



Staffing Challenges in the Age of Technology Evolution

How businesses are solving the skills shortage



Introduction

The world of technology is rapidly evolving, presenting both immense opportunities and significant challenges for businesses. One of the most pressing issues facing many organizations today is the shrinking talent pool for legacy technologies, particularly in the realm of IBM Power Systems, IBM i (AS/400), and IBM AIX. These systems, though aging, still form the backbone of numerous mission-critical applications across various industries. However, as the Baby Boomer generation, who built and maintained these systems, reaches retirement age, a critical knowledge gap is emerging. This poses a serious threat to the continued operation and maintenance of these vital systems.

This paper delves into the complexities of this situation, exploring the impact of the aging workforce and the shrinking talent pool on companies reliant on legacy technologies. It examines the challenges associated with finding and retaining skilled professionals, the increased risk of security vulnerabilities and system outages, and the hurdles in modernization efforts. Additionally, it analyzes the cost dilemma faced by organizations caught between robust security solutions and budgetary constraints.

The paper further explores Managed Service Providers (MSPs) as a potential solution, outlining their cost-effectiveness and highlighting the strategic benefits they offer, including increased automation, enhanced capabilities, scalability, and improved security posture. It also emphasizes the importance of prioritizing cybersecurity in the current remote work era, exploring the heightened vulnerability of organizations and the crucial need for implementing effective security measures.

By thoroughly investigating these issues and presenting potential solutions, this paper aims to equip businesses with the knowledge and strategies necessary to navigate the complex landscape of legacy technologies in the face of a changing workforce and a rapidly evolving digital world. It emphasizes the importance of proactive planning, strategic investments in technology and talent, and a commitment to robust security to ensure the continued success and sustainability of organizations reliant on these vital legacy systems.



A Shrinking Talent Pool

Industries are heavily dependent on a collection of legacy technologies, including IBM Power Systems, IBM i (AS/400), and IBM AIX. These systems are the backbone of numerous mission-critical applications, forming the core of operations across these sectors. However, they face a significant challenge: an aging workforce and a rapidly shrinking talent pool.

The Looming Retirement of Baby Boomers

The generation that built and maintained these systems, the Baby Boomers, is now reaching retirement age. This creates a major problem, as it means a critical loss of knowledge and expertise. For decades, these individuals have accumulated invaluable insights into the intricacies of these systems, knowledge that is not easily documented or readily transferred. With their departure, companies face the risk of losing vital information and understanding essential for the continued operation and maintenance of these systems.

Modern IT education focuses on newer technologies like cloud computing and mobile development, leaving younger generations unprepared to work with legacy systems. While these newer technologies are undoubtedly essential in today's digital landscape, they often neglect the foundational knowledge necessary to understand and operate older platforms. As a result, companies find it increasingly difficult to find young talent with the specific skills required to maintain their legacy systems.

With the talent pool shrinking and demand outpacing supply, the cost of qualified professionals with expertise in legacy systems is rising significantly. This can be a major financial burden for companies, especially smaller businesses with limited budgets. The high cost of hiring and retaining such talent can hinder their ability to maintain their systems effectively and invest in modernization initiatives.

These challenges highlight the critical need for collaborative partnerships with Managed Service Providers (MSPs) possessing specialized expertise in the education sector. We have done a review with a provider that specializes in this area with a robust 25-year track record of working closely with schools. They are known to many in the education market as a trusted ally in navigating technological transformations. Based on feedback from their customers, the company Roeing has a profound understanding of the sector that not only addresses digital infrastructure needs but also allows them to handle and resolve IT-related challenges.



The Impact of the Aging Workforce

The aging workforce and shrinking talent pool create several significant risks for companies reliant on legacy technologies:

Increased Security Vulnerabilities: Legacy systems are often vulnerable to cyberattacks due to outdated security protocols and a lack of ongoing updates. Without skilled professionals to maintain and update these systems, vulnerabilities become increasingly exploited, putting sensitive data and critical operations at risk.

System Outages and Disruptions: As systems age, they are more likely to experience technical failures and outages. These disruptions can result in significant losses in productivity, revenue, and customer satisfaction.

Challenges in Modernization: Companies may struggle to modernize their legacy systems without the necessary expertise. This can hinder their ability to adapt to changing business needs, integrate with newer technologies, and remain competitive in the evolving digital landscape.

By failing to address the challenge of the aging workforce, companies risk facing significant consequences, jeopardizing their operations and potentially hindering their future success. Addressing this issue requires proactive solutions and a commitment to developing and retaining skilled professionals capable of maintaining and modernizing these vital legacy systems.

