# SAP Licensing Guide by VOQUZ Labs

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LICENCE OPTIMIZER
FOR SAP®-SOFTWARE

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# SAP Licensing Guide by VOQUZ Labs

OVERVIEW

## SAP License compliance and cost reduction through continuous optimization

With more than 3,000 products, 24 user license types and 100 engine metrics, SAP software licensing is highly complex. As a result, many companies struggle to reconcile their license inventory with their actual licensing need. This often results in over-licensing and excessive spending on SAP applications. SAP's system measurement tools are not helpful in this, as they only show license consumption and are not purposed for optimizing the license selection or saving costs.

So how can SAP licenses be managed effectively, and SAP software costs managed? VOQUZ Labs are specialists in this topic. We have collected the most important information about SAP and the licensing process to help companies overcome these challenges.

We cover the three pillars of SAP Licences (Product Selection, Deployment Options, License Models) in detail and describe how an in-depth understanding of their role in the SAP Licence contract is fundamental to understanding your effective licence position, avoid unnecessary software spending and ongoing maintenance costs and furthermore, eliminate shelfware and maintain licence compliance.

# SAP Licensing Guide by VOQUZ Labs

## CONTENT

# SAP SOFTWARE LICENSING BASICS

Your SAP Software Licensing is defined by 3 aspects: Products, Deployment and License Model.

| SAP LICENSING COMPONENTS | | |
|---|---|---|
| **PRODUCTS** | **DEPLOYMENT** | **LICENSE MODEL** |
| USERS | ON-PREMISE | PERPETUAL |
| ERP CORE | OWN PRIVATE CLOUD | SUBSCRIPTION |
| LOB SOLUTIONS | HYPERSCALER | CONSUMPTION BASED |
| DATABASES | SAP PRIVATE CLOUD | UNLIMITED |
| MIDDLEWARE | SAP PUBLIC CLOUD | SINGLE - METRIC |
| DIGITAL ACCESS | | |

In addition to the named deployment options, clients can contract an all-in-one contract that includes support, application management and hosting with SAP: HEC or HANA Enterprise Cloud.

# CHOICE OF PRODUCTS

## License types, and other cost items

If your company wants to optimize SAP cost management, you must first understand, which are the priorities to investigate. In addition to the so-called named-user licenses, SAP customers also pay for engine usage (industry or line of business solutions), standard packages (such as contract mappings, payrolls used, etc.) or even for special packages that include a form of payment agreed with SAP. The information below covers these details as well as indirect and digital access licensing.

## SAP Named User Licenses

Named-user licenses account for approximately 40 to 70 percent of all costs agreed in the SAP contract. Every SAP user must have a named user license. However, there are various categories that differ greatly in their scope of authorization and offer the user different functions. Table 1 provides an overview of frequently used license types and their scope of authorization.

Generally, the more features, the more expensive the license. The most expensive categories are the Developer and the Professional license. If no license has been assigned to a user, then the Professional license, i.e., one of the most expensive categories, is automatically set as the default during license measurement.

A special feature is the license type Limited Professional User. In the past, this license was regulated by the purchased quantity or by an agreed percentage. A common ratio was 85 percent Professional to 15 percent Limited Professional. If there was no such clause in the contract, then a ratio of 50 to 50 applied. However, since SAP now offers many new license types that cover very extensive functionalities and are less expensive than Limited Professional licenses, it is very worthwhile to purchase alternative licensetypes, that accurately reflect your organisational usage requirements.

Note: Customers who have the Limited Professional license type in their portfolio were able to define the functional scope of this user type until January 2016 and have thus retained the right to purchase additional licenses. This license is no longer available for new customers, hence the need for alternative license types.

