I2RS Protocol Requirements

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Purpose

• Define requirements for an I2RS protocol between applications (clients) and network elements (I2RS Agents)

• Consolidate protocol requirements in a single document
  – Expand on protocol aspects outlined in I-D.ietf-i2rs-problem-statement
  – Refine requirements from [I-D.ietf-i2rs-architecture]
Document Structure

• Terminology

• I2RS Protocol High Level Design Objectives
  – Core guiding principles/objectives for defining the specifics of I2RS protocol(s)

• I2RS Protocol Requirements
Requirements Drive:

- Common understanding of critical I2RS protocol characteristics.
- Consideration of significant framework aspects during the design process
- Technology evaluation choices for I2RS
General Assumptions

Context:

```
+-------+   +-------+   +-------+
| Client |   | Client |   | Client |
+-------+   +-------+   +-------+
     ^   | I2RS
     |   +-------+
     |       +-------+
     V       | Server |
     +-------+   +-------+
      ^   | I2RS    +-------+
      |   +-------+   +-------+
      V       | Server |
      +-------+   +-------+
```


Protocol Requirements

- Transport Requirements
- Identity Requirements
- Message Encoding Requirements
- Message Exchange Pattern Requirements
- API Method Requirements
- Service and SDM Requirements
- Security Requirements
- Performance and Scale Requirements
- High Availability Requirements
- Application Programmability Requirements
- Operational Requirements
Questions?