WHITE PAPER

Calculating TCO of your JD Edwards Reporting & Analytics Solution

We are often asked by prospective clients if we can help articulate the impact of implementing a self-service reporting & analytics environment for JD Edwards. There are many factors to consider such as the license for the visualization tool, the license for the data environment (Preferred Strategies QuickLaunch), the data hosting environment, the number of users etc. This whitepaper will help you understand the primary factors to evaluate as you plan a journey to JDE self-service reporting & analytics:

- Consider all the costs of deploying the solution
  - Hardware, software, people.

- Consider the time it takes to develop new insights
  - How does that effect the ability to adapt and make informed decisions?

- Consider the on-going maintenance and support costs for your solution

Beyond the Software License

It's what everyone is wondering: how much is self-service reporting & analytics going to cost me? The total cost of ownership (TCO) of a business intelligence and analytics solution is an important aspect of the decision process for making the business decision to implement a self-service data environment. Behind the basic question of TCO is also the common misconception that the license cost of the visualization tool, such as; Microsoft Power BI, Tableau, Qlik, Looker and so on, will give you a basic idea of the solution's TCO. At face value $10/month for Power BI seems like a 'no brainer' but please read on.

Businesses who mistakenly calculate the TCO through license pricing are unpleasantly surprised by a much higher cost of ownership immediately upon purchase - due to the cost of supporting technical infrastructure required, additional manpower needed to implement and manage the reporting & analytics project, and added costs such as support and training.

So how can you accurately calculate TCO of a JDE self-service reporting & analytics? Since we have already established that upfront costs is just one, small aspect of a bigger equation. That is, businesses are taking into account how much, and how often, their teams will benefit from new reports and analytics. What impact on the business is faster time to insight going to have on the business? What if an insight resulted in just a 1% increase in revenue, or reduced cost, or more efficiency, any and all of these can result in $Millions in financial impact.

What is the cost of new analytics for my team? This is precisely how you need to approach your value assessment of a self-service reporting & analytics solution because the cost of new analytics essentially calculates how quickly your team can churn out (and benefit from) new analytics and reports, which actually measures how much value for how much investment you are getting from your self-service data environment.

Businesses are now taking a newer, more intuitive approach to measuring the cost of a JD Edwards self-service reporting & analytics solution - one that incorporates the full value potential.

By incorporating the idea of "time to insight", you must try to quantify the agility of your self-service data environment, which depends on quickness of operations.

A New Consideration: The Cost of New Analytics

The equation looks something like this: Add all costs of owning visualization tools - licensing, additional technology, manpower, cost of training, operation, and implementation - and divide that by the number of new reports you are able to create. The result will be the cost to generate a new report.

Capturing that information in a single metric will give you a basis of the cost of your new analytics. Let's review why this is an important figure and a step by step guide to how you can arrive at the total cost of ownership.

Supporting Technology and Effort

How powerful and easy-to-use the reporting & analytics tool directly impacts the cost of it and here's why: Depending on number of JDE modules you employ and the requirement to combine JDE data with other data sources such as Salesforce.com, JDA Transportation and Logistics etc., the self-service analytics solution you are considering must be able to support this kind of operation. Otherwise, IT will be right back in the middle of supporting the business with data and reporting requests and your self-service data environment will not be delivering the business value you anticipated or budgeted for. Here are two key considerations:

- **Technical Infrastructure -** Additional databases, data warehouses or a cloud deployment for data will ensure performance and capability of the visualization tool - a cost that increases with data size, users, and usage.

- **Human Resources –** How self-service is your new solution? Will you need to hire additional IT staff or data engineers to man it, or is it intuitive, powerful, and easy enough to use that your business users can be truly independent?

The Cost of New Reporting & Analytics

There is a new question that reporting & analytics can answer, but what kind of changes will be required to the visualization solution in order to quickly get this answer? Depending on where you start, this could mean integrating two additional data sources (sales performance data from Salesforce.com, HR data),

transforming the data to a consistent structure, building relationships between fields, defining the logic and scope of the metric, and finally building the visualization itself, all of which may be managed by a technical expert.

If the process to create new analytics takes weeks or months, it's entirely possible the CEO is distracted by another important question and the VP has already decided to halt hiring from a lack of clarity of how it would affect the bottom line. If you can quickly get the answer, and at a low cost, self-service analytics has just added that much more value to your company.

