auxiliary indicators. A number of auxiliary indicator types are defined below. Vendor specific auxiliaries are defined starting from the end of the array. The maximum auxiliary index is WFS_SIU_AUXILIARIES_MAX.

fwAuxiliaries [WFS_SIU_VOLUME]

Specifies the value of the Volume Control. The value of Volume Control is defined in an interval from 1 to 1000 where 1 is the lowest volume level and 1000 is the highest volume level. The interval is defined in logarithmic steps, e.g. a volume control on a radio. Note: The Volume Control field is handled as unsigned short. Interpretation of this value is vendor-specific and therefore it is not possible to guarantee a consistent actual volume level across different vendor hardware.

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
1, ..., 1000	The volume level. This field is handled as an unsigned short.

fwAuxiliaries [WFS_SIU_UPS]

Specifies the state of the Uninterruptible Power Supply device as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	The status is not available.	A
WFS_SIU_AVAILABLE	The UPS is available.	B
WFS_SIU_LOW	The charge level of the UPS is low.	B
WFS_SIU_ENGAGED	The UPS is engaged.	B
WFS_SIU_POWERING	The UPS is powering the system.	B
	The main power supply is off.	
WFS_SIU_RECOVERED	The UPS was engaged when the main power went off.	B

fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]

Specifies the state of the Remote Status Monitor device (which uses LEDs for displaying the status of the system). Possible states are WFS_SIU_NOT_AVAILABLE or a combination of one of each flag of type B, C and D:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	The status is not available.	A
WFS_SIU_GREEN_LED_ON	The green LED is on.	B
WFS_SIU_GREEN_LED_OFF	The green LED is off.	B
WFS_SIU_AMBER_LED_ON	The amber LED is on.	C
WFS_SIU_AMBER_LED_OFF	The amber LED is off.	C
WFS_SIU_RED_LED_ON	The red LED is on.	D
WFS_SIU_RED_LED_OFF	The red LED is off.	D

fwAuxiliaries [WFS_SIU_AUDIBLE_ALARM]

Species the state of the Audible Alarm device as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_OFF	The Alarm is turned off.
WFS_SIU_ON	The Alarm is turned on.

fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]

Specifies the state of the Enhanced Audio Controller. The Enhanced Audio Controller controls how private and public audio are broadcast when the headset is inserted into/removed from the audio jack and when the handset is off-hook/on-hook. In the following, Privacy Device is used to refer to either the headset or handset. The Enhanced Audio Controller state is specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_PUBLICAUDIO_MANUAL	The Enhanced Audio Controller is in manual mode and is in the public state (i.e. audio will be played through speakers). Activating a Privacy Device (headset connected/handset off-hook) will have no impact, i.e. Output will remain through the speakers & no audio will be directed to the Privacy Device.

WFS_SIU_PUBICAUDIO_AUTO	The Enhanced Audio Controller is in auto mode and is in the public state (i.e. audio will be played through speakers). When a Privacy Device is activated, the device will go to the private state.
WFS_SIU_PUBICAUDIO_SEMI_AUTO	The Enhanced Audio Controller is in semi-auto mode and is in the public state (i.e. audio will be played through speakers). When a Privacy Device is activated, the device will go to the private state.
WFS_SIU_PRIVATEAUDIO_MANUAL	The Enhanced Audio Controller is in manual mode and is in the private state (i.e. audio will be played only through a connected Privacy Device). In private mode, no audio is transmitted through the speakers.
WFS_SIU_PRIVATEAUDIO_AUTO	The Enhanced Audio Controller is in auto mode and is in the private state (i.e. audio will be played only through a connected Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated (headset disconnected/handset on-hook), the device will go to the public state. Where there is more than one Privacy Device, the device will go to the public state only when all Privacy Devices have been deactivated.
WFS_SIU_PRIVATEAUDIO_SEMI_AUTO	The Enhanced Audio Controller is in semi-auto mode and is in the private state (i.e. audio will be played only through a connected Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated, the device will remain in the private state.

fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]

Specifies the state of the Enhanced Microphone Controller. The Enhanced Microphone Controller controls how private and public audio input are transmitted when the headset is inserted into/removed from the audio jack and when the handset is off-hook/on-hook. In the following, Privacy Device is used to refer to either the headset or handset. The Enhanced Microphone Controller state is specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
WFS_SIU_PUBICAUDIO_MANUAL	The Enhanced Microphone Controller is in manual mode and is in the public state (i.e. the microphone in the fascia is active). Activating a Privacy Device (headset connected/handset off-hook) will have no impact, i.e. input will remain through the fascia microphone and any microphone associated with the Privacy Device will not be active.
WFS_SIU_PUBICAUDIO_AUTO	The Enhanced Microphone Controller is in auto mode and is in the public state (i.e. the microphone in the fascia is active). When a Privacy Device with a microphone is activated, the device will go to the private state.

WFS_SIU_PUBICAUDIO_SEMI_AUTO	The Enhanced Microphone Controller is in semi-auto mode and is in the public state (i.e. the microphone in the fascia is active). When a Privacy Device with a microphone is activated, the device will go to the private state.
WFS_SIU_PRIVATEAUDIO_MANUAL	The Enhanced Microphone Controller is in manual mode and is in the private state (i.e. audio input will be via a microphone in the Privacy Device). In private mode, no audio input is transmitted through the fascia microphone.
WFS_SIU_PRIVATEAUDIO_AUTO	The Enhanced Microphone Controller is in auto mode and is in the private state (i.e. audio input will be via a microphone in the Privacy Device). In private mode, no audio input is transmitted through the fascia microphone. When a Privacy Device with a microphone is deactivated (headset disconnected/handset on-hook), the device will go to the public state. Where there is more than one Privacy Device with a microphone, the device will go to the public state only when all such Privacy Devices have been deactivated.
WFS_SIU_PRIVATEAUDIO_SEMI_AUTO	The Enhanced Microphone Controller is in semi-auto mode and is in the private state (i.e. audio input will be via a microphone in the Privacy Device). In private mode, no audio is transmitted through the fascia microphone. When a Privacy Device with a microphone is deactivated, the device will remain in the private state.

fwAuxiliaries [WFS_SIU_MICROPHONEVOLUME]

Specifies the value of the Microphone Volume Control. The value of Microphone Volume Control is defined in an interval from 1 to 1000 where 1 is the lowest volume level and 1000 is the highest volume level. The interval is defined in logarithmic steps, e.g. a volume control on a radio. Note: The Microphone Volume Control field is handled as unsigned short. Interpretation of this value is vendor-specific and therefore it is not possible to guarantee a consistent actual volume level across different vendor hardware.

Value	Meaning
WFS_SIU_NOT_AVAILABLE	The status is not available.
1, ..., 1000	The microphone volume level. This field is handled as an unsigned short.

fwGuidLights [...]

Specifies the state of the guidance lights. See WFS_INF_SIU_CAPABILITIES *fwGuidLights* for supported guidance lights and states. The state of each guidance light can be WFS_SIU_NOT_AVAILABLE, WFS_SIU_OFF or a combination of one flash rate (type B) and optionally, one color (type C). Vendor specific guidance lights are defined starting from the end of the array.

Note the maximum guidance light identifier is WFS_SIU_GUIDLIGHTS_MAX and direction flags (Type D) cannot be reported from this field as the field type is WORD. It is recommended that applications use the *fwGuidLightsEx.lpszExtra* pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of "key=value" strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

usPowerSaveRecoveryTime

Specifies 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.

wAntiFraudModule

Specifies the state of the anti-fraud module as one of the following values:

Value	Meaning
WFS_SIU_AFMNOTSUPP	No anti-fraud module is available.
WFS_SIU_AFMOK	Anti-fraud module is in a good state and no foreign device is detected.
WFS_SIU_AFMINOP	Anti-fraud module is inoperable.
WFS_SIU_AFMDEVICEDETECTED	Anti-fraud module detected the presence of a foreign device.
WFS_SIU_AFMUNKNOWN	The state of the anti-fraud module cannot be determined.

fwGuidLightsEx [...]

Specifies the state of the guidance lights. See WFS_INF_SIU_CAPABILITIES *fwGuidLightsEx* for supported guidance lights and states. The state of each guidance light can be WFS_SIU_NOT_AVAILABLE, WFS_SIU_OFF or a combination of one flash rate (type B) and optionally, one color (type C) and one direction (type D) flags. Vendor specific guidance lights are defined starting from the end of the array. The maximum guidance light index is WFS_SIU_GUIDLIGHTS_MAX_EX.

Error Codes Only the generic error codes defined in [Ref. 1] can be generated by this command.

Comments Applications which require or expect specific information to be present in the *lpszExtra* parameter may not be device or vendor-independent.

In the case where the value to be reported in a status field cannot be determined because of a communications failure, then the status for that field will be reported as WFS_SIU_NOT_AVAILABLE. *fwDevice* will report WFS_SIU_DEVONLINE so long as at least one status field can be reported.

4.2 WFS_INF_SIU_CAPABILITIES

Description This command is used to retrieve the capabilities of the Sensors and Indicators Unit.

Input Param None.

Output Param LPWFSSIUCAPS lpCaps;

```
typedef struct _wfs_siu_caps
{
    WORD          wClass;
    WORD          fwType;
    WORD          fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD          fwDoors [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
    BOOL          bPowerSaveControl;
    WORD          fwAutoStartupMode;
    BOOL          bAntiFraudModule;
    LPDWORD       lpdwSynchronizableCommands;
    LPWFSSIUTRMINFO lpTerminalInformation;
    DWORD         fwGuidLightsEx [WFS_SIU_GUIDLIGHTS_SIZE_EX];
} WFS_SIU_CAPS, *LPWFSSIUCAPS;
```

wClass

Specifies the logical service class as WFS_SERVICE_CLASS_SIU.

fwType

Specifies the type of sensors and indicators supported by this device as a combination of the following flags:

Value	Meaning
WFS_SIU_SENSORS	The device supports input sensors.
WFS_SIU_DOORS	The device support door sensors.
WFS_SIU_INDICATORS	The device supports indicators.
WFS_SIU_AUXILIARIES	The device supports auxiliary indicators.
WFS_SIU_GUIDLIGHTS	The device supports guidance lights.

fwSensors [...]

Specifies which sensors are available, and if so, which states they can take. A number of sensor types are defined below. Vendor specific sensors are defined starting from the end of the array. The maximum sensor index is WFS_SIU_SENSORS_MAX.

fwSensors [WFS_SIU_OPERATORSWITCH]

Specifies whether the Operator Switch is available, and if so, which states it can take. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Operator Switch available.	A
WFS_SIU_RUN	The switch can be set in Run mode.	B
WFS_SIU_MAINTENANCE	The switch can be set in Maintenance mode.	B
WFS_SIU_SUPERVISOR	The switch can be set in Supervisors mode.	B

fwSensors [WFS_SIU_TAMPER]

Specifies whether the Tamper Sensor for the terminal is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Tamper Sensor available.
WFS_SIU_AVAILABLE	The Tamper Sensor is available.

fwSensors [WFS_SIU_INTTAMPER]

Specifies whether the Internal Tamper Sensor for internal alarm is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Internal Tamper Sensor available.
WFS_SIU_AVAILABLE	The Internal Tamper Sensor is available.

fwSensors [WFS_SIU_SEISMIC]

Specifies whether the Seismic Sensor is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Seismic Sensor available.
WFS_SIU_AVAILABLE	The Seismic Sensor is available.

fwSensors [WFS_SIU_HEAT]

Specifies whether the Heat Sensor is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Heat Sensor available.
WFS_SIU_AVAILABLE	The Heat Sensor is available.

fwSensors [WFS_SIU_PROXIMITY]

Specifies whether the Proximity Sensor is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Proximity Sensor available.
WFS_SIU_AVAILABLE	The Proximity Sensor is available.

fwSensors [WFS_SIU_AMBLIGHT]

Specifies whether the Ambient Light Sensor is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Ambient Light Sensor available.
WFS_SIU_AVAILABLE	The Ambient Light Sensor is available.

fwSensors [WFS_SIU_ENHANCEDAUDIO]

Specifies whether the Audio Jack is present, and if so, which modes it supports. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Audio Jack available.	A
WFS_SIU_MANUAL	The Audio Jack is available and supports manual mode.	B
WFS_SIU_AUTO	The Audio Jack is available and supports auto mode.	B
WFS_SIU_SEMI_AUTO	The Audio Jack is available and supports semi-auto mode.	B
WFS_SIU_BIDIRECTIONAL	The Audio Jack is available and can support headphones that have an integrated microphone via a single jack.	B

fwSensors [WFS_SIU_BOOT_SWITCH]

Specifies whether the Boot Switch is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Boot Switch Sensor available.
WFS_SIU_AVAILABLE	The Boot Switch Sensor is available.

fwSensors [WFS_SIU_CONSUMER_DISPLAY]

Specifies whether the Consumer Display Sensor is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Consumer Display Sensor available.

WFS_SIU_AVAILABLE

The Consumer Display Sensor is available.

fwSensors [WFS_SIU_OPERATOR_CALL_BUTTON]

Specifies whether the Operator Call Button is available. The Operator Call Button does not actually call the operator but just sends a signal to the application. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Operator Call Button available.
WFS_SIU_AVAILABLE	The Operator Call Button is available.

fwSensors [WFS_SIU_HANDSETSENSOR]

Specifies whether the Handset is present, and if so, which modes it supports. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Handset available.	A
WFS_SIU_MANUAL	The Handset is available and it supports manual mode.	B
WFS_SIU_AUTO	The Handset is available and it supports auto mode.	B
WFS_SIU_SEMI_AUTO	The Handset is available and it supports semi-auto mode.	B
WFS_SIU_MICROPHONE	The Handset is available and contains an embedded microphone for audio input.	B

fwSensors [WFS_SIU_GENERALINPUTPORT]

Specifies whether the vendor dependent General-Purpose Input Ports are available. Before making use of the General-Purpose Input Ports the vendor should examine if the required functionality is covered in this or other device classes as a vendor independent feature. This value is a bitmap and each bit of this value represents one General-Purpose Input Port. Each bit is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Input Port is not available.
1	The General-Purpose Input Port is available.

The following flags can be used to reference each General-Purpose Input Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Input Port 1.
WFS_SIU_GPP2	General-Purpose Input Port 2.
...	
WFS_SIU_GPP16	General-Purpose Input Port 16.

fwSensors [WFS_SIU_HEADSETMICROPHONE]

Specifies whether the Microphone Jack is present, and if so, which modes it supports. If the *fwSensors [WFS_SIU_ENHANCEDAUDIO]* capability indicates the presence of a bi-directional Audio Jack then both sensors reference the same physical jack. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Microphone Jack available.	A
WFS_SIU_MANUAL	The Microphone Jack is available and supports manual mode.	B
WFS_SIU_AUTO	The Microphone Jack is available and supports auto mode.	B
WFS_SIU_SEMI_AUTO	The Microphone Jack is available and supports semi-auto mode.	B

fwSensors [WFS_SIU_FASCIAMICROPHONE]

Specifies whether a Fascia Microphone (for public audio input) is present. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Fascia Microphone available.
WFS_SIU_AVAILABLE	The Fascia Microphone is available.

fwDoors [...]

