AN IT-AS-A-SERVICE HANDBOOK: TEN KEY STEPS ON THE JOURNEY TO ITaaS

A retrospective based on EMC IT’s own transformation to an ITaaS delivery model

ABSTRACT
Transforming your IT operation to an IT-as-a-Service model—that leaves behind many of the traditional IT practices to embrace a new customer-driven service delivery process—offers plenty of benefits as well as challenges. This white paper offers ten key steps that will help guide your organization’s journey in fully leveraging cloud computing and creating a more agile and relevant IT operation. They are based on EMC’s experience in its own ITaaS journey.

June 2012
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EXECUTIVE SUMMARY

Your IT organization spent the past several years virtualizing mission-critical applications and infrastructure to leverage cloud computing. You’ve profited from the resulting operating efficiencies, scalability and agility. But there is still one more critical phase to fulfill your cloud mission—if you are to stay out in front of a changing IT and business environment. IT-as-a-Service is perhaps the most transformational and challenging leg of your cloud journey. ITaaS is where you use the cloud computing foundation your organization so carefully built to stand up a totally new IT service delivery and consumption model geared towards the needs and demands of the internal clients you serve.

It has become increasingly clear that in order to remain viable in today’s IT services free market, corporate IT needs to successfully compete with the growing ranks of public cloud providers by being more responsive, transparent and relevant to its business users. The goal is to optimize IT production for business consumption. IT needs to transform itself from being a “gatekeeper of information” to a free-market broker/builder of IT services.

To do this, IT must change the nature of its discussion with business users from a battle over resources to a discussion around the value of each service and its cost-benefit tradeoffs. It needs to create an efficient, standardized set of enterprise-class services based on business needs—as opposed to customized solutions—for users to consume. It also needs to more effectively manage capacity, supply and demand.

IT-as-a-Service will unleash a new approach to IT—one that drives value and efficiency to:

Change the dialogue with your clients from cost-benefit tradeoffs to value-based IT consumption decisions

- Enable IT employees to align their efforts with services that the business finds valuable
- Position IT as a trusted partner with the business rather than just a supplier
- Enhance customer satisfaction and bolster customer loyalty

Delivering IT-as-a-Service Requires New Models

Technology Model
- Private, Public, Hybrid Cloud
- Controls, Trust, Compliance
- Standardize, Automate

Consumption Model
- Self-Service Catalogs
- Financial Transparency
- Consumerized IT

Operations Model
- Organization, Skills, Roles
- Horizontal Processes
- Business Alignment
INTRODUCTION

Getting to ITaaS, will require fundamental changes in how IT services are created, paid for, delivered and consumed as well as in the roles of those who support them. Unlike the previous steps in your cloud journey, this effort is less focused on technology and more focused on people, processes and cultural changes. Instead of powering up new tools, the challenge here is to energize and educate staff, management and the business to embrace the new IT model and the organizational shifts that go with it. In other words, you need to optimize IT production for business consumption.

The rewards of successfully completing the journey are substantial: an IT operation that provides better service to its internal users at the right price points, improved efficiency and business benefits to your organization, and expanded career opportunities to your staff. It is a move that can mean the difference between being a thriving and nimble IT organization in a changing IT service world or one that is increasingly overshadowed by external cloud providers.

Since ITaaS is a new concept, your ITaaS program should begin with clearly defining what it is, why it's important and what it will mean. Getting all stakeholders on the same page for this will take time, effort and influence from the top down. Strong advocacy by the CIO is crucial as well as a buy-in and endorsement from executives across IT and the business.

EMC IT defines ITaaS as a new delivery model that leverages cloud technologies to enable business agility and value-based choice through readily-consumable IT services that have transparent prices and established service levels.

Don’t underestimate the time it will take to build consensus around defining ITaaS. At EMC it took weeks of back and forth to fine-tune the wording to stakeholders’ satisfaction.

The next challenge at the heart of your ITaaS model is defining what a service is—which is more difficult that it first appears to be. IT personnel tend to view each of their individual functions as a service when, in reality, they may only be components of a true service. For instance, non-production database support can be mapped to things that we do in IT but it isn’t a service that business users will actually consume, whereas, virtual infrastructure which includes that particular database, may be offered as Infrastructure-as-a-Service under the hosting portfolio.

IT-As-A-Service =

Optimizing IT Production for Business Consumption
Getting your team to think in terms of what typical internal customers will order from IT can be helpful. It is also worth looking at how other companies or industry sources define services and use their examples to help you craft a definition.

