# Route Optimization hint option

10th November 2003, IETF 58th

Keiichi Shima <keiichi@iij.ad.jp>
IIJ Research Laboratory
KAME Project
Nautilus Project

# Background

- MIP6 defines the Route Optimization (RO) mechanism.
- A mobile node can initiate RO.
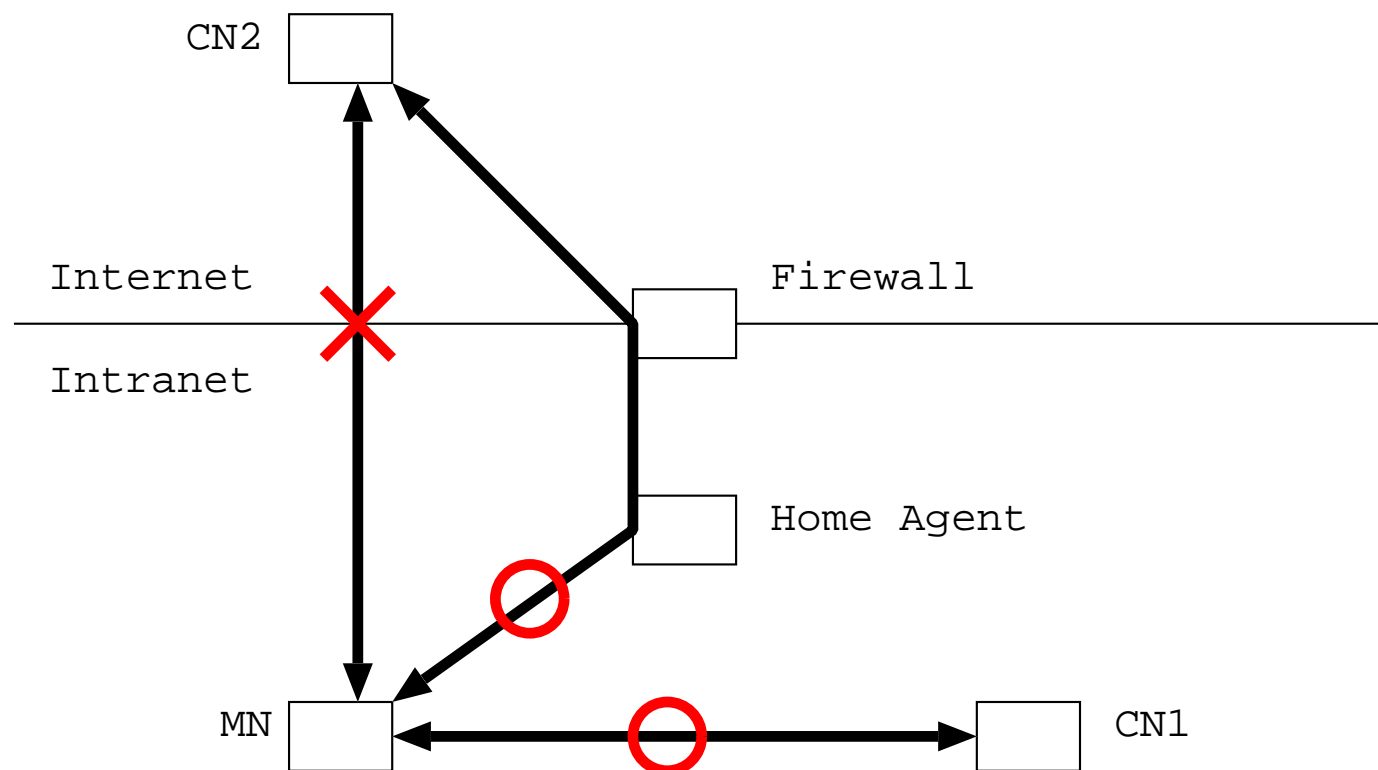  - by sending HoT/CoT to a CN at any time.

- However, there are no guidelines when to start RO.

