

Composite applications

Where have all the mashups gone?

ABOUT THIS PAPER

Composite applications hold great promise, freeing organizations from the constraints of centralized IT departments and empowering them to develop new systems and services *on-the-fly* in response to business demand.

Yet the agility, productivity and financial gains of a composite application model are tough to achieve without a clear understanding of what's required to implement and sustain such a model.

Based on CGI's composite application experience and know how, this paper discusses the three pillars of a successful composite application platform:

- Solid IT governance
- Service-enabled enterprise
- Productive mashup development platform

The need for business agility

In today's fast-paced world, organizations are under increasing pressure to respond to a changing business environment driven by competition, legislation, mergers and acquisitions, and socioeconomic conditions. Successful organizations must look for ways to be more competitive, more profitable and more agile in the way they do business.

To drive growth, organizations explore new products, services and market areas, and actively seek to improve the way they deliver services to their customers. If need be, they even reinvent themselves. To succeed, they must possess the business agility to respond to new challenges and opportunities.

Organizations traditionally structure themselves into lines of business responsible for the delivery of services in segmented business areas supported by centralized administration and operations, such as the IT department. The IT department works with the lines of business to build and maintain the systems they need to run their operations.

From the line-of-business perspective, the IT department is often viewed as slow and costly. The systems in place do not fully meet the needs of their users, and it takes too long to add new features and functionality.

In the end, these systems are not agile enough to support rapidly changing business requirements. For such organizations, a centralized approach to IT is no longer viable, and a new paradigm for the delivery and sustainability of information systems is required.

A brief history of mashups

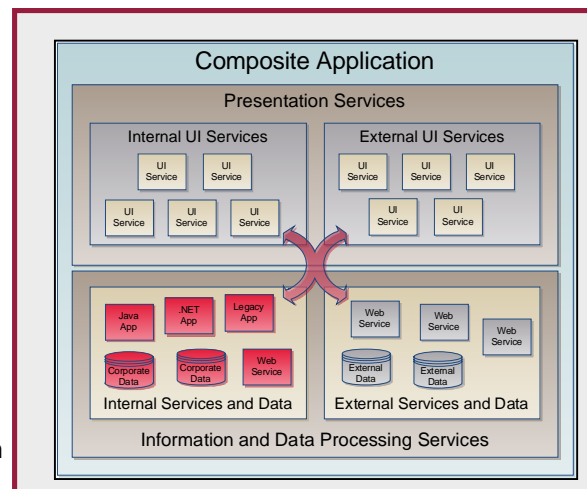
The open nature of the Internet makes it possible for users to access huge amounts of information from disparate sources around the globe. The explosive growth of the Web and the creation of open interoperability standards have given rise to an innovative application model that allows users to combine information from multiple sources and use it in new and exciting ways.

Users can combine real estate information from one source with geospatial information from another to see a map of houses for sale across the country. They can overlay this information with health, income, crime and education statistics to find a city, state and neighborhood to their liking. Users can compare airline and hotel prices from multiple carriers to pick the best vacation deal. They can even use mashups to find their lost dog or cat. These Web mashups were the first composite applications and allowed users to increase the value, usability and reusability of information.

Composite applications are created by combining information access and user interface services. These services are created as reusable building blocks and can easily be reassembled in different ways to form a solution to a new problem. This creates a very agile and productive environment.

In a drive to gain much needed business agility, some organizations are revisiting their application development approach and are considering adopting a composite application model within their enterprise. This would allow information from corporate applications, enterprise databases and the Internet to be brought together quickly and easily, leveraging the legacy systems, databases and infrastructure investments of the organization.

This type of enterprise composite application platform would dramatically extend the organization's capabilities to deliver IT solutions. It would challenge the traditional role of a centralized IT department and empower employees to create their own solutions, pushing productivity levels to new heights. No doubt about it, there is a lot about composite applications to get excited about. But, if mashups are so great, where have they all gone?



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Not your grandfather's application platform

The reason we are not overrun with composite applications is that it is inherently difficult to establish the right environment to successfully develop and manage them. Composite applications present a drastically different way of looking at the way IT services are created and consumed, and a new approach is required to unlock their potential.

CGI's approach to creating a successful composite application environment is based on three pillars:

- Solid IT governance
- Service-enabled enterprise
- Productive mashup development platform

“CGI’s approach to creating a successful composite application environment is based on three pillars: solid IT governance, a service-enabled enterprise and a productive mashup development platform.”

