

DATABASE BY DESIGN, INC.

Highlights and Coming Trends A review of 2003, plus what's to come

Expectations were low for 2003 but, instead, it turned out to be a year of substantial growth on all fronts. This is both good news and bad news. Regardless of the evaluation of this growth, 2003 points to some significant issues that may impact your approach to technology in the year to come.

Year of the Worm, Year of the Hole

In many ways, the last year has shown us that our computer systems can become very vulnerable. In fact, "it was one of the worst years on record for security incidents."¹ Computer virus and worm writers have gotten better and faster at causing trouble.² These programs that cause problems for computers cost organizations a lot of money. A Microsoft executive recently stated that "creators of computer viruses are winning the battle with law enforcers and getting away with crimes that cost the global economy some \$13 billion this year..."³



Another area of vulnerability that we face is in the software that we use. Software is not 100% perfect. Some of these imperfections are minor. Others can leave your computer wide open to attack from someone that wants to use it for their own gain. In the last year, "Microsoft acknowledged 119 vulnerabilities..."⁴ in its operating systems.



This last year also saw a first: non-PC computer systems have been affected. It was reported that an ATM cash machine was infected by a virus. "Computer security experts predicted more problems to come as Windows migrates to critical systems consumers rely on."⁵

With these kinds of threats to your computer systems, it's important to make sure that your database programs are as secure as possible. Database systems located on your office network can be locked down pretty securely. However, databases located on the Internet can be more challenging to secure. "Hackers tend to attack a system to gain sensitive information such as credit cards or account logins which they can sell to other hackers..."⁶ Make sure that your database programmer has conducted a thorough review of your Internet-based database security risks, including other software that is running on the server. If you conduct any e-commerce activity through your web site, make sure that any financial information stored in the database is encrypted so that even if someone gains access to it, he/she won't be able to read it.



Wireless Networks Increasing

We all became more 'connected' over the past year. Wireless networks (Wi-Fi) became more prevalent. "The wireless-networking industry was carried by sales to consumers, who were lured to Wi-Fi gear by the higher throughput rates... Gear makers jumped into action, increasing the number and types of handheld computers, consumer electronics gadgets and other products with built-in Wi-Fi capabilities on the market."⁷

The outlook for wireless connectivity appears bright. "Still in the project authorization phase, 802.11n is designed to increase WLAN speeds to at least 100M bps for data and actual throughput rates."⁸ Translated: Wireless speeds are due to increase in the future. We will also see wireless access plans offered with other services. "In the future, the marriage of cellular networks with Wi-Fi networks looks set to get a closer look from major players..."⁹



This extra connectivity is good news. Now there are more opportunities to provide access to database systems through a myriad of wireless devices. These opportunities can lead to increased efficiency and productivity. Make sure that your database systems are configured to handle the new wireless devices that will access it so that you can turn your opportunities into positive results.

High-Speed Internet Connections Increasing



More people are dropping their dial-up Internet connections and are signing on to high speed connections. "The number of high-speed lines connecting U.S. businesses and homes to the Internet jumped 18 percent to 23.5 million lines during the first half of 2003..."¹⁰ With higher speed connections, people are starting to expect a richer level of media presentation. This will place higher demands on your Internet-based database systems. Additional programming may be needed to meet the rising expectations of your user base, as well as to stay ahead of your competition. Make sure that your database driven web site has a fresh look and an enhanced method of presenting information that is appropriate for your audience.

Database Driven Web Site Addresses Becoming More Complex

Organizations are using database driven web sites on an increasing basis. Many of these sites have customized web pages for the people who visit them. For instance, personalized e-mail messages can be sent to people with a link to a web page that is customized for each person. Depending on how the database driven web site is configured, the link to the web page can become quite long. After web links get to be a certain length, they become not only impossible to remember but difficult to use. In some e-mail programs, the program breaks the link and even prevents the person from copying and pasting it into the web browser.¹¹ Make sure that your database driven communication efforts aren't defeating your intentions due to the design of the system. Review your current system to keep everything consistent with your online goals.

Staying on top of technological current events and watching for what is to come can be a full time job. It's important to keep your systems ahead of your competition and the troublemakers while keeping your systems flexible and capable of handling future technologies. At Database by Design, Inc., technology is our business. We make sure to understand the impacts of current events and coming trends. Contact us so we can help you keep your database systems in optimal condition.

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Next Month's Topic: Analyzing Database Systems - How to evaluate the benefits of a new program

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