Chapter 22

Starting Your Journey to the Cloud

In This Chapter

▶ Anticipating cultural issues with the cloud

▶ Assessing risks

▶ Identifying low-hanging fruit

▶ Planning for leveraging the cloud

*T*he cloud model has lots of benefits, but there are also many issues — as there are with any new technology. In Chapter 4, we address how to develop a cloud strategy. Assuming you have decided to go with the cloud model, how do you get started? What factors do you need to consider as you begin?

In this chapter, we try to boil it down for you. We start off by examining how to deal with the inevitable cultural issues that arise when you ask people to do things differently. And, although we discuss the risks associated with the cloud throughout the book, we highlight some of the more important ones again because risk assessment needs to be part of getting started. Finally, we talk about some other issues that you may or may not have considered, such as planning your long-term cloud strategy.

Putting the Kibosh on Cloud Cultural Issues

Anytime something new comes along, it may take people time to accept it. This was probably the case when zippers were introduced, and it will certainly be the case with the cloud. The reality is that change usually causes people to react. Sometimes they react positively to change, and sometimes this isn't the case.

Anticipating (but not with relish)

REMEMBER

Because you don't know what might happen, it is important to anticipate issues and plan accordingly.

Generally, issues associated with introducing new technology to an organization fall into one of the following categories:

✔ **People just don't get it.** Remember the Rutherford B. Hayes famous quote about the telephone: "An amazing invention — but who would ever want to use one?" Why did he say this? At the time, people used telegraphs and it wasn't obvious to some why they'd want to actually hear another person's voice when communicating long distance. Similarly, in the cloud, people need to be educated about how the model works and what the benefits are.

✔ **People have legitimate concerns.** There are, of course, legitimate reasons for not wanting to adopt a certain technology. These reasons are usually about risk. In the cloud, people worry about security, manageability, and availability. These are risks that consumers should be aware of, and we talk more about them in the next section.

✔ **People feel threatened by new technology because they think it may affect their livelihood.** This does happen — for example, the telephone switch replaced the telephone operators who used to connect your telephone call. Your staff may be concerned about the impact that the cloud will have on their jobs. Even though they might not lose their jobs, they still want to understand what the impact will be to their current situation.

✔ **People agree in principle with a technology, but it still might take some getting used to.** Remember when the ATM was introduced? People liked the convenience of being able to get money whenever they wanted, but were used to writing checks and cashing them at the bank. It took time to trust this new way of doing things.

Any or all of these reactions should be expected as you deploy cloud technology in your enterprise. Whether it's the technician who's concerned about putting virtual desktops in the cloud (and how the change will impact people staffing the IT help desk), or the database administrator who's concerned about the security around a cloud database, or the scientist who's thrilled at the prospect of being able to perform calculations in the cloud on demand — many people will be affected by the change, and you have to help smooth the transition.

Smoothing the transition

What can you do about it? Here are some ideas that will help smooth the transition to the cloud model.

Get executive support

The move to the cloud will be smoother if you have executive support. If one of these executives can be designated the champion, so much the better. This person will send the message from the top and people will be more likely to listen.

Understand the culture

If your culture is one that embraces innovation and change, that's great. However, if your company has been doing something one way for the last ten years, you need to understand that there will no doubt be some resistance. You need to plan your rollout accordingly.

Communicate the message

When you have executive support and understand the culture you're dealing with, communicate the cloud message to those who will be impacted. There are many ways to do this, depending on your culture:

- Department meetings
- Memos
- Podcasts
- Internal social networks

TIP

It's also a good idea to have a formal statement about the business case for cloud, in case you have to really convince your staff. Additionally, for those whose jobs will be significantly impacted, it is important to communicate the message directly. Never underestimate the human side of the equation.

REMEMBER

Educate the troops

Everyone in the organization who's involved with cloud computing needs to understand three things:

- Why the company is moving some operations to the cloud model
- What the benefits of the move will be for the organization
- How individual people will be impacted by the move to cloud computing

This is the case for the remote worker who may now have a thin client on his desk; this is the case for the data center operator who now must monitor off-site computers.