What follows are ten key steps in the process to transform your IT operation to an ITaaS delivery model based on EMC’s experience on its recent ITaaS journey. These steps are not exhaustive nor are they necessarily sequential. Rather, they are meant to offer essential components and insights that will help smooth your way on this complex and crucial path to a more agile and relevant IT future.

A service is a capability, not a point technology solution or a business application. Key characteristics include:

- Fulfills one or more needs of the customer
- Supports the customer’s business objectives
- Is perceived by the customer as a complete solution offering
- Is directly consumed by the user and offered through the service catalog

The move to ITaaS will involve significant change for both IT and the business users.

Ten key steps to IT-as-a-Service
STEP 1: DEFINE A VISION, GOALS AND OBJECTIVES

Overall, your program vision should acknowledge that making the shift to ITaaS is crucial if your organization is to remain relevant in the changing IT service environment.

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HOW WILL YOU MEASURE SUCCESS?

You will need to define clear measures of success for your organization, assigning program team members clear goals aligned to these measures. For example, the team overseeing strategy will have a complete taxonomy of offerings defining all of the IT service offerings by the end of the year.

GUIDING PRINCIPLES

Set out guiding principles defining your approach to these goals. Some key points:

1. It’s an evolution, not a revolution. Making the shift to ITaaS is a gradual process involving fundamental changes that don’t have to be made overnight. You’ll need to operate with one foot in the “old world” for quite some time.
2. Adopt a “start-up” mentality:
   a) Take services to market quickly and iterate/improve from there. Realize that as long as you are winning business and covering costs, you can make adjustments going forward.
   b) Simplify, don’t over-engineer. IT personnel tend to focus on the technology of a challenge at the risk of ignoring the people and process aspects of the effort.
   c) Be pragmatic about funding, resources and change management.
   d) User experience is vital.
   e) Start with a relevant use-case approach.
   f) Develop a ‘poster child’ for the program, some initial successes that you can point to.
3. Go wide, then go deep. Get pilot services out to the market first then address the more complex aspects of the product lifecycle.
4. It’s okay to be less than perfect at first. Use early adopters to test and adjust your approach. Cycle through tests quickly. You can iterate and get there as long as you are clear on what those iterations are.

LESSONS LEARNED:

FOCUS LESS ON THE FACTORY, AND MORE ON PRODUCTS

Don’t lose sight of the ultimate program goal of getting products (services) out the door by getting caught up in creating a shiny new factory. In retrospect, EMC should have devoted more time at the outset of the program to get some initial products launched before worrying about broader production rollout. The sooner you get products out the door, the earlier you can validate your ITaaS approach. Early services allow you to demonstrate processes sooner. They also serve as proof of concepts and let you test your emerging processes, including service standup, governance, material development and marketing. They let you focus on “selling” the value and positioning of services based on an understanding of the target market.
STEP 2: WIN HEARTS AND MINDS

From people to processes, making the transition to ITaaS poses some unique challenges for your IT operations, especially as you get started. Set expectations through regular communication and education efforts to address concerns, mitigate resistance, and avoid misunderstandings and program delays. Remember that, in the absence of information, your staff will assume the worst. Recommended strategies include:

1. Enlist your CIO, CFO or another senior executive as a strong advocate early and often to overcome program resistance, address concerns and unite your operations behind ITaaS.

2. Confirm that IT leadership understands and supports your chosen program approach. EMC initially encountered some resistance to certain aspects of the program. For example, we took an entrepreneurial approach which conflicted with our previous pledge to follow specific “best-practices” in managing IT projects based on past, traditional project experience. That approach calls for strong project overhead with many project and program managers and extensive tracking and status review procedures. So in the case of ITaaS, we had to build alignment around the merits of using a more light-weight, flexible process.

3. Clarify the need for a more flexible approach to establishing ITaaS. As a transformation program, ITaaS requires a less rigid, less defined process than traditional IT development projects where extensive planning heads off costly mistakes. Impress upon program stakeholders that, in this case, planning every detail is a detriment and that an experimental approach with trial and error is more effective. Through trial and error at EMC, for example, we often found it more effective to use a smaller, focused and empowered team to overcome obstacles than using a traditional development project structure.

