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The Future of Managed Services… And What It Means to You

Companies of all sizes and across multiple industries are investing significant resources in "digital transformation."

But what exactly is it? Setting aside all the many technologies that come together to create digital transformation for an organization, perhaps the best definition comes from consulting firm Deloitte: "Simply put, digital transformation is the process of future-proofing one's organization."[1]

Future proofing, something every organization should do, starts with a plan. A very methodical plan that is based on real science and metrics. The technologies that intersect to create digital transformation – everything from cloud to the Internet of Things (IoT) to big data and artificial intelligence (AI) – don't exist in a vacuum.[2] These technologies are part of an ever-expanding compute ecosystem that creates a true digitally transformed environment and, ultimately, provides a better digital experience for the users of that environment. However, digital transformation must be managed to succeed, something which many organizations are quickly realizing is a very daunting task.

In order to future-proof your digitally transformed environment, you must first manage performance issues. In

fact, the goal should be to eliminate the service impact altogether. The more we understand and can harness the power of the various compute and measurement tools available today, the closer we can come to achieving that goal with certainty and reliability.

That's where managed services can become an incredible ally. Rather than trying to manage all the complexity involved in achieving 100 percent uptime, it makes sense to partner with a managed services provider (MSP) that has already made the investment in the people, technologies and processes to help you do just that. In this white paper, we'll help you understand what can be done and how to choose an MSP capable of implementing a service and support strategy that will keep your digitally transformed environment running at peak performance 24x7x365.

Game Changers in Managed Services

Knowledge is power, and nowhere is that more true than in the realm of managed services. If your MSP can predict something is about to go wrong in your environment, then that MSP can proactively fix it. How can they know? By combining data lakes and machine learning to allow sophisticated algorithms to compare historical trends about the way your environment works with anomalies as they occur in real time, the MSP's technology can then create a red flag when something is going awry – before it impacts your systems. Getting to that point, however, is a process. And to understand that process, it helps to examine the progression of managed services.

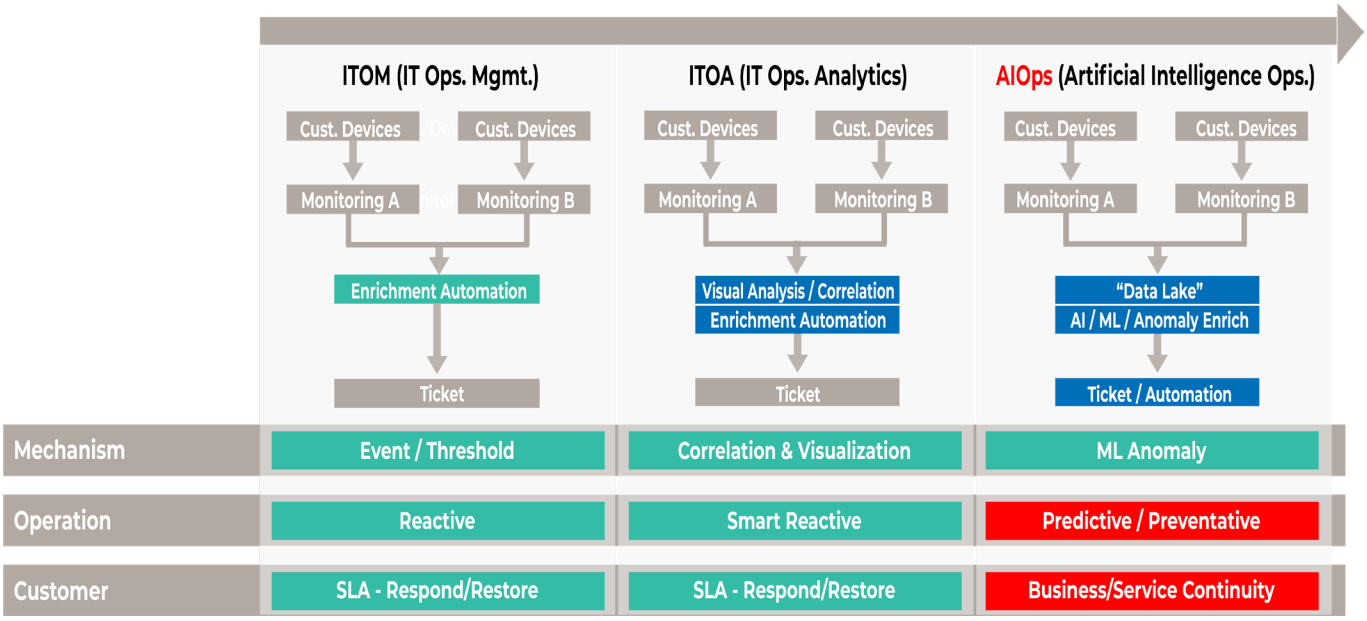
- **Reactive:** In the past, MSPs monitored their customers' compute environments and either the MSP or the customer entered a service ticket when some aspect of the customer's compute environment had an or error or failure. The MSP then fixed the problem. Some of the monitoring was automated, which saved time and money for the client, but in the end, the work was largely reactive break-fix work. The timeframe in which the problem was remedied was based on the customer's Service Level Agreement (SLA) with the MSP, an agreement which dictated how long the MSP could take to respond or restore the service.

