

Calculating utilization in a services company

This white paper discusses the various approaches to calculating utilization, best practices, and how you can use your professional services automation (PSA) tool to measure and report utilization for your company.

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Overview

Whether you're running a consulting firm, software company, or other project-based organization, utilization is an important issue for all services organizations. Maintaining high utilization of your employees drives higher billings, higher revenue and ultimately, higher profits. It is also a critical measure of financial success and sustainability. Yet tracking and measuring utilization poses challenges.

The goal is simple: establish a policy for calculating utilization that is consistent across the company and consistent with common industry practices. Unfortunately, the calculation of utilization is not a simple equation. You'll have to address many questions, such as:

- What is utilization? Is utilization the same as "billability"? Should your company use both?
- Which work is counted as "utilized" and which work is counted as "not utilized"? What about "billable" vs. "non-billable"?
- How should you calculate total available hours (the denominator in the equation)?
- How should you institute your utilization policy? Should you apply the same utilization calculation to all employees?

This white paper gives you the direction and tools to answer these questions, determine the appropriate utilization calculation for your company, and apply it across your organization. Once these questions are answered, you can use your professional services automation (PSA) tool to measure and report utilization for your company.

What is utilization?

In its most simple form, utilization is a measure of time spent working. The numerator includes either all or a subset of time put on a timesheet. The denominator is all or a subset of hours that could have been worked. When discussing utilization, companies often talk about the numerator (i.e., what hours count toward utilization) and the denominator (i.e., the baseline hours that someone could be utilized).

In general, companies use three levels of utilization. Some companies will focus primarily on one level, while others will focus on all three.

Level One: Resource Utilization

"Resource utilization" measures the time your resources spend working on useful projects and tasks. Resource utilization measures the allocation of a resource on a specific set of work, including client and internal work, and tends to ignore "on-the-bench" time during which the resource is neither working on billable nor non-billable work.

Measuring resource utilization helps managers minimize administrative work, is usually the easiest metric to measure, and is the easiest to act on. If a resource is on the bench and not billing her time, at least the company can have her work on valuable internal projects or sales efforts.

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Level Two: Billable Utilization

The next level is “billable utilization,” which measures the time your resources spend working on billable projects and tasks. The time spent on internal projects or business development is not included, since this time is not billed to the client. Billable utilization is almost always less than resource utilization, which includes hours spent on internal projects and business development. For instance, a resource might be 90% utilized overall (resource utilization), but because not all time was billed back to the client, billable utilization might be closer to 70%.

Level Three: Realization

“Realization” measures how much of a company’s revenue capacity was captured during a given project or period of time. The goal of this calculation method is to determine how much of the time the resource spent on billable work was actually billed back to the client. Time spent on internal projects and business development is not included.

The appropriate baseline

Available hours, the denominator in utilization calculation, is one of the most highly debated topics among professional services professionals, who question whether it should be defined as:

- 2,080 hours (40 hours per week * 52 weeks)
- 2,080 hours less company holidays
- 2,080 hours less company holidays and personal vacations
- A more arbitrary number, such as 70% of 2,080 hours.

Available hours also can differ by country, so global firms have to be very careful in how they calculate them. Again, there is no right answer-just what is right for your company. The most common number used in the industry is 2,080. Using this baseline will make your utilization numbers transparent in your company as well as when comparing your performance to peer companies.

Let’s use the following case example to demonstrate how the choice of baseline affects utilization calculations.

- A company has 10 days (80 hours) of company holidays and two levels of vacation time.
- Employees with less than 10 years of tenure earn two weeks of vacation (80 hours) per year, while employees with 10 or more years receive four weeks of vacation (160 hours) per year.
- Consultant A has one year of tenure, while Consultant B has ten years of tenure.
- Finally, to make the math simple, assume utilized time is time worked on billable client projects, including all travel and other “downtime.”
- All time spent by Consultants A and B is spent on billable client projects.

In a given year, Consultant A works 1,920 utilized hours while Consultant B works 1,840 utilized hours since she has two more weeks of vacation than Consultant A.

Scenario One: Baseline is 2,080 hours.

Answer: Consultant A is 92% utilized (1920/2080) while Consultant B is 88% utilized (1840/2080).

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Scenario Two: Baseline is 2,000 hours (2,080 hours less 80 hours of company holidays).

Answer: Consultant A is 96% utilized (1920/2000) while Consultant B is 92% utilized (1840/2000).

Scenario Three: Baseline is 1,920 hours for Consultant A (2,080 hours less 80 hours of company holidays and 80 hours of vacation) and 1,840 hours for Consultant B (2,080 hours less 80 hours of company holidays and 160 hours of vacation).

