THE
MA\\VEN
REPORT

From crisis to catalyst

Maximizing the opportunities of this unprecedented time

THE MAVEN REPORT

The Maven Report mission is to provide the connection between technology and business problems, not to sell products or services. We are committed to showcasing great people doing great things with great technologies to achieve great outcomes.

Our Mavens come from diverse backgrounds and organizations, and are not compensated in any way for thought leadership contributions to this publication.

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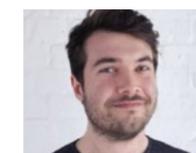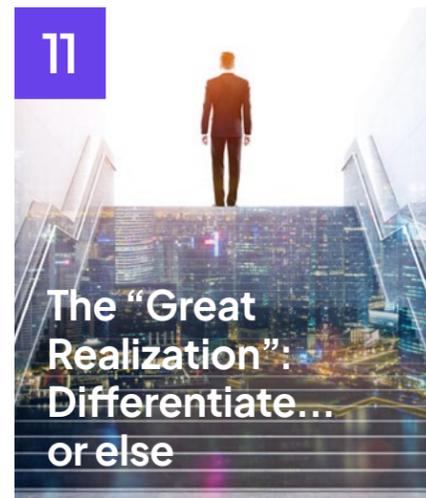
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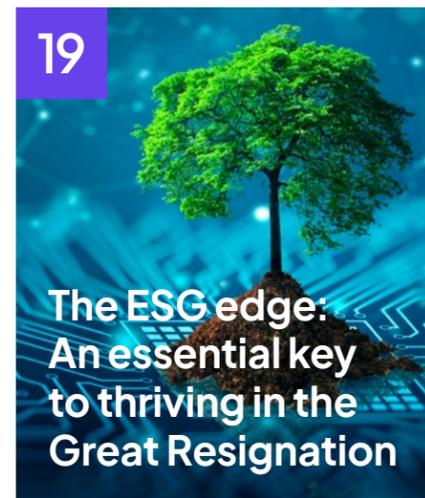
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Welcome to *The Maven Report*

The Maven Report is an independent, commercial-free thought leadership platform, chartered with providing our readers with pragmatic and actionable advice from industry experts who have led large teams through periods of serious disruption. Our Mavens believe that no business problem is insurmountable if you understand how to leverage better people who can harness the power of better technologies.

In this, our inaugural edition, we focus primarily on the most disruptive of all problems facing business today, the "Great Resignation." If we were to go back in time to, say, 2019, and ask one hundred CIOs to list their top three challenges, I believe the overwhelming majority—if not all—would include "recruiting and retaining top talent." Fast-forward to now, summer of 2022, where in the U.S. we have more than 11 million open jobs (with four million in IT alone), about 1.7 million monthly unemployment claims, and wage inflation hitting nearly 12 percent in recent months. This is no longer just a challenge for CIOs as much as it is an existential threat.

If you are concerned about the current or future impact of the Great Resignation, take a few moments to read Brian Klingbeil's feature article, "From crisis to catalyst" (page 4). Brian explores how other organizations have leveraged innovation in previous periods of great uncertainty and disruption, not merely to survive but to thrive.

Are you losing sleep over the worry of competing for top IT talent with trends like mass resignation or massive companies like the hyperscalers who will pay much more? Check out Meredith Graham's article on ESG (page 19). Meredith explains why your ESG strategy is not just altruistic, it also gives you an essential edge in navigating the Great Resignation. I also recommend Scott Grossman's open letter to CFOs (page 11) who may be focused too heavily on hard cost savings during times of disruption. Scott makes the case that while savings are always important, the real cost of distraction is far more burdensome.

Lastly I want to underscore our Maven "Declaration of Independence": Our mission through *The Maven Report* is to provide the connection between technology and business problems—not to sell products or services. In this and future issues, we will showcase great people doing great things with great technologies to achieve great outcomes. Our Mavens come from diverse backgrounds and organizations, and are not compensated in any way (except for some occasional cool Maven swag).

If you have a story about how harnessing great technologies has led to better outcomes, or would like to hear one of our Maven's perspectives on a particular topic or trend, please get in touch at hello@themavenreport.com and let us know!

All the best! *jb*

Jonathan Bumba,
Ideas Maven

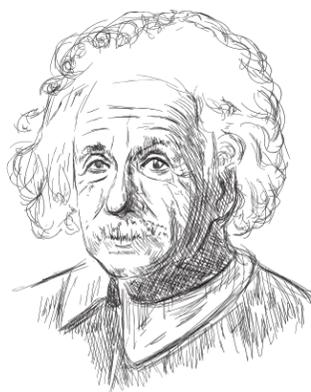Today's disruption can reveal the path to a better tomorrow for your business—if you know where to look and equip yourself to act.

From CRISIS
to CATALYST

Maximizing the opportunities of this unprecedented time

By Brian Klingbeil,
Chief Strategy Officer, Ensono

> ## "In the midst of every crisis, lies great opportunity."
> – Albert Einstein

The competition for attention in modern media has caused words like "unprecedented" and "historic" to lose some of their impact. But every once in a while, a period arises that warrants such hyperbole. In the last two years, businesses have faced a crisis the world has not seen in the modern era. The COVID-19 pandemic shattered millions of people's lives and shut down large parts of the global economy. Unprecedented and historic, indeed.

The disruption this crisis triggered was immediate, universal and profound. Old ways of doing things were rendered useless almost overnight. New ways had to be found just as quickly. As usual, humans displayed an uncanny ability to adapt to their situation. Even late adopters of technology began engaging digitally for commerce, communication and entertainment. Digital transformation took off to an unprecedented degree in the pandemic, with cloud computing helping firms to rapidly scale up their technology programs. Sometimes this "uncanny ability to adapt" showed the dark side of human nature with opportunistic security challenges emerging.

Not all companies made it through that initial tsunami of disruption. But many that did survive and even thrive were able to do so by being agile and adapting to the changing circumstances. The pandemic has faded somewhat from view, but new challenges have arrived in its wake to threaten businesses: Geopolitical conflict, economic instability, the threat of recession. We're not out of the woods yet, and chances are there will be yet another forest waiting just beyond the next clearing.

