



Modernizing IBM Z and IBM i is More Advantageous Than Replatforming

Modernizers relish platform capabilities that spur innovation, lower cost, and generate more revenue

Introduction



The research in this InfoBrief was initiated to objectively determine whether businesses that run mission-critical workloads on IBM Z and IBM i should remain on these platforms. These businesses faced a strategic decision about their future technologies – whether they should modernize these platforms and leverage all the innovative tools that exist today or whether they should replatform by moving to an alternative on-premises solution or to the cloud.



IDC executed this study by investigating more than 446 businesses around the world that have either modernized on IBM Z or IBM i or replatformed. Results were then compared based on a large number of factors. All respondents were in Director, VP, or C-level roles with extensive technical and business knowledge of their company modernization or replatforming projects.



All data in this InfoBrief is derived from the IDC Business Value White Paper, *The Quantified Business Benefits of Modernizing IBM Z and IBM i to Spur Innovation* (US46775720), sponsored by Rocket Software.

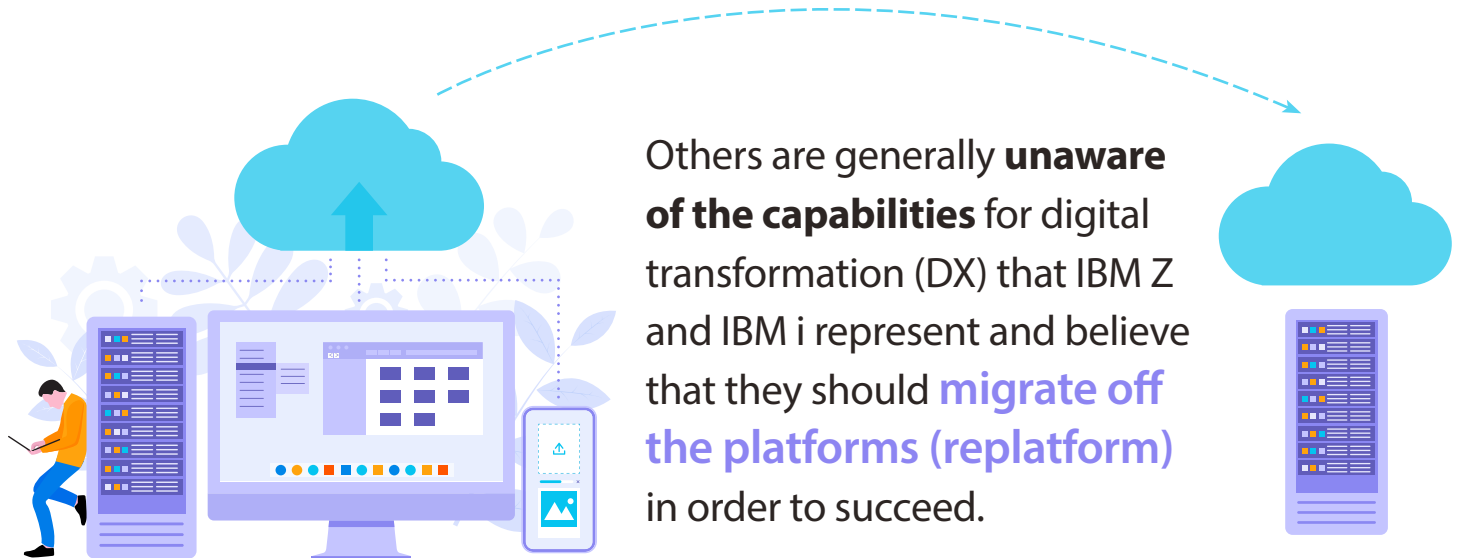
Respondents per Platform

	Modernizers	Replatformer
IBM Z	144	109
IBM i	95	98
Total	239	207



Can You Digitally Transform on Your “Legacy” Platform?

