OBJECT COMMUNICATION

CROSSING THE REGION BOARDER

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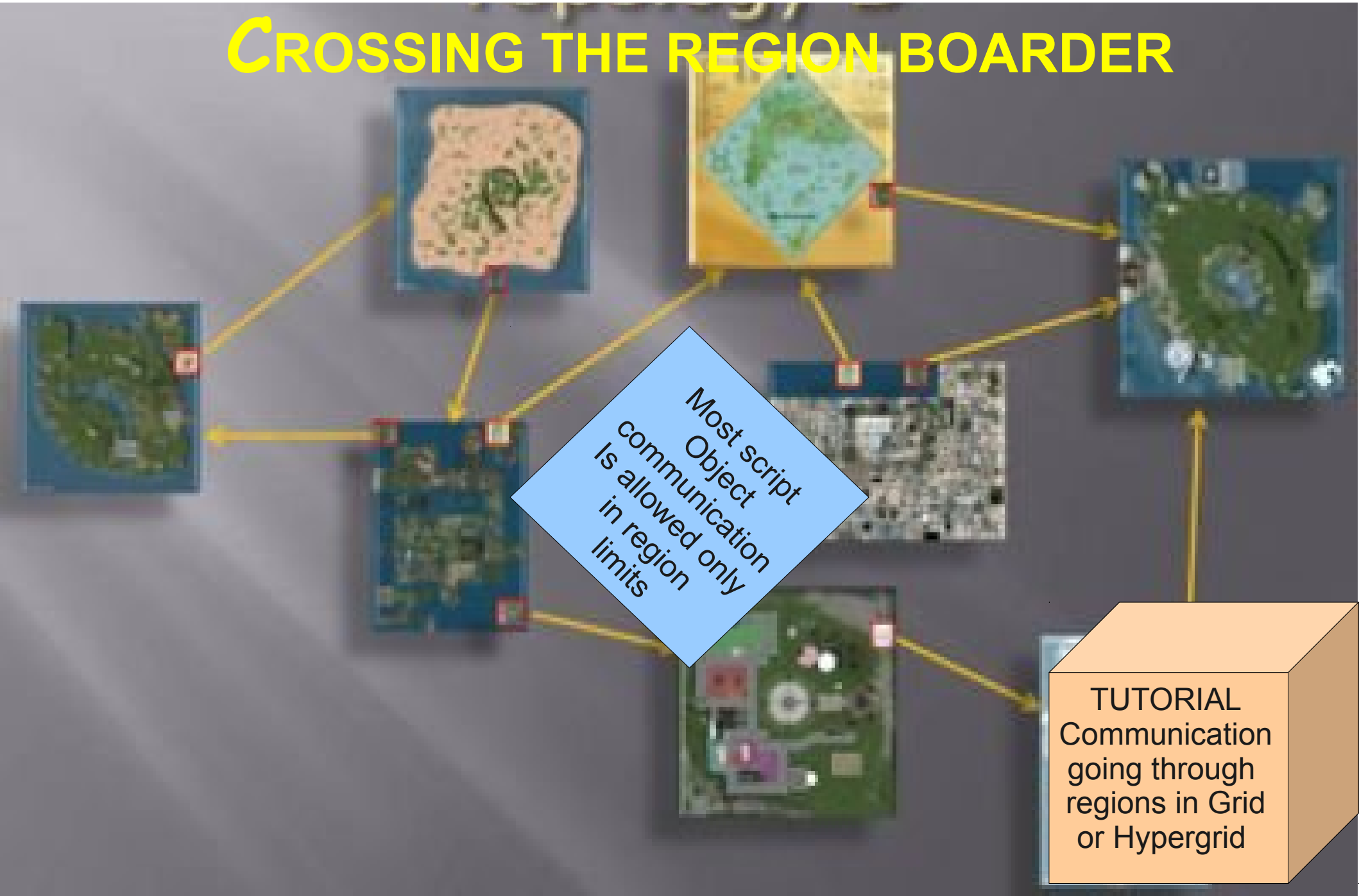
CROSSING THE REGION BOARDER



OBJECT COMMUNICATION

Chat
~~llDialog~~
~~llTextBox~~
~~llListen~~
~~llListenControl~~
~~llListenRemove~~
~~llOwnerSay~~
~~llRegionSay~~
~~llSay~~
~~llShout~~
~~llWhisper~~

