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Introduction

IT users of every type have always pursued higher quality services and improved flexibility, scalability and transparency. Nowhere is that more true than when these IT users are in the market for remote management of their IT infrastructures. Achieving such goals at a lower cost and with a smaller footprint has traditionally meant transferring control and/or ownership of their IT assets, all IT infrastructure, and sometimes supporting human resources as well, to third parties through infrastructure outsourcing models. CIOs have transferred ownership of their IT assets and operational responsibilities either to suppliers or to intermediaries offering leaseback agreements.

In the past, concerns and possible negative impacts associated with the loss of control over these strategic assets were outweighed by the financial savings and operational gains many customers reaped in as little as 12 to 24 months. Before even seeing those benefits, however, buyers usually were hit hard with upfront costs and high payback charges during their five-, seven- and tenyear contract periods. The cost of flights, consultants and initial investments eventually disenchanted buyers enough that they tried something different. Rather than outsource infrastructure, some companies decided to maintain ownership and care of infrastructure while paying for use of software that would be accessible through Web-based APIs.

Application Service Providers (ASPs)

This led to the dawning of a new age in the software management market and new providers: application service providers (ASPs), which significantly changed the relationship between end-users and their applications. Within the scope of the ASP model, users paid over time for their usage of software rather than being forced to pay upfront for ownership or licensing of the software. That shifted the burden of ownership and maintenance onto the ASP. This model was especially useful for smaller IT users in both the enterprise and service provider markets who could ill afford multimillion-dollar contracts to install major new software systems to manage their networks and business processes. These users jumped at the opportunity to bring similar (or in many cases the identical) capabilities online with little or no upfront investment, then compensate their software supplier on a 'pay as you grow' basis. CommTech (now Infrastructure outsourcing and managed services no longer mean suppliers must take over customers' IT assets. The emergence of remote infrastructure management outsourcing (RIMO) has empowered CIOs to create unprecedented levels of transparency and flexibility while still maintaining control of key IT assets

part of JDS Uniphase) sold the first-ever ASP-hosted solution in the service provider market, to Canadian carrier CTI, and it did so by renting the software to CTI and others on a per-subscriber/month basis. In this way CommTech was able to position itself as providing 'metered' or 'risk-sharing/gain-sharing' solutions. As a service provider gained more subscribers or an enterprise grew its business and needed to add more internal users, CommTech got paid more for more subscribers or users. Conversely, when a service provider's subscriber count was down or an enterprise's business shrank, there were fewer subscribers/users and CommTech made less money.

The ASP model initially caught fire in the marketplace because it enabled companies to enter new markets and ramp upnew IT initiatives quickly with minimal upfront costs and IT infrastructure. In the case of service providers who turned to ASP providers—including many in the CLEC/DLEC community—it leveled the playing field with the larger/incumbent SPs by getting the new entrants up to speed quicker without the time and cost of major software deployments.

CommTech and many others depended on large ASPs such as Exodus to provide their hosting facilities; unfortunately, the ostentatious data center designs of that era were incredibly expensive to run and maintain while also failing to accommodate many customer-specific applications. That signaled the death knell for ASPs and none of them still exist as standalone businesses today; many simply went out of business while others were acquired for pennies on the dollar by major global players such as IBM.

The ASP model may have failed in the marketplace, but perhaps it failed in name only because the business and

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operational needs that gave birth to the ASP market live on today, and they are actually beginning to experience a sort of renaissance through a new model: software as a service (SaaS). Whether hindsight from the previous decade and newer technologies like Web Services will be enough to help SaaS gain broad acceptance remains to be seen, but one thing is certain: the deciding factor will be the degree to which outsourcers pursue re-architecting and reengineering business models on behalf of their customers.

Software as a Service: SaaS

The benefits of SaaS include:

- Rapid implementation. There is no quicker way to get started with a new software application than to take advantage of a professionally-run service. Even complex business process-oriented applications can be ready to go in less than 30 days.
- Lower capex. Implementation costs are significantly lower than developing custom solutions or purchasing and installing proprietary software and hardware.
- Lower opex. The SaaS model spreads infrastructure, development, maintenance and future innovation costs across a broad base of users.
- Reliable cost forecasting. Subscription fees are predictable, allowing you to forecast your IT costs over several years. (Reliable sales forecasting for suppliers too, through the recurring revenues associated with subscription services as opposed to the bumpier revenue cycles associated with outright software license sales.)
- Ease of access. Implementations are based on Internet access with browser-based interfaces, making it easy for staff to access the service from anywhere.
- 24x7 support. Support staff who specialize in the given application and are available 24x7 can mean significant improvement in end-user assistance over on-premise implementations where the support function is spread across internal IT staff and remote vendor support for software-related issues.
- Increased reliability. The infrastructure behind most SaaS offerings consists of professionally-run data centers with full system and database redundancy,

