ssmping update
<draft-ietf-mboned-ssmping-01.txt>

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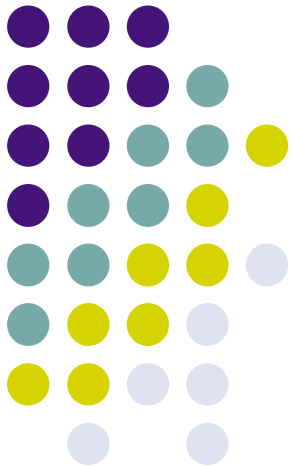
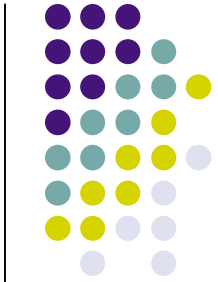
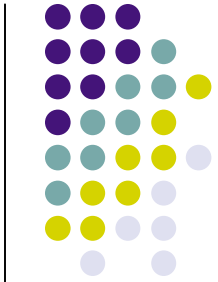


ssmping update



- Revision 01 of the draft is now available
- Changes since 00
  - Aside from some textual improvements there is only one major difference
  - The option for specifying a reply size has been removed
  - Instead the client needs to pad the request to extend the size of the replies
- Outstanding issues
  - Should client port be standardised?
    - See later slide
  - What group addresses to use?
    - See later slide
  - How to treat admin-scope boundaries
  - Options for TTL and DSCP? Path MTU Discovery?
  - Version number in protocol messages?
  - Name of the protocol

Standard client port?



- The question is whether there should be a fixed standard port that clients use as source port for requests and for receiving replies
- The advantage is security
  - Without this it is easy to send messages with forged spoofed source address and any desired port to make a server send messages to a victim at any port the attacker wants
- The disadvantage is that it becomes hard/impossible to have multiple concurrent clients on the same host
  - Many stacks allow SO_REUSEADDR allowing multiple clients to listen to same port
  - However, all incoming unicast messages are delivered to only one of the sockets

Group addresses 1/2

- Currently the idea is to have a fixed group for SSM while for ASM the client can tell the server what group it wants
- Some security issues with allowing a client to pick any random group
- A fixed group has the disadvantage that all clients receive all reports from everyone else
  - For SSM it will only be from one particular server though
- For ASM I think client must be allowed some choice
  - May want to test with different admin scopes
  - May want to test with different RPs
- It has been suggested that the server could tell the client what group to use

Group addresses 2/2

- Server assigned groups give server administrator more control and can be made more secure
- This might be a good idea, however it makes protocol more complicated since needs an initial handshake before pinging (could allow for authentication etc)
- A server could have one or a few addresses where different clients might get the same address assigned, or server could have larger pools and try to make sure different clients get different addresses
- I believe a client should still be able to specify at least scope (perhaps client could ask for group inside a given prefix, that is useful for scoping and embedded-RP)
- If server tries to give different addresses to different clients, then it would be useful for the server to know when the client has finished using the address as well

Group addresses and IPv6

- Best approach for IPv6 is probably to have a fixed group-ID
- Sufficient for allowing client to choose groups of different scopes and RPs (embedded-RP)
- Secure in that other applications/services should not use that group-ID