State of RDMA

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draft-recio-iwarp-rdma-01.txt

State of RDMAP

- Wire protocol is fairly clean.
  - Primarily clarification on the reflector.

- Several concerns have surfaced regarding:
  - Initialization
  - Security
  - Multi-homed SCTP hosts

RDMAP Initialization

- For a stream that begins in non-RDMA mode,
  the –01 specification leaves it up to the ULP
  to make the transition into RDMA mode in each direction.
  - Does more need to be said in the area of local RNIC interactions?

    Or is current text sufficient?

Security

- Security work needs to be done with IETF network security experts (currently working with Catherine Meadows).
  - Several concerns need to be covered more thoroughly.

    For example:
    - STag access control policy:
      - Description of how an STag and RDMAP Stream are associated.
        - Unspecified (unacceptable)
        - STag associated with exactly one RDMAP Stream by the ULP
        - STag associated with an access group of RDMAP Streams by the ULP
      - At what layer is the association made:
        - DDP, RDMA, or ULP-RDMA interface.
    - How IPSec can be used to protect RDMA/DDP.
    - Enumerate the threat model (e.g. Denial of Service analysis).

Multi-homed Hosts for SCTP

- For path migration (ULP invokes the path change),
  - is single, multi-port RNIC enough?
    vs multiple RNICs?

- For path switchover (RNIC invokes the path change as a result of a failure),
  - is single, multi-port RNIC enough?
    vs multiple RNICs?\

- The real problem has to do with dealing with multi-homed hosts when SCTP is offloaded into NIC.
  - This is not an RDDP problem.
  - It's an SCTP issue.