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# Linux SDK for UPnP Devices v1.4

**Names**



**Linux SDK for UPnP Devices Version 1.4**



Revision 1.4.1 (20170921 173014)

1.1

## Introduction

This document gives a brief description of the Linux SDK for UPnP Devices API. Section 1 covers the license under which the SDK is distributed. Section 2 talks about the callback functions used in many parts of the API. Finally, section 3 details the structures and functions that comprise the API.

The Linux SDK for UPnP Devices version 1.2 supports the following platforms:

- Linux* running on an Intel Architecture processor
- Linux running on an Intel StrongARM or XScale processor

* Other brands and names are the property of their respective owners.

1.2

## License

1.3

## struct **Upnp_Action_Request**

*Returned as part of a* **UPNP_CONTROL_ACTION_COMPLETE** *callback.*

**Members**



Returned as part of a **UPNP_CONTROL_ACTION_COMPLETE** callback.

1.3.1

## int **ErrCode**

*The result of the operation.*

The result of the operation.

**1.3.2**

int **Socket**

*The socket number of the connection to the requestor.*

The socket number of the connection to the requestor.

**1.3.3**

char **ErrStr** [LINE_SIZE]

*The error string in case of error.*

The error string in case of error.

**1.3.4**

char **ActionName** [NAME_SIZE]

*The Action Name.*

The Action Name.

**1.3.5**

char **DevUDN** [NAME_SIZE]

*The unique device ID.*

The unique device ID.

**1.3.6**

char **ServiceID** [NAME_SIZE]

*The service ID.*

The service ID.

**1.3.7**

IXML_Document* **ActionRequest**

*The DOM document describing the action.*

The DOM document describing the action.

**1.3.8**

IXML_Document* **ActionResult**

*The DOM document describing the result of the action.*

The DOM document describing the result of the action.

**1.3.9**

struct sockaddr_storage **CtrlPtIPAddr**

*IP address of the control point requesting this action.*

IP address of the control point requesting this action.

**1.3.10**

IXML_Document* **SoapHeader**

*The DOM document containing the information from the the SOAP header.*

The DOM document containing the information from the the SOAP header.

**1.4**

struct **Upnp_State_Var_Request**

*Represents the request for current value of a state variable in a service state table.*

**Members**



Represents the request for current value of a state variable in a service state table.

**1.4.1**

int **ErrCode**

*The result of the operation.*

The result of the operation.

**1.4.2**

int **Socket**

*The socket number of the connection to the requestor.*

The socket number of the connection to the requestor.

**1.4.3**

char **ErrStr** [LINE_SIZE]

*The error string in case of error.*

The error string in case of error.

**1.4.4**

char **DevUDN** [NAME_SIZE]

*The unique device ID.*

The unique device ID.

**1.4.5**

char **ServiceID** [NAME_SIZE]

*The service ID.*

The service ID.

**1.4.6**

char **StateVarName** [NAME_SIZE]

*The name of the variable.*

The name of the variable.

**1.4.7**

struct sockaddr_storage **CtrlPtIPAddr**

*IP address of sender requesting the state variable.*

IP address of sender requesting the state variable.

**1.4.8**

DOMString **CurrentVal**

*The current value of the variable.*

The current value of the variable. This needs to be allocated by the caller. When finished with it, the SDK frees this **DOMString**.

## 1.5 struct Upnp_State_Var_Complete

*Represents the reply for the current value of a state variable in an asynchronous call.*

**Members**



Represents the reply for the current value of a state variable in an asynchronous call.

### 1.5.1 int ErrCode

*The result of the operation.*

The result of the operation.

### 1.5.2 char CtrlUrl [NAME_SIZE]

*The control URL for the service.*

The control URL for the service.

### 1.5.3 char StateVarName [NAME_SIZE]

*The name of the variable.*

The name of the variable.

### 1.5.4

DOMString **CurrentVal**

*The current value of the variable or error string in case of error.*

The current value of the variable or error string in case of error.

### 1.6

struct **Upnp_Event**

*Returned along with a* **UPNP_EVENT_RECEIVED** *callback.*

**Members**

| | | | | |
|---|---|---|---|---|
| 1.6.1 | Upnp_SID | **Sid** | *The subscription ID for this subscription.* | 10 |
| 1.6.2 | int | **EventKey** | *The event sequence number.* | 10 |
| 1.6.3 | IXML_Document* | **ChangedVariables** | *The DOM tree representing the changes generating the event.* | 11 |

Returned along with a **UPNP_EVENT_RECEIVED** callback.

### 1.6.1

Upnp_SID **Sid**

*The subscription ID for this subscription.*

The subscription ID for this subscription.

### 1.6.2

int **EventKey**

*The event sequence number.*

The event sequence number.

### 1.6.3 IXML_Document* **ChangedVariables**

*The DOM tree representing the changes generating the event.*

The DOM tree representing the changes generating the event.