- load balancing and failover, which leads to better availability and performance.
- Increased security. Physical and data security are generally greater than most companies will put in place for on-premise implementations.
- Future-proof IT. Planning and managing upgrades is someone else's problem. You get the benefit of frequent upgrades without the hassle of testing, managing change control or converting data.
- Reduced risk. Low upfront cost, little or no staff time to get going, and an already up and running environment prevents most of the risks of selecting and implementing new software. The project will be on-time, there will be no hardware costs or other infrastructure surprises, and if it's not the right software, you won't be walking away from a big investment if you choose to make a switch.

Cisco jumped into the SaaS market feet-first in 2007 with its acquisition of WebEx, where it competes with Microsoft, Salesforce.com, Klir Analytics and others.

Outsourcing Deal-Breakers

Companies that are still trying to increase utilization and cost-efficiencies by shifting control of their assets to third-party suppliers soon begin to notice the opaque nature of their 'asset-heavy' contracts and increasingly find it difficult to decipher the legitimacy of partners' practices. Too often, the 'output-based' principles embodied in these arrangements hide specifics about perserver, per-MIP, per-Gig or mainframe charges. Even IT assets tend to become a point of contention, as equipment vendors and outsourcers frequently disagree about ownership of elements or processes. The confluence of these factors leads to difficulty in determining the percentage of work that was dedicated to servers, networks and people. That will inevitably diminish return of asset (ROA) benefits for buyers that are already vulnerable because of new accounting regulations in EMEA and the U.S. (e.g., Sarbanes-Oxley) requiring that assets appear on a company's balance sheets even if transferred. The impact on ROA will cause buyers to look for alternatives for infrastructure outsourcing.

Conversely, on the supplier side of the equation the risks of carrying very large assets are growing. Increased





capital expenditure requirements are difficult to justify as the average IT outsourcing contract becomes much shorter and less lucrative. Often those long-term 7-10-year contracts do not actually generate a profit until year 4 or 5, so today's trend toward shorter, 3-5-year deals is putting a squeeze on traditional outsourcers. In addition, as leases become more complex to devise, suppliers are seeking alternative agreements.

Outsourcing providers who (perhaps wisely) forgo asset transfer arrangements and instead opt for fully software-based offerings such as SaaS are not out of logistical danger either. They are on the forefront of a new industry that could easily fail for any number of reasons, just as its ASP predecessor. One crucial factor is for providers to realize that a true understanding of individual applications is critical for on-demand applications, because these are at the forefront of most buyers' business plans. Remember, the past failure of ASPs was partly due to the server farm/cookie-cutter nature of their offerings that did not speak specifically to the applications they were enabling and supporting.

A Growing New Model: 'Asset Light' RIMO

As CIOs increasingly work with remote infrastructure management tools for configuration, testing and distribution of software, more and more engineers are being empowered to remotely manage data centers, storage, networks, desktop support, help desk and security (i.e., security and control: certified ISO 27000). As CIOs become comfortable with remote management of infrastructure planning, administration, monitoring and problem-solving, a new model—remote infrastructure management outsourcing, or RIMO—is emerging to help buyers gain many of the hoped-for benefits of asset ownership transfer without the sometimes nightmarish costs and risks associated with that older model.

RIMO, also known as the 'asset light' model, is an increasingly popular form of selective outsourcing in which a solution provider assumes responsibility for managing specific (or all) IT/network functions. Unlike traditional outsourcing arrangements, however, RIMO does not entail the transfer of an enterprise's assets or personnel to the solution provider or data center. Instead, the organization contracts for a solution provider to continuously monitor its systems, identify po-

tential problems and remediate and resolve real events from a remote location.

The foremost practitioners of RIMO today are managed service providers, or MSPs, who manage IT services for other companies via the Internet. The MSP business model evolved as the traditional computer value-added reseller (VAR) model continually provided lower profit margins. This changing reality, combined with competition from direct PC vendors such as Dell and Alienware (the latter now owned by Dell) and unpredictable revenues from reactive, break-fix technical support, led to the new model.

