**FUNCIONAMIENTO DVK DAEMON (DVKD)**

***ALUMNOS*: ALDO JAVIER RAMONDA**

**Objetivo:** Desde Webmin ejecutar comandos o APIs del DVK remotamente en los nodos del cluster.

**FUNCIONAMIENTO PARA LA PRUEBA**

En sistema tiene 3 componentes:

* *MONITOR*: El cual está en C pero luego será realizado en PERL para ejecutarlo desde webmin. Se utilizan dos NAMED PIPES (INCMD, OUTCMD) para comunicarlo con el PROXY.
* *PROXY*: Se encarga de interfacear el MONITOR con los diferentes agentes. Convierte lo que recibe por la PIPE INCMD en un multicast hacia el AGENTE, y convierte el multicast recibido desde el AGENTE a un mensaje en el PIPE OUTCMD
* *AGENTES*: Estan a la espera de recibir un COMANDO o un API CALL desde el PROYX via spread. Responde por SPREAD.

**INFORMACION PARA EL DESARROLLO**

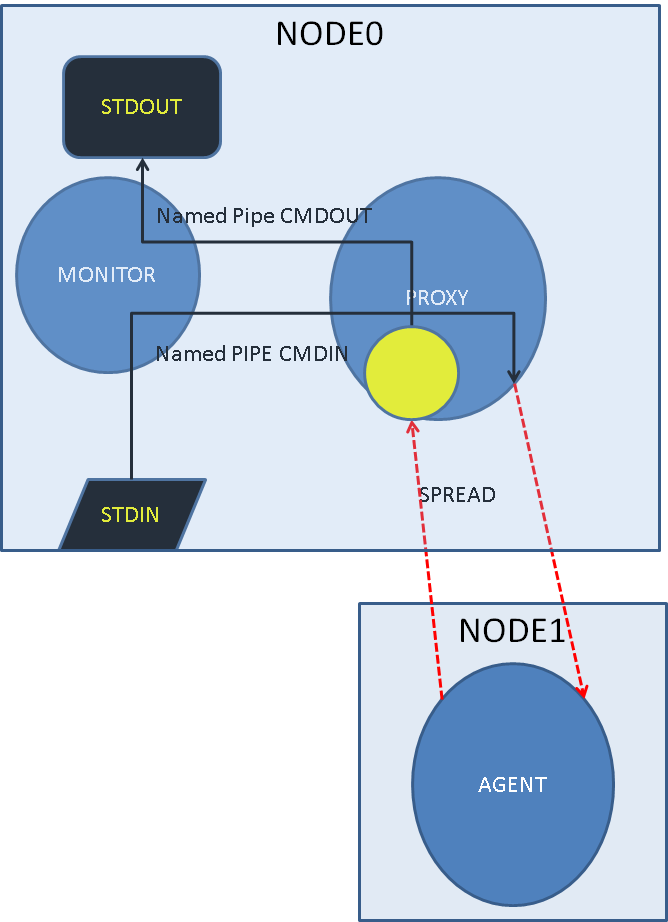
**OPCION 1: Utilizando un Proxy entre Perl de Webmin y Spread**

|  |  |
| --- | --- |
|  | En el archivo /usr/src/dvs/include/com/ipc.h Se encuentran los formatos definidos para los mensajes, Si se agregan nuevos formatos de mensaje no deben superar el tamaño sizeof(message)=36. Al ejecutar el Monitor presenta en pantalla el tamaño de mensaje y los tamaños de los formatos que puede contener (max = 28 bytes)  Se dispone ademas de formatos preparados para el printf o USRDEBUG  #define MSGC\_FORMAT "source=%d type=%d mCi1=%d mCi2=%d mCi3=%d mCi4=%d mCca1=[%s]\n"  #define MSGC\_FIELDS(p) p->m\_source,p->m\_type, p->mC\_i1, p->mC\_i2, p->mC\_i3, p->mC\_i4, p->mC\_ca1  Y se usaria:  USRDEBUG(MSGC\_FORMAT, MSGC\_FIELDS(m\_ptr));  Imprimira formatos tipo MSGC. |
|  | En el archivo /usr/src/dvs/include/com/dvk\_calls.h estan las constantes figurativas para todas las DVK CALLS. |
|  | En el archivo /usr/src/dvs/include/com/stub\_dvkcalls.h estan las definiciones de los formatos de todas las DVK CALLS con sus parametros. |
|  | En el archivo /usr/src/dvs/include/com/dvk\_errno.h estan las las constantes figurativas para todos los codigos de error. |
|  | En el archivo /usr/src/dvs/dvs-apps/macros.h hay macros utiles para presentar codigos de error y hacer un seguimiento de los LOCKs y UNLOCKs de semaforos y WAIT y SIGNAL de variables de condicion |
|  | En el archivo /usr/src/dvs/dvs-apps/debug.h hay macros utiles para debugging, sobretodo USRDEBUG, que funciona igual que un printf, con la unica diferencia de que imprime mas informacion por ejemplo “**1741:dd\_monitor.c:do\_cmd\_input:167:”.** Da el PID=1741, el programa fuente, el nombre de la funcion y el nro de linea.  Anulando la constante figurativa USRDBG no se realiza mas DEBUGGING  // #define USRDBG 1 << **ANULADA COMO COMENTARIO** |

