

SAP Users: Time to Evaluate your SAP Investment

White Paper - Version 1.0

May 2005

Helmuth Gümbel - Managing Partner

Strategy Partners International

Chasa Ursa Major

CH-7550 Scuol

helmuth.guembel@strategypartners.com

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Why you need to read this

This paper is intended to supply CIOs with the information needed to critically assess their future investments in SAP software.

SAP has been immensely successful with its enterprise application software. However, SAP needs to reinvent its business and address its two most critical issues: *free customers from their current cost and complexity and deliver a new architecture to carry them into the future.*

Over more than twenty years, SAP has added many advanced components, yet the original application paradigm has not had the major architectural overhaul required. The result is a suite that is more complex and far more expensive to operate than competing products with more recent architectures. SAP is restructuring its product set around a new service oriented architecture based on NetWeaver. This shift has far reaching consequences on SAP's products and is likely to cost between three and six times the current R/3 license cost installations. As with the transition to mySAP, it is likely that SAP will charge for upgrading current license.

Leveraging its dominant market position, SAP is pressuring to its customer base to migrate. SAP users now have to make a choice between two main alternatives:

- Option 1: Stay with SAP and follow through a series of expensive migrations that may, as SAP CEO Henning Kagermann put it, take until 2009.
- Option 2: Stabilize SAP investments, diversify the enterprise application portfolio, and leverage the potential of best-of-breed integration or look alternatively into moving to another vendor's suite.

Enterprise applications have far reaching impacts on IT-budgets and corporate performance. It is time to reevaluate your enterprise application strategy and evaluate whether continuing on the SAP path is the best option for your company.

Time to reevaluate your Enterprise Application Strategy – Why Now?

“People have given millions to SAP as a present because they never used the licenses. You should not introduce SAP because everybody does it,” says Meinhard Holle, ex-CIO of German retail chain Tengelmann¹,

Why is it important to reevaluate your corporate ERP strategy *now*, rather than just continuing to implement and following the vendor’s advice to migrate to newer versions and buy more and more products? Let me highlight some critical aspects that should motivate you to analyze your situation in more detail:

Legacy Architecture - SAP’s product suite has its roots in the 1980s. R/3, the immensely successful core of SAP’s offerings, was mainly a port of R/2 (the preceding mainframe product) to client/server and graphical user interface technology. Later additions, such as CRM and the Business Warehouse, were built around this core, stretching the architectural limits. Internet and collaborative functionality are bolt-ons that were totally outside the scope of the original architectural blueprint. As a result, the architecture of today’s mySAP product suite is due for a makeover, and we see a corresponding new emphasis from SAP on NetWeaver. (*See section – Why doesn’t SAP’s installed base move?*)

Inability to Respond to Changes in the Business Environment – In the last twenty years companies seeking to enforce standardization and rigid enforcement of policies and procedures implemented SAP as a tool for enforcement. Companies are now restructuring processes and are in search of agility rather than rigidity. For example, focusing on core competencies and cutting cost, companies are outsourcing many of their business functions. Today’s pace of change exceeds the wildest imaginations of the original architects of SAP. However, with requirements for rapid transformation, many users feel more restricted by SAP, rather than empowered. Emerging technologies such as RFID, location based

¹ Quoted in CIO magazine Germany, September 2002, page 29.

services, and high-speed wireless services will call for even higher flexibility and business agility.

Functional Expansion Increases Complexity - When a number of specialized vendors entered the market for corporate software with functionality outside of the classical ERP-footprint, SAP followed suit. Beginning in 1997, a constant stream of new software components was introduced to the market. These components were bolted on the R/3 architecture due to their significantly different architectures. Today, the mySAP Business Suite cannot operate on one single system as R/3 could. It is rather a family of systems where each member is different. Many functions exist in several variants. Release cycles are not synchronized and it has become increasingly difficult to manage this complexity. Industry solutions add to this diverse landscape as they are often lagging behind the most current versions and are subject to configuration restrictions.

Desupport Means a Forced March - Despite market maturity; SAP is facing increased pressure to continue its license revenue growth. At the same time, SAP customers are in the difficult position of trying to cost justify the migration effort on software that they may not have finished installing yet. Nonetheless, SAP has announced the termination of support for R/3. By March 2009, the last R/3 version will be out of standard maintenance. Customers are forced to migrate to the mySAP Business Suite or mySAP ERP, which in their core, are still R/3 plus some new components.

The Price of Migration - While the customer gets a credit for his R/3 license based on the volume of the new purchase, more often than not there is no immediate business value associated with the move. To compound this, SAP has started to charge customers for accessing SAP software from other programs. A customer using Siebel CRM in conjunction with SAP would have to pay twice for each Siebel user, as each CRM user is counted as an SAP user too, if the SAP backbone is accessed directly.