| License type | Authorization scope |
|---|---|
| Developer User | Development of custom features using the development tools. |
| Professional User | Overall operational management and system administration. |
| Limited Professional User | Limited operational functionality or well-defined functionality that must be validated by SAP. |
| Employee User | Use reports and information for own use. This includes documentation related to his work area. |
| Employee Self-Service User (ESS) | Self-services e.g. in HR for time and attendance recording. |
| Worker User | Including, but not limited to, entering production order confirmations, entering product or production information, such as quality inspection results or plant/process/machine data, entering production problems and associated service requests, submitting purchase requisitions for tooling, production equipment spare parts, etc., confirming maintenance messa-ges, entering service requests. |
| Logistics User | Transportation management; warehousing. |
| Manager Self Service User (MSS) | Including, but not limited to, requesting administrative changes with Human CaptialCapital Management (HCM) processes and forms, creating requisitions and assessing candidates, performing talent assessments and employee evaluations, scheduling and approving compensation, viewing budget summaries, organizing project management tasks, (vii) performing scheduling tasks, approving travel requests and expenses, and performing Manager's HR and procurement tasks for his/her direct reports or Manager's division/department. |

**Table 1: Some user licence types and their definition**

## ERP Core License

To make use of SAP's basic functionalities, your company must acquire an SAP ERP license, for example: SAP S/4HANA Enterprise Management for ERP customers. This license allows you to work with the SAP ERP core, including modules such as accounting, sales management, service management, production planning, project control, operational procurement, etc. For some of those modules you can acquire extended functionality with a LoB solution. This way, you could extend the basic functions of the included finance module with the line of business solution S4 Central Finance, which provides a much wider scope of functions.

## Engine and Package Licenses

### Industry Solutions, Line of Business Solutions

For many SAP applications, companies can purchase an engine or package license. Such modules can be purchased in addition to the named-user licenses and are subject to various metrics, concretely 100 different metrics in the actual price list of 2021. The cost of license consumption is based on a parameter that is specific for the engine or package. Some of the metrics used by SAP are “number of employees”, "number of orders", "yearly revenue", "yearly spend volume", "barrels of oil per year", "processors", "cores", "storage volume in GB", etc.

## Indirect Use and Digital Access Licenses

Indirect Access occurs when humans, or any device or systems indirectly use the ERP system via a non-SAP intermediary software between the users and the SAP ERP system, such as a non-SAP front-end, a custom- solution, or a third-party application. Indirect Access is primarily licensed based on Users. Indirect order-to-cash and procure-to-pay scenarios are licensed based on number of Sales Orders and Purchase Orders respectively. Some indirect access scenarios do not require licenses such as Indirect Static Read

Companies frequently access data from an SAP system indirectly, i.e., via third-party applications or web stores. As a rule, if SAP data is accessed, created, or modified from outside without an SAP user license, this is indirect use in most cases. Even if the imported SAP data is then used exclusively in the third-party application, it is necessary to check in each individual case, how this use is agreed with SAP. In the past, there has not been a clear rule; instead, individual regulations have often been agreed upon, which have been laid down in the individual SAP contracts. Often, however, indirect use is not negotiated at all and is simply carried out. Such activities can result in serious additional payments during an SAP audit.

However, it is not at all easy to identify all third-party systems and determine whether there is indirect use of the SAP systems. The SAP tools for license measurement are not capable of such a complete analysis.

To make this situation transparent, SAP published a corresponding definition on Digital Access in 2018. Customers can follow this definition since then and thus establish SAP compliance around indirect use, or they can remain with their old contract already negotiated with SAP. New customers in the S/4HANA area do not have this option and must use the SAP Digital Access metrics.

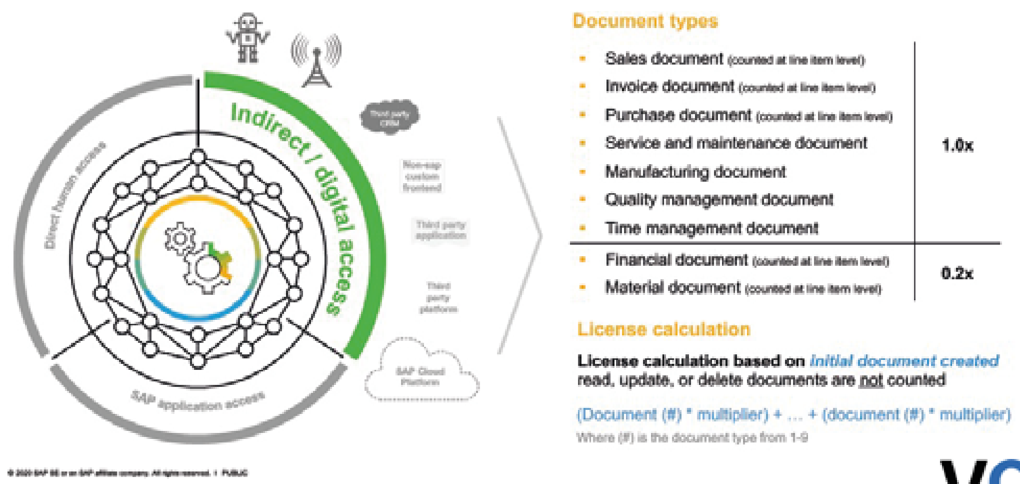
***Digital Access is an optional licensing method for indirect use.***

