CDC and Leap Seconds

Infosphere CDC for z/OS accounts for leap seconds in its internal handling of timestamps. From time to time, as new leap seconds are defined, maintenance will be issued for CDC for z/OS to update the leap second table. If such maintenance is not applied, there will be some implications. It is important to note that CDC's handling of leap seconds does not affect timestamps in DB2 tables or timestamps replicated from a CDC source to a target table. Only timestamps computed by CDC are affected. Typically, a single leap second is added every several years, so not applying leap second maintenance will cause timestamps computed by CDC to be off by one second.

Source Implications

If leap second maintenance is not applied, the following will be the source implications.

- All CDC event messages containing timestamps computed by CDC will have those timestamps be one second ahead of the actual time of the timestamp.
- If the source is non-latent (scraping at the very Head of the DB2 log), the timestamp sent to the target for latency calculation will be one second in the future. This can cause negative or zero latency to be reported by the target.

Target Implications

If leap second maintenance is not applied, the following will be the target implications.

- All CDC event messages containing timestamps computed by CDC will have those timestamps be one second ahead of the actual time of the timestamp.
- The timestamp used to compute latency will be one second ahead of where it should be, thereby adding one second of false latency to the subscription.
- If any target columns of type TIME or TIMESTAMP are mapped to CURRENT DATE, then the time formatted for that column will be one second ahead of where it should be. In effect, it is as if there is one extra second of latency in the apply process for such columns.