Many SAP customers are in a bizarre situation where because of the imminent support termination for R/3 and creative pricing on the side of SAP, they have negotiated a “cheap” upgrade to mySAP. However, they still run older R/3

versions in many sites – often (i.e. 26% of the installed base) with costly maintenance extensions. While the majority of SAP’s licenses appear to be on mySAP, the vast majority of the installations (i.e. 98%) are not. This is likely to slow SAP’s pace into the future – both a boon and a problem. A slower pace means that it is safer for the customer to stay behind, but it also means that he will not fuel the development of the next generation products.

Increased Cost of Ownership - The current set of products is complex and expensive to run, extend, and upgrade. Newer technology, such as the Internet, portals, and Web services are not native to the product set but rather late add-ons. The result is inflation in the cost of ownership. Under the moniker “Vienna”, SAP has started a project to renew the whole mySAP-suite over time. It is a very large and risky project - expensive for both SAP and the users. The current plan calls for a piece-by-piece, multi-year, staged renovation in order to lessen migration issues. Over a period of five or more years, customers will have to take one step a year entering a series of multiple upgrades. As in road construction, detours will cause slow-downs and the sum of all migration costs could well exceed the efforts of a vendor change.

Evaluate All Alternatives and Seek 3rd Party Advice - Each SAP customer faces a different situation and should develop an alternative scenario that does not automatically implement SAP’s advice any more. Increasingly, CIO’s may have to defend their situation and their plans – similar to those that once religiously followed IBM. Some recent implementation disasters are clear indications in this direction. Only last year, Hewlett Packard admitted shortly before CEO Carla Fiorina resigned that its Q3 earnings fell short, because migration to a new SAP-based order processing and supply chain system was more disruptive than planned. It cost the company \$400 million in revenue and \$275 million in profit. Three HP executives were fired.² In another case, more directly related to SAP’s NetWeaver, Coca-Cola Enterprises found out that kneading together SAP

² See Computerworld, August 12, 2004

applications, custom code and other programs into wireless services running over the Internet is no piece of cake. The relative immaturity of some of the key components can create unpleasant surprises: Coca-Cola Enterprises is likely to experience time and budget over runs and, much worse, may well face competitive disadvantages. When it comes to complex scenarios, critical NetWeaver components such as Master Data Management quickly reveal their relative immaturity, as they have not been used widely in heterogeneous environments³. It is less advisable than ever to blindly follow a vendor's propaganda.

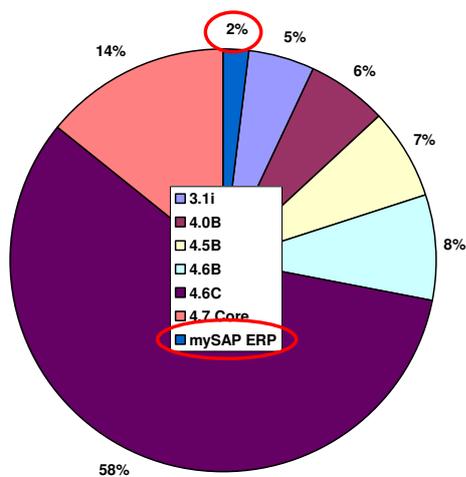
The following analysis is intended to supply the details to better understand the situation and to provide justification for an alternate strategy.

³ See Baseline, January 14, 2005

Don't Believe the Claims

SAP would have you believe that customers are migrating to mySAP in record numbers. However, the demographics of the installed base show a very different picture.

SAP Versions Installed 5/2005



Source: Strategy Partners International

Figure 1 The majority is still on R/3 (Source: SPI)

Given the statistics SAP released in conjunction with the quarterly reports, there is quite a discrepancy. How can a package like mySAP be so successful and at the same time there is hardly any evidence of users running it in production?

We estimate that at this writing no more than 40% of SAP's customers are on a mySAP-license.⁴⁵⁶ In most cases, mySAP is only used very selectively and only very few ERP-installations were really migrated, some of these even only partly. As a matter of fact, a large number of important SAP-customers such as Henkel, Siemens, DaimlerChrysler, and BASF even now are still running older SAP-versions in many of their installations. In some cases, these versions are not even under current standard maintenance. Notwithstanding this situation, all these companies are owners of mySAP enterprise licenses. For the most part, this meant that these shops had upgraded their license contracts, but not their installations.

Why doesn't SAP's installed base move?

SAP's customers have learned over time that there are many hidden costs to operating their software. Some of these costs became less of an issue as they went through the learning curve and as the recession created a surplus of cheap and skilled SAP-trained experts. Other costs are only now becoming painfully apparent.

Proliferation of Functionality based on Disparate Architectures

Most of these costs are rooted in a product policy that aimed to extend the functional footprint in the past years while neglecting the technological groundwork. The result is a product architecture that is very difficult to manage.

When extending the core ERP-functions with CRM, Supply Chain Management, Business Intelligence, mobile solutions, portal and collaborative functions, SAP gave up their once rather homogeneous blueprint.

⁴ In recent research, JPMorgan Analyst John Segrich estimates that SAP customers have invested into mySAP just about as much (€10 billion) since 2000 as they had into R/3. These numbers, however, are based on SAP's revenue breakout mechanism that uses a projection of customer intentions rather than precise statistics.

