

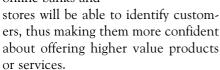
# Is your privacy at stake?

Perhaps. Intel's new chip, the Pentium III or Katmai, with 'Big Brother Inside' will allow others to identify you on the Net.

A part of the development of security architecture, 'Big Brother Inside' is Intel's registration technology that can identify a user on the Net and, according to Intel, will result in secure PCs and foster e-commerce.

It involves creating a unique 64-bit identification number by fusing wires on the chip during the manufacturing process. Combined with the existing

32-bit identification numbers that microprocessors use, this results in a unique 96-bit serial number that can be accessed by software. This means that online banks and



The identification numbers could have a bigger impact on the software industry. By linking software to a unique identification number, companies would be able to manufacture software that would only work on a specific machine, thereby checking software piracy. However, this may also mean that when you upgrade your machine and decide to keep your old software, you will be able to upgrade everything except the microprocessor. If you changed the microprocessor, since the existing program is tied to it, chances are that your old software will refuse to work.

Even though you can switch off the

identification number using a software switch, the move has brought about a boycott (of Intel products) by privacy groups who feel that it reduces a user's privacy over the Internet. These groups decided to extend the boycott to similar products from other companies.

Pressured by their demands, Intel has given in.

The company has now decided to ship Pentium III with the feature disabled by default as against enabled by default. Users will have to, if they

> desire, enable the identification number through software, which will be available on Intel's Web site (www.intel.com).

What's also new with the Pentium III is

the Katmai New Instructions (KNI) set. Comprising 70 new instructions, the KNI is targeted at enhancing 3D graphics performance through improvements in mathematical floatingpoint operations. This should not be confused with Intel's existing MultiMedia eXtensions (MMX) instruction set, which improves 2D graphics performance by enhancing integer calculation.

However, Intel is not the first one to come out with this technology. AMD, with its 3DNow! took the lead by introducing a similar instruction set for 3D graphics.

Since Intel defines the market standards by virtue of its position, the future, it seems, will unleash a flurry of microprocessors from AMD, Cyrix and Rise Technologies with support for KNI.

"Companies that wish to expand internationally have to think like missionaries and first establish small advance groups to learn the language, business climate, and the culture"



Hasso Plattner, CEO & Founder, SAP

On the need to modify technology as per the region's business and social requirements

"The original notion of Internet retailing was that you never need to touch the product, you outsource everything, and you run an empire with hardly any people. That's totally wrong."

Toby Lenk, Founder & CEO, eToys

Debunking the notion that virtual corporation does not need inventory assets

"When people ask me whether open source is credible, I ask, Do you believe in the Internet?"

Tim O'Reilly, Publisher, O'Reilly Books On free software as a reliable source for business users.

"The consumers of news in this Information Age should know how what they watch, read or log on to is produced and how much they can rely on it"



and information

# E-commerce: Where is the big money?

**C**o you think that there is money to be made online. With millions of customers within reach thanks to the Net's global reach, you say, a healthy bank balance is definitely not a mirage. Just look at the success of Amazon.com and CDNow. you argue.

Indian Netrepreneurs nod in agreement and accordingly, most have set up sites based on successful models abroad. Examples include India bookstore (www.indiabookstore.com) and the online versions of the Capital's shopping mall Connaught Place (www.thecpmall.com).

But that's not where the real big 'Money' is.

According to the research outfit Forrester Research, a majority of ecommerce sales are not contributed by books and music CDs. The firm says that while retail e-commerce sales in 1998 was projected at \$7.8 billion business-to-business transactions



were five times as much at \$43 billion (Rs 1,82,750 crore). By 2002, the research firm has projected that, business-to-business sales will touch \$842.7 billion (Rs 35,81,475 crore) as

(Rs 33,150 crore), projections for compared with \$76.3 billion (Rs 324,275 crore) for retail sales.

> Moreover, unlike business-tobusiness trades retail sales are susceptible to price wars, as happened between Amazon.com and Barnes & Noble's online bookstore. This could have a negative impact on profitability.

> > Hidden costs, such as customer support, are often higher in the case of retail e-commerce sites as a larger number of customers have to be serviced translating to support costs.

Retail selling business is not only smaller in size, but also less profitable compared with business-tobusiness e-commerce.

Has e-commerce arrived in India? Read Analysis on page 30 to know more



### ONLINE ORGANISERS: THE NEXT WEB FREEBIE

Free Web-based e-mail is passé. Everybody has it and it is no longer the bait to attract surfers to Web site.

The coveted crown now goes to online personal information managers (PIMs). Portals like Yahoo! and e-commerce players like Amazon.com with its PlanetAll, to startups like Jump (www.iump.com) all are offering these.