- **Smart Reactive:** Not long ago, some MSPs and enterprises realized that more data equals more knowledge. So they implemented enriched systems that would help them see trends and correlate alerts on one device with their impact on other devices in the network. A service ticket was still generated for the device that was down, but its system-wide impact was lessened based on this "smart" reaction that had only just begun to tap into the power of analytics to provide faster response times and mitigate downtime. The customer's environment was again remedied based on the terms of their SLA with the MSP.

- **Predictive/Preventive:** Fast-forward to the future of managed services. To achieve true business continuity, MSPs have to harness the power of IoT data and analytics in a much more deliberate and significantly more in-depth manner. To do this, they have to understand, implement and create programs that allow them to monitor as much of the customer's machine data as possible. And in the case of clients that have individual devices with IoT sensors continuously sharing data with the network, responding intelligently to that data can become a monolithic task. By employing artificial intelligence (AI) and machine learning (ML), however, real-time, anomaly-based information can warn the MSP of an impending service impact, allowing the MSP to correct the fault before it impacts the client's environment. Be careful, though: Just because an MSP uses AIOps terms during a sales pitch doesn't mean they have the sophisticated algorithms and technological capabilities to employ it.

> "Today, companies rely heavily upon human intelligence to interpret, anticipate and intuit information in ways that machines cannot. That's about to change." [1]
>
> - Deloitte: Tech Trends 2019

In fact, the complexity of pulling this all together in ways that result in uninterrupted uptime is difficult



to do. It requires trials and testing – extensive testing – to ensure it works to the client's advantage. This is why digitally transformed organizations are quickly realizing they need help. Unless your expertise is in managing complex compute environments and writing custom software to help your management systems gather, integrate, understand, intelligently alarm and automatically respond to potential service impacts, then it makes sense to partner with an MSP that has made AI managed services its sole focus.

The Trouble with Tools

There are a myriad of tools on the market today that help in-house IT teams and MSPs alike manage compute environments. And while many of these tools work exactly as intended, most have a single-minded purpose. Some, for example, monitor the entire enterprise, but rarely do these tools monitor for changes in the environment, automatically integrate the changes into a service management process, automatically start monitoring, and intelligently correlate information from

54%

CIOs who say their success is being measured by their company's system availability. [3]

