

1 Login Request Proposal

1.1 Introduction

Peripherals have limited resources to accept Logins from multiple Initiators, some may only support one Login at a time. For this reason Initiators are encouraged to Logout when they are finished using a peripheral. Since a Target only device cannot originate communication without a Login, a Target requires a mechanism to request communication when a Login does not exist.

The defined mechanism for Login Request will use the Message_Request / Message_Response registers specified by IEEE P1212r. A field in the Feature directory shall indicate which Initiators support this mechanism.

The format of the Message_Request / Message_Response Data is illustrated by the figure below.

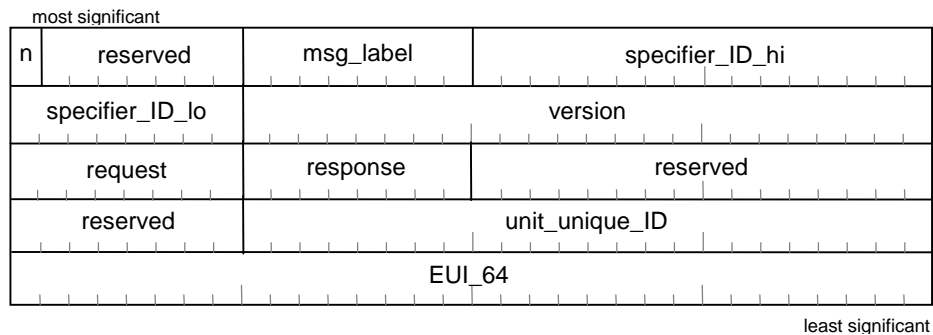


Figure 1 – Message_Request / Message_Response Data

The *notify* bit (abbreviated as n) bit shall be set to one to indicate that a Message_Response is required. A response written to the Message_Response register with notify set to one indicates that the Message_Request is unrecognized.

The *msg_label* field is implementation dependent. Recommend that a method is implemented that cycles through all msg_labels before a msg_label is reused.

The *specifier_ID_hi* and the *specifier_ID_lo* field shall contain the Organizationally Unique Identifier (OUI) obtained from the IEEE Registration Authority Committee (RAC) by the PWG. This is the same value as the *Command_Set_Spec_ID* in the configuration ROM.

The *version* shall use a unique sub-ID. Value TBD.

The *request* code is defined by the following table.

request	Name	Comment
0		Reserved for future standardization
1	Login Request	Request for the Initiator to perform a Login to the requesting to Target

The *response* code is defined by the following table.

response	Name	Comment
0		Reserved for future standardization
1	Request Completed OK	Request for the Initiator to perform a Login to the requesting to Target is accepted. The Target may expect that the Initiator will Login to it.
2	Busy	The Initiator is Busy. The Target may try again later.

Note: If a *Message_Response* is not received the Target may wait for up to a *Reconnect_Hold_Timeout* (10 seconds) time before retrying the *Message_Request*.

It is expected that initially this mechanism will be used with Initiators that have Logged into the Target at least once in the past. This simplifies and limits discovery to Initiators and Targets that have a history of successful communication.

This specification does not limit the use of the Login Request to discovery via history. It is valid for a Target to perform a Login Request to an Initiator that it has not previously communicated with.

When a Target that does not have a current Login requires communication with an Initiator, the Target may write the *Message_Request* data to the Initiators *Message_Request* register with the request of *Login_Request*. The Initiator shall respond with *Message_Response* data written to the Targets *Message_Response* register with the request *Login_Request* and a response value which indicates the status of the request. If the response indicates request completed OK then the Initiator will Login to the Target.