



INFORMATION AND EDUCATION BY AND FOR THE SAP® COMMUNITY



IT asset management



Florian Ascherl and Carsten Lang from KPMG are the leading experts and problem-solvers in SAP licence management and IT asset management. In the E-3 cover story, they clarify the concepts and the importance of transparent and consolidated management of IT assets, including indirect use.

IT asset management

Licence management can only be the beginning. IT is important and sustainable. IT is the driver of digital transformation. Asset management is thus a central and significant task. E-3 editor-in-chief Peter Färbinger talked to KPMG partner Carsten Lang and senior manager Florian Ascherl about the new challenges and characteristics of the SAP scene.

Let's start with a definition: which term is better suited to the challenge – licence management or software asset management? Carsten Lang clarifies: "In German-speaking regions, we have long since moved beyond the term 'licence management', which does not come close to describing the responsibilities of the partners entrusted with this task." It is not only in the SAP community that software long ago became one of the largest cost factors in modern organisations and demonstrated its importance as an asset. "Rather

than 'software asset manager', however, I would prefer the term 'IT asset manager', as it is not just software but also services, hardware and other factors that fall within the scope of an IT asset manager's job profile," Lang explains, and adds: "I could even see the term 'IT asset and security manager' used here in the future, as all forms of threats made possible by the use of today's software and technologies intersect in this position. If an organisation doesn't know the software, the releases and version and the patch level that it uses and if you are not able to identify who has installed software without authorisation on the company's own or hosted devices, it's almost impossible to identify relevant deficiencies or to control them."

Starting with R/2 via ERP/ECC6.0 all the way to S/4, the existing SAP customer is seeing not only a fantastic increase in functions and business processes, but also concomitant growth in complexity and networking. Transparency in IT assets and optimisation in the resources deployed are therefore a matter for the entire C level in the company. "At the moment, I see the greatest challenge in the area of transparency," Florian Ascherl emphasises in the conversation with E-3. "It's still the case that responsibility for licence management is split up at a majority of the organisations that I know. The licence and software asset manager generally does not bear the responsibility for surveying the SAP system landscape – or if they do, it's only been for a short time.

What's more, based on our experience; they have, at best, a superficial understanding of the related processes. In most cases, we find the responsibility for SAP licences and measurement

located in the area of the SAP organisational unit or in the IT procurement department of the company. The management of SAP licences is thus a relatively new challenge, even for experienced managers, who now have to deal with the history of the lists of price and conditions, terms and conditions, software use rights and, where necessary, with special licences and side agreements."

One difference to other software providers is that SAP provides measurement tools as standard. KPMG senior manager Ascherl explains: "But – and this is not a fault of SAP – the best tool that establishes a standard can, of course, not identify any individually agreed contractual constructs and use rights without any adjustments if it cannot learn this in functional terms." Practice shows that some heterogeneous licence metrics and models are used in the company for one and the same product, and only those people who have worked in the SAP organisational unit for years are well informed about this. "Transparency, however, is the prerequisite for compliance," defines Florian Ascherl. "This forms part of the responsibility of the licensee. Compliance for its part is the indispensable prerequisite for successful and sustainable optimisation. When you look at it in detail, it quickly becomes clear that it would be more sensible to establish appropriate functions and licence management governance already while the SAP software is being introduced, in order to be able to respond effectively to requirements that result from the IT strategy."

Legacy issues

Looking back, the question is raised of whether governance and compliance are a trigger for a re-evaluation of the issue of licence management. On this, KPMG partner Carsten Lang says: "Software producers developed the first compliance programmes as the global market became saturated. Governance played a fairly insignificant role in this process. Governan-



Florian Ascherl

ce was for end customers and outsourcers de facto the logical consequence of the growing number of manufacturers who confronted companies with a verification of their portfolio of licences and a comparison of usage and acquired usage rights." And Lang also believes that the issue has been given increasing importance with the evolution of IT infrastructure. The road goes from business enablers to business drivers in the form of today's heterogeneous system landscapes with a large number of software products in use. Virtualisation, cloud and storage technologies, coupled with statutory retention, data protection and current security requirements have also added to the complexity.

"20 years ago, I, like many of our customers today, knew only vaguely which business possibilities result from the use of SAP software," summarises Carsten Lang. "At that time, licence management and compliance were not actually an objective pursued on a long-term basis for any customers or manufacturers that I knew. In my opinion, however, this was the result of the organisational structures at the time and the focus of the users on the strategic business objective and their own core competencies. Technology was at most a means to an end here."

The targeted use of software to support a company's business operations and to increase its internal efficiency has developed into an issue of growth. The deals were a matter of prestige for the sales representatives as much as they were for those who were able to successfully complete a larger-scale implementation project in an organisation. "Compared to today's situation, the technical possibilities which were used at the time within the framework of predominantly homogeneous system landscapes can be classed almost as prehistoric," Carsten Lang explains. "With their all-encompassing portfolio of business possibilities, SAP systems were the ideal front end for customers to tackle the step to automation and business process management. It was simply not the time, so to speak, for thinking profoundly about licences, let alone for establishing an appropriate organisation and structures."

The KPMG approach

What does KPMG recommend as the best possible licence strategy for compliance, transparency and optimisation? "Time and time again I discover that the cause of risks in the handling of licences, regardless of whether these involve SAP or

other licences, can be found in the lack of governance structures," notes Florian Ascherl, drawing on numerous discussions with clients. The multi-stage model shows the following: without governance there is no transparency, without transparency no compliance and without compliance no optimisation. "The origin of all potential inconsistencies lies in the issue of establishing appropriate processes and structures that were discussed at the very beginning and then later ignored. This is based on the evolution of the technical infrastructure as we know it today and the transformation of software from a tool that reduced workload to an important asset of the company."