In an RIMO scenario, an MSP commonly provides remote network, desktop and security monitoring, patch management, remote data backup and other technical services, monitoring a client's IT infrastructure and resolving any issues that arise within it. Most MSPs charge either a per-month fee, on a time-and-materials basis, or per deployed device (e.g., per server or network device). RIMO is particularly important for the small-to-medium-sized business (SMB) market, giving businesses a relatively cost-effective way to manage their IT without having to hire on-site staff.

RIMO Benefits and Market Growth

According to Everest Research, the RIMO market grew from \$720 million in 2005 to \$1.5 billion in 2006, and Everest expects the RIMO market to exceed \$8 billion somewhere around 2011. RIMO is on the rise because it tends to result in both predictable recurring revenues for the provider and peace of mind for the client, fostering labor arbitrage and delivering greater flexibility and improved process efficiency.

RIMO is inherently more flexible than previous outsourcing alternatives. Assets rarely move from home data centers, and the RIMO model is flexible enough that buyers can move assets to nearshore centers in response to M&A activity, business growth, increased IT volume or changing technology roadmaps.

RIMO shifts control away from the owners of desktops, servers, mainframes and data centers, and toward the buyers themselves. That helps spur competition that is based on price, capability and cultural fit rather than proprietary vendor requirements.



While Open Source and Linux have lowered costs tied to licenses and people, both have also drastically driven up support costs. As a result, CIOs seek less expensive offshore resources that allow for a high level of control over data centers and refresh options.

In the same way that traditional infrastructure outsourcing approached application development by focusing on training people, RIMO-driven companies will focus on training people to maximize their expertise around the rationalization and consolidation of assets. By utilizing industry cost benchmarks for labor, RIMO will facilitate transparent pricing that will enable buyers to see just how they were charged for resources. That is beneficial both for startups needing to focus on core competencies and for large players looking to save on human resources while maintaining control of their assets.

Beyond hardware or people, process efficiency will be another advantage of RIMO's asset light characteristics. Tools for enterprise management and service management will set the stage for centralization, automation and centralization of processes. Companies who are driving the supply side of the RIMO market, and which EMA is profiling in its RIMO Solutions Center, fall into two categories:

- MSPs that own the contract with the end client.
- MSP technology providers, companies offering software systems and/or hardware appliances that provide the technological building blocks for the services MSPs deliver to their customers. Some industry observers term these companies 'managed services software providers,' but that is too narrow a definition considering that they may be providing software, network devices/appliances/probes, services, or all three to an MSP.

These MSP technology providers are bringing the tools and solutions to market and enabling RIMO to flourish. Larger players such as HP, IBM, CA and BMC have hybrid product suites that have resulted from their own internal development plus key strategic acquisitions over the past five years. At midyear 2007, HP and IBM are both engaged in high-profile integrations of their enterprise- and telecom-centric software modules into integrated end-to-end platforms that may be ideal for complex RIMO solutions. Smaller players such as NimSoft, ComBrio and Level Platforms offer simpli-

fied, readily-deployable IT monitoring and management systems with little or no upfront cost and customers pay on an ongoing subscription basis. A revolutionary 'MSP-in-a-box' solution from N-Able is helping still others get quickly into the RIMO business by providing them with not only the software they'll need to get a handle on customer networks and systems but also the hosting facility needed to do the ongoing monitoring.

RIMO Models

'Asset light' does not mean 'asset-free.' Instead, it means buyers will have more power to retain ownership of their assets so they can not only relieve themselves of vendor control but also break out functions according to core competencies and overall value to the organization, and outsource or 'in-source' pieces of the IT infrastructure accordingly. To do this, CIOs will commonly break their overall IT infrastructure into independent 'towers' such as network management, server administration, maintenance and desktop support. Towers give IT executives the flexibility to pick and choose functions they are willing to farm out to suppliers to get started with RIMO. For example, outsourcing server monitoring within a data center, or quality assurance after code is written, can be a safe way to start. By beginning with one tower at a time, CIOs can familiarize themselves with RIMO providers across different regions with various technology installed bases, as well as varying IT expenditures, resources, governance, and methods of process engineering.

Three RIMO multi-sourcing/'collaborative sourcing' models are emerging:

• Selective/discreet RIMO, where a set of functions and processes is set aside for remote management. That means, for example, that functions such as help desk or data center may be retained by the customer while their monitoring and management is outsourced. This is the best way for most IT executives to get started with RIMO regardless of company size because it involves the least risk: if the first RIMO arrangement does not work, it does not jeopardize the company's entire IT infrastructure. It also embodies the real promise of RIMO in that the company can outsource pieces of the IT infrastructure to different providers based on their relative capabilities and offers.

