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Proposed Taxonomy and Profile Descriptions for  
Library and Documentation Applications

Library and Documentation Applications

PROFILE NAME	Identifier	Notes
Library and Documentation Applications	ALD	
Search and Retrieve (SR)	ALD1	
SR, connection-oriented	ALD11	
SR, Store-and-Forward (IPMS)	ALD12	1
SR, Store-and-Forward (Psr over P1)	ALD13	1
SR, Application Relay	ALD19	2
Interlibrary Loan (ILL)	ALD2	3
ILL, connection-oriented	ALD21	
ILL, Store-and-Forward (IPMS)	ALD22	
ILL, Store-and-Forward (Pill over P1)	ALD23	
ILL, PTAM	ALD24	
ILL, mixed mode	ALD25	3
ILL, connection-oriented and Store-and-Forward (IPMS)	ALD251	
ILL, connection-oriented and Store-and-Forward (Pill over P1)	ALD252	
ILL, Application Relay	ALD29	2
Combined SR and ILL	ALD3	3
Combined SR and ILL, connection-oriented	ALD31	
Combined SR and mixed mode ILL	ALD32	
SR, connection-oriented; and ILL, connection-oriented and Store-and-Forward (IPMS)	ALD321	
SR, connection-oriented; and ILL, connection-oriented and Store-and-Forward (Pill over P1)	ALD322	
Combine SR and ILL, Store-and-Forward	ALD33	
SR and ILL; Store-and-Forward (IPMS)	ALD331	
SR and ILL; Store-and-Forward (Psr and Pill over P1)	ALD332	
Combined SR and ILL, Application Relay	ALD39	2

Notes to Taxonomy table

- 1 No base standard (SR over IPMS or Psr)
- 2 Provisional and for further study
- 3 ILL Base Standard does not specify mapping to supporting services.



**ALD11**

**Search and Retrieve in connection-oriented environment.**

This International Standardised Profile is one of a class of Application Profiles covering Search and Retrieve (database searching and record retrieval) using the OSI connection-mode Transport Service.

This ISP covers Search and Retrieve between two end-systems using ACSE and Presentation Service, using Common Upper Layer Requirements as specified in pdISP11188-1.

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The Target system performs the search requested by the initiating system, builds a result set and transfers the requested records from its database to the Origin.

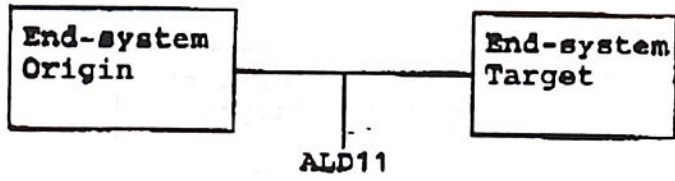


Fig. 1 Two end-systems, connection mode

This International Standardized Profile specifies how the OSI Session Layer, Presentation Layer and Application Layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10163 ISO 8650
Presentation Layer	ISO 8824, 8825 ISO 8823
Session Layer	ISO 8327

Table 1: Profile Protocol Stack

**ALD12**

**Search and Retrieve in a store-and-forward environment using MOTIS IPMS (P2)**

This International Standardized Profile is one of a class of Application Profiles covering Search and Retrieve (database searching and record retrieval), using the OSI connection-mode Transport Service.

This ISP covers Search and Retrieve between two end-systems using MOTIS IPMS (P2).

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The Target system performs the search requested by the initiating system, builds a result set and transfers the requested records from its database to the Origin.

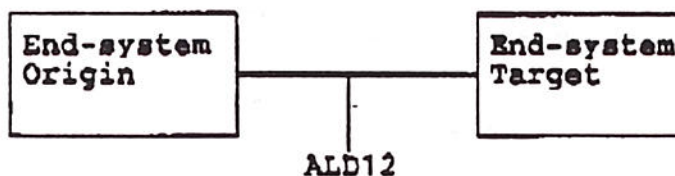


Fig. 1 Two end-systems, store-and-forward using MOTIS IPMS (P2)

This International Standardized Profile specifies how the OSI Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10163 Either AMH21 or AMH22 or AMH23 or AMH24
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Table 1: Profile Protocol Stack

**ALD13**  
**Search and Retrieve in a store-and-forward environment using**  
**MOTIS (Psr over P1).**

This International Standardized Profile is one of a class of Application Profiles covering Search and Retrieve (database searching and record retrieval), using the OSI connection-mode Transport service.

This ISP covers Search and Retrieve between two end-systems using MOTIS (Psr over P1) where Psr is a special MOTIS protocol.

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The Target system performs the search requested by the initiating system, builds a result set and transfers the requested records from its database to the Origin.

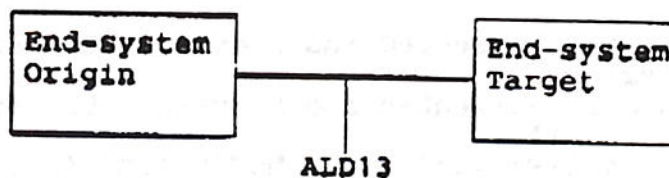


Fig. 1 Two end-systems, store-and-forward  
 using MOTIS (Psr over P1)

This International Standardized Profile specifies how the OSI Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10163 Psr AMH11
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Table 1: Profile Protocol Stack

Psr is yet to be developed as a New Work Item.



