

# Performance Benchmark Report: Oracle Sales Performance Management's Incentive Compensation Capabilities

Evidence from performance testing, April 2023

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## Purpose statement

This document describes performance benchmarks for the incentive compensation capabilities in Oracle Sales Performance Management (SPM), examining the time it takes to process small-, medium-, and large-scale compensation plans.

## Research methodology

Research involved gathering plans from a sample of customers and then calculating earnings for different volumes of data for different kinds of plans. Processes involved ranged all the way from loading different volumes of transactions to calculating earnings.

## Disclaimer

The following report is intended to outline the benefits that customers can realize from Oracle SPM's incentive compensation capabilities. This report will use select third-party data, and research, and/or reference materials. All value benefits and process improvements listed here are intended for information purposes only and may not be incorporated into any contract. It is not a commitment to deliver any service, material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

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## Introduction

At Oracle, our goal is to make customers and their business processes the center of our business. With the incentive compensation capabilities in Oracle SPM, accurate and fast processing of large amounts of data is of utmost importance. This performance benchmarking exercise attempts to gather processing statistics for different customer scenarios to arrive at a benchmark for current or prospective customers. This benchmark can serve as a reference point to answer prospective customers questions on performance.

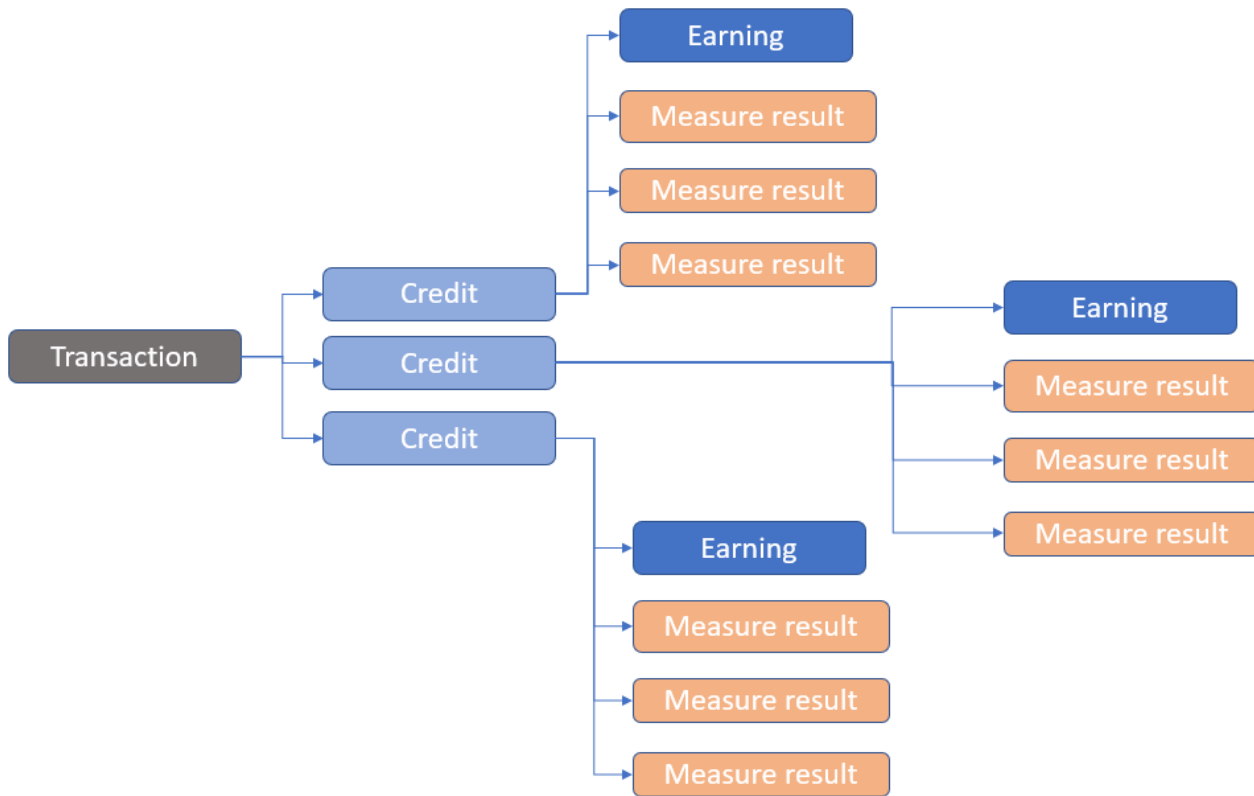
## Terminology

*Transactions:* A record of any type (invoices, orders, revenue, call logs, etc.) on which earnings are to be calculated. Note that Oracle SPM is agnostic to the source and type of data and can calculate earnings on any kind of data, for example: Order #123 for \$100,000 on May 25, 2023.

*Credit:* A transaction can be credited to one or more people. Each transaction can therefore result in one or multiple credits. Credits can be imported with the payee predefined or can be created by the system with the payee automatically determined via flexible rules, for example: Order #123 for \$100,000 is credited to Sam Sellers for May 25, 2023.

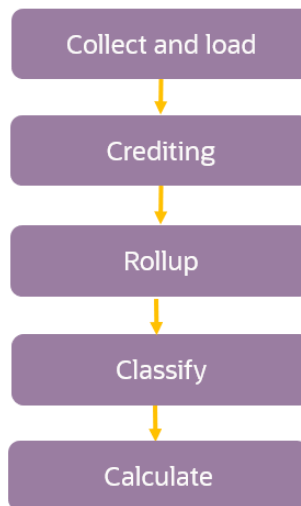
*Measure results:* Performance measures are metrics used for reporting and/or calculating. They are attached to a plan component and get calculated in addition to the earnings of the plan component. Performance measures are used to get attainment percentages or to get total sales in a period, quarter, or some other interval. Measure results are what you get when the calculation process executes the formula of these performance measures, for example: Sam Sellers sold \$100,000 in May 2023. Sam Sellers's quota attainment for Q2 2023 is 10%. In this case, the transaction resulted in one credit and two measure results for Sam—one measure result being Sam's total sales of 100,000 for May 2023 and the second measure result being his quota attainment of 10% for Q2 2023. It is possible that each transaction can result in multiple credits and each credit can result in multiple measures.