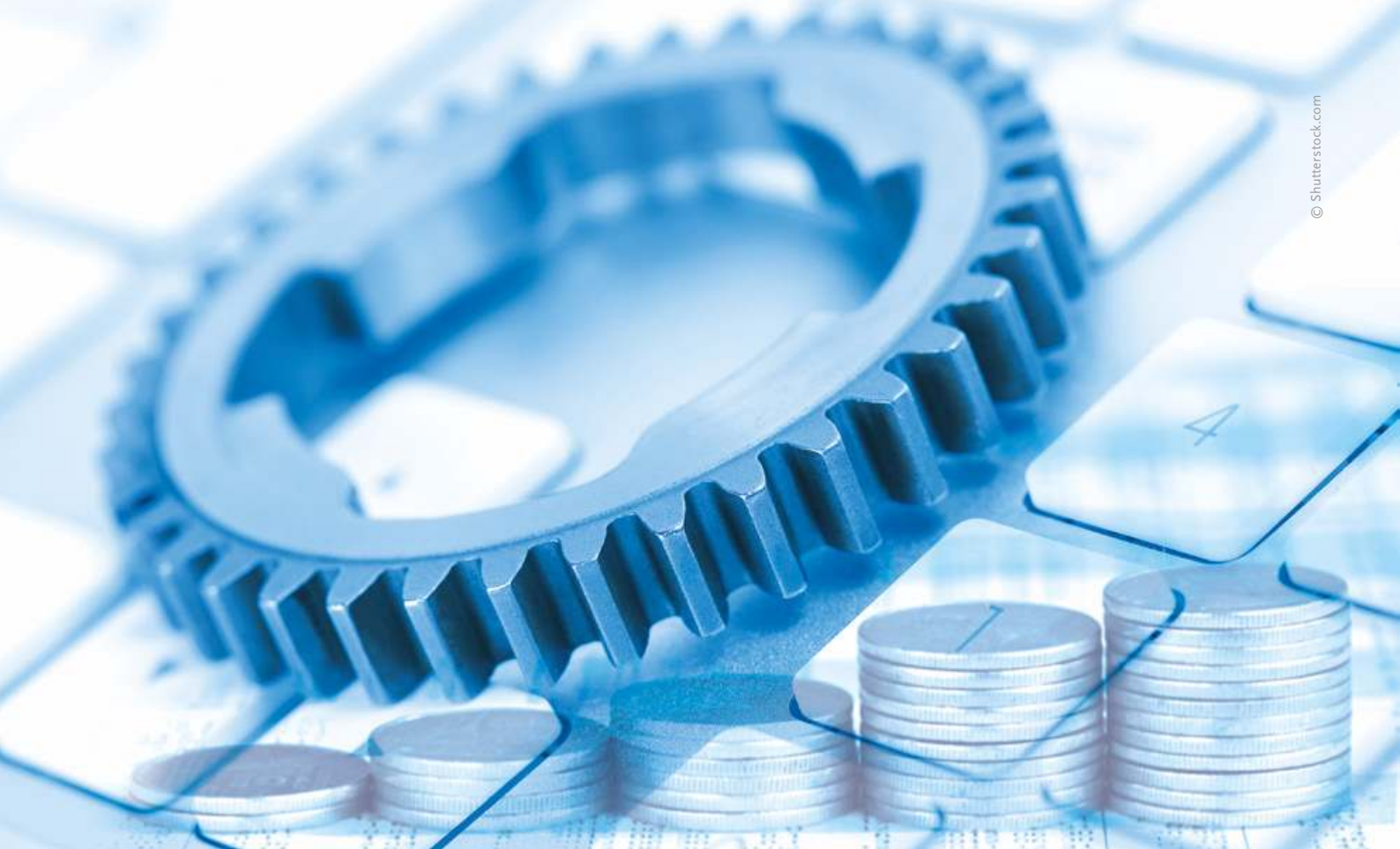
What's the next step? "If you don't know the existing licensing contract structures or your contact partners in your company who manage the flow of a software lifecycle, then you should consider establishing a governance model," recommends KPMG senior manager Ascherl. "This is the only way that the CIOs can also get the information they need to efficiently follow up on the IT strategy and to ensure compliance and cost efficiency. In principle, we advise every client to carry out an objective self-assessment and to benchmark themselves against competitors in order to identify whether comprehensive licence management is necessary. For smaller companies, it would be advisable to draft 'pin to your desk' rules, which employees have to adhere to as binding, or alternatively to seek out a partner to take on certain activities and who can provide specialist knowledge in support. These high-level rules alone can help to contain massive licence risks. Otherwise, we are available to answer questions and provide support for clients to organise themselves in a maturity model and draft a suitable, cost-efficient strategy."

The issue of under-licensing, over-licensing and relicensing is omnipresent in the SAP community. What can be done? "Our recommendation is to begin by looking at the contracts entered into with SAP," explains Florian Ascherl.

If special use rights have been agreed on, such as configurations or (partial) termination rights, it is naturally incumbent upon the respective client to make use of these rights. It is recommended that the future IT and corporate strategy is kept in mind: "Is there an option to reuse licences that have not been used somewhere else? Are any rollouts coming up for which the licences can be used to save on future purchases? If there is no option to use them, I tend to advise clients to discuss together with SAP the extent to which existing licence rights and licence rights, that will potentially not be used in the future, can be applied to implement planned strategic IT projects," advises Ascherl, KPMG senior manager. In any case, the decision on the option and scope of the crediting of licences ultimately lies with the licensor. "In contrast to many other providers and in all cases that I am aware of, SAP has adopted an extremely customer-oriented approach," notes Florian Ascherl, referring to his contacts with SAP. (pmf)



Carsten Lang



Create transparency, avoid mislicensing and under-licensing

The challenge of SAP licence management

In order to deal effectively with the issue of SAP licence management, it is necessary to understand which activities lead to the use of the manufacturer's intellectual property. Indirect use, for example, is a widespread issue in the SAP community and not just since the legal dispute in Great Britain became known.

By Florian Ascherl, Carsten Lang and Justina Kurzawa, KPMG

The discussion concerning indirect use is neither a new nor a SAP-specific issue. It is apparent from the definition of use contained in the SAP general terms and conditions (see sidebar on page 47) that users of third-party applications have to be licenced, and also that, where necessary, further licenses might be necessary to permit the application to commute to SAP.

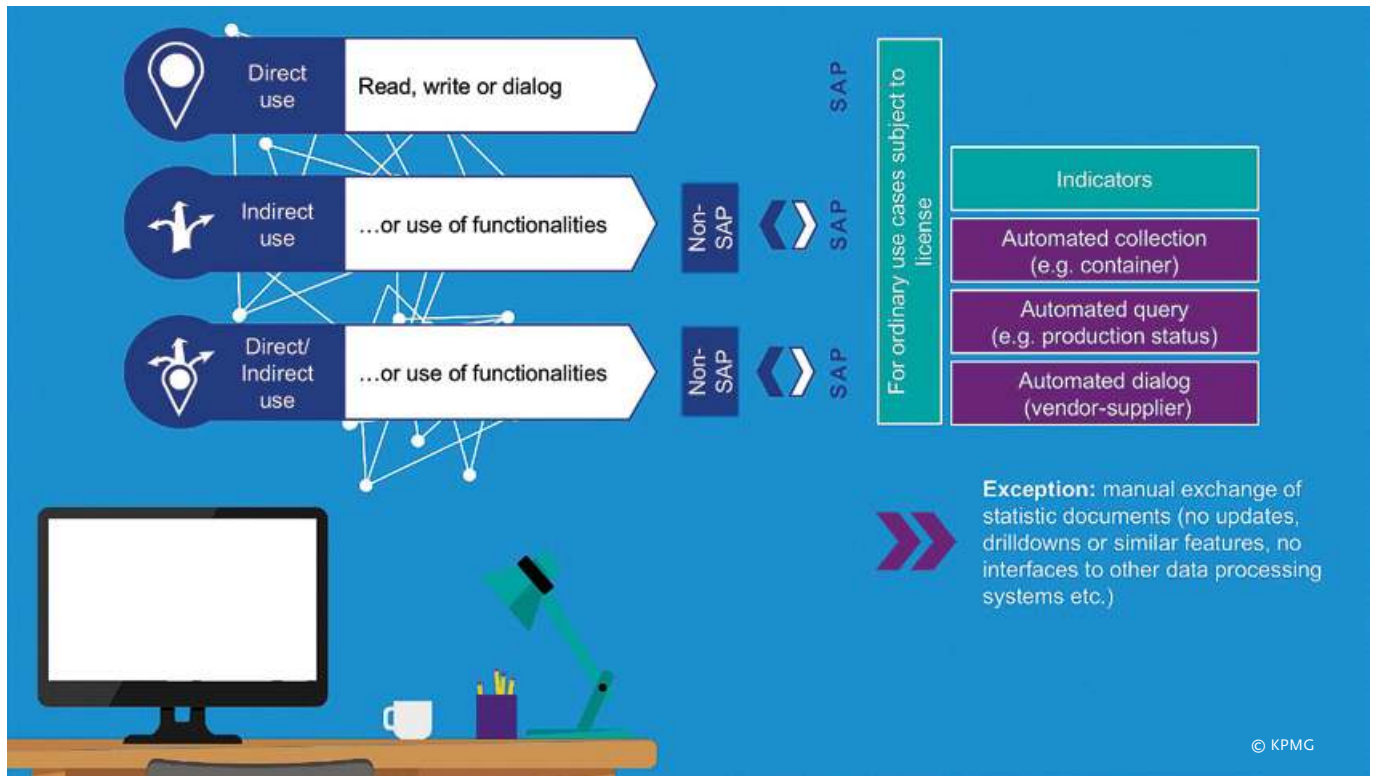
Indirect use – not specific to SAP

If one were to go a step further, this definition of use can be interpreted in such a way that, essentially, no distinction is

drawn between direct and indirect use. As already indicated, it is not only at SAP that the implication on indirect usage has to be considered in greater detail.

