**IGP(Interested Group Protocols)**

**Types of messages: request and response messages.**

**1. Syntax for request messages.**

method sp command\_line\_arguments sp protocol cr lf

header field name value cr lf

header field name value cr lf

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cr lf (carriage return, line feed at start of line indicates end of header lines)

content

cr lf(if any, and cr lf at start of line indicates end of content)

* 1. **Semantics of each type of request messages.**

**LOGIN LGP request:**

LOGIN LGP\r\n

Date: date\r\n

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This request sends the date of the user’s log in, any post in the subscribed groups posted after this date should alert the user.

**AG LGP request:**

AG LGP\r\n

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This request simply asks the server if there is any change of the groups, i.e. a new group on the server (usually no).

**Subscribed Group request:**

SG LGP\r\n

Subscribed-GroupIDs: groupIDs\r\n

Read-Posts: postsIDs\r\n

\r\n

This request send the subscribed groups and read posts of user as headers to server and ask the server if there are any updates of subscribed groups, and then display the number of new posts on the client side.

**Read Group request:**

RG GroupID LGP\r\n

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This request send the specified group id to the server and ask for all the posts that the group has. And when receiving the posts, the client will list all the posts the user has not read yet at first.

**Check Update request:**

CK LGP\r\n

Subscribed-GroupIDs: groupIDs\r\n

Date: date\r\n

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This request simply check if there is any new posts in the subscribed group since the user last checked. If any, server will return the new posts, and update the date that the specified user last log in. Then, the client will list the new posts at top when user take next action.

**Read Post request**

RP postID LGP\r\n

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This request ask the server the detailed content of the specified post, then display it at client side.

**New Post request**

NP postID groupID lGP\r\n

\r\n

Subject of the post

Content of the post

This request add a specified post to a specified group on the server.

**2. Syntax for response messages.**

protocol sp Status codes sp status phrases cr lf

header field name value cr lf

header field name value cr lf

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cr lf (carriage return, line feed at start of line indicates end of header lines)

data data data…

**2.1 response status codes**

Status code appears in 1st line in server-to client response message.

207 OK

request succeeded, requested object later in this msg.

214 No Content

The server successfully processed the request and is not returning any content.

250 New Posts

There are new posts since last checked, and the new posts later in this msg.

251 No Update

There is no any new posts since last checked.

310 New Group

There is a new group created on the server. The new group later in this msg.

320 Created

The New Post created on the server properly.

401 Bad Request

request msg not understood by server.

407 Not Found

requested groups or posts not found on this server.