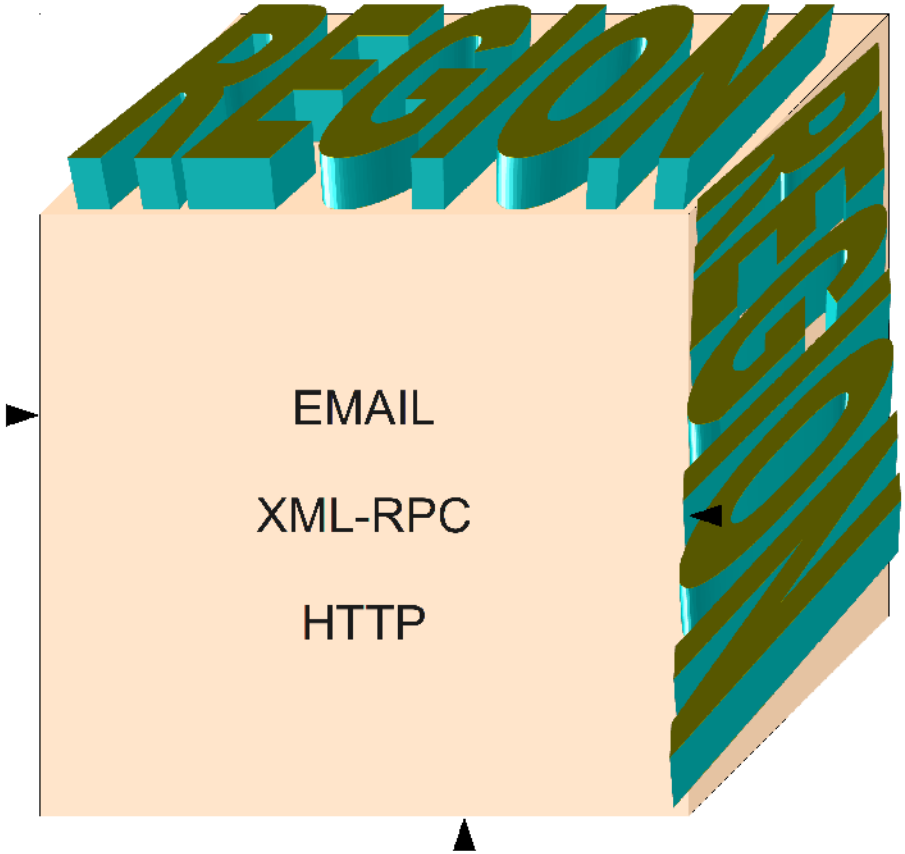
Event: ~~listen~~

Cryptography
~~llBase64ToString~~
~~llMD5String~~
~~llStringToBase64~~
~~llXorBase64StringsCorrect~~
~~llXorBase64Strings~~
~~llModPow~~

Email
llEmail
llGetNextEmail

Event: email

~~OsMessageObject~~



Instant Messaging
~~llInstantMessage~~

Link Messages
~~llMessageLinked~~

Event: link_message

Text
~~llSetSitText~~
~~llSetText~~
~~llSetTouchText~~

XML-RPC
llCloseRemoteDataChannel
llOpenRemoteDataChannel
llRemoteDataReply
llRemoteDataSetRegion
llSendRemoteData

Event: remote_data

HTTP
llEscapeURL
llGetFreeURLs
llGetHTTPHeader
llHTTPRequest
llHTTPResponse
llLoadURL
llReleaseURL
llRequestSecureURL
llRequestURL
llUnescapeURL
Event: http_request
Event: http_response

EXTERNAL SERVER REQUIRED

- Prim email address in SL is uuid@lsl.secondlife.com. But for OpenSim application a mail server must be available in the region you want to use the function.
- The server name depends on the region you are in.
- This function causes the script to sleep for 20.0 seconds.
- There is a limit to the number of email messages an object can send in a given amount of time.
- There is a limit of 500 messages from a single agent's objects in a one hour period.

EXTERNAL SERVER REQUIRED

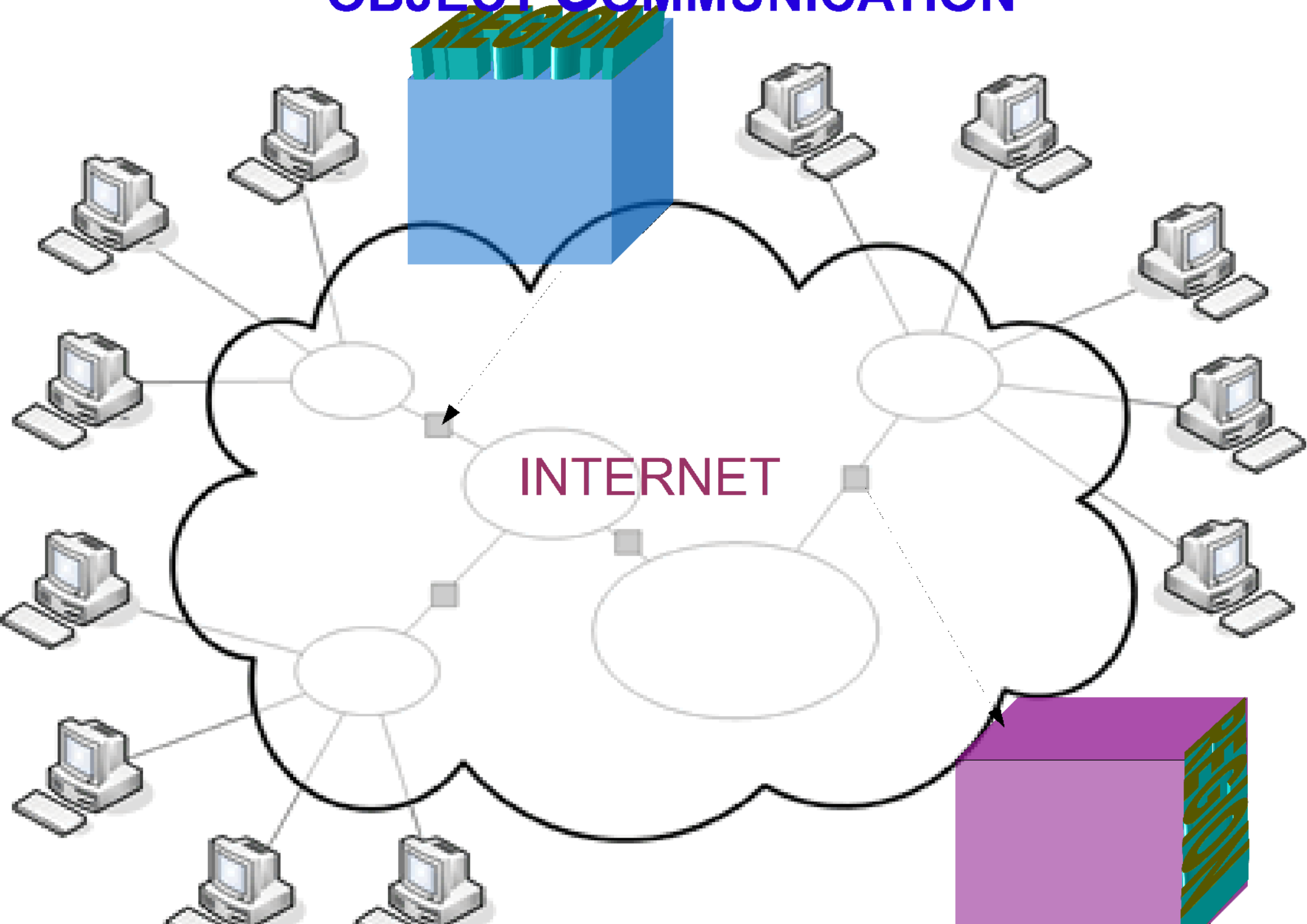
- LSL receives XML-RPC requests and passes them to the prim specified. It may not establish this connection, but it may reply and keep two-way communication with that server.
- XML-RPC requests often time-out due to the front-end server being overloaded.
- The current implementation of XML-RPC only allows one request to be queued on the front-end server. Any additional requests to the same data channel overwrite any pending one.
- Require PHP / Java or similar front-end language.