This was already an issue more than ten years ago; Microsoft, IBM, Oracle and other producers have been tracking developments for some time. Among Microsoft customers, the situation is known as multiplexing: a process in which hardware and software are used to pool connections to the software, redirect information or reduce the number of devices or users directly accessing the system. Time and time again, questions on the issue are the subject of software audits. In order to adopt a reliable approach

to the issue of SAP licensing, a distinction also has to be drawn between a simple breach of licence and an increased licensing requirement resulting from indirect use. Indications such as multiple logons by a user could possibly point to indirect use if the account of a user shows an extremely large number of parallel access operations, as it would then be possible to infer automated access. For example, the account of a software developer acting on behalf of the company in question may be used not only for the developer, but also for all customers of the web shop that has been programmed by the developer and that accesses SAP functions. The same example could



Direct versus indirect use.

arise if there is proof of a high workload or constant use (24/7) by users, or if the measurement provides indications of corresponding cross-component use. None of this is absolutely 100 per cent conclusive but it at least provides possible signs that give rise to a more in-depth analysis of the connections and usage. Multiple logons, a high workload or longer working hours could, of course, also involve a “simple” breach of the licence, i.e. parts of the account or a technical user mistakenly classified, for example, as a dialogue user.

Indirect use can be caused as follows: for example a user (licensed or unlicensed) accesses SAP functions via a non-SAP third-party application or the

Definition: Use

2.2.2. [...] Use of the contractual SAP Software may occur by way of an interface delivered with or as a part of SAP Software, a Licensee or third-party interface, or another intermediary system. The Licensee must hold the required user rights, as defined in more detail in the List of Prices and Conditions [PCL], in particular for all persons who use (directly and/or indirectly) (...)

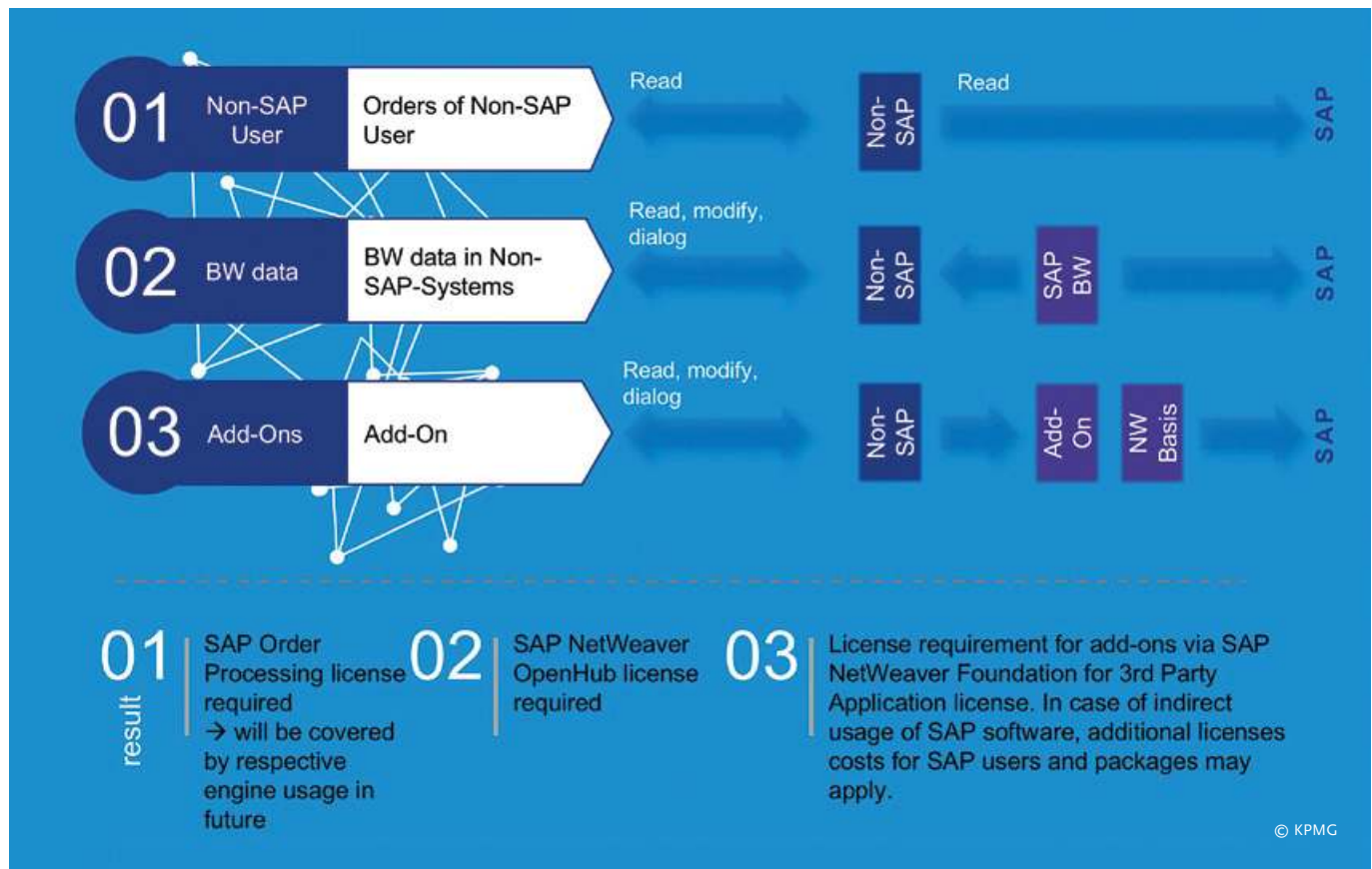
Source: SAP GTC May 2016

information stored in the SAP environment. Indirect access to data in the SAP CRM, ERP or other components is thus gained via the upstream non-SAP system. What is important is not only the access via a non-SAP application, but also how the access was gained: do the users of the third-party application have the necessary SAP named user licences? Depending on the licensing conditions applicable in the scenario, whether data is transferred in real time or with a time delay can also play a role, as well as other criteria, depending on whether SAP provides an appropriate solution that could replace the external functions. In which direction does the data transfer take place (unidirectional, bidirectional, inbound, outbound, etc.)? Does a mass outflow of data take place (bulk)? An assessment has to be carried out for each indirect use scenario in the corporate landscape and seems particularly useful if room for interpretation can be identified from possible contract terms and conditions that could prevent unnecessary multiple licensing. For example, in older contractual constructs (interaction arising from the relevant contract, LPC, GTCs and SUR) there are often indications that the use of information can be covered via existing rights of use, provided that this does not take place in real time and that several other criteria are fulfilled.