Businesses with IBM Z and IBM i platforms are under the same pressure as all other businesses to digitally transform. **Some are fully aware of their IBM Z or IBM i capabilities** to this end and choose to **modernize on the platform**.



Others are generally **unaware of the capabilities** for digital transformation (DX) that IBM Z and IBM i represent and believe that they should **migrate off the platforms (replatform)** in order to succeed.

The IDC research shows that businesses that replatform are not necessarily better off than those that modernize.

About the Two Platforms: IBM Z and IBM i Play a Vital Role in Many Industries

IBM Z

- IBM Z is an enterprise-class hybrid cloud platform for extremely high-volume, high-performance online transaction processing (OLTP) and online analytical processing (OLAP) with maximum levels of security and availability.
- The latest generation — IBM z15 — can run up to 19 billion encrypted transactions per day, which is close to 220,000 transactions per second. The platform runs its own operating system (OS) z/OS as well as Linux and supports a host of open source solutions, including Ansible and Red Hat OpenShift with Cloud Paks, which are software products prepackaged in containers and integrated into OpenShift services for easy deployment.
- Security is achieved with pervasive encryption built into the chip and with Privacy Passports that secure the data when it moves “off platform.”
- High availability is such that the system is considered to be a rare Availability Level (AL) 4 by IDC, the highest designation and the equivalent of fault tolerance even in the event of a physical disaster.

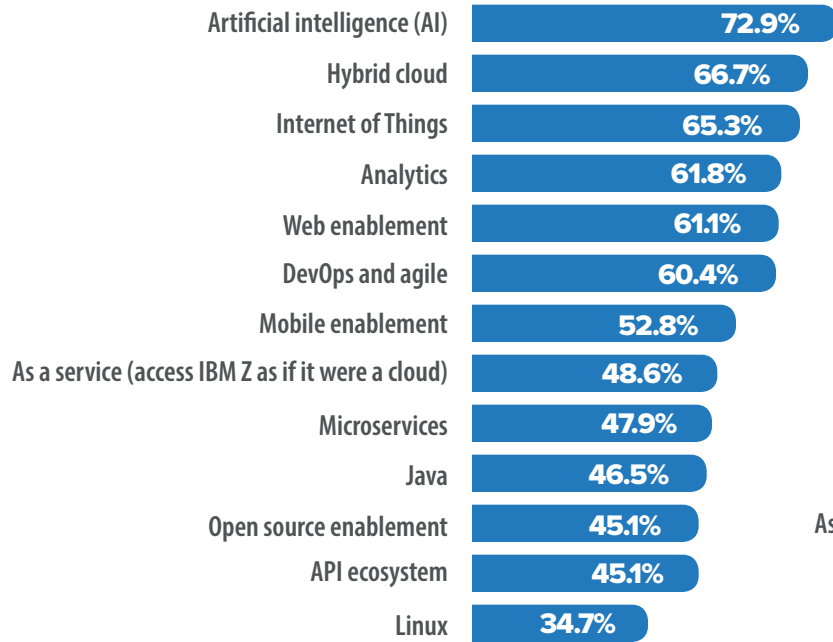
IBM i

- IBM i is based on a radically different approach to designing an OLTP platform, in that the virtualization software, the transaction software, the database, and the application servers are an integral part of the OS. The OS takes care of installing, integrating, deploying, optimizing, and managing the applications. As a result, the IBM i platform is extremely low maintenance even as it runs critical applications for banks, financial services, and other industries that need to securely process large data volumes.
- Thanks to an integrated security module in the OS, it is nearly impossible for malicious code to affect the applications. The majority of open source code can run unchanged on IBM i, and there is an open source community that compiles open source software for the platform.
- The IBM i hardware is based on IBM Power Systems, a high-performance, high-availability hardware platform built around the same POWER9 processors used for Summit and Sierra supercomputers.