The prospect of yet more crises and disruption can be daunting, even to a veteran CEO. But it can also be an exhilarating one. It all depends on how you, your leadership and your business choose to respond.

The truth about talent

The sprawling talent crisis brought on by the pandemic often referred to as the Great Resignation has posed significant and ongoing challenges to businesses worldwide. As demand has soared, companies have consistently struggled to fill the job roles to meet their needs. The problem is particularly acute in the tech sector. In the U.S. alone, there are approximately 3.9 million unfilled IT roles.[1] Meanwhile in March, a record 4.5 million U.S. workers quit the labor force.

Explanations for this trend vary. Some point to burnout during the pandemic, others highlight a search for higher pay or a search for more meaningful employment or simply people opting for early retirement with new priorities. Tackling the problem is clearly front of mind for executives—a recent *Fortune*-Deloitte survey[2] found 73 percent of CEOs saw a labor/skills shortage as the most likely external issue to disrupt their business in the next 12 months. This aligns with the findings of a recent Forrester Total Economic Impact™ (TEI) report (see infographic, page 10), in which 74 percent of interviewed executives said they are planning measures to counter the talent and cost impacts of the Great Resignation.

One such measure should be to differentiate your organization from the competitors your ideal candidates are looking at. If people are sitting in companies that cannot or will not embrace change and new ways of working, take this opportunity to offer something better (see our related article, "The ESG edge: An essential key to thriving in the Great Resignation," page 19).

At the same time, the market pressures currently at play will inevitably force many companies to scrutinize and reprioritize expenditures, including headcount. And crises aside, the rise of the shorter-tenured employee is a trend that's here to stay. The blunt truth is, you will not save everyone in this environment. Seize this moment as an opportunity to concede and accommodate this fact by coupling your focus on attracting and retaining the highest-impact talent with a reduction in your dependence on tribal knowledge. This means enhanced processes, and rapid and robust training and education programs.

Lessons from the company graveyard

Looking back to previous crises, we can learn valuable lessons from companies that failed to adapt to the challenge. In the 1918 Spanish Flu crisis, businesses were ravaged by disruption as the pandemic swept the globe, killing an estimated 40 million people. Sharp falls in economic activity led to, in most countries, around a 6 percent fall in real GDP per capita.

Adapting to a changed environment can be difficult, especially for companies that have had great success doing things one particular way. Blockbuster Video is a prime example. By all rights, they should have become Netflix, but their established business model meant that an overwhelming majority of their time, attention and investment dollars were absorbed by that established model—the classic "Innovator's Dilemma." Their crisis happened slowly, making the call to action less obvious. A rapid crisis like the one we experienced in 2020 can be useful.

Finding and nurturing the seeds of opportunity Einstein saw nestled in the corners of crisis requires a cool head and a willingness to rethink norms. Breaking habits or routines is hard and uncomfortable. It takes both courage and conviction.

In this new world, speed matters more than ever. It is imperative that organizations embrace the fact that failing fast is not just an ideal, it is essential for success.

To start, don't worry about perfection. You don't need to be perfect to succeed—you need to drive change and do it faster than your competition. In this new world, speed matters more than ever. It is imperative that organizations embrace the fact that failing fast is not just an ideal, it is essential for success. The next steps businesses take must be guided by innovation.

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[1] Lucas Mearian and Galen Gruman, "How many jobs are available in technology?" Computerworld.com, July 2022.
[2] Sam Allen, "The good news about the Great Resignation," Fortune.com, November 2021.

Inspiration from crisis innovators

Companies that thrive in times of mass disruption do not use it as a moment to throttle back. Instead, they double down on their foundational vision, scan the new landscape for revealed opportunities that align with that vision, and retool their strategy and execution accordingly. Here are three to reflect on:

#1) Amazon – The powerhouse retailer has located and leveraged the inherent opportunities in multiple disruptions: In the dot-com bust, the 2008 financial crash and Great Recession, and now again during the COVID-19 pandemic. Amazon survived the first crisis with their skillful CEO at the time, Jeff Bezos, raising enough money right before the market crashed to give the company a cushion to ride out the early 2000s.

But, interestingly, what made—and keeps—Amazon successful was invented after the dot-com bust and revolves around relentless innovation and automation. For example, Bezos has tried to nurture innovation within Amazon by breaking the company into "two-pizza teams"—teams small enough to feed with two pizzas—that operated autonomously and were held accountable for their results. Another key insight, that crystallized only after the dot-com bust, was the idea that Amazon could be a platform to support other businesses. Amazon Marketplace, Amazon's platform for third parties to sell used books (and, later, lots of other stuff), launched in November 2000. Amazon debuted Amazon Prime in 2005, and later opened its two-day shipping technology to some third-party sellers. Amazon Web Services, which allows third parties to build websites using Amazon's own infrastructure, didn't launch until 2006.

Fast-forward to 2020 and the lockdowns of the COVID-19 pandemic. Everyone was stuck inside their homes, and Amazon was better positioned than just about anyone on the planet to serve them there. Orders skyrocketed, which fueled Amazon to start offering even faster same-day shipping and using robot "drives"—droid-like devices that lift "pods" full of items to speed up picking time in the warehouses to a per-worker average of 360 items an hour—one every 6.7 seconds.

#2) LendInvest – Born from the financial crash of 2008, LendInvest is a UK technology platform set up to connect customers with short-term property financing. In the new world order of finance post-2008, LendInvest zoned in on its core mission to "make property finance simple." It did not attempt to compete in too many areas and with industry incumbents that had the advantage of scale, but instead steadily moved the dial with a transparent, tech-driven financial solution for customers. The results speak for themselves—it broke through the £500 million funding milestone in 2016.

#3) Mailchimp – This now-eponymous marketing platform had humble beginnings way back in 2001. After a steady first few years, the company's big moment arrived in the heart of the 2008 Great Recession, when Mailchimp managed to grow its customer base from 85,000 to 450,000 in the space of a year. How? It recognized the needs of the customer in challenging economic times and shifted from a retainer-based approach to a freemium model. It stuck to its core mission but stayed innovative, growing the business at a time of crisis and laying the foundations for long-term success. In the words of Mailchimp CEO Ben Chestnut, a crisis is not "time to kind of sit on your front porch and sip mint juleps, you know. It's time to build your business strong, build the roots strong."[3]

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[3] Peter Griffin, "Mailchimp founder on weathering a crisis and the power of freemium," UmbrellarConnect.com, September 2021.

