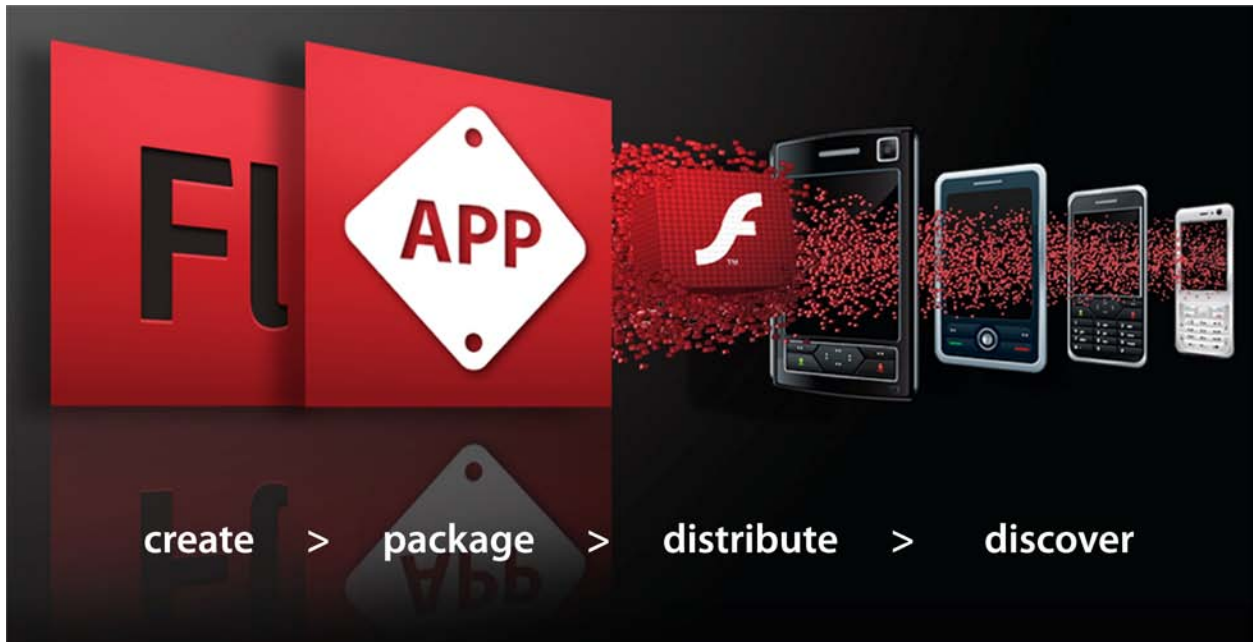




Distributable Player Solution



Frequently Asked Questions

Last Updated: February 10, 2009

1. What is the distributable player solution?

The distributable player solution enables developers to create rich applications for the latest version of Flash Lite and directly distribute to millions of open OS smartphones in the US, UK, Italy, Spain and India with a much improved on-device user experience. The distributable player solution consists of the Flash Lite 3.1 Distributable Player, Adobe Mobile Packager, authoring support provided via Adobe Flash CS4 Professional and Adobe Device Central CS4 or via Adobe Flash CS3 Professional and Adobe Device Central CS3.

2. What devices will be supported by the distributable player solution? Will feature phones be supported?

Because it is a solution for off-deck rich application distribution, the distributable player will be supported on smartphones with open operating systems which allow Over-The-Air (OTA) software downloads. At launch, the solution will be supported on Adobe tested devices based on Windows Mobile 5 for Smartphones, Windows Mobile 6 Standard/Professional, S60 3rd Edition, S60 3rd Edition feature pack 1, and S60 3rd Edition feature pack 2 devices platforms. The goal is to expand support to other open platforms in the future.

For a list of supported devices, see www.adobe.com/go/distribute. We will certify additional devices over time, prioritizing the most popular devices for the above mentioned platforms.

3. What are the benefits of deploying a Flash Lite application with the distributable player solution?

The distributable player solution allows you to create rich mobile applications that:

- **Target the latest Flash Lite player**, by mimicking the successful Flash Player desktop model of content triggered downloads but for applications. Developers and content providers no longer need to worry about whether the device has the latest Flash Lite runtime.
- **Reach millions of open OS smartphone users** in the US, UK, Italy, Spain and through free direct-to-consumer distribution, new off-deck aggregator partners (GetJar, Thumbplay, Zed), or your existing distribution channels
- **Improve end user experience** through easy installation and visual icons for Flash Lite applications.

