

# CoAP: Non-traditional response forms

bormann-core-responses-06

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# Terminology introduced

## Non-traditional response

A response that is not the single response generated for a request received on the same transport.

# Generalization issue

	Observe	Non-traditional responses
Send	notifications	more responses
If	Observe option	some Proxy-Unsafe option
Until	no Observe option is in	depends on ↑

# Generalization issue

becomes orthogonality issue

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Flow control	follow CoAP	follow CoAP

# Generalization issue

becomes orthogonality issue

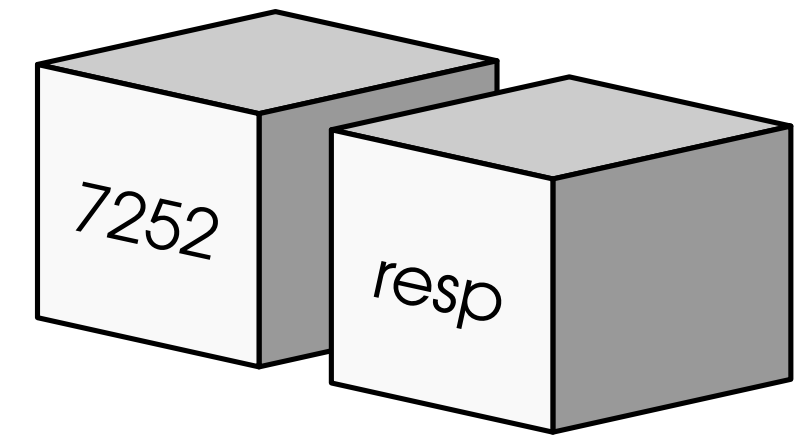
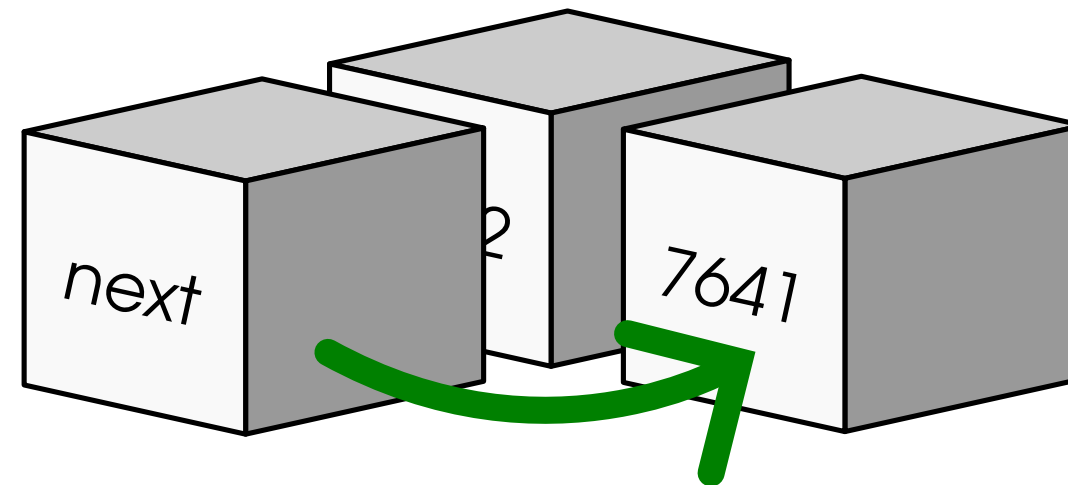
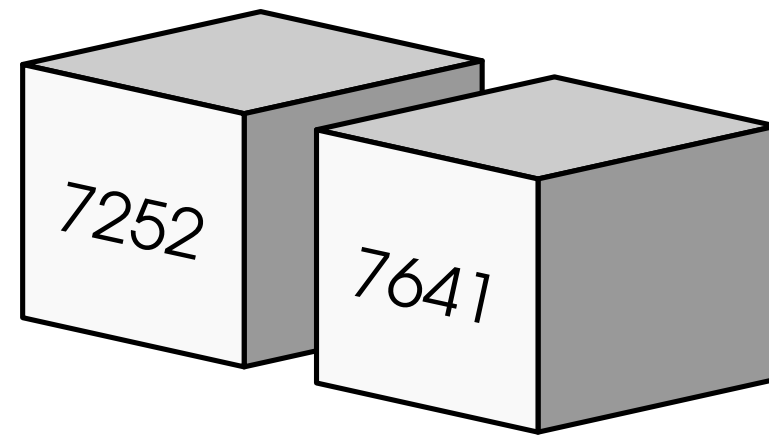
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OSCORE	as per <a href="#">RFC 8613</a>	