You have this job for a reason; you're here for moments like these. Have conviction in your call for change and you *will* rally others to the cause.

Charting a way forward through a crisis is not straightforward for any organization. Leaders need to be clear-eyed and meet the moment head on. They need to crystallize their vision and build a company committed to making it a reality. This is a key moment to overcome "impostor syndrome." You have this job for a reason; you're here for moments like these. Have conviction in your call for change, and you *will* rally others to the cause.

Embrace the new and engage an ally

What is critical to understand is that, fundamentally, what got you here will not get you to where you need to go. Alongside new strategies for sourcing and keeping the best talent, and new ways of delivering on your vision, you need to tap into new technologies to make it all come together. No company should be under any illusion: You are a tech company, even if you're not a "tech" company. Success in this digital economy relies on doubling down on AI, hyperautomation, and high-performance compute. The cloud has opened the door for many firms to access these capabilities to an extent not possible even five years ago (see our related article "Is your organization ready for hyperautomation?," page 14).

If none of this sits in your company's zone of genius, that's okay. You don't have to go it alone. Partnering with an ally to support this journey can be particularly impactful to deliver better business outcomes. Of the executives interviewed in the Forrester TEI report who currently work with an MSP, 95 percent agreed that the partnership enabled their business to focus on higher value initiatives, and 83 percent agreed that the resulting enhancements to technology and tech services improved employee retention.

The COVID-19 pandemic, the Great Resignation it ignited, and the various crises that followed have set enormous changes in motion. Businesses, and those of us who lead them, have no choice but to respond, and have two options for doing so. As my colleague Scott Grossman calls out in his article on page 11, we can apply the old rules to a game that has changed completely and risk going the way of horse-and-buggy operators and VHS vendors, or, we can rise to the moment and view it as Einstein would—through the lens of opportunity that will reveal paths to growth, transformation, and success that have never before been possible and are there for the taking. \\\\

The Power of an Ally

Expert technology advisor and managed service provider (MSP) Ensono recently commissioned a Forrester Total Economic Impact™ (TEI) report to investigate the impacts of a managed service partnership on business costs, operations and outcomes. Results indicate that having a trusted IT infrastructure ally overwhelmingly helps future-focused organizations drive digital transformation by connecting them with better people who know how to harness better technologies that lead to better outcomes.

Better. Faster.

Speed is the new business currency—and it increases exponentially when an organization can lean into its strengths and leverage a partner's expertise for non-core competencies. Of the surveyed IT executives currently working with an MSP or Cloud Service Provider (CSP):

95% agree or strongly agree that their business can take advantage of more growth opportunities.

80% agree or strongly agree that their business has grown at a higher rate since investing with an MSP.

According to one IT executive, the processing capacity added by their MSP partner "allows me to sell to more customers because we don't have the limitation in growth."

Defeating distraction

More than 33 percent of surveyed IT executives identified "IT issues that distract from our business focus" as one of their top IT challenges.

95% of them agreed that working with an MSP enabled their business to focus on other higher value or more creative initiatives.

A "Great Resignation" game changer

74 percent of surveyed IT executives said they are planning (or have already started) to counter the talent scarcity and higher costs resulting from the Great Resignation by improving employee experience and retention. For these organizations, an MSP partnership has proven a powerful strategic ally.

88% agreed they have become a more competitive, sought-after employer by modernizing technology.

86% reduced the need to fill positions for cloud or mainframe developers and others.

83% improved employee retention through better technology and technology services.

43% return on investment was the result of the engagement with Ensono.

FORRESTER®

Survey says: An ally delivers for IT

IT executives working with a managed service provider reported that their MSP partnership delivers a host of benefits.

95% agree or strongly agree that the partnership provided IT with a more cohesive vision across the organization's technologies.

90% realized efficiencies by consolidating/replacing systems.

90% increased reliability, availability, and mean time to repair.

87% reduced their operational downtime.

Other reported benefits:

- ✓ "Strategic value"
- ✓ "Time to be creative (and stay in the 'flow')"
- ✓ "Right-size resource needs where needed"
- ✓ "Be a sought-after employer with modernization"

The "Great Realization": Differentiate… or else

By Scott Grossman, *Chief Financial Officer, Ensono*

The Great Resignation permanently changed the calculus for business success. How will your organization win in the new world order? A ruthless focus on differentiation is the place to start.

The Great Resignation is a crisis unlike any other. The employee exodus we've seen over the past two years—especially in the tech sector—is not, as many businesses unfortunately believe, a phase to simply power through, or one to tackle with outdated pre-COVID-19 tactics that have proven successful in the past. It's time to abandon this kind of myopic thinking.

The NEW name of the game

The Great Resignation now requires a "Great Realization": *The game has changed*. The old rules won't work anymore, and ignoring the new ones puts your organization at risk of becoming one more post-pandemic cautionary tale. Don't let the central banks' recent inflation-containment efforts, and the wave of layoffs they've triggered

across some sectors, lull you into thinking employers will soon be resuming their former place as the supreme leverage holders in the hiring equation. The war for tech talent isn't ending anytime soon. In fact, it's only going to get tougher. A recent *CompTIA Tech Jobs Report* by the IT nonprofit CompTIA identified more than 500,000 tech job postings in June of 2022—a 62 percent increase over the same period last year. To paraphrase Microsoft CEO Satya Nadella, "Digital technology is a deflationary force in an inflationary world." And even in the hyperautomated environment businesses are (wisely) evolving towards, cloud, AI and big data don't run themselves (see our related article "Is your organization ready for hyperautomation?," page 14).

People who have true expertise in harnessing the power of these technologies to drive deflationary outcomes—cloud-native engineers, dev/sec ops engineers, data scientists, cloud architects and the like—will be in as high demand as ever; potentially higher, given their impact on cost reduction. The best candidates for these roles will continue to have their pick of opportunities and can afford to sit back and be choosy. Employers, on the other hand, need to act now.

