

Dynlink and Conditional Attributes

IETF 111 July 2021

Core WG

Latest developments

- After discussion with AD, Chairs and authors, Dynlink draft version 13 was split into two WG drafts
 - draft-ietf-core-dynlink
 - draft-ietf-core-conditional-attributes
- Continuing to incorporating feedback received for updates, corrections and clarifications

Table of Contents

1. Introduction	3
2. Terminology	3
3. Conditional Attributes	4
3.1. Conditional Notification Attributes	4
3.1.1. Greater Than (gt)	5
3.1.2. Less Than (lt)	5
3.1.3. Change Step (st)	6
3.1.4. Notification Band (band)	6
3.1.5. Edge (edge)	7
3.2. Conditional Control Attributes	7
3.2.1. Minimum Period (pmin)	8
3.2.2. Maximum Period (pmax)	8
3.2.3. Minimum Evaluation Period (epmin)	9
3.2.4. Maximum Evaluation Period (epmax)	9
3.2.5. Confirmable Notification (con)	9
3.3. Server processing of Conditional Attributes	9
4. Link Bindings	10
4.1. The "bind" attribute and Binding Methods	11
4.1.1. Polling	12
4.1.2. Observe	12
4.1.3. Push	13
4.1.4. Execute	13
4.2. Link Relation	13
5. Binding Table	14
6. Implementation Considerations	15
7. Security Considerations	16
8. IANA Considerations	16
8.1. Resource Type value 'core.bnd'	16
8.2. Link Relation Type	17
9. Acknowledgements	17
10. Contributors	17
11. Changelog	18
12. References	21
12.1. Normative References	21
12.2. Informative References	21
Appendix A. Examples	22
A.1. Minimum Period (pmin) example	22
A.2. Maximum Period (pmax) example	22
A.3. Greater Than (gt) example	24
A.4. Greater Than (gt) and Period Max (pmax) example	24

Text extracted verbatim to new WG draft:
draft-ietf-core-conditional-attributes-00

The rest of the dynlink-13 extracted
verbatim to dynlink-14

Why the changes?

- While conditional observe attributes are now ready for some time, the section on link bindings and binding tables still under development particularly in relation to other work such as CoRAL
- OMA's LWM2M specs has a dependency to Dynlink, but purely to the conditional observe attributes and not the link bindings
- Work on conditional attributes is almost finished
- Separating into 2 drafts will allow core-conditional-attributes to proceed rapidly towards RFC without creating pressure on link bindings

core-conditional-attributes-00

- Available at <https://github.com/core-wg/conditional-attributes>
- Impact on behaviour from the possible presence of (multiple) proxies
 - This will be added into Implementation Considerations
- Text for possible security considerations will be added to -01
- Update reference code for server processing of Conditional Attributes
 - Include also a state machine to describe server-side processing, for example with epmin and epmax
- Other changes as needed
- Reviews are always welcome!
- Then ready for WG last call

core-dynlink-14

- Shortcomings seen with using CoRE Link Format for describing link bindings in binding table
 - Exploration is still needed for better technique to describe link bindings
- Dynlink-15 will address these and evolve to include more examples and usage cases

Dynlink and Conditional Attributes

Thank you!