



Self Service Advertising:
A white paper



Self Service Advertising: A white paper

Self Service Advertising is the provision of an online service to allow advertisers to book and build their own advertisements. There are many considerations when planning to provide this type of service; the type of advertiser, the type of ads, the user experience, the commercial implications, the scalability of the solution, etc. etc. This document briefly discusses the issues that these topics raise and the solutions and approach that have been taken by publishers who have already implemented such services.

1. The type of advertiser

This is probably the place to start for most of these discussions. There are three categories of advertiser that can be considered potential users of this type of service and they have different needs. Also the types of ads that they will be building are likely to be quite different.

1.1 General ad hoc or private party advertisers

These advertisers are basically the general public and small businesses. They have no registered account with the publisher and will probably be expected to pay online at the time of booking and building an ad. The ads that they create will mostly be fairly simple, probably limited to a range of options from lineage through to simple color display ads with pictures. There may be exceptions where the ad is more sophisticated, but in all cases, the advertiser wishes to advertise a single product or service.



1.2 General account advertisers

Advertisers in this category are likely to be small businesses that have a prepaid, or credit account with the publisher and who have general needs for advertising. They are regular advertisers and will have their own ad designs, or may subscribe to advertise in a particular regular feature from which they can select from a limited number of ad styles.

1.3 Specific business advertisers

These advertisers will have an account with pre-booked space in a publication. They are regular advertisers and will have their own specific ad designs from which they create display ads. The ads may be quite complex, often advertising more than one product or service in a half page or full page format. The most common of these types of advertiser are property (or real estate) agents, and auto dealers. Others in this category are likely to be government sectors (notices and recruitment) and some types of retailer.

2. The user experience

This is also a very important consideration, and one that provokes the most debate. Sometimes this is to the exclusion of everything else – the risk being that the publisher creates a very attractive website but with a service that is unmanageable and/or does not deliver any business benefit.

2.2 We will start by discussing the needs of the first two types of advertiser as described in 1.1 and 1.2 above. The general ad hoc private party advertisers and the general account advertisers.

Firstly, the user experience must be easy and quick. The presentation must be attractive and intuitive while providing a tool for the advertiser that will reliably run on his desktop. There are many different views of how the workflow should be structured with self service advertising. For example, some feel that it is important to capture the user's details by requiring them to register at the start of the process; others will only request registration when the user has built an ad and finally wishes to book it.



2.2.1 Registration

For account advertisers, registration is unnecessary, as they will already have an account on the system. This will give them access to their own ad templates or to a special area where they can select from a number of designs. For general ad hoc private party advertisers however, it is desirable to collect some information about them to monitor activity on the site and for marketing purposes. By giving each advertiser a registered account, it also makes it possible to provide the user with the ability to access and retrieve previously created ads to rebook or amend.

As mentioned above, the requirement to register can appear anywhere in the workflow. It is generally considered that the best way to manage this is to provide the ability for a user to register at any stage of the process. However, if it is intended to only allow registered users to book and run ads, then it is necessary to force the user to register at some stage in the process. The general consensus is that this should take place only when the user has completed the whole process. This way, he will have built his ideal ad, entered the insertion instructions and is much less likely to abandon the process.

2.2.2 Copyright

The copyright of the ads could be contentious if not made clear to the user. The terms and conditions for advertisers should be presented to the user at the booking stage. A simple legal statement in these terms and conditions should suffice to clarify ownership of the ad. It could still be possible for an advertiser to build an ad on a self service site and then take it to another publisher to be run. A watermark on any reasonable quality preview is the solution to this.



2.2.3 Quality Control Check

A self service facility can include automated spell checking and profanity checking. It is also possible to automatically monitor for specific phrases that are in breach of “legal and decent” guidelines. However, there is no foolproof automatic method of monitoring all ad content. Certain phrases can be included which to the system appear innocent, but breach legal and decency rules. Also, if an upload facility is included, images can be of anything the user chooses to add. Although there are some pattern recognition systems for scanning and identifying images, our research so far has not yet found anything that is anywhere near reliable enough to use in a totally automated fashion.

