



# white paper **SCORE<sup>®</sup> Adaptive Bridges<sup>™</sup>**

## **Integration in Motion**

*SCORE Adaptive Bridges from Delta Software Technology maximizes your return on existing investment (ROEI), quickly and simply integrating your unique and valuable legacy applications and databases with your enterprise portal, e-Government, business intelligence, mobile computing and other new business initiatives.*

In today's IT world nobody can afford to focus on technology; instead you must focus on business, ensuring that the investments you have made over the years in your existing application assets, infrastructure and people are making a real contribution to your day-to-day business – continually reducing costs and increasing value. To increase the value of your enterprise projects you must reduce the cost of integrating your existing application assets.

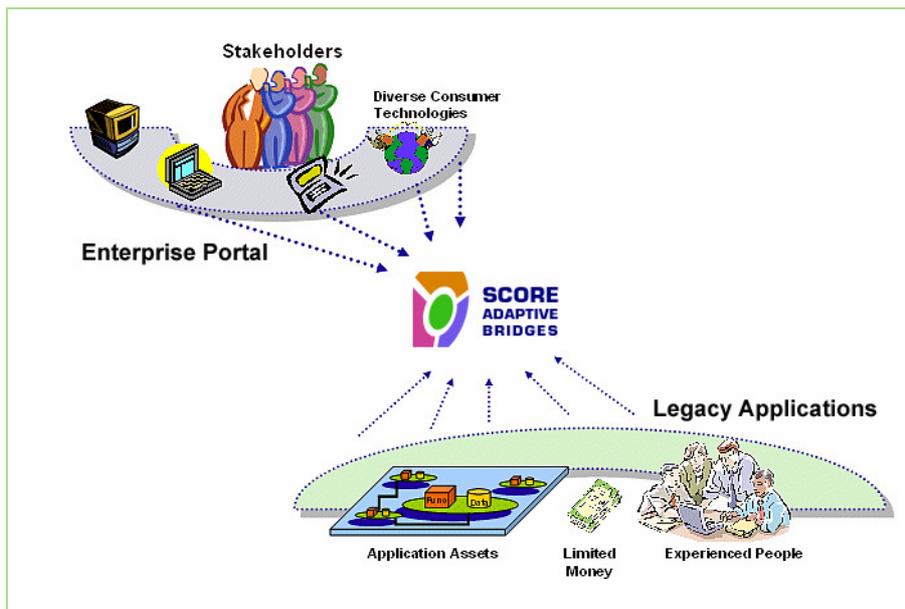
**SCORE<sup>®</sup> Adaptive Bridges<sup>™</sup>**

# OUR CONTINUALLY CHANGING WORLD

In this world of continual change your enterprise must be more agile than ever with business units quickly and efficiently working together to create and exploit new business opportunities.

Agility demands integrating and interoperating with external stakeholders: customers, prospects, partners, suppliers, regulators, investors, the press, even the general public.

SCORE Adaptive Bridges enables the direct usage of legacy functionality in enterprise portals. The product quickly and simply integrates strategic legacy applications and databases into JSR 168 compliant enterprise portals and other similar high-visibility and high-value projects.



## Application Assets

Creating value is harder than ever. Your existing assets must deliver the best possible return on investment. Your portfolio of enterprise applications and data stores is one of your most valuable assets. Business units and your IT group must work together to leverage these assets, creating solutions to meet the needs of external users.

## Consumer Technology

Your central IT group is being asked by the business units to provide integration solutions. Emerging technologies such as Web services are leading to an increase in requests for direct access to your application portfolio by external users.

Your business units and their stakeholders are not interested in how your core applications and data stores are implemented. They need access to selected parts of the application functions and data stores – to build composite applications and for many other projects. How you provide access is your problem.

The technology selected to serve external users is often influenced by both their needs and expectations. For example: providing a standard Web interface for direct use by customers; using an XML-based connection to a vertically integrated trading exchange; introducing mobile solutions for direct and indirect sales channels.

## Application Islands

Your application portfolio can be viewed as a collection of application islands. Connections within the islands are numerous, but there are typically few connections between islands.

IT has traditionally focused on the individual islands. In contrast, business units are focused on stakeholders, creating composite applications tightly focused on meeting specific needs for narrow classes of external users. Composite applications blur the distinctions between application islands. Previously isolated data and functionality are being connected in totally new ways.

Development projects are continually creating new applications and data stores that must be integrated with existing application islands. As new core and composite applications are developed, the number of connections between application islands increases rapidly, increasing the risk of losing control and manageability.

