

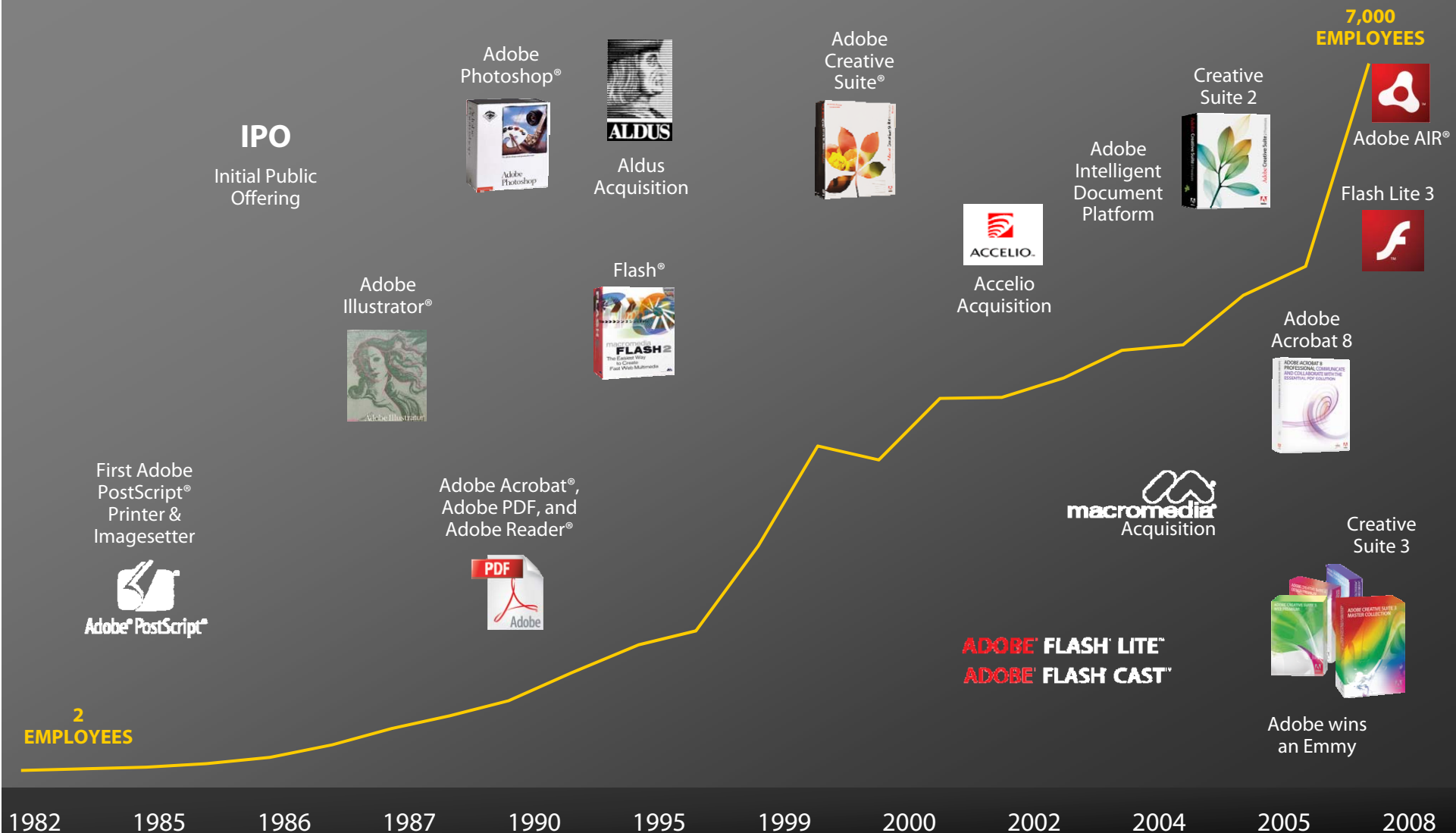
Flash Overview

Anup Murarka
David Schmidt

Summer 2010



Adobe: Transforming Digital Experiences for 25 Years



Flash Platform - A complete system for web innovation

Applications, Content and Video



Tools to Design and Develop



Adobe® Flash® CS4
Professional



Adobe® Flash®
Catalyst™



Adobe® Flash®
Builder™

Framework



Adobe® Flex®

Runtimes



Adobe® AIR®



Adobe® Flash® Player

Services



Adobe Flash
Platform
Services

Servers



Adobe® Flash® Media
Server Family

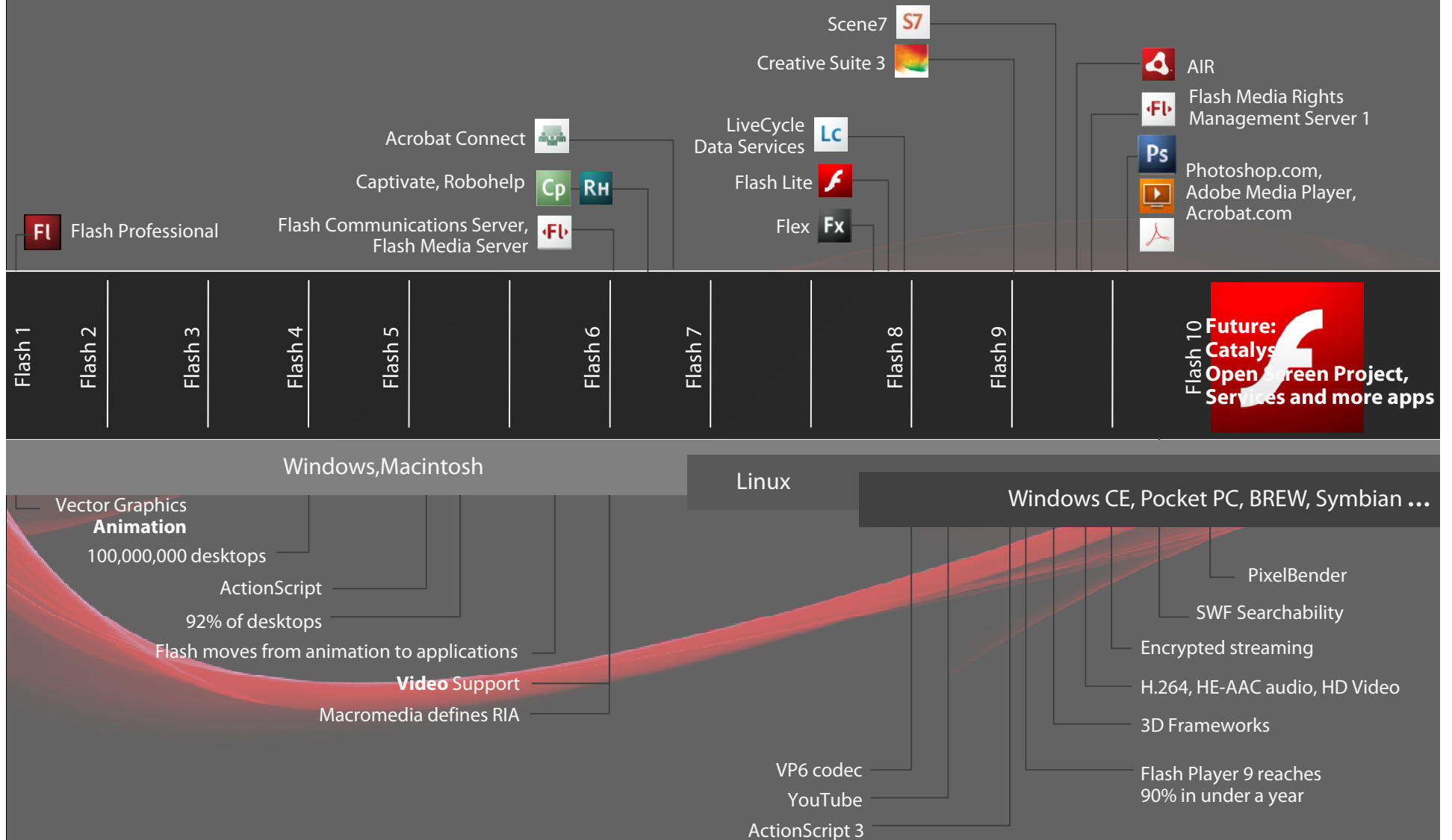


Adobe® LiveCycle®
Data Services

Definitions & Acronyms

- **Flash Player** – Adobe's browser plugin/web runtime
- **AIR** – Application framework allowing Applications to be built using Flash/HTML
- **SWF** – File format for Flash content
- **FLV, F4V** – File format for Flash compatible video
- **CS5** – Creative Suite 5, current version of Adobe's authoring products
- **FMS** – Flash Media Server, a product to stream video/interactive content
- **RTMP** – stream protocol preferred by Flash
- **RTMPe** – encrypted version of above protocol
- **Flash Access** – Adobe's DRM product for protecting any Flash based assets (video, interactive content, etc.)

