



## Xlink Release Notes

VOA Release – version 1

### VOA Release (April 16, 2005)

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## 1 General Guidelines

While we are currently planning to implement all new features, changes and enhancements listed in the release notes, it is important to note that minor changes to the DTDs could occur between now and the release date. We will send updates if that should occur. We are giving you the release notes and the DTD in advance of the release so you have time to review the content with your teams and let us know if you have any questions and/or concerns. We generally update XAPI-TEST two weeks in advance of the release date. We strongly encourage you to test and let us know if you encounter any issues prior to our release date.

A notification will be sent out to xlink-changes distribution list as soon as XAPI-TEST is updated. One week prior to the release date an outage notification will go out to xlink-outage distribution list with a reminder a day prior to the release. After the release is completed, a final notification will go out to xlink-outage informing you of the completion of the release and the exact start and end time of the outage.

Also, please note that the latest DTD's will not be in the xLink production system until the evening of the release date. Please update your production system with this latest set at that time. Having out of date DTDs could cause system issues on your side. We strongly encourage you to install the latest set once we deploy it to production.

## 2 New Features/Products

### 2.1 VOA

This xLink feature will enable COVAD's xLink partners to submit Voice Optimized Access (VOA) orders – broadband services that offer 2 PVC's, one which is a standard data PVC, and one which will be prioritized to carry VoIP.

#### 2.1.1 DTD Changes

##### 2.1.1.1 serviceavailabilityrequest.mod

Introduced a new element *codec* in *serviceavailabilityrequest*. This is applicable only for VOA services. Following are the possible values

Codec Type	Value to be passed
G.711	1
G.729	2

When no value is passed, G.711 codec type will be assumed based on which list of qualified VOA services will be returned.

```
<!ELEMENT serviceavailabilityrequest
  ((bynumber|covadcircuitnumber|address), vendorpreference?)>
<!ATTLIST serviceavailabilityrequest
  cpeid (%cpemodelid-enum;) #IMPLIED
  type ( orderable | verbose | %servicefamily-enum; ) #IMPLIED
  linesplitoverride (true|false) #IMPLIED
  codec (%codec-enum;) "1">
```

##### 2.1.1.2 codec-enum.pen

Introduced a new DTD for codec definition

```
<!ENTITY % codec-enum "1|2">

<!-- CODEC DEFINITION TABLE -->
<!-- 1: G.711 -->
<!-- 2: G.729 -->
```

##### 2.1.1.3 dsIService.mod

Included an optional element *numvoiceandfaxlines* to display the information about the number of voice and fax lines supported for VOA Services.

```
<!ELEMENT dsIService (servicebrandname, numvoiceandfaxlines?, downstreamlimit,
  upstreamlimit, monthlycost, serviceavailabilitydetails, cpe*)>
<!ATTLIST dsIService
  id (%dsIServiceid-enum;) #REQUIRED>
<!ELEMENT servicebrandname (#PCDATA)>
<!ELEMENT numvoiceandfaxlines (#PCDATA)>
```

```
<!ELEMENT downstreamlimit (#PCDATA)>
<!ELEMENT upstreamlimit (#PCDATA)>
<!ELEMENT monthlycost (#PCDATA)>
<!ELEMENT serviceavailabilitydetails (acceptordersdate, installordersdate, suspensiondate?)>
<!ELEMENT acceptordersdate (datetime)>
<!ELEMENT installordersdate (datetime?)>
<!ELEMENT suspensiondate (datetime)>
```

#### 2.1.1.4 voiceaccessinfo.mod

Introduced a new DTD *voiceaccessinfo*, for capturing VOA service parameters.

```
<!ELEMENT voiceaccessinfo (
  voavoicecircuitid,
  voicepvc?,
  numcomputerstowire?,
  numphonestowire?,
  avgdistancetostation?,
  numfloorsinbuilding?,
  floorstobewired?,
  otherwiringinformation?,
  pbxksuamake?,
  pbxksuamodel?,
  pbxksusupportvndor?,
  closetlocation?,
  numphonelines?,
  numfaxlines?,
  numdatalines?,
  maxphonecalls?,
  maxfaxcalls?,
  requestedvcb?,
  numdataipaddresses?,
  numvoiceipaddresses?,
  networkconfiguration?,
  natextensioninformation?,
  preferredinterruptiontime?,
  preferredredate?
)>
<!ATTLIST voiceaccessinfo
  isstationwiringrequired (true|false) 'false'
  crossconnecttype (%crossconnecttype-enum;) "1"
  israckspaceavailable (true|false) 'true'
  ispbxksuphonecloset (true|false) 'false'
  isclosetsamebuilding (true|false) 'true'
  ispbxksusamelocation (true|false) 'true'
  codec (%codec-enum;) "1"
  istruckrollneeded (true|false) 'true'
  saturdayinstallok (yes|no) #IMPLIED
  preferredinstalltime (am|pm|either|any) #IMPLIED
>
<!ELEMENT voavoicecircuitid (#PCDATA)>
<!ELEMENT voicepvc (#PCDATA)>
<!ELEMENT numcomputerstowire (#PCDATA)>
<!ELEMENT numphonestowire (#PCDATA)>
<!ELEMENT avgdistancetostation (#PCDATA)>
```