4. Defuse employee concerns about cutbacks and changes. In the face of significant transformation, employee assumptions will run ahead of reality without clear, constant communication. Shifting to ITaaS could be perceived by some as representing a triple threat from: downsizing IT operations, outsourcing jobs and bringing broad job changes. Explain that the transition will be more work short-term as employees juggle legacy and new systems. Use executive messaging and IT communications to get the accurate information out. Include HR from the outset to explain role evolution and job opportunities and offer reassurance about continued IT service investment.

5. Have a clear understanding about the shift in trust and control as a result of restructuring who manages IT service offerings. For example, at EMC, we created a Product Manager (often called Service Manager) position responsible for broadly defining our service offerings and how they are packaged, overseeing services through the entire lifecycle from creation to retirement and ensuring that IT’s offerings are cost-competitive. This represents an important shift in trust and control in many areas of the operations. Hence, senior IT management needs to be engaged and informed in order to help the organization adapt to this new structure.
**STEP 3: DEFINE A PROGRAM PLAN, SCOPE AND MILESTONES**

As you establish a plan and scope of work for building your ITaaS model, be aware that this program has different risk/cost trade-offs from traditional IT projects. (See item 3 in the previous step.) It should, therefore, have a lighter, more agile structure.

This scoping process will depend, in part, on the level of resources you are able to garner for the program, making this step iterative with the next step of acquiring resources.

The Information Technology Infrastructure Library (ITIL) is a helpful resource in scoping the program. Most or all of ITIL’s 26 IT processes will be impacted by the transformation and, in our case, we found it helpful to consider each process and incorporate it into our ITaaS roadmap. At the same time, it is easy to over-emphasize ITIL and we recommend using it as a guide rather than a roadmap.

Another consideration in the scoping process is the development of tools such as a financial management or a SLA management package. Because the ITaaS transformation is such a broad task, EMC decided to separate out the development and implementation of ITaaS tools from the main program. This allowed us to keep a sharper focus on the actual transformation program. It also provided for the fact that tool implementation projects operate very differently from transformation efforts in that they follow a more traditional, program-management-heavy process.

The one possible exception to this approach is the service catalog tool, which is so important to the ITaaS transformation that you should include it in the ITaaS program. If not, make sure there is close coordination between the ITaaS team and those creating the catalog tool. EMC also found that providing our CFO with details about the ITaaS financial management tool helped with the formation of our chargeback strategy.

Traditionally, IT organizations tend to be more focused on the technology, so it is critical to create a plan that balances technical aspects with people and processes. Technology actually plays a relatively minor role in this effort. No new tools are required, though you may consider a service catalog, financial management package, or IT service management package.

Consider that some ITaaS transition programs have succeeded using a simple Excel spreadsheet as a financial management tool and a Word document as a Service Catalog, leaving the more elaborate technical elements for subsequent efforts.

**PROGRAM PLAN**

EMC chose to structure its program plan in three phases, each of which included process, technology and people components:

1. Start building foundational capabilities and pilot selected services. You’ll need to establish standardized service design and lifecycle management processes as well as cost/value transparency standards and select initial technology tools.

2. Strengthen foundational capabilities and deploy a broad range of services. Standardize service support processes, initiate chargeback of business units for IT service consumption and develop additional skills for new staff roles required.

3. Automate and mature the processes and deploy additional services. Consider additional technology tools, such as orchestration, SLA management, or predictive tools.

Be sure to set clear milestones for each program phase and define how they will be measured.
When defining the program scope, limit your initial focus to those IT processes and services that are most crucial to advancing ITaaS. Be clear that the objective is to get services to market successfully. Ensure pilot services are selected based on factors such as value to the business and likelihood of success. Use these services to test new processes as they are developed.

Be warned, separating out some processes to wait for subsequent program phases will be a challenge. All 26 IT processes defined in the ITIL framework will likely have advocates among your program stakeholders. You simply can’t address them all in your first program phase.

The prioritization process can be hard on people. If you decide to de-prioritize Demand Management, for example, the people who spend much of their time focused on Demand Management may feel that their work is insufficiently valued. The best approach is to address this with the broad stakeholder community before taking on prioritization and to prepare for the emotional reaction these discussions may engender.

EMC made sure to tailor its plan around IT projects already in the development pipeline that might impact our ITaaS efforts. For instance, EMC IT made sure that the ITaaS processes it developed around service support were aligned to the goals of a parallel project underway to replace its current incident, event and problem tracking tool.