# DIAGRAMAS DE FLUJO



# PRUEBAS



|  |  |  |  |
| --- | --- | --- | --- |
| **SEQ** | **NODE0 (MONITOR)** | **NODE0(PROXY)** | **NODE1(AGENT)** |
| 3 |  | cd /usr/src/dvs/dvk-tests/ | cd /usr/src/dvs/dvk-tests/ |
| 4 |  | ./tests.sh 0 0 | ./tests.sh 1 0 |
| 5 |  | . /dev/shm/DC0.sh | . /dev/shm/DC0.sh |
| 6 |  | cd /usr/src/dvs/dvs-apps/dvkd | cd /usr/src/dvs/dvs-apps/dvkd |
| 7 |  | ./dd\_proxy >proxy.out 2>proxy.err & | ./dd\_agent >agent.out 2>agent.err & |
| 8 | ./dd\_monitor |  |  |

El MONITOR arroja los mensajes por pantalla porque require el ingreso de datos.

Tanto el PROXY como el AGENT dejan sus salidas STDOUT y STDIN para debugging en los archivos redireccionados.

SESION EN NODE0 (MONITOR)

root@node0:/usr/src/dvs/dvs-apps/dvkd# **./dd\_monitor**

1764:dd\_monitor.c:main:34:DVKD MONITOR: Initializing...

1764:dd\_monitor.c:main:35:DVKD MONITOR: sizeof(message)=36

1764:dd\_monitor.c:main:37:DVKD MONITOR: sizeof(mess\_1)=24

1764:dd\_monitor.c:main:38:DVKD MONITOR: sizeof(mess\_2)=24

1764:dd\_monitor.c:main:39:DVKD MONITOR: sizeof(mess\_3)=28

1764:dd\_monitor.c:main:40:DVKD MONITOR: sizeof(mess\_4)=20

1764:dd\_monitor.c:main:41:DVKD MONITOR: sizeof(mess\_5)=24

1764:dd\_monitor.c:main:42:DVKD MONITOR: sizeof(mess\_6)=28

1764:dd\_monitor.c:main:43:DVKD MONITOR: sizeof(mess\_7)=24

1764:dd\_monitor.c:main:44:DVKD MONITOR: sizeof(mess\_8)=24

1764:dd\_monitor.c:main:45:DVKD MONITOR: sizeof(mess\_9)=16

1764:dd\_monitor.c:main:46:DVKD MONITOR: sizeof(mess\_A)=24

1764:dd\_monitor.c:main:47:DVKD MONITOR: sizeof(mess\_B)=20

1764:dd\_monitor.c:main:48:DVKD MONITOR: sizeof(mess\_C)=28

1764:dd\_monitor.c:main:53:gethostname=node0

1764:dd\_monitor.c:main:61:Open MONITOR pipe=/tmp/OUTCMD\_node0 for READING

1764:dd\_monitor.c:main:70:Open MONITOR pipe=/tmp/INCMD\_node0 for WRITING

1764:dd\_monitor.c:do\_cmd\_input:98:

**(node0)Input command> ls**

1764:dd\_monitor.c:do\_cmd\_input:117:cmd\_input[ls] inbytes=2

1764:dd\_monitor.c:do\_cmd\_input:155:INCMD HEADER (36): source=1 type=101 m1i1=2 m1i2=0 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1764:dd\_monitor.c:do\_cmd\_input:167:INCMD: cmd\_input=ls

1764:dd\_monitor.c:do\_cmd\_input:186:OUTCMD HEADER: source=2 type=8293 m1i1=240 m1i2=2 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1764:dd\_monitor.c:do\_cmd\_input:191:Reading from 240 PIPE...

