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Adding Value Through Automation: The Evolution of Remote Infrastructure Management

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The Evolution of Remote Infrastructure Management (RIM) is not a new concept, but it's one that is transforming from basic labor arbitrage into something far more significant for business. Initially, this type of solution was deployed primarily to reduce costs. Today, that focus has shifted. In this just-in-time, 24/7 world, the costs related to IT failures far exceed the incremental benefits achieved by slightly lower labor costs. As a result, a new type of automated RIM solution is emerging. To clearly understand where RIM is heading, it's important to take a look back to see how this solution has transformed over the past five years.

Originally, data centers operated holistically, housing IT infrastructure, as well as the IT resources required to support the enterprise. If there was a problem, the appropriate engineer physically left his or her cubicle and remedied the situation. Communication among the different support groups occurred, literally, over the cubicle wall. These centers were strategically placed in a handful of key cities around the United States.

As time went on, maturing technology, combined with proliferation of Mid-Range Distributed Systems, enabled companies to begin offering remote IT support, instead of relying on an on-site staff. Processes evolved to the point that almost all aspects of an IT environment, from edge devices to mainframes, could be effectively managed remotely. To differentiate, service providers began seeking out remote locations with reduced labor costs, and the concept of Remote Infrastructure Management was born.

As the business environment became more global, the concept of near-shoring and offshoring IT service delivery became more widely accepted. In addition to the right locale and trainable people, the success of an RIM solution relied on the strength of a company's processes. When engineers resided in the same building, side by side, how they operated often came down to personal preference. Offshoring simply can't work that way. To successfully deliver consistent performance in line with service level agreements, all processes must be tightly documented to ensure that every person is doing everything in exactly the same way – no matter who that person is or where he or she resides. At this phase, processes moved to about 3 on the Carnegie-Mellon Capacity Model Integration (CMMI) in terms of maturity.

As companies continue to expand globally and look for cost efficiencies, RIM adoption continued to increase. Today, the bulk of new contracts include some form of offshore RIM components. Industry standards indicate that between 70 and 75 percent of IT staff now work remotely – outside of the data center, typically in a best-shore location. ACS's maturing in performing RIM extends well beyond these industry averages. In some cases, ACS has successfully "RIM-ed" approximately 85 percent of labor content to remote support locations.

Automating Processes for Faster Response

ACS recognizes that incremental RIM – or just moving workloads to low-cost labor locations – has reached the point of diminishing returns and minimal differentiation. Over the last couple years, ACS has been investing in automation and the reduction or elimination of human interaction within the RIM environment. The goal shifts from simply reducing costs to adding business value by enhancing service levels, improving service management consistency and quality, as well as providing the ability to scale at very low costs and high speeds.

Let's look at a typical scenario, without the automation factor built in. A client calls in to report an incident. He or she is asked a series of questions, often multiple times, just to make sure that the engineers are working on the correct problem. In other words, is the system really down, or is the desktop unplugged? When the issue is identified, a ticket is created and routed to the appropriate area, and another individual spends an additional 15 to 20 minutes to resolve the incident. The process is much like a hospital emergency unit: triage to gauge the severity of the situation and where it needs to go to get resolved; diagnosis to identify what the problem really is; and resolution to remedy the situation.

By applying various levels of automation, this time to resolution can be significantly reduced.

With a basic level of automation, technology can monitor the system and generate an alert for the incident sent to a technical support monitoring team to create a ticket. This ticket begins the triage/diagnosis/resolution process, possibly before the customer calls in to report the incident.

Taking that automation to the next level, the alert information can be used to automatically generate a ticket and immediately get this into the system so the appropriate organization can see what's happening and resolve the issue, without spending the additional five to 10 minutes manually creating the ticket.

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But, what if this entire process was automated? The first level of response becomes like a triage unit, identifying the real issue by having the system “ask” five questions and documenting the response, then, based on these answers, fixing the problem without any human intervention at all. People are engaged for exceptions only. Everything else – from report through resolution – is handled by the technology itself. This model uses human labor for what it’s good at – abstract problem solving – further moving the process to the top of the CMMI scale.