⁵ In May 2003, SAP's own magazine SAPinfo wrote about the market demographics in Germany, the country with the highest SAP-installation density, the best SAP infrastructure and the lowest competition for SAP: „A survey conducted in 2003 among 4600 SAP customers by RAAD revealed that 99% of them use R/3, 16% use mySAP Business suite – OFTEN BASED ON R/3 and 4% run R/2. Frequently customers operate both R/3 and mySAP Business Suite.

⁶ In February 2005, the German SAP user organization DSAG conducted a survey among 360 of its members. 57,5% said that their “leading system” was on R/3 4.6C and 39% said that they used R/3 Enterprise as their “leading system”

The unfortunate result is a dramatic increase in overlapping data models, differences in user interfaces, and application administration that is overly complex. Each functional component had its own release cycle. Industry solutions were not reliably synchronized. , The requirements for numerous separate systems went up, as ERP, CRM, SCM, and the Business Warehouse could not share a single database. Each of these systems requires, per SAP's recommendations, an additional test and integration environment.

Integration Required within SAP Systems

As more and more third party components were added into SAP's offerings, application integration *within* SAP's product set became more of an issue. While it is true that many shops integrate other applications into R/3 or mySAP, this integration is, in many cases achieved through the exchange of batch files. To support real-time integration in both synchronous and asynchronous mode, SAP introduced XI. The XI-integration modules originally used in the marketplace products (based on Commerce One) and integration components (based on WebMethods technology) fulfilled the need for process and system integration. SAP then purchased TopTier to offer Enterprise Portal, which addressed their user interface inconsistencies.

SAP was successful in positioning these as positive contributions to lower integration costs. However, introducing more software into an already diverse product set introduced even more complexity affecting cost of ownership adversely.

Enterprise Service Architecture

SAP started to recognize this problem as early as 2002. In his presentation at Sapphire 2002 in Lisbon, SAP's board member Shai Agassi foresaw a technology sea change. And in his presentation at Sapphire 2004 in New Orleans, he went into some more detail as to why he saw this need for a change.

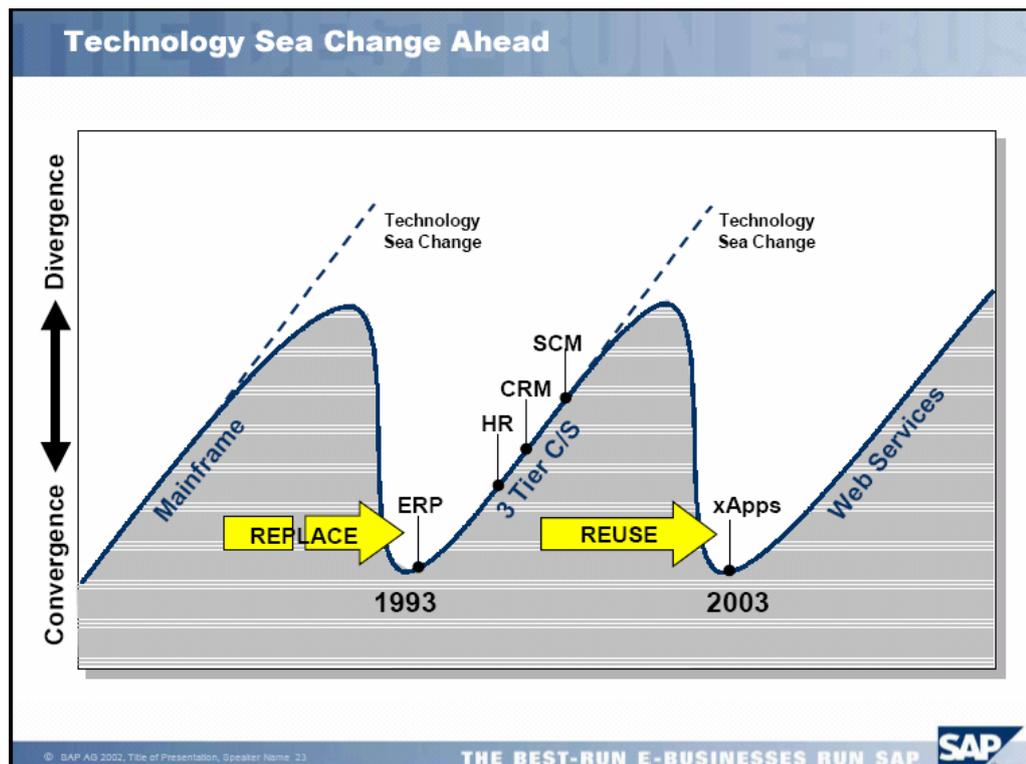


Figure 2 SAP forecasts its own technology shift (Source: SAP AG, Shai Agassi at Sapphire 2004)