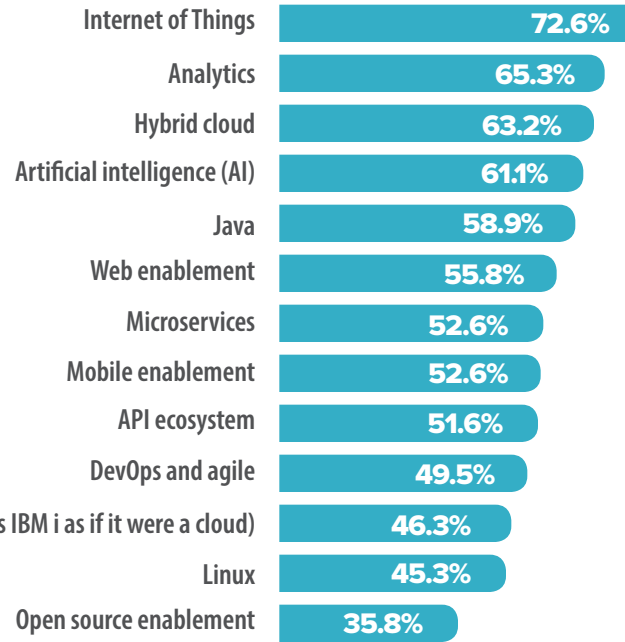
When Modernizing on IBM Z or IBM i, What Kinds of Initiatives Do Businesses Typically Undertake?

Due to the pressures of digital transformation (DX), many businesses update IBM Z or IBM i by adopting the latest hardware, functionalities, and ecosystem capabilities that have been made available for them. Typically they undertake the following initiatives:

Modernization on **IBM Z**, % of modernizers who have adopted these technologies



Modernization on **IBM i**, % of modernizers who have adopted these technologies



Customer Quote

“ All our data analytics is focused on one goal, which is to drive action and provide real-time accurate data so that our managers can make quality decisions and improve the business. Those were the underlying reasons why we pursued enhancing our technology, standardizing our architecture as much as possible, and deploying new technology. ”

– Modernizer on IBM i

When Modernizing on IBM Z or IBM i, What Kinds of Initiatives Do Businesses Typically Undertake?

Modernization on IBM Z



Investments in AI go hand in hand with organizations' increasing ability to train AI algorithms for their industry's most important use cases and infuse the IBM Z applications with inferencing capabilities on those AI algorithms.



Hybrid cloud is the preferred cloud strategy for most enterprises and serves as a critical enabler for all other initiatives.



Internet of Things investments target the data volumes that are ingested, analyzed, and leveraged for real-time decision making.

Modernization on IBM i



Traditionally a preferred platform for running the operations of franchises in the banking industry, retail chains, and other types of businesses that are geographically dispersed with a central headquarters, the most often cited **modernization initiative on IBM i is Internet of Things**, followed by performing **advanced analytics** and integrating the IBM i into a **hybrid cloud** deployment model.

Misconceptions Lead to Missed Opportunities to Leverage IBM Z and IBM i for Digital Transformation

IDC believes that businesses that replatformed rather than modernized on IBM Z or IBM i are guided by two misconceptions.



Misconception 1:

Replatforming will result in a much more capable platform.



Misconception 2:

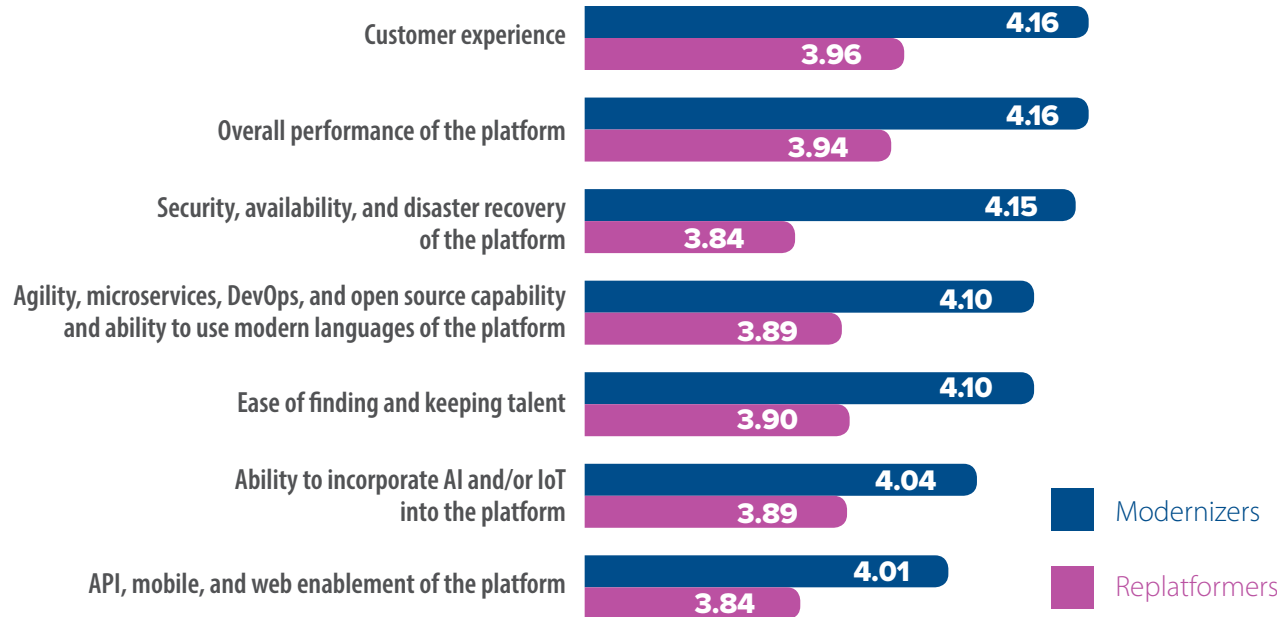
If you include new hardware costs, modernizing is more expensive than replatforming.

IDC data indicates that the reality of modernizing compared to replatforming is much different.

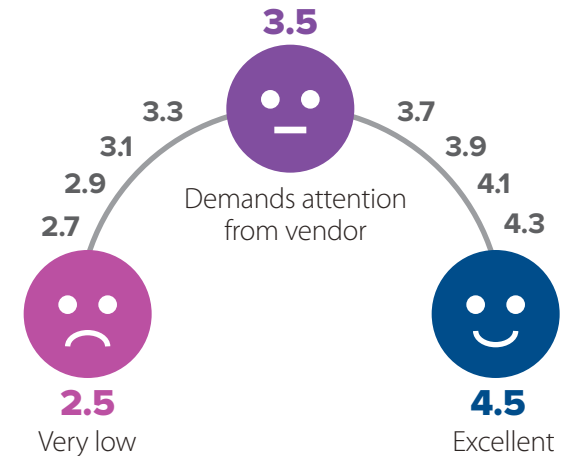
Modernizers are More Satisfied...

IDC has found that modernizers are more satisfied with their IBM Z or IBM i DX capabilities than replatformers across a range of characteristics

How respondents rated their satisfaction with various characteristics of the IBM Z or IBM i platform after modernizing or replatforming (3 is problematic; 5 = excellent):



