

# MAINFRAME MODERNISATION

## Gearing Up for Economic Growth

WHITE PAPER



## PREAMBLE

The financial crisis and the subsequent world-wide recession we are currently experiencing, is, has been, and will be, probably the biggest single event to shape economics and trade practices for the generations to come. “Greenshoots” and stimulus packages, returning GDP growths and positive confidence indices, as well as positive market trends are all signs that we are evading the economic abyss into which we were staring, as the events surrounding the financial crisis unfolded in late summer 2008.

Before we start to breath sighs of relief, even the boldest of economists are reluctant to paint the picture of the future and the lasting effects of the crisis and recession. Indeed as of early 2010, we still walk the tightrope and skeptics are talking about “double dipper” trends.

What is clear, damage has been done and the rebuilding has to begin. What is also clear, we are generally back to growth phase. Growth after a recession commences typically 12 – 18 months before it is actually officially detected.

What is really interesting is the fact that 40% of leaders, lose their leadership in times like this demonstrating huge volatility in markets. So, for those interested, don’t wait around for someone to tell you the recession is over, IT’s ability to respond immediately, effectively, and economically is at the heart of every organization’s battleplan to protect and acquire market share. Barriers are down, it is time to advance.

In this paper, we display why modernization of your IT systems and legacy assets, is a key part of an organization’s armory, firstly in protecting market share and secondly, in infiltrating competitors market space. Get ready for growth.

Also we introduce you to our very own new buzz acronym, “COD”. Read below what this is

*“It is better to be prepared for an opportunity and not have one than to have an opportunity and not be prepared.” Whitney M. Young*

## HIGH TECHNOLOGY WORLD COMPANY®

Location: Corporate Headquarters in Rome, Italy. Branches in Milan, Frankfurt and Hamburg

Industry: Information Technology - Innovations Technologies

Sector: Renovation, systems, languages migration, re-hosting of Mainframe (IBM) and APM

### MISSION

Modernization of enterprise legacy environments, breaking free from the legacy shackles, and shifting budget away from just achieving a status quo, over to creating dynamic enterprise IT solutions

### VISION

Number 1 Mainframe Modernization specialist, thus becoming an Inherent contributor to IT strategies globally

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## INTRODUCTION

The fundamentals will become very apparent and have powerful effects in the coming years as recession subsides and the battle recommences in earnest.

Market segmentation and the subsequent acquisition of new customers in lucrative segments, will always be one of the most successful business goals of successful, forward looking organizations. This brings with it an economic cumulative causation, or as otherwise known, a snowball effect, whereby one benefit leads another, creating a positive loop towards becoming a dominant and profitable force in the most significant segments.



- Increase in unit sales
- Greater brand awareness
- Economies of scale
- Profitability – Costs down, prices up

Long term success means the continuation of the cycle, with some “tweaking” and improvement as time goes by.

40% of market leaders will lose their leadership status in the coming years. This sort of shift in market share will be reflected throughout the second and third placed players also, suggesting seismic shifts in market shares can be expected in the coming years....

Organizations need agility and spending power to fend off threats to their position or for the really good ones, the target will be to attack the market share of their competitors

## RECESSION

During recessions, market positions in both commercial and consumer arenas become volatile. Spending cuts and the subsequent lowering of switch barriers are the main reasons. Also, brand habits fade, so consumers are ready for a brand change when they feel the jingle of more cash in their pockets.

In addition, some competitors may not survive the downturn, leaving space for new comers who are generally more aggressive than established competitors.

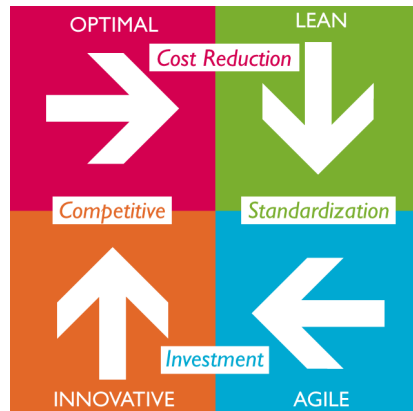
So what has this to do with economic downturn and IT Modernization?

“Tweaking” requires an agile and structured IT. A suitable IT modernization, prepares COBOL applications for easier integration with new services, whilst offering new levels of agility to avail of “what I need, when I need it”. This agility brings with it major competitive advantages when used appropriately.

Now, with the degree of volatility caused by the recession, and the murky global outlook, two key attributes for fending and defending are sensible spending and agility. Examples of business development activities, which often live or die by the ability of IT process to support them;

- Integration of the latest CRM technologies
- Realizing of sales and Marketing Campaigns
- Web and Mobile integration
- Outsourcing non core activities
- Implementation of new products and product lines
- E-Commerce
- Market research and segmentation. Grow the more profitable and long term segments
- Changing processes to conform to regulatory Compliance (e.g. SOX)
- Real-time reporting requirements
- More efficient operations
- Data collection techniques and accurate warehouse

## DEFINITION OF IT MODERNIZATION



“Modernization is the risk free and cost effective transformation of legacy IT infrastructures and operations toward a centrally supported, modular framework, enabling upgrades, migrations, new technology introductions and rapid adoption of change with a minimal impact on day-to-day operations and service delivery”

Relating back to our cascading benefits of increasing market share, every step of an IT modernization has a positive knock on effect supporting the subsequent step. Modernization is not about saving money.