### Service-Based Integration

IT is challenged to cost-effectively provide business units with integration and interoperability solutions in an increasingly heterogeneous environment. Even so, security, availability and reliability of core applications and data stores must never be compromised. You need a integration architecture able to meet the dynamic demands of your business units while keeping development, deployment and maintenance costs as low as possible.

Service-based integration architectures expose carefully selected legacy application functions and data stores as services. Business units consume these services to build composite applications. Standard service interfaces promote the use of standard development tools and techniques. Flexible interfaces allow direct support for even the most specialized requirements.

Business units must use the most appropriate technology to meet the needs of their external users (the service consumers). Very different technologies have typically been used to implement the core applications and data stores (the service providers). Service-based integration architectures create an isolation layer between the different technologies used by the service consumers and providers.

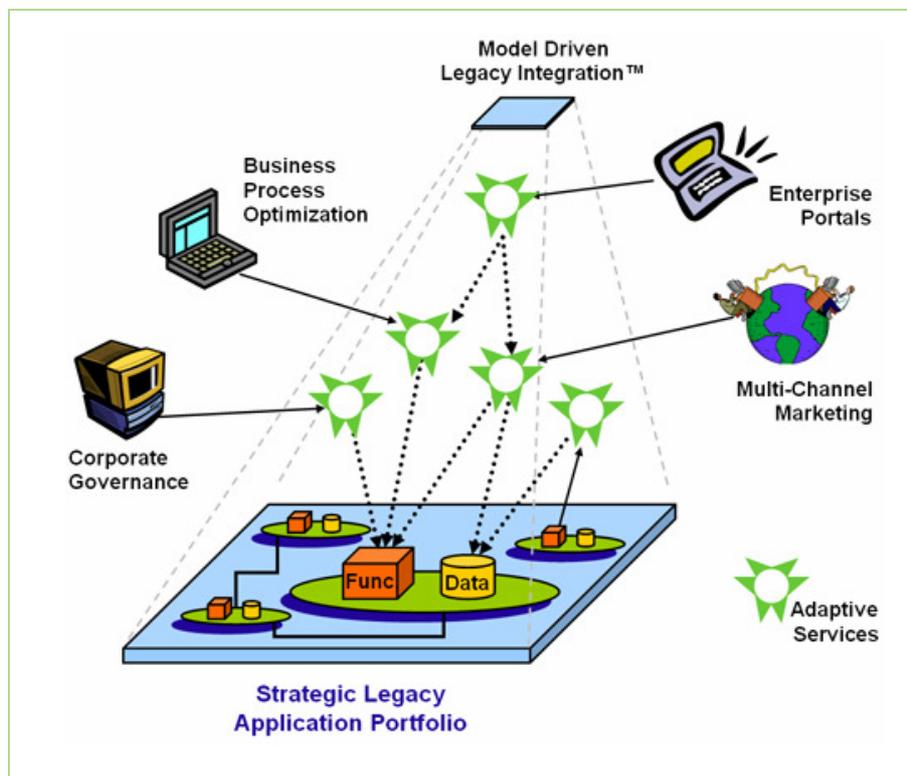
### Experience Counts

Your chosen integration solution must be “win-win”, allowing your central IT group to leverage their considerable investment in technology and skills, at the same time promoting consumers in the business units to exploit their own experience and technology.

## ADAPTIVE SERVICES FOR INTEGRATION

Your service-based integration architecture must be secure, robust, efficient and maintainable. This requires more than adding SOAP interfaces to your core applications or allowing direct access to your data stores using JDBC connectors.

SCORE Adaptive Bridges allows you to multiply the value of your existing applications and data stores by creating Adaptive Services.



A broad range of consumers operating in diverse technical environments will want to use the services you provide. These services adapt to the context in which they are used. There are increasing numbers of such contexts as business and technical requirements continually change, expanding in unimagined ways.

We present three key aspects of adaptive services you should look for when qualifying potential integration solutions.

### Interface Intelligence

Your application portfolio was developed long before service-based architectures were thought of. The application architecture, implementation technology and supporting infrastructure were seldom designed with ease of integration in mind.

A big gap typically exists between the technologies used by legacy applications and service consumers. Bridging this gap requires solving many technical issues.

Interface intelligence is the ability of a service to act intelligently on behalf of both the legacy application provider and the business unit consumer. Services must manage all the technical details, allowing business units to focus on their business requirements.

Aspects of interface intelligence include: user sessions, database transactions, mapping data types, object-relational mapping, business logic for complex requirements, layering of interfaces and external services, creation of composite applications, vertical composition of services, encapsulation of communications and middleware technologies, transparent optimizations and much more.

