

# Increase ROI of your E&P Applications with Software Metering

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**Abstract**

The documented best way to reduce spending and achieve optimization of your expensive licenses is through software asset management metering tools. These usage metering tools measure how much and how often applications are used and allow managers to quickly and easily analyse true needs, thus helping companies to make intelligent decisions to keep software costs down and prevent them from paying fines for breaching license terms. Some usage metering tools also go further by not only providing historical data but by simulating various types of agreements and scenarios to help managers make more informed decisions.

Business and IT Managers are applying usage data to optimize their resources and save their companies real dollars while creating a competitive edge. Whether you're managing oil and gas applications, usage metering allows you to provide the right software to the right person at the right time thereby optimizing your costs, improving usage efficiencies and increasing your ROI.

With accurate usage data analysis and centralized monitoring, companies can effectively evaluate the utilization of their IT assets, plan their future software purchases while optimizing not just licenses but also their IT budget, and drive business to renewed growth.

**1. Introduction**

As technology continue to advance, and with technology now becoming the engine of business operations, organizations find it crucial to keep investing in enterprise software in

order to survive the competition in the market. Even with the current situation of the global economy signalling a continuation of global downturn, causing firms to scale down on IT spending, studies shows that we will not anticipate any slowdown in the spending levels on enterprise software.

According to Gartner, the enterprise software market will continue to grow by 7.2% in 2017 globally. With this trend, business and IT managers are facing the challenge of increasing the value of their current software investments – especially for technical E&P software applications. There is a need for innovative ways to optimize software assets that will make sure that the business will continue to have the tools and services they need – while ensuring that resources, such as time and money, are used efficiently.

An effective measure to address this challenge is to implement software usage metering solutions. There is a saying that goes “You can't optimize what you can't measure” – while this is highly debatable in other practices such as HR and Management, this saying is particularly accurate, and undoubtedly, the most essential concept for software asset optimization. The first step in software optimization is to collect the usage.

**2. The Context**

To comprehend the importance of software metering, below is a graph showing a typical scenario that is happening in an organization that is not monitoring their software usage. Below shows actual data from an engineering company showing how much licenses they

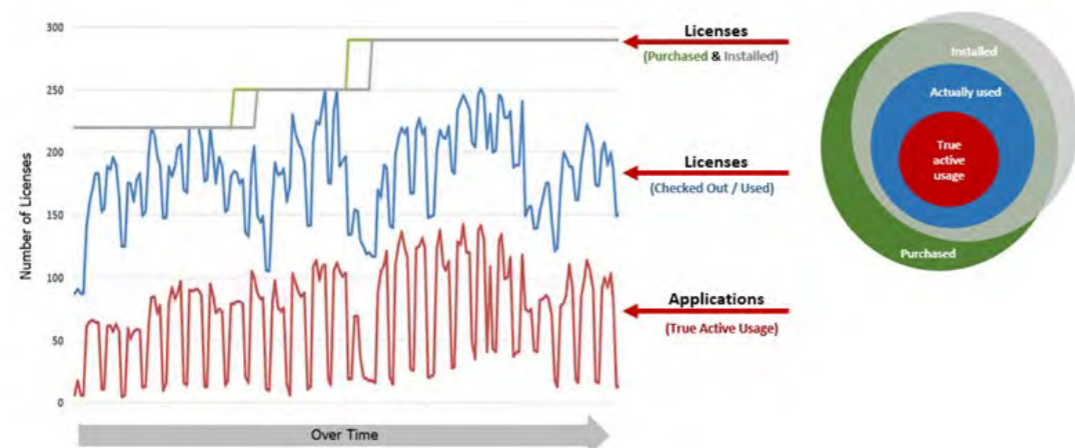


Figure 1. Licenses Owned vs Licenses Checked Out vs True Active Usage

own for a particular Engineering application, and how much is being utilized over a period of time.

ware cost optimization is to standardize the justification process for new investments.