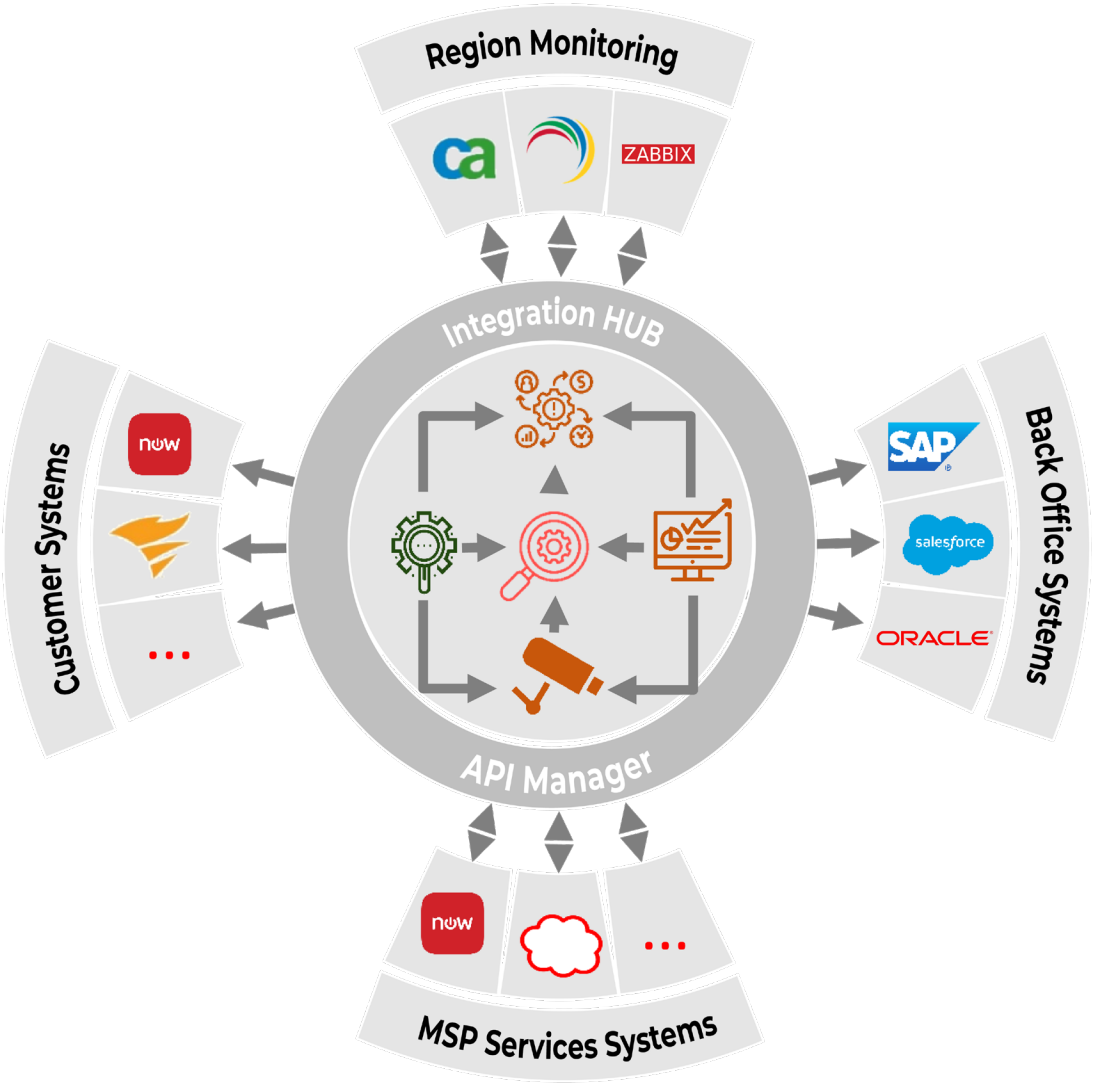
- Logicalis: Global CIO Survey

the new devices with the complete environment. Advanced MSPs can do all of this.

But paying an MSP to monitor every device on a network at all times can prove too costly for most clients. And trying to do it in house is both costly and inefficient. Recognizing this, numerous vendors of IT products have begun to build self-detecting sensors into their devices so the devices themselves can alert human beings – or even self-heal – when there is a failure, shortening the time to remediation and increasing business continuity in the process. This is helpful for the health of the device, but what about the overall environment and the health of each service the customer is delivering to employees and customers?