Ten Generations of Innovation with Flash



Flash content drives ubiquity across devices

85%

Of Alexa top 100
websites use Flash

70%

Web games use
flash

75%

of all video
on the web
is Flash

98%

of Internet connected
PCs worldwide have
installed Flash Player

95%

of Internet connected PCs
worldwide have installed
Flash Player 10

95%

of top 20 phone OEMS
committed to delivering
Flash

Powering the best consumer content and video sites



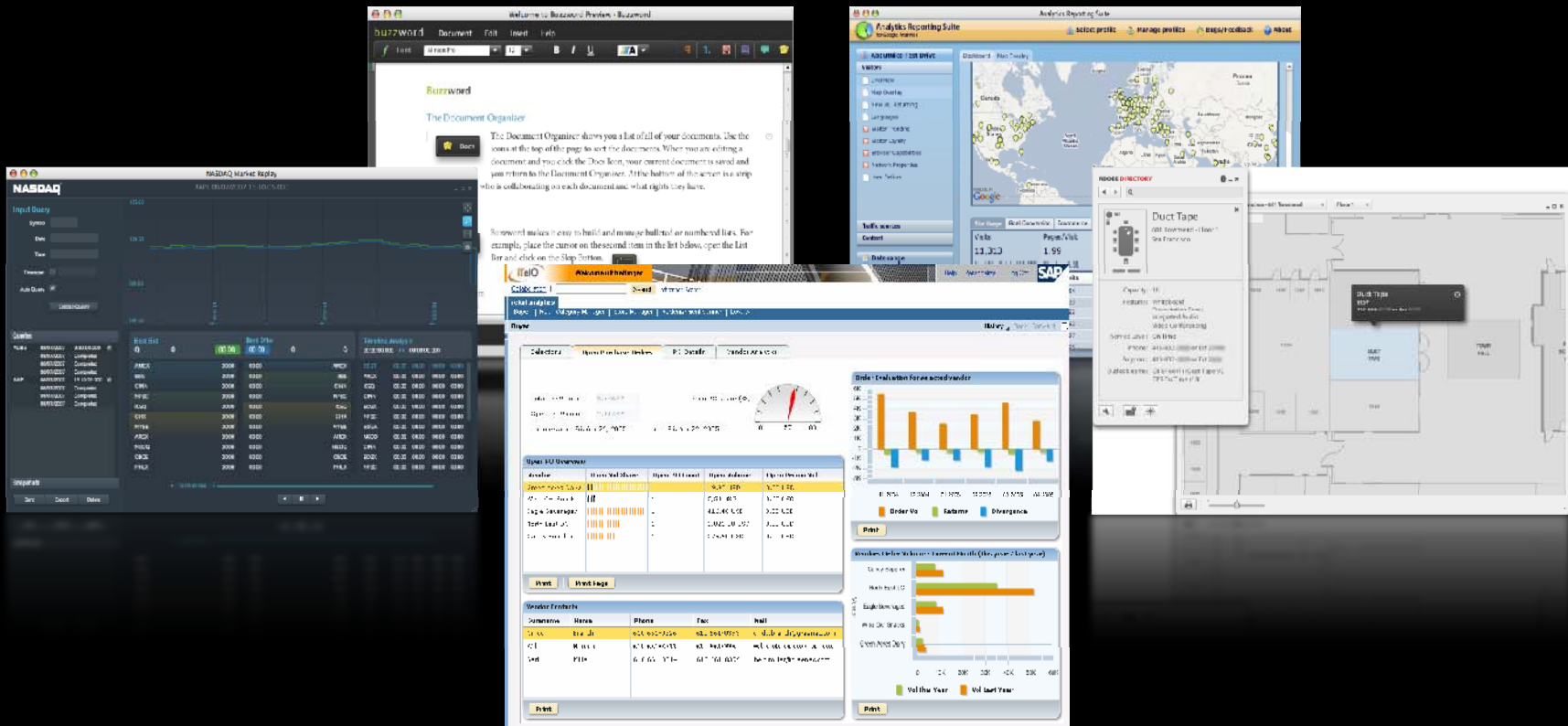
ADOBE® FLASH® PLATFORM



Powering the best Enterprise applications



ADOBE® FLASH® PLATFORM



Flash Platform Advantage – Expressiveness

Real-time Effects



HD Video



Print-Quality Publishing

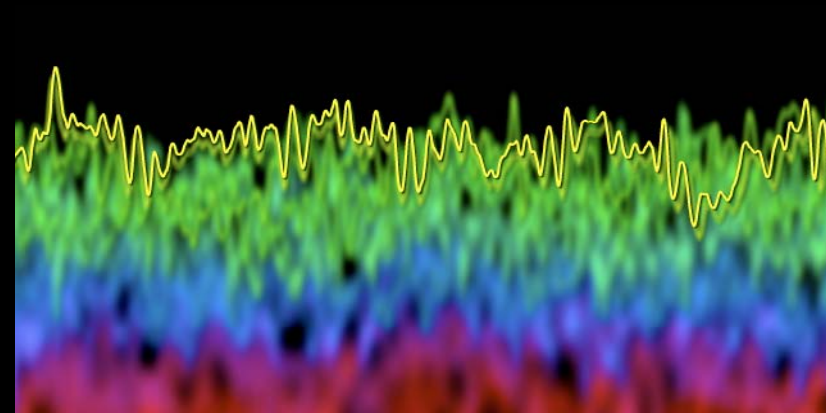
文字コードが割り当てられていないグリフの大半は既に文字コードが割り当てられていないグリフの異体字です。次のセクションでは、このようなグリフにアクセスする方法について解説します。

OpenType 日本語プロフォントに含まれる15,000超のグリフのほぼ半分には、文字コードが割り当てられていません。というのは、Unicodeや他の一般的なコード体系を用いてコードを割り当てていないグリフにアクセスするための方法です。これは、プロフォント

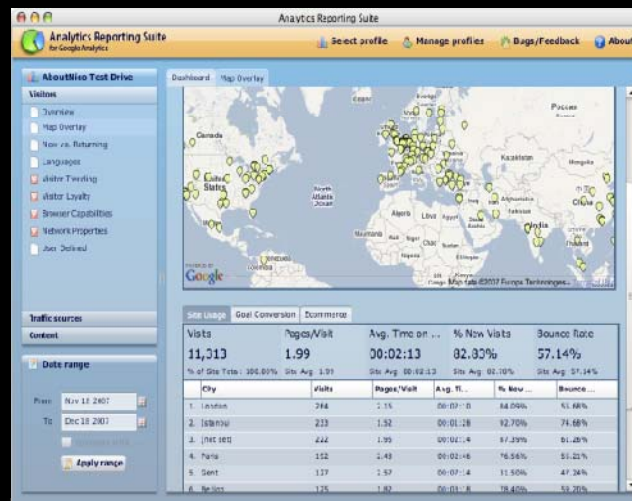
数々の文字コードが割り当てられないグリフが含まれます。これらの文字コードが割り当てられないグリフにアクセスする方法として、グリフ置換による方法と字形パレットを用いる方法とがあります。

Indesign CSやIllustrator CSのようなアプリケーションは、多くの高度なタイポグラフィ機能、特にグリフ置換機能をサポートすることによって、文字コードが割り当てられていないグリフにアクセスすることが可能となりました。これらは

Advanced Audio



Flash Platform Advantage – Consistency



Browsers



OS



Flash Platform Ecosystem

Communities

- Over 3,500,000 developers
- 375 user groups worldwide
- Almost 1,000,000 unique monthly visitors to the Adobe Developer Connection (ADC)

Partners

- SAP, PHP/Zend, Salesforce.com, Intuit
- 1k system integrators, ISVs, and VARs
- 52 Adobe Agency Partners
- 250+ training partners

Programs

- Adobe Labs
- Adobe Developer Connection (ADC)
- Adobe Community Experts
- Over 50 Adobe evangelists worldwide



Adobe Flash Platform Overview

Applications, Content and Video



Tools to Design and Develop



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Professional



Adobe® Flash®
Catalyst™



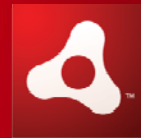
Adobe® Flash® Builder™

Framework



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Clients



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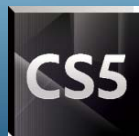
Servers