Specifies which doors are available, and if so, which states they can take. A number of door types are defined below. Vendor specific doors are defined starting from the end of the array. The maximum door index is WFS_SIU_DOORS_MAX.

fwDoors [WFS_SIU_CABINET]

Specifies whether at least one Cabinet Doors is available, and if so, which states they can take. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Cabinet Door available.	A
WFS_SIU_CLOSED	At least one of the Cabinet Doors can detect a closed state.	B
WFS_SIU_OPEN	At least one of the Cabinet Doors can detect an open state.	B
WFS_SIU_LOCKED	At least one of the Cabinet Doors can be locked.	B
WFS_SIU_BOLTED	At least one of the Cabinet Doors can be bolted.	B
WFS_SIU_TAMPERED	At least one of the Cabinet Doors can detect potential tampering.	B

fwDoors [WFS_SIU_SAFE]

Specifies whether the Safe Doors are available, and if so, which states they can take. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Safe Door available.	A
WFS_SIU_CLOSED	The Safe Doors can be closed.	B
WFS_SIU_OPEN	The Safe Doors can be open.	B
WFS_SIU_LOCKED	The Safe Doors can be locked.	B
WFS_SIU_BOLTED	The Safe Doors can be bolted.	B
WFS_SIU_TAMPERED	The Safe Doors can detect potential tampering.	B

fwDoors [WFS_SIU_VANDALSHIELD]

Specifies whether the Vandal Shield is available, and if so, which states it can take. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Vandal Shield available.	A
WFS_SIU_CLOSED	The Vandal Shield can be closed.	B
WFS_SIU_OPEN	The Vandal Shield can be open.	B
WFS_SIU_LOCKED	The Vandal Shield can be locked.	B
WFS_SIU_SERVICE	The Vandal Shield can be in service position.	B
WFS_SIU_KEYBOARD	The Vandal Shield can be in position that permits access to the keyboard.	B
WFS_SIU_TAMPERED	The Vandal Shield can detect potential tampering.	B

fwDoors [WFS_SIU_CABINET_FRONT]

Specifies whether at least one Front Cabinet Door is available, and if so, which states they can take (the overall capability for all cabinet doors is available through the capability for WFS_SIU_CABINET). The front is defined as the side facing the customer/consumer. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Front Cabinet Door available.	A
WFS_SIU_CLOSED	At least one of the Front Cabinet Doors can detect a closed state.	B
WFS_SIU_OPEN	At least one of the Front Cabinet Doors can detect an open state.	B
WFS_SIU_LOCKED	At least one of the Front Cabinet Doors can be locked.	B
WFS_SIU_BOLTED	At least one of the Front Cabinet Doors can be bolted.	B
WFS_SIU_TAMPERED	At least one of the Front Cabinet Doors can detect potential tampering.	B

fwDoors [WFS_SIU_CABINET_REAR]

Specifies whether at least one Rear Cabinet Door is available, and if so, which states they can take (the overall capability for all cabinet doors is available through the capability for WFS_SIU_CABINET). The rear is defined as the side opposite the side facing the customer/consumer. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Rear Cabinet Door available.	A
WFS_SIU_CLOSED	At least one of the Rear Cabinet Doors can detect a closed state.	B
WFS_SIU_OPEN	At least one of the Rear Cabinet Doors can detect an open state.	B
WFS_SIU_LOCKED	At least one of the Rear Cabinet Doors can be locked.	B
WFS_SIU_BOLTED	At least one of the Rear Cabinet Doors can be bolted.	B
WFS_SIU_TAMPERED	At least one of the Rear Cabinet Doors can detect potential tampering.	B

fwDoors [WFS_SIU_CABINET_LEFT]

Specifies whether at least one Left Cabinet Door is available, and if so, which states they can take (the overall capability for all cabinet doors is available through the capability for WFS_SIU_CABINET). The left is defined as the side to the left as seen by the customer/consumer. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Left Cabinet Door available.	A
WFS_SIU_CLOSED	At least one of the Left Cabinet Doors can detect a closed state.	B
WFS_SIU_OPEN	At least one of the Left Cabinet Doors can detect an open state.	B
WFS_SIU_LOCKED	At least one of the Left Cabinet Doors can be locked.	B
WFS_SIU_BOLTED	At least one of the Left Cabinet Doors can be bolted.	B
WFS_SIU_TAMPERED	At least one of the Left Cabinet Doors can detect potential tampering.	B

fwDoors [WFS_SIU_CABINET_RIGHT]

Specifies whether at least one Right Cabinet Door is available, and if so, which states they can take (the overall capability for all cabinet doors is available through the capability for WFS_SIU_CABINET). The right is defined as the side to the right as seen by the customer/consumer. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Right Cabinet Door available.	A
WFS_SIU_CLOSED	At least one of the Right Cabinet Doors can detect a closed state.	B
WFS_SIU_OPEN	At least one of the Right Cabinet Doors can detect an open state.	B
WFS_SIU_LOCKED	At least one of the Right Cabinet Doors can be locked.	B
WFS_SIU_BOLTED	At least one of the Right Cabinet Doors can be bolted.	B
WFS_SIU_TAMPERED	At least one of the Right Cabinet Doors can detect potential tampering.	B

fwIndicators [...]

Specifies which indicators are available, and if so, which states they can take. A number of indicator types are defined below. Vendor specific indicators are defined starting from the end of the array. The maximum indicator index is WFS_SIU_INDICATORS_MAX.

fwIndicators [WFS_SIU_OPENCLOSE]

Specifies whether the Open/Closed Indicator is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Open/Closed Indicator available.
WFS_SIU_AVAILABLE	The Open/Closed Indicator is available.

fwIndicators [WFS_SIU_FASCIALIGHT]

Specifies whether the Fascia Light is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Fascia Light available.
WFS_SIU_AVAILABLE	The Fascia Light is available.

fwIndicators [WFS_SIU_AUDIO]

Specifies whether the Audio Indicator device is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Audio Indicator available.
WFS_SIU_AVAILABLE	The Audio Indicator is available.

fwIndicators [WFS_SIU_HEATING]

Specifies whether the internal Heating device is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Heating device available.
WFS_SIU_AVAILABLE	The Heating device is available.

fwIndicators [WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT]

Specifies whether the Consumer Display Backlight is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Consumer Display Backlight device available or it is not controllable by the application.
WFS_SIU_AVAILABLE	The Consumer Display Backlight device is available and is controllable by the application.

fwIndicators [WFS_SIU_SIGNAGEDISPLAY]

Specifies whether the Signage Display is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Signage Display available.
WFS_SIU_AVAILABLE	The Signage Display is available.

fwIndicators [WFS_SIU_TRANSINDICATOR]

Specifies whether the Transaction Indicators are available as a bitmap. Each bit of this value represents one Transaction Indicator and is specified as one of the following binary values:

Value	Meaning
0	The Transaction Indicator is not available.
1	The Transaction Indicator is available.

The following flags can be used to reference each Transaction Indicator.

Value	Meaning
WFS_SIU_LAMP1	Transaction Indicator 1.
WFS_SIU_LAMP2	Transaction Indicator 2.
...	
WFS_SIU_LAMP16	Transaction Indicator 16.

fwIndicators [WFS_SIU_GENERALOUTPUTPORT]

Specifies whether the vendor dependent General-Purpose Output Ports are available. Before making use of the General-Purpose Output Ports the vendor should examine if the required functionality is covered in this or other device classes as a vendor independent feature. This value is a bitmap and each bit of this value represents one General-Purpose Output Port. Each bit is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Output Port is not available.
1	The General-Purpose Output Port is available.

The following flags can be used to reference each General-Purpose Output Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Output Port 1.
WFS_SIU_GPP2	General-Purpose Output Port 2.
...	
WFS_SIU_GPP16	General-Purpose Output Port 16.

fwAuxiliaries [...]

Specifies which auxiliaries are available, and if so, which states they can take. A number of auxiliary indicator types are defined below. Vendor specific auxiliaries are defined starting from the end of the array. The maximum auxiliary index is WFS_SIU_AUXILIARIES_MAX.

fwAuxiliaries [WFS_SIU_VOLUME]

Specifies whether the Volume Control is available, and if so, the increment/decrement value recommended by the vendor.

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Volume Control available.
1, ..., 1000	The recommended increment/decrement value for the Volume Control.

fwAuxiliaries [WFS_SIU_UPS]

Specifies whether the UPS device is available, and if so, which states it can take. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no UPS available.	A
WFS_SIU_AVAILABLE	The UPS is available.	B
WFS_SIU_LOW	The UPS can indicate that its charge level is low.	B
WFS_SIU_ENGAGED	The UPS can be engaged and disengaged by the application.	B
WFS_SIU_POWERING	The UPS can indicate that it is powering the system while the main power supply is off.	B

WFS_SIU_RECOVERED

The UPS can indicate that it was engaged when the main power went off. B

fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]

Specifies whether the Remote Status Monitor device is available. The Remote Status Monitor device uses LEDs for displaying the status of the system. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Remote Status Monitor device available.
WFS_SIU_AVAILABLE	The Remote Status Monitor device is available.

fwAuxiliaries [WFS_SIU_AUDIBLE_ALARM]

Specifies whether the Audible Alarm device is available. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Audible Alarm device available.
WFS_SIU_AVAILABLE	The Audible Alarm device is available.

fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]

Specifies whether the Enhanced Audio Controller is available, and if so, which modes it supports. The Enhanced Audio Controller controls how private and public audio are broadcast when the headset is inserted into/removed from the audio jack and when the headset is off-hook/on-hook. In the following Privacy Device is used to refer to either the headset or handset. The modes it supports are specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Enhanced Audio Controller available.	A
WFS_SIU_HEADSET_DETECTION	The Enhanced Audio Controller is available and supports Privacy Device activation/deactivation. The device is able to report events to indicate Privacy Device activation/deactivation.	B
WFS_SIU_MODE_CONTROLLABLE	The Enhanced Audio Controller is available and supports application control of the Privacy Device mode via the WFS_CMD_SIU_SET_PORTS and WFS_CMD_SIU_SET_AUXILIARY command.	B

fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]

Specifies whether the Enhanced Microphone Controller is available, and if so, which modes it supports. The Enhanced Microphone Controller controls how private and public audio input are transmitted when the headset is inserted into/removed from the audio jack and when the handset is off-hook/on-hook. In the following Privacy Device is used to refer to either the headset or handset. The modes it supports are specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no Enhanced Microphone Controller available.	A
WFS_SIU_HEADSET_DETECTION	The Enhanced Microphone Controller is available and supports Privacy Device activation/deactivation. The device is able to report events to indicate Privacy Device activation/deactivation.	B
WFS_SIU_MODE_CONTROLLABLE	The Enhanced Microphone Controller is available and	B

Supports application control of the Privacy Device mode via the WFS_CMD_SIU_SET_PORTS and WFS_CMD_SIU_SET_AUXILIARY command.

fwAuxiliaries [WFS_SIU_MICROPHONEVOLUME]

Specifies whether the Microphone Volume Control is available, and if so, the increment/decrement value recommended by the vendor.

Value	Meaning
WFS_SIU_NOT_AVAILABLE	There is no Microphone Volume Control available.
1, ..., 1000	The recommended increment/decrement value for the Microphone Volume Control.

fwGuidLights [...]

Specifies which guidance lights are available. Vendor specific guidance lights are defined starting from the end of the array. See WFS_INF_SIU_CAPABILITIES *fwGuidLightsEx* for standard guidance light identifiers and states.

Note the maximum guidance light identifier is WFS_SIU_GUIDLIGHTS_MAX and direction flags (Type D) cannot be reported from this field as the field type is WORD. It is recommended that applications use *fwGuidLightsEx.lpszExtra*

Pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of “key=value” strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

bPowerSaveControl

Specifies whether power saving control is available. This can either be TRUE if available or FALSE if not available.

fwAutoStartupMode

Specifies which mode of the auto start-up control is supported. Specified as WFS_SIU_NOT_AVAILABLE or as a combination of the following flags of type B:

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no auto start-up control available.	A
WFS_SIU_AUTOSTARTUP_SPECIFIC	The device supports one-time auto start-up on a specific date at a specific time.	B
WFS_SIU_AUTOSTARTUP_DAILY	The device supports auto start-up every day at a specific time.	B
WFS_SIU_AUTOSTARTUP_WEEKLY	The device supports auto start-up at a specified time on a specific day of every week.	B

bAntiFraudModule

Specifies whether the anti-fraud module is available. This can either be TRUE if available or FALSE if not available.

lpdwSynchronizableCommands

Pointer to a zero-terminated list of DWORDs which contains the execute command IDs that can be synchronized. If no execute command can be synchronized then this parameter will be NULL.

lpTerminalInformation

Specifies identification information about the terminal, for example the model ID and serial number of the terminal [Ref. 2].

```
typedef struct _wfs_siu_trm_info
{
    LPWSTR          lpszModelID;
    LPWSTR          lpszSerialNumber;
} WFS_SIU_TRM_INFO, *LPWFS_SIU_TRM_INFO;
```

lpzModelID

Specifies a UNICODE string which identifies the model ID of the terminal, This string value is terminated with a null character. *lpzModelID* is NULL when the model ID is unknown.

lpzSerialNumber

Specifies a UNICODE string which identifies the unique serial number of the terminal, This string value is terminated with a null character. *lpzSerialNumber* is NULL when the serial number is unknown.

fwGuidLightsEx [...]

Specifies which guidance light identifiers are available. Vendor specific guidance light identifiers are defined starting from the end of the array. The maximum guidance light identifier is WFS_SIU_GUIDLIGHTS_MAX_EX.

The elements of this array are specified as a combination of the following flags and indicate all of the possible flash rates (type B) , colors (type C) and directions (type D) that the guidance light indicator is capable of handling. If the guidance light indicator only supports one color then no value of type C is returned. If the guidance light indicator does not support direction then no value of type D is returned. A value of WFS_SIU_NOT_AVAILABLE indicates that the guidance light indicator is not available. In this case, the guidance light indicator may be available using the device specific Service Provider.

Note that direction flags (Type D) cannot be reported from *fwGuidLights* as the field type is WORD.

Value	Meaning	Type
WFS_SIU_NOT_AVAILABLE	There is no guidance light control available at this position.	A
WFS_SIU_OFF	The light can be off.	B
WFS_SIU_SLOW_FLASH	The light can blink slowly.	B
WFS_SIU_MEDIUM_FLASH	The light can blink medium frequency.	B
WFS_SIU_QUICK_FLASH	The light can blink quickly.	B
WFS_SIU_CONTINUOUS	The light can be continuous (steady).	B
WFS_SIU_GUIDANCE_RED	The light can be red.	C
WFS_SIU_GUIDANCE_GREEN	The light can be green.	C
WFS_SIU_GUIDANCE_YELLOW	The light can be yellow.	C
WFS_SIU_GUIDANCE_BLUE	The light can be blue.	C
WFS_SIU_GUIDANCE_CYAN	The light can be cyan.	C
WFS_SIU_GUIDANCE_MAGENTA	The light can be magenta.	C
WFS_SIU_GUIDANCE_WHITE	The light can be white.	C
WFS_SIU_GUIDANCE_ENTRY	The light can be in the entry state.	D
WFS_SIU_GUIDANCE_EXIT	The light can be in the exit state.	D

The following standard guidance light identifiers are available.

WFS_SIU_CARDUNIT

Specifies whether the Guidance Light Indicator on the Card Unit (IDC) is available.

WFS_SIU_PINPAD

Specifies whether the Guidance Light Indicator on the PIN pad unit is available.

WFS_SIU_NOTESDISPENSER

Specifies whether the Guidance Light Indicator on the note dispenser unit is available.

WFS_SIU_COINDISPENSER

Specifies whether the Guidance Light Indicator on the coin dispenser unit is available.

WFS_SIU_RECEIPTPRINTER

Specifies whether the Guidance Light Indicator on the receipt printer unit is available.

WFS_SIU_PASSBOOKPRINTER

Specifies whether the Guidance Light Indicator on the passbook printer unit is available.

WFS_SIU_ENVDEPOSITORY

Specifies whether the Guidance Light Indicator on the envelope depository unit is available.

WFS_SIU_CHEQUEUNIT

Specifies whether the Guidance Light Indicator on the cheque processing unit is available.

WFS_SIU_BILLACCEPTOR

Specifies whether the Guidance Light Indicator on the bill acceptor unit is available.

WFS_SIU_ENVDISPENSER

Specifies whether the Guidance Light Indicator on the envelope dispenser unit is available.

WFS_SIU_DOCUMENTPRINTER

Specifies whether the Guidance Light Indicator on the document printer is available.

WFS_SIU_COINACCEPTOR

Specifies whether the Guidance Light Indicator on the coin acceptor is available.

WFS_SIU_SCANNER

Specifies whether the Guidance Light Indicator on the scanner unit is available.

The following identifiers are only reported from *fwGuidLightsEx* as they are greater than *WFS_SIU_GUIDLIGHTS_MAX*,

WFS_SIU_CONTACTLESS

Specifies whether the Guidance Light Indicator on contactless reader is available.

WFS_SIU_CARDUNIT2

Specifies whether the Guidance Light Indicator on the scanner unit is available.

WFS_SIU_NOTESDISPENSER2

Specifies whether the Guidance Light Indicator on the second note dispenser unit is available.

WFS_SIU_BILLACCEPTOR2

Specifies whether the Guidance Light Indicator on the second bill acceptor unit is available.

Error Codes

Only the generic error codes defined in [Ref. 1] can be generated by this command.

Comments

Applications which require or expect specific information to be present in the *lpzExtra* parameter may not be device or vendor-independent.

4.3 WFS_INF_SIU_GET_AUTOSTARTUP_TIME

Description This command is used to retrieve the availability of the auto start-up time function as well as the current configuration of the auto start-up time.