Creation of 9 pre-defined document types must licensed, if they are triggered by external (non-SAP) applications. With this licensing model, all further activities such as data updates, information exchange or data deletions in SAP become free of charge.

SAP Digital Access is not based in the quantity of users. This means that anyone who creates such documents, whether externally or in SAP with third-party applications, does not need a license for which there is a charge. When switching to SAP Digital Access, it is therefore possible to exchange named-user licenses for required document packages.

***The SAP Digital Access model is outcome-focused***

Counts nine system-generated document types that address the most valuable business outcomes from SAP ERP



***How are these documents measured now?***

There are two possibilities to estimate digital access consumption:

- Digital Access Estimation Report (SAP Note)
- SAP Passport (Program)

Recently, SAP has organized an automatic counting of these documents by means of a program. This program must be installed in the relevant SAP system and from that moment on "SAP-Passport" counts all documents that are created externally triggered in SAP.

SAP customers are not forced to install this Passport program. Once it is not mandatory to accept SAP Digital Access, there may be old contracts that the company wants to continue to use, in addition, the counting results from SAP release to SAP release are different and sometimes incorrect.

***SAP Passport***

SAP Passport is a fairly new measurement method, introduced by SAP in 2019 and matured over several updates during 2020. To use SAP passport, you need specific versions and upgrades of SAP. Passport improves the accuracy of your digital access measurement and can exclude SAP to SAP communications from the total document counts. Once passport is installed, the system creates dedicated tables for digital access measurement, so the measurement process also works more efficiently. After 12 months, you will obtain the first relevant, passport based digital access measurement.

If SAP Passport is used, the results of the USMM measurement are listed in the USMM log and validated in the LAW log. The alternative way to count such documents is an earlier SAP note that must also be installed (SAP-Note 2644139 for ECC and 2644172 for S/4HANA). This note installs the digital access estimation report – estimation, not measurement. The report is inaccurate to a certain extent, as it counts all potential digital access documents, regardless of whether they were created internally in SAP, processed with internal batch processing, or originated externally by non-SAP-applications. Once the estimation report is executed, the client must lead a use case analysis to understand, which are the originators for the counted documents and exclude those cases, that do not apply for digital access licensing.

## HANA Database Licenses

In S/4 installations, clients must use SAP's own HANA database – third party databases, such as SQL-Server, Oracle or IBM are no longer an option. Most clients use the less expensive HANA runtime version, licensed as a percentage of the total value of licenses. HANA full use, also called HANA enterprise, offers a lot more functionality and is priced based on the used storage volume, an option that mostly is more costly.

Whether a client needs one or the other version, depends very much on questions as:

- Will HANA only be used to support SAP applications, or will the client develop additional applications on HANA?
- What level of integration with other databases or data lakes is needed?
- Is special functionality, such as geodata or parallel processing needed?
- Does the client need to set up disaster recovery?

## Middleware Licenses

Almost no company does not have or integrate SAP with additional standard or proprietary applications that were purchased, or self developed over the years. Even if SAP gets to be the central, strategic core application of the company, other applications may have to obtain from or provide data to SAP, and in occasions traditional file import and export processes are insufficient for large amounts of data or unattended communication processes. When planning your SAP application architecture, such integrations need to be added to the equation, since they may require advanced functions such as data transformations, process monitoring, error tolerance, unattended processing. When such functions add to the requirements, the probability of increased costs and interdependencies to additional modules may appear.