**agent.err**

**agent.out**

**dd\_agent**

**dd\_agent.c**

**dd\_agent.h**

**dd\_agent.o**

**dd\_common.h**

**dd\_monitor**

**dd\_monitor.c**

**dd\_monitor.h**

**dd\_monitor.o**

**dd\_proxy**

**dd\_proxy.c**

**dd\_proxy.h**

**dd\_proxy.o**

**dvkd.pptx**

**error.txt**

**glo\_agent.h**

**glo\_monitor.h**

**glo\_proxy.h**

**Makefile**

**user.c**

**(node0)Input command> hostname**

1764:dd\_monitor.c:do\_cmd\_input:117:cmd\_input[hostname] inbytes=8

1764:dd\_monitor.c:do\_cmd\_input:155:INCMD HEADER (36): source=1 type=101 m1i1=8 m1i2=1 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1764:dd\_monitor.c:do\_cmd\_input:167:INCMD: cmd\_input=hostname

1764:dd\_monitor.c:do\_cmd\_input:186:OUTCMD HEADER: source=2 type=8293 m1i1=6 m1i2=3 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1764:dd\_monitor.c:do\_cmd\_input:191:Reading from 6 PIPE...

**node1**

(**node0)Input command> API**

1764:dd\_monitor.c:do\_cmd\_input:117:cmd\_input[API] inbytes=3

(node0)API> rmtbind <dcid> <ep> <nodeid> <name>

**(node0)API> rmtbind 0 100 0 proc100**

1764:dd\_monitor.c:do\_getAPI:224: rmtbind

1764:dd\_monitor.c:do\_getAPI:235: 0

1764:dd\_monitor.c:do\_getAPI:235: 100

1764:dd\_monitor.c:do\_getAPI:235: 0

1764:dd\_monitor.c:do\_getAPI:235: proc100

1764:dd\_monitor.c:do\_getAPI:252:API HEADER (36): source=1 type=9 mCi1=2 mCi2=0 mCi3=100 mCi4=0 mCca1=[proc100]

1764:dd\_monitor.c:do\_cmd\_input:205:API REPLY (36): source=3 type=8201 mCi1=100 mCi2=0 mCi3=0 mCi4=0 mCca1=[rmtbind]

**API RESULT rmtbind =100**

**(node0)Input command> exit**

1764:dd\_monitor.c:do\_cmd\_input:117:cmd\_input[exit] inbytes=4

ERROR: dd\_monitor.c:do\_cmd\_input:121: rcode=0

ERROR: dd\_monitor.c:do\_cmd\_input:121: rcode=0

RESULTADO EN NODE1

root@node1:/usr/src/dvs/dvs-apps/dvkd# **cat /proc/dvs/DC0/procs**

DC pnr -endp -lpid/vpid- nd flag misc -getf -sndt -wmig -prxy name

0 100 100 -1/-1 0 1000 0 27342 27342 27342 27342 proc100

**OPCION 2: Utilizando Spread directamente desde Webmin**

**USO DE SPREAD TOOLKIT DESDE PERL**

Para utilizar la libreria spread desde perl hay que bajar

https://metacpan.org/dist/Spread

Existen otras

https://metacpan.org/pod/Spread::Message

https://metacpan.org/pod/Spread::Messaging

luego realizar los pasos para instalar:

Unpack it into a writable directory.

Run the Perl configure command: "perl Makefile.pl".

Run the "make" command.

Run the "make test" command.

Do not proceed until this command completes successfully.

Run the "make install" command.

Con esto se prueban todas las APIs

root@node0:~/perl\_spread/Spread-3.17.4.4# ./test.pl -m -r -j -p -l -d -rt 10 -c

Spread client library version 5.0.1

Trying to connect to spread...

Mailbox is: 3 and private\_group is #perltest#node0

Attempting to join: flooder.

Successfully joined: 1 of 1 group(s) [flooder].

Attempting to multicast 15 bytes to [flooder].

Successfully multicasted 15 bytes to [flooder]

Attempting to multicast 21 bytes to [flooder].

Successfully multicasted 21 bytes to [flooder].

Polling mailbox for messages.

Mailbox contains 332 bytes.