Why Time to Insight Matters Most

Reporting & analytics platforms vary wildly. In the time it takes you to submit a new data query, generate results, and present them in a format that makes sense - for example, an easy-to-process dashboard showing progress on your KPIs.

Once you factor in the turnaround time for a data analysis project, though, and divide your number by the maximum amount of data projects you can process in a year, this could quickly start to look very different.

That's because if you are looking for true value of self-service reporting & analytics, as in data-driven teams, insights for decisions in an actionable timeframe – these self-service reporting & analytics tools aren't best measured by TCO per annum, but by the cost of running each individual analysis.

How to Calculate the Total Cost of JDE Reporting & Analytics

Step One: Calculate Your Total Annual Outlay

Of course, before you get that far, you do need to work out your TCO in the first place.

While there are a number of factors at play, the most important ones are typically:

1. How much you need to pay the employees who deploy and manage the solution?

2. How many employees you need working on the self-service reporting & analytics solution (implementation, deployment, maintenance) and for what share of their total workday?

3. How much you need to spend on additional data warehousing, if the platform demands it to accommodate your data?

4. How much you need to spend on external ETL (Extract-Transform-Load) costs, if the platform cannot quickly prepare data for analysis? Does your solution understand the complexities of JDE data structure and schemas and simplify those complexities for the business user?

5. How many people are using the self-service environment and is there an ability within the self-service environment for business users to share knowledge and insights?

Let's take a look at each of these in more detail.

Full Time Equivalent (FTE) Salary

Let's start with the easiest one. What would be the yearly salary for a full time IT engineer or BI specialist responsible for handling the technology and making sure you can generate the insights you need? Let's be conservative and say: $100,000.

This number will presumably be the same for whichever solution you select, for example:

Once you take this into account, the gap between the two vendors widens substantially.

A two-week rate of new analytics means that you can process an absolute maximum of 26 new analytics projects per year. A rate of two days means you can produce a maximum of 182. Now that's a big difference.

Divide the TCO by the maximum rate of new analytics, you get this:

FTE Salary

Vendor A	Vendor B
$100,000	$100,000
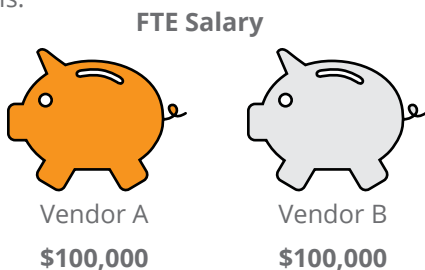
Number of FTE Using It

The next consideration is how many people you will need to employ / assign to the project to get what you need out of the solution.

This varies from platform to platform, because a system that demands a high level of technical expertise to use it (here, Vendor A) means you also need a big enough IT team to handle all requests from business users, while

Number of FTE Required
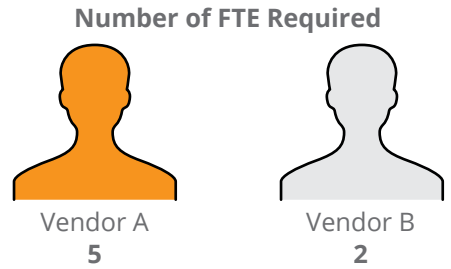
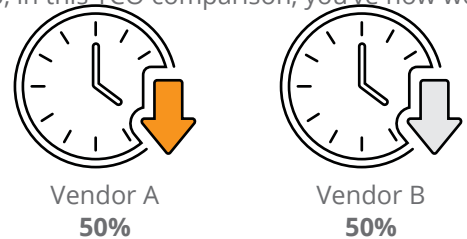| Vendor A	Vendor B
5	**2**

a solution, such as Preferred Strategies' QuickLaunch, that is largely self-service (Vendor B) requires far fewer IT resources to manage the environment.

Share of Time Spent Using It

It's unlikely that managing your JDE self-service data environment will take up 100% of any one employee's time, but with a first generation reporting tool or the built-in reporting tools it can happen. For the sake of argument, let's say that reporting & analytics activities will take up roughly half of the relevant IT team's time in both cases.