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The Cost Dilemma: Balancing Security and Efficiency

In the face of a growing IT talent shortage, organizations are forced to make tough decisions regarding their IT infrastructure and security. Balancing the need for robust security solutions with cost considerations can be a complex challenge, requiring careful planning and strategic implementation.

The Impact of Hiring Challenges

The current IT staffing shortage presents a significant financial burden for organizations. When skilled IT professionals are difficult to find and retain, a chain reaction of negative consequences can ensue. Additionally, the increased workload and inefficient processes associated with a talent shortage can further hamper productivity by 23%. These combined factors can result in substantial losses for organizations, highlighting the need for strategic solutions to address the IT staffing challenge.

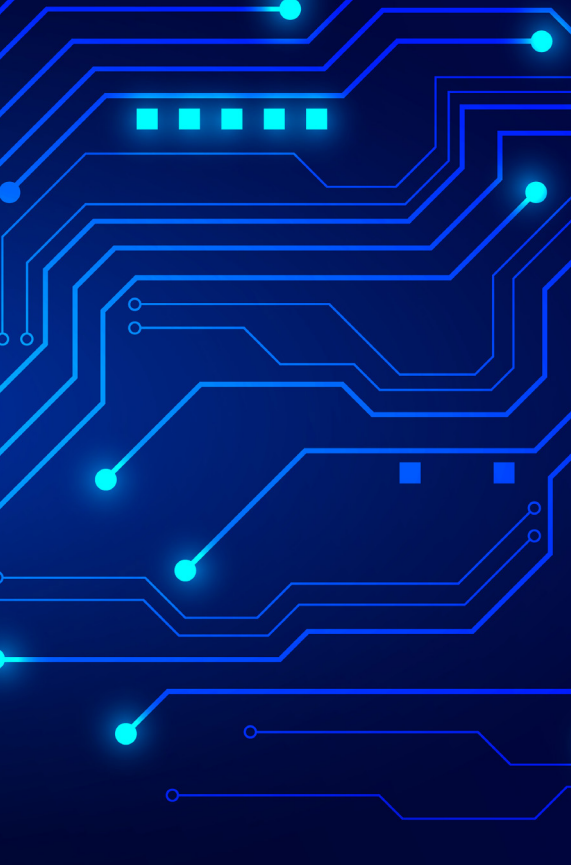
Managed Services for Streamlined Operations

While the upfront cost of managed services may initially appear daunting, it can be a highly cost-effective solution for organizations struggling with IT staffing shortages. By outsourcing routine tasks and day-to-day operations to managed service providers (MSPs), organizations can free up valuable internal resources. This allows full-time employees (FTEs) to focus on higher-value activities and strategic projects and MSPs can handle routine tasks more efficiently than internal teams. Perhaps most importantly, MSPs can provide access to specialized skills that may be difficult or expensive to acquire internally.

When skilled IT professionals are difficult to find and retain, a chain reaction of negative consequences can ensue. Employee burnout and low morale can lead to a 31% decrease in productivity and a 29% increase in turnover¹.

¹ What's driving the Middle Market Talent Gap? (no date) RSM US - audit, tax, consulting services for the middle market.

Available at: <https://rsmus.com/insights/services/managed-services/whats-driving-the-middle-market-talent-gap.html#:~:text=Hiring%20is%20a%20challenge%20for,in%20their%20most%20critical%20areas.>



Strategic Benefits of Managed Services

While cost reduction is a significant benefit of managed services, its true value extends far beyond financial savings. By leveraging the right technology and expertise, organizations can unlock a range of strategic advantages that empower growth and enhance their competitive edge.

Enhanced capabilities: MSPs offer access to advanced technology and expertise that may be unavailable or too costly for an organization to acquire internally. This includes cutting-edge cybersecurity solutions, cloud computing platforms, and AI-powered analytics tools. With managed services, organizations can stay ahead of the technological curve and leverage the latest advancements to enhance their capabilities, improve decision-making, and gain a competitive advantage.

Access to Specialized Talent: Managed services offer access to a diverse pool of specialized talent that may be difficult or expensive to recruit and retain internally. This includes experts in cybersecurity, cloud computing, data analytics, and various other IT disciplines. By tapping into this talent pool, organizations can benefit from a wide range of skills and expertise, enhancing their overall capabilities and driving strategic initiatives forward.

Scalability: Managed services are inherently scalable, allowing organizations to adjust their IT resources up or down as needed. This provides the flexibility and agility necessary to adapt to changing business demands and accommodate growth without incurring significant upfront costs. Whether facing seasonal fluctuations or experiencing rapid expansion, managed services ensure that an organization's IT infrastructure remains aligned with its evolving needs. competitive in the evolving digital landscape.