Now, let's take a closer look at the steps you can take to improve your software ROI using software metering solutions

**3. Software Metering Solutions**

Let's focus first on the green and gray line at the top which represents the purchased and installed licenses. The line shows that the company started with 220 purchased licenses for the application. In the first few months, IT department started receiving phone calls from end users reporting that they were encountering denials when checking out licenses. As a solution, IT purchased additional 30 licenses the following month. However, even with total of 250 licenses, there were still reports of denials from end users. This time, they purchased additional 40 licenses. IT's goal was to prevent the phone from ringing with user complaints and prevent business managers from blaming denials as the cause for the users decrease productivity. The complaints have stopped after purchasing the additional 40 licenses. However, was an informed decision truly made?

Useful information for optimization is derived from various data sources, different metrics, and a thorough analysis of historical usage. Additionally, monitoring usage from the log files and license manager utilities alone can be tedious – taking a lot of time and staff resources, and conclusions based on these tools can be error-prone owing to incorrect assumptions.

Implementing a software usage metering and optimization tool can help achieve large savings within the first six months. Market research supports implementing software usage metering tools and the studies show that these tools have a quick payback period with minimal post-implementation effort. The same study released by Gartner states that “Business leaders can cut software spend by 30% by implementing software optimization practices”.

Proactive optimization can also be achieved thru software metering solutions that has the capability to perform automatic license harvesting where it allows companies to track inactive license usage and automatically release back licenses to the server to promote productive use of licenses. A software optimization tool can integrate with business intelligence tools such as Microsoft Excel® and Power BI™, Tableau® and TIBCO Spotfire® and help business leaders to fully understand their application usage in the most simple and interactive way. with a usage interface they already know from before.

Without a software metering tool, the typical response when denials occur is to add more licenses, and numbers are based on assumptions without concrete supporting data. How much licenses do they actually need? How are the end users using the applications? Are the licenses being used efficiently? What is the real story?

These are questions that cannot be answered without a software metering solution in place. The consequences to this is wasted money allocated to purchasing unnecessary additional licenses and a sub-optimal software portfolio. Again, “quantify to justify”. The key to soft-

**Step 1: Capture Usage 360**

The first step is to capture all of the usage of your applications - whether it be local, server-based, web-based and applications on Citrix or terminal servers - and consolidate usage data in one central storage. A simple software inventory or discovery tool provides only a baseline of what applications are installed and what users should be using, however, it is essential to capture not only the inventory but also capture how the applications are being used.

An effective tool will be able to provide this, as well as the ability to collect usage regardless of different technical set up. This consolidated data will give you a complete picture of your software portfolio and an accurate understanding of your license position.

Additionally, while some applications are less expensive than others, and thus would seem not as necessary to optimize, it is important to remember that even less expensive software can have a high total cost of ownership. The overall costs should take into account the cost for supporting users, training, backup, and more.

**Step 2: Reporting**

Software metering solutions will be able to produce comprehensive reports coming from the collected usage data. There are advanced reporting solutions that will enable you to