By using Flash Lite, you can deliver rich, expressive applications across platforms with a streamlined workflow and reduced time to market.

4. How does the distributable player solution contribute to the Open Screen Project?

One of the primary goals of the Open Screen Project is to reduce fragmentation by providing a consistent runtime environment for developers. With the ability to update runtimes over the air, developers and content providers can create content that leverages the latest features and functionality of the runtimes, without having to wait months or even years for the latest version to be embedded on devices and reach significant market penetration.

The distributable player solution is an important step in this direction, starting with open OS smartphones. Adobe will work with industry partners to enable over the air updates on devices with currently closed operating systems which do not permit Adobe to deliver software updates at this time.

5. Will the iPhone, RIM or other closed OS devices be supported by the distributable player solution?

In order to deliver a consistent experience across devices, the distributable player solution addresses open OS smartphones that allow over the air updates of the runtime. That said, Adobe continues to work with OEM partners with currently closed operating systems to bring the capabilities of the Flash Platform and the distributable player solution to their devices.

6. What is the addressable market for the distributable player solution?

The distributable player solution provides an opportunity to reach a segment of the mobile market that has higher data usage and attractive demographics relative to the overall population. The table below provides the market size for devices that will be addressable in the first half of 2009 with the public beta release. The addressable market will increase as more devices get certified.

OS	US	Italy	Spain	UK	India	Total
Symbian S60	138,396	4,560,556	3,069,708	2,980,123	11,436,354	22,185,137
Windows Mobile	2,235,675	166,429	103,822	150,615	2,299,369	4,955,910
	2,374,071	4,726,985	3,173,530	3,130,738	13,735,723	27,141,047

(Source: m:metrics, Strategy Analytics, and Adobe analysis)

At any point, a list of supported devices is available at <http://www.adobe.com/go/distribute>.

7. Will a developer need to pay for using the distributable player solution?

The distributable player solution is being offered as a free service to developers at this time.

8. What happens if I'm in a country where the solution is not launched? Will I be able to download the application packaged with the distributable player?

At this time, application downloads will only be supported in launch countries. When consumers who are roaming in a country other than a launch country request a download, they will not be able to initiate the process over the air and will receive an error message saying that they are in an unsupported country to prevent roaming data charges. However a consumer roaming into a launch country will be able to download applications. Adobe wants to deliver an excellent consumer and developer experience and a phased country rollout will allow us to ensure that.

A developer edition of the distributable player will be provided at launch for developers living in non-launch countries that would like to develop applications for consumers living in US, UK, Italy, Spain and India.

9. What aspects of the solution will be localized and in what languages?

The following aspects of the solution will be localized in Italian, Spanish and English for the public beta release:

- Adobe Mobile Packager
- Consumer install prompts for the Flash Lite 3.1 Distributable Player

At launch, the only language supported in India will be English.

10. What are the options for distributing content?

Developers can take advantage of the marketing reach and billing services provided by new off-deck aggregator partners Getjar, Thumbplay and Zed. Between these partners developers have coverage across all launch markets for their content and applications.

Developers also have the choice to distribute their apps directly to consumers or through any other aggregator or channel that delivers Symbian or Windows Mobile applications to consumers in the US, UK, Italy, Spain or India.

11. What version of the Flash Lite player is supported in the distributable player?

The first version of the distributable player solution will support the Flash Lite 3.1 Distributable Player. Going forward, Adobe's goal is to support the latest version of Flash Lite in the distributable player solution, so developers can always leverage the features of the latest player for creating applications.

12. What are the key features of the Flash Lite 3.1 Distributable Player?

The Flash Lite 3.1 Distributable Player has the same functionalities as Flash Lite 3.0, such as support for Flash Player compatible video, with some enhancements including improved security model for SWF file access. Applications packaged to

target the Flash Lite 3.1 Distributable Player that require both network and local file access will now automatically run in trusted mode. This will greatly ease development and enhance the user experience, as well as provide backwards compatibility with older Flash applications.

Some of the key features of the Flash Lite 3.1 Distributable Player are:

- Supports Flash 8
- Actionscript 2.0
- Video support (3GP, FLV)
- Audio support (mp3, aac)
- XML
- Available memory increased to 6MB

13. Do I need to publish my application as Flash Lite 3.1 in Flash CS3/CS4?

You can choose any version of Flash Lite for publishing your application. However, by publishing your application as Flash Lite 3.1, you will be able to take advantage of new features of the distributable player such as an improved security model, greater performance and the ability to always target the latest version of the player.