Imagine a company that has 1,000 computing devices in its environment. The entire environment can be monitored for failures electronically, but if one device fails, what are the service impacts and root cause? If that client only wants to pay an MSP to manage 100 of those devices – just 10% of the devices in the environment – the MSP is missing out on valuable data about parent-child device relationships and the true health of the end services. While one device may have become self-aware and capable of reporting an outage, its relationship to all the other pieces of equipment in the network is not being reported, nor is the health of the overall service. Therefore, there are pieces of the equation that are missing, and those pieces are vital to providing consistent service quality. In the past, MSPs would have to create and maintain topology relationships to determine these kinds of associations themselves. With the proper assistance from machine learning technologies, these correlations can be intelligently determined without the old-school topology management.

> "The business world is looking at how it can leverage Internet of Things (IoT) devices, data management, governance and analytics for digital transformation. This movement, however, is not as easy as it might seem." [4]
>
> - Logicalis: IoT and Analytics



In a traditional monitoring environment, each event would have to be investigated one at a time.

With machine learning tools, however, these events could quickly be divided into just two groups designating the correlation of events and ensuring work is quickly focused on the primary underlying issue, of course, saving tremendous amounts of time in the process. By combining tools that allow machine learning and anomaly detection algorithms, the MSP can detect unusual behavior on an individual device or in a particular part of the client's environment.

Once the system has captured historical norms, it knows (through machine learning) what "normal" looks like for that environment. Any deviation

outside that normal behavior will be noted (through anomaly detection) and communicated as an alert to the MSP which has built these capabilities into its solution. The ultimate goal, of course, is for the MSP's system to use this information to predict the likelihood of a failure in a particular time period so the MSP – or an automation system – can resolve the issue even before it occurs.

In client environments where performance impacts and downtime are particularly costly to the business, the value of this kind of predictive analytics and the resultant negative mean time to resolve future incidents can be astounding.

What Exactly Is AIOps?

Everything discussed in this paper so far is pointing to a new way for MSPs to provide managed services using artificial intelligence operations (AIOps). It's important, however, to define exactly what this means; then and only then can you begin to assess whether a potential MSP partner can deliver on this promise.

According to research firm Gartner, "AIOps platforms are software systems that combine big data and AI or machine learning functionality to enhance and partially replace a broad range of IT operations processes and tasks, including availability and performance monitoring, event correlation and analysis, IT service management, and automation."[5]

Because AIOps is destined to become the future of managed services, many MSPs have begun using "AIOps" and "machine learning" in their marketing. Buzzwords are a great way of communicating a common and complex idea, but they can also make it hard to decipher the depth of a provider's capabilities. One MSP saying it provides AIOps is not the same as another with similarly sounding claims. This makes it particularly difficult for clients to know the difference.

Discerning Fact from Fiction

There are a lot of great salespeople out there, so how do you determine if what you're being sold is fact or fiction? Start with a thorough analysis of the MSP's systems, and ask the MSP to show you how it all works.

Testing their own AIOps capabilities before they roll them out to clients is one of the top ways to know how serious your potential MSP partner really is

about entering this space. Don't be afraid to ask serious questions about their processes and how deep their involvement is in the AIOps space. For example, did the MSP simply adopt an "AIOps tool" and apply it to their client's environments? Or have they done an exhaustive study of the pool of available tools and algorithms and how those can be incorporated into their processes? Have they looked at previous use cases and tested a month or more of data and a million rows of events against similar data from individual devices with smart reporting capabilities? An actual test like this is the best way to scientifically determine if their solution can accurately and reliably provide the desired outcome for you, their potential client.

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Five Questions for Evaluating an MSP

Once you're convinced they've done their homework and they have the right testing and proof-of-concept data to back that up, there are five additional questions you can ask that will help you determine if you've chosen an MSP partner who is prepared to lead you into the future of managed services.

1. **Are They Structured?** As an MSP grows, if it's not built on a solid foundation, it will start to show a few cracks. The most important thing an MSP can show you here is consistency. How can the MSP consistently align all of its services, tools and processes so that it can provide the same services to every client in every location around the globe? This sounds like something every MSP should just know they need to do. But as you delve into this, you'll be surprised how many fail the test. How do you expose the cracks? Ask them what happens when an engineer receives a service ticket – what's next? What is their structure for incident management or processing a request? Do they have to read text from each client's individual contract to know what

functions to perform – or worse, is it tribal knowledge that no one else has? Or, do they have a common platform that intelligently makes these decisions for the operators based on structured relationships to the customer's contracted settings in the systems?