>>> *THE WAY TO GO* <<<

- LSL includes functions that utilize HTTP, the HyperText Transfer Protocol, for communicating with other scripts in-world.
- Server is initiated by script as http://server_ip:port/lslhttp/uuid/ no external setup required.
- Server life depend on region reliability, resetting/restarting script change server name.
- Requests must fully complete before 60 seconds, or else the response will be status code of 499.
- The response body is limited to 2048 bytes; if it is longer it will be truncated.
- HTTP Requests are throttled on a per object basis to a maximum of 25 requests per 20 seconds.

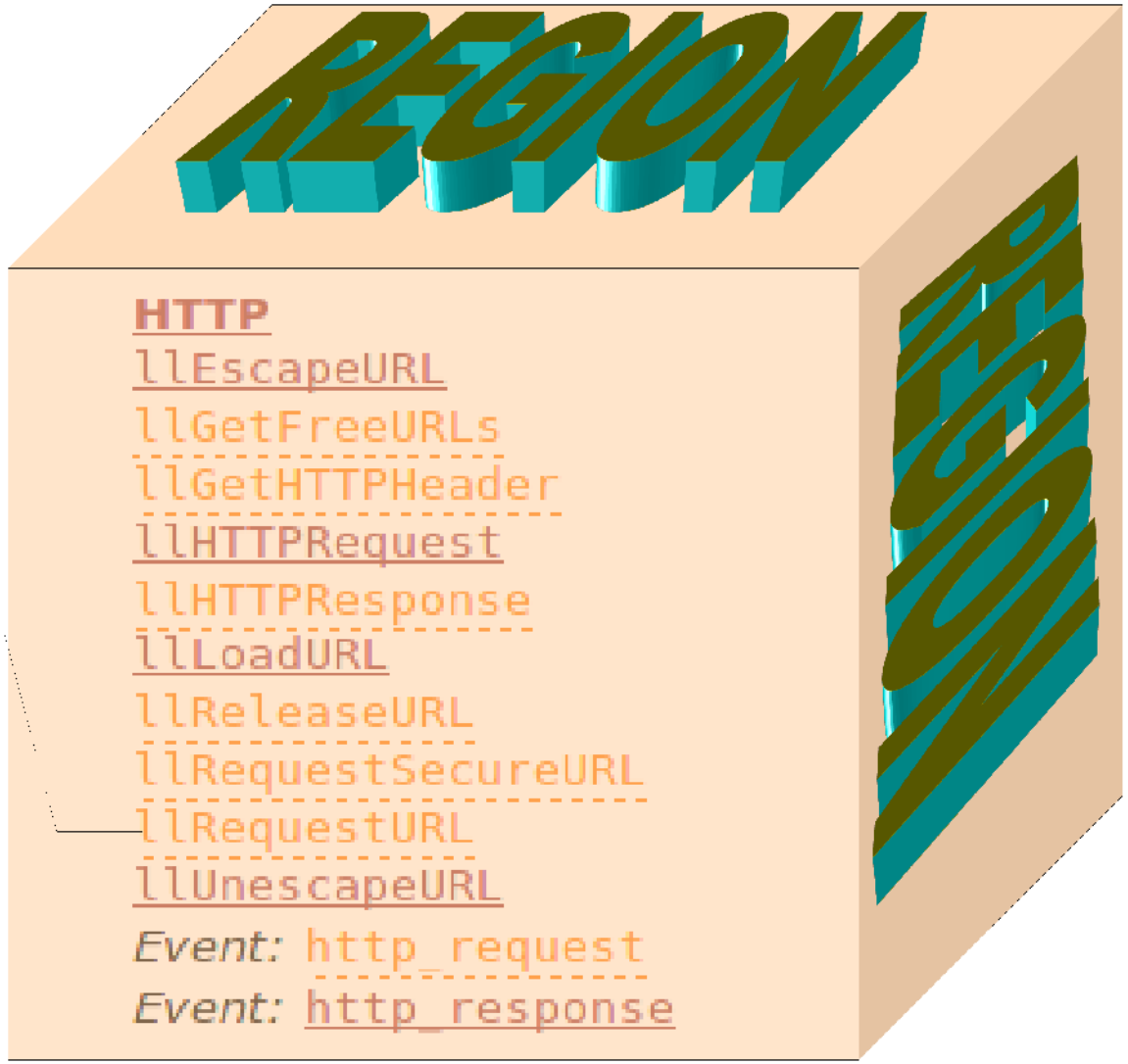
OBJECT COMMUNICATION
CROSSING THE REGION
BOARDER
HTML
PASSPORT
United States of America