SAP had recognized that IT-budgets had come under significant pressure. Increasing operating costs, mirroring the rising complexity left little room for innovation. Even worse, the percentage of the budget available for innovation was declining – terrible news for a software vendor. In the short run, there are no indications showing a major improvement in this outlook

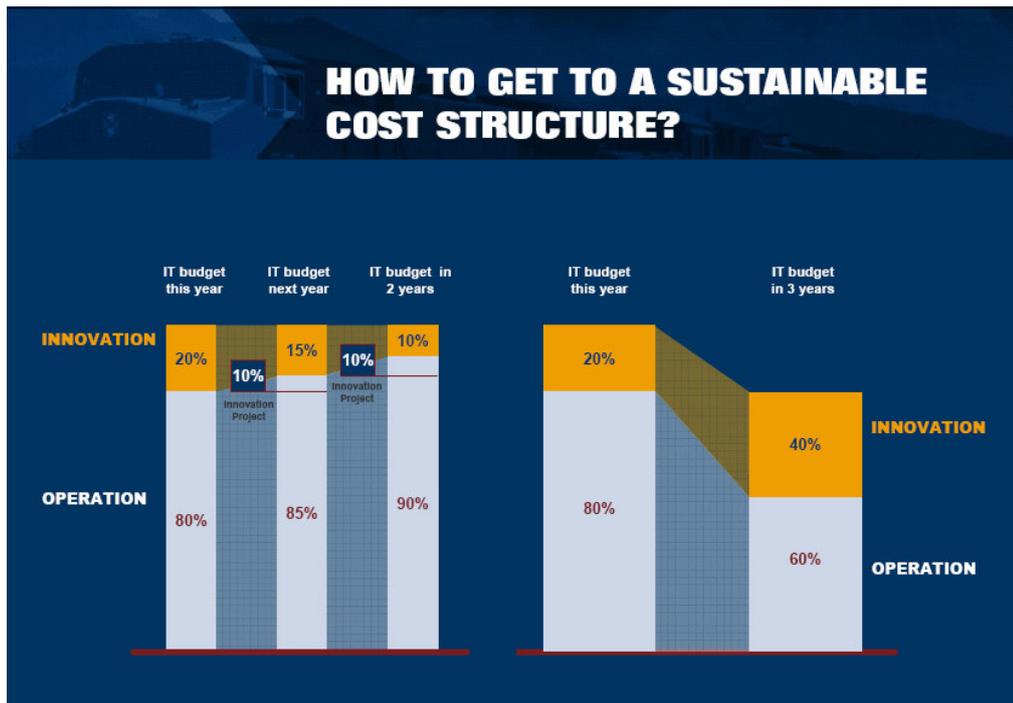


Figure 3 SAP did a survey among its customers: cost of operation eats up budget for innovation (Source: SAP, Shai Agassi at Sapphire 2004)

The promise that SAP makes now is that if you keep on buying from SAP, you can regain control over your budget and be able to innovate again.

In all fairness, it is clear that SAP has taken positive steps to attack the mushrooming complexity of their solution. It is also clear that the result of such an endeavor cannot be seamlessly compatible with today's products for the following reasons:

- The core of most SAP-products is pre-Internet and predates hence Web Services, an acknowledged key technology for future applications. A new generation product needs to be built for optimal and native Web Service support down to the core.
- Most of the code contained in the current ERP-core was written before collaborative business appeared on the agenda. Collaborations require a very different view on applications. Many of the objects that once were

thought private to an enterprise will be shared in the future necessitating a very different method of data and process management.

- Providing a high level of compatibility with today's products hinders innovation, and increases the risk of reproducing the flaws of today's products.

SAP has established the following design criteria for its future set of applications to be produced under the code the Enterprise Services Architecture Vision

- Consistent set of core applications
- Consistent set of user interfaces realized either as WebDynpros or via portal technology
- Easy installation, fewer servers, simple administration
- Intuitive user interfaces
- No redundant functionality, orthogonal data models
- Process-oriented application configuration
- IT follows business
- Reduction of costs of ownership by a factor of five

Note that each of the requirements highlights a problem that SAP is concerned about correcting.

ESA is a service-oriented architecture based on NetWeaver. It uses the Web Application Server, the Enterprise Portal, and the XI integration infrastructure. Using this base, a set of over thirty basic applications will be constructed. These applications offer functionality like general ledger, bill-of-materials, and sales order processing. The prime goal is to eliminate any functional overlap.

Any higher functionality then is constructed with xApps. xApps integrate various application building blocks to one functional application. This entity behaves like a single application yet it does not own the data, which is left to the management of the underlying building blocks. This technology was initially designed to

leverage legacy and third party software. SAP wants to use it now to blend in its own legacy applications and additional software sourced externally.

ESA will employ process orientation on various levels. Implementation, monitoring and dispatching of software modules is performed on the process level. The associated technology is sourced from IDS Scheer AG. This process centric orientation is aimed at helping to keep users from constructing implementation dependent interfaces.