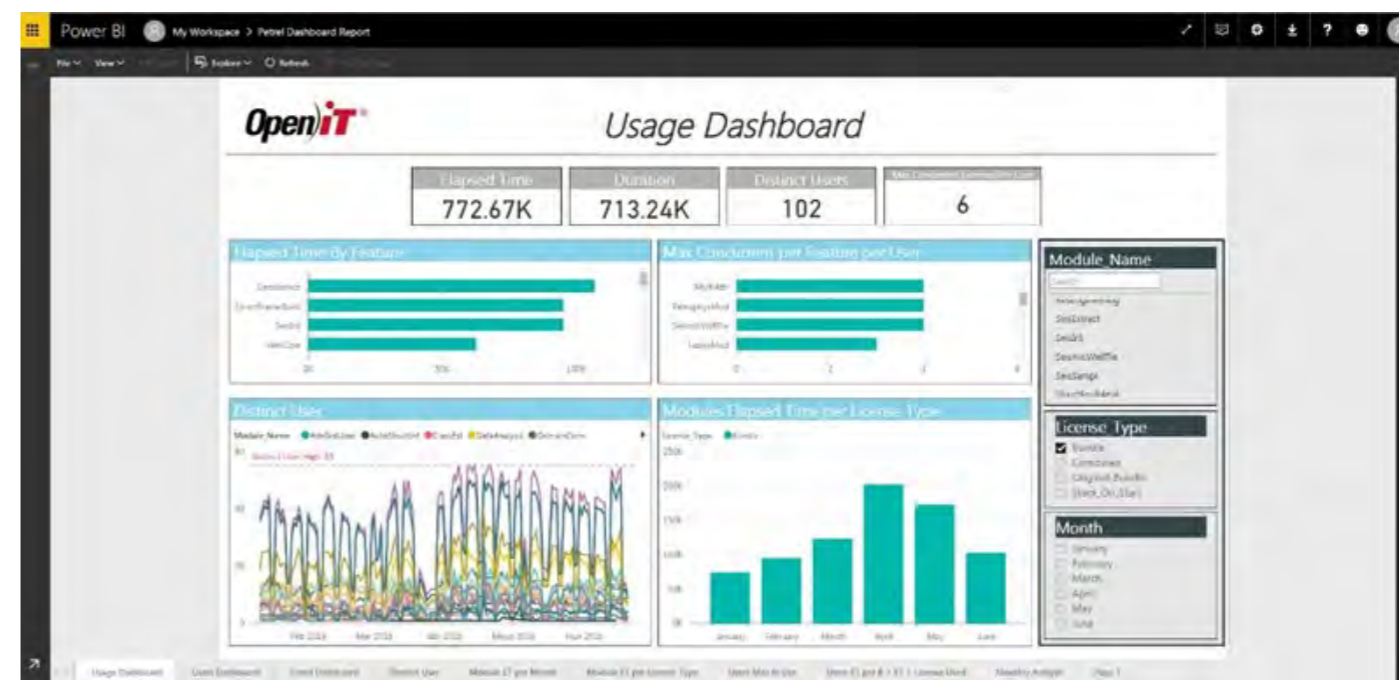


Figure 2. License Utilization Dashboard

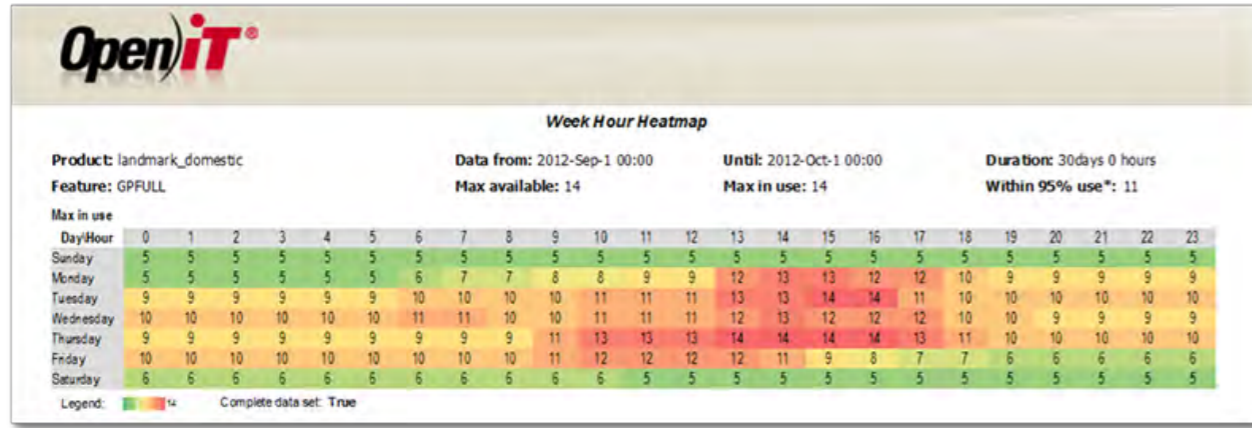


Figure 3. License Usage Heatmap. Red areas show maximum use of licenses while green shows time of the day when there are plenty of licenses available

look at the data in all angles and allow you to breakdown the structure in different ways to provide for multiple views. In some software metering tools, these breakdowns are typically limited to snapshots of time buckets, but with a powerful software metering solution, you will also be able to break down the usage by different groupings – which could be the basis for different cost trending. Some examples include cost trending by:

- Business unit or location: IT organizations should be able to communicate how much of the IT budget is dedicated to supporting a particular business unit or a location. IT spending that is dedicated to a particular part of the business, such as business-unit-specific projects or functional should be tracked and represented.
- Application or suite of applications: Understanding overall spending with portfolios of projects is critical for the application planning process.
- User or user-group: helps understand user behaviors within the organization and improve user efficiency.
- Fixed vs. variable costs: allow tracking of those add-on licenses that are leased or which have a pay-per-use agreement with software vendors.
- Vendor: Group applications or products together - to give an overall picture of usage from a vendor.
- Top projects: Organizations must be able to communicate overall project spending and the allocation of money across top projects.

Another advantage of monitoring through software usage metering tools is how it makes understanding your licenses very easy - even without in depth technical knowledge of license administration. It removes the tedious process of manually consolidating usage from different servers and applications – which in turn, lessens the time and resources consumed by IT staff. It is a fast and efficient way to

Feature	Distinct	LAN	WAN
OPENWORKS	1161.00	516.00	435.00
SEIS2D	254.00	65.00	48.00
SEIS3D	620.00	243.00	201.00
STRTRKRS	626.00	80.00	50.00
WLBRPLNR	114.00	32.00	15.00
ZMAPPLUS	329.00	69.00	39.00

Figure 4. License Agreement Simulations

create reports for management to help them make well-informed decisions when it comes to software asset. These reports are typically presented in graphs and tables - in dashboards and in automated reports that are sent directly to managers at regular intervals.

Advanced reporting solutions will also have features such as alerts and notifications when certain events occur – to support a more proactive approach to asset management and removing the need of continuously monitoring.

**Step 3: Analysis**

Trends reports provide valuable insights for software optimization. Trend reports can be shown by feature, application, location, user-group etc. It is important that the analysis support the business decision that are on stake. Advanced tool can show you the long term trend, but were you see changes, you can go in a zoom in on specific weeks or days – to look for reasons for sudden change in user behavior or in user needs. Reports showing underutilization of a certain asset – can document ways to cut cost that does not hurt productivity. Below are more examples of areas where you can optimize with insight into usage data:

**Improve User Efficiency**

Understand the underlying factors behind the usage trends. This is why it is important to look at different metrics when analysing software usage. It is not enough to look at how much license is being checked out, but know how the licenses are being utilized. A software-metering tool can be able to provide usage information down to the user level in order to see user workflow patterns: Are your users using the licenses efficiently? Are they actively using the applications and checking it back into the license pool after doing their task? Or are there users who are unnecessarily hogging the licenses - using more than the needed number of licenses? Analysis the software usage and improving user efficiency is a good starting point for software optimization.

Additionally, software metering is not just about measuring license efficiency but also a tool to improve user productivity. Information from software usage by user or user group levels can give insights into which user groups use tools and where additional training is needed in order to strengthen adoption of a particular tool or a particular functionality within a tool. It is important to find those users that revert back to old tools to get their job done. It is expensive for companies to keep various versions or tools for the same tasks.

**Optimizing Named Users License Agreements**

To optimize named user license agreements, ideally, only power users should be reserved as named-users. A report that details the usage of users – including the number of days the user accessed the application and how long the user has used the application for a particular period will be very useful for this analysis. It is important to analyse the usage of users from time to time and re-examine if the current named user agreement is optimized. Re-deploy assets that you intend to keep but which would benefit another user or user-group more.

