

# Overview

## Intertec Platform and Architecture Renovation Practice



Intertec Communications Limited

[www.intertec1.com](http://www.intertec1.com)

June 2001

## CONFIDENTIALITY



## Index

<b>1. INTRODUCTION TO PLATFORM AND ARCHITECTURE RENOVATION</b>	<b>4</b>
<b>2. INTERTEC PLATFORM &amp; ARCHITECTURE RENOVATION PRACTICE.</b>	<b>5</b>
<b>3. INTERTEC PLATFORM &amp; ARCHITECTURE BENEFITS.....</b>	<b>11</b>
<b>4. INTERTEC PLATFORM &amp; ARCHITECTURE ADVANTAGES.....</b>	<b>14</b>
<b>5. DELIVERY ASSURANCE .....</b>	<b>16</b>
<b>6. PARTNERSHIP.....</b>	<b>17</b>
<b>7. CONTACT DETAILS .....</b>	<b>18</b>

# **1. Introduction to Platform and Architecture Renovation**

“For enterprises that depend on legacy information systems who need to retain the intellectual capital in the existing systems and realize the benefits of modern architecture, Intertec's "Renovation Practice", through a powerful suite of tools, process and expertise delivers Platform and architecture transformation of your Legacy system. Unlike other migration solutions, Intertec offers broad-based, fixed price and cost effective alternative and is engineered to ensure on- time, High quality, and reliable solution.”

## **Legacy System: Customer problem scenario and Challenges**

- ✓ IT Investment protection
- ✓ Control operational costs
- ✓ Predictable project cost/time
- ✓ Solutions should meet business growth

## **What analyst's say**

75% of organizations from a recent Gartner survey say they plan some kind of Legacy System modernization initiative in the next three years.

## **2. Intertec Platform & Architecture Renovation Practice**

### **2.1 Legacy Transformation & Renovation**

The process of modernizing your mission-critical business applications from the Old technology to the new is Platform and architecture Renovation. This typically involves:

**Change from Procedural language to Object Oriented design and language**

**Change from 1 or 2 tier architecture to more flexible and scalable n-tier architecture**

**Change of Hardware and OS platform (optional)**

**Change from proprietary Database/file system to Relational database**

**Change from Character User interface to Graphical user interface**

The result is a renovated system running on a flexible distributed computing environment, giving you the option to use common enterprise application integration solutions to make all your systems communicate. Also, the renovated system is geared for easy integration with newer packaged enterprise and e-business applications. The solution moves your application from restrictive legacy language to Java, while transforming it from procedural code to Object oriented design.

Best-in-class Legacy transformation solutions ensure that your systems would be functionally equivalent in the new environment. Thus, your years of investment in building a unique and competitive business process, hidden in your business application, are retained.

### **2.2 Intertec Legacy Transformation & Renovation Practice**

Intertec's Renovation practice delivers accelerated Transformation of custom legacy software to Object and n-tier architecture by utilizing its unique tool "e-

Studio". Customers derive significant benefit from this approach, as it involves significantly lower risk, time and expense compared to reconstructing these valuable assets from scratch. Intertec Renovation solutions identifies the code responsible for handling the core business logic and database access, and separates the code into multiple modules-Business logic, User Interface and database access. Thus the renovated application will be functionally partitioned and well suited for implementation in n-tier architecture. As a result, Intertec Renovation solution ensures ROI on your intellectual capital is renewed.

### 2.3 Intertec Legacy Renovation Process

Legacy Renovation process is a complex and time-consuming task, unless it is backed by specialized tool set and process. Intertec, with years of experience in Legacy Renovation projects has built unique set of tools to address the specialized need of the Legacy transformation project and also perfected the process of delivering such solutions.

Based on experience from scores of engagements, Intertec has partitioned the Legacy transformation project into following steps, with a tangible deliverable at the end of each step.

SR.	Project Step	Deliverables
1.	<b>Application Analysis</b>	Current system analysis reports, and repository
2.	<b>Application Modeling</b>	Current system model. Object Models for User interface, Database, and business logic in the new environment, including UML diagrams, HTML/JSP screens, Entity Relationship diagram, and DDL scripts for database creation.