The way to win this war is to focus on differentiation, and fast. The reason is simple—differentiated companies grow and generate sustained free cash flow to reinvest in the business. And employees want to work for growing companies! They offer far better stability and can provide more resources toward employee engagement.

Differentiated companies grow and generate sustained cash flow to reinvest in the business. And employees want to work for growing companies!

Differentiation can take many forms—from Nordstrom's customer service to YETI's premium products, from Google's company culture to Apple's product design (and their brand, too!). In this new world, executive teams need to be vigilant about allocating capital toward areas of the business that create a differentiated client experience. At the helm of this change should be the CFO, driving clarity and alignment for the entire company. While differentiation may boil down to one key element of the business, CFOs should challenge their executive teams to focus a critical lens on how each functional area supports the business' differentiated strategy. Once the team has narrowed down the key components of the organization that align to their differentiation, they should develop a plan to invest in those areas and set the entire company on track to be successful in the core competencies on that shortlist. Finally, they should measure employee engagement through a tool such as Gallup or eNPS to track progress.

Drop the dead weight

Even more important than the investment, however, is the divestment. In all remaining areas that didn't make the list, be prepared to pull back. This divestment can be financial, strategic or cultural. Consider not just the dollar cost, but its foundational layers—for example, the cost of distraction. If the business is pursuing initiatives to grow employee engagement, the initiative should be laser focused on the departments that matter. Otherwise, you'll find that you have spread yourselves too thin.

Don't be afraid to say, "We're not going to do that." You must start thinking differently about the cost of everything, including distraction. Forrester, in its December 2017 report titled "Engineer Your Technology Environment To Improve Employee Productivity And Flow," cited a study revealing that the organizations boasting

the most engaged employees achieved 81 percent higher customer satisfaction, as well as a 103 percent reduction in employee turnover. With a sharper focus and fewer distractions, employees can better serve clients, boosting the bottom line.

Letting go of some non-core areas of your business can be a difficult decision. But remember, we're in a completely unforeseen environment. The Great Resignation is not happening in isolation. It's come on the heels of a global pandemic that has caused massive disruptions to the supply chain, compounded by a military conflict in Ukraine, inflationary pressures everywhere, and a global recession on the horizon. You can't do it all in a moment like this.

In fact, it's the perfect time to start thinking about which functions can be performed by a partner. Perhaps you're a manufacturing business that should consider a partner for logistics, or a state government that can turn to a partner for call center operations. In the IT managed services world, we have heard from countless clients who have realized that running their own data centers is not a core competency and that a partner can help. A recent Forrester Total Economic Impact™ (TEI) report (see infographic, page 10) found that 95 percent of interviewed execs currently working with an MSP agree these partnerships have enabled their business to focus on higher value and more creative initiatives.

Playing to win: Three best practices to activate now

The multiple existential threats of this unique market moment should be a clarion call for CFOs to apply ruthless discipline and focus on that which truly differentiates their business. Here are three steps your team can take right now to position your organization for ongoing success in the new game:

#1) Define your core – If you haven't already, gather your executive leadership team to identify the areas of work in which your organization truly shines, and that directly reflect and drive your mission.

#2) Dig into your data – Once these areas of work are identified, assign KPIs across key areas to measure progress. In particular, look carefully at metrics across client satisfaction, revenue churn, employee satisfaction and productivity.

95 percent of execs currently working with an MSP agree these partnerships have enabled their business to focus on higher value and more creative initiatives.

#3) Leverage an ally – Lastly, identify work that, while essential to keeping the lights on, does not differentiate your business. A good example of this might include managing IT infrastructure. Resilient and performant IT infrastructure may be critical to delivering disruptive capabilities, but is it really a differentiator? If not, find a trusted ally whose business *is* differentiated by managing IT infrastructure. There are likely many more examples of this across your enterprise today. Look for them!

In the TEI report referenced, interviewees who work with a managed service provider noted that the partnership has enabled them to concentrate on more strategic work like growing their customer base, supporting new initiatives, and accelerating time to market.

Not only will curating your business in this way help realize total cost savings; it will also lead your teams toward greater alignment and focus, eliminating the distractions that disrupt their flow. In today's highly competitive, rapidly evolving market, this is the only way to thrive. \\

Is your organization ready for hyperautomation?

By Gordon McKenna, **Chief Technology Officer, Ensono**

The business case for hyperautomation is clear—make sure you're prepared to fully utilize its promise.

Automation is an important feature of modern business—a trend that will only accelerate as time goes on. According to Gartner, "Organizations will require more IT and business-process automation as they are forced to accelerate digital transformation plans in a post-COVID-19, digital-first world." But most of today's automated tools continue to require triggers to launch subsequent events and they also lack complete automation, often requiring some level of human participation.

Hyperautomation represents an evolutionary step forward for automated tools in addressing this gap. It automates decision-making to adapt automated functions to changing environments without human intervention. In other words, hyperautomated processes are self-learning and self-adjusting. This makes hyperautomation more efficient and effective than traditional automation technologies. Gartner doesn't mince words on this point: "Hyperautomation has shifted from an option to a condition of survival." It anticipates the global market for hyperautomation technologies will reach close to $600 billion by the end of 2022, up from $481.6 billion in 2020.[1] As a result, it's critical that operational and IT leaders understand hyperautomation and its potential applications within their organizations. In this article, we define hyperautomation and the technologies that characterize it, highlight potential business use cases and share how IT and operational leaders can expect the hyperautomation market will evolve in the years to come.

Defining hyperautomation in modern business

In its glossary, Gartner defines hyperautomation as "a business-driven, disciplined approach that organizations use to rapidly identify, vet and automate as many business and IT processes as possible." Hyperautomation, therefore, involves more than a single technology. It's an approach that encompasses multiple technologies, often working together. It's these technologies' use of artificial intelligence (AI) combined with machine learning (ML) that distinguishes

Seven technologies that characterize hyperautomation

This family of technologies encompasses several tools, each of which has its own unique functionality. Although the functions of these tools are unique, IT leaders can apply each technology in multiple and varied use cases.

#1 **Public cloud –** IT leaders can enable automation within hyperscale public cloud environments through platforms such as AWS, Azure, GCP and others. This eliminates the need for countless tasks traditionally performed by staff, driving efficiencies and potentially massive cost savings.