A natural evolution of free Webbased e-mail services, online PIMs bring in calendar and scheduling services to the e-mail's existing address book and limited 'reminder' services. Like traditional Web based e-mail, online PIMs offer users the advantage of being able to access their schedule as well as e-mail from any place that has an Internet connection and a Web browser. Like their desktop counterparts, online PIMs also allow users to

synchronise their online PIMs with their handheld computers such as PalmPilot and import data from desktop PIMs like Microsoft Outlook.

But most online PIMs are going beyond just offering standard information man-

agement and e-mail services. When.com, for example, exhibits attributes similar to that of personal portals. The site allows its users to track events like the launch of the next Star Wars preguel over the Net. Most also go beyond plain PIM functions and offer advanced workgroup functions such as group scheduling.

With such rich features, will online PIMs spell the death of Web based e-mail services?

In one word, No.

While most PIMs offer e-mail services, many like PlanetAll.com do not. Moreover, established e-mail services like Hotmail and NetAddress with mature reliable service are too well

> entrenched in the user mindset. Furthermore, e-mail service and technology providers like Comm-Touch and Excite are adding value to their service by making it available in up to nine different languages including Chinese.

Above all, online

PIM is a nascent market, there is no guarantee that an existing player will be there six months down the line.





# Words of wisdom at a bargain

Big companies can afford to hire expensive consultants to streamline their business. But small companies cannot, or could not till NetReference came into the market.

Targeted primarily at IT managers, the small US-based consultancy outfit has built an interactive Web site that

offers advice from consultants for an annual cost of just US \$15,000 (Rs 6.38 lakh). Besides asking for advice, IT managers can also access over 700 pages of information of the business best-practices from around the world.

Consultancies like Gartner Group and

Fax: 0044-0-1244-370 011

Web site: callvoice.com

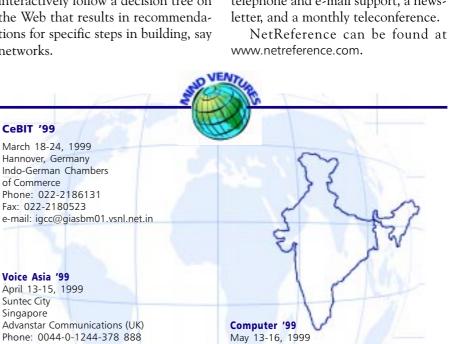
Forrester Research offer detailed reports online, NetReference is different because it uses an interactive model. The customers can, for example, interactively follow a decision tree on the Web that results in recommendations for specific steps in building, say networks.

Launched in December, the online consultancy specialises in offering advice on networking and network architecture recommendations, particularly for medium-sized companies. Updated every month, the site first questions you about your business principles and mission. Once this is

done, the Web site helps the customer to define the correct network architecture. It can, for example, even help you determine whether to use mature technology or cutting edge technology

while building your network.

But the company's service is not always delivered through the Web, and the annual subscription cost includes telephone and e-mail support, a newsletter, and a monthly teleconference.



Hong Kong

Business & Industrial Trade Fairs Phone: 00852-2865 2633 Fax: 00852-2866 1770



### AN UNHAPPY NEW YEAR

The first few months of 1999 have been nightmarish for some network system administrators. Reason: a worm called the Happy99.exe, which infects Windows 95 and 98 systems. Though the worm travels the Internet through e-mail and is not destructive by nature, it modifies e-mail and newsgroup postings by adding unauthorised attachments without the user's knowledge. This results in network slowdowns and at the worst, crash of the e-mail server. As with all viruses, Happy99.exe has a high time and energy consuming nuisance value.

When a user opens and runs the attachment of an infected e-mail or newsgroup message, the worm opens a new window and puts up an attractive fireworks display. And while the user enjoys the show, in the background the worm modifies the winsock32.dll file in order to monitor

the e-mail and newsgroup postings from the machine. Next, it mail-bombs the newsgroup and e-mail recipients with copies of itself whenever the user tries to send e-mail. The worm can be identified by checking the e-mail header that contains a new field entry—'X-Spanska: YES'.

Since the worm does not check for winsock32.dll's attributes, infection can be prevented if the file's attribute is set to read-only.

### Honeycomb for Java II

BeanHive is the second Java virus to make its appearance. And unlike the StrangeBrew, which could only infect Java application programs, BeanHive can infect Java applets through Java-enabled Web browsers.

The BeanHive consists of two components—Queen and Workers. The workers hide themselves within Java class files and when a worker is executed, it attempts to contact the Queen, which is actually a Java applet called BeanHive.class, over the Internet. Once the contact is established, the Queen arrives at the Worker's location. It then looks for writable Java class files of sizes less than 64 KB in the current working directory or sub-directories and infects

The virus can be detected when the user is asked to validate its digital certificate through the Web browser before running the applet. The virus author has signed the virus applet with a certificate of a company called 'Landing Camel International' issued by a 'Root Agency'. Once the applet is validated, the virus can infect both Netscape and Microsoft browsers.