Entering receive loop. (Timeout = 10s)

Receive error:

Received 4 messages.

Attempting to leave: [flooder].

Successfully left: [flooder].

Successful disconnect

Tests 8, passed 8/8 = 100.00%

**TEST ENTRE NODE0 Y NODE1**

EN NODE0

Se hizo una pequeña modificación para que imprima el contenido de los mensajes en test2.pl

root@node0:~/perl\_spread/Spread-3.17.4.4# ./test2.pl -m -r -j -p -l -d -c

Spread client library version 5.0.1

Spread spreaddaemon

Trying to connect to spread...

Mailbox is: 3 and private\_group is #perltest2#node0

Attempting to join: flooder.

Successfully joined: 1 of 1 group(s) [flooder].

Attempting to multicast 15 bytes to [flooder].

Successfully multicasted 15 bytes to [flooder]

Attempting to multicast 21 bytes to [flooder].

Successfully multicasted 21 bytes to [flooder].

Polling mailbox for messages.

Mailbox contains 364 bytes.

Entering receive loop.

Received 1 messages. [e¿¹ b#perltest2#node0]

Received 2 messages. [This is a test.]

Received 3 messages. [This is another test.]

EN NODE1

cd /usr/src/dvs/spread-src-5.0.1/examples

./spuser

==========

User Menu:

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j <group> -- join a group

l <group> -- leave a group

s <group> -- send a message

m <group> -- send a multiline message to group. Terminate with empty line

b <group> -- send a burst of messages

r -- receive a message (stuck)

p -- poll for a message

e -- enable asynchonous read (default)

d -- disable asynchronous read

q -- quit

User> j flooder

User> s flooder

enter message: HOLA QUE TAL

User>

============================

received SAFE message from #user#node1, of type 1, (endian 0) to 1 groups

(13 bytes): HOLA QUE TAL

EN NODE0 SE VE LO SIGUIENTE

Received 4 messages. [HOLA QUE TAL]

CUANDO SE ARRANCA EL PROGRAMA PRIMERO EN NODE1 Y LUEGO EN NODE0, NODE1 REGISTRA

User>

============================

received SAFE message from #perltest2#node0, of type 0, (endian 0) to 1 groups

(15 bytes): This is a test.

User>

============================

received SAFE message from #perltest2#node0, of type 0, (endian 0) to 1 groups

(21 bytes): This is another test.

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Se desarrollo un monitor.pl básico para ver la conectividad con el dd\_agent de NODE1

EN NODE1 arrancar el dd\_agent

cd /usr/src/dvs/dvs-apps/dvkd/

./dd\_agent > dd\_agent.out 2> dd\_agent.err &

EN NODE0

root@node0:~/perl\_spread/Spread-3.17.4.4# ./monitor.pl

Spread client library version 5.0.1

Trying to connect to spread...

Mailbox is: 3 and private\_group is #DDM.00#node0

Attempting to join: DDGROUP.

Successfully joined: 1 of 1 group(s) [DDGROUP].

Attempting to multicast 3 bytes to [DDGROUP].

message: 102 .

Successfully multicasted 3 bytes to [DDGROUP]

Attempting to leave: [DDGROUP].

Successfully left: [DDGROUP].

EN NODE1

955:dd\_agent.c:main:31:DVKD MONITOR: Initializing...

955:dd\_agent.c:clear\_agent\_vars:138:

955:dd\_agent.c:main:43:local\_nodeid=1

955:dd\_agent.c:main:48:d\_name=TEST\_CLUSTER d\_nr\_dcs=32 d\_nr\_nodes=32 d\_nr\_procs=221 d\_nr\_tasks=35 d\_nr\_sysprocs=64

955:dd\_agent.c:init\_spread:89:Spread library version is 5.0.1

SE CONECTA A SPREAD

955:dd\_agent.c:connect\_to\_spread:106:spread\_group=DDGROUP

955:dd\_agent.c:connect\_to\_spread:110:dda\_mbr\_name=DDA.01

955:dd\_agent.c:connect\_to\_spread:122:dda\_mbr\_name DDA.01: connected to 4803 with private group #DDA.01#node1

955:dd\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=0 dda\_bm\_init=0

SE RECIBE EL MENSAJE DE MEMBRESIA (JOIN)

