IBM Mixed Language Application Modernization Pattern V1.0

- Reuse and extend existing assets in a cloud environment

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Cloud computing has significantly changed both business and everyday life for consumers. When utilized effectively, cloud capabilities drive business values, Innovation and optimization. IBM® PureApplication™ System is optimized for both traditional and cloud environments and utilizes IBM's unique pattern of expertise. This workload-aware, flexible platform is designed to be easy to deploy, customize, safeguard and manage. Whether you operate in a traditional or private cloud environment, this IBM solution can provide you with superior IT economics.

IBM PureApplication System W1700 is a member of a new IBM family of products called expert integrated systems. These IBM solutions are designed to greatly simplify the tasks of designing, acquiring, using, and managing IT environments. When you purchase one of these systems, the design and implementation of a solution is handled by expert engineers in IBM. This shift in responsibility enables IT managers to task their workers with more strategic and productive assignments

Pattern-based deployment is an important component of PureApplication System, providing the deployment and management of a multiserver application environment. Multiple types of patterns are supported in PureApplication System. **Virtual application patterns** are application-centric. They require the user to enter only a few inputs, such as application artifacts and policies. Then, the pattern management system maps those inputs into a configured, running application environment. Virtual application patterns require no scripting. **Virtual system patterns** are designed for IBM middleware. These patterns are either shipped preassembled by IBM or created through use of the IBM Image Construction Tool. These patterns require some scripting that can give you additional control for situations that demand it.

Many businesses have over the years invested significant time and effort in building tailored business logic implemented in COBOL, C or both. There is often a requirement to continue to expand these applications in Java EE to take advantage of readily available skills. Moving mixed language COBOL, C and Java EE applications to a cloud environment poses significant challenges to these customers. The IBM PureSystems™ and IBM PureApplication Systems family provides ideal platforms for these customers as they begin their enterprise cloud initiatives.

IBM Mixed Language Application Modernization Pattern V1.0 helps extend and reuse time tested COBOL & C application assets within a modern cloud ready Java EE framework. It's a new and separately licensed software patterns for PureApplication systems W1700. This Pattern provides swift, easy and repeatable deployment of middleware and other components associated with composite mixed language transactional applications.

IBM Mixed Language Application Modernization Pattern V1.0 is a virtual application pattern used to deploy and manage mixed language applications within a cloud environment using either the IBM Workload Deployer or on the IBM PureApplication System. Using this pattern in conjunction with the IBM Web Application Pattern V2.0 enables cloud application developers to efficiently create modern, cloud ready, mixed language applications by using existing application components written in C, COBOL and Java EE.

Existing time tested enterprise application assets can thus be leveraged to create modern applications for the cloud. By utilizing readily available Java skills to extend existing applications into Java EE, it's possible to deliver functionality to meet new business needs faster, eliminating the need to rewrite existing applications.

IBM Mixed language Application Modernization Pattern, along with the Web Application Pattern, automatically provisions various application components and connections to persistence resources to meet the quality of service levels specified for the application. This consistent and repeatable cloud-deployed environment significantly reduces the time required to deploy applications into production and by automating previously manual steps, lowers the risk of errors in the deployment process.

IBM Mixed Language Application Modernization Pattern V1.0 consists of two key components:

1. Language runtime capability.

2. Transactional Extension capability.

The language runtime capability provides a runtime environment based on WebSphere® eXtended Transaction Runtime (WXTR) V2.1 for

hosting COBOL & C applications. The language runtime is pre-entitled with IBM PureApplication System W1700 and can be used at no additional cost. The transactional extension part provides additional capability to host COBOL and C based business applications that require transactionality with CICS® API support. The Transactional Extension also includes tooling to assist in the migration of host applications that use the Oracle Tuxedo ATMI API. A license is required to use the Transactional Extension functionality.

Key features

Key features supported by IBM Mixed Language Application Modernization Pattern V1.0 are:

Cloud Ready: Cloud adoption initiatives drive efficiencies into IT systems. IBM Mixed language Application Modernization Pattern V1.0 along with IBM Web Application Pattern V2.0, automatically provisions various components of mixed language application within cloud by using either IBM PureApplication System W1700 or the IBM Workload Deployer.

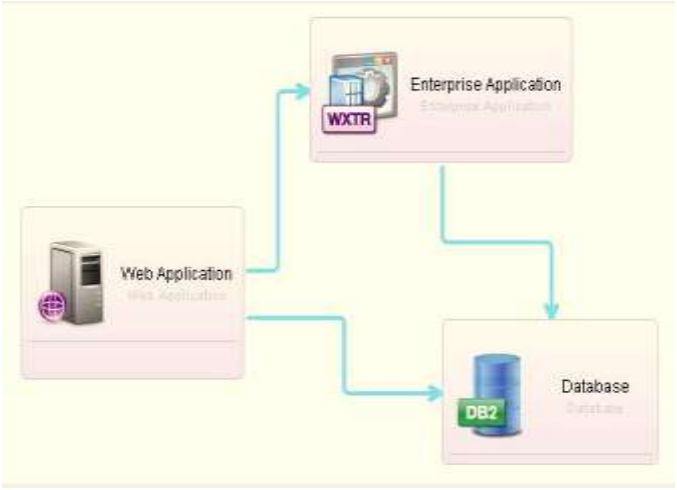
Capability to deploy & manage CICS & Oracle Tuxedo applications: The Transaction Extension component of IBM Mixed Language Application Modernization Pattern provides capability to run CICS applications and to host Oracle Tuxedo ATMI based applications.

Compatible with IBM Workload Deployer and IBM SmartCloud Offering: IBM Mixed Language Application Pattern uses IBM Workload Deployer and IBM SmartCloud offering to deploy mixed language applications in a cloud environment.

Key Benefits

Fast and efficient creation, deployment and management of mixed language applications in cloud environments: IBM Mixed Language Application Modernization Pattern V1.0 provides a collection of plug-ins that define components and links for the execution of COBOL and C applications. This pattern provides an enterprise application component that would enable the execution of mixed language applications. This helps minimize the time required to put applications into production.

Reduce investments required: Mixed language applications consist of applications assets with business logic written in C, COBOL or Java EE being assembled and integrated to provide required business functionality. Using IBM Mixed Language Application Modernization Pattern helps reuse the existing assets without the need to rewrite the entire business logic, saving costs.



Leverage readily available Java skills to extend and modernize COBOL & C enterprise applications. This helps to use the existing Java skills in the enterprise. The configuration involves bringing COBOL, C and Java EE application code and data, configuring them as components, using the pattern for deployment.

Apart from the above, using this pattern brings in additional benefits of PureApplication Systems such as auto-scaling, failover, load balancing, monitoring, life cycle management etc.

Available now!

Announced February 5th 2013, IBM Mixed Language Application Modernization Pattern V1.0 will become generally available on February 28th 2013. For more details, refer to Software Announcement 58006.

More information

For more information on modernizing traditional application refer to http://www-01.ibm.com/software/webservers/appserv/extended-transaction-runtime/library/

Hardware requirements:

- IBM PureApplication System W1700 (or)
- IBM Workload Deployer V3.1.0.7

Software requirements

- IBM Web Application Pattern V2.0

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