Adobe® Flash®
Media Server Family



Adobe® LiveCycle®
Data Services



Creative Suite 5



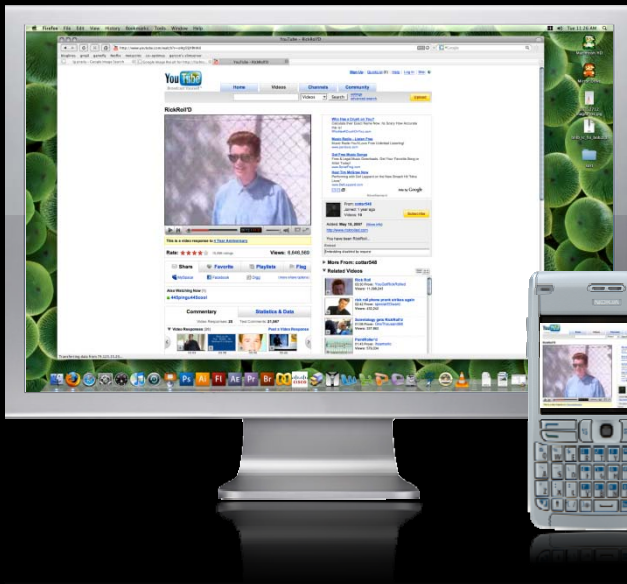
ColdFusion Builder

Integrating with the Flash Platform



Consistent Runtime Based on Adobe Flash Platform, for Two Use Cases

Web Content & Applications



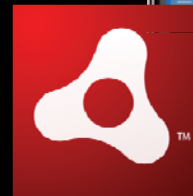
(Inside the browser)



Standalone Applications



(Outside the browser)



Openness vs. Consistency vs. Proliferation

- Adobe continues to make Flash more open
- File formats are now published and license free
 - On path towards standardization
 - Similar to PDF – now ISO32000
- Script engine donated to Mozilla Foundation
 - Largest IP donation in history of Foundation
 - Now available as the Tamarin Open Source Project
- Flash does contain 3rd party licensed technology (particularly codecs)
- We must balance consistency with openness
 - Open Source projects often fragment
 - Fragmentation issues dramatically reduced the success of Java for end-user content/applications
- Trying to maintain pace of innovation and proliferation

The Open Screen Project

open
screen
project



Singular experience, Multiple devices

Enable consumers to engage with rich Internet experiences seamlessly across any device, anywhere.

