The Imperatives

The combination of the factors below makes modernizing mainframe applications a non-deferrable priority:

1. Digital disruption is generating an increased volume and velocity of business demands often resulting in cross-platform application architectures. It’s increasingly common to have cloud/mobile customer-facing apps calling back-end mainframe services.

2. Career mainframers’ are retiring while traditional mainframe practices and tools lack appeal for the next generations. Next-gens would rather be using popular, cloud-native tools that offer broader career potential.

The Hard Truth

But for customers still heavily depending on the mainframe - with their information systems relying on a complex, layered set of mainframe applications - migrating off the mainframe is a complex, expensive multi-years project, and risky undertaking.

Choosing the best modernization strategy is a determining factor for the cost and the success of it.

The success depends primarily on choosing which applications should be attacked first between the most used, most resource hungry ones or the simplest.

The First Principle

Begin with the priority of only active parts should be migrated, ignoring those not used anymore (to be sunset). A dynamic view adds huge value, significantly increasing the quality of the knowledge base used to determine the modernization strategy.
Most Common Base Process

Providers of migration and modernization services (i.e. Micro Focus Enterprise Analyzer and Cornerstone G4 (G4/Repository and G4/analyzer) use static views through source code analyzers. The customer provides application objects in source code format and these tools parse these sources to build a composite view of all the parts making up the application. The conversion to modern languages and technologies is then performed either manually or automatically basing on the knowledge base built by the above analysis phase. Duration, cost and probability of success of the modernization project heavily depend on the quality of this knowledge base. If something is missing it will not be migrated causing an issue, if something is not used anymore, it will be migrated regardless, causing an extra cost.

Preferred Base Process

Instead, identifying the most used, most consuming applications, discriminating between active programs and programs not used anymore requires a dynamic view of what it is executed.

HCL ZAO provides a dynamic baseline of Mainframe software asset inventory based on the key insights provided during the Analysis phase.

This is an automated process that provides Key Insights (actionable) related to the Mainframe Software and Hardware assets.

- Where the applications execute in the Mainframe environment – LPARs
- Where the libraries names, DASD volumes, and location of programs
- What workloads are calling these applications – Batch, Transactions, users
- Provides an in-depth analysis report of the usage (Detail Impact on systems & business applications, batch jobs & users that helps in Planning, Validation & Testing stages.)
- Indicates the Programming language (COBOL, C/C++, PL/1) and compiler version
- Lists the dependency of application to IBM & other vendor Mainframe software’s.
- Date & time of program execution.
- Identifies unused/low used software for decommission.
**Additional ZAO Benefits**

- **Usage Monitor**
- **Inquisitor**
- **Asset Reports**
- **License Validation Reports**
- **API**

**Repository**

**Analyzer**

**ZAO for Containers**

**Linux on Z**

**docker Community Edition**

Other key insights focused on License/Entitlement Compliance:

- **Versions** (state all versions if multiple versions are installed)
- Software usage of all IBM & ISV Products
  - Key Software usage Reports
  - z/OS load modules and Unix executables
  - LPARS, Sysplex and CEC’s
- Impact on Applications, Batch Jobs & Users that helps in Planning, Validation & Testing stages
- Cost of running each application (Future feature)

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**Ensure Optimal Return on Investment of Your Mainframe Assets with HCL ZAO**

HCL Software is a division of HCL Technologies (HCL) that operates its primary software business. It develops, markets, sells, and supports over 20 product families in the areas of DevSecOps, Automation, Digital Solutions, Data Management, Marketing and Commerce, and Mainframes. HCL Software has offices and labs around the world to serve thousands of customers. Its mission is to drive ultimate customer success with their IT investments through relentless innovation of its products. For more information, please visit [www.hcltechsw.com](http://www.hcltechsw.com). Copyright © 2022 HCL Technologies Limited.