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<table>
<thead>
<tr>
<th>Authors</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulhas Warrier, Prakash Iyer</td>
<td>Intel Corporation</td>
</tr>
</tbody>
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1. Overview and Scope

This service definition is compliant with the UPnP Device Architecture version 1.0.

This service-type models physical and link layer properties specific to a Plain Old Telephone System (POTS) modem used for Internet access on an InternetGatewayDevice*. These properties are common across the different instances of WANPPPConnection on the same WANDevice.

The service is OPTIONAL (for gateways that support an integrated POTS modem) and is specified in urn:schemas-upnp-org:device:WANConnectionDevice one or more instances of which are specified under the device urn:schemas-upnp-org:device:WANDevice

An instance of WANDevice is specified under the root device urn:schemas-upnp-org:device:InternetGatewayDevice

The Service State Table (SST) of this service has dependencies on the WANPPPConnection service and must be used in the context of one or more WANPPPConnection instances.

NOTE: A WANDevice also provides a WANCommonInterfaceConfig service that encapsulates Internet access properties common across all WAN interfaces.

1.1. Change Log

Changes from WANPOTSInterfaceConfig:0.1
- Added ‘Get’ actions per Technical Committee recommendation to not use QueryStateVariable for reading state variables.

Changes from WANPOTSInterfaceConfig:0.2 as per WC meeting on 9/6/00
- Moved LinkStatus to WANCommonInterfaceConfig
- Define one ‘Get’ function for all SST variables

Changes from WANPOTSInterfaceConfig:0.3 as per WC meeting on 10/17/00
- Renames to WANPOTSLinkConfig
- Added ISPPhoneNumber, NumberOfRetries, DelayBetweenRetries

Changes from WANPOTSLinkConfig:0.4 as per WC meeting on 10/31/00
- Made SetISPInfo optional (because of security concerns)
- Split GetCallSetupInfo action into GetISPInfo(optional) and GetCallRetryInfo (required)

Changes from WANPOTSLinkConfig:0.5
- Made GetCallRetryInfo Optional.

Changes from WANPOTSLinkConfig:0.51
- Changed Boolean values to 1 and 0.
- Removed white spaces from XML section.
- Changed default value for empty strings to tags with no element values

Changes from WANPOTSLinkConfig:0.52
- Modified names of formal parameters of actions to be different from ‘Related State Variable’.
- Added state variable LinkType to accommodate non-PPP POTS connections
- Removed ‘retval’ and empty defaultvalue tags from the XML specification.

Changes from WANPOTSLinkConfig:0.53
- Updated to service template v1.01
- Verified against TDC checklist v1.01

* Refer to companion documents defined by the UPnP Internet Gateway working committee for more details on specific devices and services referenced in this document.
- Removed AOL_Dialup from allowed value list for LinkType.
- Fixed Fclass typo in XML section.
- Removed ‘Other’ as an allowedValue
- Split GetPOTSInterfaceProperties into 5 actions for supporting optional variables.
- Made GET actions of configuration variables required, but set remains optional (due to security constraints)
- Made service optional for vendors who do not want to expose configuration variables

Changes from WANPOTSLinkConfig:0.8
- Removed Default values and updated XML section accordingly
- Made Required versus Optional changes to allowedValueList tables
- Changed text description for ISPPhoneNumber
- Deleted Vendor Defined rows in allowedValueList tables

Changes from WANPOTSLinkConfig:0.81
- Added XML comment tags to comments text in XML template

Changes from WANPOTSLinkConfig:0.82
- Updated tests section
- Deleted allowedvalue range for NumberOfRetries, DelayBetweenRetries and PlusVTRCommandSupported
- Fixed typo with GetDataModulationSupported

Changes from WANPOTSLinkConfig:0.9
- Version changes for 1.0
- Changed all occurrences of FClass to Fclass

Changes from WANPOTSLinkConfig:0.99
- Version updated to reflect 45-day review completion. No other changes to this draft.

Changes from WANPOTSLinkConfig:0.991
- Copyright messages and document status updated.