Terms and conditions in old contracts could thus present options for solutions

that only require the licensing of the use of third-party applications, but not the third-party application itself. However, this has to be reviewed with a critical eye in each case and requires that SAP does not provide any corresponding functionalities. The use of middleware could thus be an accurate solution; however this applies only to dedicated cases and requires that corresponding licence terms and conditions be valid. In this case, it is also essential that the contracts are analysed in order to guarantee fulfilment of the licence terms and conditions as well as the necessary compliance. At this point, it must be noted that middleware can be a technical solution in this respect as long as the functions of the upstream non-SAP software are not already offered by SAP. For example, a time recording system developed in-house that reports data via message queuing middleware to the relevant SAP system in non-real time and by bulk outflow does not represent a suitable solution as SAP itself offers corresponding functions. However, if a very industry-specific solution is involved and not currently included in the SAP software programme, the situation could be beneficial for the licensee.

SAP included the ‘SAP NetWeaver Foundation for Third-Party Applications’ licence in the programme in 2010 for the purpose of correct licensing of third-party applications, which is necessary in the majority of cases of use. The licence has



Varying use-cases.

to be acquired based on Named User or Core metrics. The configuration of one of the metrics is possible on only one occasion, namely prior to the first purchase. This means it is advisable to review the rights and terms and conditions of the old contracts and to make optimal use of existing room for interpretation.

A trend towards a larger selection of licences is emerging to cater to the diverse and increasingly complex scenarios involving indirect use. The diagram illustrates some of these scenarios, including alternative licensing options that are currently being developed by SAP. As communicated in the course of this year's Sapphire in Orlando, SAP has thus adapted to the most common scenarios (procure-to-pay, order-to-cash and static read). As shown in the example above, SAP provides customers with licence metrics with relevant rights of use to map the correct licensing in a cost-efficient way. Provided that customers are otherwise correctly licenced, SAP also understands current requirements of customers by communicating the allowances in the course of necessary upgrades. Regardless of the manufacturer involved, it is always advisable to analyse whether indirect use scenarios exist in the company and assess these in terms of licensing regulations. It is only in this way

that compliance with a licence, a task that falls within the scope of responsibility of the licensee, can be ensured.

Companion to progress

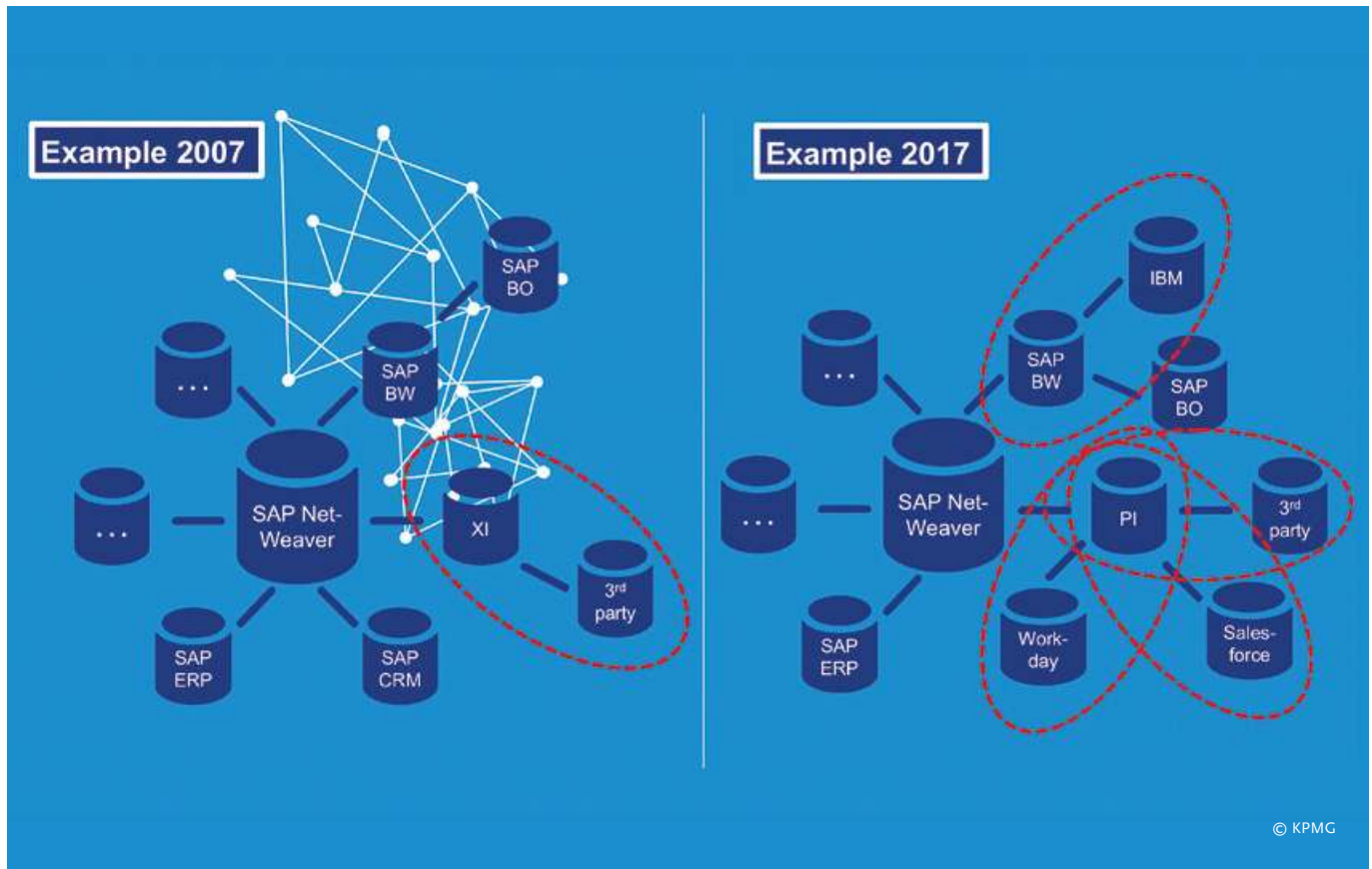
Just two decades ago, SAP systems, primarily in the form of ERP components at that time and with their all-encompassing portfolio of business options, were the ideal front end for customers that allowed them to dare to take the step into the future. Suddenly there was the possibility of designing business processes more efficiently and drastically reducing lead times. It was also already possible to map diverse workflows in partially or fully automated ways. The introduction of ERP software was thus a prestigious and at the same time courageous step into a world of business processes and applications and was characterised by digitalisation as a means of keeping pace with the growing structures of international competition. It was a time of radical change and of seemingly unlimited technical possibilities, but not a time of anticipation or consideration of the accompanying licence and thus compliance risks.

Over time and with the development of today's technical possibilities, such as virtualisation, cloud applications, regulatory requirements of adequate storage

appliances and high-performance database solutions, the first major challenge emerged for all those involved, licensors as well as users. The licensors had to anticipate future technical possibilities when they were elaborating their licence models, while the licensees saw themselves exposed to an increasingly complex variety of licence models, metrics and licence terms.

SAP ecosystem

In the case of SAP, a mature, homogeneous system landscape has developed over two to three decades and has moved away from the past importance as a general front end towards an integrated ecosystem, to which a large number of specialised on-premise and cloud applications are connected. Prominent examples are the CRM functions of Salesforce.com and Workday's Human Capital Management. Both generally replace or supplement SAP functions. SAP provides the appropriate technology for the technically accurate integration of these, and other, specialised applications. For instance, this was carried out in the past in the form of the Process Integration (PI) product. In addition to technical integration, the use of the underlying SAP ecosystem may also require acquisition of additional rights of



Changes in infrastructure over time.

use. A well-known example is the aforementioned ‘SAP NetWeaver Foundation for Third-Party Applications’ licence. A user who accesses SAP functions purely via an external platform could be granted rights of use in conformity with the licence through a corresponding platform licence. However, this is not valid as sufficient licensing – something that is mistakenly disregarded by many clients – but may also require additional purchase of the ‘NetWeaver Foundation for Third-Party Applications’ licence if the goal of the application is based on the NetWeaver Platform. Even an interposed PI system would not change anything.

