



WHITE PAPER

1PLACE CLOUD MIGRATION & MANAGEMENT SOFTWARE

Whitepaper 2021

Abstract

1PLACE is an Enterprise Database to Cloud Migration and Management solution that delivers up to 50% Saving in time, energy and resources when compared to current Cloud migration and management tools.

1Place manages database and data to cloud migrations, at high speed, with almost zero downtime and in real-time enabling technical support staff to operate and perform complex cloud migrations in ultra-fast time.

Organisations can manage their cloud migrations, hybrid clouds and multi-clouds, more effectively from a single view.

With 1Place data migrations are measured in hours not days and are 45% faster than current tools such as Amazon DMS and can achieve 10x the transfer speeds of other database to cloud migration tools.

The 1PLACE delivery capabilities include [migration assessment](#), migration delivery, post migration support and ongoing cloud monitoring, Hybrid and Multi-Cloud management with always-on 24*7 1Place product support.

hello@1Place1Cloud.com

www.1place1cloud.com

0121 549 0686

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Cloud Migration & Cloud Control Console

Introduction

1PLACE is a comprehensive Database to Cloud migration, management and monitoring solution that can either integrate into Oracle's GoldenGate real-time data replication functionality or can be used as an ultra-fast data migration tool when migrations with zero downtime are not required.

1place Benefits – Twice the power, half the time and resources

- Productivity increases by 50% double migrations, faster
- Greater Speed and Agility
- Operational and Hosting Cost Savings
- Reduced risk and energy
- Lower level technical skills required
- Supports Real-Time Near Zero Time



1PLACE improves monitoring and data issue resolution, saving significant time by notifying migration staff where data migration failures have occurred within the migration. This means that DBA's, tech-support, or DevOps Engineers that have limited Cloud experience and technical skills can manage complex, real-time, and large cloud migrations.

Solution Overview

1PLACE is a comprehensive Cloud Control Board that contains a suite of Cloud tools, functions and monitoring technology that reduces the expertise required to operate, manage and support GoldenGate and 1PLACE DP.

The 1PLACE Cloud Control Console includes:

- A simplified Cloud management console for GoldenGate implementation, for across the complete enterprise.
- GoldenGate process monitoring, administration, management, and troubleshooting capability in a GUI console without using elaborate GoldenGate CLI commands and command line knowledge
- A modern development paradigm using REST API for centralized Cloud monitoring and management.
- A privilege-based secure GUI access to the GoldenGate deployment, thus avoiding any direct server access.
- The central console is designed for remote installs/upgrades/one-off patching with built-in data comparison capability.
- Enables both Database and Data migration in Real-Time



Comprehensive Cloud Control – In a Single View

1PLACE is a cloud native REST API based lightweight GUI tool to Monitor, Manage/Troubleshoot Performance, Data issues, compare replicated data for GoldenGate deployments on any existing Classic Architecture. 1PLACE Includes:

- A single cloud control console to monitor the overall health of the migration and Data Pump processes
- LAG for the individual set of GoldenGate processes in the deployment.
- LAG at Checkpoint for the individual set of GoldenGate processes in the deployment.
- Process memory including (Virtual Memory, Resident Set Size, Unique Set Size) for all the processes.
- Thread wise CPU usage for all the GoldenGate processes.
- Disk I/O utilization in bytes for all the GoldenGate Processes.
- Disk IO Count for all the GoldenGate process



Oracle to Amazon AWS Cloud Data Targets

1Place can seamlessly enable Oracle Data migrations to many of the Amazon Native technologies such as Redshift, Hadoop, and Kinesis.

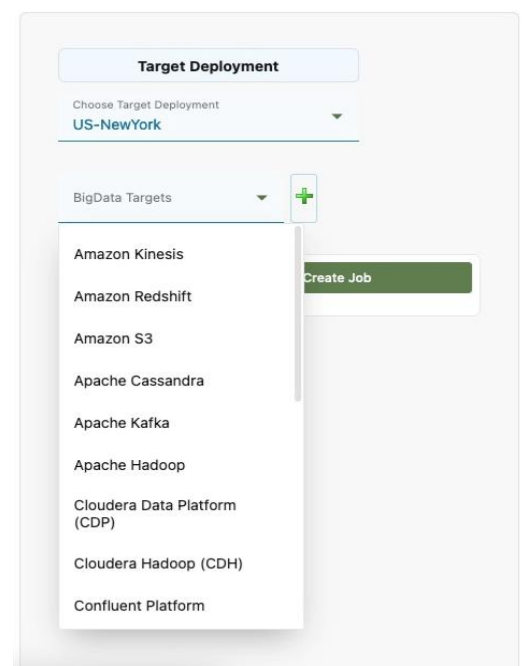
1Place delivers a multitude of options and offerings from a single control console, allowing users to manage multiple migrations across a wide range of technology stacks already built in Amazon



