# Abstract

Interference of data quality in process data warehouse become important. That interference happened because process of data capture doesn't perfect and not stored in real time lead some data may dissapear. That interference is happen in Department of Population and Civil Registration too. their problem cause NIK-fold in some region in Indonesia. Besides, Data warehouse can get request from many user in same time continually. Although, user expect short response time when they request query. When query submitted continually, may inflict resource competition and high load in real time data warehouse. The solution is using log based change data capture and scheduling mechanism with requirement-based query and update scheduling.

This research is find the solution of data quality and request from user in same time with case study of Department of Population and Civil Registration. There are phase of this research. Create schema data warehouse reference to business process from Department of Population and Civil Registration. Then data source will be process in extract using log based change data capture. Then, transform the extract data when there is null data, put a word "null" in that data. After that, loading the data with schema data warehouse. Then for scheduling problem can be solved with requirement-based query and update scheduling when user queries needs with short response delay when they submit the query with determine acceptable response time delay and acceptable result staleness when query is submitted. Log based change data capture can store all changed data from source system without change the structure and requirement-based query and update scheduling can create scheduling which need from user.



Keywords : log based change data capture,scheduling , requirement query and update scheduling, acceptable response time delay, acceptable result staleness,real time