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```

<!ELEMENT numfloorsinbuilding (#PCDATA)>
<!ELEMENT floorstobewired (#PCDATA)>
<!ELEMENT otherwiringinformation (#PCDATA)>
<!ELEMENT pbxksu (#PCDATA)>
<!ELEMENT pbxksu (#PCDATA)>
<!ELEMENT pbxksusupportvendor (#PCDATA)>
<!ELEMENT closetlocation (#PCDATA)>
<!ELEMENT numphonelines (#PCDATA)>
<!ELEMENT numfaxlines (#PCDATA)>
<!ELEMENT numdatalines (#PCDATA)>
<!ELEMENT maxphonecalls (#PCDATA)>
<!ELEMENT maxfaxcalls (#PCDATA)>
<!ELEMENT requestedvc (#PCDATA)>
<!ELEMENT preferreddate (#PCDATA)>
<!ELEMENT preferredinterruptiontime EMPTY>
<!-- preferredinterruptiontime
    start_time    CDATA #REQUIRED
    end_time      CDATA #REQUIRED
-->

```

Details regarding the above parameters is explained in the table below:

Element/Attribute Name	Default	Comment	Notes / Constraints
vovoicecircuitid		Backhaul circuit for voice	Reference to a circuit
voicepvc		PVC for voice	Optional.
isstationwiringrequired	'false'	Is Station Wiring required	
numcomputerstowire	0	No. of computers to wire	Required if isStationWiringRequired==true. 0 or more.
numphonestowire	0	No. of Phones to wire	Required if isStationWiringRequired==true. 0 or more.
avgdistancetostation	50	Average distance from the phone closet to a station	Required if isStationWiringRequired==true. Greater than 0.
crossconnecttype	1	Do you use Patch panel or cross connect block	Required if isStationWiringRequired==true. Possible values are "1" for CROSS CONNECT TYPE or "2" for PATCH_PANEL
israckspaceavailable	true	If patch Panel is there current rack space available	Required if crossConnectType =='PATCH_PANEL'.
ispbxksuphonecloset	false	Is KSU/PBX located in the Phone Closet?	Required if isStationWiringRequired==true.
numfloorsinbuilding	1	How many total floors does the building have, including the basement?	Required if isStationWiringRequired==true. Must be greater than and less than 150.

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Element/Attribute Name	Default	Comment	Notes / Constraints
floorstobewired	1	What floors need to be wired?	Required if isStationWiringRequired==true. Format should be comma separated floor numbers or ranges with '-' between them. Floor numbers should be 0-150, 0 used for basement. Example values: "1" or "2, 4-6" or "0,3,4,5".
isclosetsamebuilding	true	Is the Phone closet in the same building as your office	Required if isStationWiringRequired==true.
otherwiringinformation		Any other information	Optional and meaningful only if isStationWiringRequired==true. Should allow for at least 2000 chars.
pbxksu makeandmodel		Make and model of PBX/KSU	Optional and meaningful only if isStationWiringRequired==true.
pbxksu supportvendor		Vendor name for support of PBX/KSU	Optional and meaningful only if isStationWiringRequired==true.
ispbxksu same location	true	Is the PBX/KSU in the same location as data CPE	Optional and meaningful only if isStationWiringRequired==true. Default to 'true'.
closetlocation	1	Which floor is the Phone Closet Locate?	Optional and meaningful only if isStationWiringRequired==true.
		For Layer 2 services the LAN/WAN information needs to be captured for voice PVC	
numphonelines		No. of Phone lines	Non-negative
numfaxlines		No. of Fax lines	Non-negative
numdatalines		No. of Computers/data lines	Non-negative
maxphonecalls		No. of simultaneous Phone calls	Non-negative
maxfaxcalls		No. of simultaneous fax calls	Non-negative
codec	G.711	Codec	
requestedvcb	Maximum VCB		Must be multiples of 200 starting with 100 but never greater than the max download speed.

**2.1.1.5 crossconnecttype-enum.pen**

Introduced a new DTD for *crossconnecttype* defined in *voiceaccessinfo* element. Possible values are:

Cross Connect Type	Value to be passed
CROSS CONNECT	1
PATCH PANEL	2

<!ENTITY % crossconnecttype-enum "1|2">

<!-- crossconnecttype DEFINITION TABLE -->

<!-- 1: CROSS CONNECT -->

<!-- 2: PATCH PANEL -->

**2.1.1.6 services.txt**

Included all VOA service brands.

Code	Service Brand
474	SOHO 1.5/384 VOA2 Dedicated loop
475	SOHO 1.5/768 VOA2 Dedicated loop
476	SOHO 3.0/384 VOA2 Dedicated loop
477	SOHO 3.0/768 VOA2 Dedicated loop
478	SOHO 6.0/768 VOA2 Dedicated loop
479	SOHO 1.5/384 VOA2 BIA Dedicated loop
480	SOHO 1.5/768 VOA2 BIA Dedicated loop
481	SOHO 3.0/384 VOA2 BIA Dedicated loop
482	SOHO 3.0/768 VOA2 BIA Dedicated loop
483	SOHO 6.0/768 VOA2 BIA Dedicated loop
484	SOHO 1.5/384 VOA2 Fixed Dedicated loop
485	SOHO 1.5/768 VOA2 Fixed Dedicated loop
486	SOHO 3.0/384 VOA2 Fixed Dedicated loop
487	SOHO 3.0/768 VOA2 Fixed Dedicated loop
488	SOHO 6.0/768 VOA2 Fixed Dedicated loop
489	SOHO 1.5/384 VOA2 BIA Fixed Dedicated loop
490	SOHO 1.5/768 VOA2 BIA Fixed Dedicated loop
491	SOHO 3.0/384 VOA2 BIA Fixed Dedicated loop
492	SOHO 3.0/768 VOA2 BIA Fixed Dedicated loop
493	SOHO 6.0/768 VOA2 BIA Fixed Dedicated loop
494	TeleSpeed 384 VOA2
495	TeleSpeed 768 VOA2
496	TeleSpeed 1.1 VOA2
497	TeleSpeed 1.5 VOA2
498	TeleXtend ATM 384 VOA2
499	TeleXtend ATM 768 VOA2
500	TeleXtend ATM 1.5 VOA2

501 TeleXtend Frame 1.5 VOA2

**2.1.1.7 vbrcalculationrequest.mod**

Included a request for getting VBR Value for a given number of phone lines, fax lines, codec and service brand ID. This will return a *vbrcalculationresponse*.