Oracle to No-SQL Conversions

Added to traditional database migration services 1Place can help to convert SQL databases such as Oracle, SQL Server and MySQL to No-SQL databases such as Hadoop or Mongo DB reducing license and operational costs. 1Place is already configured to move to AWS products such as Snowflake and Apache Kafka through a drop-down menu.

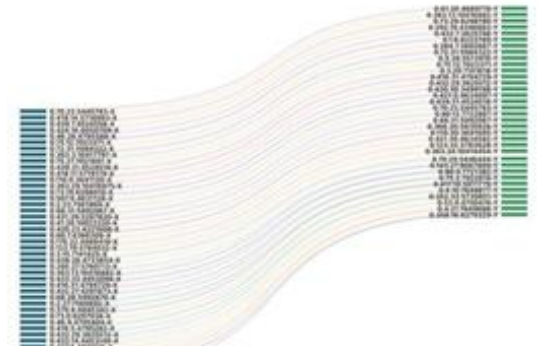
As more organisations explore how to lower licence costs, move workloads away from Oracle licenses without the cost, 1Place supports less traditional and much more cost-effective Cloud investment and management models.



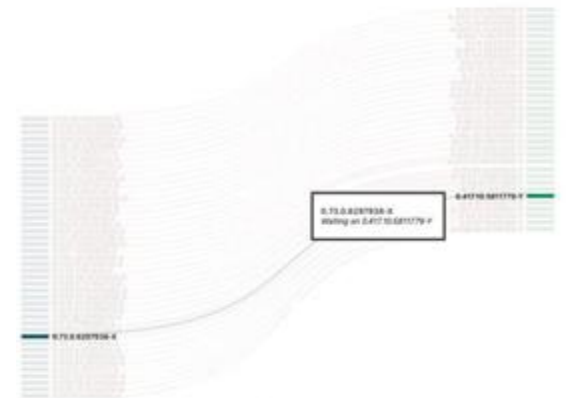
Product Technical Features and Functionality

Some of the Salient features are as described below:

- a. Manager: Functionalities as few below
 - i. Edit Manager Parameter file / View Report file
 - ii. Start/Stop/Refresh/Kill Manage
- b. Extract/Pump: Functionalities as few below
 - i. Unregister/Register an Integrated extract
 - ii. Add/Delete Ext/rmtrail
 - iii. View Report File/Checkpoint and Stats
 - iv. Start ATCSN/AFTERCSN
 - v. Stop/Force stop/Kill
 - vi. Option for an auto-upgrade from Classic to Integrated Extract
 - vii. Option for the auto downgrade from Integrated to Classic Extract
 - viii. Option for ETROLLOVER / Begin Timestamp
- c. Replicat: Functionalities as few below
 - i. View Report File/Checkpoint and Stats
 - ii. Start / Stop /Alter
 - iii. Skip Transaction
 - iv. Option for an auto-upgrade from Classic to Integrated Replicate
 - v. Option for ETROLLOVER / Begin Timestamp



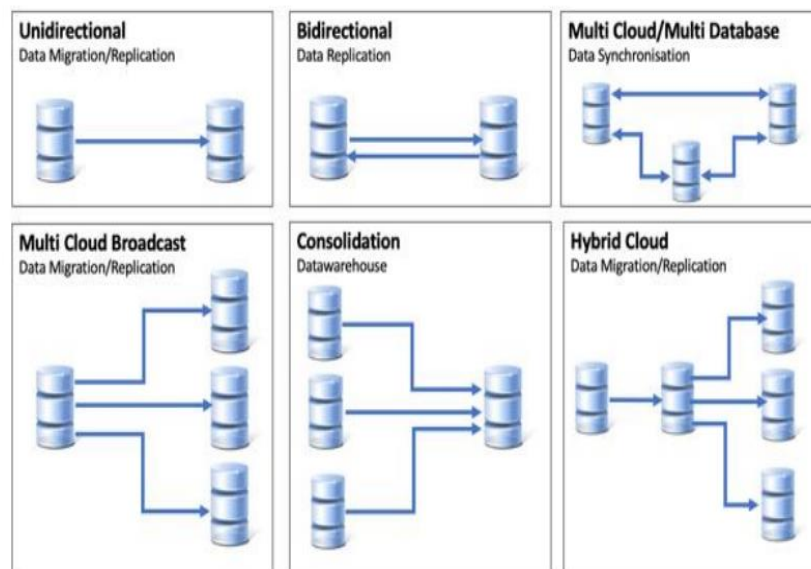
Transaction Dependency Mapping



Shows Transaction dependency for a single transaction.