The solution is a quality control function. This can be a separate back office workflow where print ready ads are queued for a user to check, or it can take place after pagination when the ads are on the page. The two main considerations are first, how to rework or replace an ad if quality control is at the pagination stage. Secondly, if an ad is “pulled” because of inappropriate content, how is it cancelled? Some publishers take the approach that the terms and conditions will allow them to cancel an ad without refund if the advertiser has broken the rules. Others have a policy of refund, which means that the system may have to reverse a credit card payment.

2.2.4 Deadlines

For any ad booking there will be a deadline. This will be the earliest deadline for the first insertion in the earliest publication. The choice is whether to tell a user that deadline for a chosen start date has passed, or to simply book the ad and tell the user what the start date will be. Deadlines are much more of an issue for specific business advertisers with pre-booked space.



2.2.5 Up-sell

There are many opportunities to up sell with self service advertising. If implemented with thought, self service advertising can be as effective as telesales in terms of up sell.

Various approaches have been tried:

- Offer free lineage ads to attract advertisers to the site. Up sell to picture ads and color ads by making the lineage a much less obvious or attractive option when compared to the paid for ads.
- Allow the user to choose the low cost or free option but use promotional banners and messages to attract him to the larger more expensive options. Use the same mechanism to offer packages such as multiple publications and print/online combinations.
- Guide the user through the process of choosing an ad style and size, and then build two ads – the chosen one and the up sell. Present both to the user with a promotional message.
- Provide an auction facility for prime positions. This can be very effective but needs to be implemented with care as this could take revenue from more traditional sales channels. Obviously, a combination of all of these methods is possible.

2.2.6 Granularity

Collecting the words and spaces for the ad needs to be simple and quick for the user. However, not all quick and easy methods will lend themselves to the wide opportunities presented by self service advertising. If a user is building ads only for print, it is easiest if he simply keys in his text in a single text entry box. Better still, he could enter the text directly into a preview of the ad. However, this means that the text is unstructured and for many classifications of ad, this is a problem. If we wish to offer the same ad online, we will probably need to deliver the text to a website in a set of tagged fields. This will make the online ad searchable and also allows us to select the text to be used in other versions of the ad.

The above applies in particular to autos, real estate and recruitment ads, but will probably become important for most other classification of ads as online advertising continues to grow in importance.

Another consideration is how it may be possible to “auto-fill” certain fields. Databases such as the MLS system for real estate can be accessed automatically to save the user having to key or select large amounts of information.



2.2.7 Reworking ads

Users may occasionally need to modify their ads after they have built and booked them. There is obviously a need to automatically save ads and allow users to access them to edit and resubmit. Normally this is straightforward. However, it has been found that advertisers may buy a single ad with a number of insertions and then use this function to edit the ad to sell something else after the original item has been sold. This way they can avoid paying for multiple ads.

It may be decided that this is acceptable. However, if it is not, then it is necessary to either restrict the areas of the ad that may be edited, or include a telesales function to “unlock” the ad before it can be edited.

2.2.8 Rebooking ads

In a similar fashion to reworking ads, the user may wish to rebook. This function is an opportunity to up-sell and also can be linked to an email to automatically invite a rebook. Some publishers offer a discount for a rebook of an ad.

2.3 Specific business advertisers

These advertisers need much more of a working tool than those discussed so far. This type of advertiser is normally a managed account and up sell opportunities, rebooks, proofing etc are much different propositions. The ads that they need to build are probably going to be much more complex and there may be a need to provide an online database to store advertising material and data.

Auto dealers and estate agents are the obvious candidates. These advertisers tend to have different skill levels and requirements. Some will require a toolset with maximum flexibility, others will want a simple template driven solution. There is probably no single answer to this, other than the process must be as simple as possible.



2.3.1 Database or Reverse Publishing

Many of these types of advertisers require an integrated online database facility to manage their advertising content. This allows them to maintain a rolling “stock” for advertising from one week to the next. Others already have such a database, or use an existing online service. They often object to having to maintain a duplicate of this on the publisher’s database.

For those that do have their own database, an import function to allow them to simply generate a report from their own system and load this into their ad is ideal. This obviously brings questions regarding formats and interfaces, but it is possible to provide filters for some of the most common databases if appropriate.