We went through many meeting cycles reviewing and prioritizing processes before arriving at a manageable scope.
STEP 4: ACQUIRE RESOURCES

RESOURCE NEEDS ARE IN THE EYE OF THE BEHOLDER: A CAUTIONARY TALE

When EMC IT first decided to shift to an ITaaS model, we hired a prominent outside consultant to develop a transformation plan and evaluate resource requirements. After several months of interviews and research, including gathering feedback on resource needs from IT stakeholders, the resulting report called for an eight-figure investment in resources and technology.

Our CIO and head of IT Finance, however, were not amenable to the hefty resource recommendation. With hundreds of IT projects underway, IT was unable to invest as heavily as the recommendation suggested. They countered with a more modest plan: zero incremental increase in staff and an as-needed budget. We would have to work with the staff we had by figuring out how they could incorporate the ITaaS transformation skills and competencies into their current jobs.

Eventually, we compromised and brought in several incremental employees, but it wasn’t easy to get IT group leaders to lower their resource expectations after participating in long discussions with the consulting firm to define their resource needs.

So if you do use an outside consultant—which can be helpful in many instances—set specific guidelines ahead of time on details like the program scope and resource requirements. You can specify, for example, that you want to take an entrepreneurial approach to developing your ITaaS model and you won’t accept a proposal that requires more than $X in investment or X percent increase in IT staffing.

Bear in mind that ITaaS isn’t the kind of IT program that is best accomplished by simply throwing resources at it. The act of allocating a multi-million-dollar budget would lock your organization in to a rigid program structure that lacks the agility and experimental nature that is best suited to such transformations. Focus on the quality of resources rather than quantity. Get the best people you can.

LESSONS LEARNED:

FULLY PROBE CRITICAL PROJECT FACTORS

Make sure to clearly establish in the early planning stage the standards you want to meet for the ITaaS project. It is crucial to remain focused on the needs of your users. At EMC, we took an IT-centric view of developing the ITaaS portal and service collateral. In doing so, we failed to consider the voice of the customer or establish a use-case definition prior to development. You can’t just have a ‘build it and they will come’ attitude.
PUTTING TOGETHER WHAT’S NEEDED

The level of resources you need for the program will depend on the plan and scope you choose and vice versa. You need to strike a balance between your program team’s resource wish list and management’s more conservative view of what’s needed.

EMC chose to define a leaner plan and scope and kept resources to a minimum. Regardless of the level your organization selects, there are key resource elements you will need:

- **Strong executive sponsors**—Have at least one senior executive who is passionate about the transformation to sponsor your program. It should be a leader who is already an evangelist for ITaaS. You will not be effective in moving the program forward without the backing of senior management.

- **Program Management Organization**—Strive to hit the right number of program managers: enough to effectively track the progress of the program but not as many as you would normally have for a more traditional and technical IT effort. Remember that this is a more experimental process, where risk is less of a concern and teams can try out preliminary ideas before they are fully baked. It is also a good idea to have a diverse set of leaders with a varied program approach. One manager or team should focus on program logistics such as the status of each workstream and removing any progress roadblocks. A second should have a deep understanding of domain and offer more big-picture guidance on program goals.

- **Execution teams**—Where possible, choose people who are already leaders in the areas that make up your workstreams to head up execution teams. For some less-traditional workstream areas, such as marketing, you will have to seek out staff members with skills that are not commonly found in IT. Be sure to select team leads that are aligned on the program goals and non-traditional approach. Have people who are comfortable with uncertainty and the unknown.

- **Subject matter experts**—Tap the experience of subject matter experts from across your IT organization as needed, e.g.: service operations, finance, architecture, communications, for technical advice and insights. In some cases, an hour a week may be all that you need of their time.

- **Money for outside help**—If you choose to limit monetary investment in the program, plan on allocating funding for highly targeted engagements of consultants. EMC brought in experts, for example, to help us define our service strategy and our service stand-up process and improve user experience.

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**LESSONS LEARNED:**

**ALLOW FOR RESOURCES TO GROW WITH SCOPE**

One thing to consider in working with a minimum of resources and an agile approach to your project is that changes can occur that can shift your resource needs dramatically.

For example, as EMC’s ITaaS effort evolved, the scope of our service delivery model grew from an application to a platform. We didn’t do a reassessment of what that growth would mean in terms of the resources we would need to create a quality platform in the prescribed timeframe. As a result, our progress in creating an optimum service delivery model and launching ITaaS was slowed.