Topology and Configurations

1PLACE supports GoldenGate in the following configurations:



Comparison - With No 1PLACE (GoldenGate Only)

- All data copies will have different configurations in different locations.
- All config needs to be done at CLI and may need individual configuration operations.
- There is no effective monitoring of the replications using GG – there is also a limitation and further expense with [Oracle Enterprise Manager \(OEM\)](#) and the [GoldenGate Plug in](#).
- If there are any issues with replications these will take more time to identify the root cause and rectify the problem.
- All rectification requires a lot of manual effort which will lead to delay in replication catch up – will need at least ½ day to troubleshoot and fix issue with one replication problem (This can really affect SLA response)
- Need to have GG expertise to manage and administer GG – circa £90,000 plus DBA skills.

With 1PLACE Dashboard and Cloud Monitoring

- All data copies are centralised and managed collectively.
- Can manage Hybrid Cloud and Muticloud Deployments from a single view console. This makes provisioning, guided configuration, management, monitoring and troubleshooting easier.
- All the related database activities can be monitored and managed from 1PLACE.
- Makes it easier to troubleshoot database related wait events from the same console.
- Monitor Process OS thread stacks which will help for performance troubleshooting.
- Monitoring is achieved through a single dashboard / console – this is added advantage over OEM.
- Tight Integration with AWS CloudWatch for threshold alerting as it has REST API endpoint monitoring.
- Security is made easy by renewing encryption keys and managing credential store.
- Management of all replications (distributed Deployments) at one console – this is an added advantage where OEM does not provision the same and can be very costly to do so.
- If there are any issues with source extracts and target Replicats, all that is required to re-enable the replication is only a one click operation – Issue resolution takes only 10 mins to identify and rectify issues (not hours).
- Can be managed and administered with Junior DBA with limited database knowledge and some training – circa £40,000 plus.

Enterprise Security


1PLACE uses Nginx Reverse Proxy and Cipher suite and network access is through https and SSL. As an additional security feature the rest APIs are all HTTPS and passwords are encoded inside the database.


1PLACE will allow to integrate with LDAP to provide centralised authentication and authorisation.




3 Use Cases for Cloud Migrations

The following use cases have been identified as a sweet spot and value target for 1Place in relation to specific use cases and include:


High Speed Migrations with Real-Time Zero Down-time
UC1


High Speed Migrations with some down time
UC2


Heterogeneous Database Migrations (Oracle to Sql Server)
UC3

Use Cases 1, 2 and 3 comparisons

	UC1 – Real-Time	UC2 – Down-Time	UC3 – Hetro DB
Needs Oracle Golden Gate	Yes	No	Yes
Large Data Sets & Databases TB/GB	Yes	Yes	Yes
Works with AWS, Azure, GCP, OCI	Yes	Yes	Yes
Suits Business Critical Applications	Yes	No	Yes
Real-Time with Near Zero Downtime	Yes	No	Yes
Works with Enterprise Databases	Yes	Yes	Yes
Uses Proven Replication Standards GG	Yes	No	Yes
Supports HA and DR	Yes	No	Yes
X10 Transfer Speed	Yes	Yes	Yes

Summary

The 1PLACE Cloud Management and Monitoring Console for Cloud Migrations is a valuable addition for organisations needing to extract more value from their Cloud investments. Organisations need to reduce the risk, resources, costs, and energy required to deliver complex and/or large Database and data migration to the Cloud. 1Place makes the complex simple and increases productivity and control across the Cloud.

With enhanced real-time monitoring the 1PLACE solution significantly reduces the cost of operating complex cloud migrations or managing other slower tools whilst adding value in key areas such as active trouble shooting and cloud management.

For further information or to book a demonstration please send an email to hello@1place1cloud.com or visit www.1place1cloud.com