

This presentation introduces IBM Lotus Expeditor 6.1



The goal of this presentation is to understand IBM Lotus Expeditor 6.1, which includes the IBM Lotus Expeditor 6.1 Client for Desktop and Devices, the IBM Lotus Expeditor 6.1 Toolkit and the IBM Lotus Expeditor 6.1 Server.



The agenda of this presentation is to provide an overview of the end-to-end solution provided by IBM Lotus Expeditor version 6.1. It will cover the Expeditor server, toolkit and clients for desktop and devices.



This section is an overview of end-to-end solution provided by IBM Lotus Expeditor 6.1.



IBM's server-managed client solution extends back-end server services to new users who use a range of client devices spanning desktops, laptops, mobile devices and specialized devices, such as embedded controllers or RFID. This extension occurs through the development of applications that run on clients and securely communicate transactions and data with enterprise applications, services and data on back-end servers to perform complete end-to-end e-business operations. The server-managed client technology expedites development of these applications through support of standard programming models, such as J2EE, so developers can use their current programming skills and tools. By allowing application components to run on clients, end-users can now use their applications to perform business operations on their clients whether their client is online or offline. As a result, end-users can conduct e-business directly with customers at locations that do not have network connectivity. The solution enables developers to port their applications across types of client devices and operating systems through support for Java[™] technology and a service-oriented component model and provide the appropriate user interface to their end-users, be it a local Web browser or a rich GUI. Client management capabilities enable Systems Administrators to manage software on the clients over-the-air or over-the-wire. The client platform is extensible so Enterprise customers and OEMs can build and distribute custom client platforms that consist of components from IBM, additional components, and applications. All of these powerful capabilities are enabled through support of open standards, including standard APIs and protocols. As a result, developers can deliver end-to-end applications which enables their end-users to securely conduct e-business across multiple user experiences, access points, and forms of connectivity.



The client platform provides a set of standards-based *Client Services* on which you can build your applications across all 3 segments. These segments are Embedded, Line of business and Real Time Collaboration.

The Client Services include:

Managed Client Services to enable multiple applications and services to run on the same Virtual Machine, support life cycle management of these applications and services, and provide application portability across operating systems.

Platform Management to install, maintain, and configure the applications and services on the client.

Access Services, which provide middleware so your client applications can securely access e-business applications, services and data and continue to operate even when a device is offline.

Interaction Services, which support interaction with end-users through a traditional Web browser and a rich graphical user interface through Eclipse technology.

Client Services can run on multiple operating systems. You can configure these services to run across embedded devices with no user experience up through desktops with rich desktop user experiences. You choose the capabilities based on the function, user experience, and footprint required by your solutions.

Collaboration services run with Client Services and provide the collaboration features necessary to develop rich collaboration applications.

The focus of Lotus Expeditor is on the second segment. That is, to help developers and 37 customers build applications and solutions that improve the integration with the enterprise. Provide better access to enterprise information at the point of interaction to make smarter.



The flexibility of Lotus Expeditor allows IBM to address the requirements across the full spectrum of application types, beginning with embedded applications built to suit a specific need within solution or device constraints.

Moving to solution applications typically focused on a line of business task. These could include Mobile or desktop task-focused line of business application (including composite applications) for large capacity devices. Examples of this would include a specialty application for an outside sales force, insurance claims adjusters or field service personnel.

Continuing up you get to Integrated rich client desktop that provides role based access to an integrated set of server managed, composite rich client applications. Examples of these types of applications would include a branch banking solution that combines and integrates multiple banking applications on a desktop. Finally the integrated collaborative rich client desktop provides all of the features and functionality of int integrated rich client desktop with collaboration capabilities.



Now for an overview of what's new in Lotus Expeditor 6.1.

For the client, there is new platform support, including new desktop platforms and mobile device support.

There is new application integration support in this release including support for composite applications

Portal integration is new in this release including local portlet applications and portal administration.

New client services added in this release include: synchronization manager, network awareness layer, security, JAX-RPC web services support, rich text editor and spell checker. Updates to client services have been made to database and messaging.

