

# **cookies**



**Simon St. Laurent**

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## CHAPTER

## 2

### Cookie Anatomy

Before we continue our examination of the pros and cons of cookies, we need to take a detailed look at their contents. The information contained in most cookies is trivial, but is still enough to make programmers' and marketers' dreams conceivable and give privacy advocates fits. Despite their tremendous power, cookies perform these grand tasks using only a tiny amount of information, making this opening tour quite brief.





Remember, cookies are not supported the same way in all browsers. Throughout the rest of this book, we will be exploring the Netscape and Microsoft implementations of cookies, but not all browsers implement those particular models of this technology. Lynx, for instance, implements cookies (including much of the new RFC 2109 cookies) but “gobbles” all of them when the user exits the program. Some browsers you might not expect to support cookies, like those created by Spyglass for embedding into appliances, also support cookies this way. Older browsers, like Mosaic and the early AOL browsers, do not support cookies at all.

## Looking into Cookies

After several years of remarkable stability, the cookie standard is in flux. Netscape originally created cookies, but is handing them over to a standards body. RFC 2109, a proposed IETF standard, will transform some of the basic mechanisms of cookies and add extra features to the current standard. Most of the examples in this book will use the older Version 0 (Netscape) cookies, as RFC 2109 is not yet widely supported, but notes along the way will point out ways to improve your cookie development with RFC 2109. In this section, we will cover both kinds of cookies, starting with the current but older standard. For now we will cover only the contents of cookies; tools for creating and managing them will get full treatment in subsequent chapters.

The two varieties of cookie have much in common, and provide similar services. Browsers and servers that can handle RFC 2109 cookies still work with the older versions as well. To maintain compatibility with the widest range of browsers, the authors of RFC 2109 recommend using both kinds of cookies and allowing the browser to decide which to use. Later we will examine techniques that developers can use to manage this transition. For now, we will cover the contents of both kinds of cookies to give you a sense of where cookies are now and where they're headed.

RFC 2109 has been published, but the proposals it makes are receiving new revisions that reflect difficulties, both technical and political, vendors have had in implementing the standard. RFC stands for Request-For-Comment, which is something of a misnomer. While most standards begin as proposals and have a name change to standards at some point, an RFC remains an RFC even after the commenting process is complete. If RFC 2109 receives two implementations from different vendors, i.e. a compatible client

and a server, then it will be given the more prestigious title of Internet standard. Even if it achieves that lofty position, however, there is no requirement that vendors implement the new standard. RFCs provide the detailed standards for much of the basic infrastructure of the web. Unfortunately, they are not always as stable as other standards, and can be superseded or made obsolete by later RFCs. In RFC 2109's case, it is already being supplanted by working drafts, which may eventually turn into a new and improved RFC, and, with any luck, be implemented in the mainstream browsers.

### Cookies Today: Version 0

Version 0 (Netscape) cookies have six parts: name, value, domain, path, expires, and a secure property that determines whether the cookies can be transferred unencrypted. Each cookie is supposed to be limited to 4K of information. Not all browsers enforce the 4K limit, but development beyond that point is not recommended even if it is possible because of performance issues. Uploading and downloading a 20K cookie would definitely annoy the average user on a modem connection. If you really need to push the envelope, your site could create and use as many as 20 cookies, all of which were smaller, but there are usually easier ways to manage information.

**Table 2-1**  
Structure of a  
Version 0  
(Netscape) Cookie

Part	Value
Name	Value
Domain	domain name
Path	path information
Expires	date (in GMT)
Secure	No value—cookie is transmitted securely if attribute is listed.

#### Name

The name is a sequence of characters that uniquely identifies the cookie. The name is required, and cannot contain whitespace, semicolons, or commas. If you create two cookies with the same domain, path and name, the cookie that was there first will be obliterated by the newcomer.

#### Value

Once you have gotten past the required cookie header material, this is the area developers can use to store information. A value is also required, and

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