

SDTS

Secure Database Transfer Service

Software Module

Secure Database Replication

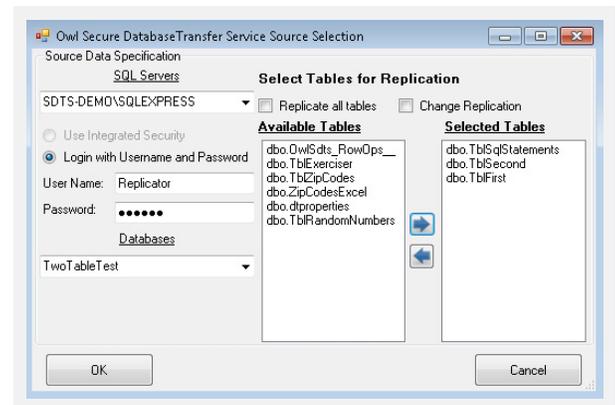
Businesses rely on data to support a wide range of critical business functions. As demands increase for greater efficiency and operational intelligence, access to operational data has become vital to improve outcomes and decision making. However, much of this data resides in databases inside highly sensitive and secure networks.

The traditional method of enabling external users to reach into secured networks has proven disastrously unsafe as it pokes holes in these networks' defenses. In order to securely support this growing demand for data, businesses require a method to access the information contained in the databases without compromising network security.

The Owl Solution

Secure Database Transfer Service (SDTS), in conjunction with Owl data diode hardware, provides secure SQL database replication and one-way data transfer from a protected source network (data center, plant, field office) to an external network or the cloud.

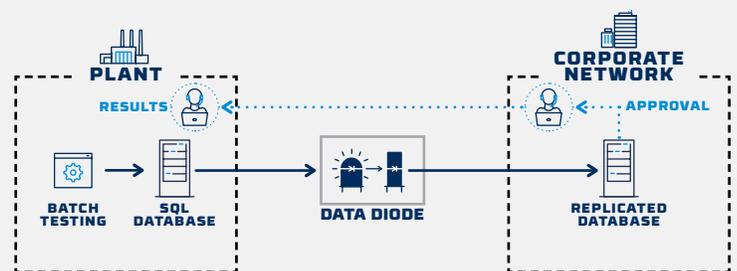
Highly scalable and flexible, replication can be configured to replicate an entire database or just a subset. SDTS supports both "snapshot" replication, for copying an entire database at infrequent intervals, or "change" replication for near real-time updates. A powerful Windows-based GUI simplifies system configuration and management control. SDTS currently supports Microsoft SQL Server, and is compatible with all products in the OPDS product family.



SECURE QUALITY CONTROL APPROVAL

A petroleum production facility uses a LIMS (Laboratory Information Management System) to maintain quality control over their production processes. Working at locations that are remote from corporate headquarters, labs process the outputs of each step in the refining process and record those results in a database. Prior to the batch moving on to the next step in the process, approval of the testing results is required.

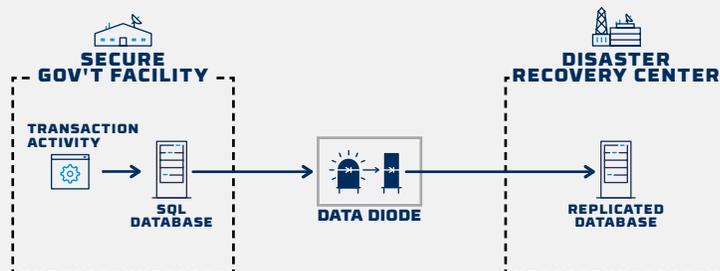
To achieve this, the data containing the lab results is extracted from the database, transferred across the data diode and replicated in another centralized database. From there supervisors can review the results and call the plant operators with verbal confirmation to move the batch along to the next step.



REPLICATION FOR DISASTER RECOVERY

A secure government facility stores operational activities in an on-site database. They had a requirement to replicate snapshots of their database(s) to a remote data center for disaster recovery purposes. The solution consists of the SDTS application to manage the database interactions and the data diode for cybersecurity.

The facility relies on the data diode to segment their network from other external networks and prevent any cyber attacks against it. At the same time, the data diode allows the database files to be transferred out of the secure facility to the remote data center. While not depicted in this scenario but commonly deployed, the customer could have also chosen to put a data diode at the edge of the data center to increase their security profile at the data center.



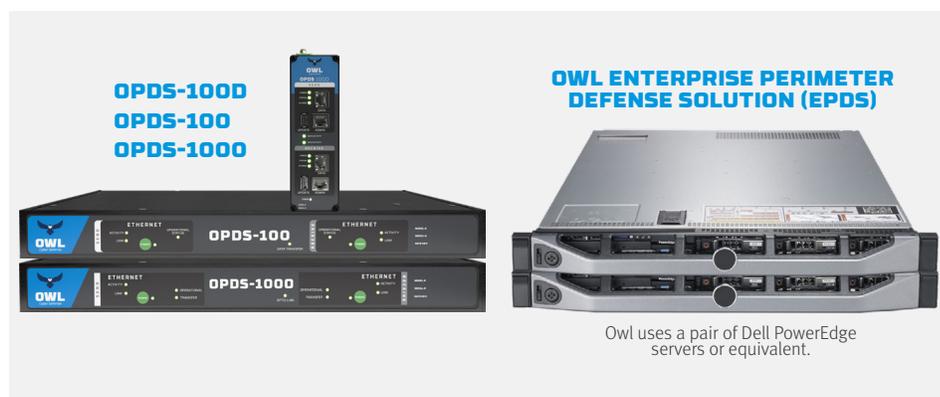
SNAPSHOT VS. CHANGE REPLICATION

SDTS provides built-in flexibility to perform both Snapshot and Change database replication:

Snapshot replication enables copying a full or partial database as a historical “snapshot” of data, and replicating it to a destination network, where a new database is created and populated. Due to the amount of data involved, this type of replication is typically performed infrequently (once per day or less), and is ideal for backup or disaster recovery.

Change replication enables the replication and transfer of smaller amounts of data (individual rows) to an existing copy of the database on the destination network. Due to the smaller amount of data involved, this type of replication can be performed in near real-time (seconds), creating a much more dynamic environment to stay up to date with any changes.

Compatible Platforms



OWL Cyber Defense

Owl Cyber Defense Solutions, LLC leads the world in data diode and cross domain network cybersecurity. With a constant focus on customers in the military, government, critical infrastructure, and commercial communities, Owl develops market-first, one-way data transfer products to meet a variety of operational needs, from entry level to enterprise.

For more information on Owl, or to schedule a demo, visit www.owlcyberdefense.com



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