In this respect, SAP is often accused of a lack of innovation and its original front-end systems are downgraded to a back-end system for young, innovative solution providers. However, upon closer inspection, a clear picture emerges of this change, which allows it to be seen as the logical further development of the SAP system landscape. Corporate requirements have changed and flexibility has gained in importance in global IT structures.

Integrated transparency

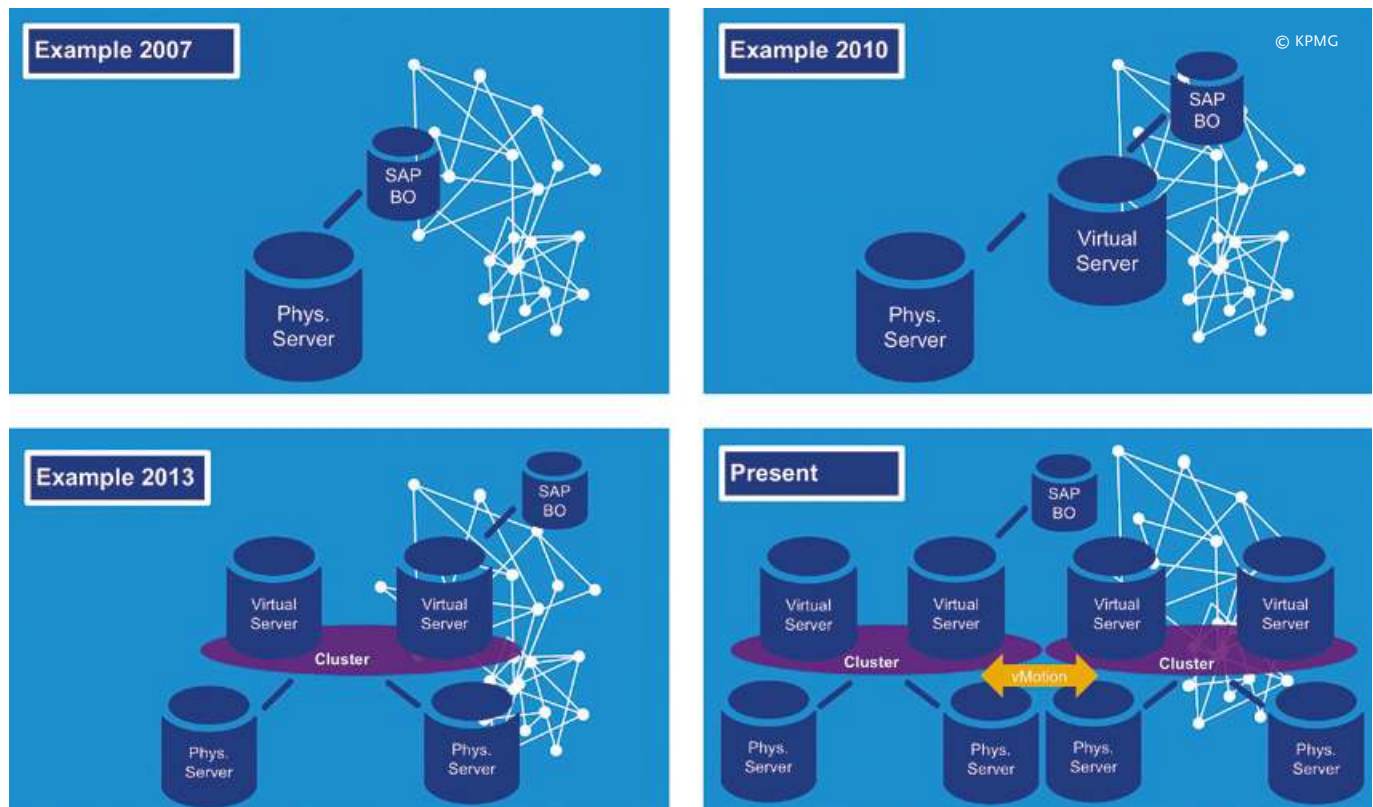
With the increasing heterogeneity of the SAP ecosystems used by clients, the often customer-specific use of integra-

ted products and interfaces networked with each other and the creation of total transparency have been gaining in importance for some time now. The reason for the frequent lack of transparency is often simple to explain. While a licence manager today has overall responsibility for any and all software licences and the measurement of their respective use, they are frequently not responsible, or have only very recently been made responsible, for SAP licence cases. The reason for this can be found in the separation frequently encountered between non-SAP and SAP IT organisational units. From the customer’s point of view, for whom the SAP system provides a business-critical application, this is easy to follow but from the licence management perspective it is a grey area on the map of the applications to be managed.

Understandably, licence measurement and licence purchases in the past were thus also initiated by these SAP organisational units. However, without the establishment of appropriate role concepts and processes which trigger an action, for instance in the event of employees joining or leaving the company, it is virtually impossible to create a cost-efficient position. Despite their undoubtedly profound knowledge of SAP licences, it is difficult for these organisational units to

keep pace with current developments in technical possibilities. Convergent and hyper-convergent IT infrastructures are a necessary evil for guaranteeing fail-safe performance through the use of today’s wide area networks (WANs) and supplement the increasing degree of virtualisation. However, recording the impact of the use of these structures from a licence management perspective often lies outside the relevant scope of responsibility. Under-licensing is inevitable when products dependent on the structure are used. Old software licence contracts that are based on CPU or core licence models are frequently not designed for use in virtual networks.

This can be easily ascertained by reviewing old business object contracts. Furthermore, instead of a physical server on which the software would have been used in the past, the physical server of the virtual environment must now be licensed, and this has generally been configured to be significantly larger in terms of processor cores, CPUs and processing power. Even so, this would be the lesser of two evils. Today’s virtual environments, however, encompass at least several physical servers, over which the workload is distributed in the form of a cluster. So as far as the necessity of licences is concerned, we have already



Challenges for compliance in the digital transformation.

moved from one physical server to a situation involving several. Yet this is still not the worst case scenario.

Worst case scenario?

Using current VMware virtualisation technology, users are also able to distribute the workload across clusters via certain functions (vMotion). Using NSX technology, via convergent and hyper-convergent infrastructures, it is even possible to cover whole data centres with a virtualisation level. The need to acquire the relevant rights of use resulting from the licensing obligation is almost impossible to manage. This has frequently not been incorporated in the business case consideration of the strategic decision to introduce structures of this kind. Yet there is some doubt about the necessity of this situation if the IT asset management/licence management organisation is furnished with resources, expertise and competencies precisely for evaluating these scenarios in order to serve as a trusted adviser and provide advice and action. Avoiding cases of this kind is one of the reasons why an established governance structure for IT asset management is required.

