

E-BUSINESS THROUGH WEB SERVICES

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ABSTRACT

Web services is the buzzword of the Internet in recent months. Web services are selfcontained business functions that operate over the Internet using well-known tools like HTTP and XML. They enable different businesses to work together, because they are written to strict specifications. Some of the more established functions at this stage are messaging, directory of business capabilities and descriptions of technical services. Other functions are in the works as well.

Web services enable different systems in different companies to interact with each other, more easily than ever before. They are hardware and software platform independent. With businesses needing closer cooperation between suppliers and customers, engaging in more joint ventures and short-term marketing alliances, pursuing opportunities in new lines of business, and facing the prospect of more mergers and acquisitions, companies need the capability to link up their systems quickly with other companies. And web services do just that.

1 THE TECHNOLOGY

Web services are based on technologies that were developed for or are closely related to the Internet. Web services are in fact nothing more than series of questions and answers. We have two parties communicating – the client and the server. The client sends a request (i.e. “We are ordering your fabulous hyper-gadget”) and the server answers (i.e. “Sorry, we ran out of stock”). The key point is the format of such request and answer, which is standardized and documented.

The messages are sent over the Internet using HTTP protocol, which is used mainly for web pages and therefore we don't need any new transport technology. Both, request and answer, are XML (eXtensible Markup Language) documents. XML is a plain text format which uses tags to structure a document. It's syntax is similar to well-known HTML format used for web pages. In fact, HTML is one of many XML document formats. The actual XML-based subformat used for web services is called SOAP (Simple Object Application Protocol), see [1].

2 REAL VIRTUAL MARKETS

Even though we often hear the name “virtual shop”, most of the time it actually refers to an “Internet shop”. The Internet is used here as a product presentation media and order placement facility. This scheme is very similar to mail order catalogs, only the printed catalog is replaced with web page and the phone ordering is replaced with web form submitting. Web services allow the creation of really virtual shop. The site owner only displays the offer and gathers orders. All else is done by third party. We might consider this a form of franchise, where the franchisee owns the web site and the franchiser processes the orders and provides logistics.

3 THE MODEL

In the model presented in Fig. 1. we have three parties. The site owner, the customer and the producer/vendor. Web site and vendor exchange information about product catalog on regular basis and keep it up to date. When customer accesses the web site, he is presented with current product offer. If he decides to buy something, he fills out standard order form. This order is registered by web site and forwarded to vendor, together with customer's delivery data such as name, address and payment information. The vendor then finishes the order by delivering the product. He also provides further service to customer (such as product returns etc.). The web site owner and the vendor share profit on negotiated terms.

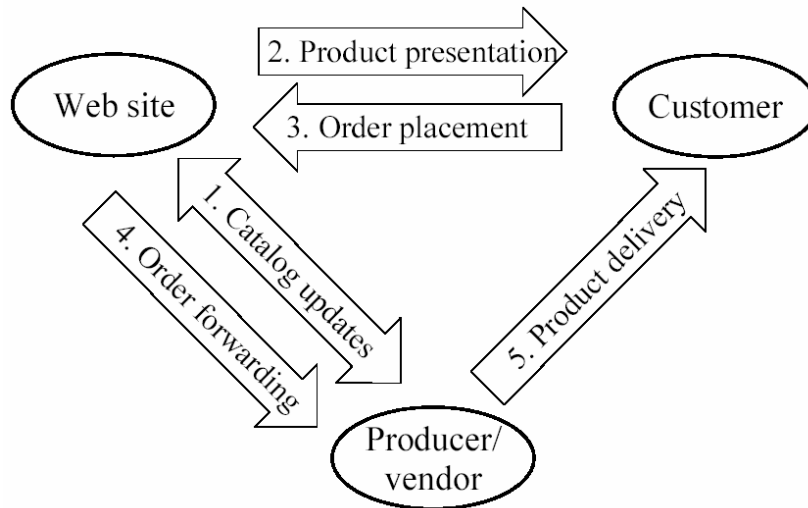


Fig. 1: *Virtual franchise model*

This franchise model allows site owners to immediately generate profits in other way than just advertisement displaying. Theme based web site (i.e. computer magazine) can work with vendors, who sell related products (i.e. computer equipment shops) to directly address targeted customers and eliminate the intermediate step.

It can be used to create “virtual department store”, where certain departments are operated by independent vendors, yet the look and feel of the store is consistent.

4 CONCLUSIONS

Web services can be used to effectively connect heterogeneous business environments and open new possibilities to generate profit on web sites. This paper in its whole provides detailed description of virtual franchise business model and also technical and technological requirements on both sides of this deal. This material is a basis for further development of web-based business models and should lead to real-world application deployment.

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REFERENCES

[1] W3C Web Services Activity <http://www.w3.org/2002/ws/>