#2 **Automated decision making –** AI automates decisions that ordinarily require human intelligence, such as recognizing and responding to objects or natural language. Meanwhile, ML enables systems to automatically improve with experience. Together, these tools dynamically uncover and implement improvements in operations and other areas, without human intervention.

#3 **Robotic process automation (RPA) –** RPA is a technology that automates traditionally manual, rules-based tasks; it is software that imitates human actions interacting with digital systems. With hyperautomation, RPA can use AI to adapt rules to changing conditions within a business environment.

#4 **Business process management (BPM) –** BPM automates how organizations map out, optimize and monitor their workflows. In the context of hyperautomation, this includes intelligent business process management suites (iBPMS), which use AI- and ML-enabled adaptability as part of BPM's automation capabilities.

#5 **Event-driven software architecture –** Event-driven software architecture that employs hyperautomation can automate novel, real-time responses to predicted and even unpredicted events. Responses can range from simple and descriptive alerts to in-depth analytics or communications.

#6 **Integration platform as a service (iPaaS) –** An iPaaS is a cloud-based platform that connects disparate applications, data, and devices. Hyperautomation enables the automated exchange of data between them, even as new applications, data, and devices enter or evolve within the environment.

#7 **Low-code application platforms (LCAP) –** Hyperautomation within low- or no-code platforms automates application development with little or no human coding, making implementation of essential applications faster and adoption more seamless for real business functions, even as new application needs emerge.

[1] "Gartner Forecasts Worldwide Hyperautomation-Enabling Software Market to Reach Nearly $600 Billion by 2022," Gartner.com Press Release, April 2021.

hyperautomation from traditional automation. According to a recent *Forbes* article, "Using AI and ML, the practice of hyperautomation identifies patterns to create automations that can evolve and adapt on the fly. Hyperautomation processes are more self-sufficient and effective than traditional automation technologies as a result."[2]

Companies may use one or several of these hyperautomated technologies, depending on their needs. For example, a company might use RPA to automate data entry into its customer relationship management (CRM) system. It could use iPaaS to connect its CRM system with its financial software, and LCAP to develop a mobile app for employees to access the CRM system on the go. These technologies are also industry agnostic, making hyperautomation one of the most versatile and valuable tools across modern digital transformation initiatives today.

Hyperautomation use cases span industries and environments

Both the advantages and the universality of hyperautomation across industries are driving the growth of its associated technologies. Industries and potential use cases where hyperautomation can apply today include:

- **Banking and financial services –** Can be used for processing loan applications, detecting fraud, and other focused tasks. Specifically, banks can use hyperautomation to automatically review customer transactions for signs of fraudulent activity. If it detects suspicious activity, the system can flag it for human review. Hyperautomation means the system can also learn and optimize its analysis over time.

- **Healthcare –** Can streamline administrative tasks, such as insurance claims processing and appointment scheduling. It can also be used to automate clinical tasks, such as charting patient medical histories and ordering lab tests. Critically, hyperautomated systems can improve their performance based on novel situations, which is critical in the medical field.

- **Telecommunications –** Can apply to a variety of tasks in telecommunications, including network management, customer service, and fraud detection. For example, hyperautomation can automatically identify and recommend fixes for network outages. It can also be used to route customer service calls to the best available agent in real time.

By the end of 2022, the global hyperautomation market could reach

$600 billion

[2] Ed Macosky, "From Traditional Automation To Hyperautomation" Forbes.com, June 2022.

- **Retail –** Can help with inventory management, order fulfillment, and marketing. For example, hyperautomation can automatically reorder products in an optimized way when inventory levels get low. It can also be used to fulfill orders from multiple channels (e.g., online, in-store) based on inventory availability and proximity.

Despite its diverse range of use cases, the most significant benefits of hyperautomation are somewhat uniform. First, it frees up employees' time so they can focus on higher-level tasks. Personnel can focus on more strategic tasks that require human expertise as opposed to repetitive tasks that nonetheless require some degree of cognitive analysis.

Second, it improves accuracy and, in doing so, relieves personnel from the risk of human error. For example, if a company uses hyperautomation to automatically generate reports, it can eliminate the mistakes that might occur if these reports were generated manually.

Determine how hyperautomation can work for you

When deciding whether or not to hyperautomate a business process, IT and operational leaders should consider the following factors:

- **Complexity –** Individual tasks should be relatively simple and well-defined, but when multiplied and scaled up can become quite complex processes.

- **Frequency –** Most effective for tasks that are performed frequently.

- **Number of people –** Can be used to automate tasks that are performed by a single person or by multiple people, so long as each of their functions is taken into account.

- **Level of human expertise –** Like traditional automation, can be used to automate tasks that do not require human expertise, such as data entry. But it can also be used to automate tasks that require some human expertise, such as fraud detection.

If a business process meets all or most of these criteria, hyperautomation may be a good option. As a rule of thumb, hyperautomation is best suited for complex processes that are performed frequently and involve large amounts of data.

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Challenges to prepare for when implementing hyperautomation

When implementing hyperautomation, businesses should be aware of several challenges. For example, not all IT departments have the inherent resources to implement hyperautomation successfully. Here is a closer look at what you should consider:

- **Specialized skills –** Implementing hyperautomation requires a deep understanding of both business processes and technology. As such, businesses will need to invest in training their employees on these topics or partner with a third-party provider to carry out its implementation successfully. Due to a lot of this technology being fairly cutting edge, challenges can include a lack of ready skills available in the marketplace to both implement and support the implementation.

Hyperautomation can offer significant benefits to businesses that are willing to invest in it, including leaps in efficiency, reductions in business errors and a quicker time to market, making the business far more competitive in the marketplace.

- **Organizational maturity –** In addition to new IT resources and capabilities, personnel at all levels of the organization must be prepared to adapt. For example, line-of-business employees may have some of their tasks automated but may also need to adjust to new interfaces and systems. Non-technical users may need to build familiarity with analytics or low-code tools; they may need to become "citizen developers" or "citizen data scientists" for the first time.