#### Office 2000 is late. So what?

The virus for Office 2000 is already here, courtesy the Office 2000 Beta.

It seems that virus writers do not seem to subscribe to Microsoft's history of shipping products behind schedule. Called the W2KM PSD, the macro virus infects both Word 2000 and Word 97 documents and is activated when the system date becomes the same as the number of minutes being shown by the system clock. For example, if the date on your system reads December 15, and if the time displayed by your system clock happens to be x:15 ('x' stands for the hour), the virus will strike.

The virus fills the open Word document with randomly selected numbers of different font sizes and colours and values between 1 and 70. Once through with the display, the virus closes the document. It also changes the security level in Word to 'low' by modifying the entries in Windows Registry. The virus is not destructive, only irritating.

### The Java Genie!

This genie not only allows your cel lular phone to talk to your boss' PC, it also lets your wife's refrigerator issue instructions to her microwave! Iini, from Sun Microsystems, looks all set to give networked environments a whole new dimension, by allowing all kinds of electronic devices to communicate with each other. Some of the best minds in the computing industry (Bill Joy, and Jim Waldo, to name just two) worked on this project, and the result is 35000 lines of Java-based code, which amounts to only 48 KB, but which can accomplish a lot. Jini, a novel implementation of the 'write-oncerun-anywhere' capability of Java programs, is, in essence, a set of guidelines that enable a group of JVMs (Java Virtual Machines) to work together, and simplifies the access and delivery of all kinds of Network services.

Not being PC-specific, Jini can reside on any low-cost, embedded processor system (the kind found

in programmable washing machines, digital imaging devices, cell-phones, and PDAs, for example), and users can easily connect Jini-compliant devices just by plugging them together like any household devices. This translates into spontaneous networking.

Making a dig at Microsoft, which plans to come out with a beta version of

its 'Universal Plug-and-Play' software (which would rival Jini's capabilities) in April, Sun CEO Scott McNealy said "Instead of plug-and-pray, or plug-andpay, this is plug-and-work. In a demonstration of Jini's capabilities, Greg Papadopoulos (Sun Microsystems' CTO) logged on to an Airline service via his PDA, added his name to the list of checked-in passengers, and up-

> graded his ticket, all in minutes!

If Sun succeeds in pushing its iteration of the distributed computing model, Jini will not only make today's 'information superhighways' seem slow, it will make them obsolete.

> But as an internal Sun document savs. "when the foundations are so far off, it

makes sense to do a reset."

20

## Waiting for windows

Tf you have been saving money to buy of the existing applications could run Windows 2000 in 1999, do the country's economy a favour. Spend it.

Because Microsoft is late. Again.

Windows 2000 will not make the promised ap-

pearance in mid-1999. And if you have been depending upon Windows 2000 to solve your Year 2000-compliance problem, you can hit the Panic button.

The third beta of Windows 2000, which was expected to ship in the first quarter of 1999 has been postponed to April. The company has also admitted that Windows 2000 will not be available by the first half of 1999. Exactly when, is anybody's guess.

One of the reasons for the delay of the 35-million-lines of code-product seems to be incompatibilities with the existing applications. According to reports, as of January, only 60 percent

on the latest beta. Anything less than 100 percent backward compatibility

would mean that Windows 2000 buyers might have to invest more money in upgrading software as well as put up with delays in upgrading systems.

On the other hand, Microsoft is also extending the life span of Windows 98, which was predicted to die with the coming of Windows 2000. This despite the fact that the company has, for the last two years, been saying that the next version of the desktop operating system would be based on the Windows NT core.

As of now, the company is planning at least one major release of the Windows 9x. The timing of this system (to be christened Windows 2000 Personal Edition) is also uncertain.





### Wireless technology

Cheaper and wider range of products will make this technology the 'hottest' thing in the months to come

#### Affordable palm PCs

3Com has slashed the price of the marketleader Palm PC and prices of similar products are likely to fall further

### Flat speakers

With space at a premium, flat speakers are next in line after flat screen and slim system units

#### **Banner Ads**

Learn the Net truth: banner advertisements do not click in enough money

### Free Internet e-mail

Almost everybody has one these days and it is as cold as having a telephone number



### **COST OF NET ACCESS (IN INDIA AND US)**



Prices are indicative and may vary with time and Internet Service Provider. Prices of dial-up modem/ISDN connection in India are valid for a year or for the stated number of hours, whichever is earlier. In USA, billings are monthly.