955:dd\_agent.c:dda\_SP\_receive:160:DDA.01

955:dd\_agent.c:dda\_SP\_receive:168:ret=56

955:dd\_agent.c:dda\_SP\_receive:190:DDA.01: sender=DDGROUP Private\_group=#DDA.01#node1 service\_type=4352

955:dd\_agent.c:dda\_SP\_receive:213:DDA.01: Received REGULAR membership for group DDGROUP with 1 members, where I am member 0:

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDA.01#node1

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDA.01#node1 nid=1

955:dd\_agent.c:dda\_udt\_members:638: #DDA.01#node1 nodeid=1

955:dd\_agent.c:dda\_udt\_members:641:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=1 dda\_nr\_init=0 dda\_bm\_nodes=2 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:223:DDA.01: Due to the JOIN of #DDA.01#node1 service\_type=4352

955:dd\_agent.c:dda\_join:463:member=#DDA.01#node1

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDA.01#node1

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDA.01#node1 nid=1

955:dd\_agent.c:main:57:rcode=0

955:dd\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=1 dda\_nr\_init=0 dda\_bm\_nodes=2 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:160:DDA.01

955:dd\_agent.c:dda\_SP\_receive:168:ret=56

955:dd\_agent.c:dda\_SP\_receive:190:DDA.01: sender=DDGROUP Private\_group=#DDA.01#node1 service\_type=4352

955:dd\_agent.c:dda\_SP\_receive:213:DDA.01: Received REGULAR membership for group DDGROUP with 2 members, where I am member 1:

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDM.00#node0

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDM.00#node0 nid=0

955:dd\_agent.c:dda\_udt\_members:638: #DDM.00#node0 nodeid=0

955:dd\_agent.c:dda\_udt\_members:641:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=1 dda\_nr\_init=0 dda\_bm\_nodes=1 dda\_bm\_init=0

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDA.01#node1

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDA.01#node1 nid=1

955:dd\_agent.c:dda\_udt\_members:638: #DDA.01#node1 nodeid=1

955:dd\_agent.c:dda\_udt\_members:641:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

SE RECIBE EL JOIN DEL MONITOR

955:dd\_agent.c:dda\_SP\_receive:223:DDA.01: Due to the JOIN of #DDM.00#node0 service\_type=4352

955:dd\_agent.c:dda\_join:463:member=#DDM.00#node0

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDM.00#node0

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDM.00#node0 nid=0

955:dd\_agent.c:dda\_join:478:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

955:dd\_agent.c:main:57:rcode=0

RECIBE UN MENSAJE DEL MONITOR (POR AHORA INCOMPRESIBLE POR INCOMPATIBILIDAD DE TIPOS DE DATOS)

955:dd\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:160:DDA.01

955:dd\_agent.c:dda\_SP\_receive:168:ret=3

955:dd\_agent.c:dda\_SP\_receive:190:DDA.01: sender=#DDM.00#node0 Private\_group=#DDA.01#node1 service\_type=32

955:dd\_agent.c:dda\_SP\_receive:199:received non SAFE/FIFO message <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

955:dd\_agent.c:main:57:rcode=0

RECIBE EL MENSAJE DE MEMBRESIA LEAVE

955:dd\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:160:DDA.01

955:dd\_agent.c:dda\_SP\_receive:168:ret=56

955:dd\_agent.c:dda\_SP\_receive:190:DDA.01: sender=DDGROUP Private\_group=#DDA.01#node1 service\_type=4608

955:dd\_agent.c:dda\_SP\_receive:213:DDA.01: Received REGULAR membership for group DDGROUP with 1 members, where I am member 0:

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDA.01#node1

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDA.01#node1 nid=1

955:dd\_agent.c:dda\_udt\_members:638: #DDA.01#node1 nodeid=1

955:dd\_agent.c:dda\_udt\_members:641:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=1 dda\_nr\_init=0 dda\_bm\_nodes=2 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:234:DDA.01: Due to the LEAVE or DISCONNECT of #DDM.00#node0

955:dd\_agent.c:dda\_leave:490:member=#DDM.00#node0

955:dd\_agent.c:get\_nodeid:275:mbr\_string=#DDM.00#node0

955:dd\_agent.c:get\_nodeid:287:mbr\_string=#DDM.00#node0 nid=0

955:dd\_agent.c:clear\_agent\_vars:138:

955:dd\_agent.c:dda\_leave:498:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=0 dda\_bm\_init=0