Provisioning has been enhanced and multi-user support has been added.

Toolkit enhancements have been made to support the new desktop and device client enhancements.

The client and toolkit have moved up to the current release of Eclipse 3.2.1.

Finally the Expeditor Server has added support for new Linux servers and added clustering support.



The combination of the Lotus Expeditor clients and the Lotus Expeditor server provide the end-to-end services necessary to deliver and manage end-to-end applications. Administrators use the Lotus Expeditor 6.1 Server to install and configure the services necessary for client applications to securely perform assured transactions and database synchronization with Enterprise applications and data. Client applications can also utilize Web Services so end-users have access to a broad range of business data and consumer information. Furthermore, the server provides an Enterprise-caliber management solution so a systems administrator can manage client applications and resources. The server supports WCTME, WebSphere Everyplace[®] Deployment, and Lotus Expeditor clients.

The Lotus Expeditor Toolkit provides a complete, integrated set of tools that allows you to develop, debug, test, package and deploy client applications. This toolkit is built on Eclipse technology and extends the powerful Rational suite of development tools so you can leverage your existing skills and software components to develop end-to-end applications.



In this picture you can see the complete set of end-to-end services supported between client and server applications. The IBM Lotus Expeditor server installs the WebSphere MQe Server, DB2e Sync Server, and the Tivoli Device Management Server. Web Services are supported on the server through WebSphere Application Server, which is a prerequisite to the Lotus Expeditor server. These services support an end-to-end programming model that enables client applications to securely access Enterprise applications, services and data.

All components shown in purple are available in this release.

An additional capability which some customers have chosen to implement is the WebSphere Everyplace Connection Manager. WebSphere Everyplace Connection Manager enables client applications to operate over secure, roaming network connections on wireless and wired networks. WebSphere Everyplace Connection Manager installs below TCP/IP API's so TCP/IP applications can continue to run without change and benefit from these capabilities.



The Expeditor clients for device and desktop provide a number of common components, as shown in the diagram on this slide. Both the device and the desktop clients support DB2e, MQe, JSR 172 Web Services, embedded transaction container, web container, OSGi core services, Micro Broker and the Enterprise Management agent for server managed client support. The desktop expands the base set up components and adds a significant number of additional features.



Lotus Expeditor Client for Desktop and Expeditor Toolkit are built on Eclipse 3.2.1, this is an update from the previous WebSphere Everyplace Deployment version 6.0 release which was based on Eclipse 3.0. The Expeditor Device client is based on eRCP 1.0. Embedded RCP extends the Eclipse Rich Client Platform (RCP) to embedded devices. eRCP is largely a set of components which are subsets of RCP components. It basically enables the same application model used on desktops to be used on devices.



There is often a question on what is included in Eclipse RCP. This slide shows a diagram of what components are included in RCP versus the full Eclipse platform. RCP includes UI, JFace and SWT components. Also included are OSGi and Runtime components.



This slide goes into some additional detail on Eclipse platform. OSGi is the framework which Eclipse is built on.

The OSGi framework was initially integrated into Eclipse starting with the Eclipse 3.0 release. Integrating OSGi into Eclipse provides Eclipse with the value of OSGi, which includes lifecycle management. Expeditor 6.1 Desktop client and Toolkit are based on Eclipse 3.2.1 which is based on OSGi R4.

The component model on which eclipse and OSGi are based on used different names however they are essentially the same. Eclipse components are called plug-ins, OSGi components are called bundles. Plug-ins and bundles can be used interchangeably.



Some features offered by the OSGi platform are: software component lifecycle management, which supports the start, stop and updates of bundles.

Also remote component management, cooperation among applications, multi-vendor interoperability and more.

Details on the OSGi platform can be found at the www.osgi.org site.



There is a wide range of application development supported by the Lotus Expeditor platform. This include: Java applications, OSGi applications, Eclipse applications, Web applications, Portlet applications, Database applications, Messaging applications, Embedded Transaction applications and Web Services applications.