Get people involved

If people feel that they're part of the change, they aren't as likely to resist it. So, get people involved! Form transition committees and appoint people to lead the charge.

Train your staff

Even if you're just moving all your clinicians to a thin client virtualized cloud desktop, you may still need to do some training. Of course, the type of training will depend on the job function.

✔ If you're moving a lot of your workload to the cloud and your cloud provider has monitoring tools that you aren't used to, obviously your staff will have to be trained on this.

✔ If there are processes that change as a result of moving to the cloud model, there would be training involved in that, as well.

✔ If you move to a SaaS model for some of your applications and they are new, people will have to be trained on that, as well.

Measuring Twice: Assessing Risks

Throughout this book we cover some of the risks you may face when moving to the cloud. Some of the people and business culture issues discussed earlier in this chapter are considered as risk elements in the chapter on cloud strategy; see Chapter 4. The chapters on cloud delivery models (see Chapters 10 through 12) consider the business process risks of adopting each of these models. In Chapter 16 we discuss risks from a technology and compliance perspective, including risks associated with data protection, security, customer expectations, performance levels, and interoperability.

Playing risk with categories

You need to manage several categories of risk as you move to the cloud:

✔ People

✔ Process

✔ Technology resource

Ask yourself these questions:

- ✔ **What are the people and process risks associated with any new technology?** How does this move mesh with people's skills? For example, if you move your desktops to virtualized desktops in the cloud, your IT help desk might need some new skills. Or, if you move to a private cloud model, you may want to make sure that your team can manage the data center. Can the team be trained?

- ✔ **How might my processes change in the cloud?** How will that impact your organization? Chances are that you can effectively address any people or process issues, but you shouldn't forget about them.

- ✔ **What about the technology resources?** Every company (large and small) has its own tolerance level when it comes to risk. It may vary by application type. The more critical the application, the lower the tolerance. As you begin your journey into the cloud, consider each type of asset that is cloud bound and assess the risk associated with the move.

WARNING!

Assess the risk associated with a move to the cloud model. And know that this assessment isn't a one-time thing. Monitor what your cloud provider is up to; make sure that your risk remains at an acceptable level.

Top company concerns

This chapter is about getting started with the cloud. We have pulled together some of the top questions companies consider when moving to the cloud:

- ✔ **What are my security and privacy concerns?** These are two of the top concerns that companies cite about a move to the cloud. In Chapter 15, we talk a lot about security. We note that in most circumstances, cloud security needs to be approached from a risk-management perspective. If your organization has risk-management specialists, involve them in cloud security planning.

- ✔ **How available and reliable will my resources be?** When you ran the data center, availability and reliability were under your own company control. Your IT organization probably has negotiated certain service level agreements with the departments in your company based on the criticality of your applications. With a move to the cloud, you need to ask yourself what levels of availability you need and what risk you're willing to take if your service provider doesn't meet agreed-upon levels. There may be some applications where you're willing to take the risk and some where you are not. But you need to assess the risk. Remember too that you may not be compensated the way you think you should be if your provider's service goes down.

✔ **What about my data?** If you're thinking about moving applications and data to the cloud, you need to address a number of questions. These include, but aren't limited to, the following:

- Can my data be stored anywhere or does my company not allow data to cross country boundaries?

- What happens if the data is lost?

- Can I recover?

- Who owns my data?

In other words, you need to weigh the risks associated with putting certain applications that rely on certain types of data into the cloud. It may well be that you're comfortable with the risk, but you still need to look at it. Look back at Chapter 8 for more information about managing data in the cloud.

✔ **Is my vendor viable?** What happens if your service provider goes out of business? Will you be able to recover your assets? Who owns the intellectual property?

✔ **Will I be locked into one vendor?** Although there are some movements afoot to move to an open cloud model (see Chapter 14), the cloud isn't there yet. This means there are proprietary data formats and APIs out there. Assess what they are and whether it will be easy to move your assets from one provider to another.

