

# Conditional Attributes for Constrained RESTful Environments

draft-ietf-core-conditional-attributes

(<https://github.com/core-wg/conditional-attributes>)

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IETF 116 Core WG Meeting

# Current Status since IETF 115

- Version -06
- Early Review from the IoT Directorate
  - Early review completed
- More reviews are welcome
  - A few already on mailing list

# Document's Intended Status

- <https://mailarchive.ietf.org/arch/msg/core/vSrEc-59XQeYf3V-LoMNTJ-uPs8/>
  - The draft states the Intended status as Informational
  - Should the Intended status be Standards Track?

# Current Issue: Working with CoRE Observe

- <https://mailarchive.ietf.org/arch/msg/core/O8ZTPOAve3xljuZ6HwXR0yKZ8R8/>
  - “The notification mechanism in RFC7641 is a protocol detail that operates under the hood to provide the functionality of keeping the retrieved resource state in sync with actual resource state. The Conditional Attributes defined by the draft interfere with the generation of notifications, so that this functionality is in its generality no longer given: The client no longer receives a representation of the actual resource state through the notifications.”

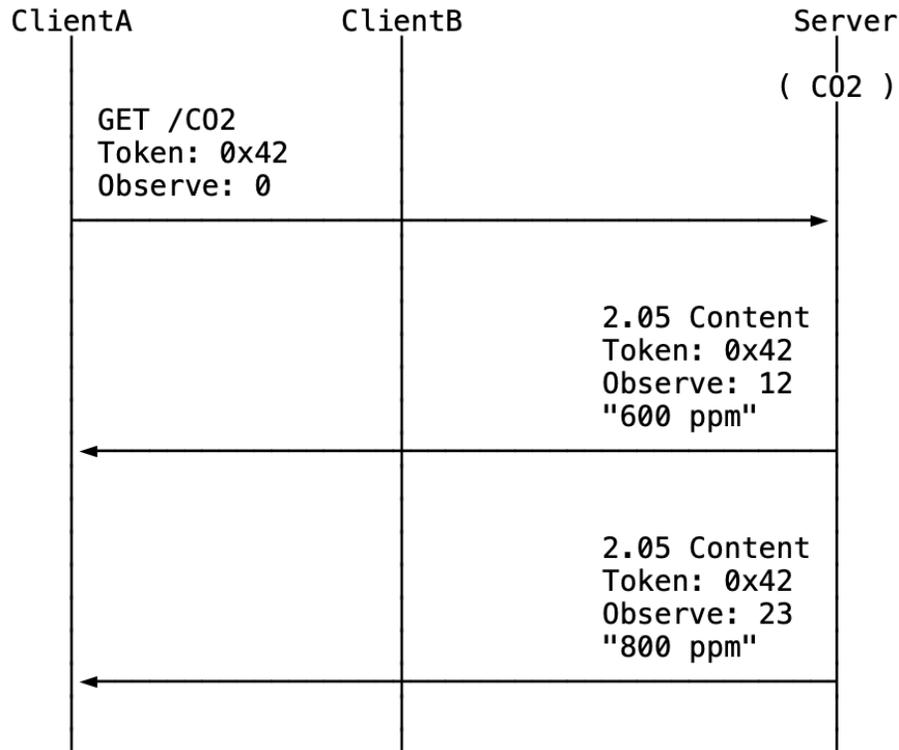
# Proposal: Working with CoRE Observe

- <https://mailarchive.ietf.org/arch/msg/core/O8ZTPOAve3xljuZ6HwXR0yKZ8R8>  
/
- “...Rather than interfering with under what conditions and in what way the server generates notifications, the draft should define how the server updates resource state and how the client can influence this.
- ...A simple good way is resource state projection. For example, if the state is a numeric value, it is possible to project a new state from the resource state using e.g. the min or max function. This new state can then be observed by the client.”

