参考博客：https://blog.csdn.net/hainengbunengwan/article/details/50906741

一、添加ns2协议

步骤如下：

（XXX替换为TEAOMDV或teaomdv）

1、common/packet.h

– 添加static const packet\_t PT\_XXX = XX;注意修改最后PT\_NTYPE的值

– 添加type==PT\_XXX ||

– 添加name\_[PT\_XXX] = 'xxx'

2、trace/cmu-trace.h

– 添加void format\_caodv(Packet \*p, int offset)方法

3、trace/cmu-trace.cc

– 对应aodv的头文件，添加新协议的头文件

– 添加CMUTrace：：format\_xxx(Packet \*p , int offest)函数：

void

CMUTrace::format\_teaomdv(Packet \*p, int offset)

{

struct hdr\_teaomdv \*ah = HDR\_TEAOMDV(p);

struct hdr\_teaomdv\_request \*rq = HDR\_TEAOMDV\_REQUEST(p);

struct hdr\_teaomdv\_reply \*rp = HDR\_TEAOMDV\_REPLY(p);

switch(ah->ah\_type) {

case TEAOMDVTYPE\_RREQ:

if (pt\_->tagged()) {

sprintf(pt\_->buffer() + offset,

"-teaomdv:t %x -teaomdv:h %d -teaomdv:b %d -teaomdv:d %d "

"-teaomdv:ds %d -teaomdv:s %d -teaomdv:ss %d "

"-teaomdv:c REQUEST ",

rq->rq\_type,

rq->rq\_hop\_count,

rq->rq\_bcast\_id,

rq->rq\_dst,

rq->rq\_dst\_seqno,

rq->rq\_src,

rq->rq\_src\_seqno);

} else if (newtrace\_) {

sprintf(pt\_->buffer() + offset,

"-P teaomdv -Pt 0x%x -Ph %d -Pb %d -Pd %d -Pds %d -Ps %d -Pss %d -Pc REQUEST ",

rq->rq\_type,

rq->rq\_hop\_count,

rq->rq\_bcast\_id,

rq->rq\_dst,

rq->rq\_dst\_seqno,

rq->rq\_src,

rq->rq\_src\_seqno);

} else {

sprintf(pt\_->buffer() + offset,

"[0x%x %d %d [%d %d] [%d %d]] (REQUEST)",

rq->rq\_type,

rq->rq\_hop\_count,

rq->rq\_bcast\_id,

rq->rq\_dst,

rq->rq\_dst\_seqno,

rq->rq\_src,

rq->rq\_src\_seqno);

}

break;

case TEAOMDVTYPE\_RREP:

case TEAOMDVTYPE\_HELLO:

case TEAOMDVTYPE\_RERR:

case TEAOMDVTYPE\_RCOM:

case TEAOMDVTYPE\_PROB:

case TEAOMDVTYPE\_PTA:

if (pt\_->tagged()) {

sprintf(pt\_->buffer() + offset,

"-teaomdv:t %x -teaomdv:h %d -teaomdv:d %d -teadmov:ds %d "

"-teaomdv:l %f -teaomdv:c %s ",

rp->rp\_type,

rp->rp\_hop\_count,

rp->rp\_dst,

rp->rp\_dst\_seqno,

rp->rp\_lifetime,

rp->rp\_type == AOMDVTYPE\_RREP ? "REPLY" :

(rp->rp\_type == AOMDVTYPE\_RERR ? "ERROR" :

"HELLO"));

} else if (newtrace\_) {

sprintf(pt\_->buffer() + offset,

"-P teaomdv -Pt 0x%x -Ph %d -Pd %d -Pds %d -Pl %f -Pc %s ",

rp->rp\_type,

rp->rp\_hop\_count,

rp->rp\_dst,

rp->rp\_dst\_seqno,

rp->rp\_lifetime,

rp->rp\_type == AOMDVTYPE\_RREP ? "REPLY" :

(rp->rp\_type == AOMDVTYPE\_RERR ? "ERROR" :

"HELLO"));

} else {

sprintf(pt\_->buffer() + offset,

"[0x%x %d [%d %d] %f] (%s) [%d %d]",

rp->rp\_type,

rp->rp\_hop\_count,

rp->rp\_dst,

rp->rp\_dst\_seqno,

rp->rp\_lifetime,

rp->rp\_type == AODVTYPE\_RREP ? "REPLY" :

(rp->rp\_type == AODVTYPE\_RERR ? "ERROR" :

"HELLO"),

rp->rp\_bcast\_id,

rp->rp\_first\_hop

);

}

break;

default:

#ifdef WIN32

fprintf(stderr,

"CMUTrace::format\_teaomdv: invalid AODV packet type\n");

#else

fprintf(stderr,

"%s: invalid AOMDV packet type\n", \_\_FUNCTION\_\_);

#endif

abort();

}

}

– 在void CMUTrace::format(Packet\* p, const char \*why)函数中参照aodv的写法添加case PT\_XXX: format\_xxx(p, offset); break;

4、queue/priqueue.cc

– 在case PT\_AODV下面添加case PT\_XXX:

5、tcl/lib/ns-packet.tcl

– 搜索AODV，然后在AODV的下面添加XXX，表示声明。

tcl/lib/ns-lib.tcl

– 添加XXX{set ragent [$self create-xxx-agent $node]}

– 添加

Simulator instproc create-xxx-agent { node } {

set ragent [new Agent/XXX[$node node-addr]]

$self at 0.0 "$ragent start"

$node set ragent\_ $ragent

return $ragent

}

6、tcl/lib/ns-mobilenode.tcl

– 为了设置协议的混杂模式，添加

# Special processing for TEAOMDV

set teaomdvonly [string first "TEAOMDV" [$agent info class]]

if {$teaomdvonly != -1 } {

$agent if-queue [$self set ifq\_(0)] ;# ifq between LL and MAC

$agent install-tap $mac\_(0)

}

二、将文件夹teaomdv复制到ns2.35，修改makefile文件，添加：

teaomdv/teaomdv\_logs.o teaomdv/teaomdv.o \

teaomdv/teaomdv\_rtable.o teaomdv/teaomdv\_rqueue.o \

协议修改好后，需要对ns2进行重新编译，cd进入ns-2.35目录，输入：make clean&&make