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STEP 5: ESTABLISH A MARKETING TEAM

It’s easy to underestimate the importance of marketing and communications associated with making the ITaaS transition. From gathering user feedback and coordinating account management efforts to creating messaging, the ITaaS communication team must provide a variety of materials and service channels to multiple audiences. The team must not only disseminate timely information to employees but also keep upper management up-to-date and engaged.

At EMC, our communications effort began with one person informally helping with town-hall style sessions to keep IT Operations members informed and it quickly grew to encompass other communication needs.

Adding to the marketing challenge is the fact that finding marketing skills within IT can be difficult.

Marketing and communications responsibilities include:

• Execute marketing functions, including creating branding, messaging and educational materials

• Gauge the effectiveness of the ITaaS user interface (UI) and user experience (UX), including conducting focus groups to gain feedback.

• Coordinate with managers of IT services that act as a liaison with business units to get their collaboration and provide collateral and information about their changing roles and new IT products/services.

• Promote IT services to internal users through communications via blogs, email, and news articles. The audience for this messaging includes the CIO, executive team and steering committee, ITaaS core team, ITaaS extended team and all other IT operations employees and account managers.

• Work with HR on change management aspects of the transformation. We recommend providing staff with frequent updates on progress and occasional reassurance.

Establish product management capabilities and gather customer input

A crucial part of marketing and communications is establishing a robust, two-way communication channel to gather user input on the service offerings and the interfaces between IT and clients to fully understand their needs and preferences. Such outreach should begin during the requirements gathering process and extend through the service definition and delivery phases. One good way to gain insights is with focus groups. The earlier in the process you start to invite clients to hands-on sessions to gain insights and feedback on how to improve the user experience, the better input you get.

Focus group considerations:

Seek user champions who are excited about the program and are willing to stay involved from requirements definition, through design and delivery.

A strong use-case approach during the review process will help place the user experience within the user’s frame of reference -- providing a more effective review of functionality, screen design, and system behaviors.

Resist the natural urge to wait until processes are fully baked and perfected before beginning these dialogues with clients. Remember this is a conversation that doesn’t have to be totally scripted. Letting users help shape the discussion is part of the value of the process.

LESSONS LEARNED:

BRAND LIKE A BUSINESS

Don’t overlook the need to create a compelling image for your ITaaS operation. In the first phase of the project, our collateral, portal pages and service catalog lacked a unified look and feel (brand) and, as a consequence, we missed an opportunity to connect with and impress our internal customers. The lesson for us was that if we were trying to run IT like a business, we needed to pay more attention to the marketing elements that businesses use to connect with their customers: brand, logo, consistent messaging and presentation, etc.
STEP 6: DEFINE SERVICE LIFECYCLE, PROCESS AND GOVERNANCE

Before you can define what actual services you will offer to clients, you will need to establish a process to oversee the lifecycle of services, including a plan for identifying and mitigating any risks.

While ITIL does outline strategies for service management in its industry best practices, you should also consider your operation’s specific goals in choosing a service lifecycle process that best suits your needs. At EMC, we decided to create a hybrid IT Service Lifecycle Framework that includes some ITIL elements but also follows the traditional Product Lifecycle. We felt this structure provided a practical and proven framework for a customer-driven approach to providing IT services.

Five phases of the service lifecycle:

1. **Strategy**— centers on the concept for the service to be created, how the service responds to the voice of the customer and to market research.

2. **Design**— sets service parameters, policies and practices; the process design; the operational model and pricing.

3. **Build**— develop the technology and capabilities—including infrastructure, platforms, applications—and test them for quality.

4. **Launch**— marketing and communication of the new service and providing training and tools for its adoption.

5. **Operate**— the execution of the service and tracking metrics for operation, return on investment, continuous improvement opportunities and TCE.
Some lifecycle considerations:

- The Service Lifecycle framework represents a continuous improvement loop which is constantly applied to the service – it is not a one-time-only, waterfall-based methodology
- Not every service will complete all phases of the lifecycle
- Not every activity will be completed for every phase of the lifecycle
- The Service Lifecycle is based on a combination of Product Lifecycle Management and ITIL.

ITaaS GOVERNANCE

Creating a governance, risk and compliance (GRC) process is an integral part of service lifecycle management. While the body addresses the traditional security risks such as protecting information assets and meeting data regulations, it also focuses on broader business and operational risks for each service.

