

# 7 challenges

for SAP Integration  
managers find

SAP Teched 2016 Edition



# Introduction

I just got back from SAP TechEd Barcelona 2016. One thing that I discussed there was the rapid pace of innovation. Some people mentioned that Gartner used to have a 5-year innovation period for Enterprise software -- now it's just 18 months. So, it's new game, and integration is key to supporting this rapid innovation, and the reason I've written this report.

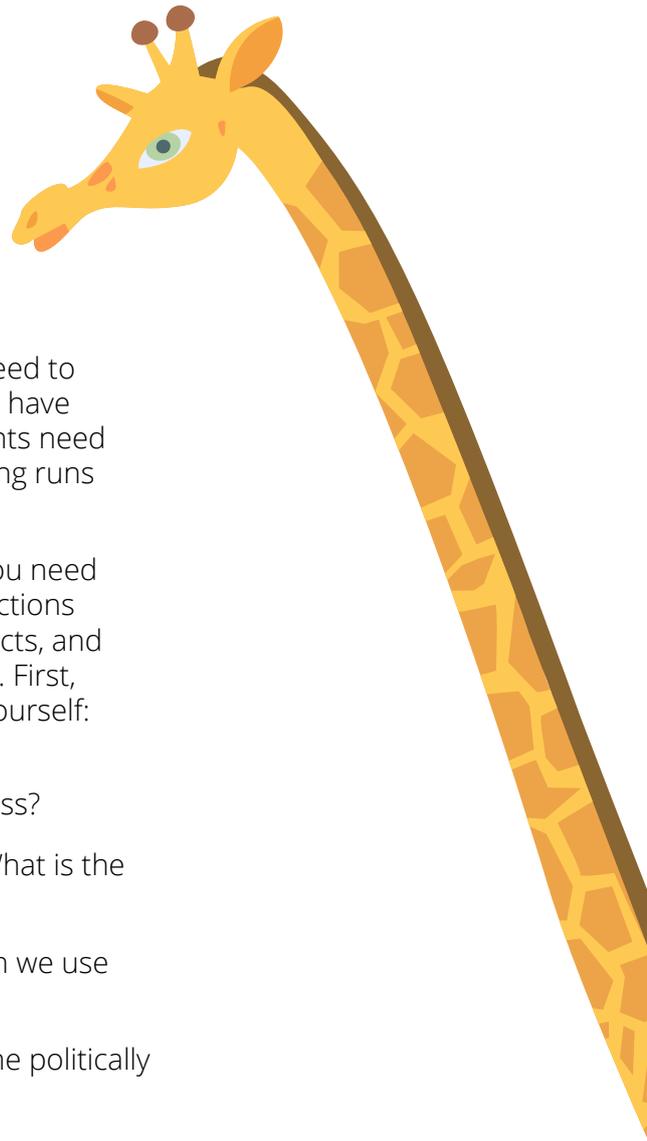
The content is based on my discussions with a CIO, managers, consultants, SAP employees, and own experiences with client companies.

I hope the document will be useful; its aim is to shed light on some of the challenges that may face your organization. You will probably recognize most, but there may be one or two that will change how you see those challenges, enabling you to learn more about what you could do differently.

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# Controlling Multiple Projects



As an SAP Integration Manager, you will discover that you need to be an expert in juggling multiple projects, as companies can have several projects in progress at the same time. All departments need something integrated; they also want to make sure everything runs properly, in order to achieve a favorable result.

While other departments can focus on one project alone, you need to focus on the bigger picture — you have to see the connections between the tasks involved in the completion of these projects, and you have to correctly assess the importance of each project. First, juggling projects involves prioritizing, and you need to ask yourself:

- Which are the most important projects for our business?
- When is the next meeting concerning each project? What is the deadline for each project?
- How much time is there left for each project? How can we use that time most effectively?
- And then there is the elephant in the room: What is the politically sound choice?

It is your job as a manager to prioritize the different projects. If you don't, your employees will be stressed, and they will prioritize according to the wishes of that project manager who makes the most noise. None of these things are good in any organization, so you need to place yourself at the helm of the projects.

If all projects are equally important to the business, then you will either need to allocate all the available funding you need to handle each integration project, or be smarter in the work process.



# Keeping Systems updated

To make sure the integration strategy is relevant; companies want to have more innovation happening internally. As Integration Managers you need to focus on agility, so you can adapt to the ideas of the business, and implement new functions. There is the approach of two-speed enterprises which allows organizations to have the stable core of an ERP system and then innovate around it.

Before we can innovate, we must be able to handle the existing integration that is in place. Whenever new things are created, or simply when changes are being implemented, technical debt is created. Technical debt is a term from the Scrum methodology. It is the cost for updating development that should be in line with current standards. For example, maybe you create a 1:1 message mapping to solve an issue, but then realize it should have been created with a Java mapping. Then the debt would be the cost of changing from the message mapping to the Java mapping. This includes the cost of development, testing, and transport to production.