Consider the fact that in ACS engagements and, similarly, industry-wide, 92.3 percent of incoming client calls involve incidents – forgotten passwords, backup issues and the like. Incidents are contrasted from requests (where someone wants something new or changed) and from consultation (where someone has a question). If the majority of these incidents could be handled in one minute automatically, instead of 20 minutes with human intervention, the impact would be dramatic.

The measurements are calculated not by headcount reduction but in pure business value. How much does a company lose if its e-commerce site is down for 15 minutes? How much does it cost the state if a tollbooth isn’t working? If lottery tickets aren’t printed on time? If an airplane doesn’t take off on schedule? Reducing the time it takes to resolve these incidents from 15 to 20 minutes to just seconds can be monumental from a business perspective. What an automated RIM solution does is increase the availability of technology and, in turn, enables clients to provide better service to their own customer base. As a result, these client customers don’t go to a different website to buy; they don’t switch carriers to get more-reliable, on-time delivery. By focusing on innovation through automation, RIM can become a solution that not only saves companies money but also gives them a competitive advantage within their own marketplace.

Although any degree of automation saves the IT personnel time, a fully automated RIM solution saves the client company time. Not only does the IT save the time of creating a ticket or going through the diagnostic and repair process, the client representative is no longer spending time on the telephone, providing the information needed to solve the problem and waiting for resolution. The value of that gained productivity is significant and cannot be ignored.

The good news is, an automated RIM solution is not one that requires years to implement. By the time a solid RIM solution is in place, hundreds of hours have already been spent on detailed documentation. The same process documentation that is used to train people can be used to create the foundation for automation. Today we use it to invest in automation.

Moving to Pre-emptive Resolution

In addition to speeding resolution, an automated RIM environment identifies the types of incidents that occur so that they can be addressed proactively, eliminating the incident altogether. Using quality assurance tools, such as a Pareto chart, engineers can easily see the most common incidents for a specific client and research the root cause. For example, if a particular client is continually experiencing backup issues, the problem may be inadequate C drive space – something that could be remedied by a server reconfiguration. Instead of spending time writing tickets, skilled personnel now can focus efforts on continued automation and remedying points of pain.

It is important to note that the true goal of automated Remote Infrastructure Management is not just to fix incidents but to also be able to proactively address and eliminate incidents to the extent possible, using manual intervention for exceptions and for finding new ways to increase automation further.

While we can’t create a perfect world, we can create an environment where incidents are resolved consistently, with an accelerated level of speed and at a volume level that no human being could match. Instead, we use human capital to manage exceptions and continue to seek ways to use technology to make the operation more efficient.

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Positioning to Succeed in a Changing Economic Environment

In a turbulent world economy, companies are looking at their IT enterprises as business enablers, not simply as overhead cost. While controlling expenses is always a consideration, companies today are far more focused on finding a partner with an optimal RIM service strategy, instead. The ability to automate process and provide self-remediation capabilities is key to delivering increased service efficiencies. In other words, the time it takes to resolve an issue has a significant impact on a company's ability to compete. An e-commerce site down for 20 minutes the weekend before a major holiday can dramatically impact revenue. A missed ship date, an interrupted supply chain – all can manifest themselves in a reduced ability to compete.

Instead of looking at *where* providers offer their RIM solutions, businesses must begin to scrutinize the level of automation and proactive response offered within these solutions and how they tie back to service level agreements.

As a leading Remote Infrastructure Management provider, ACS is at the forefront of the automated RIM trend. We have a dedicated team solely focused on process automation, both identifying new areas that can be streamlined and deploying automated solutions within the enterprise. We have the processes in place and have invested in the technology and tools needed to provide increased service levels to our clients.

Today, an effective RIM solution should extend well beyond pure labor arbitrage to deliver more than incremental cost reduction. It should add value by optimizing processes and system availability – and ultimately giving client companies a competitive market advantage.

You can learn more about us at www.acs-inc.com.

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