HPack
Reference Set Choice
HPack Delta Encoding

- Delta encoding
  - Encode only differences between header sets
  - Useful on requests, less on responses
- Proposal: make delta encoding optional
  - At the header set level
Implementation

• Integrated into header set encoding
• Use index 0
  • Semantic: empty reference set
  • Real indexes shifted by 1
• No measurable compression efficiency impact when using delta encoding
Results

• Testing Conditions
  • mnot test suite
  • 4KB buffer

• Results
  • Small improvement for direct connection (~1%)
  • Stronger for proxy-like aggregation (~2%)
Conclusion

• Small change

• Some compaction gain
  • Larger for aggregated connections

• Remove sequential dependance of header sets
  • Allows out-of-order decoding (e.g. when using Minion)