## Objects



A transaction can be credited to multiple payees, which means multiple credits can be created for one transaction. Each credit can be calculated in multiple performance measures, depending on how the plan is configured. If the plan calculates incentives per credit, each credit will have one earning record associated to it (as in the figure above). If the plan calculates incentives by grouping credits over an interval, then a group of credits will create one earning record. The point is the amount of data processed increases from transactions to credits to measure results, depending on the crediting and plan setup. Oracle SPM's incentive compensation capabilities are highly flexible, enabling you to do configuration in multiple ways to get to the same answer, which makes it even more important that both the setup and the processing of data are optimal.

## Processes



**Collect and load:** The process of loading transactions into the system and running the collection process. Performance of collect and load is largely dependent on the number of transactions loaded.

**Crediting:** The process of determining all the payees who should be compensated on a transaction. The crediting process can use the crediting rule hierarchy to assign credits to a transaction, or customers can skip crediting by loading pre-credited transactions. Performance of crediting is largely dependent on the significance of any rule changes, the complexity of the rules, the number of transactions processed, and the number of credits that need to be created or reverted.

**Rollup:** The process of determining how credits roll up a hierarchy. For example, if managers should get paid on all their subordinates' credits, the rollup process can ensure these credits are rolled up the management hierarchy. Performance of rollup is dependent on the significance of any rule changes, the complexity of the rollup hierarchy, number of credits processed, and the number of credits created or reverted.

**Classification:** The process of categorizing transactions so that the right compensation formula is applied to the transaction to calculate earnings. The classification process uses the classification rule hierarchy to categorize transactions. Performance of classification is dependent on the significance of any rule changes, the number of transactions or credits processed, and the complexity of the classification rules.

**Calculation:** The process of executing the compensation formula to calculate earnings for a payee. Performance of calculation is largely dependent on the significance of any plan changes, the number of credits processed, the number of earnings that need to be created or reverted, and the complexity of the rules.