There are also a lot of “new” technologies arising, such as a new B2B add-on that made the Seeburger BIC ‘deprecated’. Technical debt is created when making a change from Seeburger to the B2B add-on. This could happen in more areas — newer technology can make your current system deprecated. It will be a costly maneuver to migrate away from the options you already have, but in some cases, you will be able to find tools that can speed up the migration process.

In some industries, there are programs that have been running for 40 years like some mainframe programs. Still, nobody dares to change them because they don't know how those programs work. The development you make today may only last a few years before it is replaced by newer or smarter technology. So there needs to be a way to retire the existing functions and get the programs migrated to more stable platforms.

For SAP Integration tools, this means that you need to move to the single stack instead of the dual system. SAP has announced that there will be no more updates on the ABAP stack regarding integration; therefore, you will need to find a way to migrate away from it. The difficult part here is to find sponsorship; you need to know which business unit will pay for the migration, as going through such a migration process does not result in immediate compensation. The project can take up to a year, and will limit what changes the business can do during that period of time. They will later be able to perform different scenarios from the ones they currently have, but the transition period must be taken into consideration. There will probably never be a perfect time to perform the migration.

You will have to figure out where technical debt exists in your system. You need to prioritize and fix the debt. You can dedicate a budget of a few hours every month to fix the issues, and the more you get done, the easier it will be for you to change your business model.

# Working with the Best Possible People

People are the backbone of any business or IT organization. Their selection must be done carefully — as a manager, you want to oversee the recruitment process, and choose the best available candidates. It is also your duty to keep existing employees busy with the right projects. Some of them will have to undergo further training move forward within the company, be given more responsibilities, or given a promotion. It's always best to keep successful employees and prepare them for more difficult tasks.

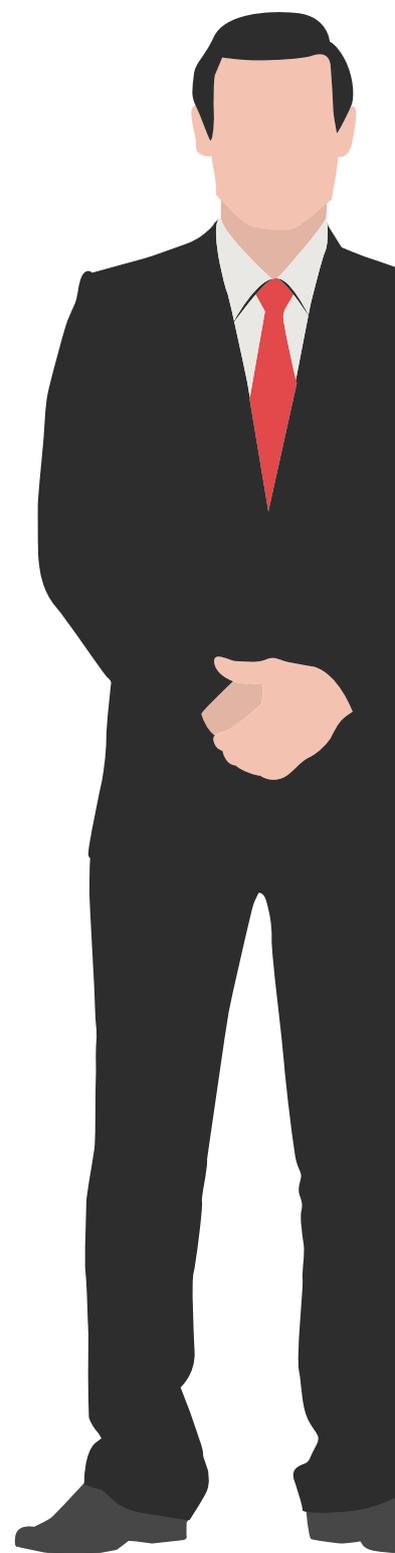
Obviously, it's important to have the best developers in your organization. There are superstars that can be more productive than five other people, so the more you are able to attract these people the better, and the more you can get done. You may have to pay more for a superstar, but if they perform 5 times better than others, your problems will be solved faster and at a lower cost in the long run.

If you cannot hire developers, you could always collaborate with external consultants. External consultants can bring fresh ideas, and look at your projects from an altogether different perspective. During my activity as an external consultant I have noticed that the projects I worked on were more diverse, since every client had different needs. Thus, I became more creative, and was able to offer innovative solutions to my clients. You can also opt for services provided by freelancers, but only if you are able to manage them yourself. If not, the consultancy team should handle the issue. Always make sure there is a senior developer on the team. If your only workers are trainees and junior developers, making everything work could be a bit difficult, simply because they might lack certain skills that are needed for the successful completion of the project at hand.