14. How do I author applications that target the Flash Lite 3.1 Distributable Player?

Designers and developers can author, test, and publish content for the Flash Lite 3.1 Distributable Player with either Adobe Flash CS4 Professional and Adobe Device Central CS4, or with Adobe Flash CS3 Professional and Adobe Device Central CS3.

If using Flash CS4, download the Adobe AIR 1.5 update to Flash CS4 from <http://www.adobe.com/support/flash/downloads.html> and the Flash Lite 3.1 update for Device Central CS4 from <http://www.adobe.com/support/devicecentral/downloads.html>, which includes a Flash Lite 3.1 publishing profile in Flash CS4 and generic Flash Lite 3.1 profiles for varying screen sizes for testing and emulation purposes. If using Flash CS3, developers should publish their content as Flash Lite 3.0 and use Device Central CS3 to test on the desktop. In both cases, the resulting SWF file should be packaged using the Adobe Mobile Packager.

The Mobile Packager requires installation of SDKs for S60 and Windows Mobile development in order to work. Since these SDKs only support Windows, the Packager is currently available for this operating system. Our intent is to add support for Mac OS users over time.

15. When AIR comes to devices, will the content I create now for the Flash Lite 3.1 Distributable Player run on those devices?

Your content will run on those devices Adobe certifies for the Flash Lite 3.1 Distributable Player today and in the future. In the future, even when those certified devices upgrade to Adobe AIR your content will continue to run on the distributable player on those devices. To avoid any potential end user experience issues, Adobe strongly encourages that you always retest your content against the latest version of the player.

16. What API extensions (Bluetooth, GPS, camera, etc) will be supported in the Flash Lite 3.1 Distributable Player?

Adobe recognizes that access to device API extensions is important for developing rich mobile applications. Device OEMs offer their own device extensions and Adobe is in the process of evaluating which of these to expose through the Flash Lite API. Adobe would like to support as many device extensions such that it still allows for a consistent API and end user experience across devices.

17. Will the Flash Lite 3.1 Distributable Player support H.264 video?

The Flash Lite 3.1 Distributable Player does not support H.264 video. The Flash Lite 3.1 pre-embedded player supports a variety of new features including H.264 video. However, like most Flash Lite features, providing an implementation for H.264 on the device is at the discretion of the device OEM.

18. Does Adobe's distributable player solution support advertising?

Content providers can include advertising by adding it into the Flash Lite application itself (static advertising). At this time, Adobe does not provide infrastructure to support dynamically serving ads into Flash Lite content. However, content providers can, in theory, dynamically serve ads to their content by setting up a hosted ad server to which the user connects to for ad serving.

19. Is it possible to package content other than Flash with the Adobe Mobile Packager? If yes, is there a limit to the number or types of content that can be included in the package?

Yes, it is possible to package content other than Flash with the Mobile Packager. As long as there is at least one .SWF file in the package, other content such as FLV, MP3 and resource files are allowed to be part of the .SIS (Symbian) or .CAB (Windows Mobile) package. There is no limit on the types of content items that can be packaged. Due to limitations in the CAB SDK there is a limit of 300 files per package. Adobe is investigating if this limit can be eliminated or increased.

20. How is content testing, certification and signing handled?

Adobe believes that it is critical that developers perform adequate testing on their application before they are published to the aggregator partners. Some of our partners have their own certification process to ensure the quality of applications in their catalog. Adobe encourages developers to comply with the certification processes specified by the aggregators. Adobe will not be providing a Flash Lite certification process.

Although technically a SIS file does not require signing, it is highly recommended that developers creating packages for S60 devices sign their applications using at least the Symbian Express Signed process. This will enable them to reach the widest audience, and create trust with the end user. More information on Symbian Signing can be found at <https://www.symbiansigned.com>.

21. What is the new security model with the Flash Lite 3.1 Distributable Player and how does it address backward compatibility for older Flash Lite applications?

With Flash Lite 3.0, Adobe changed the security model to be compatible with Flash 8. The Flash Lite 3.1 Distributable Player makes it easy to adapt to this change. Applications packaged to target the Distributable Player that require both network and local file access will now automatically run in trusted mode. This will greatly ease development, enhance the user experience as well as provide backwards compatibility with older Flash Lite applications.

22. When will there be support for Mac developers?

The Adobe Mobile Packager requires installation of SDKs for S60 and Windows Mobile development in order to work. Since these SDKs only support Windows XP SP2, the Packager is currently available for this operating system. Adobe recognizes that Mac developers comprise a large portion of the creative community and remains committed to extending this solution to the Mac environment over time.