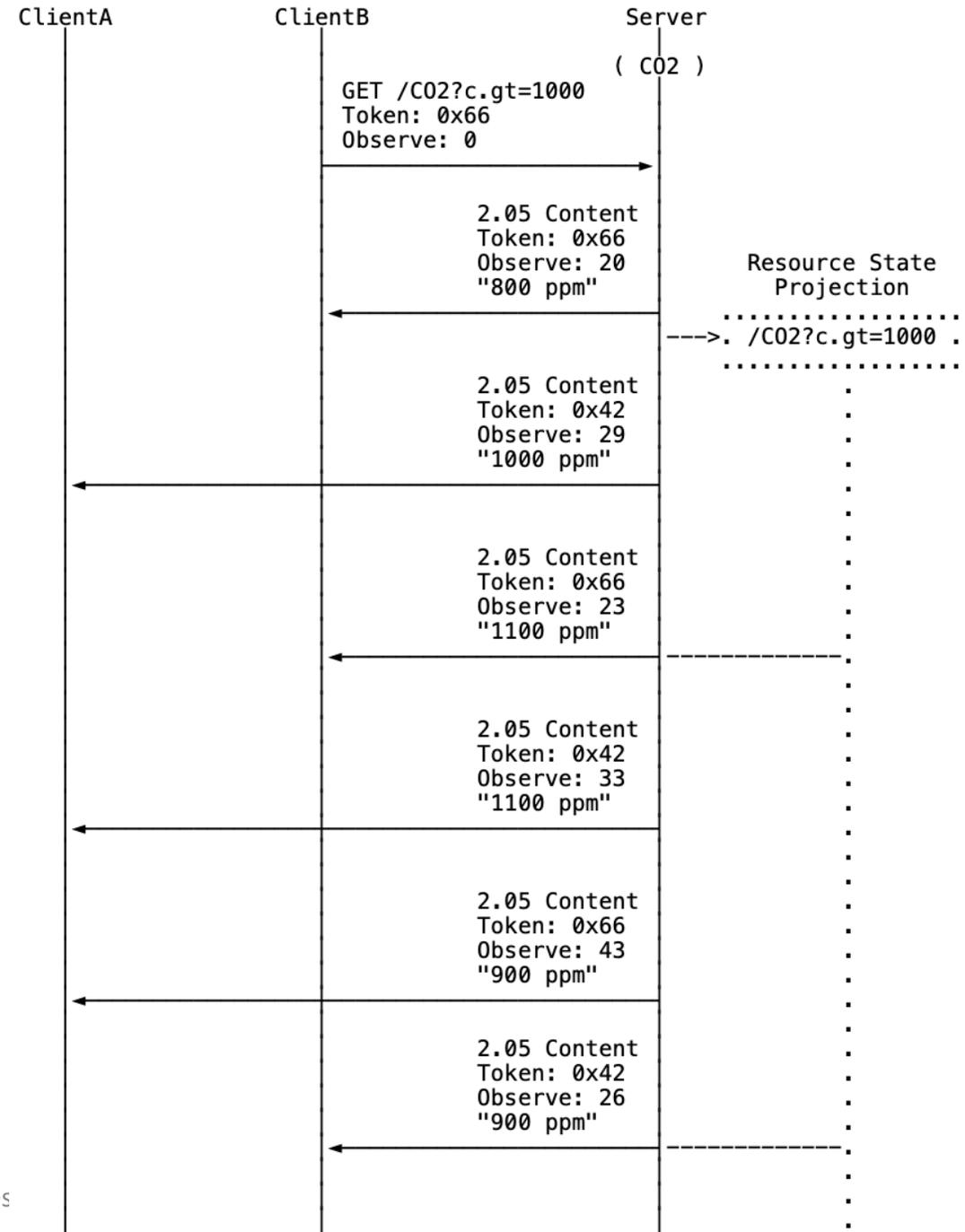
# State projection

- Resource State Projections can be used by a client to request a server deliver a partial or summary representation of a state
- Used programmatically with REST APIs, as a means to reduce payload response
- The implication of using state projection with conditional attributes is this:
  - When a server receives a request containing conditional attributes from a client, the server provides a projected resource state to the client which is separate from a resource state requested without conditional attributes.

