

WHITE PAPER

EMC Remote Managed Services and Residencies: An Innovative Approach to Increasing Operational Efficiencies

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Introduction

As the first decade of the 21st century fades, many of the key challenges faced by CIOs have not changed; instead, they are amplified by the current economic environment. Companies are struggling with reducing costs, increasing efficiency, and focusing on strategic initiatives that will directly and measurably impact their bottom lines. Additionally, IT delivery organizations are still tasked with meeting acceptable service levels while dealing with massive storage growth, increasing complexity in the data center, and shrinking budgets—and potentially reduced staff. What has changed dramatically is the global economy—there is far less capital available to invest in equipment and resources. Companies are forced to find alternative and more cost-effective ways to maintain service levels.

One of the decisions facing many companies in times like these is whether or not it is worthwhile to explore some type of management for their IT infrastructure. Organizations do have a variety of choices, ranging from hiring experts for individual projects to completely outsourcing the entire IT function with a great deal of variation in between. Leveraging third party services can deliver a number of economic benefits. Figuring out the best choice for individual environments is the key. To begin, users first need to ask themselves a couple of questions: What do they really need help with? Do they need help with daily tasks such as nightly backups or daily provisioning, or optimizing existing storage pools and meeting project demands? Once deficiencies have been identified, users can determine which method of outsourcing would best fit their needs.

Complete outsourcing isn't very popular with IT managers. In a recent ESG research survey, only 14% of respondents listed a major outsourcing project as a key initiative.¹ However, one area that is gaining more traction is 'out-tasking.' This does not follow the traditional outsourcing model where a company gives up control of an entire IT environment. Instead, it is a more selective process in which a company partners with trusted third parties to perform specific tasks within its environment. In storage, for example, tasks could include handling backup operations or storage provisioning and optimization. Out-tasking is about leveraging highly focused expert third party resources to cost-effectively optimize and better control company-owned internal resources. In many cases, out-tasking frees internal resources from mundane repetitive tasks, allowing greater focus on revenue-producing strategic initiatives.

EMC, a leading information infrastructure provider, offers a full range of services to complement its products—providing everything from project-based knowledge transfer engagements through longer term, ITIL-based remote managed services to comprehensive storage managed services based on defined SLAs. With many different levels and combinations of skill sets, EMC can solve real problems faced by companies grappling with today's challenging economy. Companies no longer need to take an all or nothing approach to outsourcing. Out-tasking allows them to choose the level of involvement from EMC that best fits their needs, ranging from residency services through remote managed services to storage managed services

The Problems

Given the tightening budgets dictated by today's challenging economy, companies need to look to optimize as much as they can and run as efficiently as possible. Specifically, companies struggle with:

- **Meeting business demands.**
 - **IT is continuously challenged to meet the service levels demanded by the business.** Today's economy is 24x7 and moves at a rapid pace. Companies need to ensure data is always available and remains agile in order to respond quickly to a dynamic market. IT is tasked with meeting those requirements in spite of rapidly expanding application and infrastructure environments.

¹ Source: ESG Research Report, *2008 IT Service & Infrastructure Management Survey*, March 2008.