- **Governance and security –** When implementing hyperautomation, businesses will need to put in place proper governance mechanisms to ensure that automated processes are being executed correctly and efficiently. This is especially important given the high degree of complexity involved in hyperautomation. Security is another key consideration. Ensuring that the processes and associated technology and platform are locked down and monitored can prevent unnecessary exposure of data or man in the middle (MITM) attacks or even industrial sabotage.

Despite these challenges, hyperautomation can offer significant benefits to businesses that are willing to invest in it, including leaps in efficiency, reductions in business errors and a quicker time to market, making the business far more competitive in the marketplace. They need only to plan correctly, gather the right skills, be fully aware of the challenges on day one, and be willing to learn and act upon necessary steps to mitigate them.

Get started with hyperautomation in your organization

The success of your hyperautomation adoption initiatives depends on your organizational and IT maturity. For example, organizations with centralized IT departments, with employees familiar with modern automation, and who have adopted an agile methodology for software development and a cloud first approach are very good candidates.

But even if your organization doesn't fit all these criteria, you can take steps to get started. Beginning with a hyperautomation proof of concept (POC) is a good way to get your feet wet and understand where your gaps may be. A POC will also help you understand the hyperautomation landscape and identify the right use cases for your organization. \\

The ESG edge: An essential key to thriving in the Great Resignation

By Meredith Graham, *Chief People Officer, Ensono*

Today's employees want more than just perks. Focused, authentic ESG efforts will position your company to deliver.

The talent shortage and mass employee migration dubbed the "Great Resignation" is not over for the technology sector—not by a long shot. Tech companies need to examine what makes them competitive employers to today's limited and choosier talent pool if they want to succeed in finding the talent they need to thrive.

A recent Forrester Total Economic Impact™ (TEI) report (see infographic, page 10) found that 74 percent of surveyed executives are planning (or have already started) to counter the talent scarcity and higher costs resulting from the Great Resignation by improving employee experience and retention. While most companies are raising compensation and adding attractive benefits, many are overlooking a key player in attracting and retaining talent—a reputation in the ESG sphere. ESG (short for "Environmental, Social and Governance"), has already become a rallying cry for investors looking to put their money where their values are, but it would be short-sighted to think that the value of a company's ESG efforts stops there.

Many employees today, particularly younger generations like Millennials and Gen Z, want to work for organizations whose values match their own—or at least aren't in opposition. For many, this means a company with a proven interest and efforts in ESG will be a more attractive employer.

So where do you start when it comes to making your ESG efforts? Focusing on one step at a time in one area is a good start. You cannot be perfect at everything all at once. So if you're starting down the path towards a good ESG effort, pick one thing you want your company to be known for, and then pick one realistic goal you think you can achieve towards that end in a year.

1.1 million kWh/year

was saved at one Ensono data center after they replaced infrastructure, shut down unnecessary equipment, and enhanced controls.

Start small to win big

Even the smallest gesture can have a significant impact. Take for example your company's hardware—if you refresh laptops every five years, instead of letting them sit in a landfill, wipe them and donate them to a charity. That's a huge help. Switch out regular light bulbs for LEDs. Every effort adds up and shows you are putting thought into your environmental footprint.

For tech companies like Ensono, data centers are often the biggest energy users and the greatest opportunity to reduce their environmental impact. At our data center in Downers Grove, Illinois, we have significantly improved our Power Utilization Efficiency (PUE) by replacing infrastructure, shutting down unnecessary equipment, and enhancing controls. The result? A reduction of 1,100,000 kWh per year.

Beyond making these efforts within your own company, you also need to get out there and make your voice heard if you want to gain an ESG edge in the war for talent. The Climate Pledge is currently circulating, which a lot of companies have signed. It needs to be clear that this is something your organization cares about and will continue to care about. This isn't a fad for employees, so they need to know you are committed.

Of course, caring for the environment is only the E in ESG. The other big values motivator for employees—and potential employees—is social justice, or diversity, equity and inclusion (DEI).

Diversity isn't just a buzzword that will generate follows on your company's social media accounts—it is a proven advantage for any business. According to McKinsey & Company, businesses in the top quartile for gender diversity perform 15 percent better than their peers, while businesses in the top quartile for ethnic diversity perform 35 percent better. And when it comes to attracting talent, especially

It started with a campaign called, "Speak Up: Bringing More Women's Voices to Tech Conferences," which called attention to the scarcity of female speakers and attendees at tech conferences. By amplifying this issue, we hope to help reverse the trend and give women equal voice in tech. It's a belief that we are manifesting in the hiring process—with 22 percent of associates

ESG isn't going away. People are making investing decisions based on it, and they're deciding where to work—and where not to work—based on it.

among Millennials and Gen Z, diversity initiatives are a must. Simply put, DEI is not just altruistic and the right thing to do, but also a wise business decision. This is another effort at which you cannot be comprehensively perfect. Taking small steps toward one goal is a good start.

We knew we wanted to focus on diversity, specifically women in tech. But in order to get there, we had to start at the beginning, with inclusion. Without an inclusive environment, how can you retain a diverse workforce even if you manage to hire them? We started by getting the conversation going on unconscious bias. Every company has it, so we started training on how we could remove that from the interview process and the performance process.

Expanding the chorus of influence

Ensono also worked to cultivate a culture that reflects diversity of experiences and viewpoints, allowing all voices to be heard and encouraging employees from every corner of the organization to contribute. It's a win-win opportunity, with employees feeling valued and our company benefiting from a range of ideas that can contribute to our collective success. This approach has worked for us and has earned us a reputation as an ally for women in tech.

identifying as female, we are just three percent behind a 2025 target of a 25 percent female workforce.

The last part of ESG—governance—is less important outwardly to candidates and employees, but if you are hoping to implement effective environmental and social programs that have a lasting impact on your company, you'll need to make sure your house is in order. Ensuring proper oversight for hiring practices and regular audits for environmental efforts, not to mention keeping in line with the newest proposed SEC disclosure rules, all involve buy-in from the highest level. It's not just important that your company be seen as environmentally friendly or socially conscious—it must *actually be* all these things. Employees can tell the difference and will act on what they discover. Lastly, ESG fraud is something your company can face penalties for, so it's in everyone's best interest to walk the walk.