SAP wants to involve customers more directly in the ESA and Business Process Platform project. A series of customer advisory boards will validate the core function building blocks on a prototype level. Once the prototype is accepted, it will be handed over to the standard development team that is involved in the development of the current product. This team will upgrade the reduced function prototype to be on par with the current product.

The original organizational approach by SAP was to involve almost 800 developers that were fulfilling dual roles: on one hand they were working on the next-generation ESA and Business Process Platform, on the other hand they were involved in work on the current product set fixing bugs and fighting fires. Soon it became clear that while this was a good way to keep developers realistic, it also was very difficult to achieve predictable progress as daily chores always were given higher priority.

The most recent reorganization in SAP's development departments changed that. Shai Agassi now oversees all product related development while Peter Zencke is looking after the Business Process Platform. In reality, this does not resolve the key issues of how to reconcile the introduction of new technology with the requirement for compatibility. Neither does it automatically effect the correct allocation of resources. However, it adds a cultural component: responsibility for product related (and hence revenue generating) development now is located in Palo Alto. As repeatedly experienced in the past, when responsibility was frequently relocated over the Atlantic, friction can be expected to increase resulting in poorer product quality, lower consistency and delayed releases. The first signs are already visible: SAP has just moved the 2006 edition to 2007.

How is SAP going to do this?

The current situation is an unpleasant one for both SAP and the SAP users. If SAP admits openly that it is revamping its entire set of products, the vast majority of SAP's customers will stay put and wait for the outcome of what is likely to be the largest application rewrite in history. SAP has to do something to prevent its customers from being caught between the maelstroms of complexity and the rocks of unbearable Cost of Ownership. Waiting customers, no matter how patient they are, are not good for license revenue. This route is not a valid alternative for SAP.

If SAP denies the existence of the makeover project, then it will appear as a vendor missing the boat. Customers will stop buying and there will be fewer and fewer prospects for new deals. Not an attractive perspective either.

Hence, SAP aims to pursue the goal of a new product by evolution rather than revolution. Evolution uses a step-by-step approach rather than leapfrogging to the desired result. Actually, any result in this context must be understood as an interim result.

An evolutionary rewrite of a product like SAP's mySAP Business Suite will likely use a series of short-lived interim steps, which SAP calls "Editions". All of these editions will have two things in common – at least, until the Promised Land is reached:

- None of these will carry a zero migration cost, no matter how clever the approach is.
- All of these Editions will carry the burden of the past. This ballast may decrease over time, but it is there. Ballast is costly and reduces agility.

For new installations, this means that they have to pay for a past that was not theirs and that they have to wait for the future they thought they bought into.

The migration steps work like stairs: they make climbing easier, but they add distance. This distance costs time and money. New installations want and need the best technology available *now*.

The owners of existing installations may like this approach at first glance. Upon closer examination, this is not optimum for two reasons:

- The evolutionary steps may not run smoothly
- The sum of the steps required may cost more than one giant step.

The Risks

SAP is coming up with an interesting number of “firsts” in the industry to make this transition happen.

- *Dividing a product into a stable core and a set of extensions.* IBM has used this approach also with their mainframe program products in the 80s. It proved unsuccessful in that it was not possible to keep the core free of adaptations. The approach was given up and nobody has succeeded in larger products with it since.
- *Synchronizing the availability and assuring compatibility across a large and rich set of products.* Such synchronization, while very recommendable, requires both a set of vigorously enforced software production procedures and interfaces, which are adhered to uncompromisingly. It is very difficult to achieve this after the fact. At any rate, it is very unlikely that it will be achieved in the next 24 months.
- *Customer advisory board driven design.* SAP wants to work very closely with a customer advisory board and create a set of prototypes and refine them until the board approves them. After approval, the prototype is given to the developers of the main product set in order to get all of the improvements into the mainstream products. While it is certainly very commendable to involve important and critical customers early in product development, this production method has its own set of perils. No matter how good the prototype is it will be limited in functionality. Retrofitting all the frills and extensions from the standard product is likely to undo the advantages of the prototype to a large extent.
- *No dedicated development team.* Rather than allocating a dedicated team, as SAP had done when creating R/3, SAP is using a number of committees for direction and is relying on part time assignments for execution. While this approach ensures good communication with the groups responsible for the current product it is also likely to be a source of

compromises and missed dates. Daily work, often dictated by high-priority maintenance cases usually gets the upper hand.

- *xApps technology*. Except for a set of basic functions, the new product will rely extensively on the xApps-technology, the technology that builds new applications from existing ones. xApps are not widely used so far and the support and maintenance issues of a product approach that basically laminates all kind of software from diverse sources into one are largely unsolved as each customer is likely to have very different implementations.

With ESA, SAP is betting the company in a grander scale than Microsoft is with Longhorn. SAP wants to be through with the restructuring by 2006. With about a year to go, this borders on the impossible. It is much more likely that we will see results in 2008 or 2009.