Because governance tends to be most crucial early in a service lifecycle, setting up guidelines around launching a new service is key. Look at things such as: is there a market for the proposed service, is it well-defined, what new competencies will it require. IT organizations tend to be heavily skilled in building services but less proficient in business skills like marketing, pricing and communications. At EMC, we worked to make sure we had added help and oversight in those areas.

Start by evaluating your ITaaS program to calibrate the need for governance involvement. What are the threats and vulnerabilities? What and where are the risks? What are the areas most in need of oversight and guidance in order to course correct for issues that arise later in the process?

Set up a decision-making lifecycle framework for evaluating each service proposal. This should highlight the high-risk areas in your company’s ITaaS program. The decision criteria may be different for each service proposal.

Will you, for instance, be gauging the viability of a service based on whether it fulfills user demand, whether it is financially viable, or whether it provides the appropriate protection of sensitive information or some combination of these?
GRC strategy considerations

• Tailor your governance process to your organization’s particular risk tolerance.
• Decide where you will leverage existing processes versus establishing new ones.
• Make the process as light-weight as possible and as informative as possible to create a positive user experience.
• Start early in the program so you can get business and IT feedback and support.
• Rely on use-case reviews to fine-tune your process.

Just as ITaaS gives business users more control over creating and operating IT environments, it also puts risk decisions in the hands of the business. Your GRC plan should include security controls to provide guidance to users for protecting data and intellectual property that will meet compliance requirements.

We created an automated GRC questionnaire in our GRC tool set that enables us to evaluate what security controls are required for each service. The risk organization reviews the answers and works with the Product Manager during the design phase to make sure protections—such as access control, data protection, or authentication processes—are in place before the service is launched.

Consider whether you will rely on your existing IT Steering Committee to make ITaaS decisions or establish a specific ITaaS Steering Committee. EMC established an ITaaS Steering Committee to focus specifically on the program in the Phase 1 and then transitioned it to the IT Steering Committee.

LESSONS LEARNED:

YOU SHOULDN’T ATTEMPT TO CREATE A SERVICE CATALOG BY COMMITTEE

EMC discovered that it can be very difficult to create a service catalog by committee after hitting a major roadblock in its service framework process. We had already defined six service portfolios or general service categories—Collaboration and Communication, Client Computing, Hosting, Connectivity, Professional Services and Business Capabilities—and had grouped services under each. However, despite many group meetings and attempts to define the actual taxonomy, the effort stalled. Nobody was happy with the results; we were failing to make progress as a committee.

So we tasked our ITaaS project lead—who had spent time studying the ITaaS structure in detail—to map out and propose a service catalog to the team. This approach worked. Now we had a concrete document for people to work with and the group was able to collaborate effectively and agree on a workable taxonomy.

We found the same “straw man” strategy was needed for creating a service stand-up process—which defines how an IT service will be put in place—and a service deployment schedule. This approach does require a person with extensive individual knowledge of IT services who is comfortable working independent of the group to create such initial frameworks.
STEP 7: DEVELOP SERVICES FRAMEWORK

You’ve created and disseminated your program vision, devised a plan, lined up resources, utilized product management to understand your market, ramped up for marketing and fashioned a service lifecycle, but what should the actual services be? How will they be packaged? And how and when will they be offered?

Elements of the service framework are:

- Taxonomy—how do you package IT services into discreet offerings and how do those offerings roll up to a small set of service portfolios?
- Stand-up process—how are services developed, designed, implemented and optimized?
- Deployment schedule—how will you roll out sets of service offerings over time?

A service is a capability, not a technology solution or a business application. A service fulfills one or more needs of a customer, supports their business objectives, is seen by users as a consumable product, and is directly consumed via the service catalog.

Once you’ve defined the term “service”, you need to develop the service taxonomy or service catalog through which you will offer IT services to users. Start at the top—looking at how business units actually use IT—and work down to map the various IT components in service offerings. This can be a complex task, since many components are part of multiple services.

While many stakeholders should participate in shaping your service offerings, we found the best approach to first laying out the service taxonomy was to use more focused effort. Have one designated person or a few people well-versed in your company’s service needs forge an initial taxonomy structure and then invite broader participation. This should be tackled by someone who is more tuned in to business service requirements and less focused on technical IT workings. Once a “straw man” draft is written, you can have a broad group of team members respond to it and hone the offerings in detail.