Answer: Consultant A is 100% utilized (1920/1920) while Consultant B is 100% utilized (1840/1840).

Scenario three appears to be the most fair since the more tenured resources are not penalized for taking the vacation time that they have earned. Many companies increase the amount of vacation you get the longer you have been at the company. If this is a company benefit, it should be treated as a benefit, not as something that will hurt your compensation if you choose to use it.

Consistency is the key to success

Whatever calculation you choose as the right utilization formula for your company, it is critical that you apply it consistently and uniformly across all employees.

Numerator: Utilized Hours

In the simplest example, utilized time can be tracked back to a specific project or set of projects. For instance, time worked on client projects is considered utilized time, while time worked on any other project (e.g., internal company projects) is not.

However, the delineation is often not that clear. Not all time worked on a client project is billable. Professional services professionals spend ample time on the road, but should this time spent traveling be considered utilized or billable? Ultimately, there is no right answer as long as you are consistent in your application of this formula across all employees and projects. The key is to establish a common set of categories, both billable and non-billable, that can be used to classify how employees spend their time.

Who decides what is included in the calculation

OpenAir recommends that the project manager (or higher) determine what is included as utilized or billable time, and not the consultant recording the time. You want your billable resources billing their time and to not be burdened with process and trying to determine whether certain work was billable or not. Even if you only have two time types/labor classifications (billable and non-billable), if you ask your consultants to make the decision about what time is billable and what is not billable, consistency goes out the window. Different people will classify the same work differently. Instead, designate certain types of tasks or projects to be included in the utilization calculation.

Denominator: Available hours

Again, consistency is key. If vacation time is deducted from 2,080 hours to calculate available hours, you need to do this for all employees, not some, or you will compare apples to oranges. This becomes a more critical issue for multinational firms with different company holidays and leave accrual rules.

At OpenAir, we advocate that our clients use the carpenter's motto of "measure twice, cut once." If you are not sure of the correct utilization formula, it is important to involve all constituents, including HR, services, and finance, in discussing and agreeing to the right formula for your company. Once you reach agreement, you confidently can calculate and measure your employees' utilization.

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What is the right target utilization for your company?

Once you decide on the correct utilization—either billable, resource or both—for your company, the next step is to tie this calculation into compensation. What is the right target for your company? It depends on a few factors, including:

- The utilization calculation method that your company is using
- Benchmarked utilization rates for competitors and peer companies
- Your company revenue and margin targets.

For example, if the baseline hours that are used in the denominator of your utilization calculation are 2,080 hours, then 100% billable utilization targets would not be feasible. You would need to subtract company holidays, vacations, sick days and potentially, on-the-bench time from your baseline to determine the appropriate target. In this case, it might be 70-80% utilization. Conversely, if the baseline hours that are used in the denominator of your billable utilization calculation excludes company holidays and personal vacations, then an appropriate utilization target would be higher, perhaps 80-100%.

There are many benchmark studies available, so before settling on a utilization target, you may want to consult additional sources of information. In addition to looking at peer company data, another data point to use is the calculated utilization target per resource that allows your company to meet its corporate revenue and margin targets.

For example, let's assume that your billable resources have a fully loaded cost (includes salary, bonus, benefits and fixed-cost allocation) of \$200,000 per year, your average rate per hour is \$200 and your corporate gross margin goal is 40%. To achieve a 40% gross margin, each resource needs to bill \$333,000 to clients. At a rate of \$200 per hour, each resource needs to bill 1,667 hours. If your company uses a baseline of 2,080 hours as the denominator in the utilization calculation, then your billable resources need to target 80% utilization. However, if your company excludes company holidays and vacations from the baseline hours (denominator), then the utilization target is closer to 90%.

Critical to measuring and managing against both overall and billable utilization is the understanding that time capturers are often not in control of their own destiny. Resource managers are responsible for staffing; the organization's commitment to skill development can be an important factor in determining your company's target utilization.

Using OpenAir to automate utilization calculations

Once your company has decided on your utilization policy and targets, the next step is to automate this calculation in your professional services automation (PSA) solution. Tools like OpenAir allow for great flexibility in the configuration of utilization. Here are a few examples that you may want to consider.

Tracking utilized vs. non-utilized time

Task Types: You might choose to use task types to control utilization. In all projects, you can associate certain tasks with a task type of "non-billable." All time recorded against this task type across all projects can be excluded from the utilization calculation.