Typical modules that fall in this category are:

- SAP Data Services
- SAP Process Orchestrator
- SAP Netweaver OpenHub
- SAP Netweaver Foundation for Third Party Applications

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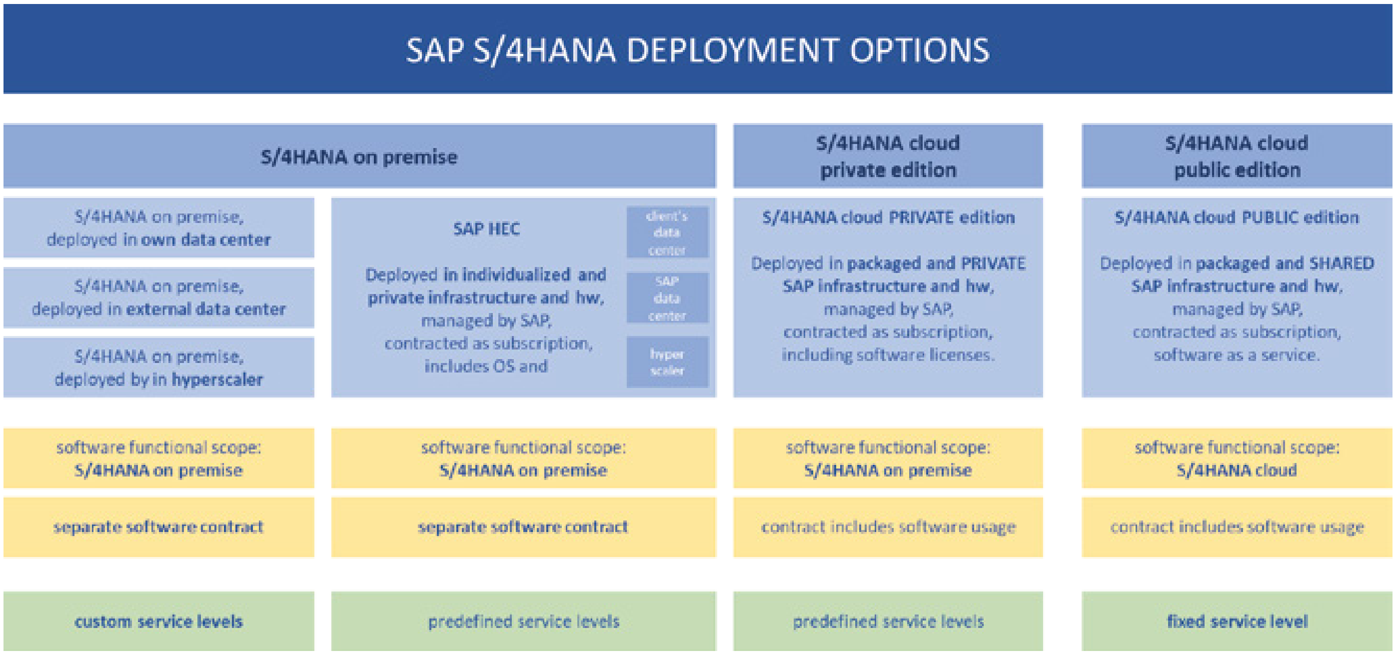
# DEPLOYMENT OPTIONS

SAP ECC (ERP Center Core) can be deployed in a client data center or, of course, in outsourced data centers. With S/4HANA, the number of deployment options have increased, offering the client numerous alternatives – which is good, of course, but at the same time makes the decision process more complex, both from a technical point of view as regarding pricing comparison.

Start 2021, the options for deployment of S/4HANA look as described in the following diagram:




When choosing a deployment option, you need to consider following aspects in your decision process:

- Which software version do we need: full functionality or the simpler public cloud version?
- Can we live with packaged software or do we make use of extense customizing?
- Do we want to subscribe licenses (pure OPEX) or do we wish to pay CAPEX and have a perpetual license?
- Do we prefer an all-in-one contract modus with SAP managing everything or would we rather control and determine the single components?
- Do we need custom service levels, or can we live with SAP's standard service levels?



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# SAP SYSTEM MEASUREMENT

All SAP contracts include a yearly audit right, that allows SAP to check, whether a client is appropriately licensed. This audit right is executed by SAP in two different ways:

- Yearly system measurement, required almost every year upon SAP inquiry.
- Enhanced license audit, executed approximately every 3 years.