**ALD19**

**Search and Retrieve in Application Relay between end-systems in different environments.**

*This is a provisional text. The Application Relay is very complex and further study is needed.*

A group of profiles may be needed.

A Search and Retrieve end-system will run in one of the following three environments:

- connection-oriented
- Store-and-Forward using MOTIS IPMS (P2)
- Store-and-Forward using MOTIS (Psr over P1)

Connections between end-systems in different environments will be needed. These may be realized through relay functions.

At present the need for profiles covering the following type of relays has been identified:

- between connection-oriented and Store-and-Forward using MOTIS IPMS (P2)
- between connection-oriented and Store-and-Forward using MOTIS (Psr over P1)
- between Store-and-Forward using MOTIS IPMS (P2) and Store-and-Forward using MOTIS (Psr over P1)

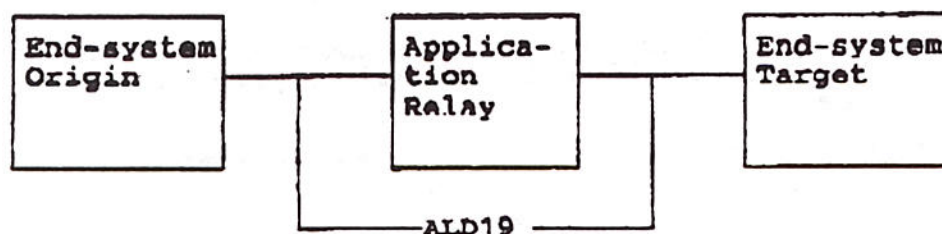


Fig. 1 Two end systems with Application Relay

The relay function is for the time being not well defined and further study is needed.

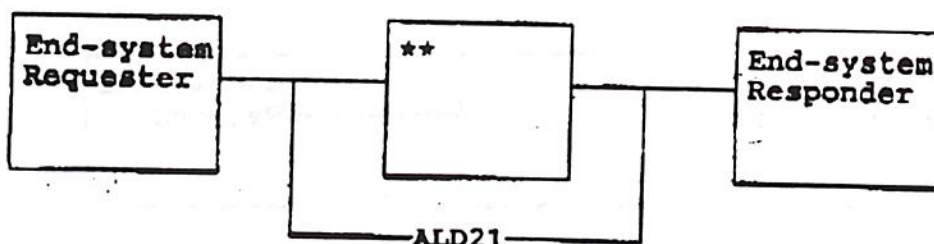


**ALD21**  
**Inter Library Loan in a connection-mode environment**

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (request handling and loan management), between two systems either of which might be an end-system or intermediary, using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan using ACSE and Presentation Service, using Common Upper Layer Requirements as specified in pdISP11188-1.

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more Intermediary systems each of which receives messages from either one of the end-systems or an Intermediary system and sends them either directly to the other end-system or via another Intermediary system.



**Fig.1** Two end-systems, connection mode  
**\*\*** Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10161 ISO 8650
Presentation Layer	ISO 8824, 8825 ISO 8823
Session Layer	ISO 8327

**Table 1: Profile Protocol Stack**

The situations where there are one or more Intermediary systems may imply that each Intermediary system must simultaneously keep two associations open for the same ILL transaction. The service description and protocol definition does not yet cover this model and thus these cases require

further study.

#### ALD22

**Inter Library Loan in a store-and-forward environment using MOTIS IPMS (P2)**

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (request handling and loan management), between two systems either of which might be an end-system or intermediary, using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan using MOTIS IPMS (P2).

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more Intermediary systems each of which receives messages from either one of the end-systems or an intermediary system and sends them either directly to the other end-system or via another Intermediary system.

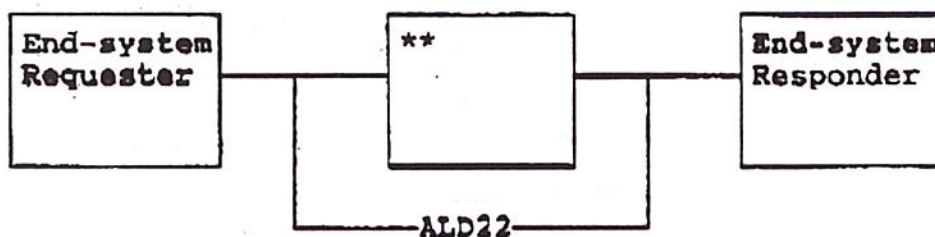


Fig.1 Two end-systems, MOTIS IPMS (P2)  
 \*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10161 Either AMH21 or AMH22 or AMH23 or AMH24
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Table 1: Profile Protocol Stack