2. Are Their Tools Highly Customized?

People usually think of customization as a good thing, but in this case, it's the opposite. ServiceNow is a tool, for example, that many MSPs use because it's flexible and allows for extensive customization and development. The problem is, some MSPs over-customize the tool. Then, as a result of the work they've done to customize it, they delay version upgrades. Some customization is both necessary and good, so where do you draw the line? The litmus test is to ask your prospective MSP what version of any of their primary tools they are using. They should be within one to two major releases of the vendor's current version.

3. Do They Have Strong Release Management Methodologies?

MSPs often have to do some software development work to integrate systems, build new functionality and

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At Logicalis, managed services are part of the company's Digital Service Platform (DSP). Powered by Artificial Intelligence Operations (AIOps), DSP puts the focus on prediction and prevention instead of remediation after the fact.

As the future of managed services unfolds, DSP allows Logicalis to deliver powerful services that deliver unparalleled levels of business uptime through sophisticated design and artificial intelligence. DSP uses machine learning and automation to not just enhance the Managed Services experience we deliver to customers, it alters it with richer insights and visibility, unprecedented prediction and prevention, and automated resolutions and responses.

enhance their environments, but there are ways to do that dev work that are either rudimentary and ad hoc or organized and methodic. If they add functionality to their ServiceNow tool, for example, it should go through a prescribed development lifecycle. No matter what kind of development work the MSP is doing – from client bug fixes to requests for new functions – all of this development work should follow specific step-by-step procedures and protocols to ensure consistency in client outcomes.

4. **How Effective Is Their Vision and Roadmap?** This goes back to the point about there being a difference between a great sales pitch and a great outcome. Many MSPs can show you an exciting roadmap, but you need to be able to gauge their ability to deliver on those promises before you're deep in the weeds.

   How? Take a look at their past history. Instead of looking for milestones in what they say they can deliver, look for milestones they've successfully accomplished in the past. For example, if an MSP tells you they can help you roll out incident automation, AI for chat bots, and machine learning with anomaly detection, ask them for examples of similar implementations they've completed in the past two years. If they can provide that, and if those examples have a similar cadence to what they're promising, that's a good indicator that they actually can do what they promise. If their past deliverables don't support their future promises, it's a definite red flag.

5. **How Are They Leveraging AI, ML and Automation?** Finally, the proof is in the pudding, as they say. AI, ML and automation in managed services are all about uptime and overall service quality. So, ask the MSP about its track record with business assurance. What can they promise you with regard to your business' uptime, and what proof of concepts can they offer to show you they can deliver on that promise?

   They should be able to give you concrete, numbers-based examples of time and money that can be saved using AI, ML and other automated processes that is based on actual data science and testing they have completed. The more in-depth information they can provide, the better you will be able to gauge their capabilities.

Ensuring Uptime

Clearly, the future of managed services has everything to do with "digital assurance," or ensuring service availability, all the time. Advancements in the use of the AI and ML technologies already available will enable those MSPs who have prepared well to predict future IT incidents and prevent them from occurring, thereby offering business assurance rather than just high-availability. As compute manufacturers create self-healing devices, it won't be long before the norm in computing will be zero downtime and an end-to-end loop where MSPs manage the process of detection, analysis and automated resolution with only limited incidents being escalated to a human being. The key to taking advantage of all this is in selecting an MSP that is business service-focused rather than device-focused, and in selecting a technology partner that is primed for the future because the game is changing fast.

Sources:

1. *Deloitte: Tech Trends 2019 - Beyond the Digital Frontier*
2. *ZDNet: What Is Digital Transformation?*
3. *Logicalis: The Changing Role of the CIO: From the Periphery to the Core (Logicalis Global CIO Survey 2019)*
4. *Logicalis: Webpage - IoT and Analytics*
5. *Gartner: Market Guide for AIOps Platforms*

Learn more about how you can consume services that help you meet your IT needs and enable you to execute your digital transformation strategy. Contact Logicalis to schedule a workshop:

https://www.us.logicalis.com/workshops

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