955:dd\_agent.c:main:57:rcode=0

955:dd\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=0 dda\_bm\_init=0

955:dd\_agent.c:dda\_SP\_receive:160:DDA.01

===========================================================================================

A los efectos de intercambiar datos entre MONITOR.PL y PL\_AGENT.C

todo será transferido a través de strings separados por COMAS ","

# Multicast to group(s)

Spread::multicast($mbox, AGREED\_MESS, 'GroupB', 0, "Hey you!");

int SP\_multicast (mailbox mbox, service service\_type,

const char \*group, int16 mess\_type,

int mess\_len, const char \*mess);

int SP\_receive (mailbox mbox, service \*service\_type, char sender[MAX\_GROUP\_NAME],

int max\_groups, int \*num\_groups, char groups[][MAX\_GROUP\_NAME],

int16 \*mess\_type, int \*endian\_mismatch, int max\_mess\_len, char \*mess);

my($service\_type, $sender, $groups, $mess\_type, $endian, $message) =

Spread::receive($mbox, 1.789); # 1.789 second timeout on receive

**MONITOR.PL**

HACE EL JOIN COMO DDM node0 en el DDGROUP

Mailbox is: 3 and private\_group is #DDM.00#node0

Attempting to join: DDGROUP.

Successfully joined: 1 of 1 group(s) [DDGROUP].

Attempting to multicast 17 bytes to [DDGROUP].

HACE UN MULTICAST DE

message: 0,100,0,0,0,0,0,0 ===> Source 100:HELLO\_AGENTS nr\_nodes=0 nr\_init=0

Successfully multicasted 17 bytes to [DDGROUP]

Entering receive loop. (Timeout = 10s)

RECIBE MENSAJE DE SU PROPIO JOIN

st=[4352] s=[DDGROUP] g=[ARRAY(0x1f244f4)] mt=[0] mess=[e;¢b#DDM.00#node0]

RECIBE MENSAJE DE SU PROPIO MULTICAS HELLO\_AGENTS

st=[4] s=[#DDM.00#node0] g=[ARRAY(0x204ea24)] mt=[100] mess=[0,100,0,0,0,0,0,0]

RECIBE LA RESPUESTA DE NODO1 HELLO\_MONITOR (1000 + 100)

st=[4] s=[#DDA.01#node1] g=[ARRAY(0x204eb14)] mt=[1100] mess=[1,1100,0,0,0,0,0,0]

Receive error:

Received 4 messages.

Attempting to leave: [DDGROUP].

Successfully left: [DDGROUP].

**PL\_AGENT**

RECIBE MENSAJE DEL JOIN DEL MONITOR EN DDM.00

1428:pl\_agent.c:dda\_SP\_receive:228:DDA.01: Due to the JOIN of #DDM.00#node0 service\_type=4352

1428:pl\_agent.c:dda\_join:491:member=#DDM.00#node0

1428:pl\_agent.c:get\_nodeid:280:mbr\_string=#DDM.00#node0

1428:pl\_agent.c:get\_nodeid:292:mbr\_string=#DDM.00#node0 nid=0

1428:pl\_agent.c:dda\_join:506:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

1428:pl\_agent.c:main:57:rcode=0

1428:pl\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=2 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=0

1428:pl\_agent.c:dda\_SP\_receive:160:DDA.01

1428:pl\_agent.c:dda\_SP\_receive:168:ret=17

RECIBE MULTICAST DE NODE0 CON MENSAJE HELLO\_AGENTS

1428:pl\_agent.c:dda\_SP\_receive:190:DDA.01: sender=#DDM.00#node0 Private\_group=#DDA.01#node1 service\_type=4

1428:pl\_agent.c:dda\_SP\_receive:196:DDA.01: len=17 dda\_mess\_in=[0,100,0,0,0,0,0,0] <======= HELLO\_AGENTS

1428:pl\_agent.c:dda\_SP\_receive:200:DDA.01: FIFO message from #DDM.00#node0, of type 100, (endian 0) to 1 groups (17 bytes)

1428:pl\_agent.c:get\_nodeid:280:mbr\_string=#DDM.00#node0

1428:pl\_agent.c:get\_nodeid:292:mbr\_string=#DDM.00#node0 nid=0

1428:pl\_agent.c:dda\_reg\_msg:312:sender\_ptr=#DDM.00#node0 nodeid=0

DESCOMPONE EL MENSAJE EN SUS COMPONENTES

1428:pl\_agent.c:dda\_reg\_msg:325:dda\_mess\_in=0,100,0,0,0,0,0,0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=100