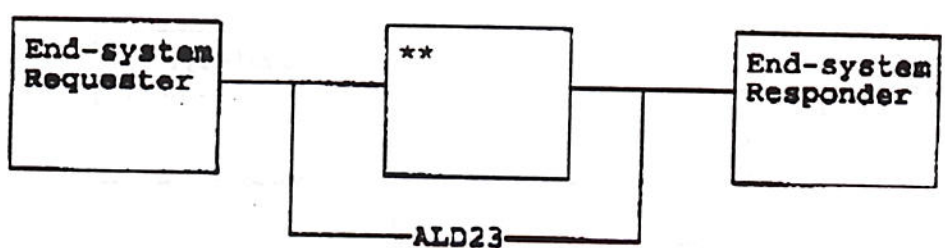
**ALD23**

**Inter Library Loan in a store-and-forward environment using MOTIS (Pill over P1).**

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (request handling and loan management), between two systems either of which might be an end-system or intermediary, using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan using MOTIS (Pill over P1) where Pill is a special MOTIS protocol.

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more intermediary systems each of which receives messages from either one of the end-systems or an intermediary system and sends them either directly to the other end-system or via another intermediary system.



**Fig. 1 Two end systems, MOTIS (Pill over P1)**  
\*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Application layer standards shall be used to provide the functions defined above.

Application Layer	TSO 10161 Pill AMH11
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**Table 1: Profile Protocol Stack**

Pill will have to be defined.



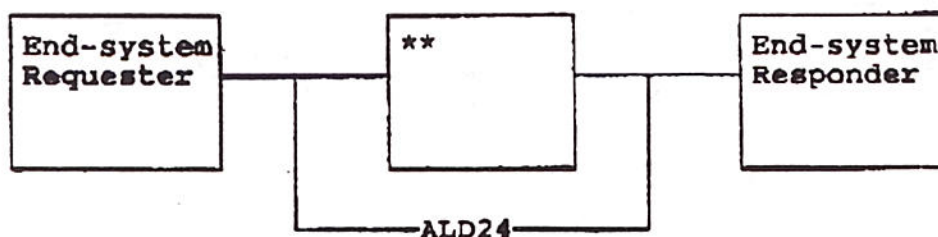
**ALD24**

**Inter Library Loan in a connection-oriented environment using FTAM unstructured files.**

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (request handling and loan management), between two systems either of which might be an end system or intermediary, using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan using FTAM. ISP AFT11 to transfer the ILL messages.

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more Intermediary systems each of which receives messages from either one of the end-systems or an Intermediary system and sends them either directly to the other end-system or via another Intermediary system.



**Fig. 1 Two end-systems, using FTAM**  
**\*\* Zero, one or more Intermediary systems**

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application Layer	TSO 10161 AFT11
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**Table 1: Profile Protocol Stack**



**ALD251**

**Inter Library Loan in a mixed connection-oriented and store-and-forward environment using MOTIS IPMS (P2).**

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (Processing and Tracking Phases), using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan where the Processing phase of ILL uses ACSE and Presentation Service (using Common Upper Layer Requirements as specified in pDISP11188-1) and the Tracking phase of ILL uses store-and-forward MOTIS IPMS (P2).

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more Intermediary systems each of which receives messages from either one of the end-systems or an Intermediary system and sends them either directly to the other end-system or via another Intermediary system.

The Processing phase of ILL is mandatory and concerns all of the events and actions up to the shipping and receipt of the requested item, including request for item, reply and forwarding of request. The Tracking phase of ILL is only applicable where a returnable item is supplied (ie a loan) and concerns all of the events and actions after shipping and receipt of a returnable item, including renewals, overdues and return of the loaned item.

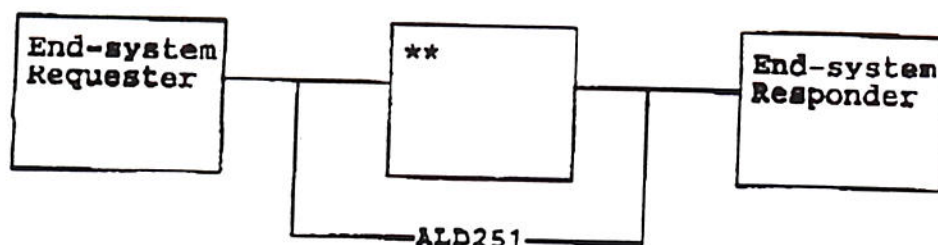


Fig. 1 Two end-systems, mixed mode  
 \*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10161 ISO 8650
Presentation Layer	ISO 8824, 8825 ISO 8823
Session Layer	ISO 8327

Table 1: Profile Protocol Stack for Processing phase

Application Layer	ISO 10161 Either AMH21 or AMH22 or AMH23 or AMH24
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Table 2: Profile Protocol Stack for Tracking phase

## ALD252

## Inter Library Loan in a mixed connection-oriented and store-and-forward (Pill) environment

This International Standardized Profile is one of a class of Application Profiles covering Inter Library Loan (request handling and loan management), using the OSI connection-mode Transport Service.