# State projection

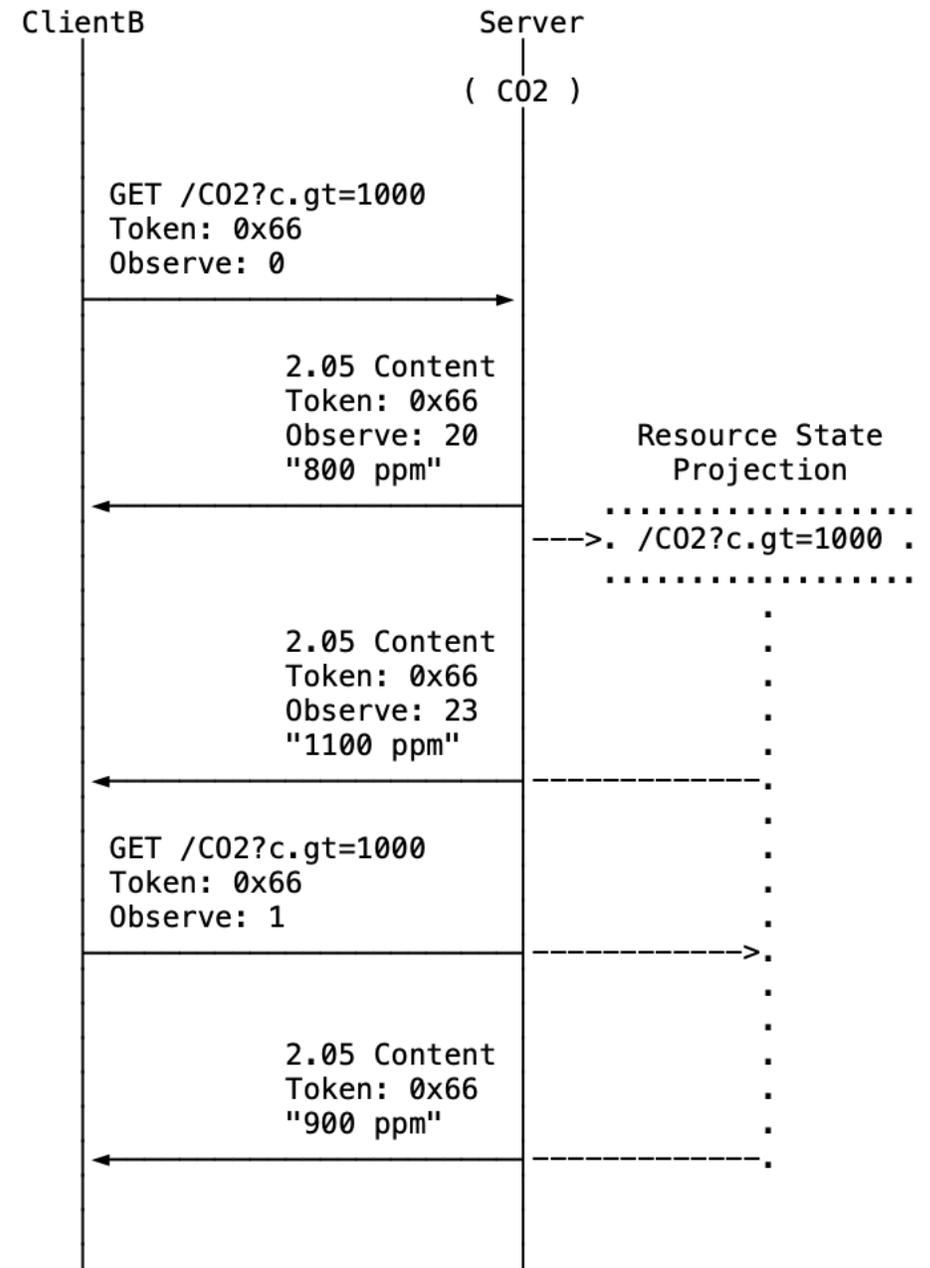


CoRE Conditional Attributes



# Registration Cancellation

- From <https://mailarchive.ietf.org/arch/msg/core/vSrEc-59XQeYf3V-LoMNTJ-uPs8/>
  - How does a client cancel an existing registration?
- Proposal:
  - Per RFC 7641: Client can forget and RST
  - Client can cancel with Observe Option value 1, but the URI MUST include conditional attributes



# To be addressed: Security Considerations

- [https://mailarchive.ietf.org/arch/msg/core/MPp2CS\\_W696GomNwpAsxww\\_SqaA/](https://mailarchive.ietf.org/arch/msg/core/MPp2CS_W696GomNwpAsxww_SqaA/)
  - “The pmax attribute risks making amplification attacks far worse but as far as I can see the draft does not say a single word about this”
  - “Before publishing I think the draft needs to describe this and normatively require sufficient mitigations from the implementation.”
- Resolution steps
  - Work on Security Considerations to discuss the impact of c.pmax used for amplification attacks and mitigation steps
  - Work on Security Considerations to discuss the impact of c.epmax used for resource exhaustion and mitigation steps

# To be addressed: IANA Considerations, Nits

- From <https://mailarchive.ietf.org/arch/msg/core/vSrEc-59XQeYf3V-LoMNTJ-uPs8/>
  - The IANA Considerations should reference the protocol category group (core-parameters?)
  - Mismatched tags running idnits
- From [iana-issues@ietf.org](mailto:iana-issues@ietf.org)
  - Please provide a registration procedure and a registry group name

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Thank you!