Input Param None.

Output Param LPWFSSIUGETSTARTUPTIME lpGetStartupTime;

```
typedef struct _wfs_siu_get_startup_time
{
    WORD wMode;
    LPSYSTEMTIME lpStartTime;
} WFSIUGETSTARTUPTIME, *LPWFSSIUGETSTARTUPTIME;
```

wMode

Specifies the current auto start-up control mode configured as one of the following flags.

Value	Meaning
WFS_SIU_AUTOSTARTUP_CLEAR	No auto start-up time is configured.
WFS_SIU_AUTOSTARTUP_SPECIFIC	One-time auto start-up at a specific time on a specific date has been configured. In the <i>lpStartTime</i> parameter, only <i>wYear</i> , <i>wMonth</i> , <i>wDay</i> , <i>wHour</i> and <i>wMinute</i> are relevant. All other field must be ignored.
WFS_SIU_AUTOSTARTUP_DAILY	Auto start-up every day has been configured. In the <i>lpStartTime</i> parameter, only <i>wHour</i> and <i>wMinute</i> are relevant. All other fields must be ignored.
WFS_SIU_AUTOSTARTUP_WEEKLY	Auto start-up at a specified time on a specific day of every week has been configured. In the <i>lpStartTime</i> parameter, only <i>wDayOfWeek</i> , <i>wHour</i> and <i>wMinute</i> are relevant. All other fields must be ignored.

lpStartTime

Specifies the current auto start-up time configuration.

Win32 SYSTEMTIME structure:

wYear

Specifies the year. The value should be ignored if it is not relevant to the *wMode* value.

wMonth

Specifies the month. The value should be ignored if it is not relevant to the *wMode* value.

wDayOfWeek

Specifies the day of the week, in values from 0 (Sunday) to 6 (Saturday). The value should be ignored if it is not relevant to the *wMode* value.

wDay

Specifies the day of the month. The value should be ignored if it is not relevant to the *wMode* value.

wHour

Specifies the hour. The value should be ignored if it is not relevant to the *wMode* value.

wMinute

Specifies the minute. The value should be ignored if it is not relevant to the *wMode* value.

wSecond

This field is not used and will be zero.

wMilliseconds

This field is not used and will be zero.

Error Codes Only the generic error codes defined in [Ref. 1] can be generated by this command.

Events None.

Comments None.

5. Execute Commands

5.1 WFS_CMD_SIU_ENABLE_EVENTS

Description This command is used to enable or disable events from the Sensors and Indicators Unit. The default condition is that all events are disabled. The events are only enabled or disabled for the session which sends the command, all other sessions are unaffected.

Input Param LPWFSSIUENABLE lpEnable;

```
typedef struct _wfs_siu_enable
{
    WORD          fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD          fwDoors   [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
} WFS_SIUENABLE, *LPWFSSIUENABLE;
```

fwSensors [...]

Specifies which of the sensors that should report changes. A number of sensor types are defined below. Vendor specific sensors are defined starting from the end of the array. The maximum sensor index is WFS_SIU_SENSORS_MAX.

fwSensors [WFS_SIU_OPERATORSWITCH]

Specifies whether the Operator Switch should report whenever the switch changes the operating mode. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Operators Switch should report whenever it changes mode from Run to Maintenance or Supervisor mode or vice versa.
WFS_SIU_DISABLE_EVENT	The Operators Switch should not report any changes of it operating mode.

fwSensors [WFS_SIU_TAMPER]

Specifies whether the Tamper Sensor should report whenever someone tampers with the terminal. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Tamper Sensor should report whenever it detects any tampering attempt.
WFS_SIU_DISABLE_EVENT	The Tamper Sensor should not report any changes of its status.

fwSensors [WFS_SIU_INTTAMPER]

Specifies whether the Internal Tamper Sensor should report whenever someone tampers with the internal alarm. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Internal Tamper Sensor should report whenever it detects any tampering attempt.
WFS_SIU_DISABLE_EVENT	The Internal Tamper Sensor should not report any changes of its status.

fwSensors [WFS_SIU_SEISMIC]

Specifies whether the Seismic Sensor should report whenever any seismic activity is detected. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.

WFS_SIU_ENABLE_EVENT

The Seismic Sensor should report whenever it detects any seismic activity.

WFS_SIU_DISABLE_EVENT

The Seismic Sensor should not report any changes of its status.

fwSensors [WFS_SIU_HEAT]

Specifies whether the Heat Sensor should report whenever any excessive heat is detected.

Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Heat Sensor should report whenever it detects any excessive heat.
WFS_SIU_DISABLE_EVENT	The Heat Sensor should not report any changes of its status.

fwSensors [WFS_SIU_PROXIMITY]

Specifies whether the Proximity Sensor should report whenever any movement is detected close to the terminal. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Proximity Sensor should report whenever it detects any movement.
WFS_SIU_DISABLE_EVENT	The Proximity Sensor should not report any changes of its status.

fwSensors [WFS_SIU_AMBLIGHT]

Specifies whether the Ambient Light Sensor should report whenever it detects changes in the ambient light. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Ambient Light Sensor should report whenever it detects a change.
WFS_SIU_DISABLE_EVENT	The Ambient Light Sensor should not report any change.

fwSensors [WFS_SIU_ENHANCEDAUDIO]

Specifies whether the Audio Jack should report whenever it detects changes in the audio jack.

Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Audio Jack should report whenever it detects a headset being connected or disconnected.
WFS_SIU_DISABLE_EVENT	The Audio Jack should not report any change in headset connection state.

fwSensors [WFS_SIU_BOOT_SWITCH]

Specifies whether the Boot Switch should report whenever the delayed effect boot switch is used.

Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Boot Switch should report whenever it detects the terminal is going to be rebooted or shutdown.
WFS_SIU_DISABLE_EVENT	The Boot Switch should not report any changes of its status.

fwSensors [WFS_SIU_CONSUMER_DISPLAY]

Specifies whether the Consumer Display Sensor should report whenever it detects changes to the consumer display. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Consumer Display Sensor should report whenever it detects any changes of its status.
WFS_SIU_DISABLE_EVENT	The Consumer Display Sensor should not report any changes of its status.

fwSensors [WFS_SIU_OPERATOR_CALL_BUTTON]

Specifies whether the Operator Call Button should report whenever the Operator Call Button is pressed or released. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Operator Call Button should report whenever it detects that it is pressed or released.
WFS_SIU_DISABLE_EVENT	The Operator Call Button should not report any changes of its status.

fwSensors [WFS_SIU_HANDSETSENSOR]

Specifies whether the Handset Sensor should report whenever it detects changes of its status. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Handset Sensor should report whenever the handset is picked up or put down.
WFS_SIU_DISABLE_EVENT	The Handset Sensor should not report any changes of its status.

fwSensors [WFS_SIU_GENERALINPUTPORT]

Specifies whether the General-Purpose Input Port should report whenever it detects changes to any one of the General-Purpose Input Ports. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The General-Purpose Input Port should report whenever any General-Purpose Input Port is turned on or off.
WFS_SIU_DISABLE_EVENT	The General-Purpose Input Port should not report any changes of its status.

fwSensors [WFS_SIU_HEADSETMICROPHONE]

Specifies whether the Microphone Jack should report whenever it detects changes in the microphone jack. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Microphone Jack should report whenever it detects a headset microphone being connected or disconnected.
WFS_SIU_DISABLE_EVENT	The Microphone Jack should not report any change in headset microphone connection state.

fwDoors [...]

Specifies which of the doors should report changes. A number of door types are defined below. Vendor specific doors are defined starting from the end of the array. The maximum door index is WFS_SIU_DOORS_MAX.

fwDoors [WFS_SIU_CABINET]

Specifies whether the Cabinet Doors should report whenever the doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.

WFS_SIU_ENABLE_EVENT

The Cabinet Doors should report whenever the doors are opened, closed, locked or bolted.

WFS_SIU_DISABLE_EVENT

The Cabinet Doors sensor should not report any changes of the doors status.

fwDoors [WFS_SIU_SAFE]

Specifies whether the Safe Doors should report whenever the doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Safe Doors should report whenever the doors are opened, closed, locked or bolted.
WFS_SIU_DISABLE_EVENT	The Safe Doors should not report any changes of the doors status.

fwDoors [WFS_SIU_VANDALSHIELD]

Specifies whether the Vandal Shield should report whenever the shield changed position. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Vandal Shield should report whenever the doors are opened or closed.
WFS_SIU_DISABLE_EVENT	The Vandal Shield should not report any changes of the status.

fwDoors [WFS_SIU_CABINET_FRONT]

Specifies whether the Front Cabinet Doors should report whenever the front doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Front Cabinet Doors should report whenever the doors are opened, closed, locked or bolted.
WFS_SIU_DISABLE_EVENT	The Front Cabinet Doors sensor should not report any changes of the doors status.

fwDoors [WFS_SIU_CABINET_REAR]

Specifies whether the Rear Cabinet Doors should report whenever the rear doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Rear Cabinet Doors should report whenever the doors are opened, closed, locked or bolted.
WFS_SIU_DISABLE_EVENT	The Rear Cabinet Doors sensor should not report any changes of the doors status.

fwDoors [WFS_SIU_CABINET_LEFT]

Specifies whether the Left Cabinet Doors should report whenever the left doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Left Cabinet Doors should report whenever the doors are opened, closed, locked or bolted.
WFS_SIU_DISABLE_EVENT	The Left Cabinet Doors sensor should not report any changes of the doors status.

fwDoors [WFS_SIU_CABINET_RIGHT]

Specifies whether the Right Cabinet Doors should report whenever the right doors are opened, closed, bolted or locked. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Right Cabinet Doors should report whenever the doors are opened, closed, locked or bolted.
WFS_SIU_DISABLE_EVENT	The Right Cabinet Doors sensor should not report any changes of the doors status.

fwIndicators [...]

Specifies which of the indicators should report changes. A number of indicator types are defined below. Vendor specific indicators are defined starting from the end of the array. The maximum indicator index is WFS_SIU_INDICATORS_MAX.

fwIndicators [WFS_SIU_OPENCLOSE]

Specifies whether the Open/Closed Indicator should report whenever it is turned on (set to open) or turned off (set to closed). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Open/Closed Indicator should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Open/Closed Indicator should not report any changes of the indicator.

fwIndicators [WFS_SIU_FASCIALIGHT]

Specifies whether the Fascia Light should report whenever it is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Fascia Light should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Fascia Light should not report any changes.

fwIndicators [WFS_SIU_AUDIO]

Specifies whether the Audio Indicator should report whenever it is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Audio Indicator should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Audio Indicator should not report any changes.

fwIndicators [WFS_SIU_HEATING]

Specifies whether the Heating device should report whenever it is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Heating device should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Heating device should not report any changes.

fwIndicators [WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT]

Specifies whether the Consumer Display Backlight should report whenever it is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Consumer Display Backlight should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Consumer Display Backlight should not report any changes.

fwIndicators [WFS_SIU_SIGNAGEDISPLAY]

Specifies whether the Signage Display should report whenever it is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Signage Display should report whenever it is turned on or off.
WFS_SIU_DISABLE_EVENT	The Signage Display should not report any changes.

fwIndicators [WFS_SIU_TRANSINDICATOR]

Specifies whether the Transaction Indicators should report whenever any one of them is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Transaction Indicators should report whenever any Transaction Indicator is turned on or off.
WFS_SIU_DISABLE_EVENT	The Transaction Indicators should not report any changes.

fwIndicators [WFS_SIU_GENERALOUTPUTPORT]

Specifies whether the General-Purpose Output Ports should report whenever any one of them is turned on or turned off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The General-Purpose Output Ports should report whenever any General-Purpose Output Port is turned on or off.
WFS_SIU_DISABLE_EVENT	The General-Purpose Output Ports should not report any changes.

fwAuxiliaries [...]

Specifies which of the auxiliary indicators should report changes. A number of auxiliary indicator types are defined below. Vendor specific indicators are defined starting from the end of the array. The maximum indicator index is WFS_SIU_AUXILIARIES_MAX.

fwAuxiliaries [WFS_SIU_VOLUME]

Specifies whether the Volume Control device should report whenever it is changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Volume Control device should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Volume Control device should not report any changes.

fwAuxiliaries [WFS_SIU_UPS]

Specifies whether the UPS device should report whenever it is changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The UPS device should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The UPS device should not report any changes.

fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]

Specifies whether the Remote Status Monitor device should report whenever it is changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Remote Status Monitor device should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Remote Status Monitor device should not report any changes.

fwAuxiliaries [WFS_SIU_AUDIBLE_ALARM]

Specifies whether the Audible Alarm device should report whenever it is changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Audible Alarm device should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Audible Alarm device should not report any changes.

fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]

Specifies whether the Enhanced Audio Controller should report whenever it changes status (assuming the device is capable of generating events). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Enhanced Audio Controller should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Enhanced Audio Controller device should not report any changes.

fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]

Specifies whether the Enhanced Microphone Controller should report whenever it changes status (assuming the device is capable of generating events). Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Enhanced Microphone Controller should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Enhanced Microphone Controller device should not report any changes.

fwAuxiliaries [WFS_SIU_MICROPHONEVOLUME]

Specifies whether the Microphone Volume Control device should report whenever it is changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Microphone Volume Control device should report whenever it is changed.
WFS_SIU_DISABLE_EVENT	The Microphone Volume Control device should not report any changes.

fwGuidLights [...]

Specifies which of the Guidance Light Indicators should report whenever any of them changes its state. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current reporting status.
WFS_SIU_ENABLE_EVENT	The Guidance Light Indicators should report whenever any of them changes its state.
WFS_SIU_DISABLE_EVENT	The Guidance Light Indicators should not report any changes of their states.

fwGuidLights [WFS_SIU_CARDUNIT]

Specifies whether the Guidance Light Indicator on the Card Unit (IDC) should report whenever it changes status.

fwGuidLights [WFS_SIU_PINPAD]

Specifies whether the Guidance Light Indicator on the PIN pad unit should report whenever it changes status.

fwGuidLights [WFS_SIU_NOTESDISPENSER]

Specifies whether the Guidance Light Indicator on the note dispenser unit should report whenever it changes status.

fwGuidLights [WFS_SIU_COINDISPENSER]

Specifies whether the Guidance Light Indicator on the coin dispenser unit should report whenever it changes status.

fwGuidLights [WFS_SIU_RECEIPTPRINTER]

Specifies whether the Guidance Light Indicator on the receipt printer unit should report whenever it changes status.

fwGuidLights [WFS_SIU_PASSBOOKPRINTER]

Specifies whether the Guidance Light Indicator on the passbook printer unit should report whenever it changes status.

fwGuidLights [WFS_SIU_ENVDEPOSITORY]

Specifies whether the Guidance Light Indicator on the envelope depository unit should report whenever it changes status.

fwGuidLights [WFS_SIU_CHEQUEUNIT]

Specifies whether the Guidance Light Indicator on the cheque processing unit should report whenever it changes status.

fwGuidLights [WFS_SIU_BILLACCEPTOR]

Specifies whether the Guidance Light Indicator on the bill acceptor unit should report whenever it changes status.

fwGuidLights [WFS_SIU_ENVDISPENSER]

Specifies whether the Guidance Light Indicator on the envelope dispenser unit should report whenever it changes status.

fwGuidLights [WFS_SIU_DOCUMENTPRINTER]

Specifies whether the Guidance Light Indicator on the document printer should report whenever it changes status.

fwGuidLights [WFS_SIU_COINACCEPTOR]

Specifies whether the Guidance Light Indicator on the coin acceptor should report whenever it changes status.

fwGuidLights [WFS_SIU_SCANNER]

Specifies whether the Guidance Light Indicator on the scanner unit should report whenever it changes status.

lpszExtra

Pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of “key=value” strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to enable or disable events to a port was invalid because the port does not exist.
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data. E.g. an attempt to both enable and disable events to the same port was made.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

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	Value	Meaning
	WFS_EXEE_SIU_PORT_ERROR	An error occurred while enabling or disabling events on one or more ports.
Comments	No action has been taken if this command returns an error. If a hardware error occurs while executing the command, the command will return OK, but execute event(s) will be generated which indicate(s) the port(s) which have failed.	

5.2 WFS_CMD_SIU_SET_PORTS

Description This command is used to set or clear one or more output ports (indicators) in the Sensors and Indicators Unit.