- **Equally daunting is the fact that despite a growing infrastructure, IT budgets are constantly under pressure to remain flat or decrease year over year.** IT managers need to be creative and find alternatives to traditional solutions in order to stay within budget but still maintain high levels of service. In this economy, every decision is going to be scrutinized, so any solution being considered will also have to provide a demonstrable ROI—for day one as well as day 1000.
- **Chosen solutions need to provide tighter alignment between the business and IT.** In many cases, IT is viewed as a cost center and not aligned with the business. In order to demonstrate that IT is closing that gap, they need to work closely with business units and provide senior executives with reports and information that directly relates to their key business goals.
- **Coping with IT complexity.**
 - **Increasing complexities in the data center have been caused by rapidly growing environments.** Data growth is still the number one challenge cited by IT. Storage managers are challenged to ensure that there is sufficient room for growth while at the same time keeping utilization rates as high as possible. This is an extremely difficult task, with data growing at 50-60% every year.
 - **New technologies and architectures need to be incorporated.** In order to meet business demands, IT is constantly adding new software, hardware, and security technology. IT has to rapidly incorporate these technologies and become proficient with them in very short timeframes. While new architectures like SOA and composite applications accelerate development, they also create more interdependencies and drive more complexity. Virtualized environments enable consolidation and savings, but create layers of abstraction and drive larger more complex networked storage environments.
 - **Complexity results in an inability to meet critical project deadlines.** IT needs to ensure that infrastructure is not a bottleneck when rolling out new projects. Provisioning timeframes are still too long, resulting in project delays. This is amplified by a lack of resources as day to day operational tasks and/or emergencies usually take priority over project work. This problem only gets worse as the infrastructure ages—more time is spent troubleshooting problems and less time is spent on strategic initiatives.
 - **Many organizations suffer from a lack of skills and expertise.** This is especially true for the storage environment. Finding skilled storage resources can be very challenging and, even when you can find them, keeping them motivated and interested is even harder. Having senior IT staff performing lower level, repetitive tasks can negatively impact their morale and is a very inefficient use of their time. In order to retain talented IT workers, companies need to engage staff with more strategic initiatives.
- **Adopting best practices.**
 - **Ineffective manual operations processes are still used.** Most data centers have not invested in software to automate daily tasks. Manual processes can't scale with storage growth and, though individual acts of heroism might fill that void, they are not viable long term solutions. Additionally, without fully documented processes, operations can suffer when an employee leaves the company.
 - **Existing resources are being spread too thin.** As budgets continue to contract, it means human resources are reduced. Those who remain need to take on more tasks. With day to day operations consuming all their time, IT staff has little time left over to work on establishing best practices. In a recent ESG survey,² respondents indicated that insufficient resources were their number one hurdle to deploying ITIL best practices.

Faced with all these challenges, companies are more likely to experience frequent and disruptive problems. The inability to get backups completed on time, delays in provisioning new services and extended outages are very real possibilities. While these challenges are formidable, they are not insurmountable.

² Source: ESG Research Report, *2008 IT Service & Infrastructure Management Survey*, March 2008.

Services Can be an Attractive Option

The ability to leverage services providers to augment IT staff or manage specific tasks can provide real value to an organization. This is particularly true in the storage domain. Because storage and, more specifically, the data contained within the arrays have long been considered a key asset, most companies are reluctant to relinquish control. However, given the complexities faced in managing these environments, there is a need for selective and strategic out-tasking in order to help IT meet business demands. These services can be delivered as (see Figure 1):

1. **Remote managed services.** In this case, IT offloads a particular storage operation like data backup, LUN provisioning, or change management to an external third party service provider. Remote managed services can be used as a way to delegate tactical, but operationally burdensome tasks or get help in a strategic area that can accelerate IT responsiveness to business needs. Intertwined with these daily tasks is the creation of documented best practices, standard operating procedures, and detailed workflow for all key initiatives and challenges.
2. **Residency services.** With little money available for new full-time employees, residency services can help enhance in-house skills with world-class information infrastructure expertise. These services range from architectural support, administrative support, process creation, and required training for in house staff to maintain and build upon when the engagement is complete. This is especially helpful for companies in rural geographies or those that want to implement cutting-edge storage technologies as quickly as possible.

FIGURE 1. OUT-TASKING SERVICES DECISION TABLE

	Example	Benefit	Comments
Option A – Remote Managed Services	Backup, Recovery, Archiving (BURA), SAN/NAS management, Provisioning, Change mgmt	Remove tedious manual task from internal team, leverage best practices, remote delivery for cost savings	Create and maintain SLOs at the infrastructure level, Accelerate Provisioning times, Follow ITIL
Option B – Residency Services	Support, Technology integration, Knowledge transfer	Rapid augmentation of highly skilled resources, Accelerated adoption of new technology	Extremely useful in geographies where qualified skills are difficult to find, Rapid response to immediate project timelines

Source: Enterprise Strategy Group, 2008

Service offerings can do more than help IT overcome some of the short term challenges caused by a lack of staff or budget dollars. They can actually provide strategic advantage over the long term. Given this, CIOs should take ample time to select service providers with the right technical skills and business flexibility. How should IT executives evaluate a service, especially when you consider that the third party you will select may serve as an extension of your IT department and potentially become a trusted strategic partner? While trust may simply take time to develop, it is best to start the evaluation process by asking a number of important questions:

- Does the provider offer a wide spectrum of solutions?
 - Can you start small and grow into a larger solution?
 - How well will it scale to your environment?