**Selecting the best application package based on utilization of the package’s various components**

Software metering can help optimize applications that are sold in packages. Different packages include a set of modules and by tracing the module usage, you will be able to identify which package is needed to cover the usage need while minimizing the cost. As an example, Petrel offers Bundle and Stack-on-Start licenses, using a tool will allow you to look into the modular usage and be able to determine the best type of license that can save on Petrel cost

**Optimizing Combination of License Agreements**

Some software metering and optimization solutions have advanced capabilities for simulating various license agreements that can help business and IT leaders in deciding which kind of software agreement is best for a given application, whether it is local concurrent, global concurrent, named users, or end-user devices. Typically, the optimal license agreement solution is a mix of global concurrent, local concurrent and named user licenses.

**Step 4: Communicate and Optimize**

After reports have been reviewed and analyzed, a number of ideas for cost savings and improving user efficiency will emerge. However, prior to making any decisions, it is critical to build common understanding among stakeholders. The findings need to be communicated.

A thorough communication process should be realistic about the differing perceptions among stakeholders. For example, business leaders

may think that IT only cares about cutting costs, and not listening to user needs. In a drive to maintain quality, business units can tend to proclaim their right to have certain tools, regardless of the pressure placed on IT budgets. Similarly, IT can be perceived as lacking the agility to respond quickly to changing business needs. In both cases, usage data that is shared in clear and timely report formats allows all players to see where there is waste, bottlenecks and shortages.

Long meetings and decision processes may not be necessary, since the reports already provide clear evidence of the need for action. Understanding each other’s perceptions, IT can share in the company’s strategic business pressures, while at the same time presenting usage data and how tailored cost savings can be achieved by eliminating clear cases of waste. Shared understanding of the issues among stakeholders is critical in obtaining buy-in for cost-cutting and optimization strategies. Trend and drill-down reports provide a huge advantage for fruitful discussions that are focused on common goals. The risk of battle between business units and IT is eliminated, and working together towards agreed outcome is possible when discussions are centered around the facts.

**4. Case Study**

A global 500 company was facing a challenge with regards to managing software asset. They started to implement a flexible software management tool with powerful analysis capabilities that would support multiple license managers such as FlexNet and IBM LUM.

The first phase of the tool implementation involved finding actual software usage levels and patterns, by collecting and analysing the license usage data. In this phase, they were already able to gather insights about actual system obsolescence and local application usage.

In the second phase of the project, they added a tool to improve the software license availability. The tool detected licenses that were checked out, but not in active use: the inactive or idle licenses, were release back to the license pool - which resulted in a faster circulation of the available licenses among users. During these two phases of the project, they were able to document a 47% savings of one of their most expensive and critical software.

**5. Conclusion**

In order to kick-start the software optimization process, start by harvesting low-hanging fruit: Focus on legacy applications that might have high degree of shelfware and newly adopted software where you need to increase the adoption rate: By looking at trends in usage, you can quickly identify candidates for optimization: Examples include:

- Renew only software that is in active use and adds value to the business
- Based on actual usage profiles, negotiate optimal licensing agreements, sizing and best terms
- Avoid non-compliance
- Reduce uncertainty by forecasting trends in usage
- Eliminate manual reporting internally and for procurement and accounting
- Target user training to improve adoption rate of applications
- Identify power users and product champions, improve support by enabling peer-to-peer user networks
- Document best practices to improve workflow analysis
- Add new technology as budget is freed up – improving usage efficiency and innovation.
- Redeploy assets which benefit another user or user-group more. Redeployment can be automated by setting up specific rules for inactive and active users

Critical to the overall software optimization process is getting IT and business leaders on the same page by creating a deeper and common level of understanding on how key resources are being used. Through this common understanding, you build trust that decision are taken to improve asset and user efficiencies. With this trust between IT and business, you can easier adopt to new changes and stay competitive. This is not a one-time job, but an ongoing process that over time creates an robust, scalable and optimized organization.

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