Other publishers are taking the approach of integrating the self service advertising solution with their existing online service. In this case, the advertisers may already be using this service to manage “stock” online and to submit it for sale through a website. Adding the ability to build print ads (and ads for other channels) is often described as “reverse publishing”.

2.3.2 Ad complexity

Complex ads present a challenge for self-service and not because of they’re difficulty. A good self-service solution should be able to produce an ad with the same complexity as a graphics department. Rather there is a balance to be struck between giving the user a high level of control over the layout and presentation of the ad, and keeping the process quick and simple for the user.

Again, there appears to be no single answer. Some advertisers are computer literate and demand a high level of control. In this case, the ability to design the layout each week is very attractive. A relatively simple online drag and drop function allows these types of requirements to be met. The advertiser can interactively design the variable area of the ad, deciding which “stock” will be given prominence and where and how they will appear.

For other advertisers, this is considered too complex. For these, a fixed template mechanism is preferred. They can simply choose the “stock” or load the text and images, then build the ad. In this case, simple controls can be provided to sort the data by various criteria to determine the order in which they appear.

Ads of this type often include different sections, such as “listings” and “spots”. The method of building and modifying templates is very important if the solution is to be successful. It is all very well to save costs by getting advertisers to build their own ads, but if creating and maintaining the templates is too complex, much of the cost savings rapidly disappear.



3. Presentation and workflow

The presentation and workflow of the user interface (the website) is crucial. As mentioned before, this is so important that there is a danger it can be allowed to override all other considerations. While it is possible to produce a “one size fits all” approach to self service advertising, this does not seem too ideal. Publishers have their own ideas of how to address their market, and from one to the next have different ideas of what will work best.

3.1 Simplicity

It is generally agreed that the most successful self service sites are very simple. There is sometimes a tendency to attempt to give the advertiser lots of options for publications, insertion patterns and sizes etc. This leads to complexity which in turn is very likely to discourage the advertiser. The first few simple steps can be completed but the user abandons the process when confronted with a form requiring lots of decisions. It should be remembered that the website is trying to lead the user through a simple process, and not trying to replicate the ad order entry system that is normally driven by trained users.

Help functions, such as context-sensitive help and links for email/telephone support are valuable.

Too many steps or clicks from start to finish are another pitfall. As more options are added, the number of user actions will increase. A simple four or five step logical approach has been found to work the best. However, it is important to keep a balance, giving the user lots of buttons, checkboxes and selections to try to cut the number of steps or pages can create a confusing experience.

As mentioned before, for business users, it is often reasonable to expect to provide some form of introductory training. This means that it is practical to provide a level of functionality that gives the user the essential tools for the job. However, it is usually preferable to still limit these to those functions that are essential, rather than attempt to present the user with a powerful application but one which may distract or confuse him.

3.2 Aesthetics

This is probably the most “emotional” of decisions to be made. However, there often will need to be a pragmatic approach to this. By this, we mean that clever interactive layout functions and animations etc are all possible, but that often these are at the expense of reliability and support overhead. Whatever is chosen, the site should look “good”. First impressions count in the self service advertising world as much as in others! The various options for websites are discussed below. They have been given categories to describe their primary function.



3.2.1 Working tool

Specific business account advertisers need a simple, reliable tool by which they can manage and build their ads. Ease of use and performance matters greatly. For some, the sophistication of the ads that they can produce is also important. Many of these advertisers will be computer literate, but if they are corporate entities or large organizations, they may not have the ability to download and run plug-ins such as java applets or a flash player. In this case, it is important to keep the user interface as lightweight as possible to avoid problems with browser compatibility and security settings. A clever interactive user interface is desirable, but in practice may become unusable, or at best a support nightmare.

3.2.2 Self Service website

This needs to be much more a promotional website than the working tool described above. However, much of the caution applies. It is possible to provide impressive animations, interactive functions and rich graphics. However, some of these do come with a penalty. The usual website design guidelines apply. Large graphics imply longer download times; animations are the same and can be distracting. Interactive tools, the ultimate goal of wysiwyg ad creation in the browser can be provided but will be “heavy” and probably will introduce browser and system dependencies.