What the ratings mean



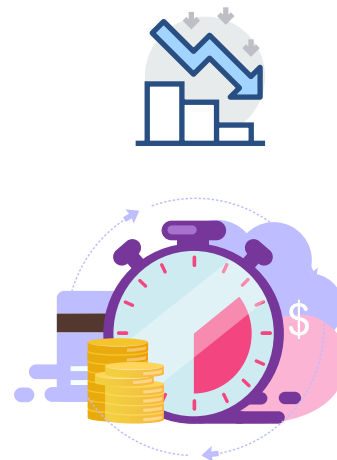
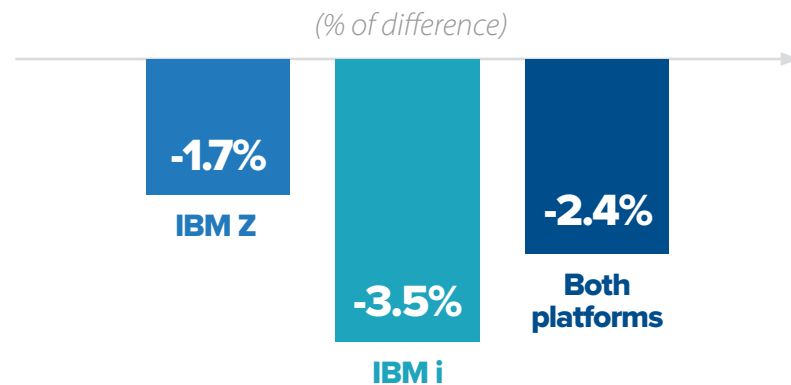
Modernizers rate the achieved customer experience and overall performance **higher** than **replatformers**.

...and Modernizers Spend Less

Modernizers spent less on the modernizing initiative (even with new IBM Z or IBM i hardware) than replatformers on their replatforming initiative.

IDC's analysis of the data shows that if both modernizers and replatformers invest the same amount in new hardware (within \$400K – \$2M), then modernizers pay less for software, staffing, consulting, and disruption due to the initiative than replatformers.

% that modernizers spent less in total than replatformers with a similar hardware investment



Customer Quotes

“To kind of shock and reload or to reinvent the wheel, would have been extremely costly and time prohibitive for us.”
– IBM Z modernizer

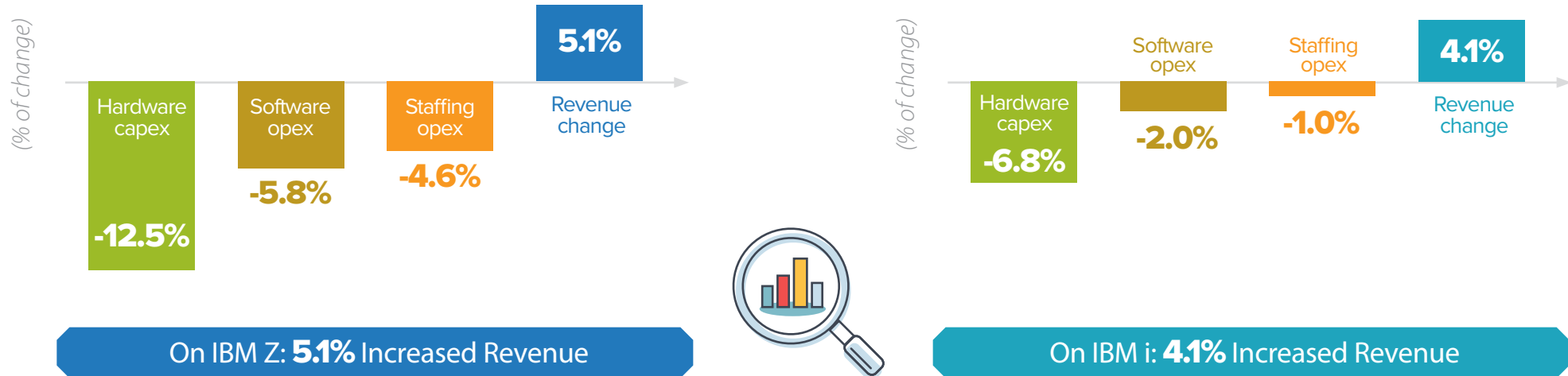
“For every \$1 dollar we spent on the IBM, it would have been at least \$2 dollars to go with a different solution.”
– IBM Z modernizer

Modernizing Delivers Cost Savings and Drives Revenue

Businesses that modernize on IBM Z or IBM i are reaping the benefits. As a direct result of the modernization initiatives on IBM Z or IBM i, organizations were able to run more cost efficiently while growing their business.