3.	<b>Code Generation</b>	Based on the object models created in the previous steps, Java (EJB, JSP) or (COM+) code is generated by e-Studio
4.	<b>Testing</b>	Test plan, test script (Visual Test script)
5.	<b>Integration &amp; Deployment</b>	Deployment descriptor, EJB/COM+ objects, DDL scripts for data base creation and test report

Standard Verification and Inspection techniques are used to confirm the deliverables from each of the above steps, thus adopting the Defect Prevention technique as against Defect Detection technique. The end result is application built with superior quality Object and n-tier architecture code, ready for deployment, retaining the functional characteristics of your existing system.

## **2.4 The e-Studio Legacy Transformation and Renovation solution delivery approach**

The e-Studio approach for application renovation is lab-based transformation and unit testing. The e-Studio infrastructure is utilized starting with legacy Application Analysis, object modeling, database modeling and User Interface creation and deployment component generation. The e-Studio infrastructure carries out the complex and time consuming task of identifying and extracting interleaved code fragments containing Business Logic, Data Access Logic, and User Interface in the legacy application. By employing proven and formal computational theory rules, and by automating the utilization of several such rules, the e-Studio transforms legacy applications to functionally packaged reusable Java Objects. The transformed object collection can be deployed as distributed (n-tier), Web paradigm solution.

### **2.4.1 Transformed Application Scalability and extensibility**

To ensure scalability, high-availability and provide best of class security features, the e-Studio relies on industry standard J2EE architecture. The e-Studio

automatically generates objects ready to be deployed over industry standard J2EE Application servers like BEA WebLogic, IBM WebSphere and others.

### 2.4.2 Transformed Application Life Cycle Management

To support application life cycle management and reduce sustenance engineering cost and effort, the e-Studio creates UML standard documentation for the transformed system.

### 2.5 Renovation practice with e-Studio:

#### Solution Stages/Steps:

<b>Application Analysis</b>		
<b>Prepare proposal</b>		
<b>Prepare Solution Architecture</b>		
<b>Hardware/software infrastructure selection</b>		
<b>Database selection</b>		
<b>Application server selection</b>		
<b>Network type (inter/intra/extra net)</b>		
<b>Security options</b>		
<b>Object Modeling / Core Renovation Tasks (n-Tier)</b>		
<b>UI / UE Creation</b>	<b>Business logic isolation</b>	<b>Database modeling</b>
Review "Green Screens" & related Interface processes	Control & Data flow logic – inter / Intra program	Existing Database & Table Analysis
Web Page definition and Interfacing – Design and content abstraction	Application specific Business Logic components	Security & Administration Interface Definitions



UI Component Generation (JSP's)	Application / Session binding component creation	Connection Pooling (preferred) or Manager creation
<b>Code Generation / EJB creation</b>		
<b>Unit testing</b>	<b>Unit testing</b>	<b>Unit testing</b>
<b>Integration Test Plans (across the n-Tier)</b>		
<b>Create J2EE deployable components &amp; descriptors</b>		
<b>J2EE application server Setup and Deployment</b>		
<b>Product level testing</b>		

#### 2.4.2 e-Studio Infrastructure utilized in:

##### Application Analysis

##### Object modeling:

- **Business Logic**
- **Data Access Logic**
- **User Interface**

##### Identify and Creates Reusable Java Objects from Legacy code

- **Creates J2EE deployable components**
- **Creates UML documents for the transformed system**
- **Create ER diagram for the transformed system**

#### 2.4.3 Client involvement/review and approval at all phases:

Intertec encourages active involvement of the customer in the form of pre-requisite definition, review and approval at all phases from solution architecture to User Interface and User experience design, test planning and transition:

##### **Solution Architecture**

##### **UI/UE and**

##### **Transition**

## 2. 6 Intertec Platform and Architectural Renovation Matrix

Legacy Transformation Renovation Chart		
Source Environment	Target Environment	Tools used, Company
Cobol (17 Dialects, Any Platform)	Sun/Solaris, Java/Web Window/NT, Java/Web	Visual Source, ADPAC e-Studio, Intertec, Rational Rose
CSP, IBM Main Frame/Mini	Sun/Solaris, Java/Web Window/NT, Java/Web	JCL View, ADPAC e-Studio, Intertec Rose, Rational
MUMPS (M-System), Any platform	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational
CA-Ideal, IBM Mainframe	Sun/Solaris, Java/Web Window/NT, Java/Web	JCL View, ADPAC e-Studio, Intertec Rose, Rational
CA-Easytrive, IBM Mainframe	Sun/Solaris, Java/Web Window/NT, Java/Web	JCL View, ADPAC e-Studio, Intertec Rose, Rational
RPG -II,III, IV	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational
DYL-260, DYL-280, IBM Mainframe	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational
DEC VAX, Any language	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational
Data General, Any language	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational
Unisys, Any language	Sun/Solaris, Java/Web Window/NT, Java/Web	e-Studio, Intertec Rose, Rational

## **Established Capabilities:**

The Intertec client list is both wide and varied, and involves many combinations of mainframe, mid-range applications and target environments. The reference list of solutions previously provided to clients include:

**DYL-260, DYL-280 to MVS COBOL**

**Cobol-74 to MVS COBOL**

**WANG COBOL to AS/400 COBOL**

**PL/I to MVS-COBOL**

**CA-Easytrieve to RPG-400**

**IBM MVS COBOL CICS DB2 to HP UNIX MF-COBOL, Oracle**

**CSP(tm) to Java/Web**

**COBOL to Java/Web**

**Power builder/Oracle to Java/Web**

### **3. Intertec Platform & Architecture Benefits**

---

The key benefit of Intertec Renovation solution using *e-Studio* infrastructure based transformation is significantly shorter development cycle and lesser risk to the customer. This directly results in shorter time-to-market and improved competitive advantage. The on-going benefits of the solution are higher quality of end user work, easier maintenance and smoother operation with easily scalable applications.

The bottom line is, applications created using e-Studio based solution provide quality improvements in operation, maintenance, system capability, functionality, performance, and lower operation cost, resulting in a greater Return On Investment (ROI).

#### **Intertec Platform & Architecture Renovation Benefits**

Intertec's Platform & Architecture Renovation helps the organizations to:

Effectively Manage Costs

Retain core business process

Reduce project risk

Reduce disruption of business

Flexible, manageable, and cost-effective IT infrastructure

Better support for changing business process

Better support for work collaboration

IT infrastructure becomes more Scalable, extensible

#### **Apart from this Platform & Architectural Migration helps IT Departments to:**

- ✓ ACCURATELY PLAN THE COST AND TIME ON RE-ENGINEERING INITIATIVES,
- ✓ EASE OF OPERATIONS AND MAINTENANCE
- ✓ EXTEND THE LIFE OF YOUR LEGACY APPLICATIONS

- ✓ **REDUCE END USER TRAINING COST**
- ✓ **REDUCED TIME FOR HANDLING ENHANCEMENTS AND MAINTENANCE REQUESTS**

### **Platform and Architectural Migration provides the following benefits to IT user departments:**

- ✓ Ease of end user training
- ✓ Higher quality of end user work
- ✓ Minimum downtime
- ✓ Customer Convenience
- ✓ Quick Response
- ✓ Competitive Price

### **Additional benefits of Legacy Transformation:**

#### **1. Unified application architecture, language and coding standard:**

As your systems have expanded over time, different people within your organization have modified and added to them using various naming conventions that may not be consistent across all your applications. To derive short term benefits, applications developed in various legacy languages have become too tedious to maintain and enhance. Platform Migration allows you to standardize your programming language, coding standards, creating a common structure for all the various components of your applications throughout the entire system for easier deployment to modern platforms and integration with other enterprise applications.

