



CURRENT Demand

Modernize environment and applications to stay competitive

It's official: The online customer experience is driving revenue significantly in both directions. Businesses and consumers are becoming merciless as they demand clear, clean, seamless transactions in real time.

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This trend is measurable. A leading search engine calculates average loading time for a mobile site at 19 seconds—and says reducing that time to five seconds can double revenue (bit.ly/2kWs6L7). E-commerce sites have concluded that improvement in page speeds delivers revenue growth, and a one-click ordering system can help with earnings.

Latency has the opposite effect: When customers find a sluggish interface, they will bounce onward to the competition. Worse, customers might not even see a clunky page because search tools penalize subpar sites.

A High Priority

These trends are shining a spotlight on outdated and inefficient

infrastructure and applications, raising the pressure on mainframe computing. To stay ahead or keep up, mainframe operations must deliver near-perfect uptime and diligently retire, refresh or replace applications.

That's a clear priority for IT leadership. They're coming to grips with "application

apathy,” which is now afflicting mainframe computing. It’s a natural tendency over the years to retain old applications, patch them as needed and train new staff to manage their operating and communication quirks. But today such “ain’t broke, don’t fix” indifference exacts a greater cost, as daily transactions demand increased levels of speed, availability and efficiency.

Best Practices and Tools

Getting a clear picture of the applications hosted on a veteran mainframe, let alone sorting them out, is a tall order. Four best practices make the process easier, more efficient and more likely to succeed.

1. Alignment

The first and foremost requirement is to sync IT goals with business strategy. That’s always critical in a business initiative, but especially so in complex processes like this.

2. Understanding the Terrain

Clear visibility into applications that currently reside on the mainframe—your “application topology”—is critical to business-IT alignment. For each app, that means insight into:

- Its place in operations, revenue or growth
- How much it’s used
- Its operational efficiency
- The cost of its maintenance
- What other applications it touches or impacts

This knowledge, along with defined business goals, can guide IT leadership to make sound decisions on which programs to modernize, which to replace and which to retire.

3. Modern APIs

Migration to standardized API protocols like z/OS* Connect, representational state transfer or Simple Object Access Protocol is another element of modernization, aimed at providing consistency between services and enabling customizable web and mobile applications.

4. The Right Environment

A company that undertakes an application modernization project quickly confronts a key question, as fundamental as any application: Is the mainframe environment itself helping or hurting the update effort?

That’s where new tools come in, some available now and others in development. Several mapping tools can automate application inventory and monitoring, and also identify inefficiencies like duplication, detours and roadblocks.

IBM, its business partners and other companies are creating tools to help programmers modernize applications without expending precious resources to compile new ones. They emulate legacy programming language and rely on a “cut-and-paste” process on the front end. That means newer staff can update apps without knowing every high-level language.

These tools help transform a mainframe environment to facilitate rather than obstruct modernization.

Benefits

A successful modernization effort will enhance the customer experience, improve internal efficiencies, provide flexibility with data sharing and steadily reduce dependence on unreliable legacy applications.

Customer tolerance for online delays is often a matter of

Modernization Best Practices

In the pursuit to modernize your z Systems* platform, pay attention to:

- Alignment
- Understanding the terrain
- Modern APIs
- The right environment

milliseconds. By deploying new application technologies, a company can quickly steal a march on competitors still weighed down by their apps—scraping screens, using multiple hops, or processing multiple copies of the same data to retrieve and deliver results. These are unsustainable today, particularly in the mobile environment.

Internally, a thorough modernization can dramatically reduce mainframe clutter. It can identify oversized, little-used, redundant or fully obsolete systems that can be retired, opening new breathing room for innovation and agile development.

New or updated applications are also much more flexible for ongoing upgrades to functionality and security. For example, an API faces a nearly impossible challenge in interacting with some custom code—written using obsolete access methods, compiled decades ago and modified many times since.

Move Quickly

In the case of modernization, there will be winners and losers. Companies that can get in front of the intensifying customer demand for fast and effortless transactions will drive revenue upward. Such victories will rely, in great part, on state-of-the-art mainframe infrastructure and applications. **Z**



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