ESG isn't going away. People are making investing decisions based on it, and they're deciding where to work—and where not to work—based on it. You have to match your employees' and talent pool's values if you want to stay competitive as an employer today. The tech talent shortage is real and is not letting up any time soon. \\

Better together: Aligning mainframe modernization and hybrid cloud initiatives

By Eduardo Ciliendo, VP Worldwide Strategy and Technology, Model9

Mainframes often sit outside organizations' hybrid cloud strategies. It's time to invite them to the party.

Enterprises have invested in hybrid cloud architectures as a way to provide flexibility and innovation to their organizations. Most companies with mainframes, however, have yet to successfully integrate them into their hybrid cloud strategy. In fact, our recent survey of IT leaders' views on mainframe modernization revealed that the majority of mainframe modernization efforts are actually at odds with leaders' stated goals for the hybrid cloud.

The most effective option for managing mainframe modernization in a way that complements hybrid-cloud initiatives is a data-first approach that leverages the scale and economics of the cloud. This approach removes the risk associated with application change and greatly accelerates time to value. When fully implemented, it delivers significant business, operational and financial benefits. Let's examine three distinct ways aligning your mainframe modernization and hybrid cloud strategies can deliver value to your organization.

#1) Make mainframe data actionable using cloud AI and machine learning

Mainframe data is often the most valuable data in enterprises, yet it is siloed from the rest of the business. Not having access to the business insights trapped in mainframe data often leads to blinds spots in a corporation's data strategy. The goal is making mainframe data actionable in a way that is natural for a company's data scientists, hence in formats that are easily accessible and cloud native.

With the right solution in place, opening up mainframe business insights can become seamless. Model9, for example, extracts mainframe data, both current and historical, in any format including Db2, VSAM, sequential and partitioned data sets, loads it into the cloud, and then transforms it on the cloud into standard open formats such as JSON or CSV. Extracting data at scale and then transforming it in the cloud completely changes the decades old Extract Transform Load (ETL) paradigm and turns it into a more efficient Extract Load Transform (ELT) approach that is more efficient and uses less resources on the mainframe.

This novel approach makes mainframe data actionable by allowing artificial intelligence (AI), machine learning (ML) and analytics applications to access it in the cloud via standard APIs and in formats that data scientists are well versed in. The end result is massive amounts of critical enterprise data, including sometimes decades of historical data, readily available in a cloud data lake to improve AI and ML algorithms and help enterprises with better decision making.

#2) Protect your mainframe data from cyber threats

Although mainframes are usually thought of as secure, they are not impenetrable. And since mainframe data is mission critical to the organization, a single mainframe vulnerability could lead to a major breach, significant financial losses, and painful reputational damage. Mainframe modernization should also include a focus on protection against cyber threats. When mainframe data is included in a hybrid cloud environment, new opportunities to secure that mainframe data emerge.

> **When mainframe data is included in a hybrid cloud environment, new opportunities to secure that mainframe data emerge.**

One powerful way you can protect your mainframe data from cyberattacks such as ransomware is by creating a third data copy that is immutable and air-gapped using cloud-based storage. Using immutable cloud storage has a number of distinct advantages over on-premise cyber resiliency implementations. Not only is a cloud-based data copy much cheaper and faster to implement, having data in the cloud opens up a world of additional resilience capabilities such as cloud-based cyber forensics or the possibility to restore your data in a clean-room environment anywhere on the globe.

#3) Reduce complexity via cloud backups

Cloud-based backups are a great example of how a hybrid cloud strategy is better than keeping mainframe data siloed on premise using proprietary legacy technology. Our survey revealed that leaders face many challenges with current backup solutions. Not only are proprietary backup solutions more expensive than open Object Storage but legacy protocols also hamper backup performance and cause lengthy backup windows that are not in line with today's 24×7 business requirements. Legacy tape environments with a tendency of physical failures (e.g. stuck or failed tapes) furthermore consume critical IT personnel from doing more valuable work. Eliminating VTL and tape backup hardware and software by moving data backups into the cloud is a way to meet all of these challenges.

You can shorten the window with a solution like Model9 Manager, which uses TCP/IP with parallelism to transfer and load the data into the cloud object storage faster than with physical tape and even many virtual tape solutions. By redirecting mainframe data (backed up, archived, and full-volume dumps) directly to object storage, on-premises or in the cloud, this approach eliminates the need for tape/VTL entirely.

Overall, backing up data to the cloud with Model9 Manager gives you better flexibility, reliability, convenient sharing of data, elimination of maintenance and updates hassles and no less important—significant cost savings!

Ensuring mainframe modernization and hybrid cloud initiatives complement one another should be a key priority for IT leaders. Companies should take a data-first approach that makes common cause between mainframe modernization and hybrid cloud strategies. \\

Innovator at-a-glance:

Company name:	Founded:
Model9	**2016**

Focus:
Unlocking mainframe formatted data for use in any private or public cloud.

Key products:
Model9 Manager, Model9 Shield, Model9 Gravity

www.model9.io

Ensuring mainframe modernization and hybrid cloud initiatives complement one another should be a key priority for IT leaders.

model9

Bringing innovation home

By Deborah Grieve, Senior Consultant and Delivery Manager, Ensono Digital, and Gareth Cozens, Lead Consultant, Ensono Digital

How one organization used an unforeseen challenge as a catalyst to deliver better human experiences.

We may be technologists, but in our minds, the best technology stories aren't really about tech at all. They're about people. The real human beings on the receiving end of great technological vision, innovation and collaboration, and the ways their lives are positively, often profoundly impacted when that vision is realized.

Hackney Council is a local government authority and social housing provider in the UK with the noble mission of prioritizing the safety, security and welfare of the tenants who reside in their 30,000 East London houses. The housing officers who execute this mission have a high-touch role that involves spending time with residents,

getting to know them, listening, observing, and tuning into indications of need or distress. In October 2020, this mission was jeopardized when the organization's Universal Housing management system was affected by a serious cyberattack. In an instant, staff found themselves unable to perform the critical administrative

functions that were also part of their job and impacted tenants' day-to-day lives—things like booking repairs and managing housing finances.