2. Service Modeling Definitions

2.1. ServiceType

The following service type identifies a service that is compliant with this template:


2.2. State Variables

Table 1: State Variables

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Req. or Opt. 1</th>
<th>Data Type</th>
<th>Allowed Value 2</th>
<th>Default Value 2</th>
<th>Eng. Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISPPhoneNumber</td>
<td>R</td>
<td>string</td>
<td>N/A</td>
<td>Empty string</td>
<td>N/A</td>
</tr>
<tr>
<td>ISPInfo</td>
<td>R</td>
<td>string</td>
<td>N/A</td>
<td>Empty string</td>
<td>N/A</td>
</tr>
<tr>
<td>LinkType</td>
<td>R</td>
<td>string</td>
<td>See table 1.1</td>
<td>PPP_Dialup</td>
<td>N/A</td>
</tr>
<tr>
<td>NumberOfRetries</td>
<td>R</td>
<td>ul4</td>
<td>&gt;= 0</td>
<td>Not specified</td>
<td>N/A</td>
</tr>
<tr>
<td>Variable Name</td>
<td>Req. or Opt.</td>
<td>Data Type</td>
<td>Allowed Value</td>
<td>Default Value</td>
<td>Eng. Units</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------</td>
<td>-----------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>------------</td>
</tr>
<tr>
<td>DelayBetweenRetries</td>
<td>R</td>
<td>u4</td>
<td>&gt;= 0</td>
<td>Not specified</td>
<td>seconds</td>
</tr>
<tr>
<td>Fclass</td>
<td>O</td>
<td>string</td>
<td>Comma separated sub-strings indicating numbers 0, 1, 2, 2.0, 8, 80</td>
<td>Empty string</td>
<td>N/A</td>
</tr>
<tr>
<td>DataModulationSupported</td>
<td>O</td>
<td>string</td>
<td>See table 1.2</td>
<td>Empty string</td>
<td>N/A</td>
</tr>
<tr>
<td>DataProtocol</td>
<td>O</td>
<td>string</td>
<td>See table 1.3</td>
<td>Depends on specific modem</td>
<td>N/A</td>
</tr>
<tr>
<td>DataCompression</td>
<td>O</td>
<td>string</td>
<td>See table 1.4</td>
<td>Depends on specific modem</td>
<td>N/A</td>
</tr>
<tr>
<td>PlusVTRCommandSupported</td>
<td>O</td>
<td>boolean</td>
<td>1, 0</td>
<td>Not specified</td>
<td>N/A</td>
</tr>
<tr>
<td>Non-standard state variables implemented by an UPnP vendor go here.</td>
<td>X</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

1 R = Required, O = Optional, X = Non-standard.

2 Values listed in this column are required. To specify standard optional values or to delegate assignment of values to the vendor, you must reference a specific instance of an appropriate table below.

NOTE: Most default values are not specified in the DCP. A vendor may however choose to provide default values for SST variables where appropriate.

Table 1.1: allowedValueList for LinkType

<table>
<thead>
<tr>
<th>Value</th>
<th>Req. or Opt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPP_Dialup</td>
<td>R</td>
</tr>
</tbody>
</table>

Table 1.2: allowedValueList for DataModulationSupported

<table>
<thead>
<tr>
<th>Value</th>
<th>Req. or Opt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V92</td>
<td>O</td>
</tr>
<tr>
<td>V90</td>
<td>O</td>
</tr>
<tr>
<td>V34</td>
<td>O</td>
</tr>
<tr>
<td>V32bis</td>
<td>O</td>
</tr>
</tbody>
</table>
Table 1.3: allowedValueList for DataProtocol

<table>
<thead>
<tr>
<th>Value</th>
<th>Req. or Opt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V42_LAPM</td>
<td>O</td>
</tr>
<tr>
<td>V42_MNP4</td>
<td>O</td>
</tr>
<tr>
<td>V14</td>
<td>O</td>
</tr>
<tr>
<td>V80</td>
<td>O</td>
</tr>
</tbody>
</table>

Table 1.4: allowedValueList for DataCompression

<table>
<thead>
<tr>
<th>Value</th>
<th>Req. or Opt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V42bis</td>
<td>O</td>
</tr>
<tr>
<td>MNP5</td>
<td>O</td>
</tr>
</tbody>
</table>