The yearly system measurement is executed by the client with the SLAW tool (SAP license audit workbench), which is included in the standard ERP. The enhanced license audit is conducted on site at the client's offices and led by SAP's GLAC team (global license and compliance). The auditors interview the client, execute SLAW, and discuss the licensed level and actual usage level with the client. At the end, the auditors produce an SAP audit report that must be approved by the client with his signature.

Reliable information about the SAP license portfolio in the company can then only be obtained with relevant investment of time and personnel, and all SAP agreements made with the company must be adhered to. In small companies with a small number of SAP systems and users, the required information can still be gathered with the help of Excel tables or the company's own knowledge of the user base. But with several hundred users, this is no longer an option. In complex SAP landscapes, there is simply no precise overview of the current license inventory.
There are different procedures depending on the SAP product purchased. For ERP applications that are installed on the customer's premises and account for the largest share of SAP applications in the company, the measurement is performed annually. It is to be performed by the customer himself, for which he must use the tools provided by SAP. Transaction USMM is used for data collection, while License Administration Workbench (SLAW) is used for subsequent data consolidation and reporting of the results to SAP.
It is worthwhile for companies and other organizations to introduce professional license management. After all, every investment in SAP licenses inevitably entails maintenance fees.
Unnecessary license purchases should therefore be avoided at all costs.

In addition to automated measurement, however, there are also manual analysis procedures for other products in the form of self-reporting or questionnaires. This is the case, for example, for CRM, Business Objects, or HANA. For cloud solutions, SAP performs the measurement itself.
SAP also conducts formal audits if a license violation is suspected. SAP always focuses on different points. In most cases, some irregularities have been noticed or SAP recognizes that the company has no discernible transparency regarding SAP licenses.

With the help of SAP license management tools, the audit preparation process can be conducted much more efficiently. The company is licensed in such a way that SAP compliance prevails, has optimally designed license costs, thus does not pay too much, and permanently has possible requirements transparently available. This means that SAP can be approached proactively, the best discounts can be achieved, and the clear SAP licensing situation means that SAP has no basis for discussions about the audit findings.

## System Measurement Guidelines

Rights and authorizations depend on the SAP products and license types that the company uses and the time of purchase. It is vital that an SAP user is licensed in such a way that his or her license covers his or her real activities in SAP, or even falls short of this. If they fall short, then his would then be overlicensing. And an opportunity to optimize costs.

Of careful consideration for many SAP Clients is the new USMM 2.0. SAP promotes licensing according to authorizations and has supplied a system in USMM 2.0 especially for this purpose, in which the guidelines for licensing according to authorizations can be stored. If a company uses this system, the licenses are assigned accordingly and directly during the measurement with the USMM. For this reason, a company will probably achieve a state of permanent overlicensing, because actual usage is no longer base of the review, and excessive



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allowance of authorizations will inevitably lead to higher costs.

For effective license management, knowledge of the types, costs and risks is therefore just as essential as knowledge of current SAP guidelines. Since these are constantly changing, it is advantageous to always be up to date. In the past, some of the guidelines have been relaxed, giving companies more leeway to optimize their license inventory. We can certainly help customers identify what leeway they can make use of in the following ways.

SAP customers...
... can trade in licenses.
... receive partial credits when returning licenses. Unused package licenses can be credited when purchasing new products.
... receive incentives to switch to cloud solutions.

## Underlicensing and overlicensing

Most companies often lack processes or ways to determine exactly how many licenses they have and how many are needed in the first place. In complex SAP landscapes, there is almost always a gap between license inventory and license requirements. The following two manifestations occur:

***Underlicensing =***
***license inventory < license requirement.***
Frequency: rare

Underlicensing occurs when there are more SAP users than licenses purchased, or functions are used that are not covered by the user's license. Indirect use or SAP Digital Access is currently very much in the focus of SAP. This is because data is frequently accessed from or delivered to SAP systems via third-party applications. But also an incorrect use of industry solutions, such as SAP Patient Management (IS-H), often leads to claims from SAP, because insufficiently defined or documented licensing metrics and rules are occasionally cause for discussions between the client and SAP.