OBJECT COMMUNICATION



OBJECT COMMUNICATION

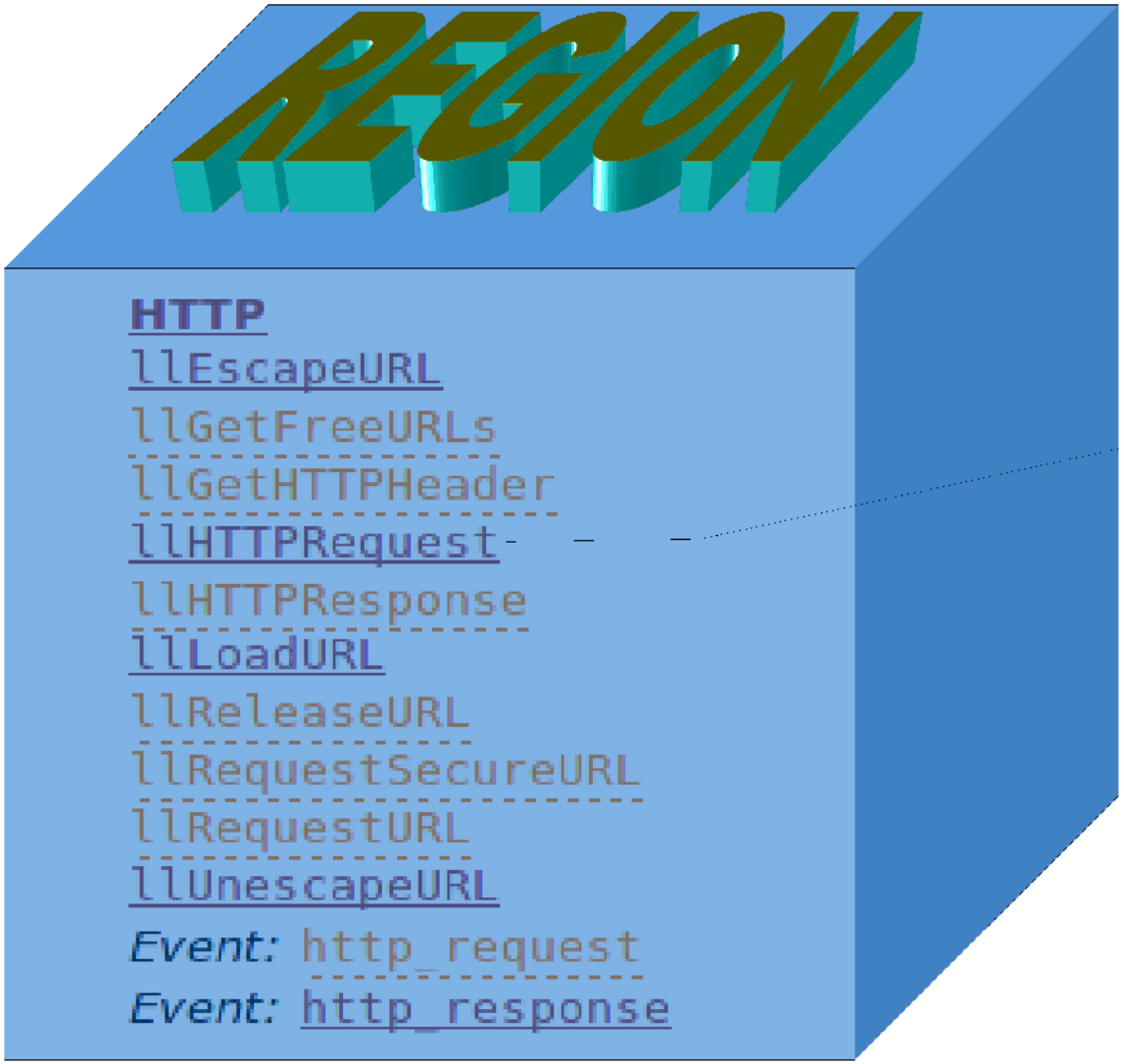
-SETUP-



Just like your name on the phone book you need a name on the internet to be able to communicate. (URL)