2.2.1. ISPPhoneNumber

This variable specifies a list of strings separated by semicolon (;), each string representing a phone number to connect to a particular ISP. The digits of the phone number follow the semantics of the ITU E.164 specification. Delimiters such as brackets or hyphens between the digits of a phone number are to be ignored by the gateway. When the gateway receives an action request to initiate a connection, it will try each of these numbers sequentially starting from the first one to the last until a successful connection is made, or all the numbers are exhausted. For each phone number, upon a failed connection attempt the gateway will retry to connect as specified by the state variables NumberOfRetries and DelayBetweenRetries. This sequence will be interrupted if a connection termination action is received by the gateway (such as ForceTermination or RequestTermination). In this case the gateway will set the LastConnectionError state variable to ERROR_COMMAND_ABORTED and return ConnectionSetupFailed (704). If not interrupted, the gateway will return this error only if all the connection attempts fail. In this case the LastConnectionError state variable will be set to the appropriate RAS error received during the last failed connection attempt.
2.2.2. ISPInfo
This variable provides information identifying the Internet Service Provider. The format of the string is vendor specific.

2.2.3. LinkType
This variable indicates the type of POTS link used for the dialup connection.

2.2.4. NumberOfRetries
This variable specifies the number of times the gateway should attempt an Internet connection setup before returning error.

2.2.5. DelayBetweenRetries
This variable specifies the number of seconds the gateway should wait between attempts to setup an Internet connection.

2.2.6. Fclass
This variable specifies capabilities of the POTS modem – i.e., if it handles data (0), fax (1,2,2.0), voice (8), DSVD (80).

2.2.7. DataModulationSupported
This variable exposes the modulation standard used for data.

2.2.8. DataProtocol
This variable exposes the protocol standard for data transfers.

2.2.9. DataCompression
This variable exposes the compression technology implemented on the modem.

2.2.10. PlusVTRCommandSupported
This variable is used for full duplex operation with data and voice.

2.2.11. Relationships Between State Variables
The variables in the SST have no dependencies or relationship other than what is mandated by relevant POTS modem standards and protocols.

2.3. Eventing and Moderation

Table 2: Event Moderation
### Variable Name

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Evented</th>
<th>Moderated Event</th>
<th>Max Event Rate&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Logical Combination</th>
<th>Min Delta per Event&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISPPhoneNumber</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ISPInfo</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>LinkType</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NumberOfRetries</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DelayBetweenRetries</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Fclass</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DataModulationSupported</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DataProtocol</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DataCompression</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PlusVTRCommandSupported</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Non-standard state variables implemented by an UPnP vendor go here.</strong></td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

<sup>1</sup> Determined by N, where Rate = (Event)/(N secs).

<sup>2</sup> (N) * (allowedValueRange Step).

### 2.3.1. Event Model

None of the variables are evented.

### 2.4. Actions

Immediately following this table is detailed information about these actions, including short descriptions of the actions, the effects of the actions on state variables, and error codes defined by the actions.

#### Table 3: Actions

<table>
<thead>
<tr>
<th>Name</th>
<th>Req. or Opt. &lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetISPInfo</td>
<td>O</td>
</tr>
<tr>
<td>SetCallRetryInfo</td>
<td>O</td>
</tr>
<tr>
<td>GetISPInfo</td>
<td>R</td>
</tr>
<tr>
<td>GetCallRetryInfo</td>
<td>R</td>
</tr>
<tr>
<td>GetFclass</td>
<td>O</td>
</tr>
</tbody>
</table>
2.4.1. SetISPInfo
This action changes the value of variables used to dial up the ISP.

2.4.1.1. Arguments

Table 4: Arguments for SetISPInfo

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewISPPhoneNumber</td>
<td>IN</td>
<td>ISPPhoneNumber</td>
</tr>
<tr>
<td>NewISPInfo</td>
<td>IN</td>
<td>ISPInfo</td>
</tr>
<tr>
<td>NewLinkType</td>
<td>IN</td>
<td>LinkType</td>
</tr>
</tbody>
</table>

2.4.1.2. Dependency on State (if any)

2.4.1.3. Effect on State (if any)
This action modifies variable values, which may be used in subsequent connection setups.