***Overlicensing =***
***license inventory > license demand***
Frequency: very often

Overlicensing is much more common than underlicensing. It is characterized by the fact that more licenses were purchased by the company than were necessary. Often, to be on the safe side, the significantly more expensive license types were purchased, even though their functionality is not fully utilized. In addition, if a user has not been assigned a license at all, then the expensive Professional User category is automatically applied when measuring. Although customers are not in breach of the SAP contract when they over-license, this results in unnecessary expenses in yearly maintenance. Relevant savings potential is detected, when a client assigns his users unnecessarily the most expensive license types.
The use of alternative types of licenses also offers potential savings. However, since many companies often do not know which license types are suitable for them, they always fall back on the expensive Professional license.

Caution: overlicensing can also be risky if the existing licenses are incorrectly assigned. This is the case, for example, if a user uses the functions of a professional user but only has an employee license, or conversely, a user with an expensive professional license only uses employee functions. The latter is of no interest to SAP. But if the audit finds users whose usage exceeds the scope of their license, SAP will insist on additional payment. As a result, a company may have to buy additional licenses despite overlicensing. This sounds paradoxical at first but is not uncommon.

You might now think that overlicensing means that it no longer makes sense to optimize SAP licenses. However, this is not true. Often new licenses are purchased every year and this without knowing the exact need. With the help of a proper license management tool, surpluses become visible, especially in the expensive license area, the company is put in a position to buy the cheapest licenses when there is a need and, if necessary, expensive licenses can be exchanged for cheaper licenses.

## Causes of overlicensing

At first glance, underlicensing appears to be more threatening than overlicensing, as it has an almost 100 percent probability of resulting in a penalty payment. Money that was not budgeted for in this way. However, most companies are already spending too much money on licenses without therefore not a basis for license optimization. SAP customers need a different solution. They need a solution that analyzes how users make use of the SAP systems. First-class tools examine the license inventory not only quantitatively, but also qualitatively. They collect meaningful information that is evaluated and prepared in a comprehensible and usable form.

# EFFECTIVE LICENSE MANAGEMENT

Manually addressing the causes of over- or under-licensing is hardly feasible. It would cost considerable personnel resources, time and ultimately money. Complex SAP landscapes lack a precise overview, which cannot be obtained without the help of a suitable license management tool. This tool must be able to determine and, if necessary, optimize the license inventory with regard to both named user and engine and package licenses.

## Optimization of named user licenses

In order to optimize named-user licenses and avoid surprises during engine measurement, the license management tool must be able to collect and centrally consolidate the usage data of the individual SAP users and engine values. The following questions need to be answered:

- Which engines and packages are used and in which SAP systems are they relevant for billing?
- Which functions are used? Which actions are executed?
- How many licenses are assigned to the user?
- Is access to the SAP systems direct, indirect or both?
- For some special licenses, it may also count how often the SAP system was used.

SAP expects their clients to independently license their employees according to their real activities across all billing-relevant systems and that this licensing will be accurate for audit purposes.

The figure below shows the transparent evaluation from samQ of SAP user licenses according to the SAP functionality used. This usage data is evaluated with the help of a transaction database. This database defines which licenses are required for each transaction executed in SAP. This enables the tool to determine the optimal license type for each SAP user. However, this evaluation of the transactions must not happen only once, but must be executed again and again, otherwise only a snapshot is created. Since both the work environment (e.g., using a new SAP program) and the user's tasks are constantly changing, this must dynamically adjust the license inventory. The tool must be able to identify new transactions and evaluate them in terms of the correct license type. Likewise, the program must be able to recognize when a user is not using the full scope of his SAP license or is violating the license terms. In any case, the tool must be able to assign the appropriate license type to each SAP user automatically, without manual intervention, and change it if necessary.

If this is the case, then everything in the "Assignment too low" column would be "0" as shown in the figure.