To recap, in this TCO comparison, you've now worked

Vendor A	Vendor B
50%	**50%**

out that Vendor A requires five FTE on a salary of $100,000 to spend 50% of their time on reporting & analytics-related activities, while Vendor B requires two FTE on $100,000 per year to dedicate 50% of their time, too. This brings your total staffing costs for the year to:

IT staffing costs:

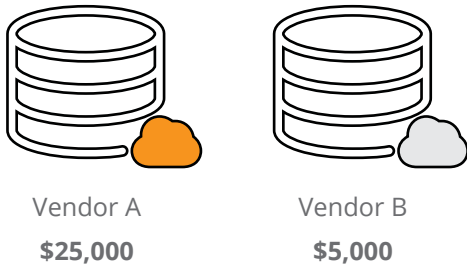| Vendor A	Vendor B
5 x $100,000 x 50%	2 x $100,000 x 50%
= $250,000	**= $100,000**
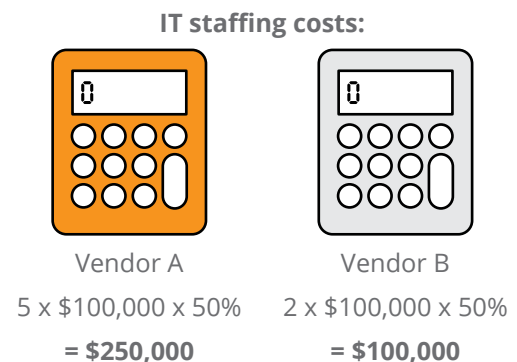
External Data Warehouse Costs

Most BI tools do not provide a comprehensive solution for storing your data, or a means of accessing any item of information in a vast, sprawling data store without a) enormous hardware requirements or b) grinding to a halt. This means you often need to spend on data warehousing, data marts, or cloud infrastructure.

Even where the vendor has figured out a smart way to handle data (for example, Preferred Strategies' QuickLaunch uses a combination of Columnar Database technology and In-Memory Tabular technology so that you only load data relating to your query, and use memory instead of disk space to store this while in use), you may prefer to integrate this with an existing data warehouse you have or even add additional to make room for your 10 year plan of data. Again, some companies use Preferred Strategies as a standalone product. Others use Preferred Strategies to compliment a data warehouse.

Cost of external data warehousing per year

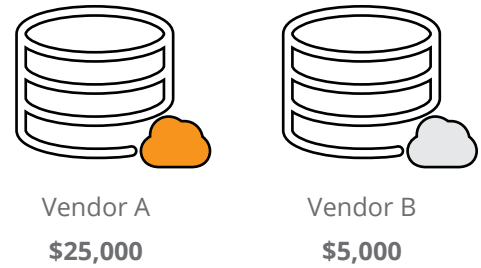| Vendor A	Vendor B
$25,000	**$5,000**

For our example, we're assuming that Vendor A does not have a solution in place that would bypass use of a data warehouse, whereas Vendor B has a QuickLaunch-like innovation that provides a solid technical infrastructure, so while you may still want to incorporate some data warehousing into the mix, it will be far from extensive and save you money.

External ETL Costs

Likewise, if you're relying heavily on extensive data warehousing, you're also likely to run up substantial costs on an external tool that performs the ETL functions that prepare and harmonize data for analysis.

Cost of External ETL per year

Vendor A	Vendor B
$25,000	**$5,000**

Total Annual TCO

Using this method, your total annual TCO for the two vendors would be:

	Vendor A	Vendor B
IT Staffing Costs	$250,000	$100,000
External Data Warehousing	$25,000	$5,000
External ETL	$25,000	$5,000
Total Annual TCO	$300,000	$110,000

(P.S.. This doesn't include your license, deployment or other up-front costs).

TCO Summary: Implicit Cost of New Analytics

| Average	Vendor A	Vendor B
FTE Salary (per year)	$100,000	$100,000
Number of FTE Associated	5	2
Share of time Spent	50%	50%
Subtotal	$250,000	$100,000
Rate of New Analytics	2 Weeks (26 per year)	2 days (182 per year)
Cost of New Analytics	$9,615	$550

Yes, your yearly TCO for Vendor A was already three times that of Vendor B, but when it comes to working out how much you are really spending on each analytics project, **you're actually paying about 18 times as much for the service.**

Step Two: Divide by Time it Takes to Perform New Analytics

From this comparison, it looks like using Vendor A racks up a yearly bill that's nearly three times that of Vendor B.
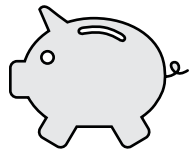
But what if I now told you that, because Vendor B offers a vastly more self-service solution, you can process a new query and produce a new set of analytics in two days - while Vendor A means waiting two weeks?