Licensing models are becoming ever more complex

However, the increasing degree of complexity, in interaction with licence models

and licence terms with ever more complex structures, does not only affect a manufacturer's proprietary products as in the case of SAP. On account of the evolution of the SAP ecosystem described above resulting from the integration and use of non-SAP products, this also has an impact on other areas of licence management. As a result, organisations with a low level of maturity or a lack of governance in licence management face extensive challenges. To create the greatest possible transparency, it is thus important for companies to identify their own cross-component use and to know on which channels users, systems, bots and other actors communicate with each other. For instance, nowadays, telemetry modules are increasingly being installed in the automotive and mechanical engineering sectors as part of the introduction of Industry 4.0 and IoT structures, where these modules report to the manufacturer with messages about upcoming maintenance or early warnings about a foreseeable probability of becoming defective. In some cases, integration has reached such an advanced stage that the corresponding support order is generated in SAP and an engineer is sent out without this requiring any further interaction. Yet the absence of any human interaction does not mean that these scenarios are not subject to a licence. Using contract, licence, and technical knowledge it is thus important to analyse how a business case

can be designed as cost-efficiently as possible and how the implementation can be mapped in conformity with the licence. In any event, the responsibility for correct licensing data lies with the customer.

The final argument in favour of involving the organisation responsible for licence management from the start of the planning stage can be seen when relevant products are deployed that are installed outside of SAP but which access SAP functions. It is necessary and important to penetrate the management consoles of the external applications or identify relevant user groups down to directory level and analyse their access rights and permissions. As a result of these developments, the introduction of a governance structure, continual involvement of the licence management organisation and constant communication between the relevant stakeholders have become indispensable steps into a future in which ensuring licence compliance is more challenging than ever before.

In addition to the tracking of any communication channels based on RFC technology between SAP and third-party systems, it is important to record and evaluate all non-RFC connections (e.g. HTTP, IDoc, IPSec, etc.) using qualitative and quantitative survey methods (e.g. documentation, system checks, etc.).

The central starting point for the system to collect information on the RFC

Recommendations for functional licence management

The recommendations for a functional licence management organisation are the same for SAP, with minor exceptions, as for any other vendors.

The basic principle for any good licence manager is to have proper knowledge of commercial rights of use, identify information on the type of technical use and the volume of use and finally compare these with each other. Moreover, it is important to recognise developments and changes in licensing rules and metrics and implement these in the in-house environment.

Information can thus be gained on any over-licensing or under-licensing. The following section provides a brief overview of topics that should be observed in order to ensure the required level of transparency.

Commercial

Commercially required transparency as the basis for assessing the comparison with technical use can be achieved only with extensive knowledge of the points below for the rights of use acquired in each case:

- Complete contract overview
- Knowledge of contract governance (whether some contracts contain clauses that impact on other contracts)
- Knowledge of any database use rights that may have been acquired (type, runtime vs full use, etc.)
- Knowledge of the underlying GTCs
- Knowledge of the underlying lists of prices and conditions (LPCs)
- Knowledge of applicable software use rights (SUR)
- Knowledge of any side agreements and customer specifics within the points listed above

Technical/use

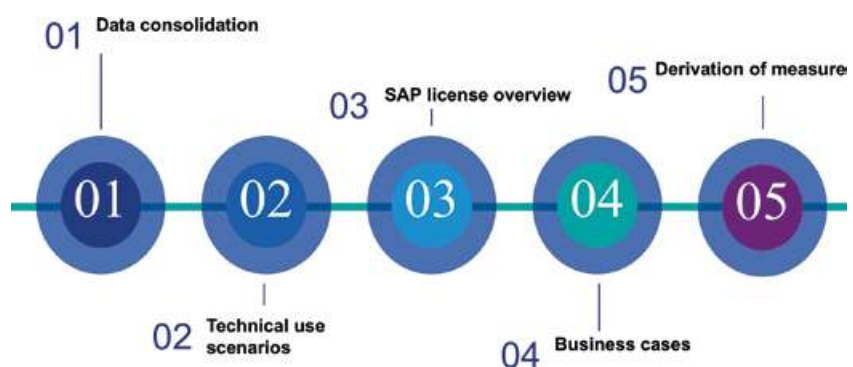
Transparency is necessary in technical terms or in terms of technical use, as the basis for assessing the use can be guaranteed only when there is extensive knowledge of the following points. Depending on the individual customer and IT structure, this has to be supplemented by further required knowledge:

- Knowledge of infrastructure design
- Knowledge of technical process/organisation of relevant usage scenarios
- Knowledge of the type of data/information exchanged and direction of the data flow
- Comparison of external/existing users
- Identification/analysis of the use, permissions, roles, user groups in the relevant external application environment (AD, ZENworks, management console of the external application)
- Review of the use of middleware, etc. (note: only in conformity with the underlying LPC and the T&Cs as well as the SUR)

Recommendation: Transparency when it comes to indirect use

Depending on the respective case of use and the underlying circumstances, the indirect use of SAP systems should be considered individually in the course of a scenario analysis. The following reference process has been established for this purpose and is tried and trusted in practice. As a first step, it is important to initiate and implement the initial data collection from all live, development or alternative use-related systems relevant for measurement. Depending on their size, companies can feature several dozen or even hundreds of different data sources. This multiplicity and complexity is one of the primary reasons why carefully planned and designed data collection/consolidation as well as a subsequent analysis are essential.

Five steps to sustainable risk mitigation





Defining the use- & business case.

connections and the SAP systems relevant in terms of measurement is represented ideally by a fully integrated and central administered SAP solution manager instance. If an instance of this kind does not exist, an alternative data source should be found that demonstrates a similarly centralised character. The data and information that has been collected is subsequently consolidated and then classified and prioritised according to its relevance and criticality. The systems and the connections building on them are subsequently preselected based on individual criteria for further analysis.

The result will then ideally represent a consistent general overview of the SAP systems relevant for measurement, where their connections to third-party systems have to be classified as the most critical and – taking into consideration various aspects of indirect use – the most relevant.

Scenarios of technical use, also known as use cases, represent a fundamental component of the measurement and collection process for indirect use. Depending on the size of the company, different scenarios of indirect use can be identified, ranging from a few to several hundreds.

In order to organise this complexity in a clearer manner, it is recommended that a parallel perspective be adopted in the definition of the relevant use scenarios. However, building on the underlying technical connection and depending on the initial situation, a different diversification subject can also be selected.

However, a distinction is generally drawn here between RFC and non-RFC use cases.

In line with the unconnected perspective, the next step recommended is to consolidate the relevant use cases into overarching scenarios. Technical information on the subordinated hardware and the virtualisation level is often consulted for this consolidation. This ensures further specification and facilitates the subsequent analysis and evaluation.

The result of this process step is represented by a list of the most relevant use cases in terms of risk minimisation (in the form of a consistently logical overview).

The third step in the reference process, the SAP licence comparison, builds on a solid data basis. First of all, it is recommended that the data already collected be enriched with usage data as well as the permissions of the relevant SAP users on the target applications. This is carried out by means of data extraction by the system and an evaluation of this data supported by the system. This can be supplemented by an analysis of access rights and permissions in the environment of the target applications (for example through an analysis within the active directory). It is important to identify the information relevant to the licence to begin with and design a data extraction and evaluation mechanism. Related activity profiles are subsequently developed using the real usage data in order to take the actual data basis as the starting point.

In this respect, it should be noted that the real description of the activity is always to be considered as generic. Both the usage data and the activity descriptions of the relevant profile of the users should ideally include the technical access permissions and the access operations/activities actually implemented on the relevant SAP applications. To this end, it is recommended that the relevant target applications be analysed at the technical permission level. The target status (of the licence portfolio indicated by contract) is subsequently compared with the actual status. This is derived from the actual usage.