As it is a long-term program with much iteration, large and dispersed development facilities, it is also exposed to two additional sources of risks:

- **Management change within SAP.** Henning Kagermann's contract runs out in 2007. Using today's insight, the most likely successor will be Leo Apotheker, a person with a firm focus on sales. As customary with larger companies, additional management changes are likely to occur as exemplified in March 2005, when all product development was concentrated under Shai Agassi. Only new technology related projects are now controlled out of Walldorf. This points to the dawning of a rather important change: for the first time, the most important players in SAP's management team do not have Walldorf as their mental center of gravity.
- **Technology changes.** As ESA is likely to last until 2008 or later, chances are that a new wave of technology will occur during the duration of the project. There are indications for this: Microsoft is trying to change base technology with Longhorn and, quite likely, rivaling platform vendors will follow suit. Also, some of the newer technologies already visible will enter their second generation – such as RFID and Web services. Lessons learned

until that time will have to be incorporated – it is a race against a moving target.

The admission that there have been talks between Microsoft and SAP about a possible takeover may be also read as SAP being aware of these risks. The talks mirror a situation before SAP rolled out R/3 after many painful delays: then SAP's founders (and owners) contemplated selling the company, too. Now, with the key shareholders being much older, it might have looked like the safer option to them. Klaus Tschira, one of them, quite recently sold €600 million worth of SAP stock held by his foundation to finance some none-disclosed “research project”. It was only the second major transaction of this type by him in a year.

Is NetWeaver the silver bullet?

First and foremost, NetWeaver is a fix for a problem SAP created for itself. When the New Dimension products were developed, SAP tried very hard to base them on the R/3 architecture. After a series of unsuccessful attempts (in particular with CRM), this route was abandoned. The result was a proliferation of architectures and applications that did not integrate. Not a good position for an integrated application vendor to be in.

Legacy Technology - NetWeaver also contains the SAP Web Application Server (WAS) that supports both ABAP and Java. The extension of the old ABAP-only application server was necessary to leverage the trend to the Java programming environment and to form the base for of the new Service Oriented Architecture. WAS contains a large number of features special to SAP's requirements and imposes its own requirements on process, data, infrastructure, and workflow standards. Moving Java code written for other software stacks into the WAS environment is therefore not automatic. At this writing, it is not clear if and when independent software vendors will write non-SAP related applications running natively on the WAS. This will be a prerequisite for general acceptance.

Integration Dilemma - What is now called NetWeaver, is actually a combination of very diverse products that integrate and manage data, processes and user interfaces and provide a whole application environment.

SAP, of course, could not sell NetWeaver as a fix for a self-created problem. As almost all SAP installations have integration issues of some sort, SAP positioned NetWeaver primarily as a vehicle for SAP to non-SAP integration, promising significant cost savings. The application server part of NetWeaver is of more mid-term interest for most SAP users.

This positioning may work well with installations strongly focused on SAP. The majority of the larger companies, however, had already attacked the integration problem with software from middleware specialists like IBM, BEA and EAI vendors. In addition, ubiquitous Microsoft is active in this space.

Having no integration is bad; having multiple overlapping integration architectures may be worse, as complexity and cost increase.

Immaturity of NetWeaver Components - While some of the pieces of the NetWeaver stack are based on existing technologies such as ABAP, many other pieces are brand new and unproven. For example, Master Data Management that is used to harmonize disparate master data is new. It was designed to solve SAP's own multiple data models but was branded as a solution for general master data management. But SAP already had a failed start. It decided to jettison its own development and replace it with the acquisition of A2i. Other unproven components include Composition Application Framework (CAF) and process orchestration. We also believe that the current WAS technology offers only limited scalability in clustered environments and has difficulties with memory management. SAP has to compromise its J2EE strategy in order to accommodate the needs of the ABAP-written legacy applications. This creates conflicts in the areas of stability, performance, and Java-compatibility.

Lack of Middleware Experience - Integration middleware and application servers have a different lifecycle than the enterprise applications. It may still be in use to connect some legacy applications long after the user has stopped running SAP, and user-written applications executing on the WAS may outlive packaged applications supplied by SAP. It is entirely unproven how committed SAP is to supporting such scenarios.

Users have also growing concerns about sourcing too much software from a single, dominant vendor. NetWeaver is aimed at increasing SAP's presence in the enterprise putting the application vendor into a controlling position. "It is a battle about controlling the enterprise. The vendor the central application backbone controls all other applications – that is what SAP wants," says Phil Carnelly from Ovum.⁷

SAP has developed NetWeaver with a strong priority in supporting its own product stack. Requirements that make other vendor's products look better by improving integration are not within SAP's interest.

NetWeaver is bundled with mySAP and cannot be replaced by other competing products. Customers implementing mySAP have no choice – they must use it. If they want additional portal software and integration hubs from other vendors, they can interface them with NetWeaver once all parts that are under development are available. This is expected to happen two to three years from now. Customers will need new, additional skills to master NetWeaver. SAP's route to lower costs is paved with sizeable investments.