- The immediate felt is a reduction in IT operating and licensing costs through shedding redundancies and moving applications and databases to more cost effective environments.
- whilst creating a leaner, modular and more transparent application and database environment.
- Thus freeing up budget and creating capabilities to integrate “bolt-on” services as required
- and creating an environment of innovation, where IT no longer presents barriers, but business development opportunities

## LEGACY - THE GOOD, THE BAD AND THE UGLY

Often the term legacy IT has a negative ring to it. The main reasons for this boil down to cost and lack of flexibility associated with legacy systems. Implementing new processes and technology within legacy environments, always results project time and budget overruns. If and when the project does get completed, the business opportunity is often gone.

### The Good

Nowhere is the knowledge of an organization more inherent than within its legacy IT applications. These applications are major assets, and risky big-bang replacements cause major operational and cultural upheaval and disruption, and ultimately, may not even work. Questions arising; “Will the new system and business logic work, or will implementation ever be completed?”

### The Bad

Most legacy Mainframe applications are built using older programming languages and data storage techniques. At their time, the languages and techniques were state of the art and the way to go – not any more as they are now more expensive, less efficient and less agile than contemporary applications. Let’s use an analogy:

In the industrial landscape of the early 20<sup>th</sup> century, organizations had to produce their own electrical power. Then along came the concept of creating an electrical grid, and tapping into these resources when needed and consuming just what was required and when.

IT is on course to emulating exactly this model, and achieve similar benefits. Tapping into these benefits will be difficult with legacy applications and IT infrastructures.

### The Ugly

Legacy applications are notoriously badly documented and many “workarounds” and “interfaces” are known within the heads of the people who developed them. As these employees approach retirement age, the As a result many applications are siloed, duplicated or in obsolete in an application labyrinth – the crazy thing is that companies are paying to host and maintain these

So let’s keep the good, fix the bad and give the ugly a facelift.

## IT MODERNISATION

### What it entails

1. **Application Data Mining:** Entails a thorough audit of enterprise applications providing the framework for making objective strategic decisions for individual applications or the entire suite. The outcome is a thorough migration plan and ROI forecast.
2. **Application Migration:** Entails the iterative transfer of enterprise applications and databases onto a more efficient environment, culminating in a complete platform re-hosting
3. **Platform Modernisation:** Entails the decoupling of Mainframe applications and databases from the legacy operating systems and resources, and plugging them into open, more efficient environments such as Windows, UNIX and Linux.
4. **Application language Conversion:** Means the recreation of applications in more modern, efficient, open and compatible development languages.

### Why Modernize?

- Up to 80% of IT budgets are tied up in Mainframe maintenance and licensing costs
- Skills for languages used to write legacy applications becoming extinct and expensive
- Applications contain huge proportions of organizational intellectual capital
- Organizations need to benefit from the large and growing ecosystem of “off the shelf” applications, in order to remain competitive
- Reorganise applications into modules, ready for deployment, when and where required so organizations can benefit from the large and growing ecosystem of “off the shelf” applications, in order to remain competitive

## INNOVATIVE IT = BUSINESS DEVELOPMENT ARTILLERY

There are many examples to show that the implementation of an innovative IT organization during periods of economic difficulties or to address these, create tremendous and sustainable business models around there new found Business Development Artillery

### EXAMPLES

- Introduction and growth in PC sales after the 1970s recession was powered by the desire to reduce operational costs within organizations.
- After the Dot com bust, amazing growth has been seen by those with real business models built upon innovative use of technology – Google, Expedia, Amazon,
- Economy & Budget Airlines now account for over 30% of the market. Their prices are achieved through clever use of technology – yes, driven by recession
- Geographies – India, eastern Europe the far east have all experienced unprecedented domestic growths due to embracing technologies
- eCommerce transactions cost as little as 50% of conventional

All the above boom scenarios have one thing in common; they were new in their times. This is not the case for established organizations, who are faced with over-coming internal barriers in order to aspire to achieve lucrative commercial targets through growing market share.

A thoroughly planned and executed modernization strategy does put organizations into a position to put on fresh innovation thinking hats, and drive exploit the market volatility created by this recession.

## CONCLUSION - BUSINESS DEVELOPMENT STRATEGIES SUPPORTED

The more successful application modernization projects have commercial drivers and are not stand alone projects, but part of the bigger IT strategy. Many organizations are now moving to;

### SERVICE ORIENTATED ARCHITECTURE

Legacy applications are typified as handwritten, hard coded and notoriously badly documented making it impossible to more them to a SOA architecture. Through modernization, software obtains the structure and transparency, the pre-requisite for the implementations of specialists bolt on protocols, creating a pool of recognized services from within legacy applications, hence moving towards a SOA environment with legacy applications. These services then can be called upon by applications across the network as required.

This creates amazing levels of flexibility for burning topics such as:

- Integration of the latest CRM technologies
- Realizing sales and Marketing Campaigns
- Web and Mobile presence
- Outsourcing non core activities
- Implementation of new products and product lines
- eCommerce
- Market research and segmentation – grow the more profitable and long term segments
- Changing processes to conform to regulatory Compliance
- Real-time reporting requirements
- More efficient operations
- Data collection techniques and accurate warehousing

### CLOUD COMPUTING AND & WEB 2

Part of application and platform modernization entails the standardization of applications and creating a very clear program inventory. Because of this, it is easier to integrate easier, more innovative and remote user access and user techniques. Obvious examples; Dynamic GUI, Web 2.0, Mobile all of which play an inherent role in the trend towards cloud computing or as I like to call it, Computing on Demand...