

# GETTING STARTED WITH THE CLOUD:

A Step-by-Step Enterprise Implementation Guide



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## A Step-by-Step Enterprise Implementation Guide

More enterprises are moving applications to the cloud every day, seeking faster implementation, more flexibility, and lower cost. But not everyone has a master plan; these decisions are sometimes made on the fly with little forethought.

To help you succeed, this white paper presents a step-by-step guide to moving to the cloud. These 10 steps cover:

- **Discovery and Needs Analysis**
- **Internal Consensus-Building**
- **Key Technology Decisions**
- **Vendor Selection**
- **An Initial Trial**
- **Ongoing Rollouts**

These steps will help you avoid the most common pitfalls and gain the best possible ROI from moving to the cloud.

### ■ **STEP 1: TAKE INVENTORY OF ALL ENTERPRISE-WIDE APPS**

The first step is to create a master list of all the software in broad use across your enterprise today. While it is probably not feasible to identify every single application in use, a high-level inventory should help identify areas of greatest opportunity. This list may well cover hundreds of different apps and utilities depending on the size of your enterprise.

Once you have identified areas of opportunity, you can take a deep dive into specific parts of your business. You can start by looking at your software licenses. Then, quiz the appropriate department, team or location to unearth all the utilities, databases and websites you may not even know about.

To help record your research, a sample table is shown below. In Step 1, fill in columns 1 through 3 to show the name of each app, its purpose, and the team using it.

### ■ **STEP 2: ANALYZE SECURITY, EXPECTED GROWTH AND PEAK DEMAND**

Are there any special requirements for security or compliance for any app? How much growth do managers expect to see for each app over the next three years? About one hardware refresh cycle? Are there any predictable or recurring peaks in demand? Fill in the answers in columns 4 and 5.

### ■ **STEP 3: CHOOSE WHICH APPS CAN GO TO THE CLOUD**

Today, the cloud is for everyone, but not everything. In the future, we expect the cloud to be able to handle nearly any workload, but it is important to assess application requirements for the current and future states of the cloud.

Now review your list to see which apps belong in the cloud. Applications with lower security/compliance requirements and/or demand fluctuation may be great candidates for the public cloud. "Mainstream businesses might consider putting product catalogs, marketing campaign fulfillment, product launch materials, customer self-help services, and low-risk operations such as inventory tracking and project management applications in the public cloud," suggests *InformationWeek*.<sup>1</sup> However, the usefulness of the cloud is not limited to these applications. With nominal effort, solutions can be designed to handle sensitive information on more secure, dedicated hardware while leveraging the public cloud for less sensitive parts of the same application. So, the main attribute to identify applications that will benefit from the cloud is cyclical demand.

If you're not sure about future growth or demand, it may be best to rely on the elasticity of the cloud. But remember that legacy apps written years ago may not be compatible with the cloud. Fill in the best answer in column 6: now, later or never.

**Table 1: Master List of Enterprise Applications, as of [date]**

1 Name	2 Purpose	3 Dept/Team	4 Security/Compliance	5 Growth/Variability	6 Suitable for Cloud?		
					Now	Later	Never
E-mail	Employee e-mail	IT	Low	+50% a year	✓		
Web Portal	Customer uploads	Marketing	Low	+33% a year	✓		
CRM	Salesforce Automation	Sales/IT	Low	+15% to 20% a year	✓		
Product Database	Customer Research	Marketing	Low	+10% a year		✓	
E-Commerce Website	Online Sales	Marketing	High (PCI)	+25% a year with big peak at Thanksgiving			✓
ERP	Accounting	Finance	High (Sarbanes-Oxley)	+10% a year			✓
HRIS	Employee Records	HR	High	+10% a year			✓

Step 1.
Step 2.
Step 3.

### THREE TYPES OF CLOUDS

A "cloud" is essentially a pool of virtualized hardware that enables software apps to add and release resources as needed on the fly.

#### Public cloud:

An off-premises multi-tenant solution that enables a utility computing model. Example: a website hosted by a third party that can scale up or down to match fluctuating demand.

#### Private cloud:

A secure single-tenant solution hosted either on- or off-premises. Example: a customer database running on a set of virtualized servers behind a firewall.