Another challenge in developing a service framework is prioritizing which services should be stood up when. Among the considerations in making this decision is what the opportunities are for launching a particular service and whether they meet a demand from the business. Are there services that are faster to stand up than others? Priorities will be different for different organizations.
STEP 8: DETERMINE FINANCIAL MODEL

Since shifting to an ITaaS model fundamentally changes the way IT delivers services as well as the way users select, receive and consume them, it requires your IT organization to change the way such services are priced, paid for and invested in. IT needs to take on a P&L mentality. Essentially, for ITaaS to succeed, users and IT itself must understand what services cost and the value they provide to the business. IT services must become financially transparent.

To achieve financial transparency, IT must build a system that shows the true usage and costs for IT services to showback\(^1\) and even chargeback\(^2\) the businesses for what they consume.

EMC chose to use a chargeback model through which users are billed for the services they consume each month. This required IT to transfer to each individual business unit budgets previously allotted for core IT services in our centralized, EMC IT financial model. Each unit could then understand the cost of the services they consume. We felt this provided more of a sense of urgency around establishing IT service priorities than using a showback approach.

**Other benefits of the chargeback model include:**

- Understanding cost breakdown for each service offered
- Showing greater transparency into business performance and value
- Tracking the details of service usage clearly and accurately
- Offering business units clarity they’ve never had before to enable real-time decision-making as their needs change
- Helping IT and the business be more productive and reduce over-allocation of resources
- Enabling IT to “market” and “sell” competitive service offerings to the business
- Giving IT a greater incentive to ensure services are delivered efficiently and effectively
- Providing an opportunity for IT, finance and the business to have fact-based conversations to improve IT delivery, consumption and improved planning for growth

For more details about creating financial transparency read the EMC white paper "IT-AS-A-SERVICE: GUIDING PRINCIPLES FOR ACHIEVING FINANCIAL TRANSPARENCY."

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\(^1\) Showback is the practice of showing each business the costs for the IT services it consumes.

\(^2\) Chargeback is the practice of charging each business unit for the IT services it consumes.
STEP 9: IDENTIFY AND DEFINE KEY ROLES FOR SUCCESS

As your IT organization shifts to an ITaaS model, it needs to realign its structure and staff to support the operations of a sophisticated service provider. IT Operations will no longer be solely focused on designing, building, running and supporting technology stacks. For example, the organization must develop capabilities and accountability around marketing and selling IT services; connecting and communicating with consumers of the services; managing the packaging, pricing, and lifecycle of IT services and effectively integrating those services into a broader framework of business capabilities. This step is influential in many of the steps outlined earlier in this paper and is iterative with respect to those steps as well.

This need for broader skills and inter-related services represents a major shift from the traditional siloed IT structure in which separate IT groups focus on single technology areas such as storage, compute or application development. Under the new model, employees will need to work across those functions in a collaborative environment to deliver flexible and scalable services tailored to the businesses they serve.
Among the closely coordinated key roles for effective ITaaS are:

1. **Product Managers**—(Often called “Service Managers”) Focused on service definition and management, staff in this role must understand client needs as well as where the industry is going. They serve as a key interface between clients and IT, working with Account Managers on offerings and pricing to present to business units. Overall, they must deliver a market-winning product strategy, oversee profit and loss responsibilities, ensure IT is delivering competitive services, and manage client expectations of those product offerings.

2. **Service Operations Managers**—Focused on all aspects of optimizing service execution, managing daily operations and interfacing with business units on technology. They serve as a single point of accountability for the end-to-end oversight of services, including their performance, availability and reliability. They provide early warning for service issues, e.g. capacity constraints and unexpected cost increases, coordinating closely with architecture team to define technology roadmaps.

3. **Account Managers**—Support Product Managers in product planning, development and deployment by providing customer satisfaction feedback and forecasting demand either for existing services or new services. They are the bridge between business units, Product Managers and IT staff. Account Managers also consult with clients on service offerings.

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**Other important Service Management roles**

- **IT Architects**: Work closely with Product Managers on product planning and development
- **Service Support Manager**: Provide active support to service customers
- **Process Owners**: Oversee adherence to specific processes

*Three key roles for effective ITaaS*
For EMC, the only brand new role among these three was that of Product Manager. The Service Operations and Account Manager roles were pre-existing under different job titles. Those roles were expanded somewhat under the new model.

One of the biggest challenges in this step is assembling a team of Product Managers with IT, finance, negotiation, communication and marketing skills. Since few IT professionals have mastered these skills, they will need to be acquired through training existing staff or hiring staff with product management expertise. Most organizations combine these approaches.

