



# Cross-platform Application Integration

## Mainframe systems at the crossroads

Mainframe systems have been servicing manufacturing, logistics, banking, insurance, healthcare and other industries for decades, driven by applications with proven robustness, reliability, security and even flexibility, being updated and improved over the years. But with the disruptions of web and mobile technologies, IT organizations must make changes to maintain or improve both customer satisfaction and employee productivity.

Some believe that those changes must include a migration away from mainframe systems all together. But that implies great effort, great risk and great cost. Fortunately, there are more pragmatic solutions, with varying degrees of risk, effort and cost – integration technologies.

Data integration between mainframe systems and distributed systems is critically important to most large businesses that process high-intensity transaction workloads. Processing data requests comes with a price on the mainframe though, both in performance and operating costs. Distributed systems accessing data from the mainframe database also has a cost.

There is also a perception in the data center world, that there are other unsolvable problems for those relying on mainframe systems looking to do new development, address business deficiencies, and address changes in their business environments. With this in mind, let's look at some of the biggest challenges facing mainframe CIOs and managers today.

## The mainframe skills shortage

Running out of experienced mainframe developers to support legacy mainframe applications is a real problem faced by most CIOs running mainframe data centers. This threatens new mainframe development and new projects, no matter how critical their nature. The skills shortage is a serious business risk to the company.

## The heavy investment in legacy code

You have many years and many millions of dollars invested into existing mainframe applications. This intellectual property (IP) is the corner-stone of how the company interacts with its customers, is the company's most valuable asset. However, in many cases, the knowledge leveraged to create the IP is gone/retired. If the code needs to be changed significantly, that could also represent a serious business risk to the company.

## Difficulty in adapting mainframe code for new mobile needs

Your mainframe code is not easily adaptable for your new mobile needs. Many organizations burn their legacy systems to the ground and start over. But recreating all of that business logic and IP would represent a huge investment in money, time and resources. And that is just to recreate what you have now.

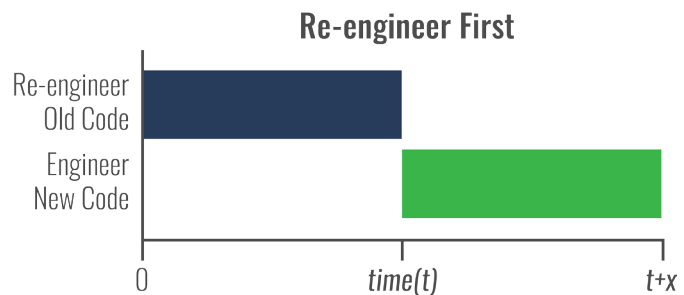


Figure 1: Re-engineer legacy code first



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## VTS Edge

### OVERVIEW

### System and application integration

Organizations have deployed multiple applications over many years to carry out the various business processes with different data sets. As part of an application migration initiative or an M&A event, applications from one platform will access data from another, which can cause dramatic and unexpected resource usage and cost increases in mainframe operating costs.

### Solution: VTS Edge integration solutions

DataKinetics VTS Edge web services solutions can solve all of these problems. Mainframe IT organizations in the US and Europe use VTS Edge to solve their toughest modernization challenges within their mainframe data centers. VTS Edge can integrate anything mainframe with anything distributed – Web/ mobile applications, distributed enterprise applications, SOAs, and cloud architectures. Doing so, it extends existing mainframe assets to new users and uses, improves business processes, and maximizes returns on mainframe investments.

**The mainframe skills shortage** is solved by the VTS Edge solution by allowing distributed applications to leverage the legacy code locked away in mainframe applications. So rather than recreating legacy IP for new distributed applications – essentially reinventing the wheel – new, or millennial programmers can use the toolsets that they are comfortable with (HTTP, XML, SOAP, REST, and JavaScript, and an Eclipse IDE), leveraging mainframe application code without having to touch or even understand a single line of COBOL code.

**The heavy investment in legacy code** is not a problem. Using VTS Edge, you can leverage your existing legacy applications, accessing them from new programs running on distributed systems, mobile devices, LinuxONE, or anywhere else. New functionality and features can be created on distributed systems – you do not have to modify or update your existing legacy code base.

**Adapting mainframe code for new mobile needs** is not a requirement with VTS Edge. No mainframe code needs to be changed. Existing mainframe applications become the backbone for new mobile development. Millennial programmers develop new interfaces using modern toolsets, which leverage legacy code. New mobile apps are created much faster, without having to recreate existing IP.

### Complete new work faster

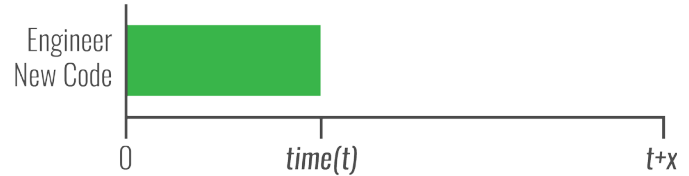


Figure 2: Faster development time; no time needed for re-engineering

**System and application integration** is a VTS Edge specialty. Leveraging zIIP processors for integration workloads with standards-based Web services, and using the best tools and technologies that IBM z Systems has to offer, VTS Edge adheres rigorously to industry standards for system interoperability.

### Benefits:

- **Performance:**  
One customer running 130 transactions as one service reduced response time from 40 seconds to 1.5.
- **Reliability:**  
VTS Edge does not map mainframe output to row/ column coordinates; it uses screen and field names to navigate applications and as metadata, meaning that integration services will run as required 24/7.
- **Standards-Based Flexibility:**  
A wide range of mainframe applications and data assets, with XML, JavaScript, SOAP, REST, HTML, and HTTP industry standards.
- **Rapid Development & Deployment:**  
Use of JavaScript means more developers – probably in your organization already – will be familiar with VTS Edge functions right from the start. Web service development timeframes are measured in days, and enterprise solutions in just a few months.
- **Precision:**  
With auto-generated XML and JavaScript-based orchestration, VTS Edge is unparalleled in reproducing mainframe data and application logic with near-perfect fidelity to the original.