They incurred lower costs in terms of hardware capex, software opex, and staffing opex, **while generating more revenue.**

Annual costs and revenue benefits from modernizing on **IBM Z** or **IBM i**



IBM Z and IBM i Have Evolved from Siloed to Integrated to Transformative Platforms

The platforms do not just assist in DX, **they actually drive it.**

IBM Z and IBM i are some of the most capable and modern platforms in the market today, and any business considering its IT infrastructure strategy should be wary of throwing the baby out with the bathwater by replatforming.

IDC has found that one of the most common mistakes leading to replatforming is **unawareness of the innovations available on IBM Z and IBM i.**

Customer Perspective



One IBM Z replatformer stated that the company was **unaware of the IBM Z hybrid cloud capabilities**, for example.

Another business that replatformed off IBM i said it had never upgraded its IBM i from 2007 to 2017 and that it had not stayed up to date on new IBM i technologies. The company was **unaware of how the platform evolved over those 10 years** and based its replatforming effort on outdated assumptions.

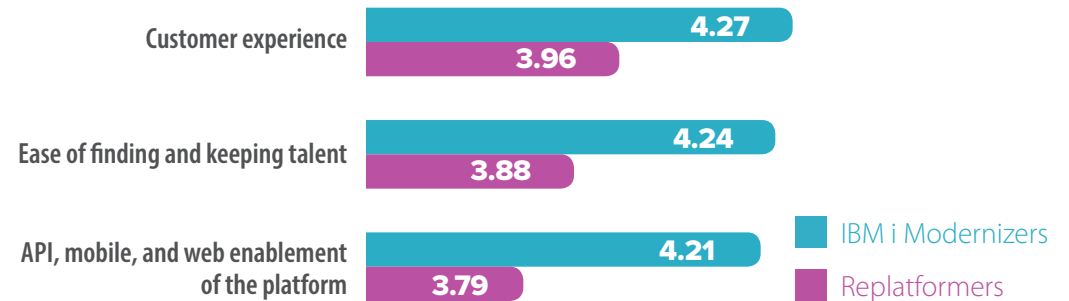
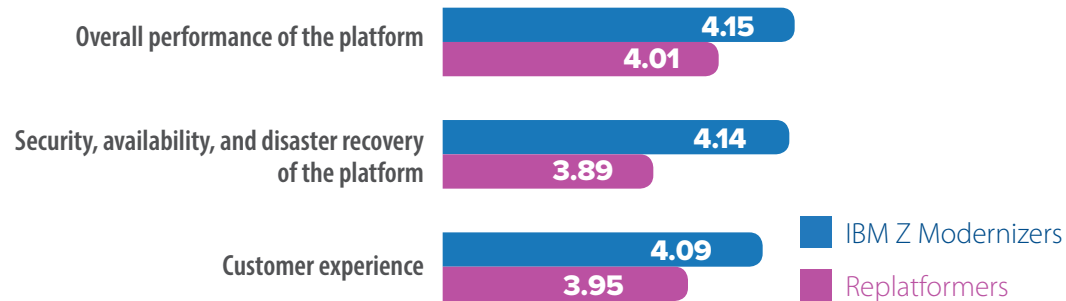


Respondents rated performance, security and customer experience significantly higher than replatformers did on their alternative platforms.

Satisfaction ratings with various characteristics of the platform after modernizing versus replatforming:

IBM Z is rated highly for overall performance; security, availability and DR; and customer experience

IBM i is rated highly for customer experience; ease of finding and keeping talent; and API, web, enablement, and mobile



Shed Your Misconceptions About “Legacy” Platforms

For many businesses, **the biggest challenge** is to comprehend this transformation and **shed their previous misconceptions** about the platforms as being “**legacy**”

Businesses should do **a deep analysis** of not just **potential costs avoided** but also **functionalities gained** from modernizing on IBM Z or IBM i

Customer Quote

“ I think we’re starting to realize that the grass is not always greener on the other side. ”

– Modernizer on IBM i



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