Extended Packet Header for radius

Draft-chen-radext-extended-header-00
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Problem Statement

• One-octet “Identifier” field in RADIUS packets
• Only 256 outstanding requests
• Well-known limitation
• Workaround:
  – Parallel sessions (i.e., multiple source ports)
Problem Statement – cont

• Large number of “parallel sessions” in some apps, e.g., “wireless controller”
  – Hundreds to thousands

• Challenges
  – Resources, e.g., local ports
  – Efficiency
  – Session management (for TCP in particular)
  – Operational complexity
Protocol Extension

• Extended packet header
  – Larger “Identifier” field
  – Larger “code” field as well

• Reserve a packet code as “carrier” for the extended header

• Capability discovery using Status-Server Msg
  – New attribute
Extended Packet Header

- Semantics unchanged for Code, Identifier, Length
- Reserved fields for backward compatibility
Operations

• Capability discovery using Status-Server /Cfg
  – Always use the “standard header”
• Recommendation
  – 0-255 as “Identifier” for “standard header”
  – 256+ as “Identifier” for “extended header”
• Can use the “extended header” after discovery