## Benchmark setup

Benchmarking was done using two plans: one which used user-defined queries and one which didn't. Each plan had three plan components. Each plan was assigned to 30,000 payees.

### Detailed setup:

- ✓ **Plan components:** two plan components calculated earnings per transaction while one calculated earnings per interval. The three plan components had two, three, and four performance measures respectively.
- ✓ **Classification rules:** the classification rules hierarchy had three levels of rules. Two qualifiers at each level, with each qualifier having five qualifying attribute values.
- ✓ **Crediting rules:** the crediting rules hierarchy had three levels of rules. Two qualifiers at each level, with each qualifier having five qualifying attribute values.

## Performance results

**Incremental processing:** Pre-credited transactions with volumes of 1 million, 10 million, and 100 million for a month were loaded. The best practice of loading data incrementally during each day was followed. First, 95% of all transactions were loaded and processed, representing all but the last day's calculation. Then the last day's transactions were loaded, representing 5% new transactions, changing 0.5% of the existing transactions. The system then processed the data incrementally for the entire month using the standard plan mentioned above, yielding the following processing times:

Data volume category	Transaction data volume	Measure results	Processing time
Small	1 M (50K new + 5K changed)	3 M	11 min
Medium	10 M (500K new + 50K changed)	30 M	51 min
Large	100 M (5M new + 500K changed)	300 M	2 hours, 31 min

Processing times include the time taken to incrementally load 5% of new transactions, 0.5% of reversions, and then process the entire 100% of the data for one month.

### Payees

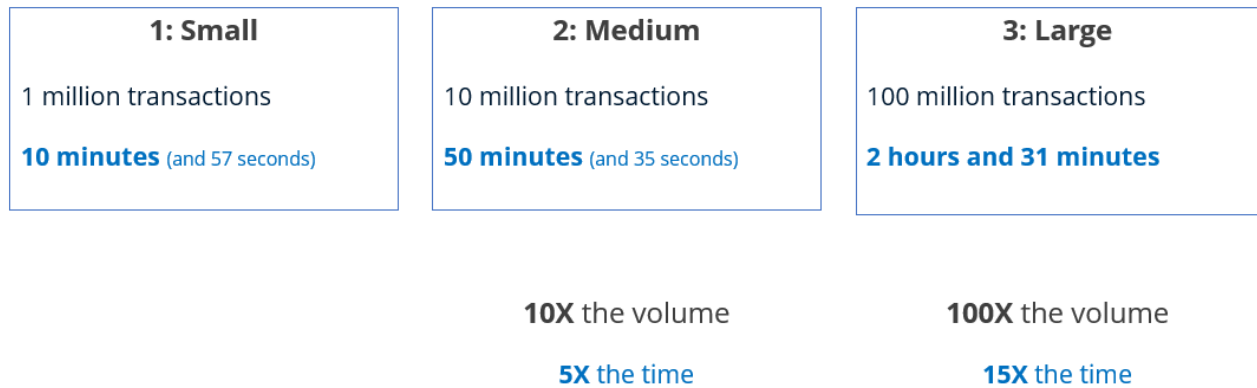
Benchmarking was done with 30,000 payees for all plan sizes. While smaller organizations often have fewer payees, Oracle SPM's incentive compensation calculation performance is not directly correlated to the number of payees, nor is it directly correlated to the number of payees with earnings calculated. The number of payees will determine the performance of plan deployment only.

### Nonlinear performance

As is evident from the processing results above, the processing times do not increase linearly with volume. In fact, Oracle SPM's incentive compensation capabilities are optimized for larger loads. Not only do customers with smaller volumes get great performance but Oracle SPM can easily scale for customers with massive volumes of data. All the processed data and results are written to the database while processing, which means it is available for reporting in analytics right away, without any time lag.