Open Screen Project has grown to nearly 70 members

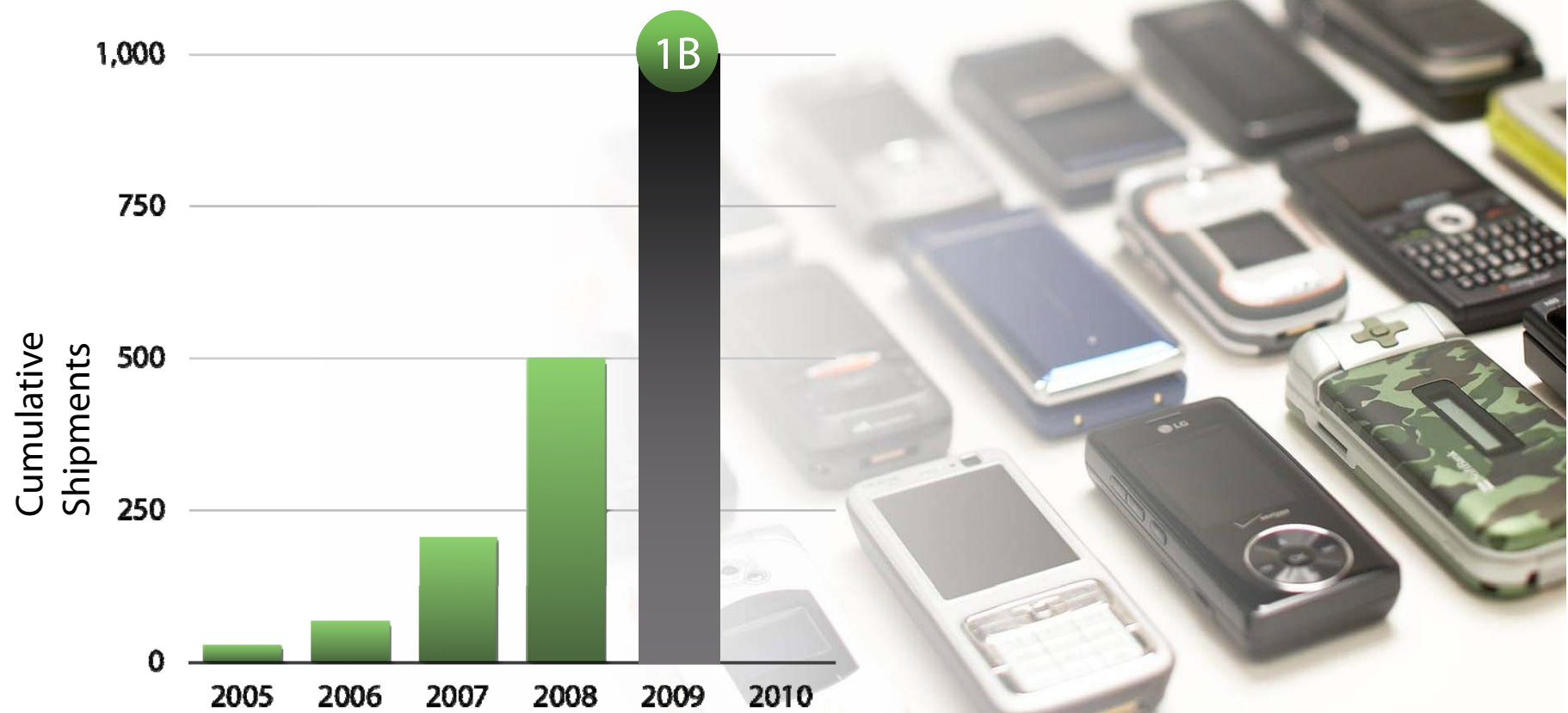
Technology Partners



Content Partners



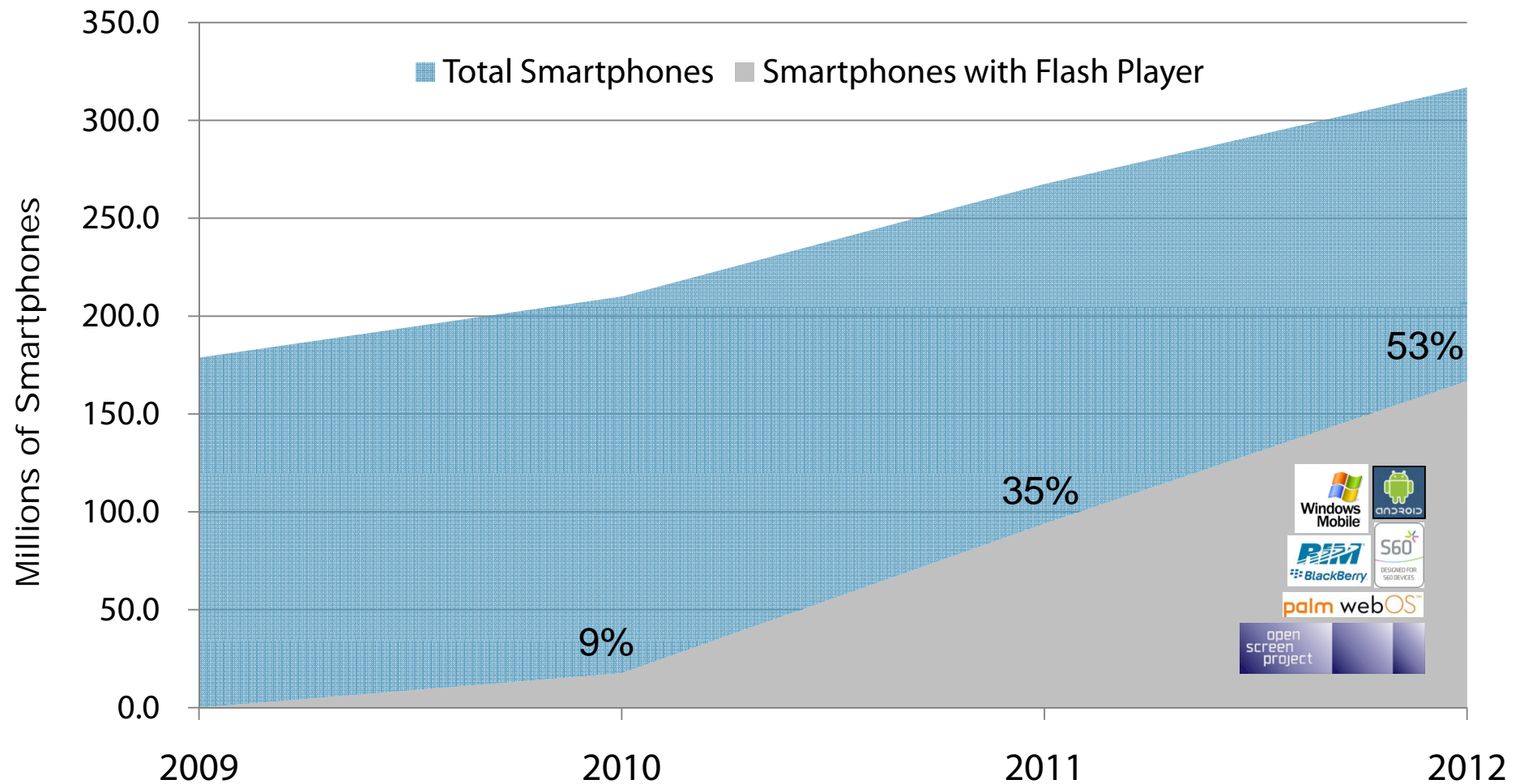
Growing Mobile Internet Use is Propelling Flash on Devices



