Bite Stream – Tracking videos over the Web

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Abstract. In our time it is important to have a system that will offer to the users a chance to make their journey over the internet a unique one. Imagine a world where people can buy, have all the information necessary about a product, while still watching a video, being able to just click everything and receive all the information needed. On the other hand the manufacturers and sellers should benefit by receiving statistics on their videos, getting a positive or negative feedback on what everyday people are interested in. Bite Stream can provide all of that, there is no limit. By the way this is internet advertising.

1. Introduction

We've decided to use this project to introduce people in creating web applications integrating an appealing interface with optimal functionality, keeping the server side unchanged and still have a greater flexibility in developing the user interface.

1.1 Few things about Adobe Flash Platform

Currently Adobe is the leader in shipping great looking RIA's so why not use their own instruments in creating next generation web applications ? Below we describe their major products which contributed in developing this project, used for graphics and also for writing code.

The **Adobe Flash Platform** is an integrated set of application programming technologies surrounded by an established ecosystem of support programs, business partners, and enthusiastic user communities. Together, they provide everything you need to create and deliver compelling applications, content, and video to the widest possible audience across screens and devices.

Adobe Flash Catalyst is approachable interaction design software that enables you to easily transform Adobe Photoshop, Illustrator, and Fireworks artwork into expressive, fully interactive projects without writing code, and leverage the reach and consistency of the Adobe Flash Platform.

Adobe Flash Builder software, formerly Adobe Flex Builder, is an Eclipse based development tool for rapidly building expressive mobile, web, and desktop applications using ActionScript and the open source Flex framework.

Adobe Flash Professional software is the industry-leading authoring environment for producing expressive interactive content. Create immersive experiences that present consistently to audiences across desktops, smartphones, tablets, and televisions.

Flex is a highly productive, free, open source framework for building expressive mobile, web, and desktop applications. Flex allows you to build web and mobile applications that share a common code base, reducing the time and cost of application creation and longer term maintenance.

Adobe Flash Player is a cross-platform, browser-based application runtime that provides uncompromised viewing of expressive applications, content, and videos across browsers and operating systems.

So there are a few tools for everyone to choose, even if you're a designer or a programmer. These products are being constantly improved and their feedback and documentation is excellent. So what if you're a PHP developer or a JAVA developer and never worked with Flash and you still want to keep writing server specific modules in your favorite language? Fell free to continue doing so. The combination of those products, described earlier, will give you a great user interface and excellent functionality but you still need a server side component. For that we find help in other programming languages like PHP, JAVA and even C#. Why? Because Flash does not allow development of server side modules, for security reasons.

1.2 Flash Remoting

Flash Remoting allows flash movies to call remote server side applications, passing parameters and receiving requests, without knowledge of the server side. The calls are usually named Remote Procedural Calls (RPCs), and transfer serialized, type-persistent objects directly between the server and a Flash client. Developers on both sides (flash and server) collaborate on ways of calling methods in order to build the system. With AMF (Action Message Format) the exchange of information is faster and allows you to pass objects (not only name/value pairs) between Flash and the server in binary format. This allows you to easily develop complex applications that rely on an efficient way of sending and receiving data. This opened the door

for the **AMFPHP Project**, where developers have been building an open source library to port **Flash Remoting to PHP**. This project will allow Flash developers to use Flash remoting in a PHP environment.
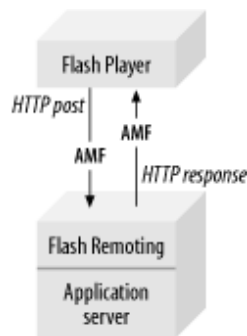

Figure describing Flash Remoting process

2. Application Description

The application is the composition of two components, CMS and video player that lets users view video ads with product placements and create statistics that will help both the producers and the sellers to increase sales of their products, and CMS provides both manufacturers and sellers, statistics on their campaigns, statistics which will include video visits according to each applicant, the number of interactions with products (interaction – rollover, click throw - buy, engage - viewing detail of the product), however, ultimately helping manufacturers to achieve their intended target site, in other words, we can say that this player, combines two of the basic elements of a successful online sales, helping both producers and sellers on the one hand, and on the other hand, buyers in creating an open market to all possibilities.

Bite Stream addresses clients which would like to keep track of their products and their impact on the client side, using video advertising.

The application itself is composed of a custom video player and a CMS.

1.   Custom video player that Bite Stream uses

The video player has basic functionality (seek, play, pause, volume, full screen) combined with custom modules to give the users the information they need. Users can see information about a product just by hovering the mouse over the desired object, and can see more details about that specific item by clicking over it. At that stage the user can see a description of the product, useful links where the product can be acquired, leave comments and even vote on topics proposed by the manufactures.

2.   The CMS component

The CMS helps manufactures and companies keep track over their products using auto-generated graphs and statistics, by creating video campaigns in which they choose what items in the video will be accessible for the users.

For clients to be able to create campaigns they must fallow these steps :

- They will log in and insert data about products (link, upload photo, description, name)
- Upload their video add, giving necessary information (name, description)
- Insert the sites in which this video will be available and launch the campaign.

After these steps our team will create the necessary hotspots manually because it's still not possible today for that process to be done automatically. In this stage the campaign will have the "Waiting for coding" status after that she will become "Active" and an *.html* file will be generated, for the client to integrate it in their website.

Once the campaign is active users can interact with the video and try to find more information on the products or even by them. On the other hand our clients have access to detail information about the users interest in their products, and can reach their purpose of selling more items. So it's a win-win.

3. Conclusion

In a world in which presenting the product plays an important factor in making an application succeed its expectations it is crucial to find a way to integrate a beautiful layout with great and optimal functionality. Flash and PHP can give this way of thinking a try and reaches out to integrate in our everyday life. By changing the way we do things we can change what we are and how things evolve around us.

Bibliography

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