Input Param LPWFSSIUSETPORTS lpSetPorts;

```
typedef struct _wfs_siu_set_ports
{
    WORD          fwDoors [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
} WFS_SIUSETPORTS, *LPWFSSIUSETPORTS;
```

fwDoors [WFS_SIU_CABINET]

Specifies whether all Cabinet Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Cabinet Doors.
WFS_SIU_BOLT	All Cabinet Doors are bolted.
WFS_SIU_UNBOLT	All Cabinet Doors are unbolted.

fwDoors [WFS_SIU_SAFE]

Specifies whether the Safe Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Safe Doors.
WFS_SIU_BOLT	The Safe Doors are bolted.
WFS_SIU_UNBOLT	The Safe Doors are unbolted.

fwDoors [WFS_SIU_VANDALSHIELD]

Specifies whether the Vandal Shield should change position. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current position of the Vandal Shield.
WFS_SIU_CLOSED	The Vandal Shield is closed.
WFS_SIU_OPEN	The Vandal Shield is opened.
WFS_SIU_SERVICE	The Vandal Shield is set in service position.
WFS_SIU_KEYBOARD	The Vandal Shield is set in position that permits access to the keyboard.

fwDoors [WFS_SIU_CABINET_FRONT]

Specifies whether the Front Cabinet Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Front Cabinet Doors.
WFS_SIU_BOLT	All Front Cabinet Doors are bolted.
WFS_SIU_UNBOLT	All Front Cabinet Doors are unbolted.

fwDoors [WFS_SIU_CABINET_REAR]

Specifies whether the Rear Cabinet Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Rear Cabinet Doors.
WFS_SIU_BOLT	All Rear Cabinet Doors are bolted.
WFS_SIU_UNBOLT	All Rear Cabinet Doors are unbolted.

fwDoors [WFS_SIU_CABINET_LEFT]

Specifies whether the Left Cabinet Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Left Cabinet Doors.
WFS_SIU_BOLT	All Left Cabinet Doors are bolted.
WFS_SIU_UNBOLT	All Left Cabinet Doors are unbolted.

fwDoors [WFS_SIU_CABINET_RIGHT]

Specifies whether the Right Cabinet Doors should be bolted or unbolted. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Right Cabinet Doors.
WFS_SIU_BOLT	All Right Cabinet Doors are bolted.
WFS_SIU_UNBOLT	All Right Cabinet Doors are unbolted.

fwIndicators [WFS_SIU_OPENCLOSE]

Specifies whether the Open/Closed Indicator should show Open or Close to a consumer. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Open/Closed Indicator.
WFS_SIU_CLOSED	The Open/Closed Indicator is changed to show that the terminal is closed for a consumer.
WFS_SIU_OPEN	The Open/Closed Indicator is changed to show that the terminal is open to be used by a consumer.

fwIndicators [WFS_SIU_FASCIALIGHT]

Specifies whether the Fascia Lights should be turned on or off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the light.
WFS_SIU_OFF	The Fascia Light is turned off.
WFS_SIU_ON	The Fascia Light is turned on.

fwIndicators [WFS_SIU_AUDIO]

Specifies whether the Audio Indicator should be turned on or off. Specified as one of the following flags of type A and B, or as WFS_SIU_CONTINUOUS in combination with one of the flags of type B:

Value	Meaning	Type
WFS_SIU_NO_CHANGE	Do not change the current status of the Audio Indicator.	A
WFS_SIU_OFF	The Audio Indicator is turned off.	A
WFS_SIU_KEYPRESS	The Audio Indicator sounds a key click signal.	B
WFS_SIU_EXCLAMATION	The Audio Indicator sounds an exclamation signal.	B
WFS_SIU_WARNING	The Audio Indicator sounds a warning signal.	B
WFS_SIU_ERROR	The Audio Indicator sounds an error signal.	B
WFS_SIU_CRITICAL	The Audio Indicator sounds a critical error signal.	B
WFS_SIU_CONTINUOUS	The Audio Indicator sound is turned on continuously.	C

fwIndicators [WFS_SIU_HEATING]

Specifies whether the Internal Heating device should be turned on or off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Internal Heating device.
WFS_SIU_OFF	The Internal Heating device is turned off.
WFS_SIU_ON	The Internal Heating device is turned on.

fwIndicators [WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT]

Specifies whether the Consumer Display Backlight should be turned on or off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Consumer Display Backlight.
WFS_SIU_ON	The Consumer Display Backlight is turned on.
WFS_SIU_OFF	The Consumer Display Backlight is turned off.

fwIndicators [WFS_SIU_SIGNAGEDISPLAY]

Specifies whether the Consumer Display Backlight should be turned on or off. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Signage Display.
WFS_SIU_ON	The Signage Display is turned on.
WFS_SIU_OFF	The Signage Display is turned off.

fwIndicators [WFS_SIU_TRANSINDICATOR]

Specifies whether the Transaction Indicators should be turned on or off. All Transaction Indicators must be specified and each bit of this value represents one Transaction Indicator. Each bit is specified as one of the following binary values:

Value	Meaning
0	The Transaction Indicator is turned off.
1	The Transaction Indicator is turned on.

The following flags can be used to reference each Transaction Indicator.

Value	Meaning
WFS_SIU_LAMP1	Transaction Indicator 1.
WFS_SIU_LAMP2	Transaction Indicator 2.
...	
WFS_SIU_LAMP16	Transaction Indicator 16.

fwIndicators [WFS_SIU_GENERALOUTPUTPORT]

Specifies whether the General-Purpose Output Ports should be turned on or off. All General-Purpose Output Ports must be specified and each bit of this value represents one General-Purpose Output Port. Each bit is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Output Port is turned off.
1	The General-Purpose Output Port is turned on.

The following flags can be used to reference each General-Purpose Output Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Output Port 1.
WFS_SIU_GPP2	General-Purpose Output Port 2.
...	
WFS_SIU_GPP16	General-Purpose Output Port 16.

fwAuxiliaries [WFS_SIU_VOLUME]

Specifies whether the value of the Volume Control should be changed. If so, the value of Volume Control is defined in an interval from 1 to 1000 where 1 is the lowest volume level and 1000 is the highest volume level. Specified as one of the following values:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Volume Control.
1, ..., 1000	The volume level. This field is handled as an unsigned short. If a value greater than 1000 is used, the provider will map the value to 1000.

fwAuxiliaries [WFS_SIU_UPS]

Specifies whether the UPS device should be engaged or disengaged. The UPS device should not be engaged when the charge level is low. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the UPS device.
WFS_SIU_ENGAGE	Engage the UPS.
WFS_SIU_DISENGAGE	Disengage the UPS.

fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]

Specifies whether the state of the Remote Status Monitor device should be changed. Specified as WFS_SIU_NO_CHANGE or a combination of one or more of the following flags of type B, C and D, with at most one flag from each type.

Value	Meaning	Type
WFS_SIU_NO_CHANGE	Do not change the current status of the Remote Status Monitor device.	A
WFS_SIU_GREEN_LED_ON	Turn on the green LED on the Remote Status Monitor device.	B
WFS_SIU_GREEN_LED_OFF	Turn off the green LED on the Remote Status Monitor device.	B
WFS_SIU_AMBER_LED_ON	Turn on the amber LED on the Remote Status Monitor device.	C
WFS_SIU_AMBER_LED_OFF	Turn off the amber LED on the Remote Status Monitor device.	C
WFS_SIU_RED_LED_ON	Turn on the red LED on the Remote Status Monitor device.	D
WFS_SIU_RED_LED_OFF	Turn off the red LED on the Remote Status Monitor device.	D

fwAuxiliaries [WFS_SIU_AUDIBLE_ALARM]

Specifies whether the state of the Audible Alarm device should be changed. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the status of the Audible Alarm device.
WFS_SIU_OFF	Turn off the Audible Alarm device.
WFS_SIU_ON	Turn on the Audible Alarm device.

fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]

Specifies whether the state of the Enhanced Audio Controller should be changed. Note that this will only be acted upon for hardware environments that return WFS_SIU_MODE_CONTROLLABLE for the WFS_SIU_ENHANCEDAUDIOCONTROL auxiliary in the WFS_INF_SIU_CAPABILITIES command. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the status of the Enhanced Audio Controller.

WFS_SIU_PUBICAUDIO_MANUAL	Set the Enhanced Audio Controller to manual mode, public state (i.e. audio will be played through speakers only).
WFS_SIU_PUBICAUDIO_AUTO	Set the Enhanced Audio Controller to auto mode, public state (i.e. audio will be played through speakers). When a Privacy Device is activated (headset connected/handset off-hook), the device will go to the private state.
WFS_SIU_PUBICAUDIO_SEMI_AUTO	Set the Enhanced Audio Controller to semi-auto mode, public state (i.e. audio will be played through speakers). When a Privacy Device is activated, the device will go to the private state.
WFS_SIU_PRIVATEAUDIO_MANUAL	Set the Enhanced Audio Controller to manual mode, private state (i.e. audio will be played only through a connected Privacy Device). In private mode, no audio is transmitted through the speakers.
WFS_SIU_PRIVATEAUDIO_AUTO	Set the Enhanced Audio Controller to auto mode, private state (i.e. audio will be played only through an activated Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated (headset disconnected/handset on-hook), the device will go to the public state.
WFS_SIU_PRIVATEAUDIO_SEMI_AUTO	Set the Enhanced Audio Controller to semi-auto mode, private state (i.e. audio will be played only through an activated Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated, the device will remain in the private state.

fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]

Specifies whether the state of the Enhanced Microphone Controller should be changed. Note that this will only be acted upon for hardware environments that return

WFS_SIU_MODE_CONTROLLABLE for the

WFS_SIU_ENHANCEDMICROPHONECONTROL auxiliary in the

WFS_INF_SIU_CAPABILITIES command. Specified as one of the following flags:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the status of the Enhanced Microphone Controller.
WFS_SIU_PUBICAUDIO_MANUAL	Set the Enhanced Microphone Controller to manual mode, public state (i.e. only the microphone in the fascia is active).
WFS_SIU_PUBICAUDIO_AUTO	Set the Enhanced Microphone Controller to auto mode, public state (i.e. only the microphone in the fascia is active). When a Privacy Device with a microphone is activated (headset connected/handset off-hook), the device will go to the private state.
WFS_SIU_PUBICAUDIO_SEMI_AUTO	Set the Enhanced Microphone Controller to semi-auto mode, public state (i.e. only the microphone in the fascia is active). When a Privacy Device with a microphone is activated, the device will go to the private state.

WFS_SIU_PRIVATEAUDIO_MANUAL

Set the Enhanced Microphone Controller to manual mode, private state (i.e. audio input will be only via a microphone in the Privacy Device). In private mode, no audio input is transmitted through the fascia microphone.

WFS_SIU_PRIVATEAUDIO_AUTO

Set the Enhanced Microphone Controller to auto mode, private state (i.e. audio input will be only via a microphone in the Privacy Device). In private mode, no audio input is transmitted through the fascia microphone. When a Privacy Device with a microphone is deactivated (headset disconnected/handset on-hook), the device will go to the public state.

WFS_SIU_PRIVATEAUDIO_SEMI_AUTO

Set the Enhanced Microphone Controller to semi-auto mode, private state (i.e. audio input will be only via a microphone in the Privacy Device). In private mode, no audio input is transmitted through the fascia microphone. When a Privacy Device with a microphone is deactivated, the device will remain in the private state.

fwAuxiliaries [WFS_SIU_MICROPHONEVOLUME]

Specifies whether the value of the Microphone Volume Control should be changed. If so, the value of Microphone Volume Control is defined in an interval from 1 to 1000 where 1 is the lowest volume level and 1000 is the highest volume level. Specified as one of the following values:

Value	Meaning
WFS_SIU_NO_CHANGE	Do not change the current status of the Microphone Volume Control.
1, ..., 1000	The volume level. This field is handled as an unsigned short. If a value greater than 1000 is used, the provider will map the value to 1000.

fwGuidLights [...]

Specifies the state of the guidance light indicator. See WFS_INF_SIU_CAPABILITIES *fwGuidLights* for supported guidance light indicators and states.

Note that direction flags (Type D) cannot be specified as the field type is WORD. It is recommended that applications use the WFS_CMD_SIU_SET_GUIDLIGHT_EX command.

lpszExtra

Pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of “key=value” strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

	Value	Meaning
	WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or clear one or more output ports (indicators).
Comments	No action has been taken if this command returns an error. If a hardware error occurs while executing the command, the command will return OK, but execute event(s) will be generated which indicate(s) the port(s) which have failed.	

5.3 WFS_CMD_SIU_SET_DOOR

Description This command is used to set the status of one of the doors.

Input Param LPWFSSIUSETDOOR lpSetDoor;

```
typedef struct _wfs_siu_set_door
{
    WORD          wDoor;
    WORD          fwCommand;
} WFS_SIUSETDOOR, *LPWFSSIUSETDOOR;
```

wDoor

Specifies the index of the door to set as one of the following values:

Value	Meaning
WFS_SIU_CABINET	Bolt/unbolt all Cabinet Doors.
WFS_SIU_SAFE	Bolt/unbolt the Safe Doors.
WFS_SIU_VANDALSHIELD	Set position of the Vandal Shield.
WFS_SIU_CABINET_FRONT	Bolt/unbolt all Front Cabinet Doors.
WFS_SIU_CABINET_REAR	Bolt/unbolt all Rear Cabinet Doors.
WFS_SIU_CABINET_LEFT	Bolt/unbolt all Left Cabinet Doors.
WFS_SIU_CABINET_RIGHT	Bolt/unbolt all Right Cabinet Doors.

fwCommand

Specifies if the Cabinet or Safe doors should be bolted or unbolted or if the position of the Vandal Shield should be changed, as one of the following flags:

Value	Meaning
WFS_SIU_BOLT	Bolt the Safe or Cabinet Doors.
WFS_SIU_UNBOLT	Unbolt the Safe or Cabinet Doors.
WFS_SIU_OPEN	Open the Vandal Shield.
WFS_SIU_SERVICE	Position the Vandal Shield in service position.
WFS_SIU_KEYBOARD	Position the Vandal Shield to permit access to the keyboard.
WFS_SIU_CLOSED	Close the Vandal Shield.

See WFS_CMD_SIU_SET_PORTS command for a detailed description.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.
WFS_ERR_SIU_PORT_ERROR	A hardware error occurred while executing the command.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

Value	Meaning
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set the status of the door.

Comments None.

5.4 WFS_CMD_SIU_SET_INDICATOR

Description This command is used to set the status of an indicator.

Input Param LPWFSSIUSETINDICATOR lpSetIndicator;

```
typedef struct _wfs_siu_set_indicator
{
    WORD          wIndicator;
    WORD          fwCommand;
} WFSIUSETINDICATOR, *LPWFSSIUSETINDICATOR;
```

wIndicator

Specifies the index of the indicator to set as one of the following values:

Value	Meaning
WFS_SIU_OPENCLOSE	Set Open/Close Indicator for the consumer.
WFS_SIU_FASCIALIGHT	Turn on/off the Fascia Light.
WFS_SIU_AUDIO	Turn on/off the Audio Indicator.
WFS_SIU_HEATING	Turn on/off the Heating device.
WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT	Turn on/off the Consumer Display Backlight.
WFS_SIU_SIGNAGEDISPLAY	Turn on/off the Signage Display device.
WFS_SIU_TRANSINDICATOR	Turn on/off the Transaction Indicators.
WFS_SIU_GENERALOUTPUTPORT	Turn on/off the General-Purpose Output Ports.

fwCommand

Specifies the commands for the Open/Close Indicator, Fascia Light, Audio Indicator, Heating device, Consumer Display Backlight, Signage Display and General-Purpose Output Ports as one of the following flags:

Value	Meaning
WFS_SIU_CLOSED	The Open/Close Indicator is changed to show that the terminal is closed for a consumer.
WFS_SIU_OPEN	The Open/Close Indicator is changed to show that the terminal is open to be used by a consumer.
WFS_SIU_KEYPRESS	The Audio Indicator sounds a key click signal.
WFS_SIU_EXCLAMATION	The Audio Indicator sounds an exclamation signal.
WFS_SIU_WARNING	The Audio Indicator sounds a warning signal.
WFS_SIU_ERROR	The Audio Indicator sounds an error signal.
WFS_SIU_CRITICAL	The Audio Indicator sounds a critical error signal.
WFS_SIU_CONTINUOUS	The Audio Indicator sound is turned on continuously.
WFS_SIU_OFF	The Audio Indicator, Fascia Light, Heating device, Consumer Display Backlight or Signage Display is turned off.
WFS_SIU_ON	The Fascia Light, Heating device, Consumer Display Backlight or Signage Display is turned on.

