Diameter Routing Message Priority (DRMP)

draft-donovan-dime-drmp-01.txt

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Problem Statement

- There is currently no mechanism to influence which request messages get throttled when handling requests destined to an overloaded Diameter host

- All requests are currently treated with equal priority and have equal probability of being throttled

DRMP Use Cases

- First Responder Related Signaling
- Emergency Call Related Signaling
- Operator Defined Differentiated Services
- Application Specific Priorities
  - For example, 3GPP S6a application's ULR priority higher for MME restoration than for initial attaches.

DRMP Mechanism

- DRMP AVP defined to carry transaction priority
- Five priority levels defined
    - "0" is the lowest priority
    - "4" is the highest priority

DRMP Mechanism

- DRMP AVP inserted by sender of request
- Priority can be used by agents when making overload abatement and routing decisions
- Priority can also be used by the target of the request when making resource allocation decisions

DRMP Mechanism

- Individual applications specify setting of priority values

- Usage of priority values by agents and servers is left to individual implementations

Open questions

- Security considerations –
  - DRMP can be used to gain preferential treatment. Do we need a mechanism to detect improper usage?
  - DRMP AVP can be inserted or modified by agents. This might be appropriate in some cases but could be abused. Do we need the ability to sign the AVP?
- Application usage guidelines
  - This is an application agnostic mechanism. Do we need to define guidelines for setting of various priority levels?

Next Steps

- Add to working group charter
- Continue work on definition of the mechanism