Therefore, we normally advise careful thought before making decisions about the presentation and user experience on the cosmetics alone. It is important to consider which browsers (and OS) the users will be running? Will users be willing to allow “plugins” and players to download? Will the browser security settings break some of the functionality? How much control do we really want to give to the users? It’s all very well providing an interactive tool to provide a rich user experience, but do we want to turn our advertisers into ad creators. They may spend so much time playing with the ad that they don’t actually buy it. They may also create ads that just are not of suitable quality to include in the publication.

It is of course possible to deal with most of the issues above and produce a pleasing and attractive website with a simple workflow for the user. Our advice is normally that the user should be given as few steps as possible from start to finish. The options given to the advertiser should be minimal. Use up sell techniques to guide the advertiser to choose the ideal package rather than trying to give them too much choice. Don’t give the advertiser a reason to abandon the process, such as insisting upon registration before he can start. Make the process of building the ad simple and don’t assume that the advertiser is a creative expert. Some want to be able to design their own ad, but most want an attractive result, done quickly and cleanly.



4. Technologies

4.1 The user interface

If providing an interactive experience, be careful not to use technologies that will limit the viability or reliability of the website. We have used technologies such as PHP and JavaScript for most sites because these avoid most of the complications with browser dependency. Where we have provided an interactive experience, we have chosen Flash, implemented using Adobe's Flex development tools. This has given us the ability to build a very rich and impressive user experience with the minimum of browser and OS dependencies. Some of our earlier functions made use of Java applets. These are fine for a controlled environment, but much less so when there is no limit to the browser and machine to be used.

Also think carefully about management and maintenance of the ad designs. For example, if it is desired to provide an automatically updating display of the ad as the user enters the text, this implies that the ad design and the appropriate fonts (or some accurate representation of them) are to be uploaded to the browser. There can be a high degree of effort involved in building and maintaining templates for this type of functionality. This is not necessarily a problem if there are only to be a few ad styles involved, but where there are many, it can get very costly to maintain. Again, we have found that Flex gives us powerful capabilities in this area. However, other pragmatic approaches are to simply use the server to periodically (or on demand) deliver an updated image of the ad as the user works.

4.2 Scalability

The solution must be able to scale well. If it is successful, the demands upon the ad building process in particular could be great. The main question to ask is not necessarily "how many users will it support?" but "how many ads will be built simultaneously at peak times?" and "what is the acceptable maximum time for a user to wait for his ad to build and preview?" The best solutions will be capable of handling the predicted immediate workload and also can be easily upgraded to support higher volumes that may be expected with the success of the service.

4.3 Systems Integration

There will be a need to connect and integrate the self service functions with other existing systems.



4.3.1 Order entry

There will often be a requirement to integrate the ad booking process with the ad order entry systems and other backend processes. Also to provide a mechanism for advertisers to pay by credit card. There is no single detailed description of how to integrate ad order entry systems. They are all different in process and technologies. Also the needs may be different for account and non-account scenarios. However, in very simple terms it is usually necessary for the self service ad to be given some unique reference code that can be passed to the commercial system against which it can initiate a booking. The commercial system will then be required to return it's own internally generated unique reference number to the self service system to allow it to deliver the ad to the production or pagination process with a suitable reference name or number.

Appendix A describes this process in more detail.

4.3.2 Production Systems

At the other end of the process, it is necessary to deliver the resulting ads into the production and pagination processes. In most cases this is not a complex task. The Ads can be considered as customer supplied print ready PDFs and we normally start by suggesting that this is how the initial view of the workflow should run.

Ads get generated by the system and possibly go through a quality control check. They then are inserted into the workflow at the appropriate point. In many cases, this is via preflight check or quality control merging these two functions. The exception is if there are likely to be images that need converting for print (RGB to CMYK, size and color space.). In many cases, the images will be processed and converted at upload time as part of the self-service process. Some production teams however, prefer to do this conversion after the ad has been created, at preflight check. There are systems that can take a complete PDF and convert any embedded images to make them print ready.