OBJECT COMMUNICATION

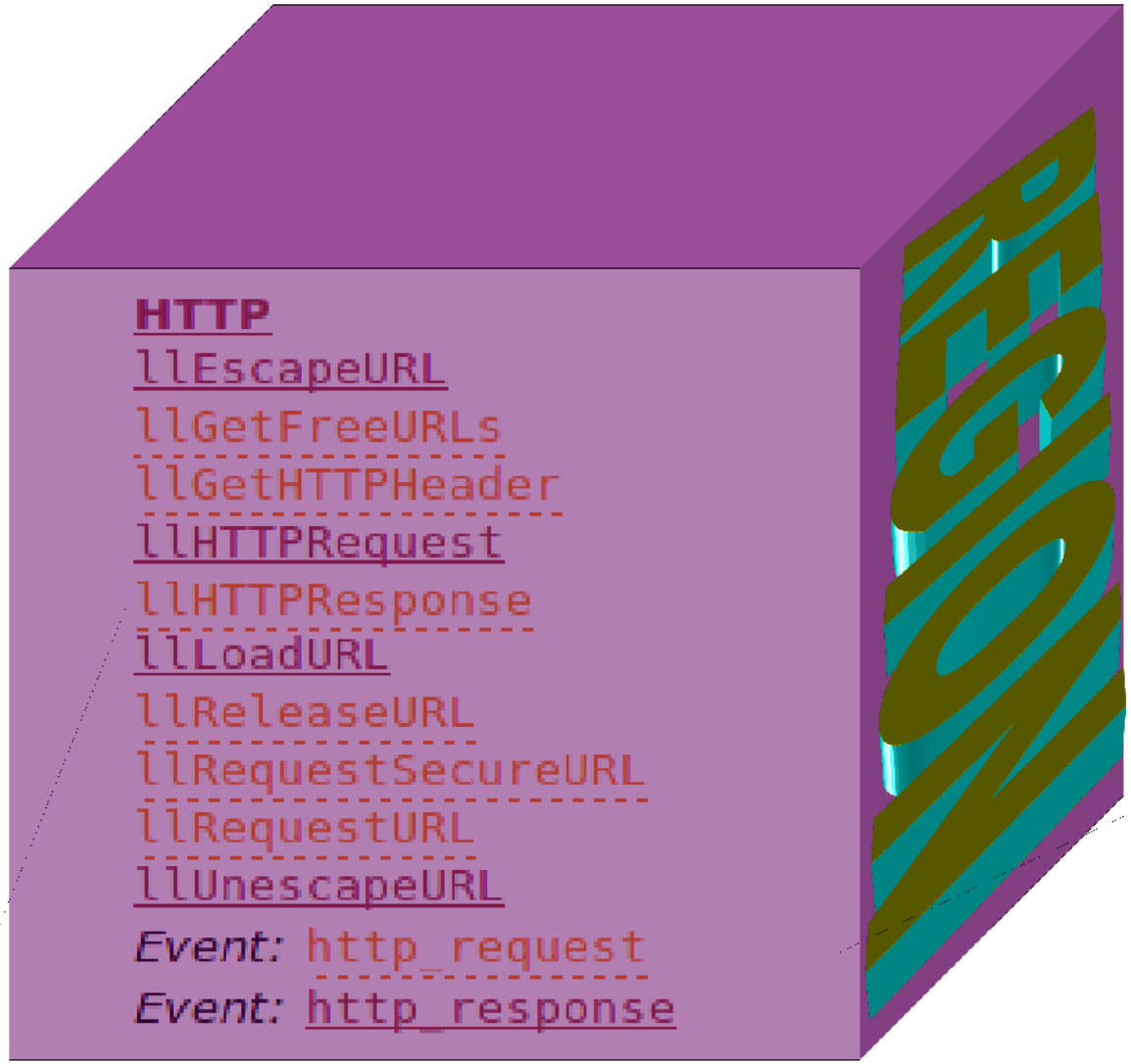
SENDING SIDE



Then you need to dial the phone number and send your request

OBJECT COMMUNICATION

REPLY SIDE



1) The object gets a request event

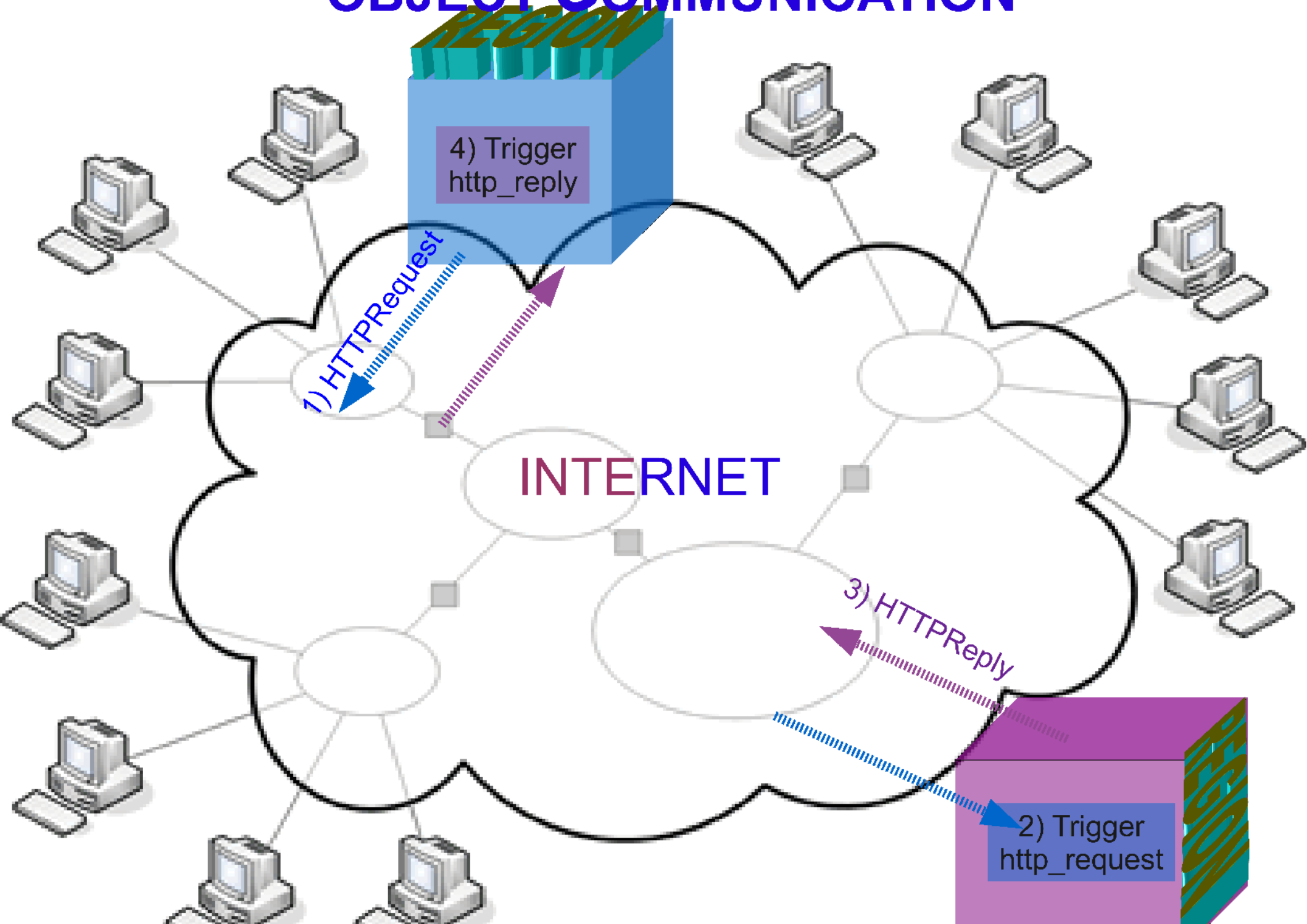
2) And send a response