For Transaction Indicators specifies whether the Transaction Indicators should be turned on or off. All Transaction Indicators must be specified and each bit of this value represents one Transaction Indicator. Each bit is specified as one of the following binary values:

Value	Meaning
0	The Transaction Indicator is turned off.
1	The Transaction Indicator is turned on.

The following flags can be used to reference each Transaction Indicator.

Value	Meaning
WFS_SIU_LAMP1	Transaction Indicator 1.
WFS_SIU_LAMP2	Transaction Indicator 2.
...	
WFS_SIU_LAMP16	Transaction Indicator 16.

For General-Purpose Output Ports specifies whether the General-Purpose Output Ports should be turned on or off. All General-Purpose Output Ports must be specified and each bit of this value represents one General-Purpose Output Port. Each bit is specified as one of the following binary values:

Value	Meaning
0	The General-Purpose Output Port is turned off.
1	The General-Purpose Output Port is turned on.

The following flags can be used to reference each General-Purpose Output Port.

Value	Meaning
WFS_SIU_GPP1	General-Purpose Output Port 1.
WFS_SIU_GPP2	General-Purpose Output Port 2.
...	
WFS_SIU_GPP16	General-Purpose Output Port 16.

See WFS_CMD_SIU_SET_PORTS command for a detailed description.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.
WFS_ERR_SIU_PORT_ERROR	A hardware error occurred while executing the command.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

Value	Meaning
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set the status of the indicator.

Comments None.

5.5 WFS_CMD_SIU_SET_AUXILIARY

Description This command is used to set the status of an auxiliary indicator.

Input Param LPWFSSIUSETAUXILIARY lpSetAuxiliary;

```
typedef struct _wfs_siu_set_auxiliary
{
    WORD          wAuxiliary;
    WORD          fwCommand;
} WFSIUSETAUXILIARY, *LPWFSSIUSETAUXILIARY;
```

wAuxiliary

Specifies the index of the auxiliary indicator to set as one of the following values:

Value	Meaning
WFS_SIU_VOLUME	Set the value of the Volume Control.
WFS_SIU_UPS	Set the value of the UPS.
WFS_SIU_REMOTE_STATUS_MONITOR	Set the value of the Remote Status Monitor.
WFS_SIU_AUDIBLE_ALARM	Set the value of the Audible Alarm.
WFS_SIU_ENHANCEDAUDIOCONTROL	Set the value of the Enhanced Audio Controller.
WFS_SIU_ENHANCEDMICROPHONECONTROL	Set the value of the Enhanced Microphone Controller.
WFS_SIU_MICROPHONEVOLUME	Set the value of the Microphone Volume Control.

fwCommand

It specifies the values for the auxiliary specified by *wAuxiliary*. Specified as one of the following values:

Value	Meaning
1, ..., 1000	The volume level. This field is handled as an unsigned short. If a value greater than 1000 is used, the provider will map the value to 1000.
WFS_SIU_ENGAGE	Engage the UPS.
WFS_SIU_DISENGAGE	Disengage the UPS.
WFS_SIU_GREEN_LED_ON	Turn on the green LED on the Remote Status Monitor.
WFS_SIU_GREEN_LED_OFF	Turn off the green LED on the Remote Status Monitor.
WFS_SIU_AMBER_LED_ON	Turn on the amber LED on the Remote Status Monitor.
WFS_SIU_AMBER_LED_OFF	Turn off the amber LED on the Remote Status Monitor.
WFS_SIU_RED_LED_ON	Turn on the red LED on the Remote Status Monitor.
WFS_SIU_RED_LED_OFF	Turn off the red LED on the Remote Status Monitor.
WFS_SIU_OFF	Turn off the Audible Alarm.
WFS_SIU_ON	Turn on the Audible Alarm.
WFS_SIU_PUBLICAUDIO_MANUAL	Set the Enhanced Audio or Microphone Controller to manual mode, public state (i.e. audio will be played through speakers only).
WFS_SIU_PUBLICAUDIO_AUTO	Set the Enhanced Audio or Microphone Controller to auto mode, public state (i.e. audio will be played through speakers). When a Privacy Device is activated (headset connected/handset off-hook), the device will go to the private state.

WFS_SIU_PUBLICAUDIO_SEMI_AUTO	Set the Enhanced Audio or Microphone Controller to semi-auto mode, public state (i.e. audio will be played through speakers). When a Privacy Device is activated, the device will go to the private state.
WFS_SIU_PRIVATEAUDIO_MANUAL	Set the Enhanced Audio or Microphone Controller to manual mode, private state (i.e. audio will be played only through a connected Privacy Device). In private mode, no audio is transmitted through the speakers.
WFS_SIU_PRIVATEAUDIO_AUTO	Set the Enhanced Audio or Microphone Controller to auto mode, private state (i.e. audio will be played only through an activated Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated (headset disconnected/handset on-hook), the device will go to the public state.
WFS_SIU_PRIVATEAUDIO_SEMI_AUTO	Set the Enhanced Audio or Microphone Controller to semi-auto mode, private state (i.e. audio will be played only through an activated Privacy Device). In private mode, no audio is transmitted through the speakers. When a Privacy Device is deactivated, the device will remain in the private state.

See WFS_CMD_SIU_SET_PORTS command for a detailed description.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.
WFS_ERR_SIU_PORT_ERROR	A hardware error occurred while executing the command.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

Value	Meaning
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set the status of the auxiliary indicator.

Comments When *wAuxiliary* is any value other than WFS_SIU_REMOTE_STATUS_MONITOR the *fwCommand* parameter should contain one of the values that correspond to the auxiliary defined in *wAuxiliary*.

When *wAuxiliary* is WFS_SIU_REMOTE_STATUS_MONITOR then the *fwCommand* parameter may be specified as a combination of one or more of the following flags of type A, B and C, with at most one flag from each type.

Value	Meaning	Type
WFS_SIU_GREEN_LED_ON	Turn on the green LED on the Remote Status Monitor device.	A
WFS_SIU_GREEN_LED_OFF	Turn off the green LED on the Remote Status Monitor device.	A
WFS_SIU_AMBER_LED_ON	Turn on the amber LED on the Remote Status Monitor device.	B
WFS_SIU_AMBER_LED_OFF	Turn off the amber LED on the Remote Status Monitor device.	B

WFS_SIU_RED_LED_ON	Turn on the red LED on the Remote Status Monitor device.	C
WFS_SIU_RED_LED_OFF	Turn off the red LED on the Remote Status Monitor device.	C

5.6 WFS_CMD_SIU_SET_GUIDLIGHT

Description	This command is used to set the status of a guidance light indicator. This command has been retained for backwards compatibility only. It is recommended that applications use the WFS_CMD_SIU_SET_GUIDLIGHT_EX command.							
Input Param	<p>LPWFSSIUSETGUIDLIGHT lpSetGuidLight;</p> <pre>typedef struct _wfs_siu_set_guidlight { WORD wGuidLight; WORD fwCommand; } WFSIUSETGUIDLIGHT, *LPWFSSIUSETGUIDLIGHT;</pre> <p><i>wGuidLight</i> Specifies the identifier of the guidance light indicator to set. The maximum guidance light identifier supported by this command is WFS_SIU_GUIDLIGHTS_MAX. See WFS_INF_SIU_CAPABILITIES <i>fwGuidLights</i> for supported guidance light indicator identifiers.</p> <p><i>fwCommand</i> Specifies the state of the guidance light indicator. This command only supports flash rate (type B) commands. See WFS_INF_SIU_CAPABILITIES <i>fwGuidLights</i> for supported flash rates.</p>							
Output Param	None.							
Error Codes	<p>In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:</p> <table><tr><th>Value</th><th>Meaning</th></tr><tr><td>WFS_ERR_SIU_INVALID_PORT</td><td>An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.</td></tr><tr><td>WFS_ERR_SIU_SYNTAX</td><td>The command was invoked with incorrect input data.</td></tr></table>		Value	Meaning	WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.	WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.
Value	Meaning							
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was invalid because the port does not exist or the port is pre-configured as an input port.							
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect input data.							
Events	<p>In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:</p> <table><tr><th>Value</th><th>Meaning</th></tr><tr><td>WFS_EXEE_SIU_PORT_ERROR</td><td>An error occurred while attempting to set or clear one or more output ports (indicators).</td></tr></table>		Value	Meaning	WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or clear one or more output ports (indicators).		
Value	Meaning							
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or clear one or more output ports (indicators).							
Comments	The slow and medium flash rates must not be greater than 2.0 Hz. It should be noted that in order to comply with American Disabilities Act guidelines only a slow or medium flash rate must be used.							

5.7 WFS_CMD_SIU_RESET

Description This command is used by the application to perform a hardware reset which will attempt to return the SIU devices to a known good state. This command does not over-ride a lock obtained on another application or service handle.

Input Param None.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_PORT_ERROR	A hardware error occurred while executing the command.

Events In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:

Value	Meaning
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or clear one or more output ports (indicators).

Comments None.

5.8 WFS_CMD_SIU_POWER_SAVE_CONTROL

Description	<p>This command activates or deactivates the power-saving mode.</p> <p>If the Service Provider receives another execute command while in power saving mode the Service Provider automatically exits the power saving mode and executes the requested command. If the Service Provider receives an information command while in power saving mode, the Service Provider will not exit the power saving mode.</p> <p>The SIU class power saving control covers hardware such as consumer display, transaction indicators, fans, etc. The actual hardware covered by the SIU power saving control is device and vendor dependent and configuration options may be offered by the vendor. The SIU class power saving control does not cover hardware supported by other XFS device classes.</p>				
Input Param	<p>LPWFSSSIUPOWERSAVECONTROL lpPowerSaveControl;</p> <pre>typedef struct _wfs_siu_power_save_control { USHORT usMaxPowerSaveRecoveryTime; } WFS_SSIUPOWERSAVECONTROL, *LPWFSSSIUPOWERSAVECONTROL;</pre> <p><i>usMaxPowerSaveRecoveryTime</i> Specifies the maximum number of seconds in which the device must be able to return to its normal operating state when exiting power save mode. The device will be set to the highest possible power save mode within this constraint. If <i>usMaxPowerSaveRecoveryTime</i> is set to zero then the device will exit the power saving mode.</p>				
Output Param	None.				
Error Codes	<p>In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:</p> <table> <tr> <th>Value</th><th>Meaning</th></tr> <tr> <td>WFS_ERR_SIU_POWERSAVETOOSHORT</td><td>The power saving mode has not been activated because the device is not able to resume from the power saving mode within the specified <i>usMaxPowerSaveRecoveryTime</i> value.</td></tr> </table>	Value	Meaning	WFS_ERR_SIU_POWERSAVETOOSHORT	The power saving mode has not been activated because the device is not able to resume from the power saving mode within the specified <i>usMaxPowerSaveRecoveryTime</i> value.
Value	Meaning				
WFS_ERR_SIU_POWERSAVETOOSHORT	The power saving mode has not been activated because the device is not able to resume from the power saving mode within the specified <i>usMaxPowerSaveRecoveryTime</i> value.				
Events	<p>In addition to the generic events defined in [Ref. 1], the following events can be generated by this command:</p> <table> <tr> <th>Value</th><th>Meaning</th></tr> <tr> <td>WFS_SRVE_SIU_POWER_SAVE_CHANGE</td><td>The power save recovery time has changed.</td></tr> </table>	Value	Meaning	WFS_SRVE_SIU_POWER_SAVE_CHANGE	The power save recovery time has changed.
Value	Meaning				
WFS_SRVE_SIU_POWER_SAVE_CHANGE	The power save recovery time has changed.				
Comments	None.				

5.9 WFS_CMD_SIU_SET_AUTOSTARTUP_TIME

Description This command is used to set the time at which the machine will automatically start. It is also used to disable automatic start-up.

If a new start-up time is set by this command it will replace any previously set start-up time.

Before the auto start-up can take place the operating system must be shut down.

Input Param LPWFSSIUSETSTARTUPTIME lpSetStartupTime;

```
typedef struct _wfs_siu_set_startup_time
{
    WORD          wMode;
    LPSYSTEMTIME  lpStartTime;
} WFSIUSETSTARTUPTIME, *LPWFSSIUSETSTARTUPTIME;
```

wMode

Specifies the mode of the auto start-up control as one of the following flags.

Value	Meaning
WFS_SIU_AUTOSTARTUP_CLEAR	Disables the previously set automatic start-up time. The <i>lpStartTime</i> input parameter is ignored if this mode is set.
WFS_SIU_AUTOSTARTUP_SPECIFIC	One-time auto start-up at a specific time on a specific date. In the <i>lpStartTime</i> parameter, <i>wYear</i> , <i>wMonth</i> , <i>wDay</i> , <i>wHour</i> and <i>wMinute</i> must be set and all other fields are ignored.
WFS_SIU_AUTOSTARTUP_DAILY	Auto start-up at the same time every day. In the <i>lpStartTime</i> parameter, <i>wHour</i> and <i>wMinute</i> must be set and all other fields are ignored.
WFS_SIU_AUTOSTARTUP_WEEKLY	Auto start-up at a specified time on a specific day of every week. In the <i>lpStartTime</i> parameter, <i>wDayOfWeek</i> , <i>wHour</i> and <i>wMinute</i> must be set and all other fields are ignored.

lpStartTime

Specifies the auto start-up time.

Win32 SYSTEMTIME structure:

wYear

Specifies the year. This value is ignored if it is not relevant to the *wMode* value.

wMonth

Specifies the month. This value is ignored if it is not relevant to the *wMode* value.

wDayOfWeek

Specifies the day of the week, in values from 0 (Sunday) to 6 (Saturday). This value is ignored if it is not relevant to the *wMode* value.

wDay

Specifies the day of the month. This value is ignored if it is not relevant to the *wMode* value.

wHour

Specifies the hour. This value is ignored if it is not relevant to the *wMode* value.

wMinute

Specifies the minute. This value is ignored if it is not relevant to the *wMode* value.

wSecond

This field is not used and must be zero.

wMilliseconds

This field is not used and must be zero.

Output Param None.

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Error Codes	Only the generic error codes defined in [Ref. 1] can be generated by this command.
Events	None.
Comments	None.

5.10 WFS_CMD_SIU_SYNCHRONIZE_COMMAND

Description This command is used to reduce response time of a command (e.g. for synchronization with display) as well as to synchronize actions of the different device classes. This command is intended to be used only on hardware which is capable of synchronizing functionality within a single device class or with other device classes.

The list of execute commands which this command supports for synchronization is retrieved in the *lpdwSynchronizableCommands* parameter of the WFS_INF_SIU_CAPABILITIES.

This command is optional, i.e. any other command can be called without having to call it in advance. Any preparation that occurs by calling this command will not affect any other subsequent command. However, any subsequent execute command other than the one that was specified in the *dwCommand* input parameter will execute normally and may invalidate the pending synchronization. In this case the application should call the WFS_CMD_SIU_SYNCHRONIZE_COMMAND again in order to start a synchronization.

Input Param LPWFSSIOUSYNCHRONIZECOMMAND lpSynchronizeCommand;

```
typedef struct _wfs_siu_synchronize_command
{
    DWORD dwCommand;
    LPVOID lpCmdData;
} WFSIOUSYNCHRONIZECOMMAND, *LPWFSSIOUSYNCHRONIZECOMMAND;
```

dwCommand

The command ID of the command to be synchronized and executed next.

lpCmdData

Pointer to data or a data structure that represents the parameter that is normally associated with the command that is specified in *dwCommand*. For example, if *dwCommand* is WFS_CMD_SIU_SET_INDICATOR then *lpCmdData* will point to a WFSIUSETINDICATOR structure. This parameter can be NULL if no command input parameter is needed or if this detail is not needed to synchronize for the command.

It will be device-dependent whether the synchronization is effective or not in the case where the application synchronizes for a command with this command specifying a parameter but subsequently executes the synchronized command with a different parameter. This case should not result in an error; however, the preparation effect could be different from what the application expects. The application should, therefore, make sure to use the same parameter between *lpCmdData* of this command and the subsequent corresponding execute command.

Output Param None.

Error Codes In addition to the generic error codes defined in [Ref. 1], the following error codes can be generated by this command:

Value	Meaning
WFS_ERR_SIU_COMMANDUNSUPP	The command specified in the <i>dwCommand</i> field is not supported by the Service Provider.
WFS_ERR_SIU_SYNCHRONIZEUNSUPP	The preparation for the command specified in the <i>dwCommand</i> with the parameter specified in the <i>lpCmdData</i> is not supported by the Service Provider.