Minimum Cost of New Analytics
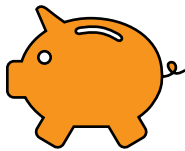
Vendor A	Vendor B
$13,462	$714

Bottom Line: Change will Happen Often – Consider its Cost.

Now, if you're thinking, "Is a low cost of new analytics so critical?", take a step back and look at a snapshot of a day in the life of a typical business: Business condi¬tions change - usually quite quickly. This results in new business questions being asked, which in turn makes reporting & analytics and now more frequently data science an iterative process. Because it takes time, effort, and expertise to make changes in any of these business insight initiatives, there is cost associated with it - time, manpower, data. Though currently you may only be thinking about the explicit costs of self-service reporting & analytics, you should factor the "cost of change" into your evaluation.

For example, let's take a scenario where a VP Sales is deciding whether to hire more salespeople. He/she needs to give the CEO an indication of how much more salespeople will grow revenue by end of year. To do so, he needs to check how long it takes sales reps to ramp up to full quota attainment.

To Get a Perfect World, Speed Is the Key

Imagine if in your organization you can reduce the cost of churning out new analytics to your team members, imagine what you will be able to achieve - the amounts of people from different departments capable of making data-driven decisions.

Figuring out how much value you'll get out of your chosen technology is always going to be tricky, and there are, of course, many other factors at play than straightforward economics.

Conclusions

You need to know that the platform fits your needs. You need to know that it's easy to use and scalable enough to grow with you. You need to know that the vendor's support team will always be on hand to help you get the most out of the system. You need to know that the vendor's solution can simplify JDE data complexities and provide calculated values for things like Cost of Goods Sold or Sales Margin so that these critical financial factors are consistent across the organization in any reporting & analysis.

These are the primary factors that will dictate how much you're really paying to generate each business-critical insight. While you can get a sense of how well a vendor ticks the boxes from talking through the product's capa-bilities, it makes more sense to try it out for yourself.

Before you commit, you might consider engaging your vendor in a proof of concept (POC). There is generally a cost of these but the consultative value to the business is money well spent. A POC will allow you to use your own data and therefore the results of the test will be valuable to your organization. Specifically, identify one or two reports that IT currently supports the business with on a regular basis. Or ask an executive stakeholder such as the CFO, what business insight they would like to see or what elements of business Key Performance Indicators (KPIs) they would like to see. That way, you'll know whether it's a genuine¬ly self-service solution, you'll have a good idea of how fast you can turn around results, and you can use this alongside your TCO calculations to get a reliable, accu¬rate picture of how much value the technology will really bring to your business.

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In order to truly enable a smart, data-driven company
you need to make your data accessible

Self-service reporting & analytics for JD Edwards provides will generally pay for itself within eight months of deployment. Find out how – give us a call.

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Want to see QuickLaunch for JDE is action or speak to an expert about BI pricing for your business?

SCHEDULE DEMO

Consider a Subscription License Model

Rather than a perpetual license with annual maintenance costs consider a vendor that offers a subscription license option. These often require a modest initial cost for the integration and training then a low monthly cost per user. The advantage of this approach to control investment costs are multi-fold:

1. Oracle has announced they will cease support for JD Edwards in 2030. While that may seem like a long way off your ERP is core to your business. This means you're going to have to consider your post-JDE environment and budget for the migration of your core data infrastructure to another solution. Given there is an end date, a perpetual license may not make sense because after you migrate your ERP you will incur more cost for the self-service reporting & analytics solution.

2. Self-service reporting & analytics is often adopted by operational groups at a different pace. So instead of licensing software for unlimited users (or more users than you have total employees) consider a departmental roll-out.

3. In the modern enterprise with declining IT budgets the cost of implementing and supporting a self-service data environment will most likely be absorbed by the line of business who will benefit from the outcomes. Again a subscription license will be much lower cost for a single line of business to support.

Today, incorporating the notion of speed, like how quickly your team can churn out new analytics, how agile they are, depends on quickness of operations. If you just look at TCO you are not incorporating the full value potential.