### Service Agility

Integration products often assume a steady state for business and technology requirements. In the real world such steady states rarely exist – in IT we have learnt that the only constant is change. Integration solutions must accept the reality in which you work – change is a fact of life. Integration technology and processes must embrace change, be flexible and adaptive.

*“Making infrastructure decisions is much simpler due to the platform independence of the services: we create the model only once and can then produce adapters for every portal environment and every middleware at the press of a button.”*

**Dr.  
Eckhard Otto,  
CIO at Schorch**

Service agility is the ability of services to thrive in your changing world, intelligently absorbing change on behalf of core application providers and service consumers. Service agility is only truly effective when it is at the heart of the integration architecture.

Aspects of service agility include: continually checking consistency of external interface definitions, intelligently merging changes to create new interface versions, transparently supporting multiple interface versions, concurrent support for multiple deployment across a wide range of technology platforms.

### Service Quality

Service quality is the broad ability of services to meet the high levels of quality you demand for mission critical applications and data stores. Your existing application portfolio is essential to your enterprise. This is reflected in defined quality of service levels. Integration projects must not endanger the integrity, availability or reliability of your core application portfolio.

Examples of service quality include: non-invasive integration with legacy applications, strictly managed access to data stores, integration with existing security models and products, high performance, high availability, low latency, ease of management, performance and accounting, support for open standards.

Integration requires a deep understanding of a diverse range of leading edge and legacy implementation technologies and techniques. Competence in delivering service quality across all of these fields requires demonstrable experience gained building and supporting enterprise applications. Reading manuals is not enough.

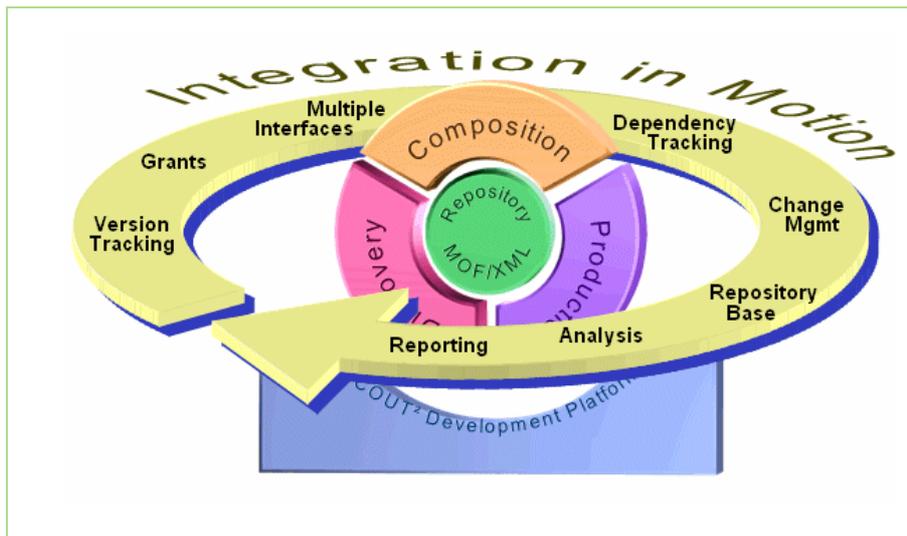
Your chosen integration solution must be easy to install and use, able to deliver quick success for your immediate integration needs. You also need the depth and extensibility to support your evolution from tactical integration to strategic integrative development.

## SCORE<sup>®</sup> ADAPTIVE BRIDGES<sup>™</sup>

SCORE Adaptive Bridges is a cost-effective and highly productive solution for exploiting the value of existing legacy applications and data stores by service-based integration.

SCORE Adaptive Bridges combines integrated software tools, processes and related professional services to create adaptive services with interface intelligence, service agility and service quality. The ideal solution for mission-critical integration projects.

SCORE Adaptive Bridges gives you integrated processes, supported by an extensive collection of intelligent tools, to discover and adapt to changes whenever, and wherever, they occur.



SCORE Adaptive Bridges provides an integrated workflow with three key processes supported by intelligent tools that seamlessly interoperate around a shared repository.

### Discovery

You start by loading the standards-based composition repository with interface information discovered by automated analysis of selected core applications and their components. External services are discovered using standards including IDL and WSDL.

Data models from legacy data stores can also be discovered. A full object model is available for accessing data stores independently of the underlying implementation technology. Service consumers can access all data stores using a simple collection of standard services.

Discovery adapters are available for an extensive range of both legacy and current implementation technologies and databases. Additional discovery adapters are easily created.

### Composition

You now compose platform-independent services, their interfaces and processing rules from the operations and methods of your core applications, data stores and any external services. Intelligent productivity tools enhance the composition process. You always take the least possible steps to create fully formed services.