- Does it offer a combination of people, process, and technology?
- Will you still retain control of your infrastructure?
- Does the provider have a specialty?
- Does the provider have defined, repeatable, standards-based methodologies?
 - Even better, does it subscribe to industry best practices like ITIL standards?
- Does the provider leverage technology to automate and simplify its service delivery?
 - Is it the provider's internally developed technology and IP or is it from a 3rd party?
- Does the provider focus on meeting your business objectives? Or are conversations focused solely on technology?
- Is the company a recognized leader in the space/domain/technology?
 - Does it have a strong track record of delivering services?
 - Will it be a viable entity a year from now? (This is more important for extended services. However, it should also be considered for shorter term, fixed scope engagements that may lead to additional engagements.)
 - Does the provider have references or case studies? One of the best indications of a quality service is repeat business. Ask references if they have done repeat business with the provider. How long has the provider been delivering this service or similar services for them?
- Does the provider offer custom solutions or is it one size fits all?
 - Is it flexible in configuring a solution for specific environments?

As users explore their options, they need to consider how prospective solutions will help deliver the appropriate ROI metrics most important to the business. It is essential to remember that cost savings must be balanced against IT's ability to enable business agility.

Finding Help

With the industry suffering from a lack of highly trained and certified storage specialists, where can organizations turn for help with managed and residency services that meet business and IT needs? With decades of information management experience under its belt and its own education and certification program, EMC is uniquely positioned to understand and help solve its users' challenges. EMC offers a range of managed services focused on business and IT needs. These services can start with a small fixed scope staff augmentation and grow to include multi-year multi-data center managed services or a combination of both. EMC may offer one of the leading managed services portfolios because:

- EMC structures its managed services offerings based on the customer's required level of control, operational management needs, and budget. For storage and backup "out-tasking" services, EMC offers Residency and Remote Managed Services. For comprehensive outsourcing of storage management based on defined SLAs and penalties, EMC offers Storage Managed Services.
- Services are based on documented SOPs within the ITIL framework—deploying services that leverage ITIL best practices is an easy way to get the benefits of ITIL without making a major investment in time and money. EMC offers transitional services to rapidly integrate customer environments into its ITIL-based processes for remote managed services. It also provides residency services to provide knowledge transfer and to help establish ITIL in a customer environment.
- EMC services are focused on providing the appropriate storage and backup service levels based on business need. For example, mission-critical business applications need access to stored data on a 24 by 7 basis, so ensuring backup frequency and integrity is a must. EMC recognizes this requirement and has documented a standard set of Standard Operating Procedures (SOP) and performance baselines to meet these types of enterprise demands.
- EMC can offload the grunt work. By leveraging remote management services to take care of day to day storage and backup activities, senior IT staff members or onsite residents can focus on more strategic

initiatives. This keeps a company's best IT staff working on revenue-generating activities while EMC services maintain service level objectives and drive continuous improvement as well as a higher ROI for the storage and backup environments.

Many organizations struggle to find a starting point or wrestle over relinquishing control to a third party—even from a company with a very strong track record and deep experience. With a broad spectrum of services available, where should a company begin? For those companies that want to retain overall control but out-task specific functions within their storage environments, EMC has developed specific offerings, Remote Managed Services and Residency Services, to address their needs.

EMC Remote Managed Services (RMS) Overview

EMC's remote managed services are focused on providing solutions for the storage domain and cover Storage Area Networks (SAN), Networked Attached Storage (NAS), and Backup Recovery and Archiving (BURA). The services provide the features one would expect from EMC: 24x7 monitoring via three globally dispersed remote management centers, best of breed technologies, as well as its own internally developed software, and highly qualified engineers following ITIL best practices to deliver its services. The service itself is comprised of two segments: a service desk and operations management. These offerings are based on pre-defined SOPs. EMC can expand the services to meet specific requirements when combined with Residency Services. Transition services are also required to ensure operational readiness and define the standard operating procedures based on the customer's unique requirements. EMC currently supports 14 direct and 35 indirect customers spanning the globe and employ 50 specialists with an average of 7+ years of industry experience and 5 industry certifications.