This ISP covers Inter Library Loan where the Processing phase of ILL uses ACSE and Presentation Service (using Common Upper Layer Requirements as specified in pDISP11188-1) and the Tracking phase of ILL uses store-and-forward MOTIS (Pill over P1) where Pill is a special MOTIS protocol.

One end-system acts in the Requester role and the other end-system in the Responder role. There may be one or more Intermediary systems each of which receives messages from either one of the end-systems or an intermediary system and sends them either directly to the other end-system or via another intermediary system.

The Processing phase of ILL is mandatory and concerns all of the events and actions up to the shipping and receipt of the requested item, including request for item, reply and forwarding of request. The Tracking phase of ILL is only applicable where a returnable item is supplied (is a loan) and concerns all of the events and actions after shipping and receipt of a returnable item, including renewals, overdue and return of the loaned item.

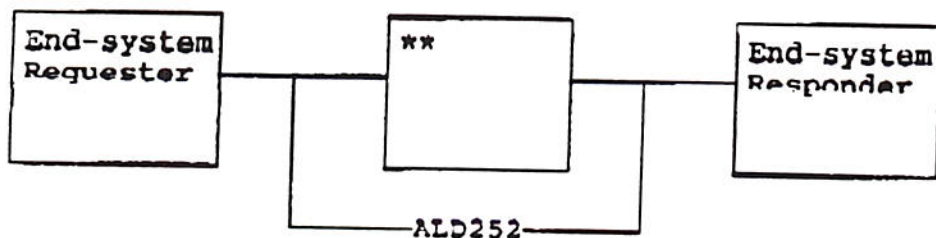


Fig. 1 Two end systems, mixed mode  
 \*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application Layer	ISO 10161 ISO 8650
Presentation Layer	ISO 8824, 8825 ISO 8823
Session Layer	ISO 8327

Table 1: Profile Protocol Stack for Processing phase

Application Layer	ISO 10161 Pill AMH11
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Table 2: Profile Protocol Stack for Tracking phase

Pill will have to be defined.



ALD29

Interlibrary Loan with Application Relay between systems in different environments.

*This is a provisional text. The Application Relay is very complex and further study is needed.*

A group of profiles may be needed.

Systems participating in Interlibrary Loan functions, may run in different environments.

The different environments for end-systems and intermediaries are:

- connection-oriented
- Store-and-Forward using MOTIS IPMS (P2)
- Store-and-Forward using MOTIS (P11 over P1)

Connections between end-systems, between an end-system and an intermediary, and between intermediaries in different environments will be needed. These may be realized through relay functions.

At present the need for profiles covering the following type of relays has been identified:

- between connection-oriented and Store-and-Forward using MOTIS IPMS (P2)
- between connection-oriented and Store-and-Forward using MOTIS (P11 over P1)
- between Store-and-Forward using MOTIS IPMS (P2) and Store-and-Forward using MOTIS (P11 over P1)

The relay may occur in any position in the chain between the Requester and the Responder:

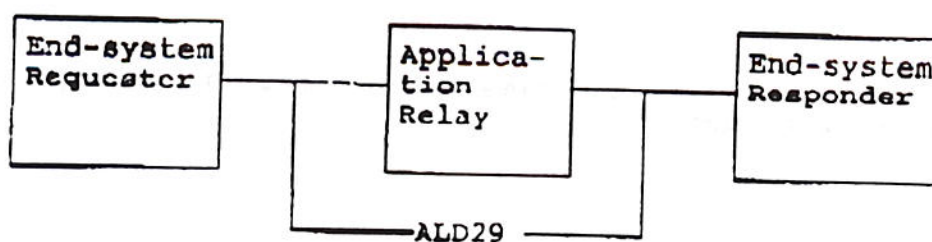


Fig. 1, Two end-systems, Application Relay

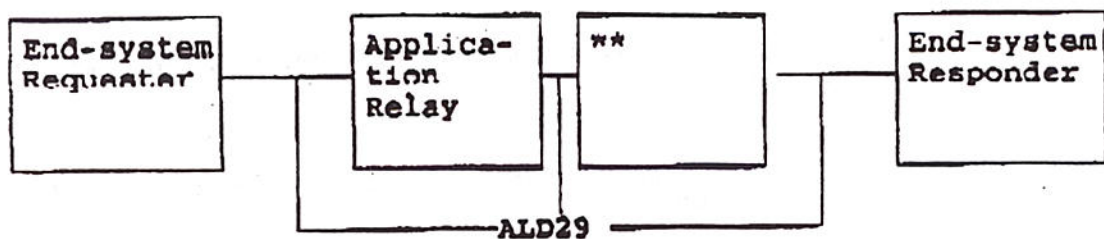


Fig. 2, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

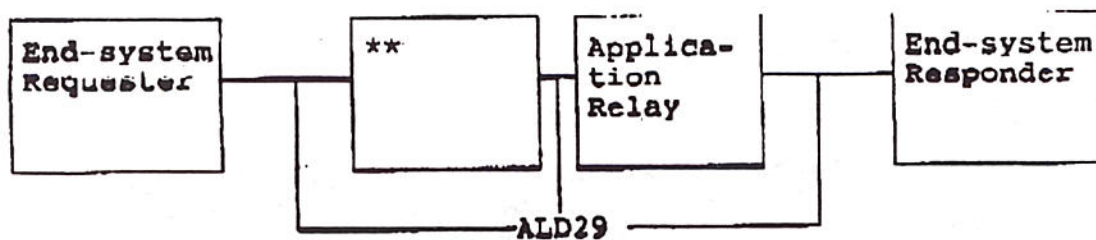


Fig. 3, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

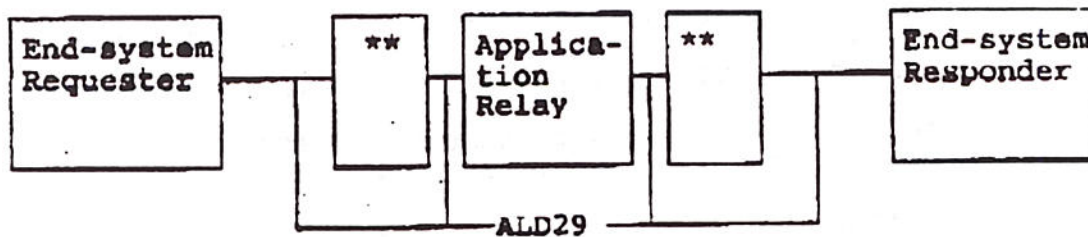


Fig. 4, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

The relay function is for the time being not well defined and further study is needed.

**ALD31**

**Search-and-Retrieve and Inter-Library-Loan used together in a connection-oriented environment**

This International Standardized Profile is one of a class of Application Profiles covering the combined use of Search and Retrieve (database searching and record retrieval) and Interlibrary Loan (loan request and loan management) using the OSI connection-mode Transport Service.

This ISP covers the combined use of these two protocols using ACSE and Presentation Service, using Common Upper Layer Requirements as specified in pdISP11188-1.

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The desired item is located through the Search and Retrieve process. To acquire the item, the end-system acting as Origin, now acts in the Requester role. The Responder may be the Target from the searching phase, but the Responder may also be another end-system.

There may be one or more Intermediary systems in the Processing phase and in the Tracking phase. The Intermediaries receive messages from either one of the end-systems or an Intermediary system and send them either directly to the other end-system or via another Intermediary system.

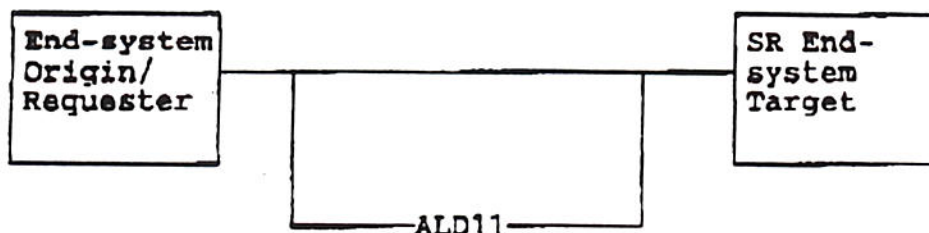


Fig.1 Searching phase

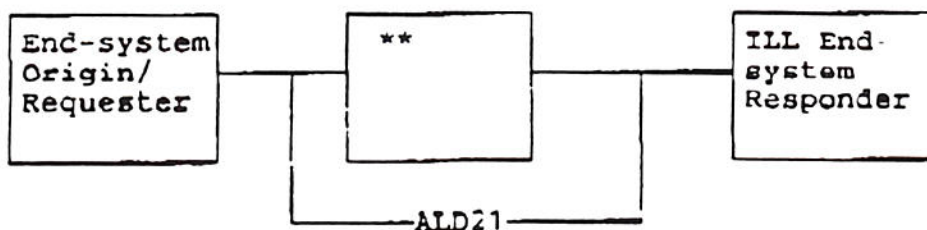


Fig.2 Processing and Tracking phase

\*\* Zero, one or more Intermediary systems.

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application Layer

standards shall be used to provide the functions defined above.

Application layer	ALD11 ALD21
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Table 1: Profile Protocol Stack



**ALD321**

**Search-and-Retrieve and Inter-Library-Loan used together in a combination of connection-oriented and store-and-forward environment using MOTIS IPMS (P2).**

This International Standardized Profile is one of a class of Application Profiles covering the combined use of Search and Retrieve (database searching and record retrieval) and Inter Library Loan, using the OSI connection-mode Transport Service.

This ISP covers the combined use of Search and Retrieve and Inter Library Loan where SR and the Processing phase of ILL use ACSE and Presentation Service, using Common Upper Layer Requirements as specified in pDISP11188-1, and the Tracking phase of ILL uses MOTIS IPMS (P2).

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The desired item is located through the Search and Retrieve process. To acquire the item, the end-system acting as Origin, now acts in the Requester role. The Responder may be the Target from the searching phase, but the Responder may also be another end-system.