Increased automation: Pre-built technology solutions available through managed services can automate a vast array of tasks, from routine data entry and security monitoring to complex IT infrastructure management. This eliminates the need for manual intervention, freeing up valuable internal resources and dramatically improving operational efficiency.

Navigating the cost-efficiency dilemma in IT security requires a strategic and informed approach. By considering managed services and leveraging technology effectively, organizations can achieve robust security without sacrificing their financial health. By focusing on solutions that enhance efficiency, provide access to specialized skills, and ultimately improve the organization's overall security posture, organizations can overcome the challenges of the IT talent shortage and position themselves for future success.

Balancing Security and Efficiency

The rise of remote work has irrevocably altered the business landscape, presenting both opportunities and challenges. While organizations reap the benefits of increased flexibility and talent acquisition, they also face a heightened need for robust cybersecurity measures to ensure the safety of their data and systems.

The shift to remote work has expanded the attack surface for cybercriminals, creating new vulnerabilities that need to be addressed. A recent survey revealed that 51% of organizations consider security concerns with remote access a major challenge, while 36% struggle to adequately support employees working from home².

To thrive in this evolving environment, organizations are implementing various security measures. These include:

Automating manual processes: Automation reduces human error and streamlines workflows, minimizing the risk of security breaches.

Implementing layered security around VPN access: Adding multiple layers of authentication and authorization strengthens security and protects against unauthorized access.

Leveraging IBM i Access Client Solutions: Secure remote access solutions like IBM i Access Client Solutions provide a safe and reliable platform for remote work, while ensuring compliance with industry regulations.

Despite the progress made, a significant portion (33%) of organizations have yet to implement any changes in response to the shift toward remote work. This raises concerns about their preparedness to address the evolving security landscape. While some organizations may have already been set up to handle a remote workforce, others may be lagging, leaving themselves vulnerable to cyberattacks.

As organizations continue to adapt to this new reality, prioritizing robust security measures is crucial to their success and survival. By adopting innovative solutions, leveraging technology effectively, and fostering a culture of security awareness, organizations can navigate the evolving threat landscape and protect their valuable data and systems. The time to act is now, as failing to prioritize cybersecurity can have devastating consequences for any business operating in today's digital world.

² Meet the Author Tom Huntington Executive VP (no date) 2023 IBM i marketplace survey results, Fortra.
Available at: <https://www.fortra.com/resources/guides/ibm-i-marketplace-survey-results> (Accessed: 07 December 2023).

Conclusion

The changing tides of technology present both challenges and opportunities for organizations reliant on legacy systems. While the shrinking talent pool and aging workforce pose significant threats, embracing innovation and implementing strategic solutions can pave the way for a successful future.

By prioritizing the development and retention of skilled professionals, organizations can ensure the continued operation and maintenance of their legacy systems. Investing in training programs, fostering a culture of knowledge sharing, and collaborating with educational institutions can help bridge the knowledge gap and cultivate a new generation of experts.

Furthermore, leveraging managed services and embracing automation can optimize efficiency, reduce costs, and provide access to specialized skills that may be difficult to acquire internally. Additionally, prioritizing robust security measures, including layered security protocols, secure remote access solutions, and ongoing cybersecurity awareness programs, is crucial in protecting valuable data and systems in the increasingly vulnerable landscape of remote work.

Ultimately, the future of legacy technologies lies in embracing innovation and adaptation. By acknowledging the challenges presented by the changing workforce and evolving technologies, organizations can proactively implement strategic solutions to ensure the continued success of their mission-critical systems. By investing in talent, leveraging technology effectively, and prioritizing security, organizations can bridge the digital divide, navigate the evolving landscape, and secure their position in the ever-changing world of technology.

In this context, partnering with a managed service provider (MSP) specializing in IBM products, like [Absolute Performance Inc.](#), can be invaluable. With vast expertise in IBM Power Systems, IBM i (AS/400), and IBM AIX, such MSPs offer a comprehensive range of services.

By partnering with an IBM-specialized MSP, organizations can benefit from a wealth of expertise, gain access to cutting-edge technology and solutions, and achieve a more efficient and secure IT environment. This allows them to focus their resources on core business activities while ensuring the continued success and longevity of their critical legacy systems.

Embracing innovation, adapting to change, and partnering with a specialized MSP like Absolute Performance are key factors in securing the future of legacy technologies in the evolving world of business. By taking these proactive steps, organizations can ensure the continued operation of their mission-critical systems, optimize efficiency, enhance security, and achieve their long-term goals.