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Activity/Service: Activities (also called services) can be used to track utilized vs. non-utilized time. All tasks in a project plan can be associated with a specific service. For example, you could have four activities: Project Management, Consulting, Internal, and Client: Non-Billable. You may want to consider only time recorded against Project Management and Consulting as utilized time.

Project Stages: The stage of a project can be used to determine if time spent on the project goes toward your company's utilization goals. For example, if you have stages called sales support, active, lost and closed, you might decide that only active and closed projects count toward utilization. Lost projects do not because your company didn't win the deal. Time spent on sales support projects do not count towards utilization, unless your company wins the deal and it moves into the active stage.

Time Types: Time types can be used to track utilization at the project level. Time spent traveling can be recorded against the non-billable time type. Specific time types can be excluded from utilization calculations. Time types are controlled by the end user inputting the time, so generally, OpenAir does not recommending using time types to factor into your utilization calculations.

Tracking billable vs. non-billable time

The functionality used to differentiate utilized from non-utilized time can be used to designate time as billable. Perhaps certain types of projects or tasks are billable, while time tracked to anything else is not billable.

Additionally, OpenAir's robust billing rules engine can be used to automate the creation of charges from approved timesheets. Any time that runs through these billing rules and generates a charge is considered billable. All other time is considered "non-billable" and does not count toward your company's billable utilization goals.

Comparing utilization across all users and departments

OpenAir offers functionality to set "target utilization" by user. Therefore, you can apply the same utilization calculation across all employees, but set different targets, or thresholds by employee, role and tenure. New employees can have a lower target than seasoned employees, while staff people can have lower target utilization than services consultants.

Setting the baseline or available hours

OpenAir allows tremendous flexibility in constructing the available hours (numerator) component of the utilization calculation. The company work schedule dialog allows you to enter the days of the week and the number of hours per day per week that reflect your company's typical work week. You can also create exceptions to the typical work week, such as holidays. The default work schedule for each individual user is the same as the company schedule. You also can enter exceptions to the company schedule at the user level to further customize the calculation to exclude personal vacations.

After the company schedule has been set up, you can run utilization reports more effectively. When selecting the denominator, you have the option to use "base work schedule" or "work schedule hours." The base work schedule does not include exceptions entered in the company (or user) schedule. Work schedule hours reflect any exceptions entered in the company (or user) schedule. Therefore, using work schedule hours as the denominator will allow you to exclude holidays from utilization reporting.

Please contact support@openair.com if you have any questions about this functionality.

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Conclusion

There is no clear answer to how a particular company should calculate resource utilization, but there are a few basic principles to follow when making this decision for your company.

One, it is imperative to keep the calculation simple. By making the calculation simple, consultants will understand the goal. If they understand the goal, there is a better chance they will beat the goal, and if they don't beat it, they have less reason to complain. If the calculation is not simple, it is understood by no one, and ultimately becomes a number on a spreadsheet that everyone is aiming towards but does not really understand, which can hurt morale.

Two, ensure your calculation is globally consistent. Whatever you decide is the right utilization formula for your company, it is critical that you apply it consistently and uniformly across all users.

Three, the inputs to your utilization calculation should not be controlled by the individual resource, but rather decided at the task or project level. Take the human element out of the input, which will help ensure consistency in the application of the calculation.

The investment in a robust professional services automation (PSA) solution such as OpenAir will help you calculate and track utilization in your organization, thereby ensuring that all resources are working towards the same goal on a relative basis.

About OpenAir

OpenAir, Inc., a NetSuite Inc. company, is a leading provider of Software as a Service (SaaS) services automation software. OpenAir's professional services automation (PSA) solution gives project-based organizations and firms the tools they need to grow their businesses quickly and profitably. Providing enterprise-level functionality to businesses of all sizes, OpenAir has more than 42,000 active users at over 300 world-class firms who use the software to better capture billable time, manage projects and resources, and bill customers. Coupled with a team of highly experienced consultants from some of the world's leading services firms, OpenAir PSA drives higher profits through improved utilization, visibility and data collection. To learn more, please visit www.openair.com.

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“OpenAir is the cornerstone for building a profitable deployment practice.”

Joe Longo
*VP of Professional Services
MetricStream*

“OpenAir has been the single most customer responsive company I have ever worked with...I have never experienced a customer support situation like this in my career, not ever.”

Jodi Cicci
*Former Director of US Project
Management Office
Software AG*

“I would not be able to effectively run my business without OpenAir.”

Charis Santille
*President and Owner
CAS Designs Group*

“OpenAir is a clear winner with robust functionality, intuitive user interface, and excellent support.”

Alex Sefanov
*Founder, President, and CEO
BioPharm Systems*