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:332:token=0

1428:pl\_agent.c:dda\_reg\_msg:374:source=0 type=100 m1i1=0 m1i2=0 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1428:pl\_agent.c:dda\_reg\_msg:377:MT\_HELLO\_AGENTS received from 0

ENVIA EL MENSAJE HELLO\_MONITOR

1428:pl\_agent.c:mcast\_hello\_monitor:647:source=1 type=1100 m1i1=0 m1i2=0 m1i3=0 m1p1=(nil) m1p2=(nil) m1p3=(nil)

1428:pl\_agent.c:mcast\_hello\_monitor:650:s\_msg=[1,1100,0,0,0,0,0,0]

1428:pl\_agent.c:main:57:rcode=0

1428:pl\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=3

1428:pl\_agent.c:dda\_SP\_receive:160:DDA.01

1428:pl\_agent.c:dda\_SP\_receive:168:ret=19

1428:pl\_agent.c:dda\_SP\_receive:190:DDA.01: sender=#DDA.01#node1 Private\_group=#DDA.01#node1 service\_type=4

1428:pl\_agent.c:dda\_SP\_receive:196:DDA.01: len=19 dda\_mess\_in=[1,1100,0,0,0,0,0,0]

1428:pl\_agent.c:dda\_SP\_receive:200:DDA.01: FIFO message from #DDA.01#node1, of type 1100, (endian 0) to 1 groups (19 bytes)

1428:pl\_agent.c:get\_nodeid:280:mbr\_string=#DDA.01#node1

1428:pl\_agent.c:get\_nodeid:292:mbr\_string=#DDA.01#node1 nid=1

1428:pl\_agent.c:dda\_reg\_msg:312:sender\_ptr=#DDA.01#node1 nodeid=1

1428:pl\_agent.c:main:57:rcode=0

1428:pl\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=3 dda\_bm\_init=3

RECIBE EL MENSAJE DE SPREAD DE DISCONNECT O LEAVE DE NODE1

1428:pl\_agent.c:dda\_SP\_receive:160:DDA.01

1428:pl\_agent.c:dda\_SP\_receive:168:ret=56

1428:pl\_agent.c:dda\_SP\_receive:190:DDA.01: sender=DDGROUP Private\_group=#DDA.01#node1 service\_type=4608

1428:pl\_agent.c:dda\_SP\_receive:218:DDA.01: Received REGULAR membership for group DDGROUP with 1 members, where I am member 0:

1428:pl\_agent.c:get\_nodeid:280:mbr\_string=#DDA.01#node1

1428:pl\_agent.c:get\_nodeid:292:mbr\_string=#DDA.01#node1 nid=1

1428:pl\_agent.c:dda\_udt\_members:669: #DDA.01#node1 nodeid=1

1428:pl\_agent.c:dda\_udt\_members:672:dda\_mbr\_name=DDA.01 dda\_monitor=0 dda\_nr\_nodes=1 dda\_nr\_init=0 dda\_bm\_nodes=2 dda\_bm\_init=3

1428:pl\_agent.c:dda\_SP\_receive:239:DDA.01: Due to the LEAVE or DISCONNECT of #DDM.00#node0

1428:pl\_agent.c:dda\_leave:518:member=#DDM.00#node0

1428:pl\_agent.c:get\_nodeid:280:mbr\_string=#DDM.00#node0

1428:pl\_agent.c:get\_nodeid:292:mbr\_string=#DDM.00#node0 nid=0

1428:pl\_agent.c:clear\_agent\_vars:138:

1428:pl\_agent.c:dda\_leave:526:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=0 dda\_bm\_init=0

1428:pl\_agent.c:main:57:rcode=0

1428:pl\_agent.c:main:54:dda\_mbr\_name=DDA.01 dda\_monitor=-1 dda\_nr\_nodes=0 dda\_nr\_init=0 dda\_bm\_nodes=0 dda\_bm\_init=0

1428:pl\_agent.c:dda\_SP\_receive:160:DDA.01

**Modifique el MONITOR.PL**

En este caso se arranca el MONITOR.PL y rapidamente se arranca el AGENT y rapidamente se mata el AGENT

root@node0:/usr/src/dvs/dvs-apps/dvkd/Spread-3.17.4.4# ./monitor.pl

Spread client library version 5.0.1

Trying to connect to spread...

