APPLICATION REFACTORING SERVICES
Modernize your application while leveraging existing investments

Organizations modernize their applications periodically with the goal of alignment with the changing business and technological environment. Some of the compelling reasons for businesses to modernize their IT Systems include:

Technology Obsolescence
The system often needs to be modified to enable infrastructure modernization - Hardware, Systems software, Database software or 3rd party software – such as Linux support or newer versions of the Oracle Database

Rising Total Cost of Ownership (TCO)
Various factors such as non-adherence to standards/best practices, poor documentation, and obsolete software platforms make it difficult to maintain the application or provide further optimization

Changing business needs
Modifications to the system are difficult due to reasons such as loss of system knowledge and/or system documentation as well as lack of resources with rare skills of working with obsolete platforms

Performance Degradation
System performance does not keep up with increasing business demands or the increased performance of the ecosystem

Archaic user interface
Moving from “green screen” or fat-client Windows clients to modern Java based or web-based clients

Given the investments already made in the existing systems, Organizations prefer to leverage those during application modernization. For customers that are seeking a cost effective and time saving option to modernize their IT systems, Prodapt recommends Application Refactoring.

WHY REFACTOR YOUR APPLICATION?

An economical alternative
In times of financial uncertainties, organizations may choose to reduce investment in the on-going upkeep of the systems. When financial certainty is restored, organizations may consider closing this gap by replacing their systems. Refactoring can be significantly cost effective compared to system replacement – in the planning, construction, implementation and organizational aspects. The end system has a much better chance of being accepted by the user organizations, and the overall schedule – considering the relatively smaller investment in organizational integration – has the potential to be significantly shorter.

Modernization with Functional Match and Minimal Interruption
Successful Refactoring process can restore the lost knowledge, re-platform the system hardware and software, and make the system easily maintainable for the future. Refactoring guarantees functional match to the existing system, on a modern platform, with current system documentation and standard software using modern languages written to current standards.

Refactoring can be performed for internally developed systems, as well as customizations, adaptations and enhancements of commercially available systems (COTS products).
COMPETENCY

Our Application Refactoring practice provides Methodologies, Technical/Program Lifecycle Leadership and Program Lifecycle Services for planning, coding and implementing Application Modernization projects.

The practice comprises of on-shore and off-shore consultants with wide experience in delivering Application Refactoring projects for Communication Service Providers as well as Commercial Software(COTS) Providers in the front office and back office operations, with special emphasis on porting applications to Java and refactoring Java applications to be recoded efficiently.

Our expertise includes:

- Methodologies and Procedures for delivering a code refactoring project
- Reverse engineering of system documentation from existing systems, including functional requirements, system and functional documentation from existing systems code
- Porting of the logic from legacy platforms to modern platforms and languages
- Upgrades to newer versions, or porting to modern platforms of Databases(such as Oracle, DB2), Operating Systems (such as LINUX, HP-UX, IBM AIX) and Application Servers(such as Weblogic, WebSphere, JBOSS)
- Testing intended to achieve backward functional compatibility including Operational Testing (O&M), Performance and Load Testing
- Porting the user experience between platforms, minimizing the retraining and integration efforts
- Minimization of downtime or interruption to normal operations during the upgrade
- Implementation of Production Parallel environments that guarantee functional match to the legacy systems
- Reusable templates of project plans as well as analysis and design tools

OFFERINGS

Prodapt's Application Refactoring Practice provides the following services as a project or as part of a customer team:

1 Planning and Managing the application refactoring, including
   - Program and Project Management
   - Coordination with the customer IT organization, on-going development and support teams of the customer or other vendors that provide services to the customer
   - Knowledge Transfer to the customer on-going support team during the project

2 Reverse Engineering of the legacy application
   - Code, data structure and scripts analysis
   - Interviews and observation of the on-going operations
   - Full set of system documentation

3 Construction of the new application
   - Create the detailed design of the replacement system
   - Code and module testing of the replacement system
   - System and integration testing of the new system
   - System and operational documentation
   - Training to the on-going support team

4 Production Parallel Environment
   - Methodology to ensure the functional match between the new system and legacy system
   - Design, implementation and operation of the environment throughout the project
   - Design and implementation of the parallel run reporting

<table>
<thead>
<tr>
<th>Project and Program Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management and Documentation Template</td>
</tr>
<tr>
<td>Analysis and Implementation Toolset</td>
</tr>
<tr>
<td>Reverse Engineering</td>
</tr>
<tr>
<td>Production Parallel Systems</td>
</tr>
</tbody>
</table>
CASE STUDY

Refactoring Windows fat-client application for a Fortune 100 Telco Operator:
Prodapt successfully ported a wireless number portability support system from a Windows based environment to a Java based system, while allowing a major modernization of the Hardware Platform, Operating System, Database Version and Application Server.

Migration from a Licensed Platform to Open Source
Ported the Resource Management application of a US based company that pioneers in providing improvements to 9-1-1 emergency communication systems from VB6 to Java. The existing HTML 1 / 2 standards were converted to HTML 5. The engagement included migration from SQL server 2000 to MY SQL 5.1.

CRM performance improvement for a US based major wireless provider
Prodapt helped a US based wireless provider improve the system throughput significantly while refactoring their legacy CRM system to Java.

VALUE PROPOSITION

- Strong track record of delivering services to Telecommunication Customers
- Methodologies to reduce downtime associated with project deployment
- Cost advantage delivered by 'Dual Shore Model' utilizing on-shore and off-shore refactoring expertise
- Prodapt supports a construct and deliver model, where we perform the upgrade and either hand over the upgraded system to the on-going support team or continue supporting the system
- Expertise in providing services and integration with OSS/BSS systems
- Well-defined strategy and innovative business models for faster integration with effective and efficient support

ABOUT PRODAPT

Prodapt is a leading provider of IT and engineering services with a major focus on the communications industry. Prodapt works with communications service providers (CSPs), ISVs, and NEM customers to help maximize value and reduce cost from IT and network engineering investments. Synapt, the IoT division of Prodapt, has established its dominance in the IoT market with cutting-edge solutions, services, and products.

Headquartered in Chennai, India, Prodapt has additional locations in India, US, Europe and South Africa. Prodapt is part of the 120-year-old Indian business conglomerate, the Jhaver Group. The Group employs over 16,500 people across 64 countries.