Source: Adobe, Strategy Analytics

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Flash Player on most smartphones shipping in 2012, >250M cumulative



Source: Strategy Analytics smartphone forecast (January 2010) and Adobe adoption estimates

New Flash Player 10.1 - Performance

- Extensive performance optimization with all major chip and mobile platform vendors including ARM, AMD nVidia, Qualcomm, Marvell, Intel, Texas Instruments, Freescale, Imagination Technologies etc.
- Optimized performance, CPU and battery consumption
 - H.264 video hardware decoding
 - New Smart Rendering: Render only content visible on screen
 - New Sleep Mode: Player slows down automatically when device transitions into screen saver mode
 - Advanced Out-Of-Memory Management: Effectively handle non-optimized content that consumes excessive resources
 - Automatic Memory Reduction: Decrease content usage of RAM by up to 50 percent
 - Trigger event optimization: Automatic player pause with incoming phone calls, switching from browser to other device functions etc.



New Flash Player 10.1 - Reach

- Public beta of Flash Player 10.1 for Android at Google IO.
- General availability of Flash Player 10.1 for Android and desktops / netbooks in June
- Android smartphones to support FP10.1
 - Android 2.2 ("FroYo") minimum requirement
 - Google Nexus One, Motorola Droid, HTC Evo, HTC Incredible, HTC Desire, Motorola Milestone, Samsung Galaxy S etc. via OTA. Specific timing depending on FroYo avail and OEM upgrade path.
- Over-the-Air (OTA) updates
 - Install latest player over-the-air through content triggered downloads, system software updates and on-device app catalogs. (Android Market, Adobe Labs)
- Forecast
 - NPD – May 2010: In first three months of 2010, Android captured 28% market share.



New Flash Player 10.1 - Reach

- Flash Player work with other platform and OEM partners under way for Windows Phone 7, Palm/HP webOS, BlackBerry and Symbian. Device timing confidential and dependant on OEMs.
- Support on a range of ARM and x86 processors, including ARM11, Cortex A8 and A9, Intel Atom, nVidia Tegra etc.
- Desktop, netbooks, smartbooks, tablets, smartphones, televisions etc.



symbian

BlackBerry

palm webOS



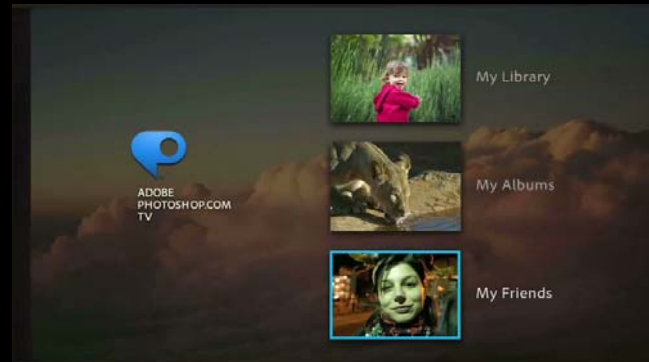
Mac OS X Snow Leopard

Rich and Engaging Experiences Enabled—on the TV



Video Delivery

- HD Video delivery (1080p H.264 & 720p rendering)
- Playback of online content (FLV), i.e. YouTube