# Generalization issue

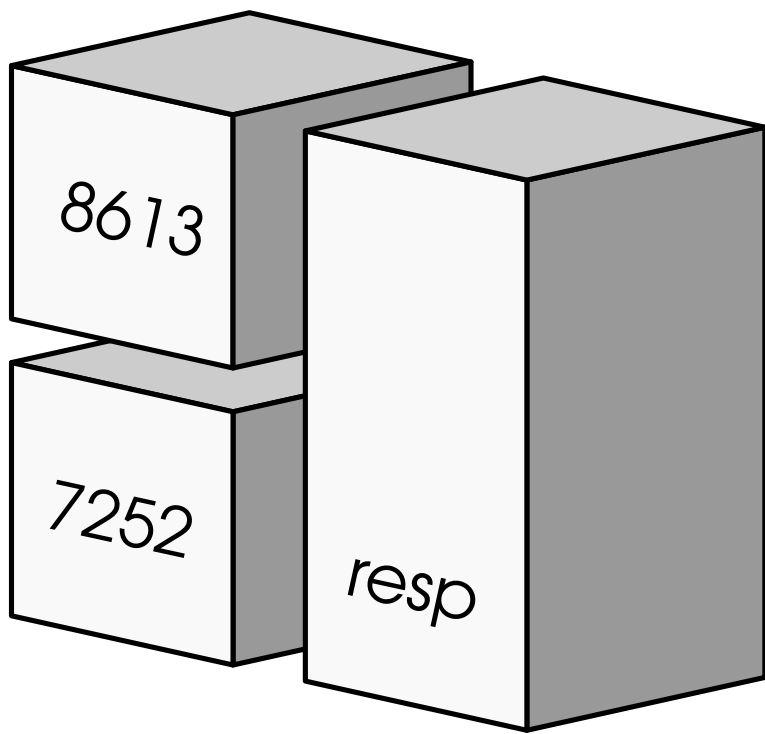
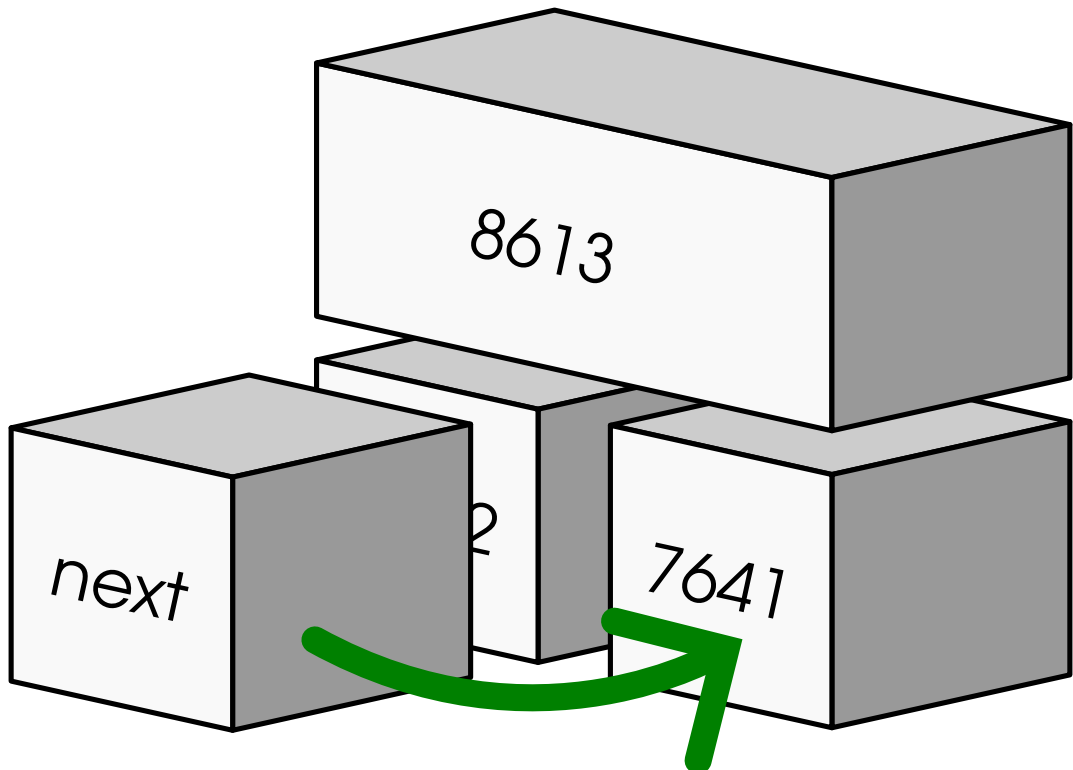
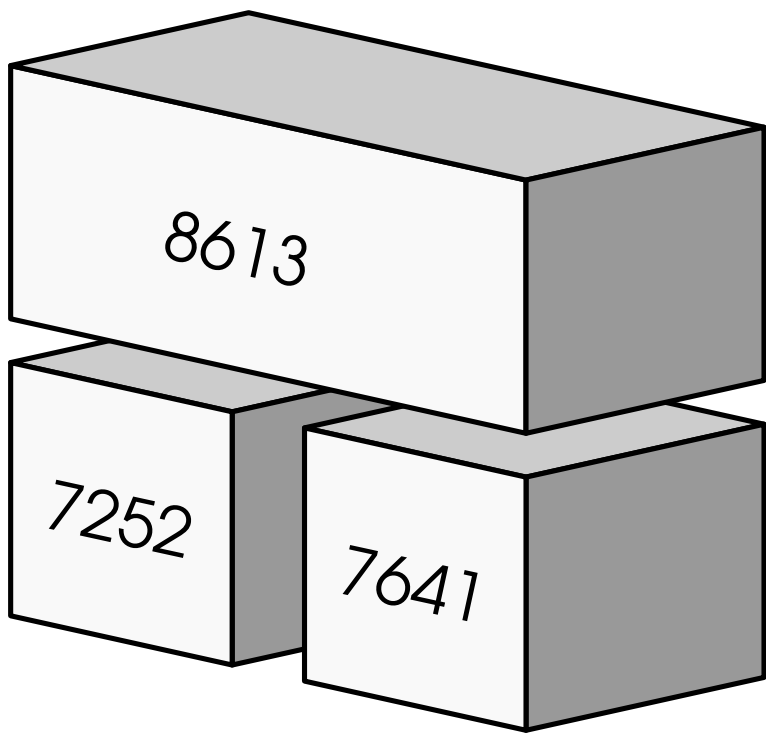
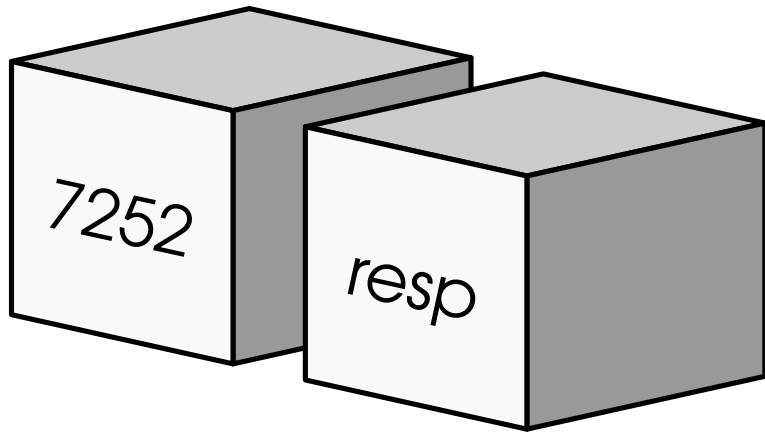
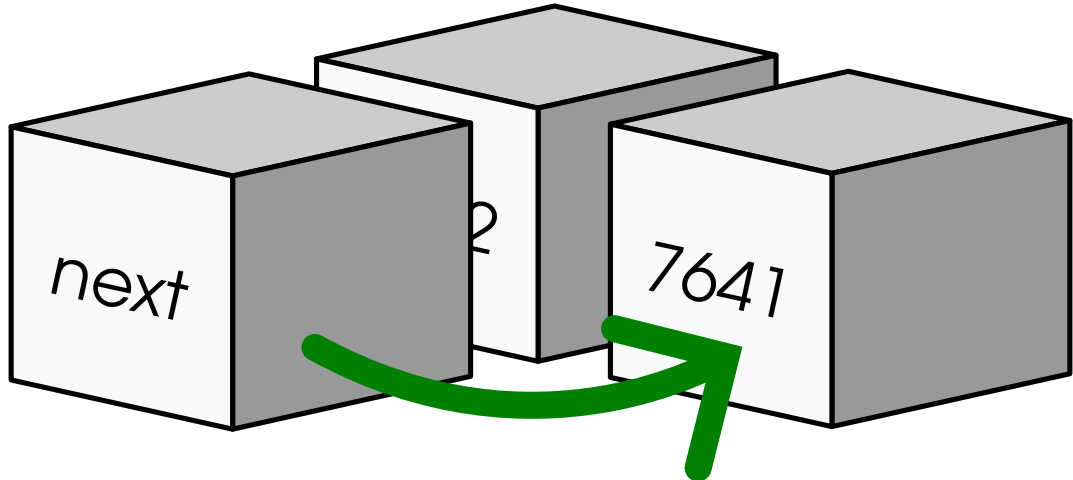
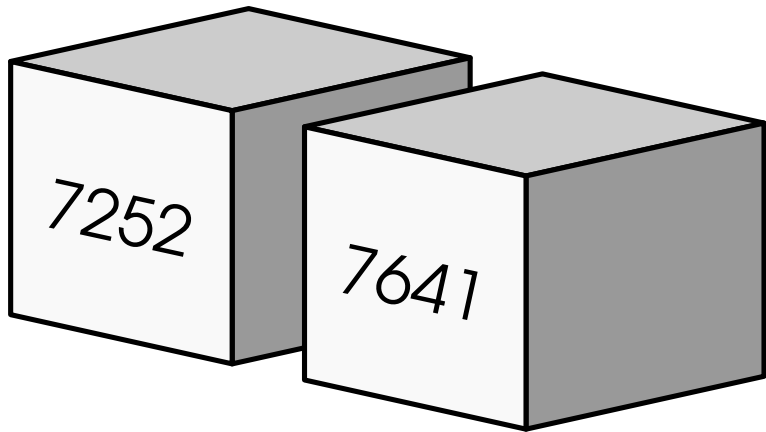
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OSCORE	as per <a href="#">RFC 8613</a>	<b>generalizing RFC8613</b>

# Generalization issue



# Orthogonality issue





# Behavior definition: OSCORE

Generalized from Observe behavior

- Explicit request or not: Request needs sender and sequence number.
- Request nonce can only be used in one response.
- If order matters, responses are ordered by sequence number.
- If replaying matters, responses are subjected to the replay window.
- If follow-up requests were made, transiently tolerate erroneous responses.

# Potential users

Adapted from IETF113 slide set

RFC7641 Observe notifications come in until further notice

~~core-coap-sms~~ Response-To-Uri-Host/-Port – triangular requests

~~core-coap-endpoint-id~~ Observations across server address changes

RFC8613 Explicit wording for Observe

RFC9177 Responding with multiple blocks

groupcomm-bis Single request, different responses with different source addresses  
← informative reference

oscore-capable-proxies to facilitate core-groupcomm-proxy's Multicast-Timeout  
← TBD reference

## More in this document

- Define behavior of non-traditional responses in general
- Define new versatile non-traditional responses:
  - ▶ Response-For
  - ▶ Leisure-For-Responses
  - ▶ Respond-To

## Next steps

- New options: illustrative or practical? (#4)
- Future in the WG?