EMC Residency Services Overview

Residency services are a good option for organizations that need to rapidly bolster or augment IT staff for a specific project or long term goal. With skilled, experienced resources in short supply, leveraging a highly trained professional is a more timely and cost-effective way to help the business. EMC has a very strong educational services training background and a certification group that ensures its residents have predictable and consistent high level skill sets across all geographies. EMC residency services have supported hundreds of customers across all geographies. Many residents have reported directly to Fortune 500 customers in thousands of engagements. EMC residents have an average of over 5 years of experience, are EMC trained and certified, and possess ITIL foundation level certification. EMC offers residency options for a variety of IT areas, including:

- **Operations.** Skilled specialists provide best practice recommendations to improve operations.
- **Technology.** EMC subject matter experts maximize the return on investment for EMC products by helping to rapidly integrate and optimize new or existing technology.
- **Support.** Residents provide personalized support to help achieve SLAs. The resident focuses on overall account support management or deep level technical support for a specific product line.
- **Transitional.** Post-implementation management and knowledge transfer ensure successful technology implementation.
- **Managed Residencies.** A team of residents remains onsite for best practices and ongoing assistance. These typically combine technology, support, and operational residents based on need.

What About Hybrid Services?

EMC does not force customers to make binary decisions regarding its services. Each service adds value on its own, but when combined, can really help to accelerate value by:

- **Accelerating ITIL adoption,** quickly integrating ITIL best practices into customer standard operating procedures (SOP). Remote services will leverage ITIL from day one and residents already familiar with these best practices can rapidly integrate them into a customer environment.

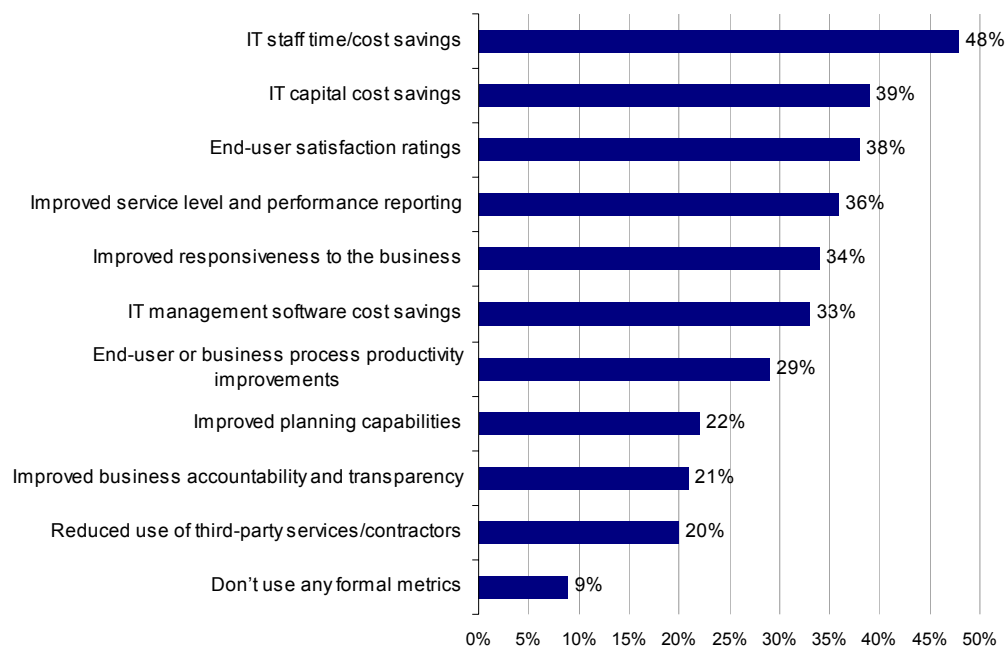
- **Establishing a division of labor**, ensuring that residents can continue to focus on strategic initiatives with IT staff and continue in the role of trusted advisor. The remote managed service (RMS) will handle day to day operations and first line troubleshooting.
- **Creating Tighter Alignment with the Business.** Having an onsite presence that is deeply aligned with specific business and IT requirements and understands EMC's RMS capabilities results in the ability to quickly adjust and optimize RMS value for the customer's specific business.