Applications & Services

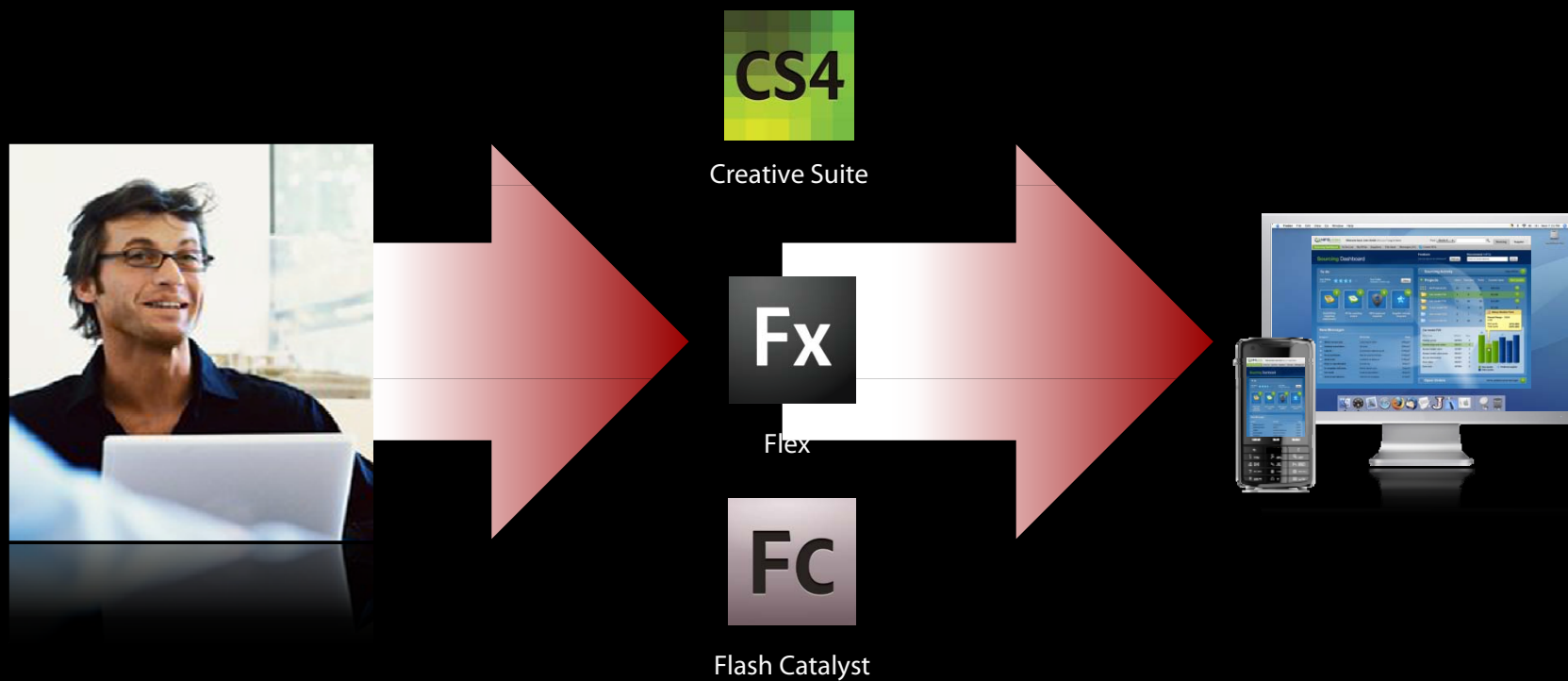
- Application specific to Content Provider or Network
- Downloadable content/feeds/widgets – games, photos, stats, RSS feeds, etc.



User Interface

- Interactive program guide
- Branded experiences

Enable Designers and Developers



Content



Web/WAP



Games



Applications



Video





MOBILETM
WORLDCONGRESS

Barcelona | 15-18 February 2010

Q&A

ONE WEB.
ANY DEVICE.



Adobe Systems Inc. | Press Presentation



Adobe

Demonstration of Flash Platform content on smartphones

Video

Youtube, DailyMotion, Facebook, BBC, CNN, Fox, Yahoo!, Fandango, Moviefone, Sony Pictures, Dreamworks, etc.

Rich Internet Applications

Mint.com, Picnik, Sumopaint, Noteflight, TimeGlider, etc.

Marketing + Commerce

Amazon, Bloomingdales, Neiman Marcus, etc.

Games

Addictinggames, Miniclip, WebKinz, Kongregate, Armorgames, Zynga (Farmville), Club Penguin, etc.

Data Presentation

New York Times, Zillow, Google Finance, National Geographic, etc.

Audio

Finetune, Amazon MP3, BBC iPlayer, NPR Online, etc.