There may be one or more Intermediary systems in the Processing phase and in the Tracking phase. The Intermediaries receive messages from either one of the end-systems or an Intermediary system and send them either directly to the other end-system or via another Intermediary system.

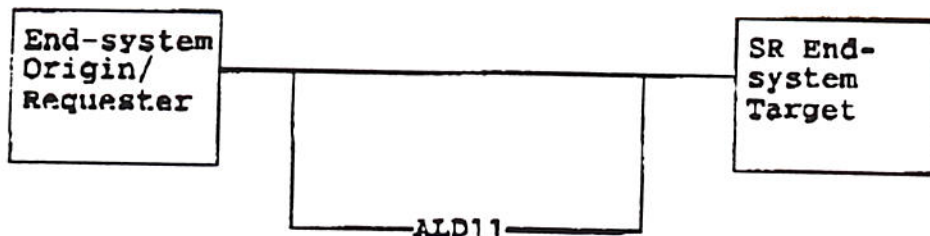


Fig.1 Searching phase

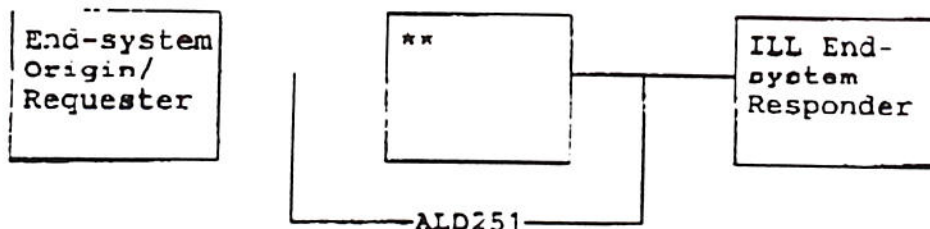


Fig.2 Processing and Tracking phase

\*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI

Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application Layer	ALD11 ALD251
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Table 1: Profile Protocol Stack

## ALD322

Search-and-Retrieve and Inter-Library-Loan used together in a combination of connection-oriented and store-and-forward environment using MOTIS (Pill over P1).

This International Standardized Profile is one of a class of Application Profiles covering the combined use of Search and Retrieve (database searching and record retrieval) and Inter Library Loan, using the OSI connection-mode Transport Service.

This ISP covers the combined use of Search and Retrieve and Inter Library Loan where SR and the Processing phase of ILL use ACSE and Presentation Service, using Common Upper Layer Requirements as specified in pdISP11188-1, and the Tracking phase of ILL uses special MOTIS protocol, Pill (Pill over P1).

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The desired item is located through the Search and Retrieve process. To acquire the item, the end-system acting as Origin, now acts in the Requester role. The Responder may be the Target from the searching phase, but the Responder may also be another end-system.

There may be one or more Intermediary systems in the Processing phase and in the Tracking phase. The Intermediaries receive messages from either one of the end-systems or an Intermediary system and send them either directly to the other end-system or via another Intermediary system.

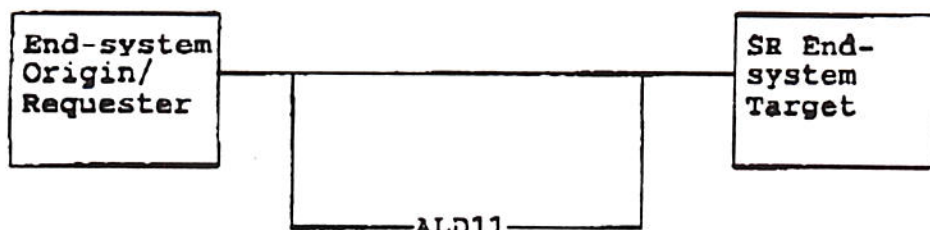


Fig.1 Searching phase

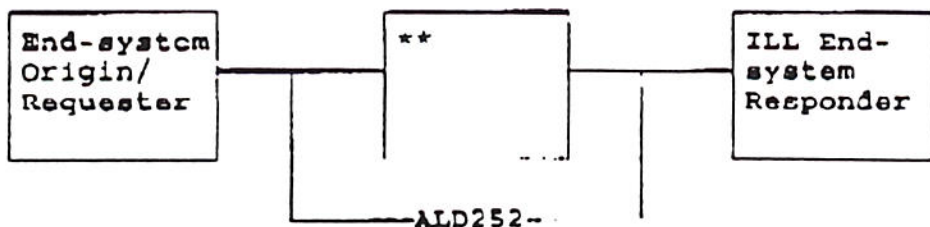


Fig.2 Processing and Tracking phase

\*\* Zero, one or more Intermediary systems

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined

above.

Application Layer	ALD11 ALD252
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Table 1: Profile Protocol Stack

Pill will have to be defined.



**ALD331**

**Search and Retrieve and Interlibrary Loan used together in a store-and-forward environment using MOTIS IPMS (P2)**

This international standardized profile is one of a class of Application Profiles covering the combined use of Search and Retrieve (database searching and record retrieval) and Interlibrary Loan, using the OSI connection-mode Transport Service.