OBJECT COMMUNICATION

SENDING SIDE

A reponse event is trigged on reception of reply

OBJECT COMMUNICATION



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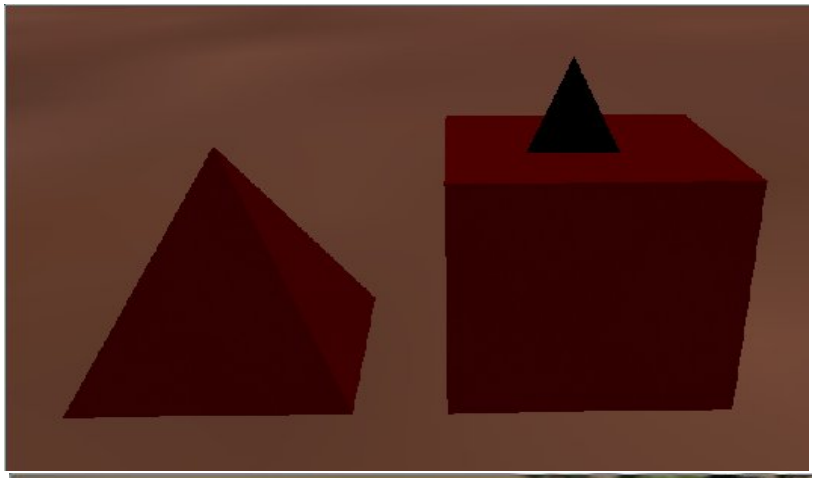
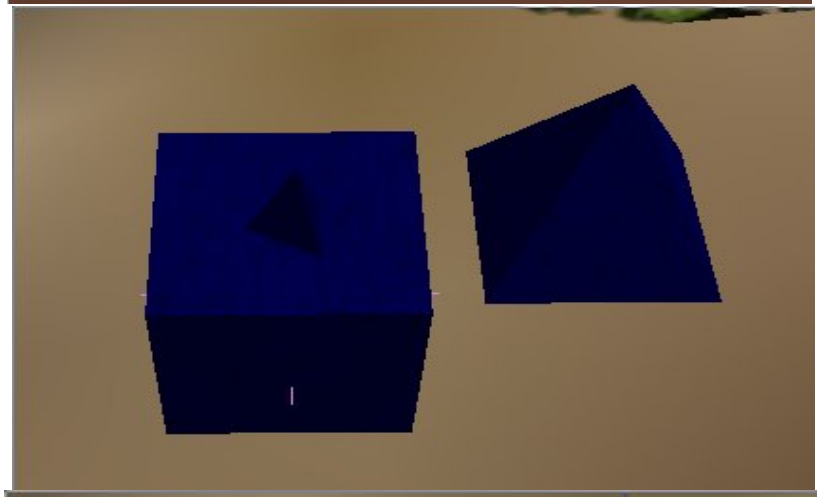
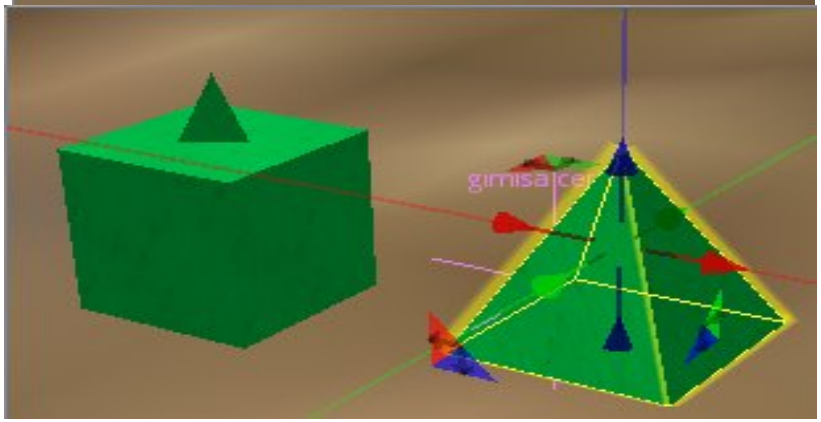


