REG: This message is used to give the receiver details about the sender. This information can be used by the receiver to create an instance of the sender in its data store or manage access permissions to the data store. An STA message returns the status of the message reception. Other message types can only be sent after a successful registration.

DRE: A previously registered connector can be deregistered with this message. The handling of this message is not specified within this document. Both sender and receiver have to run necessary measures when canceling a registration. STA message responses the result of this deregistration.

ADD: This message is used to inform the receiver about new services that are available at the sender of the message. This information can be used by the receiver to create instances in its local storage. STA message confirms correct reception or any error that occurred. If a service is initially defined in the Colibri semantic core, an ADD message will be sent to the corresponding technology connector. On the other hand, if the service engineering is done at the technology connector side, the ADD message with the service details is pushed from the technology connector to the Colibri semantic core.

REM: A previously registered service can be unregistered with this message. For example, the receiver can remove the service from its storage if a service with the given URI is found. Only available services of the particular sender are accepted. STA indicates if any error occurred or reception was successful.

OBS: A previously registered service can be marked for value changes. Then, changes are observed by the receiver of the OBS message. If any change is observed, the sender of the OBS message is informed by receiving an ordinary PUT message. If the service is successfully marked for observation, an STA message with a positive status code is sent. Otherwise an error status code is returned.

DET: This message undoes an observation of the given service. STA message returns the status of the detaching process.

PUT: The PUT message is used to exchange simple data values of data as well as control services. These data values conform to a predefined data configuration of services in accordance with the Colibri ontology. For control information, also data values are used as each control service can be a (soft) data service containing the history of state value changes. The service of the actual data value is specified within the message contents RDF graph. STA message with a positive status code is returned if everything worked fine and the PUT message is accepted. STA message with an error status code is sent in case of any error.

GET: A GET message forces the receiver of the message to look for the latest or currently useful value of the given data or control service. For example, the current temperature value is returned, or the currently active set point temperature is sent as response. Moreover, historic data values can be requested by adding the optional query parameters to and from to the message content. The response is a PUT message with the requested data value(s). STA message can be sent to indicate the status code.

QUE: This message is used to send a complete SPARQL query (SELECT statement) to the Colibri semantic core. The results are sent back in a QRE message. STA messages can be sent to indicate the status code.

QRE: This message is used to send the result set in response to a QUE message. The receiver can return a status code within an STA message.

UPD: This message is used to send a complete SPARQL update (INSERT or DELETE statement) to the Colibri semantic core. An STA messages is sent in response in order to indicate the status code.

STA: This message sends a status code according to a previously received message.

The message commands used in the implementation should be changed according to the services offered by Simulink. For example, if Simulink is running temperature service then ADD becomes ADDT and this is followed in the same way for others.