Diameter General Purpose Session

draft-liebsch-dime-diameter-gps-00.txt

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Diameter Extensions (DIME) WG
27th July 2010
Current Diameter Session Concept

- User specific Sessions
- Session ID established during authentication/authorization
- Identifies signaling context of a particular user
- Client/Server uses Session ID to access user context

User 1 Session Context: Session ID 1
User 2 Session Context: Session ID 2
User N Session Context: Session ID N
Demand for bulk signaling

- New use cases
  - Diameter node restoration (3GPP PCRF restoration)
  - Policy enforcement for subscriber groups
- Requirements: User-independent Session

Server states restoration

RAR (all_users, [failed_server_id])

AAR/RAA (user1, context1, user2, context2, ..., userN, contextN)

Group policy control

RAR (user1, policy1, user2, policy2, ..., userN, policyN)

Policy Enforcement

client

server

PCEF

data traffic

client

server
General Purpose Session Concept

- Re-uses original Session ID concept
- General Purpose (GP) Session ID does **not** identify context of a particular user
- GP Session ID either well-known, administratively set up or dynamically bootstrapped with AAR/AAA handshake
General Purpose Session Concept

- Extends the standard Diameter Session Concept
Implementation of the GP Session concept

• Clean design: dedicated Session for bulk signaling
  – No overloading of user-individual IDs and associated Diameter sessions

• Extends the original Session ID concept
  – Bootstrapping of GP Session
  – Lifetime may be associated

• Minor protocol extensions needed
  – Flag to identify GP Session during AAR/AAA
Next

• Details of the GP Session establishment / maintenance, e.g.
  – Authorization
  – Handling at Client/Server

• Comments/Questions?

• Interesting to the WG?