23. What's the business model for the developer?

One of the key benefits of the distributable player solution is that content providers and developers have a choice in terms of which distribution channel and which business model to employ in deploying their applications. Some of the choices include:

- **Aggregator partners:** Developers can distribute content for free in all supported countries through GetJar. For paid content, Adobe's goal is to provide developers and content providers standard revenue share terms that are at least as comparable to terms currently available by aggregators. Developers will get 70% of net revenues in UK, Spain and Italy from Zed and of 67% in the US from Thumbplay. Net revenues are the price paid by the consumer minus any operator revenue share for

off-deck content. The operator usually takes ~40% of gross off-deck revenues in the US, ~50% in Spain and Italy, and ~30% in the UK.

- **Direct to Consumer:** The content provider or developer can choose to deploy content for free directly to the consumer via their own marketing channels (their website, SMS, Mobile WAP site, etc) or for pay if they have their own billing mechanism. Excluding any data charges from the carrier, free content has no cost or revenue share associated with it. Developers can also make revenue by developing Flash Lite applications for clients on a contract basis.
- **Other distribution channels:** Finally developers can also choose to distribute their applications through any other aggregator, operator or OEM channel that supports delivery of Flash applications to Symbian or Windows devices in US, UK, Italy, Spain and India.

24. What support does Adobe intend to offer to developers and end consumers for the solution?

For a Flash Lite application that an end consumer downloads from an aggregator catalog, Adobe expects the developer to offer support to the consumer once the application is successfully installed on the device. Adobe would look to the aggregator to provide support in cases where the consumer encounters problems in downloading the application.

Consumers who encounter technical difficulties with the Flash Lite 3.1 Distributable Player on their device can see the [Flash Lite Support Center](#) for frequently asked questions. For additional free email support with problems in installing the distributable player, consumers can send an email to mob-supp@adobe.com (expect a 1 business day turnaround).

Developers have the following support options for the distributable player solution:

- Purchase single-incident email-based support with a 4 business hours turnaround at \$249, call 1-800-685-3510
- Purchase unlimited-incident email-based support with a 1 business day hour turnaround as part of the [Mobile Developer Support plan](#) through the [Adobe Store](#)

25. How can I get started?

To get started, goto <http://www.adobe.com/go/distribute>. Once there you will gain access to the public beta release, technical documentation and developer discussion forums. A 'Getting Started' tab on the webpage provides step-by-step instructions.

If you are new to Flash Lite development, they can go to <http://www.adobe.com/go/4it> to learn more.

26. Who is Zed?

Adobe has partnered with Zed as an aggregator for distribution of applications and content published for the Flash Lite 3.1 Distributable Player in Italy, U.K and Spain.

Zed develops and markets entertainment and community products and services for mobile and the Internet. Zed is the leading mobile value-added services player in the world in terms of revenue and geographical footprint.

More information on Zed is available on: <http://www.zed.com/>

27. Who is Thumbplay?

Adobe has partnered with Thumbplay as an aggregator for distribution of applications and content published for the Flash Lite 3.1 Distributable Player in the United States.

Thumbplay is the leading U.S. provider of mobile entertainment content. With games, apps, music, videos and more, Thumbplay.com sees over five million unique visitors each month.

More information on Thumbplay is available on: <http://www.thumbplay.com/>

28. Who is GetJar?

Adobe has partnered with GetJar as an aggregator for distribution of applications and content published for the Flash Lite 3.1 Distributable Player in all launch countries.

With over 22,000 free applications, GetJar is one of the world's leading independent application stores. GetJar averages over 22 million downloads per month with over 200,000 developer accounts.

More information on Getjar is available on: <http://www.getjar.com/>

Questions about the Consumer Experience

(Download, Installation, Uninstall)

1. How does a consumer discover an application provided through the distributable player solution?

There are several ways that a consumer can discover an application, and this depends on the developer or content provider's choice of distribution and marketing channels. Depending on the distribution channel, some examples of how the consumer may discover the application are:

- Catalog of one of our Aggregator partners such as GetJar, Thumbplay and Zed
- Your own/the aggregator/other distribution channel desktop or mobile website
- A print or TV ad, with an SMS shortcode or web address

2. What is the size of the Flash Lite 3.1 Distributable Player that is sent OTA?

680kb on Symbian and 912kb on Windows Mobile

3. Does the consumer pay for data charges for downloading the Flash Lite 3.1 Distributable Player?

This depends on what kind of mobile data plan the consumer has. If they have a flat data plan, and are not over any monthly limits imposed by the carrier, the consumer would not pay data charges. However, if the consumer has a pay-as-you-go data plan, then the consumer would pay for airtime data charges for the download. The Flash Lite 3.1 Distributable Player itself is a free application.