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- Full-service RIMO, where a company outsources services but retains the assets and the physical data center. Decisions around full-service outsourcing depend on business case and strategic drivers such as asset refresh and data center consolidation. This scenario is ideal for those companies with the largest embedded base of both IT investment and in-house experience with regard to the equipment itself, but little capability and expertise in application management. This is a good model for nearly all Tier 1 organizations.
- Vendor-managed inventory (a.k.a. business-ready infrastructure or BRI), where assets are largely owned by the RIMO provider. BRI combines certified, on-demand application infrastructures and offshore-based services to create a predictable, payper-use, multi-year service model and a platform for SaaS that is ideal for the SMB market.

As CIOs evaluate the three to decide what should remain local and what should go offshore or nearshore, they should keep an eye toward increasing their leverage in the procurement process so they can better negotiate prices and services among suppliers. As collaborative outsourcing picks up, buyers should aim to move ahead with a best-of-breed approach to optimizing services and prices.

Looking For a Trusted Partner

The RIMO model is being driven by leading offshore companies such as HCL, Tata, Wipro, Infosys, Satyam and relative newcomers such as Patni. These companies are establishing substantial infrastructure in Latin America and other regions where time zones are closer to that of the U.S. Africa is also becoming a popular choice for additional resources to support customers based in Europe.

While India-based firms have been the pioneers in RIMO as they traditionally were conservative with investments outside of their home country and RIMO required little foreign investment. Now infrastructure outsourcing juggernauts like CSC and Accenture are moving in the same direction. Many are already expanding their traditional offerings to take advantage of offshore labor arbitrage or to compete by offering key RIMO components. While that muddies the water a bit in terms of buzz and hype, it will spur companies to

jockey for better position with more competitive pricing and service options.

Before choosing a partner, buyers must analyze their goals for implementing RIMO so they can match their desires with the capabilities of the supplier. Is the goal to leverage existing investments, or to increase service levels for end-users? Is it to improve end-user response time? To increase flexibility? To centralize and consolidate processes?

During partner selection it is important to strike a balance between onsite and offshore resources and elements of a global delivery model. RIMO partners should be willing and able to work within a best-of-breed/collaborative world, as that is the direction in which CIOs are headed. They now want the best locations, resources and prices for a variety of functions, and they want the flexibility to farm out different pieces of infrastructure to myriads of suppliers.

In doing so, CIOs must be diligent about establishing a governance structure so that management of multiple partners and contracts is feasible.

CIOs should also avoid oversimplifying the criterion on which they judge potential suppliers. Many rely on Gross Domestic Product (GDP) or number of IT graduates in a certain region. These variables can be valuable, but deceptive on their own. Measurement tools should cover a breadth of variables such as a supplier's technology installed base in a given region, IT expenditures and IT infrastructure resources. Also critical is the experience level of the vendor in running infrastructure management services, especially the services portion and bandwidth provisioning assets. Finally, a supplier's track record in standardizing and centralizing services is of paramount importance, as that will help a CIO avoid the need for the time and cost associated with developing multiple prototypes.

Enter HCL

HCL Technologies is one of India's leading global IT services companies, providing software-led IT solutions, remote infrastructure management outsourcing (RIMO) services and business process reengineering. Having made a foray into the global IT landscape in 1999 after its IPO, HCL focuses on transformational outsourcing, working with clients in areas that impact and redefine the



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core of their businesses. The company leverages an extensive global offshore infrastructure and its network of offices in 17 countries to deliver solutions across select verticals including financial services, retail/consumer, life sciences/healthcare, high-tech/manufacturing, telecom and media/entertainment. HCL employs approximately 40,000 professionals and has annual revenues in the \$4 billion range.

HCL's RIMO solutions help companies realize operational efficiencies through better process documentation and streamlined processes. It helps customers focus on strategic and core areas rather than extended IT planning, evaluation, acquisition, deployment and training cycles for every new technology, service, application and upgrade. In delivering RIMO solutions, HCL uses its own tools, those of the client or a shared architecture, and HP OpenView and BMC Patrol are often in the mix. HCL can manage up to 85% of services remotely.

"We try to get our arms around how our customers approach IT, and then we try to trump it. If a company uses 20 people for a certain process, we try to do the same or better with a smaller headcount," explains Anant Gupta, COO of HCL's Infrastructure Services Division (HCL ISD) and corporate VP of HCL Technologies. With all its potential, Gupta acknowledges RIMO is not a silver bullet. Until CIOs can weed through their data and process problems, they will end up outsourcing the same problems to someone else. "You need a partner that understands your business, and your processes; technology is just a piece of the overall picture," says Gupta.