You always have to work within the unique business and technical constraints of your enterprise. SCORE Adaptive Bridges does not force you to fit into any artificially constrained integration architecture – it adapts to what works best within your context, your technical environment, the experience of your staff and so on.

### Production

Your final step is to generate platform-specific implementations of your services. SCORE Adaptive Bridges manages the myriad of technology details necessary to implement your services. For example, how to connect to the core applications and data stores. To assist in client development your services seamlessly integrate into the development environments used by your client developers.

Platform adapters are available to produce native, non-invasive, optimised implementations of your service for your chosen machine, operating system, language, TP monitor, middleware and databases. Additional technology adapters are easily created.

## Integration in Motion™

Integration projects are continual processes that must adjust to repeated changes in business and technical requirements. SCORE Adaptive Bridges delivers integrated processes, supported by an extensive collection of intelligent tools, to discover and adapt to changes whenever, and wherever, they occur.

With SCORE Adaptive Bridges you are always in control, always able to maintain the consistency and reliability of your services and your critical core applications and data stores.

*"SCORE Adaptive Bridges makes it much easier for us to implement new requirements and to react to changing circumstances. Our applications are now mostly platform independent and we are extending their useful lifetime. That represents real money."*

***Rainer Neuhaus  
Development  
Manager,  
Kanton Aargau***

## YOUR BENEFIT

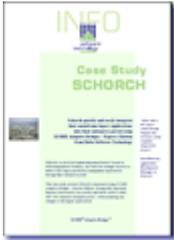
SCORE Adaptive Bridges helps you to clear the hurdles that currently stand in the way of successfully achieving your enterprise portal project, and to maximize the return on your existing investment. At the same time, SCORE Adaptive Bridges guarantees flexibility for future developments and protects your investment into the long term.

## EDITIONS

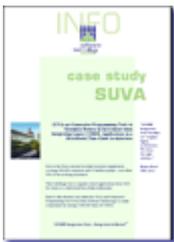
SCORE Adaptive Bridges is available in three editions to suit the needs of different types and sizes of projects:

- **Express Edition** – Focuses on ease of use and low introduction costs.
- **Advanced Edition** – Adds project team support and advanced data integration.
- **Enterprise Edition** – Offers extreme flexibility for the largest and most demanding projects.

## CASE STUDIES



Schorch, an electrical engineering manufacturer located in Mönchengladbach Germany, has made the strategic decision to deliver their legacy production management applications through their enterprise portal. Our case study presents Schorch's experience using SCORE Adaptive Bridges.



Suva is the Swiss national insurance organization covering 100,000 companies and 1.9 million people. Their challenge was to migrate critical applications from OS/2 fat clients to a distributed thin-client architecture. Read how SUVA used tools from Delta Software Technology to create new services by reusing 5,000,000 lines of COBOL from their existing applications.

## MORE INFORMATION

On our Web site at [www.d-s-t-g.com/SAB](http://www.d-s-t-g.com/SAB) you will find two presentations – **“What is SCORE Adaptive Bridges”** and **“SCORE Adaptive Bridges in Action.”** These presentations explain what SCORE Adaptive Bridges is, how it works, what it looks like and how it will be of direct benefit to you.

## TRIAL VERSION

The quickest and easiest way to learn about SCORE Adaptive Bridges is to try it for yourself! In just one hour you will have your first ‘ready to run’ JSR 168 Java portlet running, integrated with a legacy COBOL application.

A free 30-day trial version of SCORE Adaptive Bridges – Express Edition is available now as a download and on CD at [www.d-s-t-g.com/SAB-FreeTrial](http://www.d-s-t-g.com/SAB-FreeTrial).

## DELTA SOFTWARE TECHNOLOGY

Delta Software Technology creates the world's leading family of generative software tools that maximize your return on existing investment (ROEI) in your unique and valuable application assets.

Delta's family of products help you to profit from, care for, renew and grow your existing application assets:

- **SCORE® Adaptive Bridges™** – The quickest and easiest way to deliver mission-critical legacy functionality to enterprise portal projects.
- **SCOUT2™** – Stop “fighting the infrastructure.” Maintain your application assets in a simple and cost-effective way.
- **SCORE® Transformation Suite™** – Liberate your application assets from old implementation technologies and deployment platforms.
- **ADSplus™** – Grow your existing application assets. Add new functionality to your application assets using existing technologies and platforms.

Delta has 25 years experience in creating enterprise class application development and integration technology for more than 750 customer installations. Delta is a privately held German company with partners throughout Europe.

Please visit our Web site if you would like further information about our products and services, or to locate your local sales partner.

[www.d-s-t-g.com](http://www.d-s-t-g.com)

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