This IBP covers the combined use of Search and Retrieve and Interlibrary Loan between two end-systems using MOTIS IPMS (P2).

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The Target system performs the search requested by the initiating system, builds a result set and transfers the requested records from its database to the Origin. The end-system acting as Origin acts in the Requester role. The Responder may be the Target from the searching phase, but the Responder may also be another end-system.

There may be one or more Intermediary systems in the Processing phase and in the Tracking phase. The Intermediaries receive messages from either one of the end-systems or an Intermediary system and send them either directly to the other end-system or via another Intermediary system.

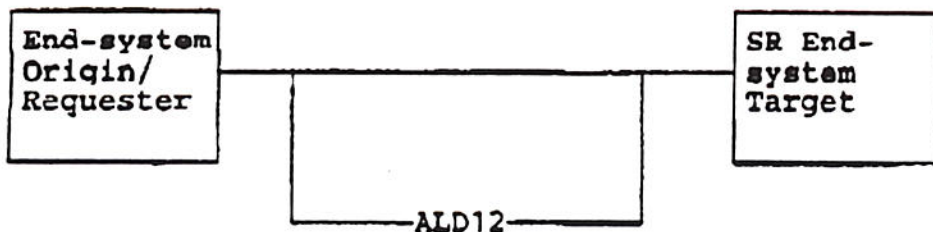


Fig.1 Searching phase

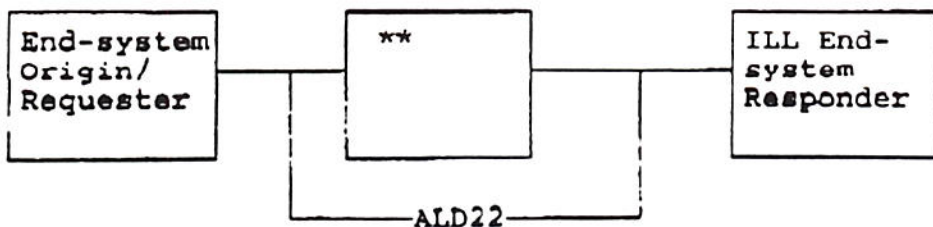


Fig.2 Processing and Tracking phase  
 \*\* Zero, one or more Intermediary systems.

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application layer	ALD12 ALD22
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Table 1: Profile Protocol Stack

**ALD332**

**Search and Retrieve and Interlibrary Loan used together in a store-and-forward environment using MOTIS (Psr and Pill over P1)**

This international standardized profile is one of a class of Application Profiles covering the combined use of Search and Retrieve (database searching and record retrieval) and Interlibrary Loan, using the OSI connection-mode Transport Service.

This ISP covers the combined use of Search and Retrieve and Interlibrary Loan between two end systems using MOTIS (Psr and Pill over P1), where Psr and Pill are special MOTIS protocols.

One system acts in the Origin role and requests the search and the record transfer. The other system acts in the Target role. The Target system performs the search requested by the initiating system, builds a result set and transfers the requested records from its database to the Origin. The end-system acting as Origin acts in the Requester role. The Responder may be the Target from the searching phase, but the Responder may also be another end-system.

There may be one or more intermediary systems in the Processing phase and in the Tracking phase. The Intermediaries receive messages from either one of the end-systems or an Intermediary system and send them either directly to the other end-system or via another Intermediary system.

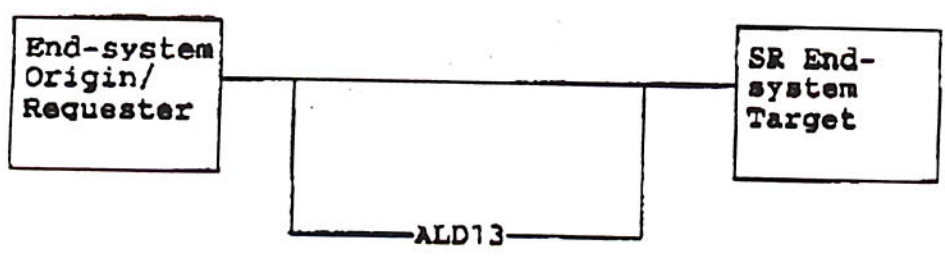


Fig.1 Searching phase

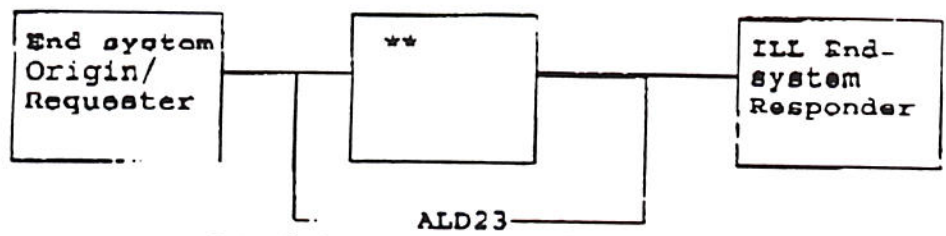


Fig.2 Processing and Tracking phase  
\*\* Zero, one or more Intermediary systems.