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SAP USER LICENSES

State: 2020-06-03 | State: 2020-12-01

| SAP USER LICENSE ASSESSMENT | PURCHASED LICENSES | ACTUAL MEASUREMENT | ASSIGNMENT CORRECT | ASSIGNMENT TOO HIGH | ASSIGNMENT TOO LOW | OPTIMIZED CONFIGURATION | DEFICIT OR SURPLUS |
|---|---|---|---|---|---|---|---|
| mySAP Business Suite Developer | 6 | 4 | 2 | 2 | 0 | 5 | 1 |
| (no license) | | 115 | 0 | 115 | 0 | 0 | 0 |
| mySAP Professional (Cat. II) | 350 | 372 | 183 | 187 | 2 | 201 | 49 |
| mySAP Limited Prof. (Cat. III) | 170 | 185 | 48 | 78 | 59 | 95 | 75 |
| mySAP Employee (Cat. IV) | 200 | 105 | 73 | 8 | 23 | 353 | -153 |
| mySAP Business Suite ESS User | 0 | 10 | 3 | 7 | 0 | 81 | -81 |
| SAP Worker User | 55 | 35 | 23 | 9 | 3 | 92 | -37 |
| SAP Logistics User | 70 | 68 | 41 | 19 | 8 | 55 | 15 |
| SAP Project User | 0 | 0 | 0 | 0 | 0 | 12 | -12 |
| | 851 | 894 | 373 | 426 | 95 | 894 | |

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knowing it. The phenomenon of overlicensing can be traced back to the following two causes:

**1) Too many and/or too expensive named-user licenses.**

- Too many named-user licenses have been purchased without knowing exactly how many licenses are needed per category.
- Licenses are assigned manually without precise information on the actual usage behavior of the user.
- The different license categories are defined by SAP in such a way that there is a lack of clarity within the company as to how which license types can be used.
- The assignment of the license type in the user master data has been omitted. As a result, the expensive Professional category is automatically set as the default during license measurement.
- An expensive license type was assigned to a user, but the user does not take full advantage of its functions and authorizations. A lower and therefore cheaper license type would be sufficient.
- A user has several licenses, because he has several user accounts in SAP, to each of which a license is assigned.
- Licenses for former employees or employees who no longer work with SAP have not been deactivated.
- Employees only use third-party software that accesses SAP and the company already licenses SAP Digital Access. In this case, these employees do not need an SAP license, as the documents generated are licensed here.

**2)** Too little information about the consumption of the engine licenses or the metric to the packages.

- It is not precisely defined which of the numerous parameters are used by SAP to determine costs. The actual consumption can only be determined at the time of the system measurement.
- Proactive management and optimization is only possible with a high manual effort or with SAP license optimization software. samQ supports your company both centrally and automatically to ensure the most transparent license usage.

## License measurement ≠ License optimization

SAP license measurement is primarily a quantitative evaluation that compares the current status with the target status from the license agreement. The SAP tools USMM, for data collection, and the License Administration Workbench (LAW), for data consolidation, are used for this purpose.

However, conclusions about the actual use of SAP programs or the use of certain functions are not transparent, since the data collection only determines the total number of all user accounts per named user category that have been manually assigned by the client. Duplicate user accounts are also not adequately detected and manual corrections are not supported.

LAW consolidation is always under discussion because it does not consider all consolidation cases. For this reason, one should know quite precisely before LAW consolidation what result is to be expected. Otherwise, it often happens that licenses are purchased that would actually not have been necessary, and it is not uncommon for duplicate licensing as a result.

The measurement of engine and package licenses is also not very transparent and meaningful. For example, SAP does not inform its customers about license consumption, but only about the measured parameters. However, it is often unclear what significance these have for determining consumption. In addition, there can be unpleasant surprises if you have measured with an outdated USMM version and are then requested by SAP to measure again. Often, one then receives different measurement results, which can result in additional payments. Therefore, SAP customers should ensure that they always have the latest SAP Notes installed in the individual systems, which SAP requires for these SAP releases.

License measurement is therefore purely a compliance check on the part of SAP. The data collected does not contain any information regarding the usage behavior of the users and is

In addition to the usage data, the tool must also be able to process the information and, in some cases, individual regulations from the license agreements. These include authorizations and usage rights. It must be possible to store the contract data in Customizing to form a framework for the effective management of named-user licenses.

The goal is to permanently minimize or completely eliminate compliance risks. On the one hand, this is done by comparing authorization, entitlement and usage rights with the usage data collected. This ensures that each user has the correct license type. On the other hand, it is equally important that the license management solution helps to uncover possible indirect usage or SAP Digital Access in SAP and, if necessary, also offers suggestions on how to deal with these findings. This is the only way to prevent these users from causing unbudgeted or simply excessive costs during SAP license measurement.