```
<!ELEMENT vbrcalculationrequest>

<!ATTLIST vbrcalculationrequest
  numphonelines CDATA #REQUIRED
  numfaxlines   CDATA #REQUIRED
  codec         (%codec-enum;) '1'
  servicebrandid (%dslserviceid-enum;) #REQUIRED
>
```

**2.1.1.8 vbrcalculationresponse.mod**

Response returned for a given *vbrcalculationrequest*.

```
<!ELEMENT vbrcalculationresponse EMPTY>
<!ATTLIST vbrcalculationresponse
  vbr CDATA #REQUIRED
>
```

**2.1.1.9 transactioncode.mod**

Added 4 new transaction code type in *transactioncode.mod*. These will be returned for *vbrcalcrequest*

- 1402 Invalid Codec
- 1403 Invalid Number of Phone Lines
- 1404 Invalid Number of Fax Lines
- 1405 Invalid Transport Type

Apart from this following transaction code is also possible

1101 Missing information

This could be information related to any of the VOA parameters specified in *voiceaccessinformation*

**2.1.1.10 orderentryinformation.mod**

Added *voiceaccessinfo* element in *orderentryinformation.mod* to capture all the voice information during order entry.

```
<!ELEMENT orderentryinformation (affiliateid?, customercontactinformation?,
  serviceaddress?, clientbusinessname?, affiliatebillingcode?,
  billingcode?, clientcontactinformation?, nameonphonebill?,
  creditcardinformation?, (service|dslservice)?, customercircuit?,
  cpe?, clientsitedetails?, networkconfiguration?,voiceaccessinfo?,
  additionalnetworkingtype?, notes?,
```

```
projectcode?,modified?,shippinginformation?,reversedomainname?,selfinstallsku
?,acnocode?,moveinformation?,voicesserviceinformation?,cpemanagement?,ilecc
arriercircuitid?,linesplitoverridedata?,dispatchservicelist?>
```

```
<ENTITY % ref-voiceaccessinfo SYSTEM "voiceaccessinfo.mod">
%ref-voiceaccessinfo;
```

#### 2.1.1.11 orderentryrequest.mod

Added the element *voiceaccessinfo* in *orderentryrequest.mod* to capture all the voice information for service change order. The element *cpe* is applicable only for changes from non-voa to voa services and for voa to voa service change.