In short, NetWeaver is probably the best solution for a shop that buys only from SAP and intends to develop applications that are tightly tied to SAP. Lock-in could only be avoided if NetWeaver were a standards based product that could be easily replaced by other commonly available alternatives. SAP does not seem to be headed in this direction.

⁷ As quoted in *Wirtschaftswoche*, June 3, 2004, issue 24, page 40

Weighing the Alternatives

One of the key issues facing SAP users is the cost of migration. Users have difficulties migrating today without the hefty changes to be expected from ESA. Justifying yearly migrations as indicated by SAP’s strategy (see Figure 5) can be a tough exercise.

Although the costs will vary significantly from installation to installation, previous migration experience may be used to estimate the burden.

We have summarized a number of migrations to 4.7 (see Figure 4) and, using this data, assumed that this cost will repeat on a yearly basis over five years when migrating from one mySAP Edition to the next. Most of the cost will be associated with reports and customer written transactions. We assumed the technical migration itself to be relatively inexpensive. We have also put these accumulated migration costs in relation with the cost of the R/3 license the customers originally bought. Part of the

Cost of yearly upgrades after migration to mySAP

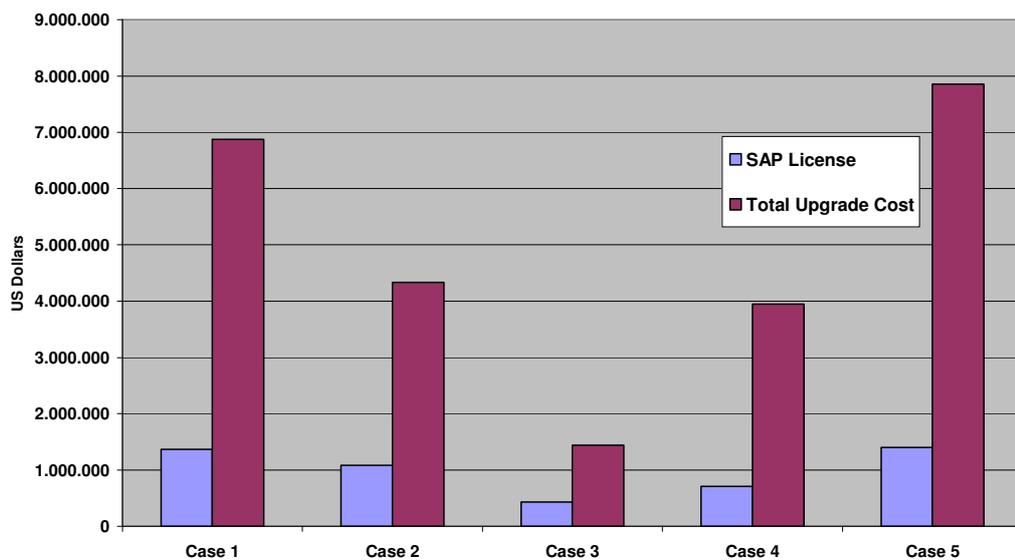


Figure 4 Five migration cases (Source: SPI)

migration costs is the purchase of a license upgrade from R/3 to mySAP – assumed here very conservatively at 40% of the original license cost.

While this is only a rough estimate, we can see that the cost is significant. It is between 3 and 6 times the original R/3 license in the cases analyzed. Any cost caused by business changes and organizational shifts is not included – it is just the money required to stay abreast with SAP’s moving technology. In addition, the software that forms the base for R/3 or complements it functionally may have to be upgraded, too. These costs, although quite likely, have not been included either.

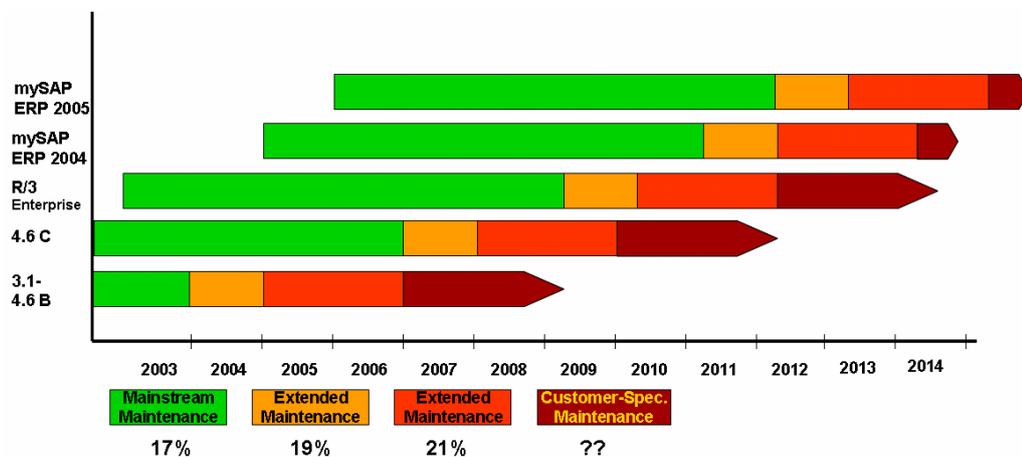


Figure 5 SAP release and maintenance schedule (Source: SAP, SPI)

Users have a number of options available to them:

- **Do what SAP recommends.** Everybody, who has not upgraded to mySAP, should do so as soon as possible. Installations should move technically to the most recent level – in this case to mySAP Edition 2004 which became generally available in January 2004 (see Figure 5). The upgrade everything you have installed once a year. SAP will, depending on the volume of the add-on purchase; give a credit of up to 75% of the previous license cost. R/3 licenses will have to be upgraded against extra payment when moving to mySAP products and, very likely, again, when moving to Vienna-based products. SAP has declared that no credit will be given for direct R/3 to Vienna migrations.