#### Hybrid:

Two or more clouds connected to support load balancing or cloud bursting between dedicated in-house resources and virtualized resources in the public cloud.

#### Example:

A marketing portal hosted by a third party connected to an on-premises customer database. The website needs little security, while the database needs a dedicated environment. When demand increases, the website can scale up by adding servers in the public cloud; meanwhile, the database remains secure in its private cloud.

## ■ STEP 4: DECIDE WHAT TYPES OF CLOUDS YOU NEED

For each app you want to move, decide which type of cloud it needs: public, private or hybrid (see sidebar).

"Take a look at each workload to determine which kind of cloud it should be in. By asking the right questions around criteria such as availability, security and cost, the answers will push the workload to the public or private cloud," suggests a recent e-book from CIO.<sup>2</sup>

## ■ STEP 5: COMPARE AND CONFIRM GOALS

Stakeholders must reach a consensus on their goals in moving to the cloud. For example, the CEO may want new apps to improve customer satisfaction and grow sales. Most CFOs want to contain costs to build profits. Marketing wants to engage customers and build market share. While IT must do more with less, the CIO wants to protect his team from major cuts.

Review all the new apps coming online and the expected growth from existing apps. If your data center can't handle the load or you have difficulty quickly deploying new infrastructure, your enterprise needs to find a way to support those apps without investing vast sums in new capital expenses. That likely means finding a cloud partner.

## ■ **STEP 6: RESEARCH PROSPECTIVE HOSTS**

Draw up a shortlist of possible cloud partners and share your goals with each one. Ask each one for a proposal.

For example, you can hold a conference call or Webex with Rackspace specialists, including an account executive and sales engineers specializing in the technologies you need. The Rackspace team will confirm your needs and deliver a clear and concise proposal.

(You don't have to wait until Step #6 to speak to Rackspace; we have a team of specialists that would love to help you through this entire process from Step #1 on.)

## ■ **STEP 7: DO DUE DILIGENCE ON PROSPECTIVE PARTNERS**

Compare written proposals and perform due diligence on all prospective partners (see sidebar). Read customer case studies and check references. Set up a site visit to see first-hand how each vendor handles physical security and meets compliance regulations.

## ■ **STEP 8: PICK THE BEST PARTNER**

Accept the best proposal and pick the best vendor to partner with. Sign an appropriate contract and get ready to work together.

## ■ **STEP 9: ROLL OUT AND EVALUATE TRIAL**

Most companies try out one app for an initial trial period, such as 30 days. Work with your new partner to deploy your trial app in the cloud. Evaluate the performance using your choice of metrics. Watch how long it takes to process transactions, add new servers or new users. At the end of the trial, assess how well the cloud matches your needs.

## ■ **STEP 10: DEPLOY AND MONITOR FURTHER APPS**

If the trial was a success, decide which app to roll out next. Your partner should provide a suitable way to monitor your cloud apps.

For example, Rackspace provides an online dashboard you can use 24/7/365 to review all key metrics. Your Rackspace team will continuously tweak your cloud apps for best performance and schedule regular reviews every month, every quarter or as requested.

Repeat steps #9 and #10 as many times as needed.

## **WHAT TO LOOK FOR IN AN IDEAL CLOUD PARTNER**

- Flexible solutions
- No vendor lock-in to cloud architecture, tools or hosting
- Ability to plan and architect public, private or hybrid clouds
- Robust networking with advanced load balancers and application delivery controllers
- Value-added services like IT planning available
- Dedicated team available to support you 24/7/365
- Online dashboard updated in real-time with all relevant specs
- Support for all industry-standard configurations including Windows®, Linux®, x-86 hardware, NetApp, EMC and Dell® storage
- Thousands of happy customers with extremely high retention rate

## CONCLUSIONS

These steps will help your enterprise make a sensible plan for moving your apps to the cloud. If you'd like to hear from the author, please contact our Enterprise team and we will happily schedule some time to discuss this topic further with you.

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## SOURCES

1: Charles Babcock, "Lessons from FarmVille: How Zynga Uses the Cloud," InformationWeek, 14 May 2011

2: "Heading into the Cloud with Confidence," CIO, June 2011, page 2