Events Only the generic events defined in [Ref. 1] can be generated by this command.

Comments For sample flows of this synchronization see the [Ref 1] Appendix C.

5.11 WFS_CMD_SIU_SET_GUIDLIGHT_EX

Description	This command is used to set the status of a guidance light indicator.													
Input Param	<div>LPWFSSIUSETGUIDLIGHTEX lpSetGuidLightEx;</div> <div>typedef struct _wfs_siu_set_guidlightex</div> <div>{</div> <div>WORDwGuidLight;</div> <div>DWORDfwCommand;</div> <div>} WFSSSIUSETGUIDLIGHTEX, *LPWFSSIUSETGUIDLIGHTEX;</div> <div>wGuidLight</div> <div>Specifies the identifier of the guidance light indicator to set. See</div> <div>WFS_INF_SIU_CAPABILITIES fwGuidLightsEx for supported guidance light indicator</div> <div>identifiers.</div> <div>fwCommand</div> <div>Specifies the state of the guidance light indicator. See WFS_INF_SIU_CAPABILITIES</div> <div>fwGuidLightsEx for supported states.</div>													
Output Param	None.													
Error Codes	<div>In addition to the generic error codes defined in [Ref. 1], the following error codes can be</div> <div>generated by this command:</div> <table><tr><td>Value</td><td>Meaning</td></tr><tr><td>WFS_ERR_SIU_INVALID_PORT</td><td>An attempt to set a port to a new value was</td></tr><tr><td></td><td>invalid because the port does not exist or the</td></tr><tr><td></td><td>port is pre-configured as an input port.</td></tr><tr><td>WFS_ERR_SIU_SYNTAX</td><td>The command was invoked with incorrect</td></tr><tr><td></td><td>input data.</td></tr></table>		Value	Meaning	WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was		invalid because the port does not exist or the		port is pre-configured as an input port.	WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect		input data.
Value	Meaning													
WFS_ERR_SIU_INVALID_PORT	An attempt to set a port to a new value was													
	invalid because the port does not exist or the													
	port is pre-configured as an input port.													
WFS_ERR_SIU_SYNTAX	The command was invoked with incorrect													
	input data.													
Events	<div>In addition to the generic events defined in [Ref. 1], the following events can be generated by this</div> <div>command:</div> <table><tr><td>Value</td><td>Meaning</td></tr><tr><td>WFS_EXEE_SIU_PORT_ERROR</td><td>An error occurred while attempting to set or</td></tr><tr><td></td><td>clear one or more output ports (indicators).</td></tr></table>		Value	Meaning	WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or		clear one or more output ports (indicators).						
Value	Meaning													
WFS_EXEE_SIU_PORT_ERROR	An error occurred while attempting to set or													
	clear one or more output ports (indicators).													
Comments	The slow and medium flash rates must not be greater than 2.0 Hz. It should be noted that in order to comply with American Disabilities Act guidelines only a slow or medium flash rate must be used.													

6. Events

6.1 WFS_SRVE_SIU_PORT_STATUS

Description This event id is used to specify that a port has changed its state, due to the result of a command or to some external condition. Reporting of this event is controlled by the WFS_CMD_SIU_ENABLE_EVENTS command. Event reporting is disabled as a default situation.

Event Param LPWFSSIUORTEVENT lpPortEvent;

```
typedef struct _wfs_siu_port_event
{
    WORD          wPortType;
    WORD          wPortIndex;
    WORD          wPortStatus;
    LPSTR         lpszExtra;
    DWORD         dwPortStatus;
} WFS_SIUORTEVENT, *LPWFSSIUORTEVENT;
```

wPortType

Specifies the type of sensors and indicators that has changed state by one of the following flags:

Value	Meaning
WFS_SIU_SENSORS	A port in the input sensors has changed state.
WFS_SIU_DOORS	A port in the door sensors has changed state.
WFS_SIU_INDICATORS	A port in the indicators has changed state.
WFS_SIU_AUXILIARIES	A port in the auxiliary indicators has changed state.
WFS_SIU_GUIDLIGHTS	A port in the guidance lights has changed state.

wPortIndex

Specifies the index of the port that has changed state by one of the following values:

Value	Meaning
WFS_SIU_OPERATORSWITCH	The Operator Switch has changed its state.
WFS_SIU_TAMPER	The Tamper Sensor has changed its state.
WFS_SIU_INTTAMPER	The Internal Tamper Sensor has changed its state.
WFS_SIU_SEISMIC	The Seismic Sensor has changed its state.
WFS_SIU_HEAT	The Heat Sensor has changed its state.
WFS_SIU_PROXIMITY	The Proximity Sensor has changed its state.
WFS_SIU_AMBLIGHT	The Ambient Light Sensor has changed its state.
WFS_SIU_ENHANCEDAUDIO	The Audio Jack has changed its state (a headset has been plugged-in or removed).
WFS_SIU_BOOT_SWITCH	The Boot Switch Sensor has changed its state.
WFS_SIU_CONSUMER_DISPLAY	The Consumer Display Sensor has changed its state.
WFS_SIU_OPERATOR_CALL_BUTTON	The Operator Call Button has changed its state.
WFS_SIU_HANDSETSENSOR	The Handset Sensor has changed its state.
WFS_SIU_GENERALINPUTPORT	At least one of the General-Purpose Input Ports has changed its state. The status should be checked to determine which General-Purpose Input Port has changed its state.
WFS_SIU_HEADSETMICROPHONE	The Microphone Jack has changed its state (a headset microphone has been plugged-in or removed).
WFS_SIU_CABINET	The Cabinet Doors have changed their state.
WFS_SIU_SAFE	The Safe Doors have changed their state.

WFS_SIU_VANDALSHIELD	The Vandal Shield has changed its state.
WFS_SIU_CABINET_FRONT	The Front Cabinet Doors have changed their state.
WFS_SIU_CABINET_REAR	The Rear Cabinet Doors have changed their state.
WFS_SIU_CABINET_LEFT	The Left Cabinet Doors have changed their state.
WFS_SIU_CABINET_RIGHT	The Right Cabinet Doors have changed their state.
WFS_SIU_OPENCLOSE	The Open/Close Indicator state has changed.
WFS_SIU_FASCIALIGHT	The Fascia Light state has changed.
WFS_SIU_AUDIO	The Audio Indicator state has changed.
WFS_SIU_HEATING	The Heating device state has changed.
WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT	The Consumer Display Backlight state has changed.
WFS_SIU_SIGNAGEDISPLAY	The Signage Display device state has changed.
WFS_SIU_TRANSINDICATOR	At least one of the Transaction Indicators has changed its value. Use the WFS_INF_SIU_STATUS command to determine which Transaction Indicators have changed.
WFS_SIU_GENERALOUTPUTPORT	At least one of the General-Purpose Output Ports has changed its state. Use the WFS_INF_SIU_STATUS command to determine which General-Purpose Output Ports have changed.
WFS_SIU_VOLUME	The Volume Control device has changed its value.
WFS_SIU_UPS	The UPS device state has changed.
WFS_SIU_REMOTE_STATUS_MONITOR	The Remote Status Monitor device state has changed.
WFS_SIU_AUDIBLE_ALARM	The Audible Alarm device state has changed.
WFS_SIU_ENHANCEDAUDIOCONTROL	The Enhanced Audio Controller has changed state.
WFS_SIU_ENHANCEDMICROPHONECONTROL	The Enhanced Microphone Controller has changed state.
WFS_SIU_MICROPHONEVOLUME	The Microphone Volume Control device has changed its value.
WFS_SIU_CARDUNIT	The Guidance Light Indicator state for the card unit has changed.
WFS_SIU_PINPAD	The Guidance Light Indicator state for the PIN pad unit has changed.
WFS_SIU_NOTESDISPENSER	The Guidance Light Indicator state for the note dispenser unit has changed.
WFS_SIU_COINDISPENSER	The Guidance Light Indicator state for the coin dispenser unit has changed.
WFS_SIU_RECEIPTPRINTER	The Guidance Light Indicator state for the receipt printer unit has changed.
WFS_SIU_PASSBOOKPRINTER	The Guidance Light Indicator state for the passbook printer unit has changed.
WFS_SIU_ENVDEPOSITORY	The Guidance Light Indicator state for the envelope depository unit has changed.
WFS_SIU_CHEQUEUNIT	The Guidance Light Indicator state for the cheque unit has changed.
WFS_SIU_BILLACCEPTOR	The Guidance Light Indicator state for the bill acceptor unit has changed.

WFS_SIU_ENVDISPENSER	The Guidance Light Indicator state for the envelope dispenser unit has changed.
WFS_SIU_DOCUMENTPRINTER	The Guidance Light Indicator state for the Document Printer unit has changed.
WFS_SIU_COINACCEPTOR	The Guidance Light Indicator state for the coin acceptor has changed.
WFS_SIU_SCANNER	The Guidance Light Indicator state for the scanner has changed.
WFS_SIU_CONTACTLESS	The Guidance Light Indicator state for the Contactless Reader unit has changed.
WFS_SIU_CARDUNIT2	The Guidance Light Indicator state for the second card unit has changed.
WFS_SIU_NOTESDISPENSER2	The Guidance Light Indicator state for the second notes dispenser has changed.

WFS_SIU_BILLACCEPTOR2 The Guidance Light Indicator state for the second bill acceptor has changed.
wPortStatus
 Specifies the new state of the port indicated by *wPortType* and *wPortIndex*. See the WFS_INF_SIU_STATUS information command for the possible values.

lpzExtra

Pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of “*key=value*” strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

dwPortStatus

Specifies the new state of the port indicated by *wPortType* and *wPortIndex*. See the WFS_INF_SIU_STATUS information command for the possible values. This field allows additional values/flags to be reported which cannot be reported by *wPortStatus* as its type is WORD. Applications are recommended to use this field.

Comments None.

6.2 WFS_EXEE_SIU_PORT_ERROR

Description This event is used to specify that a port has detected an error.

Event Param LPWFSSIUPORTERROR lpPortError;

```
typedef struct _wfs_siu_port_error
{
    WORD          wPortType;
    WORD          wPortIndex;
    HRESULT       PortError;
    WORD          wPortStatus;
    LPSTR         lpszExtra;
    DWORD         dwPortStatus;
} WFS_SIUPORTERROR, *LPWFSSIUPORTERROR;
```

wPortType

Specifies the type of sensors and indicators that has detected an error by one of the following flags:

Value	Meaning
WFS_SIU_SENSORS	A port in the input sensors has detected an error.
WFS_SIU_DOORS	A port in the door sensors has detected an error.
WFS_SIU_INDICATORS	A port in the indicators has detected an error.
WFS_SIU_AUXILIARIES	A port in the auxiliary Indicators has detected an error.
WFS_SIU_GUIDLIGHTS	A port in the guidance lights has detected an error.

wPortIndex

Specifies the index of the port that has detected an error by one of the following values:

Value	Meaning
WFS_SIU_OPERATORSWITCH	The Operator Switch has detected an error.
WFS_SIU_TAMPER	The Tamper Sensor has detected an error.
WFS_SIU_INTTAMPER	The internal Tamper Sensor has detected an error.
WFS_SIU_SEISMIC	The Seismic Sensor has detected an error.
WFS_SIU_HEAT	The Heat Sensor has detected an error.
WFS_SIU_PROXIMITY	The Proximity Sensor has detected an error.
WFS_SIU_AMBLIGHT	The Ambient Light Sensor has detected an error.
WFS_SIU_ENHANCEDAUDIO	The Audio Jack Sensor has detected an error.
WFS_SIU_BOOT_SWITCH	The Boot Switch Sensor has detected an error.
WFS_SIU_CONSUMER_DISPLAY	The Consumer Display has detected an error.
WFS_SIU_OPERATOR_CALL_BUTTON	The Operator Call Button has detected an error.
WFS_SIU_HANDSETSENSOR	The Handset Sensor has detected an error.
WFS_SIU_GENERALINPUTPORT	The General-Purpose Input Port has detected an error.
WFS_SIU_HEADSETMICROPHONE	The Microphone Jack Sensor has detected an error.
WFS_SIU_CABINET	The Cabinet Doors have detected an error.
WFS_SIU_SAFE	The Safe Doors have detected an error.
WFS_SIU_VANDALSHIELD	The Vandal Shield has detected an error.
WFS_SIU_CABINET_FRONT	The Front Cabinet Doors have detected an error.
WFS_SIU_CABINET_REAR	The Rear Cabinet Doors have detected an error.
WFS_SIU_CABINET_LEFT	The Left Cabinet Doors have detected an error.

WFS_SIU_CABINET_RIGHT	The Right Cabinet Doors have detected an error.
WFS_SIU_OPENCLOSE	The Open/Close Indicator has detected an error.
WFS_SIU_FASCIALIGHT	The Fascia Light state has detected an error.
WFS_SIU_AUDIO	The Audio Indicator state has detected an error.
WFS_SIU_HEATING	The Heating device state has detected an error.
WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT	The Consumer Display Backlight state has detected an error.
WFS_SIU_SIGNAGEDISPLAY	The Signage Display device state has detected an error.
WFS_SIU_TRANSINDICATOR	The Transaction Indicator state has detected an error.
WFS_SIU_GENERALOUTPUTPORT	The General-Purpose Output Port has detected an error.
WFS_SIU_VOLUME	The Volume Control device has detected an error.
WFS_SIU_UPS	The UPS device has detected an error.
WFS_SIU_REMOTE_STATUS_MONITOR	The Remote Status Monitor device has detected an error.
WFS_SIU_AUDIBLE_ALARM	The Audible Alarm device has detected an error.
WFS_SIU_ENHANCEDAUDIOCONTROL	The Enhanced Audio Controller has detected an error.
WFS_SIU_ENHANCEDMICROPHONECONTROL	The Enhanced Microphone Controller has detected an error.
WFS_SIU_MICROPHONEVOLUME	The Microphone Volume Control device has detected an error.
WFS_SIU_CARDUNIT	The Guidance Light Indicator for the card unit has detected an error.
WFS_SIU_PINPAD	The Guidance Light Indicator for the PIN pad unit has detected an error.
WFS_SIU_NOTESDISPENSER	The Guidance Light Indicator for the note dispenser unit has detected an error.
WFS_SIU_COINDISPENSER	The Guidance Light Indicator for the coin dispenser unit has detected an error.
WFS_SIU_RECEIPTPRINTER	The Guidance Light Indicator for the receipt printer unit has detected an error.
WFS_SIU_PASSBOOKPRINTER	The Guidance Light Indicator for the passbook printer unit has detected an error.
WFS_SIU_ENVDEPOSITORY	The Guidance Light Indicator for the envelope depository unit has detected an error.
WFS_SIU_CHEQUEUNIT	The Guidance Light Indicator for the cheque unit has detected an error.
WFS_SIU_BILLACCEPTOR	The Guidance Light Indicator for the bill acceptor unit has detected an error.
WFS_SIU_ENVDISPENSER	The Guidance Light Indicator for the envelope dispenser unit has detected an error.
WFS_SIU_DOCUMENTPRINTER	The Guidance Light Indicator for the document printer has detected an error.
WFS_SIU_COINACCEPTOR	The Guidance Light Indicator for the coin acceptor has detected an error.
WFS_SIU_SCANNER	The Guidance Light Indicator for the scanner has detected an error.

WFS_SIU_CONTACTLESS	The Guidance Light Indicator state for the Contactless Reader unit has changed.
WFS_SIU_CARDUNIT2	The Guidance Light Indicator state for the second card unit has changed.
WFS_SIU_NOTESDISPENSER2	The Guidance Light Indicator state for the second notes dispenser has changed.
WFS_SIU_BILLACCEPTOR2	The Guidance Light Indicator state for the second bill acceptor has changed.

