Mobility discussion

Draft-manyfolks-signaling-protocol-mobility-00

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Goals of this work

- This draft is meant as an applicability statement and user guide for NTLP/NSLPs in mobile environments
- We seek to analyse different cases to see whether the NSIS protocols could work with basic mobility being independent from the mobility scheme
- Some cases are not just mobility-specific
- Help to decide between certain options in the protocol design work
- We do not intend to define new components or functions into the NSIS protocols---some suggestions might be given

Goals, too

- Not to become a standards track document
- Make sure that the protocols work correctly, and that deploying them now won't prevent mobility features being added later
- Start as analysis, end up as an applicability statement showing where the NSIS protocols work and where they don't
- Later, maybe even in another WG, optimizations could be designed

Analyzed Items

- Analysis of various mobility scenarios in NSIS signaling and statement problems
- Crossover node discovery and path update caused by mobility and route change
- Dead peer discovery
- Case examples of NSIS signaling according to handover cases
- Interaction with mobility protocols (e.g., HMIPv6, FMIPv6, CARD, and CTP)
- Security considerations in various scenarios such as MN as a sender or receiver, multihoming scenarios, using context transfer, proxy scenario, and AAA
- Additional issues (Uni- and bi-directional state establishment, state management, and state establishment in network mobility)

Selected Identified Problems

- Dead peer discovery – mobile node disappears and state is removed because the next NTLP hop is gone
- Make-before-break handover (or multihoming / multiple SCTP associations)
- State management in path update
- Packets with a routing header can take weird routes
- Finding out the cross-over node, how is CRN authorized to send messages to repair the state on the data path

Questions

- What is the interest to do this kind of analysis work?
- Should this be a WG item, to **analyze** the applicability of NSIS protocol in a mobile enviroment?