Adobe® Flex™ Data Services 2

A powerful solution for creating data-intensive rich applications

Rich Internet applications (RIAs) are quickly becoming a competitive advantage for enterprises that want to offer customers a more intuitive, personalized user experience and help internal users to be more productive.
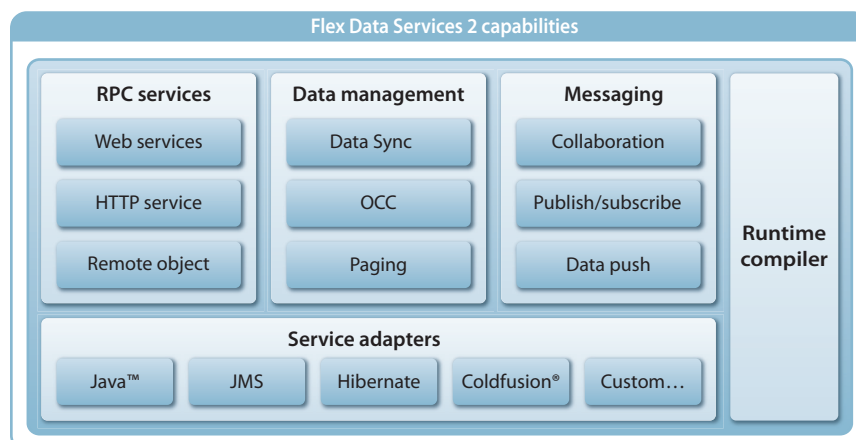
Not only do RIAs provide a richer, more satisfying experience, but they also enable features that are not possible in traditional page-based web applications. These features range from small, dynamic page elements to fully interactive applications where data made available via the user interface can be automatically synchronized with data on the server. RIAs also can accommodate live data feeds and let people collaborate in real time within the same application.

Adobe Flex Data Services 2 enables developers to build RIAs that are rich not only in terms of user interface, but also in terms of how data flows between tiers—and in terms of the innovative services RIAs can offer.

Data management services

Creating RIAs requires a rich level of data management that goes beyond the traditional request/response model. Providing a richer, more expressive experience often requires more data-intensive interaction and introduces new challenges in managing data between the client and server tiers.

- Data synchronization: RIAs enable users to work more independently using their own copy of data managed locally, which provides more intelligence and faster response time. This model requires synchronization between the client-side version of the data and the middle-tier data, which also needs to be synchronized with the database management system. Flex Data Services removes complexity and the potential for error by providing a robust, high-performance data synchronization engine between client

> "The messaging infrastructure and data synchronization in Flex 2 are excellent. It's simpler to connect to legacy systems and combine data from different sources to deliver as rich media to users' desktops."
>
> Mansour Raad, senior software architect, ESRI

Adobe Flex Data Services 2 highlights

- Extensible adapter-based architecture that facilitates integration with existing applications and middleware
- Support for real-time data push, publish/subscribe messaging, and occasionally connected applications
- High-performance binary data transfer between client and server
- Innovative data services programming model that simplifies development by automating the synchronization of data between client and server
- Cross-platform support for popular enterprise deployment platforms, including Windows®, UNIX®, and Linux®, as well as common Java Platform, Enterprise Edition (Java EE) environments

Flex Data Services 2 capabilities

RPC services	Data management	Messaging	Runtime compiler
Web services	Data Sync	Collaboration	
HTTP service	OCC	Publish/subscribe	
Remote object	Paging	Data push	

Service adapters

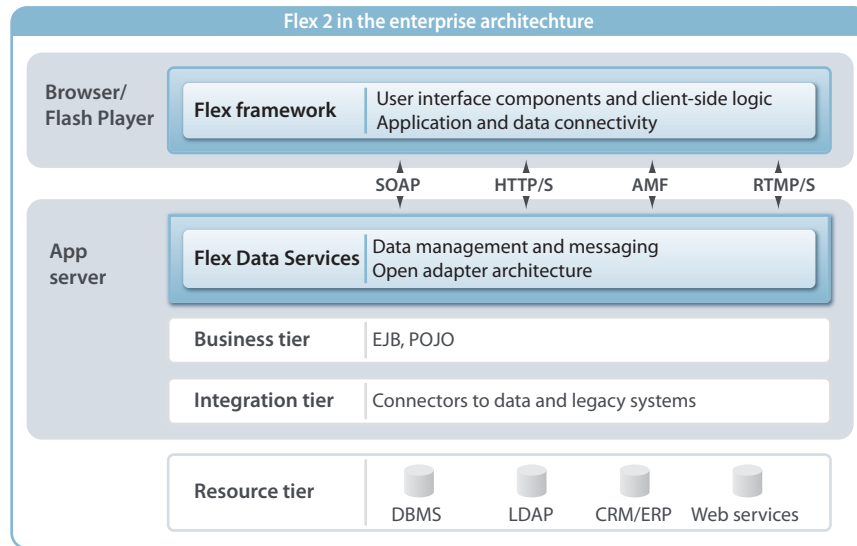| Java™	JMS	Hibernate	Coldfusion®	Custom…

Deployed as a standard J2EE application, Flex Data Services enhances the client-side Flex framework by providing high-performance connectivity with existing server-side data and business logic.

Better by Adobe™

Flex 2 in the enterprise architechture

and server. It also can easily be integrated with existing persistence solutions to provide an end-to-end solution.

- Data paging: Data-intensive applications often need large record sets. Flex Data Services automatically facilitates the paging of large data sets, so users get faster response time and developers can focus on core business logic.

- OCC (ODC): Even in today's broadband-connected world, users often experience brief periods of network service interruption. In traditional web applications, this occasional disconnect can interfere with application flow, often leading to lost data and requiring a user to restart an application interaction. Flex Data Services eliminates this problem by automatically handling these temporary disconnects, promoting reliable delivery of data to and from the client application.

New type of rich applications

The Flex Messaging Service inside Flex Data Services enables new categories of innovative applications to be delivered in the browser in a reliable and scalable manner while preserving the benefits of the traditional web deployment model.

- Data push: Traditional web applications operate in a request/response model, requiring applications to periodically poll a server to look for data updates. Flex Data Services eliminates this inefficient model by adding a data-push capability, enabling data to automatically flow to the client application without polling. This highly scalable capability

can push data to thousands of concurrent users, providing up-to-the-second views of critical data such as stock-trader applications, live resource monitoring, shop-floor automation, and more.

- Publish/subscribe messaging: Flex Data Services provides a publish/subscribe messaging infrastructure that enables messages to be exchanged, in real time, between thin clients and servers. It allows thin clients to publish and subscribe to message topics with the same reliability, scalability, and overall quality of service as traditional thick-client applications. This enables the creation of critical, more complex applications such as logistics handling, inventory control, stock trading, and more. It also can integrate with existing messaging systems through adapters.

- In-context collaboration: Creating applications that concurrently share in-context information with other users is simply not possible using traditional web technologies. The Flex Messaging Service allows a client application to share data concurrently with other clients or servers. This model enables new application concepts such as "co-browsing," wherein users share experiences and collaborate in real time with other users.

Try Adobe Flex Data Services 2 today

To learn more about Adobe Flex Data Services 2 or to download a free tryout version, visit *www.adobe.com/flex.*