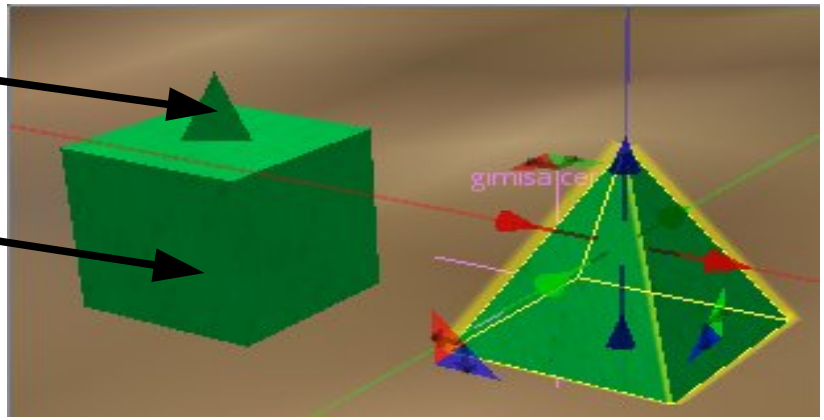




- The object aside of this tutorial is presenting the script coding to make HTML communication a reality for you.
- A red backup server .
- A blue and a green server you can copy as you like
- A blue and a green pyramid to present an exemple of the get-reply. Touch to get reply
- Finaly you can see a working exemple with the 4FREEDOM STATISTICS 4SIMS TOTAL.
- This exemple communicate with the 4FREEDOM 4 regions and collect the data and tally it on the graphic board presented

OBJECT COMMUNICATION

- Take a copy of the set of objects and bring it to your Grid/Region of use.
- Select a safe location for your backup server and Rz All of the objects. Rzing them, you will receive IMs of the server URI address take note of the backup server one.
- Rename the Red backup server object as you please.
- Enclose its name within stars ***newServer***
- Rename the other servers object as you wish.
- This is the name you will use late to communicate with them.
- Touch the top hat of all the servers
- This will reset memory.
- Then touch each of the server cube rapidely they will exchange URI address.
- Leave the backup server in place and one by one bring the other where you like.



- Its possible to ADD a server afterward. Just rez the new a copy of the server near the backup server. Rename it and touch both of them. Then locate the server where you wish.

OBJECT COMMUNICATION

- From the exemple provided you can make your own object to communicate with server.
- The pyramid use object listen to exchange with local server.
- The local communication port are as follow. you can change them on a per server basis in the script.
  - integer irchannel=-98765; //reply messaging channel
  - integer igchannel=-56789;//get request channel from object
- The object submit a get to the server of its choice as text by saying the serverName in the get igchannel+1.
- The local server send a get request over the internet to the server required. The script provided with demo is set up to send a get request to the server in the description field
- The remote server receives the get request and say the key of the HTML request in the irchannel.
- The remote pyramid returns say the reply in the irchannel+1. The demo reply is the name of the receiving pyramid plus the name of the region the object is in.
- The remote server return the get requested to the local server.
- The Local server say the reply on the igchannel to the local pyramid.
- The local pyramid say the message to owner, completing the communication loop.
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Come with no warrant implied or otherwise. Done for fun and education only.

- Hope you have fun using it as much as I did doing that .

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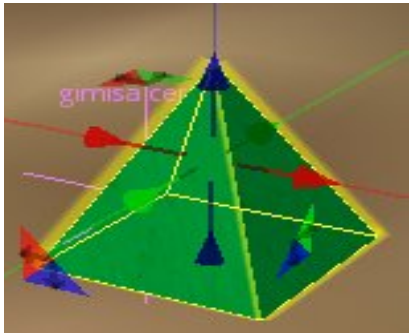

