

Data Flow Requirements

draft-hares-i2nsf-mgtflow-reqs-01

Susan Hares

Why Focused on

- Working on Management Data Flow Requirements in I2RS + I2NSF work
- Thought about
 - Impact of DOS attacks, TCP-SYN, ICMP attacks
- What should I2RS Do to help I2RS = I2NSF protocol easier?

What DOTS/Mile MGT traffic needs

- DOTS says be:
 - Resilient (DOTS-G-003)
 - Use small message sizes (DOTS-G-005)
 - Keep Message integrity (DOTS-G-06)
 - Prevent Message level replay attacks (DOTS-G-07)
 - Use Health Monitor (aka heart beats) [DOTS-OP-003)
- Mile says: Ditto above [RFC5070, RFC5070bis]

Stresses on I2NSF MGT Flow

- Data flow resilience during attacks
- Breaking large streams into smaller chunks
- Recombining chunks into streams at other end
- Using multiple pathways + recombining IP fragments into chunks

I2RS Requirements

- DF-REQ-03: I2RS Support of I2RS Agent and I2RS Client negotiating specific transport and transport options out the options that are available (v1),
- DF-REQ-06: I2RS should be able to support an action which allocates internal resources for the I2RS agent (memory, processing time, interrupts) and outbound data flow bandwidth. (v1)

DF-REQ-08: Adjusts to Network Outages

- DF-REQ-08: The I2RS Agent must be able signals that it will be using different protocol with different constraints (security, priority of data, or transport) or different constraints on the existing protocol (smaller message sizes, different priorities on data carried, or different security levels).

A Potential Solution

draft-hares-i2nsf-ssls

What do you Need:

- Something above multiple transports so can use best transport
- Secure session Layer Services

Why Now:

- Hackathon IETF 95/96 for I2RS/I2NSF Data Models



