# The Constrained RESTful Application Language (CoRAL) draft-ietf-core-coral-05

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### **CoRAL**

# A data model and language for talking about resources and interactions with them, suitable for constrained devices

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CoRAL: Properties relevant for today

 Information model is similar to RDF • CBOR based representation of URIs and structure

"My temperature resource supports the Series Transfer Pattern." </temp> core:if <tag:example.com,2020,t2trg-stp>.

...plus some features not covered today, such as navigation through forms, localization, and convertability with suitable Link Format documents or RDF.



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## Recent model simplification: Literals

# Literals are terminal nodes in the graph. Any properties literals might have are expressed through CBOR tags.

problem-details did the hard work here.



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Ongoing work: Compact format based on cbor-packed

core:rt pubsub:topic, pubsub:has-published-item true, pubsub:created dt'2019-07-08T15:35:00+0200', pubsub:last-modified dt'2019-07-08T15:35:00+0200', pubsub:topic-data [ = </ps/data/1234>, core:title "My Office Room Temperature", core:rt oic:r.temperature, our: building 18, our:floor 1, core:unit unit:Cel,

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Ongoing work: Compact format based on cbor-packed

- Some table entries initialized through media type.
  core:title used compressed as [2, 6(14), "My Office "...]
- Registered ranges can be loaded without referencing dictionaries by any long identifiers
   pubsub:\* pushed into tables through TBD(6(16), [10, 0], ...)
- Custom terms are loaded by referencing URIs
  our:building pushed into tables through
  TBD(cri"https://our.example.com/tab", [3, 3], ...)
- CRI CURIEs? unit:Cel

Also join CBOR on Thursday for discussion of cbor-packed!

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Ongoing work: Security model

Use existing security models, but tell how to apply them. The CoRAL document should provide...

- to application authors: Guidance on expressing their security requirements.
- to CoRAL agents: Rules for evaluating these security requirements against the authorizations conveyed in CoRAL documents.



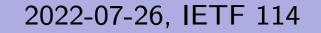
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### Open areas and next steps

- Binary serialization needs more real-world examples, especially of forms.
- Mapping to problem-details now that that is done.
- Queries, patches, provenance likely not in initial version.





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### Thanks

### Comments?

# Questions?

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