2.4.1.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
<tr>
<td>501</td>
<td>Action Failed</td>
<td>May be returned in current state if service prevents invoking of that action.</td>
</tr>
</tbody>
</table>

2.4.2. SetCallRetryInfo
This action changes the number of retry attempts if connection setup failures are encountered.

2.4.2.1. Arguments

Table 5: Arguments for SetCallRetryInfo
### 2.4.2.2. Dependency on State (if any)

### 2.4.2.3. Effect on State
None.

### 2.4.2.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
<tr>
<td>501</td>
<td>Action Failed</td>
<td>May be returned in current state if service prevents invoking of that action.</td>
</tr>
</tbody>
</table>

### 2.4.3. GetISPInfo

This action retrieves values of state variables related to ISP configuration for activation of a connection.

#### 2.4.3.1. Arguments

**Table 6: Arguments for GetISPInfo**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewISPPhoneNumber</td>
<td>OUT</td>
<td>ISPPhoneNumber</td>
</tr>
<tr>
<td>NewISPInfo</td>
<td>OUT</td>
<td>ISPIInfo</td>
</tr>
<tr>
<td>NewLinkType</td>
<td>OUT</td>
<td>LinkType</td>
</tr>
</tbody>
</table>

#### 2.4.3.2. Dependency on State (if any)

#### 2.4.3.3. Effect on State
None.
2.4.3.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.4. GetCallRetryInfo

This action retrieves values of state variables concerned with the activation of a connection.

2.4.4.1. Arguments

Table 7: Arguments for GetCallRetryInfo

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewNumberOfRetries</td>
<td>OUT</td>
<td>NumberOfOfRetries</td>
</tr>
<tr>
<td>NewDelayBetweenRetries</td>
<td>OUT</td>
<td>DelayBetweenRetries</td>
</tr>
</tbody>
</table>

2.4.4.2. Dependency on State (if any)

2.4.4.3. Effect on State
None.

2.4.4.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.5. GetFclass

This action queries modem capabilities.

2.4.5.1. Arguments

Table 8: Arguments for GetFclass

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewFclass</td>
<td>OUT</td>
<td>Fclass</td>
</tr>
</tbody>
</table>
2.4.5.2. Dependency on State (if any)

2.4.5.3. Effect on State
None.

2.4.5.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.6. GetDataModulationSupported
This action queries the modulation standard used for data.

2.4.6.1. Arguments

Table 9: Arguments for GetDataModulationSupported

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewDataModulationSupported</td>
<td>OUT</td>
<td>DataModulationSupported</td>
</tr>
</tbody>
</table>

2.4.6.2. Dependency on State (if any)

2.4.6.3. Effect on State
None.

2.4.6.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.7. GetDataProtocol
This action queries protocol standard used for data transfers.

2.4.7.1. Arguments

Table 10: Arguments for GetDataProtocol

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewDataProtocol</td>
<td>OUT</td>
<td>DataProtocol</td>
</tr>
</tbody>
</table>
2.4.7.2. Dependency on State (if any)

2.4.7.3. Effect on State
None.

2.4.7.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.8. GetDataCompression
This action queries the compression technology implemented on the modem.

2.4.8.1. Arguments

Table 11: Arguments for GetDataCompression

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewDataCompression</td>
<td>OUT</td>
<td>DataCompression</td>
</tr>
</tbody>
</table>

2.4.8.2. Dependency on State (if any)

2.4.8.3. Effect on State
None.

2.4.8.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.9. GetPlusVTRCommandSupported
This action queries capability for full duplex operation with data and voice.

2.4.9.1. Arguments

Table 12: Arguments for GetPlusVTRCommandSupported

<table>
<thead>
<tr>
<th>Argument</th>
<th>Direction</th>
<th>relatedStateVariable</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewPlusVTRCommandSupported</td>
<td>OUT</td>
<td>PlusVTRCommandSupported</td>
</tr>
</tbody>
</table>
2.4.9.2. Dependency on State (if any)

2.4.9.3. Effect on State
None.

2.4.9.4. Errors

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>One of following: not enough IN arguments, too many IN arguments, no IN argument by that name, one or more IN arguments are of the wrong data type. See also the UPnP Device Architecture.</td>
</tr>
</tbody>
</table>

2.4.10. Non-Standard Actions Implemented by a UPnP Vendor
To facilitate certification, non-standard actions implemented by UPnP vendors should be included in this service template. The UPnP Device Architecture lists naming requirements for non-standard actions (see the section on Description).

