

# Fujitsu Legacy Modernization 4<sup>th</sup> Generation Language Capabilities



# Fujitsu Legacy Modernization Offering 4<sup>th</sup> Generation Language Capabilities

Fujitsu is a leading provider of customer-focused information technology solutions for the global marketplace. Fujitsu's Legacy Modernization Services enable organizations to leverage the years of investment in 4<sup>th</sup> Generation Language software assets, deliver more from IT budgets and reduce the risk of implementing new technologies.

Fujitsu's Global Legacy Modernization Offering is based on a standard set of eight modernization capabilities which are available to our clients throughout the world.

## Challenges

Over the last few years we have noticed that several of our clients are facing similar challenges with their 4<sup>th</sup> generation language application portfolio. The challenge is that they find themselves with systems that have not kept pace with the current supported versions or find it increasingly hard to attract and retain suitably skilled staff in technologies that are becoming progressively more niche. They now find themselves at a competitive disadvantage due to the lack of flexibility and agility of these applications.

## Why has this happened?

There are many reasons why organizations find themselves in the above situation, from our experience the most common reasons are:

- Lack of a robust policy to keep to the current version of the technology or at least the current version minus one
- Mergers and Acquisitions
- Perceived cost and risk of modernization to more suitable technology
- Lack of available and suitably skilled resources, impacting development and maintenance schedules
- The cost and timeframe required for upgrades
- They are already so far behind, that the standard upgrade options are not feasible
- It wasn't realized that being so far behind would become an issue

## Options for the future

There are many options for systems with the above challenges, everything from rewriting, to business as usual, to replacement by COTS packages. We recommend that if you wish to discover the various options that are feasible for your situation, that you take a moment to look at our brochure on Application Value Assessments.

This brochure is focused on the movement of 4<sup>th</sup> generation languages to one of two options that provide a strong and robust roadmap and improved functionality. These options are C# .Net and Java.



**Fujitsu's Global Legacy Modernization**  
Offering teams also have skills and knowledge in country and regional capabilities. Please see the local Websites for more specific information.

**Fujitsu's Global Legacy Modernization**  
Offering is run from seventeen teams which are situated in seven regions around the world. The offer can be accessed from any country in which Fujitsu has a local presence.

#### **Which 4<sup>th</sup> Generation Languages can Fujitsu help modernize?**

During the 1990's, a large number of 4<sup>th</sup> generation languages came into existence and we are not aware of any organization that purports to have a modernization strategy for all of them. The subset of languages that Fujitsu can modernize is:

- Visual Basic (Classic) / VBA
- Oracle Forms
- Delphi
- Dataflex
- OpenEdge
- ABF
- Forte
- Visual Basic (1.1 .Net)
- PowerBuilder
- Centura
- OpenROAD
- Informix 4GL
- Foxpro
- C/C++

For each of the above languages, our modernization process can move your systems to C# and Java.

#### **Reducing Risk**

Fujitsu's methodology is designed to keep the risk profile of the modernization project and new application as low as possible. The major ways we achieve this are:

- Fujitsu don't make functional changes as part of the modernization process; this allows us to accurately perform parallel testing.
- Fujitsu's test regime is strong and mature, moving through many phases including unit, system, parallel, performance, security, user acceptance and implementation. As Fujitsu need a full set of tests to undertake a modernization we often have to create tests for parts of the system where they were missing. These are passed back to the client so that in future the new systems development and maintenance can be more rigorously tested.
- Screen Navigation, Functions, Topography and screen layouts are kept as close to the legacy system as possible to reduce or remove the need for user training.
- Fujitsu build the new code to the client's standards and look & feel so that future developers are not faced with multiple systems using different standards.

# Fujitsu's Legacy Modernization Capability

The Legacy Modernization service is based on a partnership model; this allows Fujitsu to supply to our clients the best of breed and most capable alternatives. Fujitsu would prime the project and utilize our Legacy Modernization methodology which is used by Fujitsu teams around the world. Fujitsu would also undertake the majority of testing and collaborate with our partners in both the legacy technologies and target technologies.



# Quality and Longevity

Fujitsu's Global Legacy Modernization Offering has three Centres of Excellence; these are based in America, Europe/UK and Australia.

Quality and longevity have to go hand in hand and this is at the core of our modernization strategy. There is no point in migrating a client to a language with a long and robust roadmap if the quality of the migrated code is poor; thus affecting future development and maintenance of the application in the new language. Unfortunately there are mimicking engines often called "sausage machine engines" and methodologies in the market that produce low quality code and therefore fall into this trap.