How to Define Success

In a down economy, the ability for IT to demonstrate cost savings is very important. Even more important is the ability to demonstrate that any investments made can provide a clear ROI. Every company uses a different set of metrics to track ROI, but there are some common ones widely used. According to recent ESG research,³ most organizations equate ROI to savings in IT staff time and cost, IT capital cost savings, and end-user satisfaction ratings. The top 6 responses are shown below (see Figure 2).

FIGURE 2. ROI MEASUREMENT OF IT MANAGEMENT SOFTWARE AND SERVICES

What metrics – if any – does your organization use **most widely** to measure the value or ROI delivered by purchases of IT management software and/or third-party IT management services? (Percent of respondents, N=602, multiple respondents accepted)



Source: Enterprise Strategy Group, 2008

How does that translate into an ROI for a successful services engagement? What are the criteria used to judge a successful services partnership? Indicators of a successful residency services or RMS services engagement include:

- **The ability to deliver new services to the business more efficiently.** By removing the burden of day to day management and reporting activities, IT staff should be able introduce new technologies faster,

³ Source: ESG Research Report, 2008 IT Service & Infrastructure Management Survey, March 2008.

support strategic initiatives more effectively and provide enhanced reporting that delivers greater insight for making business decisions. Typically, this would be accomplished without the company having to add additional headcount.

- **Streamlined IT complexity.** The business doesn't care what technology is used as long as the service delivered meets its needs. A good service provider masks the complexity by leveraging its expertise to rapidly integrate and scale new technologies into an environment seamlessly. It is equally important that it is able to do so with a predictable cost model, enabling IT to accurately forecast costs associated with meeting the desired business level service objectives.
- **Standardized processes to meet service level objectives.** Does the service meet desired service level objectives consistently over a period of time? All the highly trained people and advanced technology in the world isn't worth much if it isn't packaged with well documented, repeatable processes. This is particularly true in large environments where the ability to scale is critically important. Going beyond that, does the service provide suggestions for continuous improvement and coordinate with adjacent technology domains?

Ultimately, the measurement for success will be the transition of the service provider from the role of vendor or supplier to strategic partner. In order to overcome an inherent lack of trust, suppliers must consistently deliver value and exceed expectations. If the service provider can do that, then it is possible to win repeat business and even be considered an integral part of IT operations.

Conclusion

IT services and infrastructure play a critical role in supporting the business. Organizations continually demand higher levels of service for availability and provisioning while trying to keep costs and headcount in check. In trying economic times, it is important to get the most for each dollar and companies are willing to explore alternatives to the traditional do-it-yourself approach if they produce the desired result: increased ability to meet service levels with less cost. The ability to instantly leverage highly trained and qualified experts to help manage and optimize a specific area or technology domain can have a dramatic impact. This is especially true in high growth areas, like storage.

Out-tasking services like remote managed and residency services can accelerate the time to value for new technology while simultaneously optimizing existing assets. Service providers using ITIL best practices ensure quality and can be leveraged as stepping stones to integrate ITIL into your own environment. More importantly, by selectively out-tasking portions of the data center, senior IT staff can focus on more strategic initiatives, assured that routine tasks like provisioning and backup are taken care of. It also enables IT to keep a flat headcount in spite of a rapidly growing and changing storage environment.

The key to a successful services engagement is the service company's ability to inspire and establish trust. Starting with a company that you already know and respect is a great first step. The ultimate goal is to not consider the service an out-task solution, but rather a strategic partner and an extension of the business's own IT staff. EMC has been a trusted partner and solution provider to the storage industry for over 20 years. Its remote managed and residency services provide customers with an innovative way to leverage its deep storage experience and skills—for a predictable monthly fee. If your data center is struggling to keep up with information growth, business objectives, and availability and your budget is growing at the same pace, now is the time to take a closer look at how EMC's remote managed services and residency services could help.



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