```
<ELEMENT servicechangeinformation (
(service?,customercircuit?,requestedpvc?,additionalerviceinfo?,managementconfiguration?,dlci?,
,numberofips?,dhcpinformation?,portforwardinginformation?,natextensioninformation?,notes?,(sel
finstallsku,shippinginformation?)?,voiceproviderchange?,email?,cpe?,voiceaccessinfo?)|cpema
nagement)>
```

#### 2.1.1.12 ordermodificationrequest.mod

Added element *voiceaccessinfo* in *ordermodificationrequest.mod* to capture VOA parameters for Order modification

```
<ELEMENT ordermodificationrequest
(service?,customercircuit?,cpe?,requestedpvc?,additionalerviceinfo?,dlci?,numberofips?,
voiceaccessinfo?)>
<!ATTLIST ordermodificationrequest
    orderid CDATA #REQUIRED>
```

#### 2.1.1.13 request.dtd

References to *crossconnecttype-enum.pen* and *codec-enum.pen* are added in *request.dtd*

```
<ENTITY % ref-crossconnecttype-enum SYSTEM "crossconnecttype-enum.pen">
%ref-crossconnecttype-enum;
<ENTITY % ref-codec-enum SYSTEM "codec-enum.pen">
%ref-codec-enum;
```

#### 2.1.1.14 response.dtd

References to *crossconnecttype-enum.pen* and *codec-enum.pen* are specified in *response.dtd*

```
<ENTITY % ref-crossconnecttype-enum SYSTEM "crossconnecttype-enum.pen">
%ref-crossconnecttype-enum;
<ENTITY % ref-codec-enum SYSTEM "codec-enum.pen">
%ref-codec-enum;
```

### 3 Enhancements

#### 3.1 Introduction of new CPE models.

Two new CPE models have been added:

- Siemens 5830 (CPE Model 71) Type: Router
- Broadxent 9140 (CPE Model 72) Type: IAD

##### 3.1.1 DTD changes

###### 3.1.1.1 cpemodelid-enum.pen

cpemodelid-enum list has been updated with two new cpe models 71 and 72.

<!ENTITY % cpemodelid-enum

1|2|3|4|5|6|7|8|9|10|13|14|15|16|17|18|19|20|21|22|23|24|25|26|27|28|29|30|31|32|33|34|35|36|37|38|39|40|41|42|43|44|45|46|47|50|51|53|54|55|56|58|59|68|71|72|99

#### 3.2 Introduction of new services.

##### 3.2.1 DTD changes

###### 3.2.1.1 dsIServiceid-enum.pen

Added new enums(all the VOA service brand id's)

474|475|476|477|478|479|480|481|482|483|484|485|486|487|488|489|490|491|492|493|494|495|496|497|498|499|500|501

ID's and service brands (As mentioned in Section 2.1.1.6)

| Code | Service Brand                          |
|------|--|
| 474  | SOHO 1.5/384 VOA2 Dedicated loop       |
| 475  | SOHO 1.5/768 VOA2 Dedicated loop       |
| 476  | SOHO 3.0/384 VOA2 Dedicated loop       |
| 477  | SOHO 3.0/768 VOA2 Dedicated loop       |
| 478  | SOHO 6.0/768 VOA2 Dedicated loop       |
| 479  | SOHO 1.5/384 VOA2 BIA Dedicated loop   |
| 480  | SOHO 1.5/768 VOA2 BIA Dedicated loop   |
| 481  | SOHO 3.0/384 VOA2 BIA Dedicated loop   |
| 482  | SOHO 3.0/768 VOA2 BIA Dedicated loop   |
| 483  | SOHO 6.0/768 VOA2 BIA Dedicated loop   |
| 484  | SOHO 1.5/384 VOA2 Fixed Dedicated loop |
| 485  | SOHO 1.5/768 VOA2 Fixed Dedicated loop |
| 486  | SOHO 3.0/384 VOA2 Fixed Dedicated loop |
| 487  | SOHO 3.0/768 VOA2 Fixed Dedicated loop |

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488 SOHO 6.0/768 VOA2 Fixed Dedicated loop  
489 SOHO 1.5/384 VOA2 BIA Fixed Dedicated loop  
490 SOHO 1.5/768 VOA2 BIA Fixed Dedicated loop  
491 SOHO 3.0/384 VOA2 BIA Fixed Dedicated loop  
492 SOHO 3.0/768 VOA2 BIA Fixed Dedicated loop  
493 SOHO 6.0/768 VOA2 BIA Fixed Dedicated loop  
494 TeleSpeed 384 VOA2  
495 TeleSpeed 768 VOA2  
496 TeleSpeed 1.1 VOA2  
497 TeleSpeed 1.5 VOA2  
498 TeleXtend ATM 384 VOA2  
499 TeleXtend ATM 768 VOA2  
500 TeleXtend ATM 1.5 VOA2  
501 TeleXtend Frame 1.5 VOA2