# What we need to do

□ Things to be discussed and defined

▷ The condition of when RO should be used
▷ Methods to inform mobile nodes of the condition

# An example of condition

☐Firewalled network

CN2 [ ]

Internet

Intranet

Firewall [ ]

Home Agent [ ]

MN [ ] ⟷ ◯ ⟷ [ ] CN1

☐Communication with CN2 should not be ROed
  ▷Because direct traffic may be dropped
☐Communication with CN1 can be ROed
☐MN need to know it is IN

# An example of condition (cont'd)

□ Firewalled network

CN2 [ ] ◄───── ⭕ ─────► [ ] MN

Internet

Firewall

Intranet

Home Agent

Moved

MN [ ]

CN1
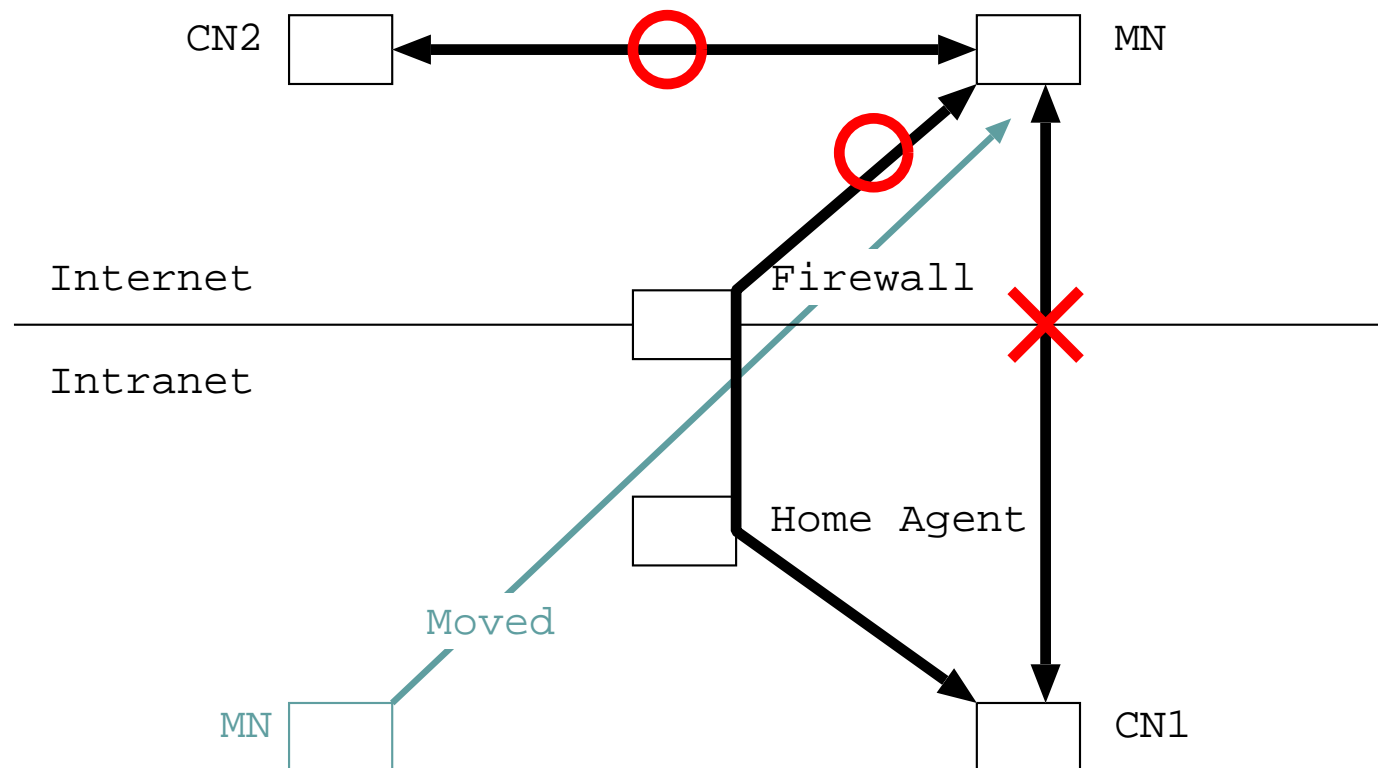
□ Communication with CN2 can be ROed
□ Bi-directional (not RO) case with CN1 works
  ▷ if Firewall passes tunnel packets from MN to HA
□ MN need to know it is OUT

# Method

□ draft-shima-mip6-rohints

  ▷ Distribute a set of intranet prefixes within MPS messages.

  ▷ MN will initiate RO if
    ▷ MN and CN are both in an intranet, or
    ▷ MN and CN are both in the Internet

# Discussion

□ Are there any condition other than firewall case?

▷ Connection time between MN and CN?
▷ Amount of traffic between MN and CN?
▷ Type of transport protocol?

□ Is this worth standardizing?

□ Questions?