#### **2. Documentation to help greatly reduce maintenance and enhancement costs**

## **4. Intertec Platform & Architecture Advantages**

---

### **Freedom of Choice –On Vendor Multiple Solutions, One Price, One Contact**

#### **1. Platform & Architecture Renovation creates the following advantages to the organization**

Market Leadership

Retain proven process/competitive advantage

Better and Predictable ROI

Effective support for changing business process

Increased market reach

Maximize Returns on IT Investment

Improve Customer Satisfaction (Customer Delight and Loyalty)

Collaborate With Partners

Enhance Employee Productivity (More Efficient Operation and productive work force)

Quick Application Deployment and Easy to Use

Leverage Host Applications

Standards Based (Vendor independence/Move from proprietary to vendor independent IT infrastructure)

Deliver Host Data To any Pervasive (Wireless) Device

Create New Business Opportunities

Increased revenue

Investment protection

Predictable project results

Less operational staff

Improve the availability of business application

Lower operational cost

Scalable application

Central Management Reduces IT Expense

## Intertec's Unique Offering:

Support for wide variety of Legacy Languages and environments

Most comprehensive Reports

Fixed Price and cost effective Solution

Automated Approach removes guess work

Fast turn around

Covers wide range of Legacy Renovation solutions

## INTERTEC TOTAL RENOVATION SOLUTION MATRIX

Environment	Language	Nature of Service
<ul style="list-style-type: none"> <li>◆ IBM MVS</li> <li>◆ IBM VSE</li> <li>◆ UNISYS</li> <li>◆ WANG</li> <li>◆ DEC VAX/VMS</li> <li>◆ UNIX: Tandem, Sequent, Altos, NCR,</li> <li>◆ Data General AOS, DG-UX</li> <li>◆ HP Unix and MPE</li> </ul>	<ul style="list-style-type: none"> <li>◆ Cobol</li> <li>◆ IBM-CSP</li> <li>◆ CA- IDEAL</li> <li>◆ Natural</li> <li>◆ CA- EASYTRIVE</li> <li>◆ NOMAD</li> <li>◆ CULPRIT</li> <li>◆ DYL 2X0</li> <li>◆ Pick Basic</li> <li>◆ MUMPS</li> <li>◆ RPG</li> <li>◆ Power Builder</li> </ul>	<ul style="list-style-type: none"> <li>◆ Application Analysis</li> <li>◆ UI/Web Enabling</li> <li>◆ Wireless Enabling</li> <li>◆ Data Base Renovation</li> <li>◆ Language Renovation</li> <li>◆ Platform and Architecture Renovation</li> </ul>


## 5. Delivery Assurance

---

Delivery Assurance is a key factor in the overall client engagement within Intertec.

Each Renovation project is run by a seasoned Project Manager, who ensures that all aspects of your solution is delivered on time, to budget with the highest possible quality.

We use several proven techniques to ensure delivery.

<b>Mass Customization</b>	An approach to chart an optimum path between building a solution from scratch and buying off-the-shelf products
<b>QMS</b>	ISO-9001 certified, en route to SEI CMM Level-5
<b>Knowledge Management</b>	 <p><b>A</b> ctivating the engagement <b>L</b> everaging existing knowledge and tools <b>E</b> laborating and building on it <b>R</b> ealization of the clients' objectives <b>T</b> ransition to the clients' environment</p>

### Competence Base

Intertec employs a rapidly growing pool of highly trained expert technical and consulting personnel to ensure that services are delivered skillfully, (including over 25 Engineers certified in Microsoft MCSD certification program, and Sun Java Certification program).



## 6. Partnership

---

Our technology partnerships with world leaders such as IBM, Microsoft, Sun, Remedy and BEA Systems add to our capability.

To ease client reach and better understand the specifics of a particular domain, Intertec has forged business partnerships with Srisoft Corporation, AdPac Corporation, Venture Portfolio Inc., ARFocus Inc. in USA, Systems Management International, FactDelta Ltd. in UK, and KoCos in Germany.

*\* All trademark and logos are the properties of the respective organisations.*

### Technology Partners



### Business Partners



## 7. Contact Details

---

### **USA**

Intertec America Inc  
425, Market Street Suite-400  
San Francisco  
California –95035-4323  
**Ph:** 408-957-4339  
**Fax:** 408-957-4331  
**eMail:** [info@intertec1.com](mailto:info@intertec1.com)

### **India**

Intertec Communications Ltd  
#28, Shankar Mutt Road  
Basavangudi  
Bangalore-56004,  
India  
**Ph:** +91(80) 6611317, 6614706  
**Fax:** +91(80) 6612075  
**eMail:** [info@intertec1.com](mailto:info@intertec1.com)