In the end, the SAP Applications department must be enabled to...
... automatically assign the optimal license type to a user.
... identify licenses that are not needed and use them elsewhere.
... identify duplicate users and clean up duplicates.
... optimize licensing for indirect use or SAP Digital Access.

If there are any ratio clauses in the SAP contract, the solution should also explicitly show in its report the optimal number of licenses per license type compared to the number stipulated in the contract. This is particularly helpful when it comes to renegotiating contracts with SAP. In some cases, customers can overturn the ratio clause if they can prove that the actual demand does not correspond to the current ratio.

## Optimization of engine and package licenses

The optimization or at least the summary of engines and packages from the various SAP systems must also be enabled by the tool. Here, the optimization does not consist in identifying what is used, but in the central consolidation of where which consumptions are and from which systems the data is relevant. The solution must recognize all engines and packages on all SAP systems and consider the respective licensing rules and parameters. Based on this, reports are created that serve as the basis for consumption calculations. Since engines and packages are often on multiple systems, the tool must be able to count parameters across systems. All information should be collected in one place, thus minimizing the effort required for consolidation.

## Optimization of digital access

As described before, the actually provided methods to measure indirect usage and digital access are not sufficiently accurate and need further investigation and analysis after the technical document counting.
In order to properly understand your need for indirect usage licensing, you should lead an evaluation process consisting of the following steps:

- Estimation of digital access documents – with or without passport.
- Investigation of the connections causing these documents.
- Assignment of external applications to technical users.
- Evaluation of the single use cases.
- Subtracting documents from internal batch processing.
- Subtracting subsequent documents.
- Factorizing Material and Financial documents.
- Comparing digital access costs with indirect usage model.
- Preparing documentation for the SAP audit.



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# CONCLUSIONS

SAP software licensing is as complex as the variety and diversity of products offered by SAP.

In result, many companies struggle to reconcile their license inventory with their actual licensing needs. Very often, this results in over-licensing and excessive spending on SAP applications.

To manage and optimize your licensing costs, SAP's system measurement tools are not useful, as they only count license consumption and license assignment. They are not useful for optimizing the license inventory or discovering the correct license assignments.

A suitable solution for license optimization must be transaction-based. This means that the tool must collect and evaluate reliable data on the usage behavior of users and automatically optimize the license portfolio accordingly. This reduces relevantly the phenomenon of overlicensing and thus overpayment.

Likewise, companies can prevent expensive additional payments in the event of underlicensing in good time. SAP customers who can determine and document exactly what is used in the company and to what extent also have a significantly better negotiating position vis-à-vis SAP.

SAP does not have a standard true-up process. It is in the responsibility of the client to proactively manage his software compliance and approach SAP before the yearly measurement to purchase needed licenses and correct eventual compliance issues. Once SAP conducts an audit, it is already too late to negotiate from a power position. A negative audit result is seen as a situation of non-compliance and SAP will eventually try to mitigate the findings at license prices without discount or even require back maintenance. If you want to be in the power position and lead strategic SAP software purchases, we recommend you to:

- Analyze and optimize your license situation on a quarterly basis.
- Solve your compliance issues proactively before the audit.
- Negotiate with SAP yearly or, if inevitable, every 6 months – never more often.
- Don't pay maintenance for licenses out of use: either exchange or cancel them.
- Plan strategic purchases, such as S/4HANA or SuccessFactors with time and adequate preparation and demand planning.
- Involve licensing experts the same way you contract experts in any other technical area, where you need their help regularly, but not daily.

## About VOQUZ

VOQUZ Labs is a sub-division of the larger VOQUZ Group and the leading provider of Software Asset Management (SAM) and Authorization Management (GRC) add-ons for SAP, with bases in Berlin, Amsterdam, Cluj-Napoca, Cape Town, London, Mexico City and New York. VOQUZ Labs combine best-in-class SAP User Management solutions and a strong Consulting Expertise in License Advisory, Compliance, Security, Access Control and Efficient User Management.

## About our SAP Solutions

With its software products samQ and setQ, VOQUZ Labs has specialized in the optimization of license costs and authorization concepts for SAP applications. These self-developed SAP solutions reduce the manual administration effort and cut costs by optimizing usage of the existing software inventory. In addition to the SAP license management tool samQ, setQ enables the automation of SAP authorization assignment. This way, authorization processes become revision-safe and compliant.

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