This International Standardized Profile specifies how the OSI Session layer, Presentation layer and Application layer standards shall be used to provide the functions defined above.

Application layer	AT.D13 ALD23
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Table 1: Profile Protocol Stack



**ALD39**

**Search-and-Retrieve and Inter-Library-Loan with Application Relay between systems in different environments.**

*This is a provisional text. The Application Relay is very complex and further study is needed.*

A group of profiles may be needed.

End-systems using Search and Retrieve and/or Interlibrary Loan, and intermediary systems, will run in one of the following three environments:

- connection-oriented
- Store-and-Forward using MOTIS IPMS (P2)
- Store-and-Forward using MOTIS (Psr and Pill over P1)

Connections between end-systems, between an end-system and an intermediary, and between intermediaries running in different environments will be needed. These may be realized through relay functions.

At present the need for profiles covering the following type of relays has been identified:

- between connection-oriented and Store-and-Forward using MOTIS IPMS (P2)
- between connection-oriented and Store-and-Forward using MOTIS (Psr and Pill over P1)
- between Store-and-Forward using MOTIS IPMS (P2) and Store-and-Forward using MOTIS (Psr and Pill over P1)

The relay may occur in any position in the chain between the Origin/Requester and the Target/Responder:

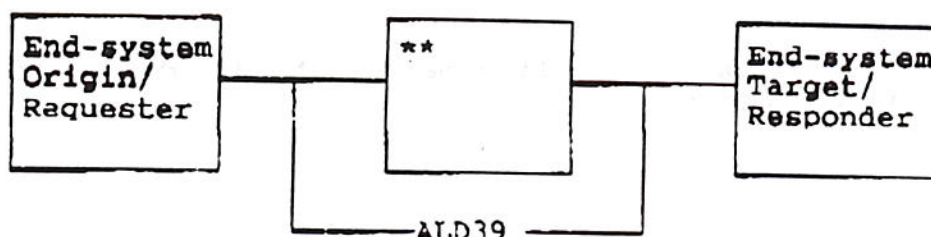


Fig. 1 Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

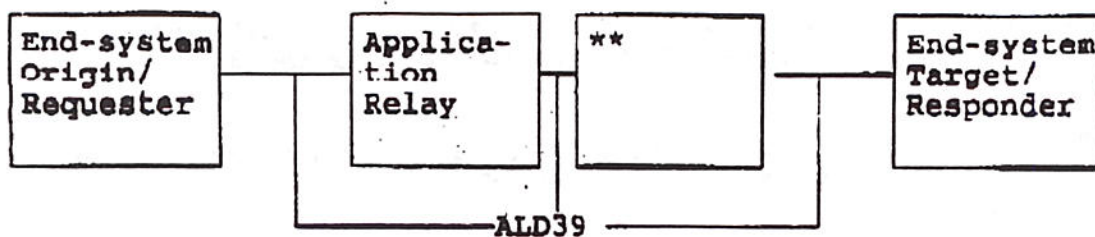


Fig. 2, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

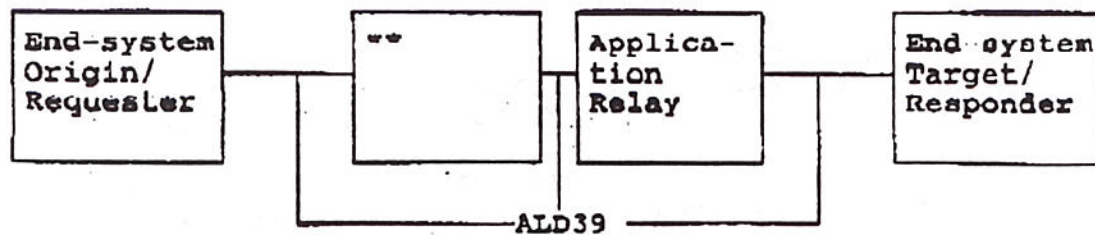


Fig. 3, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

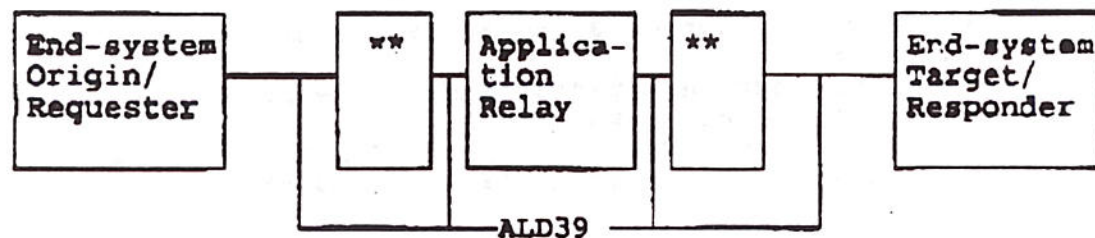


Fig. 4, Two end-systems, Application Relay  
 \*\* Zero, one or more Intermediary systems

The relay function is for the time being not well defined and further study is needed.