PortError

Specifies the error of the port indicated in the *wPortType* and *wPortIndex* by one of the following values:

Value	Meaning
WFS_ERR_SIU_INVALID_PORT	An attempt to enable or disable events to a port was invalid because the port does not exist.
WFS_ERR_SIU_SYNTAX	Syntax error in the input parameters. E.g. an attempt to both enable and disable events to the same port was made.
WFS_ERR_SIU_PORT_ERROR	A hardware error occurred while executing a command.

wPortStatus

Specifies the new state of the port indicated by *wPortType* and *wPortIndex*. See the WFS_INF_SIU_STATUS information command for the possible values.

lpzExtra

Pointer to a list of vendor-specific, or any other extended, information. The information is returned as a series of “*key=value*” strings so that it is easily extensible by Service Providers. Each string is null-terminated, with the final string terminating with two null characters. An empty list may be indicated by either a NULL pointer or a pointer to two consecutive null characters.

dwPortStatus

Specifies the new state of the port indicated in the *wPortType* and *wPortIndex*. See the WFS_INF_SIU_STATUS information command for the possible values. This field allows additional values/flags to be reported which cannot be reported by *wPortStatus* as its type is WORD. Applications are recommended to use this field.

Comments None.

6.3 WFS_SRVE_SIU_POWER_SAVE_CHANGE

Description	This service event specifies that the power save recovery time has changed.
Event Param	<p>LPWFSSIUPOWERSAVECHANGE lpPowerSaveChange;</p> <pre>typedef struct _wfs_siu_power_save_change { USHORT usPowerSaveRecoveryTime; } WFSIUPOWERSAVECHANGE, *LPWFSSIUPOWERSAVECHANGE;</pre> <p><i>usPowerSaveRecoveryTime</i></p> <p>Specifies the actual number of seconds required by the device to resume its normal operational state. This value is zero if the device exited the power saving mode.</p>
Comments	None.

7. C - Header file

```

/*****
*
* xfssiu.h      XFS - Sensors and Indicators Unit (SIU) definitions
*
*              Version 3.50   (November 18 2022)
*
*****/

#ifndef __INC_XFSSIU__H
#define __INC_XFSSIU__H

#ifdef __cplusplus
extern "C" {
#endif

#include <xfsapi.h>

/* be aware of alignment */
#pragma pack (push, 1)

/* values of WFSSIUCAPS.wClass */

#define      WFS_SERVICE_CLASS_SIU                (8)

#define      WFS_SERVICE_CLASS_NAME_SIU           "SIU"
#define      WFS_SERVICE_CLASS_VERSION_SIU        (0x3203) /* Version 3.50 */

#define      SIU_SERVICE_OFFSET                   (WFS_SERVICE_CLASS_SIU * 100)

/* SIU Info Commands */

#define      WFS_INF_SIU_STATUS                    (SIU_SERVICE_OFFSET + 1)
#define      WFS_INF_SIU_CAPABILITIES              (SIU_SERVICE_OFFSET + 2)
#define      WFS_INF_SIU_GET_AUTOSTARTUP_TIME      (SIU_SERVICE_OFFSET + 3)

/* SIU Command Verbs */

#define      WFS_CMD_SIU_ENABLE_EVENTS             (SIU_SERVICE_OFFSET + 1)
#define      WFS_CMD_SIU_SET_PORTS                 (SIU_SERVICE_OFFSET + 2)
#define      WFS_CMD_SIU_SET_DOOR                  (SIU_SERVICE_OFFSET + 3)
#define      WFS_CMD_SIU_SET_INDICATOR             (SIU_SERVICE_OFFSET + 4)
#define      WFS_CMD_SIU_SET_AUXILIARY             (SIU_SERVICE_OFFSET + 5)
#define      WFS_CMD_SIU_SET_GUIDLIGHT            (SIU_SERVICE_OFFSET + 6)
#define      WFS_CMD_SIU_RESET                     (SIU_SERVICE_OFFSET + 7)
#define      WFS_CMD_SIU_POWER_SAVE_CONTROL        (SIU_SERVICE_OFFSET + 8)
#define      WFS_CMD_SIU_SET_AUTOSTARTUP_TIME      (SIU_SERVICE_OFFSET + 9)
#define      WFS_CMD_SIU_SYNCHRONIZE_COMMAND       (SIU_SERVICE_OFFSET + 10)
#define      WFS_CMD_SIU_SET_GUIDLIGHT_EX          (SIU_SERVICE_OFFSET + 11)

/* SIU Messages */

#define      WFS_SRVE_SIU_PORT_STATUS              (SIU_SERVICE_OFFSET + 1)
#define      WFS_EXEE_SIU_PORT_ERROR               (SIU_SERVICE_OFFSET + 2)
#define      WFS_SRVE_SIU_POWER_SAVE_CHANGE        (SIU_SERVICE_OFFSET + 3)

/* Values of WFSSIUSTATUS.fwDevice */

#define      WFS_SIU_DEVONLINE                     WFS_STAT_DEVONLINE
#define      WFS_SIU_DEVOFFLINE                     WFS_STAT_DEVOFFLINE
#define      WFS_SIU_DEVPOWEROFF                    WFS_STAT_DEVPOWEROFF
#define      WFS_SIU_DEVNODEVICE                     WFS_STAT_DEVNODEVICE
#define      WFS_SIU_DEVHWERROR                     WFS_STAT_DEVHWERROR
#define      WFS_SIU_DEVUSERERROR                   WFS_STAT_DEVUSERERROR

```

```

#define      WFS_SIU_DEVBUSY                      WFS_STAT_DEVBUSY
#define      WFS_SIU_DEVFRAUDATTEMPT              WFS_STAT_DEVFRAUDATTEMPT
#define      WFS_SIU_DEVPOTENTIALFRAUD            WFS_STAT_DEVPOTENTIALFRAUD

/* Size and max index of fwSensors array */

#define      WFS_SIU_SENSORS_SIZE                  (32)
#define      WFS_SIU_SENSORS_MAX                  (WFS_SIU_SENSORS_SIZE - 1)

/* Size and max index of fwDoors array */

#define      WFS_SIU_DOORS_SIZE                    (16)
#define      WFS_SIU_DOORS_MAX                    (WFS_SIU_DOORS_SIZE - 1)

/* Size and max index of fwIndicators array */

#define      WFS_SIU_INDICATORS_SIZE              (16)
#define      WFS_SIU_INDICATORS_MAX              (WFS_SIU_INDICATORS_SIZE - 1)

/* Size max index of fwAuxiliaries array */

#define      WFS_SIU_AUXILIARIES_SIZE             (16)
#define      WFS_SIU_AUXILIARIES_MAX             (WFS_SIU_AUXILIARIES_SIZE - 1)

/* Size and max index of fwGuidLights array */

#define      WFS_SIU_GUIDLIGHTS_SIZE             (16)
#define      WFS_SIU_GUIDLIGHTS_MAX             (WFS_SIU_GUIDLIGHTS_SIZE - 1)

/* Size and max index of fwGuidLightsEx array */

#define      WFS_SIU_GUIDLIGHTS_SIZE_EX          (32)
#define      WFS_SIU_GUIDLIGHTS_MAX_EX          (WFS_SIU_GUIDLIGHTS_SIZE_EX - 1)

/* Indices of WFSSIUSTATUS.fwSensors [...]
   WFSSIUCAPS.fwSensors [...]
   WFSSIUENABLE.fwSensors [...]
   WFSSIUPORTEVENT.wPortIndex
   WFSSIUPORTERROR.wPortIndex */

#define      WFS_SIU_OPERATORSWITCH              (0)
#define      WFS_SIU_TAMPER                      (1)
#define      WFS_SIU_INTTAMPER                   (2)
#define      WFS_SIU_SEISMIC                    (3)
#define      WFS_SIU_HEAT                      (4)
#define      WFS_SIU_PROXIMITY                  (5)
#define      WFS_SIU_AMBLIGHT                   (6)
#define      WFS_SIU_ENHANCEDAUDIO              (7)
#define      WFS_SIU_BOOT_SWITCH                (8)
#define      WFS_SIU_CONSUMER_DISPLAY           (9)
#define      WFS_SIU_OPERATOR_CALL_BUTTON       (10)
#define      WFS_SIU_HANDSETSENSOR              (11)
#define      WFS_SIU_GENERALINPUTPORT           (12)
#define      WFS_SIU_HEADSETMICROPHONE          (13)
#define      WFS_SIU_FASCIAMICROPHONE           (14)

/* Indices of WFSSIUSTATUS.fwDoors [...]
   WFSSIUCAPS.fwDoors [...]
   WFSSIUENABLE.fwDoors [...]
   WFSSIUSETPORTS.fwDoors [...]
   WFSSIUSETDOOR.wDoor
   WFSSIUPORTEVENT.wPortIndex
   WFSSIUPORTERROR.wPortIndex */

```

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```
#define      WFS_SIU_CABINET                      (0)
#define      WFS_SIU_SAFE                        (1)
#define      WFS_SIU_VANDALSHIELD                (2)
#define      WFS_SIU_CABINET_FRONT               (3)
#define      WFS_SIU_CABINET_REAR               (4)
#define      WFS_SIU_CABINET_LEFT               (5)
#define      WFS_SIU_CABINET_RIGHT              (6)

/* Indices of WFSSIUSTATUS.fwIndicators [...]
   WFSSIUCAPS.fwIndicators [...]
   WFSSIUENABLE.fwIndicators [...]
   WFSSIUSETPORTS.wIndicators [...]
   WFSSIUSETINDICATOR.wIndicator
   WFSSIUPORTEVENT.wPortIndex
   WFSSIUPORTERROR.wPortIndex */

#define      WFS_SIU_OPENCLOSE                   (0)
#define      WFS_SIU_FASCIALIGHT                 (1)
#define      WFS_SIU_AUDIO                      (2)
#define      WFS_SIU_HEATING                    (3)
#define      WFS_SIU_CONSUMER_DISPLAY_BACKLIGHT (4)
#define      WFS_SIU_SIGNAGEDISPLAY             (5)
#define      WFS_SIU_TRANSINDICATOR             (6)
#define      WFS_SIU_GENERALOUTPUTPORT          (7)

/* Indices of WFSSIUSTATUS.fwAuxiliaries [...]
   WFSSIUCAPS.fwAuxiliaries [...]
   WFSSIUENABLE.fwAuxiliaries [...]
   WFSSIUSETPORTS.wAuxiliaries [...]
   WFSSIUSETAUXILIARY.wAuxiliary
   WFSSIUPORTEVENT.wPortIndex
   WFSSIUPORTERROR.wPortIndex */

#define      WFS_SIU_VOLUME                     (0)
#define      WFS_SIU_UPS                       (1)
#define      WFS_SIU_REMOTE_STATUS_MONITOR      (2)
#define      WFS_SIU_AUDIBLE_ALARM              (3)
#define      WFS_SIU_ENHANCEDAUDIOCONTROL       (4)
#define      WFS_SIU_ENHANCEDMICROPHONECONTROL (5)
#define      WFS_SIU_MICROPHONEVOLUME           (6)

/* Indices of WFSSIUSTATUS.fwGuidLights [...]
   WFSSIUCAPS.fwGuidLights [...]
   WFSSIUENABLE.fwGuidLights [...]
   WFSSIUSETPORTS.wGuidLights [...]
   WFSSIUSETGUIDLIGHT.wGuidLight
   WFSSIUPORTEVENT.wPortIndex
   WFSSIUPORTERROR.wPortIndex */

#define      WFS_SIU_CARDUNIT                   (0)
#define      WFS_SIU_PINPAD                     (1)
#define      WFS_SIU_NOTESDISPENSER             (2)
#define      WFS_SIU_COINDISPENSER              (3)
#define      WFS_SIU_RECEIPTPRINTER             (4)
#define      WFS_SIU_PASSBOOKPRINTER            (5)
#define      WFS_SIU_ENVDEPOSITORY              (6)
#define      WFS_SIU_CHEQUEUNIT                (7)
#define      WFS_SIU_BILLACCEPTOR               (8)
#define      WFS_SIU_ENVDISPENSER               (9)
#define      WFS_SIU_DOCUMENTPRINTER            (10)
#define      WFS_SIU_COINACCEPTOR              (11)
#define      WFS_SIU_SCANNER                   (12)
#define      WFS_SIU_CONTACTLESS                (16)
#define      WFS_SIU_CARDUNIT2                 (17)
#define      WFS_SIU_NOTESDISPENSER2           (18)
#define      WFS_SIU_BILLACCEPTOR2             (19)
```

```

/* Values of WFSSIUSTATUS.fwSensors [...]
    WFSSIUSTATUS.fwDoors [...]
    WFSSIUSTATUS.fwIndicators [...]
    WFSSIUSTATUS.fwAuxiliaries [...]
    WFSSIUSTATUS.fwGuidLights [...]
    WFSSIUCAPS.fwSensors [...]
    WFSSIUCAPS.fwDoors [...]
    WFSSIUCAPS.fwIndicators [...]
    WFSSIUCAPS.fwAuxiliaries [...]
    WFSSIUCAPS.fwGuidLights [...] */

#define      WFS_SIU_NOT_AVAILABLE          (0x0000)
#define      WFS_SIU_AVAILABLE              (0x0001)

/* Values of WFSSIUSTATUS.fwSensors [WFS_SIU_OPERATORSWITCH]
    WFSSIUCAPS.fwSensors [WFS_SIU_OPERATORSWITCH]
    WFSSIUPORTEVENT.wPortStatus
    WFSSIUPORTERROR.wPortStatus */

#define      WFS_SIU_RUN                     (0x0001)
#define      WFS_SIU_MAINTENANCE             (0x0002)
#define      WFS_SIU_SUPERVISOR             (0x0004)

/* Values of WFSSIUSTATUS.fwDoors [...]
    WFSSIUSTATUS.fwIndicators [WFS_SIU_OPENCLOSE]
    WFSSIUCAPS.fwDoors [...]
    WFSSIUCAPS.fwIndicators [WFS_SIU_OPENCLOSE]
    WFSSIUSETPORTS.fwDoors [...]
    WFSSIUSETPORTS.fwIndicators [WFS_SIU_OPENCLOSE]
    WFSSIUSETDOOR.wDoor
    WFSSIUSETINDICATOR.fwCommand
    WFSSIUPORTEVENT.wPortStatus
    WFSSIUPORTERROR.wPortStatus */

#define      WFS_SIU_CLOSED                  (0x0001)
#define      WFS_SIU_OPEN                   (0x0002)
#define      WFS_SIU_LOCKED                 (0x0004)
#define      WFS_SIU_BOLTED                 (0x0008)
#define      WFS_SIU_SERVICE                (0x0010)
#define      WFS_SIU_KEYBOARD               (0x0020)
#define      WFS_SIU_AJAR                   (0x0040)
#define      WFS_SIU_JAMMED                 (0x0080)
#define      WFS_SIU_TAMPERED               (0x0100)

/* Values of WFSSIUSTATUS.fwIndicators [WFS_SIU_AUDIO]
    WFSSIUSETPORTS.fwIndicators [WFS_SIU_AUDIO]
    WFSSIUSETINDICATOR.fwCommand
    WFSSIUPORTEVENT.wPortStatus
    WFSSIUPORTERROR.wPortStatus */

#define      WFS_SIU_KEYPRESS               (0x0002)
#define      WFS_SIU_EXCLAMATION            (0x0004)
#define      WFS_SIU_WARNING                (0x0008)
#define      WFS_SIU_ERROR                  (0x0010)
#define      WFS_SIU_CRITICAL                (0x0020)

/* Values of WFSSIUSTATUS.fwSensors [WFS_SIU_CONSUMER_DISPLAY]
    WFSSIUPORTEVENT.wPortStatus
    WFSSIUPORTERROR.wPortStatus */

#define      WFS_SIU_DISPLAY_ERROR          (0x0004)

/* Flags for WFSSIUSTATUS.fwIndicators [WFS_SIU_TRANSINDICATOR]
    WFSSIUSETPORTS.fwIndicators [WFS_SIU_TRANSINDICATOR]
    WFSSIUSETINDICATOR.fwCommand
    WFSSIUPORTEVENT.wPortStatus[WFS_SIU_TRANSINDICATOR]

```

```

WFSSIUPORTERROR.wPortStatus[WFS_SIU_TRANSINDICATOR] */

#define WFS_SIU_LAMP1 (0x0001)
#define WFS_SIU_LAMP2 (0x0002)
#define WFS_SIU_LAMP3 (0x0004)
#define WFS_SIU_LAMP4 (0x0008)
#define WFS_SIU_LAMP5 (0x0010)
#define WFS_SIU_LAMP6 (0x0020)
#define WFS_SIU_LAMP7 (0x0040)
#define WFS_SIU_LAMP8 (0x0080)
#define WFS_SIU_LAMP9 (0x0100)
#define WFS_SIU_LAMP10 (0x0200)
#define WFS_SIU_LAMP11 (0x0400)
#define WFS_SIU_LAMP12 (0x0800)
#define WFS_SIU_LAMP13 (0x1000)
#define WFS_SIU_LAMP14 (0x2000)
#define WFS_SIU_LAMP15 (0x4000)
#define WFS_SIU_LAMP16 (0x8000)