Mailbox is: 3 and private\_group is #DDM.00#node0

Attempting to join: DDGROUP.

Successfully joined: 1 of 1 group(s) [DDGROUP].

Attempting to multicast 17 bytes to [DDGROUP].

message: 0,100,0,0,0,0,0,0 .

Successfully multicasted 17 bytes to [DDGROUP]

Entering receive loop. (Timeout = 10s)

JOIN DEL MONITOR

st=[4352] s=[DDGROUP] g=[ARRAY(0x13984f4)] mt=[0] mess=[eÇI£b#DDM.00#node0]

JOIN

SOURCE: DDGROUP

a\_pos=-1 m\_pos=24

MONITOR JOIN

RECIBI MENSAJE PROPIO MULTICAST HELLO\_AGENT

st=[4] s=[#DDM.00#node0] g=[ARRAY(0x1398544)] mt=[100] mess=[0,100,0,0,0,0,0,0]

REGULAR

type\_nr: DDM.00

node\_name: node0

src\_type: DDM

src\_nodeid: 00

SELF MESSAGE - SOURCE: #DDM.00#node0

HELLO\_AGENT RECEIVED: 100 FROM DDM WITH NODEID 00

nr\_nodes: 1

bm\_nodes: 00000001

RECIBI JOIN DEL AGENT

st=[4352] s=[DDGROUP] g=[ARRAY(0x13984f4)] mt=[0] mess=[eÇI£b#DDA.01#node1]

JOIN

SOURCE: DDGROUP

a\_pos=24 m\_pos=-1

AGENT JOIN: id 01

RECIBI LEAVE DEL AGENT

st=[5120] s=[DDGROUP] g=[ARRAY(0x1460814)] mt=[0] mess=[eÇI£b#DDA.01#node1]

LEAVE

SOURCE: DDGROUP

a\_pos=24

AGENT LEAVE: id 01

Receive error:

Received 5 messages.

Attempting to leave: [DDGROUP].

Successfully left: [DDGROUP].

EXITING.....

En este caso se arranca el pl\_agent y luego el MONITOR

root@node0:/usr/src/dvs/dvs-apps/dvkd/Spread-3.17.4.4# ./monitor.pl

Spread client library version 5.0.1

Trying to connect to spread...

Mailbox is: 3 and private\_group is #DDM.00#node0

Attempting to join: DDGROUP.

Successfully joined: 1 of 1 group(s) [DDGROUP].

Attempting to multicast 17 bytes to [DDGROUP].

message: 0,100,0,0,0,0,0,0 .

Successfully multicasted 17 bytes to [DDGROUP]

Entering receive loop. (Timeout = 10s)

JOINT DE MONITOR

st=[4352] s=[DDGROUP] g=[ARRAY(0x22394f4)] mt=[0] mess=[eÇI£b#DDM.00#node0]

JOIN

SOURCE: DDGROUP

a\_pos=-1 m\_pos=24

MONITOR JOIN

RECIBI PROPIO MULTICAST HELLO\_AGENT

st=[4] s=[#DDM.00#node0] g=[ARRAY(0x2239558)] mt=[100] mess=[0,100,0,0,0,0,0,0]

REGULAR

type\_nr: DDM.00

node\_name: node0

src\_type: DDM

src\_nodeid: 00

SELF MESSAGE - SOURCE: #DDM.00#node0

HELLO\_AGENT RECEIVED: 100 FROM DDM WITH NODEID 00

nr\_nodes: 1

bm\_nodes: 00000001

RECIBI MULTICAST DESDE EL AGENT HELLO\_MONITOR

st=[4] s=[#DDA.01#node1] g=[ARRAY(0x22394f4)] mt=[1100] mess=[1,1100,0,0,0,0,0,0]

REGULAR

type\_nr: DDA.01

node\_name: node1

src\_type: DDA

src\_nodeid: 01

SELF MESSAGE - SOURCE: #DDA.01#node1

HELLO\_MONITOR RECEIVED: 1100 FROM DDA WITH NODEID 01

nr\_nodes: 2

bm\_nodes: 00000003

Receive error:

Received 4 messages.

Attempting to leave: [DDGROUP].

Successfully left: [DDGROUP].

EXITING.....

root@node0:/usr/src/dvs/dvs-apps/dvkd/Spread-3.17.4.4#