- **Stabilize SAP investments.** Move selectively where a positive return on investment can be had within 18 months. Use SAP products in these cases. Stabilizing involves moving to a version that will be under SAP standard maintenance until at least 2006 (see Figure 5). This is true for Version 4.6 C. After end of 2006, maintenance offered by SAP will go up to 19% (extended maintenance I) and, if that is not enough, customers can extend maintenance further by another 2 years paying 21%. Alternatively, migrate to 4.7 (R/3 Enterprise). Per SAP's schedule, standard maintenance available on this release until early 2009. As described before, migration may be more difficult. Therefore, it might be appropriate to migrate now to 4.6 C and, if necessary, go to R/3 Enterprise in 2006. Both products come for free under SAP standard maintenance. The catch in both cases is that SAP is not likely to guarantee that later components out of the mySAP portfolio (such as CRM) will easily integrate with 4.6 C. SAP tries to leverage the newer products to entice customers to migrate to a mySAP edition. This strategy, however, would allow you to wait and to see what SAP comes up with and find out if further migration is beneficial.
- **Stabilize investments and complement functionality with non-SAP-products or migrate to an alternative suite and technology stack.** This strategy is certainly interesting for all shops that have not moved to a mySAP license yet. Integration with non-SAP-products such as Oracle CRM is getting better and it uses in many cases components sourced from WebMethods –the same way, as SAP's NetWeaver would do it⁸. Different from SAP, third party vendors have no political interest in withholding integration with older SAP products. Au contraire, they will be most eager to embark on this situation. Shops that have upgraded their license, but not implemented mySAP already, should reevaluate their situation. In many cases, they spent very little extra money to upgrade the license, but will

⁸ While SAP meanwhile uses its own integration technology modelled after WebMethods, adapters to connect non-SAP software are still sourced from WebMethods

need to spend significantly more to migrate their installations. Although they have access now per their license agreement to SAP's mySAP Business Suite, it may be expensive to utilize it. The technical migration may be costly and a number of license conditions found in newer SAP contracts may create extra costs. Such conditions include (but are not limited to) the clause asking for a minimum of 25% of the enterprise employees to be registered SAP-users (regardless of the real requirements), the limitation of (inexpensive) non-professional users to 15% of the total users and the requirement to pay license fees for all so-called "technical" users (i.e. access to SAP-software from third party software such as non-SAP portals or CRM-products). And, of course, where license fees are being paid maintenance is due, too

- **Stabilize existing functions, encapsulate them and move to an independent Web Service architecture.** This approach would allow users to fully leverage the potential of the architectural shift *without* being locked-in into specific vendor architecture.

In any case, it is important for each installation to create an application blueprint that maps out the next five years.

Bottom Line

In summary, it is essential for SAP-customers to re-valuate their situation because

- The base of their software has been created with an older paradigm in mind
- The technical foundation of the software needs a very solid overhaul (other vendors, like Oracle, have invested years ago into such a comprehensive makeover)
- The outcome of an SAP only endeavor is less than certain
- The exceeding cost and the complexity of their installed SAP-software are preventing users from innovating. The changes SAP introduces with the

NetWeaver technology foundation to improve this situation will increase cost and complexity for at least the next three years.

- The pressure on customers to constantly buy new software and upgrade R/3-licenses is relentless while customer benefits often are obscure
- New license agreements that supersede the older R/3 contracts often contain unpleasant changes to the worse.
- NetWeaver will have a long lasting impact on the Enterprise application landscape. It requires investments in skills and other resources and increases the dependency on SAP substantially. Companies using integration hubs, portals, and application servers from other vendors will have to invest into integration with NetWeaver.
- The trend towards service oriented architectures gives customers the opportunity to implement independent multivendor application strategies. SAP seeks to preempt this trend by controlling application integration.
- SAP seeks to accomplish its giant rearchitecture task through a series of fast paced iterations that force continuous and expensive migrations on customers with uncertain business value.

SAP CEO Henning Kagermann estimates that it may well take until 2009 to convert more than 90% of the SAP customer base to mySAP Business Suite⁹. Rather than blindly following SAP's roadmap, customers should evaluate stabilization and independent best of breed integration scenarios.

⁹ Wirtschaftwoche, June 3 2004, issue 24, page 40ff.

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