## Nonlinear processing times



## Caveats

Variables which could affect timings include:

- **Environment:** These numbers are for an environment sized to handle large volumes of data. So processing times may differ based on the environment size and type. Typically, this is not a concern. Oracle sizes customer environments based on processing needs. Our solution is processing intensive, which means that Oracle provisions medium-sized pods by default, even for customers who have small processing needs. If a customer anticipates processing large volumes of data in the future, they can file a request to resize with Oracle Support. If performance is a concern, customers can also file a service request, and Oracle will determine if the environment is the limiting factor or if some other optimization to plans or code is required.
- **Resource sharing:** These timings above are based on when the environment resources did not have to be shared with any other processes running for any other products. Typically, this is not a concern as there is usually not a significant amount of contention with other processes. Oracle SPM's incentive compensation capabilities bring the logic to the data, so that the bulk of the processing happens in the database. Database utilization is typically low for most Oracle Fusion Applications.
- **Plan configuration:** The processing time depends on how your compensation plan is configured. The number of earning and measure results has a relationship with the amount of processing time taken to calculate. Typically, this is not a concern as Oracle can handle large volumes without taking significantly more time.
- **Updates to existing credits and earnings:** The processing time also depends on how many transactions, credits, measure results, and earnings must be reverted or deleted. For example: for the same UDQ plan, calculating 300M measure results for 300M credits with 500K updated credits took 3 hours, 35 minutes, but calculating the same 300M measure results for 300M credits with just 50K updated credits took 2 hours, 49 min. Typically, this is not a concern, as most customers only revert less than 0.5% of transactions per run.
- **Updates to plans:** The processing time above reflects a scenario where the plan configuration has not been changed since the last calculation. But if the plan configuration is updated after the last calculation run, it will adversely affect processing time since the calculation has to first revert or delete previously calculated results and then recalculate them all over again. If a customer has large volumes of data, Oracle recommends avoiding significant plan changes midweek.
- **Classification:** Classification rules and the number of qualifying combinations could affect the processing time. Typically, this is not a concern as even complex rules can be processed very fast.

- **Crediting:** Processing times could be affected depending on whether a credit is created using pre-credited transactions or by running transactions through the crediting process. If credits are created using crediting rules, the crediting rules and the number of qualifying combinations could also affect processing time. Oracle supports even the most complex crediting rules, but more complex crediting rules will result in longer crediting times. Oracle recommends companies enrich the data as much as possible to simplify crediting rules and ensure that the credit rules defined in the system match the territory definition in the sales rep compensation plan statement.
- **Rollup:** Rollup rules could affect processing time. The test above does not include rollup since it is possible to assign credit to managers by simply using crediting.
- **Reporting:** Oracle supports real-time reporting. For customers who want to pre-generate reports as part of a payroll run, the time it takes to produce reports will vary depending on the complexity of the reports and the number of records that need to be reported on. Typically, this is not a concern. Multithreading of reports is supported and will ensure efficient generation of pay statements for thousands of payees by pre-generating the statements in parallel.

## Best practices

- Load and process data incrementally to take advantage of the solution's intelligent processing capabilities.
- Enrich data before loading transactions for smoother and faster crediting, classification, and calculation.
- Build stable, rule-based classification and crediting hierarchies instead of constantly changing hierarchies, which may subsequently need to be adjusted based on incoming data.
- Simplify plans to avoid unnecessary plan changes. A simple rule translates exactly to the payees understanding of the plan. For example, if a payee is told they own all northwestern accounts, it is best to either enrich the transaction or classify the transaction with the northwestern qualifier, rather than attempt to define one or more rules that includes all postal codes in the northwestern region.
- Configure plans so that you can limit the total number of performance measures. Work with your organization's center of expertise to understand how to optimize the total number of performance measures.
- Avoid constant plan configuration changes during the work week, since every time a plan changes and a new calculation is run, prior earnings and measure results may get deleted, forcing you to recalculate all over again.
- If you have large transactional volumes or tight SLA windows, schedule your incentive compensation processes to run at a time when they can take a larger share of the environment resources or when the application doesn't have to share IT resources with other products.

## Conclusion

Benchmarking enables customers to quantify performance, compare the organization to others, identify configuration and process gaps, and define the actions necessary to close those gaps. Use the listed benchmarks to:

- Set baselines for process improvements
- Track and trend performance over time
- Identify strength and weaknesses

We hope this benchmarking exercise demonstrates the value customers could expect from Oracle SPM's incentive compensation capabilities, and the kind of metrics you may want to use to gauge optimal performance.

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