✔ **Are there other compliance or regulatory issues I need to be aware of?** Make sure that your provider can adhere to any regulatory or compliance issues your company has in place. You also need to make sure that they're willing to change if something changes in your own industry. Assess the risk and the cost that might be associated with this.

WARNING! Much of this boils down to trust and doing your homework. Do you trust your vendor and have you put the right contracts in place to protect yourself? Have you done your homework? If you haven't, you need to do it. If you don't trust the vendor, you shouldn't be working with them.

Picking the Right Targets for Success

REMEMBER As we mention in Chapter 4, there's no one right path to leveraging cloud services within your business. It depends on the following:

✔ The state of your data center

✔ Your applications

✔ Your service portfolio

✔ Your changing business requirements

WARNING!

We also think that it goes without saying (but we'll say it anyway) that you probably don't want to move all your applications and resources to the cloud too quickly. And, as we point out through this book, certain areas may *never* be right for the cloud. If you move too quickly, you might end up living your own worst nightmare.

Instead, start by reviewing your IT portfolio to identify your first target. Select a specific area that demonstrates the value that you will get from a cloud model.

Picking the low-hanging fruit

Some areas are definitely ripe for cloud computing, which we refer to as *low-hanging fruit* (no pun intended). Here are a few examples:

✔ You might want to get your feet wet with something like moving application testing to a cloud environment. This has been a popular model for many companies. Instead of provisioning test servers on the company's premises, testing is done, on demand, in the cloud. The benefits include as much capacity as needed and no provisioning time for the servers in the test environment. Some companies are also moving development to the cloud for similar reasons.

✔ Another relatively low risk example is simply provisioning overflow capacity for something like a marketing campaign.

✔ Beta testing an application. Here is an interesting one. Some business analytics companies find that companies like to try applications out in the cloud first, before buying them. Go figure!

Approaching other areas

If you're planning to move some of your applications to the cloud, identify those applications that will give you the biggest bang for the buck. For example, 70 percent of your company might use the same email and scheduling package in the same manner. Right now, you're servicing these applications on the desktop, but it might make sense to move it to the cloud. On the other hand, there may be an analytical application that five of your scientists use. It probably wouldn't make sense to move this application to a cloud model because you wouldn't gain any economies of scale.

Do your homework for other types of applications and resources. Can you gain economies of scale by moving these to the cloud and at the same time manage your risk tolerance? For example, what if there is an application that a large percent of your staff use, but they tend to customize it for their own purposes? You have to evaluate whether it makes sense to move it to a cloud environment. You need to consider a range of costs and whether people will be able to do their jobs effectively under a new model.

Planning for Leveraging the Cloud

Say that you've moved to the cloud and started transitioning some of your applications to the cloud model. We think that while leveraging the cloud can be a good idea for many companies, you have to make sure that you manage the move properly. What do we mean?

Clearly, some of the move to the cloud will require that you think about managing your IT assets in a slightly different way. These changes fall into two categories: planning and doing.

WARNING! These examples illustrate the need for proper planning so that your transition to the cloud makes sense. We hope that these scenarios don't happen in your company. However, these two somewhat simplistic examples show how important it is to plan for the cloud in a holistic manner. Otherwise, your company might be doomed to repeat some of the sins of the past.

Example 1

Say you're an electronics distributor that was using a CRM application that no one was particularly happy with. Fred over in the camera department decides to move all that group's sales information to a SaaS provider. However, Jane in the printer department decides to move that same sales function for her department to another SaaS provider.

When the CEO wants to know how sales are going across the two divisions, Fred and Jane scramble to get their data integrated. This problem sounds like the problem companies have had for ages with _siloed_ information — data from different systems isolated into different environments, making it hard to integrate and manage. The same sort of thing can happen in the cloud if your cloud provider uses a proprietary format for storing data.

Example 2

Two divisions in a company with separate IT departments decide that they want to store some of their data in the cloud. Unknown to each other, they pick the same cloud provider and negotiate separate contracts with that provider. Now the company has two contracts to manage where it could have had one (probably more favorable). This can potentially cost the company more in the long run.