Once you have your team of employees, you must continually motivate them. Obviously, it is not your task to motivate external consultants or freelancers hired for short-term jobs, but regular employees need to receive motivation, constructive feedback, and praise for a job well done. A good way to motivate employees is by offering them a challenge. Most developers like to be confronted with new, exciting projects where they get to use the latest technology. If you can, avoid having them perform support tasks, because support is not the most fun thing to do.

Employees need to be kept productive. There are a lot of different methods and techniques for this. One of the key techniques is to limit interruptions, allowing individuals to focus on one task at a time. This way, they will be able to deliver the value you expect. Try to remove bottlenecks, make sure your employees have enough time to focus on their tasks, and be careful not to burden them with organizational issues.

As a manager, you need to figure out what qualities a superstar integration developer should possess in your organization; you'll also need to learn how to attract such workers. It is not always easy, and you need an efficient method for doing this.



If you are looking for SAP PI/PRO Training, take a look at <http://picourse.com> for a thorough course.



# Maintaining High Quality

If you want to run a successful business, your integration quality must be high. If you don't focus on the quality, it will be difficult to manage your integration solution.

I have spoken to some managers who got one or more mappings from a consulting partner that were really messy and difficult to support. It is difficult to challenge a business partner if you don't have the required skills to understand whether there is something wrong with what has been delivered to you.

I have been involved with projects that looked as if a junior developer was asked to perform the mappings without any guidance whatsoever from a senior developer. Because the customer did not complain in time, at first everything seemed perfect. They first saw the problems when going live, and then had to find a solution quickly.

If you want to avoid this situation, you will need to find a way around it. The best way is to get a third party to perform a QA on anything that is delivered. It is highly recommended that you have terms for this in your contract, i.e. a clause stating that before development can be accepted you need third-party approval for the deliverable.

Documentation also contributes to the overall quality of a project. If you do not have proper documentation, you may find yourself out of luck when a consultant or a developer decides to leave the company. Some of the key aspects of a project could go missing. You obviously don't want to spend too much time and effort on documentation only, but it is a necessity for a manager who wants everything to run efficiently.

A good tool for making sure the quality of the system is good is Figaf Integration Testing Tool which easily allows you to set up and run regression test cases. Read more at <http://figaf.com/irt>



Integration Regression Tool is a native SAP PI/PRO tool that allow you to setup regression test in minutes  
[figaf.com/irt](http://figaf.com/irt)

If you what to know who made which changes in PI/PRO then see  
[figaf.com/CTT](http://figaf.com/CTT)



# Supporting the system

Support is crucial in any organization. You cannot run a company successfully without it. The performance of your system should always be top-notch. Latency should be low, and undelivered messages should not be piling up.

A big problem is that integration workers only see their part of the issue, and don't see all the other things that are going on in the organization. For example, if an interface fails, it could mean that an electronic Purchase Order can't be delivered to a supplier. If the problem is not fixed in time, it could mean that the order is never processed, and the stock is not received. This could then mean that you won't be able to create the product that required the materials, and you would have to delay the shipment of your product. This would lead to customers feeling irritated and starting to do business with other partners. This process deficiency is not seen by the integration developer, and is one reason it makes sense to be more proactive about the errors that occur in the integration platform.

You must pay attention to business-critical components, and you have to know what the positive and the negative aspects of your system are. You have to be able to identify business-critical components. You have to know what interfaces are present, whether they are critical, and if so, why they are critical. It is also important to understand why one interface is more critical than the other. You have to figure out what types of alerts you are receiving on these business-critical interfaces, so you can stay informed at all times.

Feedback from the support team should also be analyzed, then communicated to the developers, so they understand what they are dealing with. After being confronted with the existing issues, they can come up with effective solutions.

I have seen many cases where people knew there was an interface that would be failing but nobody cared. This can make it even more difficult to keep up with what is happening and determining what we should react on. So you must find a way to get rid of the errors either by solving the error or stopping the interface.

You will need a tool for handling the support and making sure you can solve and get proactive notices regarding the errors that have occurred. If you find a good tool, it may even reduce the time you spend on support. The tools should be able to provide the following:

- Give you information about the context of what is happening
- Enable you to document what has happened, so that next time somebody sees the error, they can follow the same steps
- Cancel or restart messages automatically



A solution for this could be the Figaf Support Optimizer Tool:  
<http://figaf.com/SOT>

# Dealing With Multiple Integration Platforms

You need to find a strategy to deal with the multiple platforms that exist for integrations. Some platforms, such as SAP Process Orchestration or Process Integration can help in certain scenarios, while others, such as HANA Cloud Integration, are great for cloud integration. You may need an API management solution to deal with exposing your APIs. Some Data Service for handling ETL tools, or perhaps even a non-SAP product could be used, which may be useful in many cases.