2.4.11. Relationships Between Actions
Other than the paring of Get and Set actions, these actions have no specific relationships between them.

2.4.12. Common Error Codes
The following table lists error codes common to actions for this service type. If an action results in multiple errors, the most specific error should be returned.

<table>
<thead>
<tr>
<th>errorCode</th>
<th>errorDescription</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>Invalid Action</td>
<td>See UPnP Device Architecture section on Control.</td>
</tr>
<tr>
<td>402</td>
<td>Invalid Args</td>
<td>See UPnP Device Architecture section on Control.</td>
</tr>
<tr>
<td>404</td>
<td>Invalid Var</td>
<td>See UPnP Device Architecture section on Control.</td>
</tr>
<tr>
<td>501</td>
<td>Action Failed</td>
<td>See UPnP Device Architecture section on Control.</td>
</tr>
<tr>
<td>701-799</td>
<td>TBD</td>
<td>Common action errors defined by the UPnP Forum working committees.</td>
</tr>
<tr>
<td>800-899</td>
<td>TBD</td>
<td>(Specified by UPnP vendor.)</td>
</tr>
</tbody>
</table>

2.5. Theory of Operation

A **WANConnectionDevice** that has a POTS modem interface MAY implement the **WANPOTSLinkConfig** service. The SST variables in this service give information on specific properties of a POTS modem used for WAN Internet access.
3. XML Service Description

```xml
<?xml version="1.0"?>
<scpd xmlns="urn:schemas-upnp-org:service-1-0">
  <specVersion>
    <major>1</major>
    <minor>0</minor>
  </specVersion>
  <actionList>
    <action>
      <name>SetISPInfo</name>
      <argumentList>
        <argument>
          <name>NewISPPhoneNumber</name>
          <direction>in</direction>
          <relatedStateVariable>ISPPhoneNumber</relatedStateVariable>
        </argument>
        <argument>
          <name>NewISPInfo</name>
          <direction>in</direction>
          <relatedStateVariable>ISPInfo</relatedStateVariable>
        </argument>
        <argument>
          <name>NewLinkType</name>
          <direction>in</direction>
          <relatedStateVariable>LinkType</relatedStateVariable>
        </argument>
      </argumentList>
    </action>
    <action>
      <name>SetCallRetryInfo</name>
      <argumentList>
        <argument>
          <name>NewNumberOfRetries</name>
          <direction>in</direction>
          <relatedStateVariable>NumberOfRetries</relatedStateVariable>
        </argument>
        <argument>
          <name>NewDelayBetweenRetries</name>
          <direction>in</direction>
          <relatedStateVariable>DelayBetweenRetries</relatedStateVariable>
        </argument>
      </argumentList>
    </action>
    <action>
      <name>GetISPInfo</name>
      <argumentList>
        <argument>
          <name>NewISPPhoneNumber</name>
          <direction>out</direction>
          <relatedStateVariable>ISPPhoneNumber</relatedStateVariable>
        </argument>
        <argument>
          <name>NewISPInfo</name>
          <direction>out</direction>
        </argument>
      </argumentList>
    </action>
  </actionList>
</scpd>
```

<relatedStateVariable>ISPInfo</relatedStateVariable>
</argument>

<argument>
  <name>NewLinkType</name>
  <direction>out</direction>
  <relatedStateVariable>LinkType</relatedStateVariable>
</argument>
</argumentList>
</action>

<action>
  <name>GetCallRetryInfo</name>
  <argumentList>
    <argument>
      <name>NewNumberOfRetries</name>
      <direction>out</direction>
      <relatedStateVariable>NumberOfRetries</relatedStateVariable>
    </argument>
    <argument>
      <name>NewDelayBetweenRetries</name>
      <direction>out</direction>
      <relatedStateVariable>DelayBetweenRetries</relatedStateVariable>
    </argument>
  </argumentList>
</action>