/* Values of WFSSIUSTATUS.fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]
WFSSIUSETPORTS.fwAuxiliaries [WFS_SIU_REMOTE_STATUS_MONITOR]
WFSSIUSETAUXILIARY.fwCommand
WFSSIUPORTEVENT.wPortStatus
WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_GREEN_LED_ON (0x0001)
#define WFS_SIU_GREEN_LED_OFF (0x0002)
#define WFS_SIU_AMBER_LED_ON (0x0004)
#define WFS_SIU_AMBER_LED_OFF (0x0008)
#define WFS_SIU_RED_LED_ON (0x0010)
#define WFS_SIU_RED_LED_OFF (0x0020)

/* Values of WFSSIUSTATUS.fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]
WFSSIUSETPORTS.fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]
WFSSIUSTATUS.fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]
WFSSIUSETPORTS.fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL]
WFSSIUSETAUXILIARY.fwCommand
WFSSIUPORTEVENT.wPortStatus
WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_PUBLICAUDIO_MANUAL (0x0001)
#define WFS_SIU_PUBLICAUDIO_AUTO (0x0002)
#define WFS_SIU_PUBLICAUDIO_SEMI_AUTO (0x0004)
#define WFS_SIU_PRIVATEAUDIO_MANUAL (0x0008)
#define WFS_SIU_PRIVATEAUDIO_AUTO (0x0010)
#define WFS_SIU_PRIVATEAUDIO_SEMI_AUTO (0x0020)

/* Values of WFSSIUSTATUS.fwSensors [...]
WFSSIUSTATUS.fwIndicators [...]
WFSSIUSTATUS.fwAuxiliaries [...]
WFSSIUSTATUS.fwGuidLights [...]
WFSSIUCAPS.fwSensors [...]
WFSSIUCAPS.fwIndicators [...]
WFSSIUCAPS.fwGuidLights [...]
WFSSIUSETPORTS.fwIndicators [...]
WFSSIUSETPORTS.fwAuxiliaries [...]
WFSSIUSETPORTS.fwGuidLights [...]
WFSSIUSETINDICATOR.fwCommand [...]
WFSSIUSETAUXILIARY.fwCommand [...]
WFSSIUSETGUIDLIGHT.fwCommand [...]
WFSSIUPORTEVENT.wPortStatus
WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_OFF (0x0001)
#define WFS_SIU_ON (0x0002)
#define WFS_SIU_SLOW_FLASH (0x0004)
#define WFS_SIU_MEDIUM_FLASH (0x0008)
#define WFS_SIU_QUICK_FLASH (0x0010)
#define WFS_SIU_CONTINUOUS (0x0080)

```



```

#define WFS_SIU_GUIDANCE_RED (0x00000100)
#define WFS_SIU_GUIDANCE_GREEN (0x00000200)
#define WFS_SIU_GUIDANCE_YELLOW (0x00000400)
#define WFS_SIU_GUIDANCE_BLUE (0x00000800)
#define WFS_SIU_GUIDANCE_CYAN (0x00001000)
#define WFS_SIU_GUIDANCE_MAGENTA (0x00002000)
#define WFS_SIU_GUIDANCE_WHITE (0x00004000)
#define WFS_SIU_GUIDANCE_ENTRY (0x00100000)
#define WFS_SIU_GUIDANCE_EXIT (0x00200000)

/* Flags for WFSSIUSTATUS.fwSensors [WFS_SIU_GENERALINPUTPORT]
   WFSSIUSTATUS.fwIndicators [WFS_SIU_GENERALOUTPUTPORT]
   WFSSIUSETPORTS.fwIndicators [WFS_SIU_GENERALOUTPUTPORT]
   WFSSIUSETINDICATOR.fwCommand
   WFSSIUPORTEVENT.wPortStatus[WFS_SIU_GENERALINPUTPORT]
   WFSSIUPORTEVENT.wPortStatus[WFS_SIU_GENERALOUTPUTPORT]
   WFSSIUPORTERROR.wPortStatus[WFS_SIU_GENERALINPUTPORT]
   WFSSIUPORTERROR.wPortStatus[WFS_SIU_GENERALOUTPUTPORT] */

#define WFS_SIU_GPP1 (0x0001)
#define WFS_SIU_GPP2 (0x0002)
#define WFS_SIU_GPP3 (0x0004)
#define WFS_SIU_GPP4 (0x0008)
#define WFS_SIU_GPP5 (0x0010)
#define WFS_SIU_GPP6 (0x0020)
#define WFS_SIU_GPP7 (0x0040)
#define WFS_SIU_GPP8 (0x0080)
#define WFS_SIU_GPP9 (0x0100)
#define WFS_SIU_GPP10 (0x0200)
#define WFS_SIU_GPP11 (0x0400)
#define WFS_SIU_GPP12 (0x0800)
#define WFS_SIU_GPP13 (0x1000)
#define WFS_SIU_GPP14 (0x2000)
#define WFS_SIU_GPP15 (0x4000)
#define WFS_SIU_GPP16 (0x8000)

/* Values of WFSSIUSTATUS.fwSensors [WFS_SIU_PROXIMITY]
   WFSSIUSTATUS.fwSensors [WFS_SIU_ENHANCEDAUDIO]
   WFSSIUPORTEVENT.wPortStatus
   WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_PRESENT (0x0001)
#define WFS_SIU_NOT_PRESENT (0x0002)

/* Values of WFSSIUSTATUS.fwSensors [WFS_SIU_HANDSETSENSOR] */

#define WFS_SIU_OFF_THE_HOOK (0x0001)
#define WFS_SIU_ON_THE_HOOK (0x0002)

/* Values of WFSSIUCAPS.fwSensors [WFS_SIU_ENHANCEDAUDIO]
   WFSSIUCAPS.fwSensors [WFS_SIU_HANDSETSENSOR] */

#define WFS_SIU_MANUAL (0x0001)
#define WFS_SIU_AUTO (0x0002)
#define WFS_SIU_SEMI_AUTO (0x0004)

/* Values of WFSSIUCAPS.fwSensors [WFS_SIU_HANDSETSENSOR] */

#define WFS_SIU_MICROPHONE (0x0010)

/* Values of WFSSIUCAPS.fwSensors [WFS_SIU_ENHANCEDAUDIO] */

#define WFS_SIU_BIDIRECTIONAL (0x0020)

```

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```
/* Values of WFSSIUSTATUS.fwSensors [WFS_SIU_AMBLIGHT]
   WFSSIUCAPS.fwSensors [WFS_SIU_AMBLIGHT]
   WFSSIUPORTEVENT.wPortStatus
   WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_VERY_DARK (0x0001)
#define WFS_SIU_DARK (0x0002)
#define WFS_SIU_MEDIUM_LIGHT (0x0004)
#define WFS_SIU_LIGHT (0x0008)
#define WFS_SIU_VERY_LIGHT (0x0010)

/* Values of WFSSIUSTATUS.fwAuxiliaries [WFS_SIU_UPS]
   WFSSIUCAPS.fwAuxiliaries [WFS_SIU_UPS]
   WFSSIUPORTEVENT.wPortStatus
   WFSSIUPORTERROR.wPortStatus */

#define WFS_SIU_LOW (0x0002)
#define WFS_SIU_ENGAGED (0x0004)
#define WFS_SIU_POWERING (0x0008)
#define WFS_SIU_RECOVERED (0x0010)

/* Values of WFSSIUCAPS.fwType */

#define WFS_SIU_SENSORS (0x0001)
#define WFS_SIU_DOORS (0x0002)
#define WFS_SIU_INDICATORS (0x0004)
#define WFS_SIU_AUXILIARIES (0x0008)
#define WFS_SIU_GUIDLIGHTS (0x0010)

/* Values of WFSSIUCAPS.fwAuxiliaries [WFS_SIU_ENHANCEDAUDIOCONTROL]
   WFSSIUCAPS.fwAuxiliaries [WFS_SIU_ENHANCEDMICROPHONECONTROL] */
#define WFS_SIU_HEADSET_DETECTION (0x0001)
#define WFS_SIU_MODE_CONTROLLABLE (0x0002)

/* Values of WFSSIUENABLE.fwSensors [...]
   WFSSIUENABLE.fwDoors [...]
   WFSSIUENABLE.fwIndicators [...]
   WFSSIUENABLE.fwAuxiliaries [...]
   WFSSIUENABLE.fwGuidLights [...]
   WFSSIUSETPORTS.fwDoors [...]
   WFSSIUSETPORTS.fwIndicators [...]
   WFSSIUSETPORTS.fwAuxiliaries [...]
   WFSSIUSETPORTS.fwGuidLights [...] */

#define WFS_SIU_NO_CHANGE (0x0000)
#define WFS_SIU_ENABLE_EVENT (0x0001)
#define WFS_SIU_DISABLE_EVENT (0x0002)

/* Values of WFSSIUSETPORTS.fwDoors [...]
   WFSSIUSETDOOR.fwCommand [...] */

#define WFS_SIU_BOLT (0x0001)
#define WFS_SIU_UNBOLT (0x0002)

/* Values of WFSSIUSETPORTS.fwAuxiliaries [WFS_SIU_UPS]
   WFSSIUSETAUXILIARY.wAuxiliary [WFS_SIU_UPS] */

#define WFS_SIU_ENGAGE (0x0001)
#define WFS_SIU_DISENGAGE (0x0002)

/* Values of WFSSIUCAPS.fwAutoStartupMode
   WFSSIUSETSTARTUPTIME.wMode
   WFSSIUGETSTARTUPTIME.wMode */

#define WFS_SIU_AUTOSTARTUP_CLEAR (0x0001)
#define WFS_SIU_AUTOSTARTUP_SPECIFIC (0x0002)
```

```

#define      WFS_SIU_AUTOSTARTUP_DAILY          (0x0004)
#define      WFS_SIU_AUTOSTARTUP_WEEKLY        (0x0008)

/* Values of WFSSIUSTATUS.wAntiFraudModule */

#define      WFS_SIU_AFMNOTSUPP                (0)
#define      WFS_SIU_AFMOK                    (1)
#define      WFS_SIU_AFMINOP                  (2)
#define      WFS_SIU_AFMDEVICEDETECTED        (3)
#define      WFS_SIU_AFMUNKNOWN               (4)

/* XFS SIU Errors */

#define      WFS_ERR_SIU_INVALID_PORT          (- (SIU_SERVICE_OFFSET + 1))
#define      WFS_ERR_SIU_SYNTAX                (- (SIU_SERVICE_OFFSET + 2))
#define      WFS_ERR_SIU_PORT_ERROR            (- (SIU_SERVICE_OFFSET + 3))
#define      WFS_ERR_SIU_POWERSAVETOOSHORT     (- (SIU_SERVICE_OFFSET + 4))
#define      WFS_ERR_SIU_COMMANDUNSUPP        (- (SIU_SERVICE_OFFSET + 5))
#define      WFS_ERR_SIU_SYNCHRONIZEUNSUPP     (- (SIU_SERVICE_OFFSET + 6))

/*=====*/
/* SIU Info Command Structures and variables */
/*=====*/

typedef struct _wfs_siu_status
{
    WORD          fwDevice;
    WORD          fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD          fwDoors [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
    USHORT        usPowerSaveRecoveryTime;
    WORD          wAntiFraudModule;
    DWORD         fwGuidLightsEx [WFS_SIU_GUIDLIGHTS_SIZE_EX];
} WFSSIUSTATUS, *LPWFSSIUSTATUS;

typedef struct _wfs_siu_trm_info
{
    LPWSTR        lpszModelID;
    LPWSTR        lpszSerialNumber;
} WFSSIUTRMINFO, *LPWFSSIUTRMINFO;

typedef struct _wfs_siu_caps
{
    WORD          wClass;
    WORD          fwType;
    WORD          fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD          fwDoors [WFS_SIU_DOORS_SIZE];
    WORD          fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD          fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD          fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR         lpszExtra;
    BOOL          bPowerSaveControl;
    WORD          fwAutoStartupMode;
    BOOL          bAntiFraudModule;
    LPDWORD       lpdwSynchronizableCommands;
    LPWFSSIUTRMINFO lpTerminationInformation;
    DWORD         fwGuidLightsEx [WFS_SIU_GUIDLIGHTS_SIZE_EX];
} WFSSIUCAPS, *LPWFSSIUCAPS;

typedef struct wfs_siu_get_startup_time
{
    WORD          wMode;
    LPSYSTEMTIME  lpStartTime;
} WFSSIUGETSTARTUPTIME, *LPWFSSIUGETSTARTUPTIME;

```

```

/*=====*/
/* SIU Execute Command Structures */
/*=====*/

typedef struct _wfs_siu_enable
{
    WORD            fwSensors [WFS_SIU_SENSORS_SIZE];
    WORD            fwDoors   [WFS_SIU_DOORS_SIZE];
    WORD            fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD            fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD            fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR           lpzExtra;
} WFS_SIU_ENABLE, *LPWFS_SIU_ENABLE;

typedef struct _wfs_siu_set_ports
{
    WORD            fwDoors [WFS_SIU_DOORS_SIZE];
    WORD            fwIndicators [WFS_SIU_INDICATORS_SIZE];
    WORD            fwAuxiliaries [WFS_SIU_AUXILIARIES_SIZE];
    WORD            fwGuidLights [WFS_SIU_GUIDLIGHTS_SIZE];
    LPSTR           lpzExtra;
} WFS_SIU_SET_PORTS, *LPWFS_SIU_SET_PORTS;

typedef struct _wfs_siu_set_door
{
    WORD            wDoor;
    WORD            fwCommand;
} WFS_SIU_SET_DOOR, *LPWFS_SIU_SET_DOOR;

typedef struct _wfs_siu_set_indicator
{
    WORD            wIndicator;
    WORD            fwCommand;
} WFS_SIU_SET_INDICATOR, *LPWFS_SIU_SET_INDICATOR;

typedef struct _wfs_siu_set_auxiliary
{
    WORD            wAuxiliary;
    WORD            fwCommand;
} WFS_SIU_SET_AUXILIARY, *LPWFS_SIU_SET_AUXILIARY;

typedef struct _wfs_siu_set_guidlight
{
    WORD            wGuidLight;
    WORD            fwCommand;
} WFS_SIU_SET_GUIDLIGHT, *LPWFS_SIU_SET_GUIDLIGHT;

typedef struct _wfs_siu_set_guidlight_ex
{
    WORD            wGuidLight;
    DWORD           fwCommand;
} WFS_SIU_SET_GUIDLIGHT_EX, *LPWFS_SIU_SET_GUIDLIGHT_EX;

typedef struct _wfs_siu_power_save_control
{
    USHORT          usMaxPowerSaveRecoveryTime;
} WFS_SIU_POWER_SAVE_CONTROL, *LPWFS_SIU_POWER_SAVE_CONTROL;

typedef struct wfs_siu_set_startup_time
{
    WORD            wMode;
    LPSYSTEMTIME    lpStartTime;
} WFS_SIU_SET_STARTUP_TIME, *LPWFS_SIU_SET_STARTUP_TIME;

```

```

/*=====*/
/* SIU Message Structures */
/*=====*/

typedef struct _wfs_siu_port_event
{
    WORD            wPortType;
    WORD            wPortIndex;
    WORD            wPortStatus;
    LPSTR           lpszExtra;
    DWORD           dwPortStatus;
} WFS SIU PORTEVENT, *LPWFS SIU PORTEVENT;

typedef struct _wfs_siu_port_error
{
    WORD            wPortType;
    WORD            wPortIndex;
    HRESULT          PortError;
    WORD            wPortStatus;
    LPSTR           lpszExtra;
    DWORD           dwPortStatus;
} WFS SIU PORTERROR, *LPWFS SIU PORTERROR;

typedef struct _wfs_siu_power_save_change
{
    USHORT          usPowerSaveRecoveryTime;
} WFS SIU POWERSAVECHANGE, *LPWFS SIU POWERSAVECHANGE;

typedef struct _wfs_siu_synchronize_command
{
    DWORD           dwCommand;
    LPVOID          lpCmdData;
} WFS SIU SYNCHRONIZECOMMAND, *LPWFS SIU SYNCHRONIZECOMMAND;

/* restore alignment */
#pragma pack (pop)

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

#endif /* __INC_XFSSIU__H */

```