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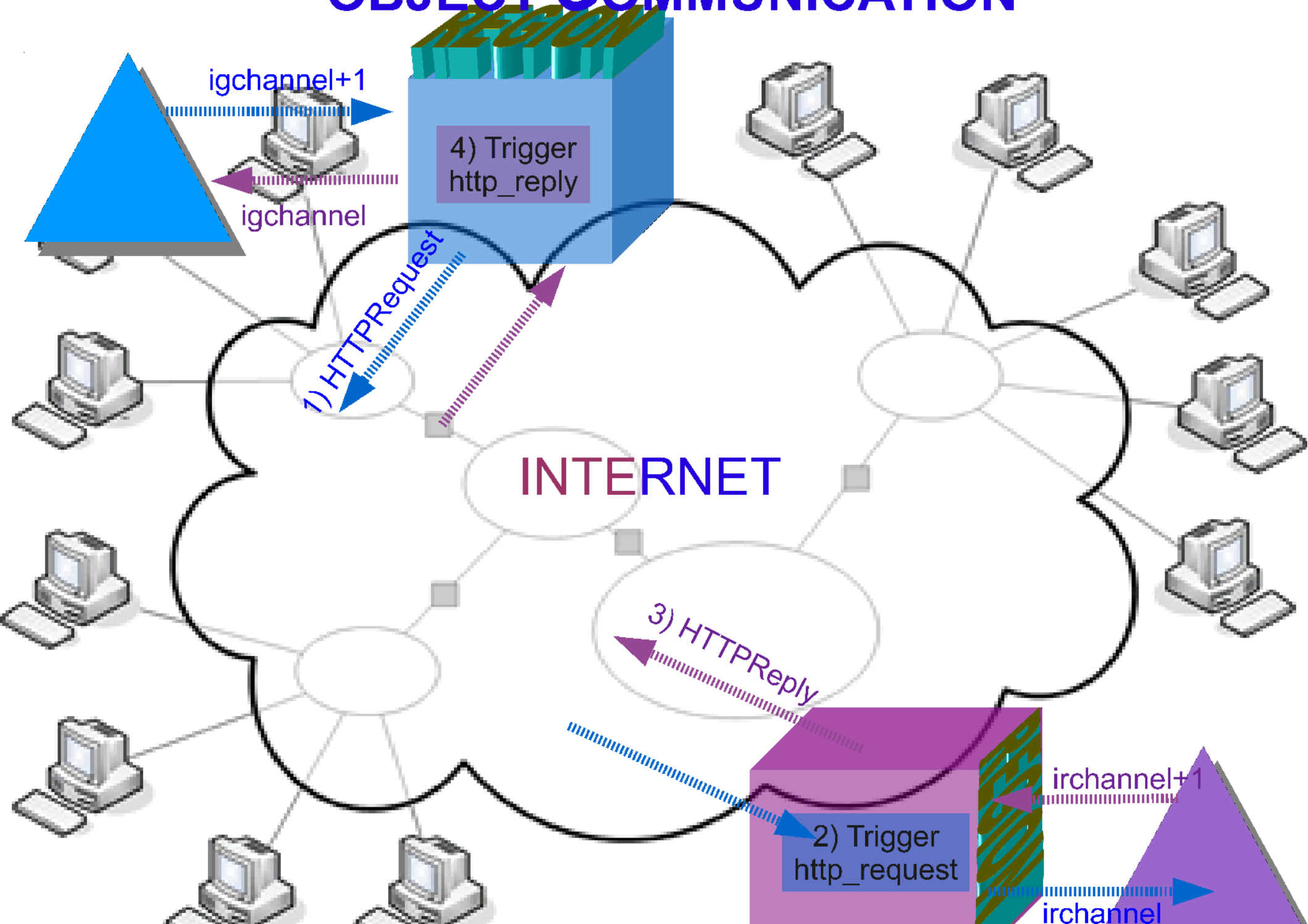

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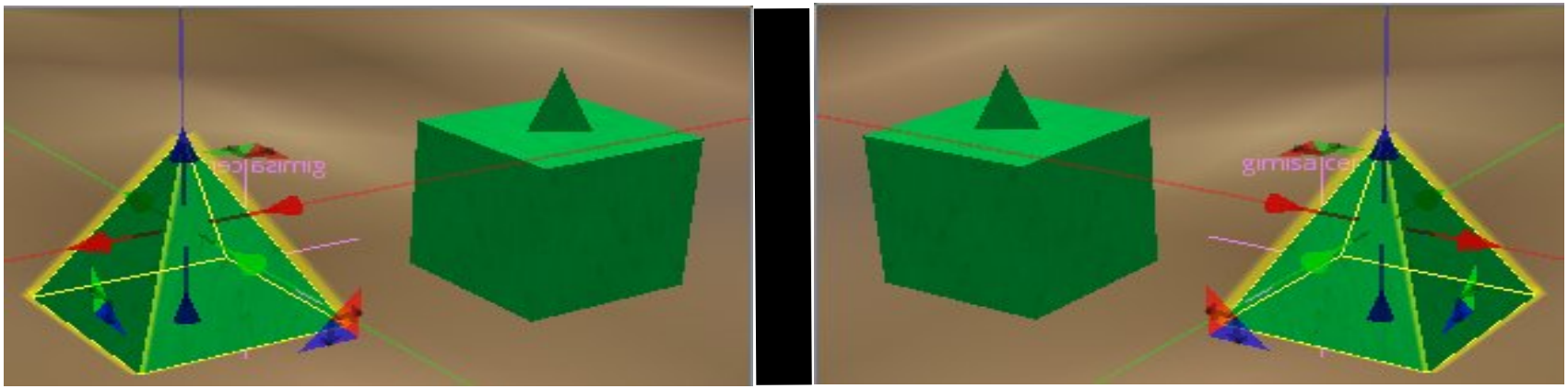
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- IN CASE YOU WANT TO KNOW MORE:
- The backup server rôle is to provide missing address of the local server.
- The backup server shall be located in a stable location. (any grid will do even SL).
- Server has a variable call SL that you can set to true to put it in SL. (need manual setup see below)
- The backup server has a linked pyramid. Its not a communication device like the other pyramids. its use for testing.
- Touch it anytime after you have setup your system the way you like.
- It will say the backup server address to owner and it will list and try to communicate with the other server to validate them. Failure will be IM to owner and top hat will turn red othewise hat is green.
- Clic on the backup server address in chat will bring the browser and show the server list.
- You can set up manualy by rz the local server where you want. Touch its top hat. Paste the backup server address in the description field of the local server.
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