To become a partner of the Fujitsu legacy modernization practice, a modernization organization needs to be able to prove the following:

- The delivered code must be of good quality
  - The delivered code must not be just a mimicking copy of the old system but written in the style of the new language. In other words a programmer in the target language with no experience of the 4<sup>th</sup> generation language should be able to develop and maintain the application.
  - No code bloat. Code bloat is where one language is trying to replicate the functions of another language, this normally takes several lines of code per legacy line of code, causing the code base to expand dramatically and become unmanageable.
- No hidden code or IP
  - The client must receive all source code and have no reliance on classes that they don't have the source to.
  - Fujitsu and our Partners will not build our own IP into a client's system.
- References
  - The modernization must have several existing references.
  - As the Legacy Modernization offering is a global Fujitsu offering these references can be based in other locations.
- The new application is functionally equivalent to the legacy application

## Symptoms of legacy application issues

If any of the following statements reflect your current situation, please contact your Fujitsu Client Executive or email the Legacy Modernization team on the email below

- Our current situation with 4<sup>th</sup> generation languages is preventing us from staying competitive
- Our legacy applications are currently, or soon to be, unsupported and we do not have the time or technical ability to upgrade them
- The TCO of our legacy applications is too high
- We have trouble in finding suitably skilled resources for our legacy applications
- The 4<sup>th</sup> generation language applications are no longer on our technology roadmap
- We need to utilize modern features which are unavailable in our current technology
- Our system functionally does what we want it to do, but is in the wrong technology for our organization's future

## Benefits

Benefits of the Legacy Modernization Strategy:

- Leverage your existing investment in your systems
- Improve access to more readily available technical resources (.NET and J2EE)
- Reduce IT complexity (by removing a set of technology)
- Improve alignment with you organization's technology roadmap
- Reduced Total Cost of Ownership
- Avoid obsolescence and unsupported legacy technology
- Remove requirements for resources with early 4<sup>th</sup> generation language version skill sets
- Preserve and maintain business logic
- Modernize and extend the life of existing applications
- Web-enable applications
- Enhance user experience with better user interfaces and functionality
- Reduce deployment and run-time costs
- Reduce maintenance costs
- Future proof the application
- Same look and feel, no need for user retraining

## Why Fujitsu?

Fujitsu's Legacy Modernization services offers

- This capability is part of the Fujitsu Legacy Modernization global offering and so is available from all the Legacy teams around the globe
- Commercial models to suit your business requirements
- End to end solutions with single point accountability
- Extensive experience in planning, designing, migration and implementation of legacy systems and new world technology
- Proven methodologies (MacroScope™)
- Certifications of International standards of excellence (ISO9000®, ITIL®, CMM)
- Experience with automated legacy system conversion and documentation
- Capability and experience in J2EE and Microsoft .NET™ solutions
- Ability to deliver using on-shore or off-shore resources
- Ability to work with your existing IT staff as a combined delivery team
- Access to global resources with experience assisting major corporate and government sector organizations

- Knowledge of legacy system hardware and software for all major vendor systems
- Unique range of software products that assist in the transformation of legacy environments
- Successful track record in delivering Legacy Modernization projects for world's leading organizations

## Fujitsu are a leading service provider of information technology.

We partner with our customers to consult, design, build, operate and support business solutions. From strategic consulting to application and infrastructure solutions and services Fujitsu Limited have earned a reputation as the single supplier of choice for leading corporate and government organizations. Fujitsu have been bringing together development and support environments for a wide range of technologies, as well as professional expertise covering a broad array of technical competencies for over 20 years.

**Fujitsu are collaborative team players** who are flexible and adaptable and can readily fit into any client environment. We work with you, leveraging partnerships with strategic alliances to help tackle your complex business challenges to deliver real business results.

**Fujitsu focus on your outcomes** and develop an optimal service delivery model and framework of pre-agreed service levels based on your organization's business and budgetary priorities.

**Fujitsu have a strong track record in tackling challenges** and realization of tangible and intangible benefits. Many different clients throughout the world have benefited from our techniques to ensure that the desired results are achieved in practice.

## Please Tell Me More?

Fujitsu would be pleased to talk to you further about how we can work together to help you leverage the investments your organisation has made in legacy applications. If you would like to talk to us in person please send an email to the Legacy Modernization team in your local area. Email addresses are on the final page of this brochure. Or visit our website and take an online survey.

### About Fujitsu

Fujitsu is a leading provider of ICT-based business solutions for the global marketplace. With approximately 173,000 employees supporting customers in 70 countries, Fujitsu combines a worldwide corps of systems and services experts with highly reliable computing and communications products and advanced microelectronics to deliver added value to customers. Headquartered in Tokyo, Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.6 trillion yen (US\$50 billion) for the fiscal year ended March 31, 2010. For more information, please see [www.fujitsu.com](http://www.fujitsu.com).

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