Pillar 1: IT governance

IT governance is a very important part to the successful implementation of any approach to information technology.

A composite application environment is quite different from the traditional IT platform, and along with this new environment come additional challenges.

IT governance takes on increased significance and must directly address the following challenges:

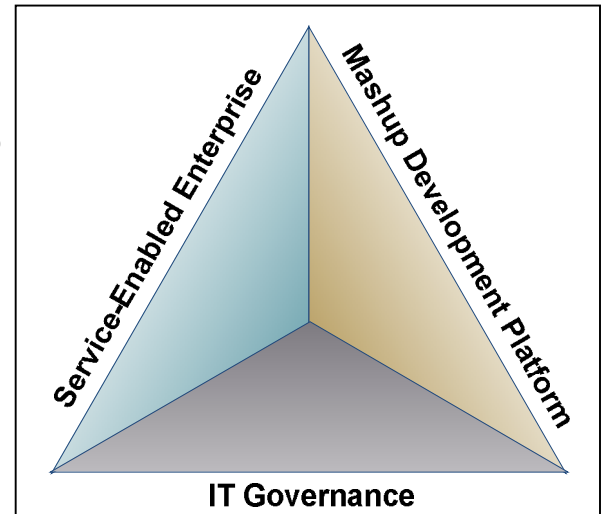
- Identification and creation of services to ensure the right services are available
- Registration and communication of services to promote reuse and deliver the greatest business value
- Service ownership and funding models to encourage horizontal sharing of services across business units
- Establishing, monitoring and enforcing service level agreements
- Implementing enterprise level security to ensure services are only available to those with sufficient access rights
- Policies and procedures for publishing

Proper IT governance ensures that the right services are available at the right time to the right users and that they deliver the greatest business value to the enterprise.

CGI has extensive experience in all areas of IT governance and policy development and can work with you to implement governance policies and procedures for a successful composite application environment.

Pillar 2: The service-enabled enterprise

Mashups that provide the greatest business value automate or enhance business processes, allowing the organization to deliver a new service more rapidly or an existing service with higher quality. These mashups cannot be purchased from a vendor since they are specific to the business and must access and transform information that is only accessible through the organization’s legacy IT systems and databases. Providing access to services in a legacy environment requires transforming it into a service-enabled environment.



CGI's three pillars to successful composite applications

ABOUT CGI

At CGI, we're in the business of satisfying clients. A leading IT and business process services provider, CGI has 31,000 professionals operating in 125 offices worldwide.

Working in partnership with clients for 35 years, CGI has extensive experience in all aspects of IT management, from consulting and systems integration services to the full management of IT and business functions (outsourcing).

This know-how puts us in a unique position to help clients implement a composite application model. We work with organizations to select the right combination of services, tools and policies that make their journey a success.

To learn more, visit us at www.cgi.com or contact us at info@cgi.com.

Transforming the legacy environment can pose a costly and significant challenge to many organizations and is one of the major obstacles in creating a service-enabled enterprise. The right services must be identified and built in a way that allows them to be reused easily in a meaningful way.

Legacy applications were usually not written with this approach in mind and in many cases these services are difficult to build or expose. Internal business rules, data access security and data transformation within the legacy application environment must all be observed, which can make exposing legacy services a challenge. CGI's experience in legacy modernization and transformation can make this transformation a success.

Pillar 3: Productive mashup development platform

It is not enough to simply identify and build services that are ready to be used. A mashup development platform that makes it easy for anyone, not just IT staff, to develop applications based on these services is also required.

Fortunately, there are plenty of products on the market today that do precisely this. Most of these products work well with existing middleware products and technologies and can be integrated right into the enterprise production environment. CGI can help you select and implement a mashup development platform that is right for your organization.

Conclusion

The concept of allowing business users to create their own custom applications based on reusable building blocks offers a great deal of promise. Those organizations that successfully adopt a composite application environment will be able to reap the benefits of this new frontier. Reduced software development costs, increased productivity and improved business agility will enable organizations to respond to opportunities and challenges and allow them to succeed in today's world.

Establishing solid IT governance, creating a service-enabled enterprise and implementing a mashup development platform can present significant challenges for some organizations wishing to make the move to composite applications. CGI's three-pillar approach addresses these challenges and helps organizations transform their people, processes, and technology to achieve the desired results.