The findings from the licence comparison are used in the fourth stage of the reference process to assess previously defined use cases from a business perspective. In addition to these considerations, risk assessments are conducted to

examine the evaluation at a more detailed and precise level. It is also recommended that, in order to reduce complexity, the business cases be broken down according to technological circumstances, considered independently of each other before being consolidated into overarching, more generally valid business cases. The general business cases then undergo a critical assessment, which is based on previously defined and weighted criteria.

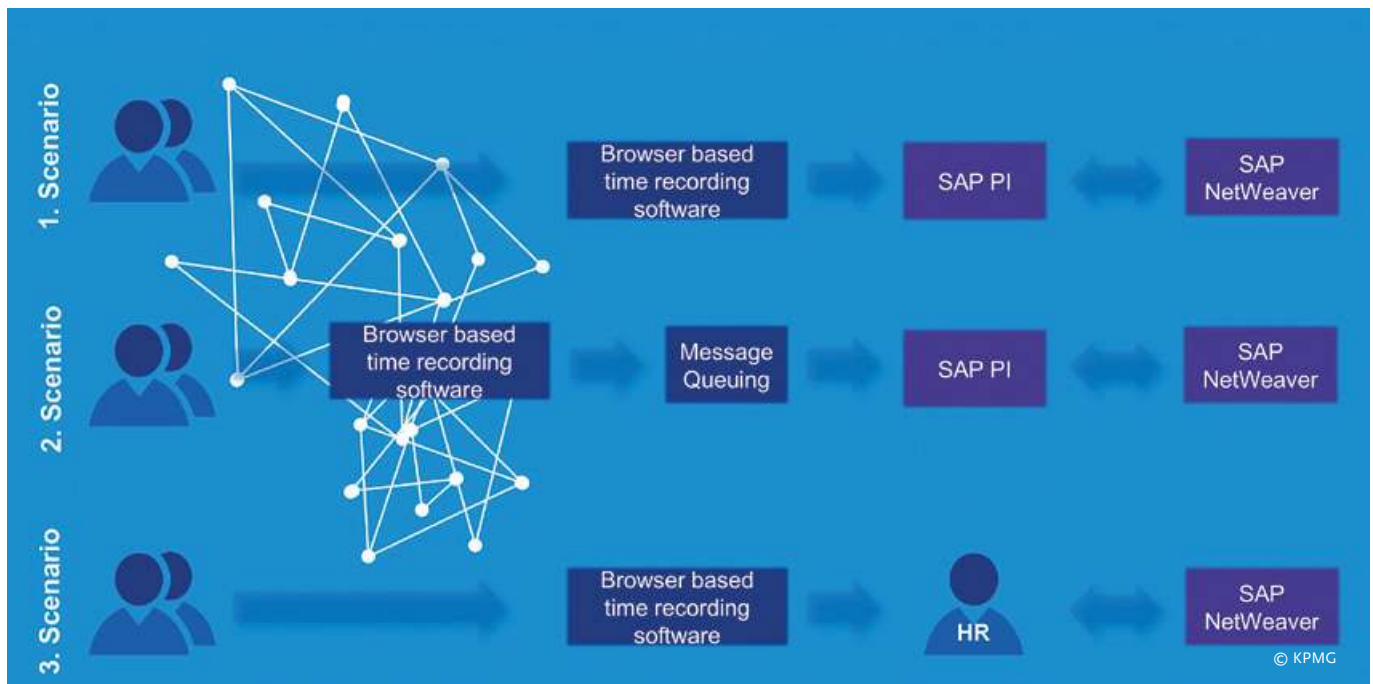
This process ensures that only business cases that the analysis shows to be relevant are included in the smaller circle of the decision. Relevant in this context not only means relevant from the perspective of risk minimisation, but also relevant in terms of ensuring that the overall licensing is comparatively the most cost-effective and that it can be managed from compliance perspectives.

The last step involves identifying technical, forward-looking possibilities to minimise, or ideally prevent, the risk of indirect use, which entails a financial assessment of the potential measures being carried out. Proposals for the most cost-effective overall licensing are identified, which is based on amalgamating the various scenarios into logical comprehensive packages. In this respect, compliance is ensured (if necessary in consultation with SAP) through technical adjustments or through proactive acquisition of any licences required.

The focus should not be placed on short-term troubleshooting in this process. Rather, the aim is to create sustainable transparency, if necessary in co-operation with specialists. Solutions that are devised have the aim of establishing a set of rules for identifying and proactively evaluating indirect use.

Insights and prospects

Challenges in licence management are not an issue specific to SAP. Rather, as already described, SAP provides its



Three scenarios for time recording.

Agility in the new business area

Case study: Time recording

Three different scenarios are used for illustration purposes, to look at the example of time recording in more detail and understand when an in-house solution causes a compliance breach.

To keep a record of time worked, employees of a company use time recording software that has been developed in-house or by a third-party producer. The data is input via SAP PI into the SAP system provided.

Scenario 1: All users who use the time recording software would thus be subject to a licence. The exact number of named user licences needed would require an analysis to examine whether the users already have named user licences and whether the rights contained in these licences are adequate. In addition, licensing of the in-house or third-party application (time recording) with SAP NetWeaver Foundation for Third-Party Applications will be required.

Scenario 2: A possible interposition of message queues that forward the data via PI to the SAP system only in bulk, or with a time delay, could represent a solution that does not necessarily classify the users as relevant in terms

of licensing. However, this potential technical solution requires at least two preconditions:

- Contractual preconditions must exist in appropriate form;
- Functions of the non-SAP software must not already be contained in available SAP solutions.

However, this type of licensing has not been clearly established, meaning that, if there is any doubt, there is at least a licence obligation as in scenario 1 if SAP software offers the same functionalities. A corresponding licence for message queuing used may have to be added here. It is important to analyse this in cases of doubt.

Scenario 3: The interposition of an employee from HR or a shared service employee who records the data from the reports from the non-SAP appli-

cation manually into SAP might represent another solution. This employee would have to be licensed, and it will be important to ensure that the correct licence has been assigned. An SAP professional user licence would generally come into consideration for a member of the HR staff.



customers with a tool in order to support correct licensing. Why, then, is software asset management still perceived to be a highly complex issue that often leads to problems?

The digitalisation of business models functions with software, and in many areas software provides the basis for business processes and models to function. The increasing complexity in the operation of IT infrastructure and the related software applications also raises the complexity in terms of correctly licensing the software that is deployed and used. Simple “counting, measuring and weighing”, as was possible in the past, no longer helps. Ever since virtualisation and cloud computing have become more widely used, the licence models of the software developers have become increasingly complex as a result of these technological developments. Many companies are now asked to build hybrid models in licence management that combine the original licence management on the one hand and the management of subscription models on the other. This task is almost impossible to fulfil by a licence management organisation. Added to that is the fact that this issue currently does not occupy a prominent place on most CIOs’ agendas. Our experience in consultancy practice shows that companies with over 100,000 employees have only one person in licence management and this person is supposed to perform licence management for hundreds of

software products. It is frequently the case that this is then not supported by a professional SAM tool, but that the management is performed using Excel lists. Bearing in mind that a single software developer changes approximately 50 licence terms every week, the result of such a situation can only be “non-compliance”. Discussions that arise on special issues, currently on the issue of “indirect use”, for example, increase the uncertainties in licence management; various software producers have been addressing this issue for years. As a result of the most recent concessions by SAP concerning the provision of appropriate licence models for the most common scenarios, a prompt evaluation of the individual licence situation is recommended; this way, these concessions can be addressed proactively, and there is no issue of no longer or not completely being able to use the options offered in the event of a licence audit.

