

# **Extension to BGP's Route Refresh Message Update draft-idr-bgp-route-refresh-options-02.txt**

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# Sequence Number Arithmetic Change

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- Draft-02 changed sequence number arithmetic from RFC1982 to clean two complement algebra
- For two Seq# U1 and U2
- D\_f is ( U\_1 - U\_2 ) interpreted as two complement signed N-bits
- D\_b is ( U\_2 - U\_1 ) interpreted as two complement signed N-bits

U\_1 >: U\_2 IIF D\_f > 0 AND D\_b < 0

U\_1 =: U\_2 IIF D\_f = 0

	0	1	2	3	4	5	6	7
0	=	>	>	>	?	<	<	<
1	<	=	>	>	>	?	<	<
2	<	<	=	>	>	>	?	<
3	<	<	<	=	>	>	>	?
4	?	<	<	<	=	>	>	>
5	>	?	<	<	<	=	>	>
6	>	>	?	<	<	<	=	>
7	>	>	>	?	<	<	<	=

# Rules Used to Issue Requests

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- Request IDs increase strictly monotonically
- No request may be issued if it is not strictly larger than the highest unfinished or pending request
- The receiving peer may reset all outstanding requests and the number space by “rolling it over”, i.e. the largest number smaller than the largest request ID under processing (i.e. without EoRR)