Savings of Up to 35% in 12-18 Months

As buyers go through process transformation, they should expect some upfront cost to optimize their existing IT operations and to reinvest cost-savings into RIMO for future transformational gains. According to Gupta, it takes 12-18 months to fully deliver the business benefits of relocating services to low-cost, remote locations. "RIMO is not a silver bullet, but it provides an arsenal of tools to test, configure, and distribute software remotely." According to Gupta, HCL's RIMO deployments have been reducing customers' IT operations budgets on the order of 35% while maintaining the same or better level of service.

Three-Step Plan

One of HCL's key differentiators is its ability to employ a methodical RIMO transformation. A typical engagement usually takes place in stages:

- Assessment. HCL makes a detailed assessment of the buyer's current IT environment to establish a foundation for a detailed roadmap for transitioning services, determining the potential savings and risks associated with offshore delivery to the particular customer.
- Transition. HCL and the customer determine how to minimize risk and establish SLAs around process documentation and standardization. Each party looks to ITIL and IS 20000 (BS 15000) to assess how to find synergies among standard operating procedures and escalation processes for managing infrastructure.
- Transformation. The transformation phase's initial objective is to streamline processes through better documentation and event correlation, paving the way for major business process improvements and cost-savings going forward.

Once tools, process, and infrastructure upgrades are determined, the business case for refresh cycles are evaluated to determine the devaluation of certain equipment. "An RIMO supplier needs to be vendor-agnostic so it can add value without selling more hardware to the customer," says Gupta, noting a similarly scoped contract in RIMO will create asset deflation that is 30% of that of an 'asset-heavy' model. "As we evaluate the lifecycle of a customer we balance efficiency, operational gains and cost benefits around assets, people and tools," Gupta says. "On the supplier side, RIMO helps us to collaborate with our customers so we can build architecture based on the customer's intimate knowledge of its business."

Conclusion

IT users of all types and sizes need higher quality services and improved flexibility, scalability and transparency, but the question is how to obtain those desired (and desirable) goals. In the past this nearly always meant giving over control of their entire IT infrastructure (and often some of the people who were managing it) to an IT outsourcer. In many cases this resulted in financial savings and operational improvements—but with upfront and

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ongoing costs that customers found too onerous for the received (or perceived) benefit. Thus they turned to the ASP model, which offered low or no upfront cost and ongoing payments based on users, subscribers, services or some combination of the three. Newly-hatched service providers such as CLECs and DLECs jumped on the ASP model because it could get them quickly on an even footing with the ILEC and IXC behemoths with whom they were trying to compete.

Unfortunately, the ASP approach collapsed when the costs and logistics associated with the hosting facilities that were needed to make it go became too heavy for the ASP providers to survive—accelerated by the fact that their one-size-fits-all offerings were not a good fit for the application-centric requirements of their customers. However, ASP "lives on" in many ways in today's nascent market for software as a service (SaaS), which offers a number of benefits that ASP did not survive long enough to deliver upon: lower capex and opex, rapid ramp-up, increased reliability, greater security and future-proofing customer IT strategies.

Whether companies turn to a traditional 'asset-heavy' outsourcing contract involving transfer of IT assets to the provider or zero-asset-transfer SaaS arrangements, they are likely to run into pitfalls ranging from asset contention and security to legal and tax issues. Providers are feeling the squeeze as they can no longer rely on long-term deals to pay off in four or five years when total contract lengths are shrinking into the three-to-five year range and thus closing the profit window.

These factors have led to a new remote infrastructure management outsourcing (RIMO), or 'asset light' model, where in most instances customers retain ownership of their physical network assets and the RIMO provider monitors and manages the infrastructure, delivers ondemand services or fully outsources a certain area of the customer's business processes such as the help desk. Leading RIMO providers include HCL, Tata, Wipro and many more—in fact, EMA has identified up to 200 companies either already in or currently entering the RIMO space.

One of these players, HCL, has more than 40,000 employees in 17 countries and annual revenue of approximately \$4 billion. HCL can manage 85% of the typical enterprise's services on a RIMO basis and commonly slashes customers' IT operations budgets by up to 35% while delivering either the same or better level of service. We believe HCL is one of the world's top 10 providers of RIMO solutions—a global market that some industry observers believe will reach \$8 billion by about 2011.

Given its breadth of offerings suitable for a wide range of company types and sizes, combined with its global presence, financial growth and stability, we believe CIOs and IT managers in the enterprise and communications/media/entertainment industries would be well advised to place HCL on their shopping lists when considering a RIMO outsourcing strategy.



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