

Header Compression Context Relocation in IP Mobile Networks

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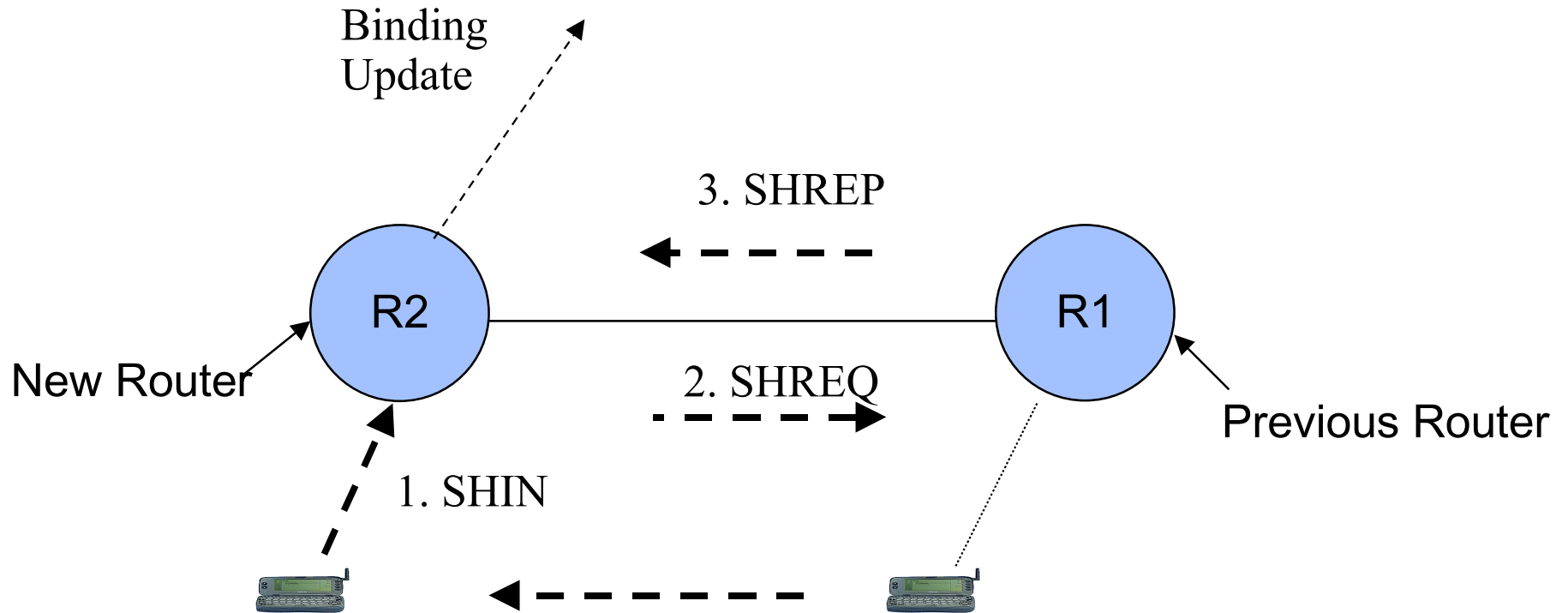
Proposal

- MN detects header compression capability at the New Router subsequent to handover
- MN sends header compression context relocation request (HCREQ) in the Smooth Handover Initiate (SHIN) message
- The New Router
 - responds back immediately if it has the required state available, e.g., in NCMA handover
 - else
 - sends a request to the Previous Router to furnish the state
 - activates compression contexts upon successful reception of required state, and
 - acknowledges the MN

Proposal..

- The Previous Router
 - responds to the New Router's request for state transfer
 - sends unsolicited SHREP message to proactively supply context information in NCMA handover

Basic Signaling Approach



Compression Profile Type

- Compression Profile Type (CPT)

This is an object that indicates what type of header compression is desired

Possible types are:

1. IPv6/UDP header compression
2. IPv6/UDP/RTP header compression
3. ...

- Each CPT is assigned an IANA Type Number
- A value of zero for the CPT has special meaning, and is reserved
- Media-specific profiles are possible

CPT contd..

- An application requesting header compression indicates the type of CPT it wishes to use
- An application does not need to know how a CPT is implemented
 - e.g., whether the compression algorithm uses a sliding window, sequence numbers etc.

Requirements

- Need for the visibility of CID at the IP layer
 - regardless of how CIDs are generated, they must be available for IP to use to identify compression contexts
- Need for defining the context state
 - for a given compression profile, the header compression state must be well-defined and fixed in size
- Need for defining the Filter for a context
 - a Filter identifies the IP packet stream undergoing compression, and it may be supplied as part of the header compression state information
- MN, Router requirements
 - outlined in the draft

Conclusion

- Context relocation is an important problem that needs to be addressed
- Address the requirements