

128-Bit Encryption Upgrade FAQ

We've provided answers to the following frequently asked questions to make your 128-bit encryption upgrade easier.

What is data encryption and why do we care?

Without data encryption, secure commerce over the Internet would be impossible. When information is sent over the Internet, it travels on public lines, potentially accessible to anyone. This means that the private and sensitive information can be intercepted and used by any hacker who knows how to do so.

Data encryption "scrambles" the information sent over the Internet so that only the computer it is intended for can read it. The hacker can still intercept your data file, but, because of the encryption, the information it contains cannot be read or used by him/her.

128-bit encryption provides a significantly greater amount of cryptographic protection than 40-bit encryption. Roughly speaking, 128-bit encryption is 309,485,009,821,345,068,724,781,056 times stronger than 40-bit encryption. 40-bit encryption is not considered "strong" security in the cryptographic community. In fact 40-bit encryption has been "broken" a number of times in different tests.

Accordingly, 128-bit data encryption has become the standard for securing financial information on the Internet. If we want to do business on the Internet, we NEED 128-bit encryption.

I have the latest version of my browser. Do I still need to upgrade?

Probably not. Netscape started using the 128-bit encryption starting with version 4.7 and Microsoft started with IE 5 (but IE 4.x can be upgraded). Regardless of the version of your browser, if it does NOT have 128-bit data encryption, you will NOT be able to access the Jefferson County Tax Collection web site.

Can I upgrade the encryption level of my browser without upgrading the version?

That depends on the browser and version you are currently using.

- Netscape does not have a 128-bit encryption-only upgrade. You must perform a full upgrade to the latest version of Netscape and specifically request 128-bit Strong Encryption.
- If you are using a version of Internet Explorer prior to Version 4, you must perform a full upgrade to Version 5 with 128-bit encryption.
- If you are using Version 4 or later of Internet Explorer, you can perform a partial 128-bit encryption-only upgrade.

How do I know if my browser will need upgrading?

That depends on the browser and version you are currently using.

- Netscape users trying to connect to the Jefferson County Tax Collection web site will not load the page. The user will first see a message informing them with a security message reading "Certificate Authority Is Expired." Follow the link to [Netscape](#) for an upgrade or go to www.netscape.com/download/index.html.
- Internet Explorer users that cannot connect or that get an error message stating that the encryption levels do not match will need to upgrade. Internet Explorer upgrades can be found on Microsoft's [Internet Explorer home page](#).