IBM Software Group Lotus Expeditor 6.1 Education				
Application types across releases .Technical Preview				
Application Type	WCTME 5.7.2	Expeditor Client 4 Device	WED4WL 6.0 Desktop	Expeditor Client 4 Desktop
Java	WEME (MIDP, Foundation) WECE	jclDevice (Foundation+)	J2SE 1.4.2	jclDesktop or JSE 5.0
OSGi	OSGi R3	OSGi R4	OSGi R3 + RFC's	OSGi R4
Eclipse	eSWT (download)	eRCP 1.0	RCP 3.0.2	RCP 3.2
Web	Servlet 2.3 JSP 1.2	Servlet 2.3 JSP 1.2	Servlet 2.3/2.4 JSP 1.2/2.0 JSF, JSTL, Struts	Servlet 2.3/2.4 JSP 1.2/2.0 JSF, JSTL, Struts
Embedded Transaction		EJB 2.0 subset	EJB 2.0 subset	EJB 2.0 subset
Portlets				JSR 168 Property Broker
Database Access	JSR 169 * or JDBC 2.0 (DB2e)	JSR 169 (DB2e)	JDBC 3.0 (DB2e or Cloudscape)	JDBC 3.0 (DB2e or Cloudscape)
Database Sync	ISync (DB2e)	ISync (DB2e)	ISync (DB2e or Cloudscape)	ISync (DB2e or Cloudscape)
Messaging Point-to-Point Pub-Sub	JMS 1.1 (MQe) MQTT (Microbroker) *	JMS 1.1 (MQe) JMS 1.1 (Micro Broker)	JMS 1.1 (MQe) MQTT(Micro Broker)*	JMS 1.1 (MQe) JMS 1.1 (Micro Broker)
Web Services •Client •Provider •Security	■JSR 172	■JSR 172	■JSR 172 ■OSGi ■OASIS	■JSR 172, Axis (JSR 101) ■OSGi ■OASIS
Data Sync	SyncML4J 2.0	SyncML4J 2.6	SyncML4J 2.5	SyncML4J 2.6
17 Overview © 2006 IBM Corporation				

The table on this slide shows a comparison of application type across current and previous releases. The second and third columns show the device releases: These are the previous Workplace Client Technology Micro Edition 5.7.2 and the new Expeditor 6.1 Client for Devices release. The fourth and fifth columns show the previous WebSphere Everyplace Deployment 6.0 desktop release and the new Expeditor 6.1 Client for Desktop release. On this chart you can see that version updates that have been made in the new Expeditor releases and new function has been added for application support.



As an integration platform the Lotus Expeditor Desktop client can be used to integrate a variety of application types including native, web, portlet, java, eclipse and composite applications.



The Network Client Installer provides the server infrastructure to allow Expeditor clients to be downloaded and installed over the network. There are two supported environments, a stand-alone Web Server and a Portal Server with a Web Server. The operating systems supported are Windows 2003 and RedHat Linux 4.



Next, here is an overview of the IBM Lotus Expeditor 6.1 Client for Desktop.



IBM Lotus Expeditor 6.1 Client for Desktop is an integrated client platform for desktops and laptops that extends the J2EE programming model to clients. The client provides a disconnectable, rich client platform so enterprise applications can run on clients, and operate when the client is online and offline. Target customers are ISV's, Enterprise application developers, and OEMs. The client platform supports Group 1, Group 2 and some Group 3 languages. The client platform is the follow-on release to IBM WebSphere Everyplace Deployment for Windows and Linux version 6.0 client, which was released in December 2005.



You must ensure that each machine on which you plan to install the IBM Lotus Expeditor 6.1 Client for Desktop meets the requirements shown on this slide. The default JVM is the IBM J9 2.3 JVM with the jcIDesktop Configuration. The IBM J2SE 1.5 JVM is also supported on the desktop client and is available as a separately installed feature from the IBM Device Runtime Environment 6.1 CD.



Now, let's look at the services that comprise the client platform.

