Versatile new telephone

Trillium Telephone Systems Inc., which was born last year, is a spin-off company of Mitel Corp. of Kanata, Ontario, to market a unique telephone and intercom system.

Trillium's TalkTo 109 telephone system and TalkTo intercom represent a $10 million to $15 million investment over the next two years. Start-up funding was provided partly by Mitel and through public funds raised when the firm was listed on the Toronto and Montreal stock exchanges last December.

The TalkTo system uses one sophisticated integrated circuit on a silicon chip to replace the 15 circuits previously required for its functions.

The Citizen

Assembling Trillium's TalkTo 109.

Using existing wiring and a single outside telephone line, the TalkTo 109 becomes a private, in-house telephone and intercom. A control box the size of a video-game cartridge, linked with up to nine monitor and page units, allows call transferring to various areas of a home businesss, conference calls, automatic dialing of often-called numbers and an intercom link between remote units.

Individual rooms — such as a baby's bedroom — can be monitored at the flick of a switch, or callers can be put on hold.

Trillium is hoping the TalkTo system will go the way of hot tubs, video-cassette recorders and personal computers to become standard equipment in the homes of an increasing number of North American families. Trillium estimates there are 20 million potential buyers on the continent, and say 15 per cent of all new homes already include intercoms.

Small business is another target market. According to various marketing studies, 60 per cent of all North American businesses have just one telephone line coming into their establishments.

For both types of customer, the firm will concentrate on the US market.

Trillium says the Swedish Telecommunications Administration has approved the company's TalkTo 109 system. The contract is worth about $12.5 million, of which $4.1 million is due this year from the delivery of 9 000 TalkTo 109 systems, beginning in July. Similar amounts are scheduled for shipment in the following two years.

Prostate cancer research encouraging

A new combination of drugs to combat cancer of the prostate has proven ten times more effective than conventional treatments, says the Quebec researcher who developed it.

Dr. Fernand Labrie, director of the Research Centre in Molecular Endocrinology at Laval University, Quebec said recently that a new treatment which completely blocks male hormones has dramatically increased the survival rate among 250 victims of prostatic cancer treated.

With current treatments for cancer of the prostrate, the death rate is about 35 per cent after one-and-a-half years," he said. "Among the test group, the death rate dropped to 3.3 per cent — and without the unpleasant side effects patients feel now."

Dr. Labrie presented his findings at an American Cancer Society science writers' seminar in Florida. He hoped the treatment could be available in hospitals across Canada later this year.

Dr. Labrie's treatment is aimed at blocking the hormone androgen, believed to promote cancer of the prostate gland. The prostate partially covers the bladder and urethra, the tube from which urine leaves the body.

Current treatments, including surgical castration and the use of chemicals and the hormone estrogen, have been effective in about 65 per cent of cases, but do not completely block the production of androgen. As well, they cause unpleasant side effects such as enlargement of the breasts and blood clots.

Talking computer dictionary

For most people, leafing through a dictionary presents no problem. But using a dictionary the size of a set of encyclopedia — in the dark — can be a burden.

That was the situation faced by a blind student at the University of Regina in Saskatchewan. When he wanted to find the correct spelling or definition of a word, he had to wade through 28 cumbersome volumes of the university's braille dictionary.

Last September, he took his predicament to Dr. Allan Law, a computer science professor. Since then, Dr. Law, with the help of student Glen Sandness, has worked at developing a computerized talking dictionary for the blind.

Glen Sandness said that while the solution sounded simple enough, arriving at a working model was a different story. The two had to devise a computer that could "browse" the pages of a dictionary using a voice synthesizer. After six months and $4 000, they feel their goal is within reach.

Standard computer keyboard

The machine works off a standard computer keyboard. If the blind person knows the correct spelling of a word they can just type it into the system, with the machine announcing each letter. In about ten seconds the computer provides the definition in a tinny, mechanical voice.

Misspellings do not throw the computer off track. If the word is typed in as it sounds, the computer will check for similar words and then announce them along with the correct spellings.

The prototype now is programmed to provide definitions for several dozen words. Mr. Sandness said the major obstacle to putting a full dictionary on a similar system is the time involved in entering the information into the program. He said it was no surprise the model would be developed at a place like the university and not at a major corporation.

"They (corporations) are not looking at the applications, but instead at the market, whether it's economically feasible.... The market for these machines is limited so it is up to small institutions like this to do the necessary development. We don't have to worry about making a profit from it later."

He said the next step is to adapt the present system into something that not only works but carries an affordable price tag. He hopes the price can be cut to about $1 500.