### 1.7 struct **Upnp_Discovery**

*Returned in a* **UPNP_DISCOVERY_RESULT** *callback.*

**Members**

| | | | | |
|---|---|---|---|---|
| 1.7.1 | int | **ErrCode** | *The result code of the* **UpnpSearchAsync** *call.* | 12 |
| 1.7.2 | int | **Expires** | *The expiration time of the advertisement.* | 12 |
| 1.7.3 | char | **DeviceId** [LINE_SIZE] | *The unique device identifier.* | 12 |
| 1.7.4 | char | **DeviceType** [LINE_SIZE] | *The device type.* | 12 |
| 1.7.5 | char | **ServiceType** [LINE_SIZE] | *The service type.* | 12 |
| 1.7.6 | char | **ServiceVer** [LINE_SIZE] | *The service version.* | 13 |
| 1.7.7 | char | **Location** [LINE_SIZE] | *The URL to the UPnP description document for the device.* | 13 |
| 1.7.8 | char | **Os** [LINE_SIZE] | *The operating system the device is running.* | 13 |
| 1.7.9 | char | **Date** [LINE_SIZE] | *Date when the response was generated.* | 13 |
| 1.7.10 | char | **Ext** [LINE_SIZE] | *Confirmation that the MAN header was understood by the device.* | 13 |
| 1.7.11 | struct sockaddr_storage | **DestAddr** | *The host address of the device responding to the search.* | 14 |

Returned in a **UPNP_DISCOVERY_RESULT** callback.

**1.7.1**

int **ErrCode**

*The result code of the* **UpnpSearchAsync** *call.*

The result code of the **UpnpSearchAsync** call.

**1.7.2**

int **Expires**

*The expiration time of the advertisement.*

The expiration time of the advertisement.

**1.7.3**

char **DeviceId** [LINE_SIZE]

*The unique device identifier.*

The unique device identifier.

**1.7.4**

char **DeviceType** [LINE_SIZE]

*The device type.*

The device type.

**1.7.5**

char **ServiceType** [LINE_SIZE]

*The service type.*

The service type.

**1.7.6**

char **ServiceVer** [LINE_SIZE]

*The service version.*

The service version.

**1.7.7**

char **Location** [LINE_SIZE]

*The URL to the UPnP description document for the device.*

The URL to the UPnP description document for the device.

**1.7.8**

char **Os** [LINE_SIZE]

*The operating system the device is running.*

The operating system the device is running.

**1.7.9**

char **Date** [LINE_SIZE]

*Date when the response was generated.*

Date when the response was generated.

**1.7.10**

char **Ext** [LINE_SIZE]

*Confirmation that the MAN header was understood by the device.*

Confirmation that the MAN header was understood by the device.

**1.7.11**

struct sockaddr_storage **DestAddr**

*The host address of the device responding to the search.*

The host address of the device responding to the search.

**1.8**

struct **Upnp_Event_Subscribe**

*Returned along with a* **UPNP_EVENT_SUBSCRIBE_COMPLETE** *or* **UPNP_EVENT_UNSUBSCRIBE_COMPLETE** *callback.*

**Members**



Returned along with a **UPNP_EVENT_SUBSCRIBE_COMPLETE** or **UPNP_EVENT_UNSUBSCRIBE_COMPLETE** callback.

**1.8.1**

Upnp_SID **Sid**

*The SID for this subscription.*

The SID for this subscription. For subscriptions, this only contains a valid SID if the **Upnp_EventSubscribe.result** field contains a `UPNP_E_SUCCESS` result code. For unsubscriptions, this contains the SID from which the subscription is being unsubscribed.

### 1.8.2

int **ErrCode**

*The result of the operation.*

The result of the operation.

### 1.8.3

char **PublisherUrl** [NAME_SIZE]

*The event URL being subscribed to or removed from.*

The event URL being subscribed to or removed from.

### 1.8.4

int **TimeOut**

*The actual subscription time (for subscriptions only).*

The actual subscription time (for subscriptions only).

## 1.9 struct Upnp_Subscription_Request

*Returned along with a* **UPNP_EVENT_SUBSCRIPTION_REQUEST** *callback.*

**Members**



Returned along with a **UPNP_EVENT_SUBSCRIPTION_REQUEST** callback.

**1.9.1**

char* **ServiceId**

*The identifier for the service being subscribed to.*

The identifier for the service being subscribed to.

**1.9.2**

char* **UDN**

*Universal device name.*

Universal device name.

**1.9.3**

Upnp_SID **Sid**

*The assigned subscription ID for this subscription.*

The assigned subscription ID for this subscription.

**2**

EXPORT_SPEC int **UpnpAddToPropertySet** ( IXML_Document** PropSet, const charArgName,, contt char* rgVal))