It will take effort to get your organization’s highly skilled employees to take on this sophisticated, individual contributor role when they may be more interested in management positions. Enlist your executive leadership team to promote this role as a strong step toward future IT leadership.

ITaaS has implications for many more roles and skill sets across IT and beyond. These include:

Cloud Architect—Bridges the technology domains, ensure the coherence of the computing environment, and manage the evolution of the cloud platform for end-to-end business services

Systems Architect—With cloud technology, the job of Systems Architect has shifted from designing infrastructure for each new project to designing how new projects can best to tap into shared infrastructure already in place. With shared infrastructure, it is much more important to manage capacity and performance.

Automation Engineer—Provides cross-technology integration, automated resource management, self-service provisioning, and transparency of usage in the cloud environment.

Cloud Administrator—Manages the configuration, operation, and performance of cloud environments for specific business purposes and services.

Business Advisor—Enables a specific business organization and its management to meet information needs and forward performance and innovation objectives through effective consumption of cloud-based services.

Financial Manager—Manage the finances of services sourcing, the cost transparency and consumption-based billing of services delivery, and the operating and investment budgets of the cloud platform.
STEP 10: DESIGN CHANGE MANAGEMENT PLAN

A successful change management plan is essential to making a smooth transition to ITaaS. Most people, by nature, dislike change and helping employees cope with the emotional aspects of this substantial transition is important to its success. The goal is to make employees feel like they are part of the change rather than reacting to something being imposed upon them. They need to understand what’s coming, what’s changing for them, what’s in it for them.

DOCUMENT ROLE CHANGES

Start by formally documenting and defining procedures for the many changes in roles and processes this new model requires to provide for a much more efficient transformation. This will reassure IT employees in the face of such changes.

Initiating a change management effort begins with answering some basic questions:

- What is happening in the transition?
- Who is impacted by ITaaS (IT versus the business users)?
- What are we doing to prepare for it?

Be sure to look at the transition organization-by-organization, determining how each ITaaS service offered will impact roles.

In response, the plan should:

- Promote understanding and acceptance of new or expanded IT roles. For example, a current Storage Administrator may choose to evolve to Cloud Architect and the new position of Data Scientist needs to be filled. These expanded IT options present new growth opportunities to those who want to stretch their skills and broaden their responsibilities.
- Define end-to-end service responsibilities.
- Include a training plan to help employees develop the required skills. These include:
  - Marketing and Communication—Broad set of business skills needed in IT to effectively manage go to market activities.
  - Service offerings—Team of Product Managers will require financial management, sales, negotiation and communication skills to handle all product management responsibilities.

SIZE UP OPERATION/BUSINESS MODEL IMPACT

Changing roles are only one aspect of the overall change management plan. One additional key area is determining and documenting how the transition will impact the IT operating/business model and associated processes and governance. IT is accustomed to using a project-based approach to assigning work priorities and resource allocation. ITaaS shifts to a service-based approach. Projects are no longer the key driver for IT operations. Change management in this area requires that you:

- Clearly understand and document how the workflow process works today and how ITaaS will change it.
- Identify who it will impact and get them engage in defining the new process.
• Communicate with, educating and train IT staff on the changes and what it means to them
• Communicate the changes to our business customers: particularly since changes, which may affect how they engage with IT and the financial implications of chargeback and pricing of services.

Change management plans will vary with each organization. The one constant is that addressing this important aspect of ITaaS from the outset will help smooth the transition process.

CONCLUSION
Making the transition from a traditional IT operation to ITaaS means making pervasive changes in everything from how IT services are built and financed to how they are delivered and consumed. But most of all, this new approach requires a totally different mindset on the part of your IT staff and your organization in general. Instead of rationing IT services and restricting investment in new capabilities, your IT operation will become a true service provider that strives to meet the needs and demands of its users. In doing so, you will not only compete effectively with public cloud providers but partner with them as needed, to better serve your organization’s business objectives.

At the same time, this transformation opens up expanded opportunities for IT employees, including tremendous potential to broaden their technical expertise and deepen their role as consultants. They will become partners in the business, strategizing to help their clients leverage IT innovation to further their business goals.

While the journey to ITaaS is a challenging one, it will result in an agile, relevant and vital IT operation that can keep pace with today’s and tomorrow’s changing technological and business demands.

REFERENCES
For more information, please visit:
www.emc.com/EMCITProven
EMC IT Transformation blog at http://itblog.emc.com/