<action>
  <name>GetFclass</name>
  <argumentList>
    <argument>
      <name>NewFclass</name>
      <direction>out</direction>
      <relatedStateVariable>Fclass</relatedStateVariable>
    </argument>
  </argumentList>
</action>

<action>
  <name>GetDataModulationSupported</name>
  <argumentList>
    <argument>
      <name>NewDataModulationSupported</name>
      <direction>out</direction>
      <relatedStateVariable>DataModulationSupported</relatedStateVariable>
    </argument>
  </argumentList>
</action>

<action>
  <name>GetDataProtocol</name>
  <argumentList>
    <argument>
      <name>NewDataProtocol</name>
      <direction>out</direction>
      <relatedStateVariable>DataProtocol</relatedStateVariable>
    </argument>
  </argumentList>
</action>

<action>
  <name>GetDataCompression</name>
  <argumentList>
    <argument>
      <name>NewDataCompression</name>
      <direction>out</direction>
      <relatedStateVariable>DataCompression</relatedStateVariable>
    </argument>
  </argumentList>
</action>
<argumentList>
  <argument>
    <name>NewDataCompression</name>
    <direction>out</direction>
    <relatedStateVariable>DataCompression</relatedStateVariable>
  </argument>
</argumentList>

<action>
  <name>GetPlusVTRCommandSupported</name>
  <argumentList>
    <argument>
      <name>NewPlusVTRCommandSupported</name>
      <direction>out</direction>
      <relatedStateVariable>PlusVTRCommandSupported</relatedStateVariable>
    </argument>
  </argumentList>
</action>

<!-- Declarations for other actions added by UPnP vendor (if any) go here -->

<serviceStateTable>
  <stateVariable sendEvents="no">
    <name>ISPPhoneNumber</name>
    <dataType>string</dataType>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>ISPInfo</name>
    <dataType>string</dataType>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>LinkType</name>
    <dataType>string</dataType>
    <allowedValueList>
      <allowedValue>PPP_Dialup</allowedValue>
    </allowedValueList>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>NumberOfRetries</name>
    <dataType>ui4</dataType>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>DelayBetweenRetries</name>
    <dataType>ui4</dataType>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>Fclass</name>
    <dataType>string</dataType>
  </stateVariable>
  <stateVariable sendEvents="no">
    <name>DataModulationSupported</name>
    <dataType>string</dataType>
    <allowedValueList>
      <allowedValue>V92</allowedValue>
      <allowedValue>V90</allowedValue>
      <allowedValue>V34</allowedValue>
    </allowedValueList>
  </stateVariable>
</serviceStateTable>
<allowedValue>V32bis</allowedValue>
<allowedValue>V32</allowedValue>
</allowedValueList>
</stateVariable>
<stateVariable sendEvents="no">
  <name>DataProtocol</name>
  <dataType>string</dataType>
  <allowedValueList>
    <allowedValue>V42_LAPM</allowedValue>
    <allowedValue>V42_MNP4</allowedValue>
    <allowedValue>V14</allowedValue>
    <allowedValue>V80</allowedValue>
  </allowedValueList>
</stateVariable>
<stateVariable sendEvents="no">
  <name>DataCompression</name>
  <dataType>string</dataType>
  <allowedValueList>
    <allowedValue>V42bis</allowedValue>
    <allowedValue>MNP5</allowedValue>
  </allowedValueList>
</stateVariable>
<stateVariable sendEvents="no">
  <name>PlusVTRCommandSupported</name>
  <dataType>boolean</dataType>
</stateVariable>
!--- Declarations for other state variables added by UPnP vendor (if any) go here -->
</serviceStateTable>
</scpd>
4. Test

No semantic tests have been defined for this service.
Change History

Change Log for Version 1.0 (10-4-00)

- Revised the Title Page to call out V1.0 of the Service Template
- Changed to be consistent with Sample Designs released to the Technical Committee
- Service State Table: Variable Descriptions removed from the table and are listed in specific sections following the table.
- Actions: Reformatted the information contained in the Action Table:
  - Added overview entry point.
  - Added an Action Summary Table to specify Required or Optional
  - Added enumerated sections to specify each actions: Arguments, Effect on State, and Errors.