Solar Turbines
A Caterpillar Company

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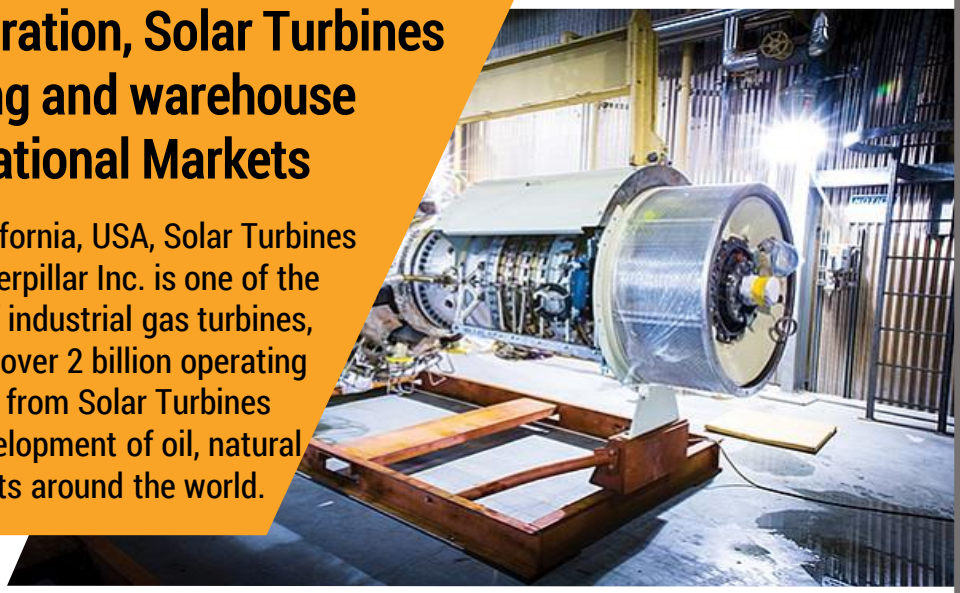
Leading Power Corporation, Solar Turbines optimizes data loading and warehouse availability for International Markets

Headquartered in San Diego, California, USA, Solar Turbines Incorporated, a subsidiary of Caterpillar Inc. is one of the world's leading manufacturers of industrial gas turbines, with more than 14,500 units and over 2 billion operating hours in 100 countries. Products from Solar Turbines play an important role in the development of oil, natural gas and power generation projects around the world.



CHALLENGE

Solar Turbines had an enterprise data warehouse. However, the data loading process took about 12 hours and so data was 2 days behind for Japan and Australia. The warehouse was unavailable for 10-12 hours a day.
Critical Issue: How do we reduce the data latency and increase the data freshness for the rest of the world, load the data four times a day?

OBJECTIVE

Existing ETL architecture needed to be revamped. Query performance needed to be improved. Need to spend 20% of time loading data and 80% analyzing it. Solar Turbines needed to have a single source of Information that was fresh and accessible 24/7/365.

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STRATEGY

Completely redesigned ETL architecture resulting in greater performance. The new architecture also introduced "Change Data Capture" process, thus eliminating the need to flush out the DataMarts with every ETL cycle. This tremendously improved the availability of the environment. A new ETL tool, Informatica, to support the growing environment. Redesigned ETL cycle was much shorter than the original. This made it possible to have potentially multiple refresh cycles during a day, making it a real time environment. Thus, we provided an Informatica ETL architecture and redesigned data marts to capture parts and product warehousing information from the ERP (Baan) worldwide and accessible from anywhere in the world reporting in the local currency and time zone.

RESULTS

The BI environment is now available for almost 100 % of the time. No downtime. More frequent data refreshes, making it fresher / latest. Scalable environment, ready to go hand in hand with business growth plans. Serving globally, by having multiple ETL cycles, matched with shift timings across the globe. Today the project has moved into second phase, and we are delivering additional migration services to convert the entire Enterprise data migration from Oracle Warehouse Builder to Informatica.

"Thanks to Express Analytics, our Solar Turbines enterprise data warehouse was modernized, which paved the way for our master data management and data quality programs. That has accelerated our ability to deliver high-return analytics projects for our company. I give you guys a well-deserved "10"."

- Analytics Group Leader, Solar Turbines