It couldn't have happened at a worse moment. The attack occurred while the world was in the grips of the pandemic and still months away from a vaccine, a time when housing officers were intensely focused on supporting the safety, health and well-being of already-vulnerable community members. Emergency procedures were put in place in the wake of the attack that enabled officers to resume their admin operations, but in a highly manual way which raised concerns of duplication and human error.

Hackney Council had already been looking at replacing their legacy system in order to improve their tenants' and staff's digital experience when the attack hit. Suddenly, the nice-to-have new platform they'd been contemplating became a must-have-NOW.

Responding to the moment, building for tomorrow

Hackney Council enterprise architects partnered with cloud-native consultancy Ensono Digital to build a simplified, flexible platform that would streamline back-end processes, enable residents to self-serve wherever possible, and enable housing officers to focus their time on vulnerable residents who needed more support.

The team separated the program of work into three workstreams—Repairs Hub, Finance & Managing, and Tenants & Leaseholders—and created program-level test and architecture strategies that ensured the workstreams could collaborate effectively across multiple data sets. Ensono Digital focused on

"The new platform empowers our tenants to have more autonomy around managing their homes, frees up our employees from admin to focus on delivering more value to our tenants and helps us build an even better community."

– Cate McLaurin, Head of Delivery, Hackney Council

the Tenants & Leaseholders workstream and also introduced several new concepts, including:

- Event-driven architecture and micro front ends that permit reusability and scalability
- Shared code libraries (using NuGet packages) that would give Hackney Council reusable code components that they could leverage across their codebase

Working closely with departments across Hackney Council, the data engineering team consolidated and restructured recovered data from Universal Housing and numerous interim spreadsheets to produce one clean, reliable data set. This now provides a single source of truth of the Hackney Council resident, tenure and property data alongside a powerful and easily searchable system.

Future data quality was a strategic focus for Hackney Council, so Ensono Digital then set up multiple front-end development meetups, and also attended numerous technical architecture meetups with agency
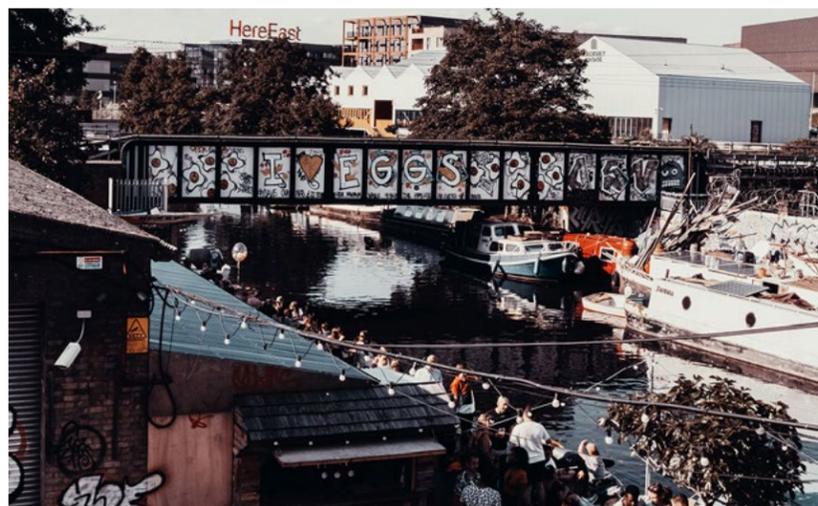
40%
increase
in process efficiency

37%
reduction
in duplicate contract data

15
data sources
consolidated into one secure database

teams. This helped to shape the project as it progressed, provided a platform to communicate what had been achieved, and promoted knowledge sharing on how to maintain good practices.

Combined with the event-driven architecture, the dependent systems now automatically sync data in real time to help maintain a clean database, ensuring data is designed for retrieval and APIs are highly responsive. Hackney Council now has sustainable APIs that can be reused to advance the modernization of other departments.

Empowering employees and residents to thrive

From the start of the project, Hackney Council's primary focus was people—the residents of their homes, and those who care for and support them. Ensuring the new platform would serve the true needs of all its day-to-day users was of paramount importance, so the team worked in close collaboration with a "super group" of 11 Hackney Council housing officers who championed the views of the people at the heart of the system and provided regular user feedback on early designs.

And Ensono Digital is just getting started! The team is working with the super group to reengineer more than 62 existing processes in the new system, starting with "Sole-to-Joint Application" and "Succession." In doing so, the Joint team is challenging and identifying where efficiencies can be made, reducing the number of steps and actors and automating as many tasks as possible. Cate McLaurin, Head of Delivery for Hackney Council, put it simply, "By implementing new technologies, we're able to drive operational efficiencies, cost savings and deliver a better user experience."

This collaboration has paid off. With the new system in place, administrative demands on housing officers have been greatly reduced—to date, process efficiency has increased by 40% and duplicate content data has gone down by 37%. Housing officers are now able to dedicate more of their time to the critical work they have been called and trained to do.

Innovative solutions. True partnership. People-focused outcomes. Now that's a technology story we'll never get tired of sharing. \\

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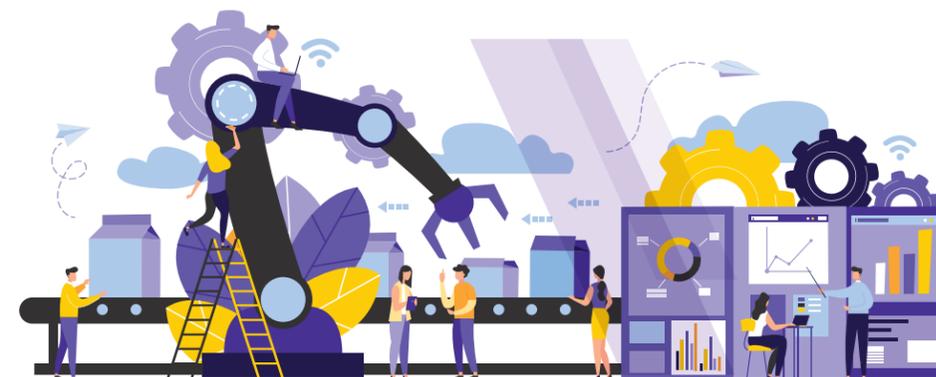
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