The client platform provides a set of standards-based *Client Services* on which you can build your applications. These Client Services include:

Managed Client Services to enable multiple applications and services to run on the same VM, support life cycle management of these applications and services, and provide application portability across Windows and Linux operating systems.

Platform Management to install, maintain, and configure the applications and services on the client.

Access Services, which provide middleware so your client applications can securely access e-business applications, services and data and continue to operate even when a device is offline.

Interaction Services, which support interaction with end-users through a traditional Web browser and a rich graphical user interface through Eclipse technology.



The new features for the IBM Lotus Expeditor 6.1 Client for Desktop are listed on this slide. Each of these new features will be explained in more detail during the course of this education.



Next, here is an overview of the IBM Lotus Expeditor 6.1 Client for Devices.



IBM Lotus Expeditor 6.1 Client for Devices is supported on Windows Mobile 2003 and Windows Mobile 5 devices. Devices must meet the requirements shown on this slide. A resource checker ships with the product which will report the devices capabilities. This will help the user determine if their device meets the minimum system requirements.



Next, an overview of the IBM Lotus Expeditor 6.1 Toolkit.



Lotus Expeditor Toolkit 6.1 provides a complete, integrated set of tools that allow you to develop, debug, test, package and deploy client applications. You can use the toolkit to develop a variety of applications. The <u>Bundle Developer Kit</u> (BDK) extends the Eclipse Plug-in Development Environment (PDE) to develop components and complements the Visual Editor for Java to create rich client applications with SWT. The <u>Web Tools</u> work with the Rational Web tools to deploy Web applications to the client platform. The <u>Embedded Transaction Container (ETC)</u> Tools work with the Rational EJB tools to deploy Embedded Transaction Applications (ETA) to the client. The <u>Mobile Web Services Tools</u> support development of applications that consume or provide (or both) Web Services in a secure manner. The <u>Portlet Tools</u> work with the Rational Portal tools to create JSR 168 portlet applications to deploy to the client platform. <u>Platform Builder</u> enables customers to build custom desktop client platforms. However, you must check your licensing agreement before you deploy custom client platforms.



The Lotus Expeditor Toolkit can be installed on Rational Software Architect, Rational Application Developer, Application Server Tools or the Eclipse 3.2.1 IDE and WTP. With Rational Software Architect or Rational Application Developer, you will have access to the complete set of toolkit functions, including the Samples Gallery, Web Services Security editors and full JSF support. In addition, you will be able to develop client services applications, Web Services, Embedded Transaction applications, Portlets and Platform Builder projects. With AST, you will have access to the same set of capabilities provided in a RSA or RAD environment, with the exception of JSF support.

The Eclipse 3.2.1 + WTP 1.5.1 environment is intended for those customers who need to develop Client Services projects, Web applications, Web Services and Platform Builder projects.

If you are developing for devices, note that the Portlet and Platform Builder components are not available.



You must ensure that each machine on which you plan to install the IBM Lotus Expeditor 6.1 Toolkit meets the requirements shown on this slide.



The new features for the IBM Lotus Expeditor 6.1 Toolkit are listed on this slide. Each of these new features will be explained in more detail during the course of this education.



Finally, an overview of the IBM Lotus Expeditor 6.1 Server.



The Lotus Expeditor Server provides the following value: Application Connectors for DB2e and MQe, which provide a gateway to backend databases and MQ systems, respectively. The server also provides centralized client management, offering device registration, device inventory and application management (these are specifically install and uninstall support). The server also enables disconnected application functionality by providing database synchronization with DB2e and messaging with MQe.



The Lotus Expeditor 6.1 Server has updated components to current software versions, including DB2e, MQe and DMS.

Additional platform support has been added, specifically RedHat Linux 4. Install and Configuration enhancements have been made. Horizontal scalability support has been added. Additionally Device Management enhancements are included in this release. More details will be provided in the Expeditor Server education session.



This slide shows the minimum hardware requirements for the IBM Lotus Expeditor 6.1 server.



This slide shows the software prerequisites for the server. IBM Lotus Expeditor 6.1 server has been tested with these versions of the software. Other versions are not supported by the server.



This concludes the presentation