The cloud is currently a major issue among all software developers and customers are expecting to make savings on their current costs for licences and support by using the cloud. How then should a customer conduct an economic business case if they do not even know whether they are correctly and cost-effectively licensed at the moment? A business case should be calculated on a solid basis and functioning software asset management will play a part here. The same is also true for the issue of cyber

security. A functioning SAM will help a company to maintain an up-to-date view of the version of the software in use and thus to analyse any security risks specific to that version.

What should IT decision makers do, what can be recommended for countering the challenges described? A company that is engaged in SAM should implement a governance model with roles, responsibilities and processes that enable effective and efficient licence management. In large companies, this is not a task that can be handled by one or two employees. Rather, the SAM organisation should reflect the complexity of the entire company. A SAM tool should be used that supports the licence managers in their duties and allows the subject to be controlled. A shift to subscription models is not a solution for remedying deficits in licence management. The crucial factor for successful licence management is the commitment of the top management. For the CIO, SAM must be an important component in their overall IT strategy. A secure basis is the precondition for calculating business cases and for making solid decisions to invest in new technologies. Results from international studies forecast that over 75 per cent of all cloud transformation activities will take place in 2017 without the actual licence costs being known before the decision is taken and without effective controls being implemented during the transformation. That’s food for thought!



Florian Ascherl is a senior manager at KPMG and head of the SAP Licensing Competence Centre.



Carsten Lang is a partner at KPMG and responsible for all software licensing issues.



Justina Kurzawa is an assistant manager at KPMG and a subject matter expert for SAP SAM.



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User System Measurement Management (USMM) and Licence Administration Workbench (LAW)

SAP licence measurement

If an SAP licence measurement is announced, it is generally too late to put the IT asset management in order. You can sit waiting and twiddling your thumbs, or you can make active and co-operative preparations for the work required. An interview with KPMG senior manager Florian Ascherl focuses on the issue of licence measurement.

Couldn't the existing SAP customer say: what do I care? SAP is about to come and measure our licences and then we'll know what's what – right?

Florian Ascherl, KPMG: Of course existing SAP customers can wait until the annual SAP measurement is just around the corner. But this primarily represents self-disclosure concerning the use of software. SAP offers tools for creating transparency about a company's own use that are indisputably extremely helpful – on condition that the relevant knowledge is available –. But in my opinion, launching the USMM or the LAW/LAW2 once a year is not in the best interests of sustainable licence management. Rather, these functions, or at least the underlying information on use, should form a basic, integral part of the necessary transparency, compliance and optimisation checks of the licence management organisation, while taking into consi-

deration the knowledge of the company's own use rights.

So waiting is counterproductive?

Ascherl: If customers wait and are satisfied with the measurement results, then important findings can't be gained and interpreted from the licence management perspective. Both over-licensing and under-licensing are generally the logical consequence – both can be avoided. Whether it's IBM, Microsoft, Oracle, SAP or any other software vendor, provisions for anticipated losses and unplanned expenses for software based on a lack of transparency and governance processes are at any rate an unattractive consequence and, based on today's options,

an unnecessary one also. It is thus always recommended that an overview be maintained of the use rights that have been acquired, of changes to these in the case of delayed licence purchases and of usage volumes.

What pitfalls can be found for existing SAP customers in the LAW, Licence Administration Workbench?

Ascherl: From experience we have learned that many SAP customers



have difficulties with the measurement results. In many cases, the customers can't find their way around the figures and don't understand how they are supposed to read the documented use, which SAP uses as a basis for issuing an invoice or for drawing up a list of potential mislicensing and under-licensing.

Who needs to take action here?

Ascherl: I actually don't assign the responsibility to SAP here; it is one of the few well-known licensors that plays a proactive role in providing measurement tools. If customers are not able to collect this or similar information during the year for planning, reporting and budgeting purposes, this does not come under SAP's scope of responsibility. If you are ready to invest in the required knowledge and the appropriate resources, then, in my view today, the task of creating sustainable transparency, which should also be present in the sense of a good B2B or B2C connection between SAP and its customers, is a solvable one.

Who is and could be responsible for USMM and LAW?

Ascherl: Every person who is responsible for measuring the system should know about the particular features and the mode of operation of USMM and LAW/LAW2. After all, SAP provides sufficient information for this. These tools are not impenetrable; they make the task easier exactly the way the relevant documentation describes. The most frequent sources of error for an incorrect measurement (from the customer's viewpoint) can generally be found in the absence of processes concerning licence assignment, the correct deactivation of accounts, clear identifying features for determining general user groups etc. In the engine area, the source of error frequently lies in correction notes, which SAP is also proactive about providing, that are not implemented or not implemented correctly.

So are there risks?

Ascherl: In the worst case scenario, there is the risk that the same engine will be measured but based on an incorrect price list. The consequence of this could be that the existing licences can't be used to cover the use. This leads to unnecessary potential for discussion in any case. Rest assured, I'm not talking on behalf of SAP, but can you name one licensor off the top of your

head – apart from SAP and some IBM products – that on its own initiative offers you an option to measure and check the licences you use?

There are numerous tools on the market for licence measurement and their results often differ from the results of the SAP licence management. Why?

Ascherl: The aim of the annual SAP measurement is to determine usage in the SAP systems. The example of the SAP users helps to explain this clearly: the SAP measurement tools, USMM and LAW, access the user information from the systems and consolidate these using a defined and unambiguous unique identifier, which can be chosen by the customer. Each user that is set up as active in the system from the perspective of the licence terms is measured.

That sounds very pragmatic – doesn't it?

Ascherl: Whether user accounts are actually used and the time when they were first regarded as active in the system doesn't play any role for USMM and LAW here. The allocation of suitable licence types and the correct adjustment of accounts that are not in use are the responsibility of the customer and should be carried out appropriately within the framework of interfaces with HR processes and events such as employees joining and leaving, long-term sick leave or parental leave. It is also incumbent on every customer to select the suitable type of licence based on the role assigned to an employee and also to review this licence type later in the course of the actual use to ensure licence plausibility compliance. Optimisation tools are being used with increasing frequency for this review, alongside expert knowledge and standard SAP information.

What do you understand by that?

Ascherl: It has to be said – and I mean this in a totally neutral way – that a tool, however good it may be technically and whichever experts it has been set up by, always only reflects the opinion of the consultant or the customer. The information available in the context of the descriptions of a licence is not sufficient to gain a 100 per

cent accurate picture in order to reflect the interpretation by SAP with exact probability. You can at best approximate this interpretation, ultimately it is the professionalism and skill of the licence expert that defines how close this approximation will be. What's more, there are a lot of tools that are unable to cope with the mess within complex customer environments.

An example?

Ascherl: Typical examples are where no consideration is given to the fact that, where several price lists have been set up in these tools, a licence type's use rights potentially not required are regarded as if they were included in another licence type that is of a "higher value" according to the tool logic. This has not been the case for a long time, however, and so the results between tool and SAP measurement can also easily drift apart. The most recent example that I have been confronted with was a tool that classified all types of professional users as a single "professional user". Even CRM and ERP professional users were all classified in this one category, and a significantly lower licence requirement resulted according to the customer construct in comparison with the SAP measurement. So I can only recommend, based on my experience in identifying deviations, to look first for the reason in the tool's mode of operation, and less in the measurement by SAP. I recommend keeping a distance from licence assignment mechanisms and (re) allocation methods preconfigured and offered in an untrustworthy way by vendors. Regardless of how well the standard of these may have been developed, they generally do not match the established contract and licence models of each end customer.

Thank you for talking to us

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