To make things more complicated, some of the tools have overlapping capabilities, so oftentimes it becomes clear that you can do a task with two or more tools. One might be better at performing something, better at handling a specific integration pattern, but the others may fit more easily because of the tools you already have in the organization.

Previously, one of the largest factors for competition between systems was the adapter supported by the platform. With HCI there is a bigger focus on pre-delivered integration content. This means that your developers don't have to start from scratch. Instead, they can start with a solution that is 80%-90% complete, and then make the changes that your business requires. This leads to an increase in the productivity of your developers, and enables them to perform new integrations faster. So you will need to look into which platforms have the most pre-delivered integrations for your enterprise.

As a manager, you need to figure out which of the platforms is best suited for the company. The platform(s) should ideally be able to support most cases. If the business buys a new cloud software, then they get a new integration tool that the salespeople say will make the organization's life easier.

It requires skills to develop on, and to do support on any platform. The fewer platforms you have, the easier your job will be. You could probably do it by just using the SAP PI system, but other tools may speed up the integration. As a manager, you have to find the platforms that work best for your organization.

SAP has created the ISA-M methodology which is a framework for mapping out the different integration scenarios you have in your landscape and then matching that landscape with the tools you have available. This is a good exercise, because it allows you to see if you are able to support the business requirements with your existing platform. With this guideline, it will also be easier for your developers to get started with each project because they already have an idea about what good architecture will look like. It will probably be useful to have a trusted adviser to guide you through the process, but you will need to show your planned integrations.

Read more  
on ISA-M at

<http://figaf.com/isa-mlink>



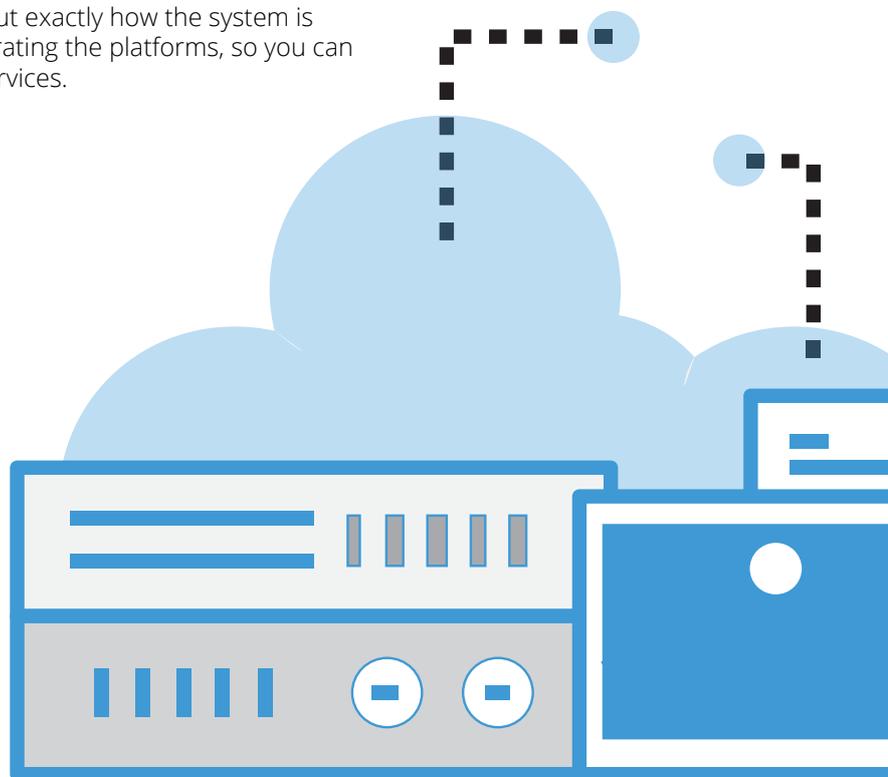
# Cloud

It may seem like a great idea when a business decides to purchase a cloud solution from a provider to help with a business requirement. They can easily implement the solution in their organization because they own it, and believe they know what they want. The problems start when they aren't sure what solution they really need, just like when they asked you for some tool, and it turned out to be something different from what they wanted. The bigger challenge comes when they expect the tool to be integrated with your SAP landscape. Most of the tools will not work in an enterprise environment without a good integration with the backend ERP systems.

The solution may have information on the package containing some SAP integration, but it may not be enough, or it may not work in your organization with your specific requirements. Many integration solutions cover 80%-95% of the integration, depending on how well the tool has been prepared.

Each cloud application has its own API and integration patterns. You will need to figure out which integration platforms can cover most of the cases with the least amount of effort. You will hopefully find this when using the ISA-M process.

Remember, your job as a manager is to figure out exactly how the system is functioning, and to help the business with integrating the platforms, so you can then assist with the integration of all the new services.





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