4.3.2 Payment systems

There are many credit card payment services in existence. These mostly include relatively simple interfaces to allow third party developers to integrate their services. There seems to be one of two choices to be made; **First**, Use a service that requires the developer to build custom forms for payment transactions. This means that the developer or systems integrator will need to set up a secure server and integrate this. These services usually provide a low level API to connect to the service. **Second**, Use a service that offers complete transaction management. These services provide a secure website to which the user is directed to make his payment. This is by far the simpler of the two and avoids the need to worry so much about security and setting up secure servers.



5. Conclusion

The successful planning of a self service advertising implementation requires an appreciation of the technical, commercial and the ongoing maintenance aspects in unison. It is important to involve all interested parties within an organization and ensure that they know the issues and questions that they need to address and decide.

The business objectives must be clear at the outset or it will not be possible for many of these questions to be answered.

It is essential to approach the planning of Self Service advertising from a complete business perspective and not just build a solution based upon technology or presentation.



Appendix A

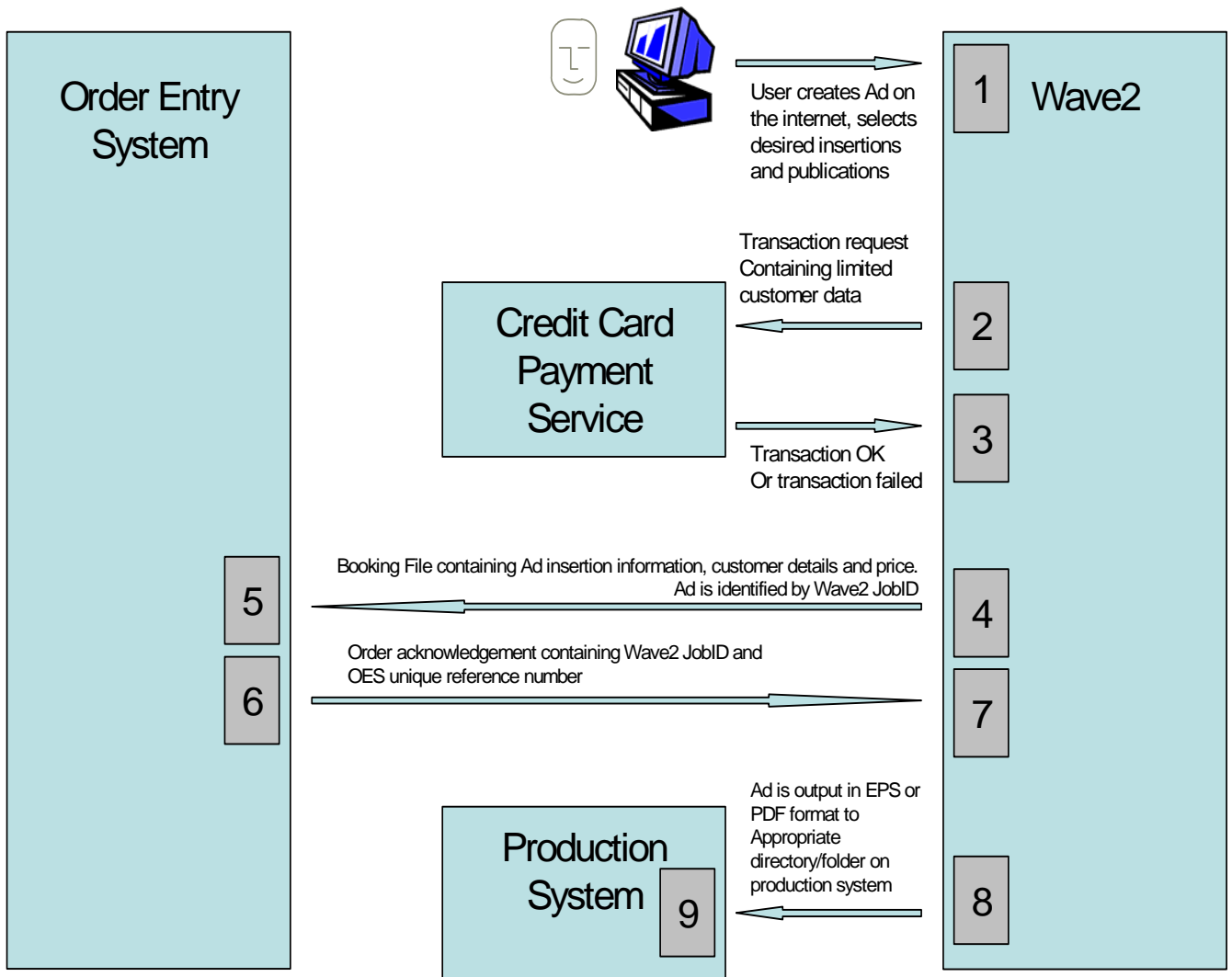
**Wave2 Publishing Platform
W2PP**

Integrating Order Entry Processes and Systems

Version Number 1.0



Non Account Advertisers





1. User creates an Ad using the Self-Service website embedded with the W2PP user interface. During this process he selects the size of Ad, the publication, and the insertion dates. All of this takes place entirely within the W2PP environment. The W2PP contains a simple rates/insertions matrix that will have been set up to reflect the limited set of packages and prices that are to be offered to online ad builders. These obviously need to match those that are configured on the Order Entry System.

It is generally considered undesirable to give online ad builders a wide range of insertion options and prices as this is likely to confuse them or make the choices overwhelming. Therefore, the creation and maintenance of the rates/insertions matrix is not a great task. Also, a direct connection between the W2PP application and the ad order entry system is possible.

2. The W2PP processes the choices to calculate the total cost and delivers this to an online credit card payment service. The W2PP system incorporates an “external” API which makes it possible to link the user to and from external URL’s (third party web pages) and to pass data between them. The integration of a credit card payment service is a custom integration exercise. Typically this should involve one or two days of custom integration work.

Many publishers already use a credit card payment service for payment transactions online. Where this is the case, it is logical to use that same service. These services typically provide all of the functionality to support the collection of the customer and card details in a secure environment. The user is interacting with the payment service website during this process.