4. What happens if the user interrupts the download of the application or the device loses its network connection during the download process?

If the end user interrupts the download manually or loses network connectivity, the installation process will be cancelled and the user will need to re-initiate it by downloading the existing application again or downloading a new application. The user pays for data charges even in the case of an incomplete installation for the part of the download that is completed.

5. What happens when the user is required to have a newer version of the distributable player while already having an existing Flash Lite distributable player on their device?

Every application packaged with the new version of the distributable player will include an Adobe version checker that will detect prior versions of the distributable player installed on the device. If a prior version is detected, the Adobe version checker will install the new version and uninstall the previous version.

6. Will the Flash Lite 3.1 Distributable Player be installed every time a new application containing the player is downloaded?

No, there will only be one instance of the Flash Lite 3.1 Distributable Player on any device. The Adobe version checker contained in the packaged application will detect if the device already has the distributable player installed and if it does, identify its version. When the version of the player that is installed is an earlier version than the one specified by the developer when packaging their application, the latest version of the distributable player will be installed. This process will be transparent to the end user. In no case will the standalone Flash player be uninstalled.

7. Will the distributable player solution update the pre-embedded Flash Lite browser plug-in or standalone player on devices that support these instances of the player?

The Flash Lite 3.1 Distributable Player enables rich, standalone mobile applications. It will not affect nor update the mobile browser plug-in.

The distributable player will co-exist with any preinstalled standalone player but have no icon on the device. The preinstalled standalone player will continue to have its own icon and file-browser-like interface. In terms of usage, the distributable player will be used only by applications that were packaged using the Adobe Mobile Packager. Other Flash content previously installed or not packaged with the Adobe Mobile Packager will continue to use the standalone player on the device.

8. If the end-user uninstalls an application packaged with the Adobe Mobile Packager, will it also remove the Flash Lite 3.1 Distributable Player?

No, the Flash Lite 3.1 Distributable Player will not be removed automatically when an end user uninstalls an application. By not deleting the distributable player, Adobe eliminates the need for the end user to download the player again if they download a new application packaged as part of the distributable player solution.

9. Will an application developed for earlier versions of Flash Lite also cause the Flash Lite 3.1 Distributable Player to be downloaded?

In the current release, as long as the application was packaged with the Adobe Mobile Packager, a download request for the application will also pull down the distributable player to the device. This is provided the device does not already have the latest version of the distributable player installed. Adobe believes that this provides the application developer the flexibility of being able to use the latest features of Flash Lite including an improved user experience and security model.

In the near future, for developers who would like their application to use the standalone embedded Flash player on the device, Adobe will enable packaged applications to use the compatible standalone player instead of downloading the distributable player.

10. What happens if the Flash Lite 3.1 Distributable Player has been installed by the end user and subsequently the end user installs a device firmware update from the handset manufacturer?

A firmware update refreshes the entire device and the user will lose all applications including the Flash Lite 3.1 Distributable Player. Applications already downloaded by the user can be recovered provided they were backed up using Active Sync (for Windows Mobile devices) or Nokia PC Suite (for S60 devices). See answer 6 above for what happens when the user attempts to launch the applications downloaded with the distributable player solution.

11. Are there any carrier-imposed limitations on OTA downloads in the countries where the distributable player solution will be launched?

Adobe conducts testing of the OTA download process in the target countries before launch to ensure that the distributable player downloads properly. That said, OTA restrictions are out of Adobe's control and can be imposed by carriers in the future.

12. What mobile carriers will support the distributable player solution?

The distributable player solution is an off-deck distribution channel, and as such does not require explicit carrier support. As long as the carrier allows the downloading of off-deck content and OTA software downloads to smartphones with open operating systems, consumers should be able to use applications developed with the distributable player solution.

13. Is there a limit to the size of the application packaged with the distributable player solution?

Unless the application is downloaded over Wi-Fi, the size of the application will be limited by the OTA limit set by the carrier. It is however important to note that the greater the size of the application, the longer the OTA download of the application will take, and the higher the airtime data charge to the end user (if they are on a pay-as-you-go mobile data plan). Content providers and developers should consider the end user download experience in determining the optimal size of the application.