We are considering offering a standardized interface to a recommended service for publishers who have no existing arrangement or preferences.

3. The payment service will respond with a “transaction succeeded”, or “failed” message, sent back to the W2PP. If failed, the user is taken back to the last W2PP page, from where he can abandon the Ad, or try again. If successful, The W2PP initiates the booking on the order entry system and delivers the completed Ad into the production workflow.

4. The W2PP creates an XML “Booking file” for delivery to the Order Entry System. This file in its standard form contains the customer details, W2PP Job ID, the Ad classification, the total price, and the Ad text, names of any images, the individual publication and insertion dates for the Ad. The method of input of this information is different from one Order Entry System to the next. Most systems now have a simple method of booking Ads from a website or from an external system, in many cases this is XML – based.



The Autospooler is used to transform the standard W2PP Booking XML into whatever structure is required for the Ad Booking System. If the customer has IT development capabilities, they may undertake this task themselves. Otherwise, we normally expect to allow between two and four days to implement this interface.

5. The Order Entry System will book the Ad and enter the customer details into its records if not already stored.

6. The Order Entry System will be required to return the W2PP a JobID with its own URN. This is required so that the resulting Ad can be named by the Order Entry System's unique reference number for identification within the production workflow.

Again, no two systems are alike and this is a custom integration exercise. In some cases, the online booking facility will automatically generate this output; in others some other mechanism may be used. Typically most systems are capable of creating some form of output file each time and the Ad is booked. Historically these have been used for feeding Ad Tracking systems, or Ad layout applications.

7. The Autospooler processes these files and extracts the URN for the Ad. The custom work required to set up this processing is typically less than one day.

8. The Autospooler is also used to rename the Ad by the URN and to move it to the appropriate directory or folder within the Production System. At this point, the Ad becomes treated as though it is "supplied artwork" within the normal workflow. This function does not normally need much configuration, but for more complex requirements (where different classifications of Ads go to different places or where an Ad tracking system is involved) there may be one or two days of integration work required.



Account Advertisers

The process for account customers is very similar. However, the assumption is that the customer holds an account and that the details exist on the Order Entry System. In this case, there is no credit card transaction and the credit validation is carried out by the Order Entry System when the Ad booking details are received. In this case, the resulting output from the Order Entry System will be required to also indicate if the transaction has succeeded, or failed.