

OneChip poised to breach billion-dollar markets

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Photonics company on verge of releasing first product after six years of development

The financial backers of OneChip Photonics are hoping one small device will start generating big returns for the Ottawa-based company later this year.

Topics : **OBJ Startup** , **BDC** , **Business Development Bank of Canada** , **Ottawa**



The 2010 *OBJ* Startup to Watch has spent six years developing an optical transceiver device that is intended to act as a terminator for fibre-to-the-home broadband.

Instead of using conventional copper electrical wires, which are slower, OneChip's technology will enable voice, data and video to be transmitted and received over optical fibre, to every apartment or house.

The company acknowledges that market is crowded with competitors, but its big differentiator is low cost. OneChip's high-performance photonic integrated circuit-based transceivers put on a single chip several optical components that other providers must package separately.

Residential broadband is just the first market that OneChip plans to approach. Now, investors who have been with the company for the past five years – pouring US\$50 million over several rounds – are excitedly talking about billion-dollar markets and how they will get a return.

In May 2011, its latest round, the company raised US\$18 million from the Business Development Bank of Canada, GrowthWorks Capital, Morgenthaler Ventures and DCM, all previous financiers. A new investor, Northwater Capital Management Inc., also came on board.

OneChip's success as either a company on the public markets, or an acquisition target, will depend upon how broad of a reach that photonic chip will achieve in the next few years.

In residential broadband alone, OneChip CEO Jim Hjartarson anticipates shipping 30 million of the firm's terminators in 2012, once the product starts rolling in mid-summer. Next year, he expects that will double to 60 million and by 2014, it could reach 90 million to 100 million.

Mr. Hjartarson's next target will be data centres, an increasingly lucrative source of income for IT companies as businesses move more information onto cloud-based storage solutions.

"We can do extremely complex and otherwise very costly optical functions at very low cost. What that means is we can bring very exotic optical technologies into mainstream markets," he says.

But investors aren't looking for a quick exit, the BDC's Glenn Egan says. The goal is to build a sustainable company, and he says residential broadband is a good start.

"You have to find that launch, that first addressable market, where you have the best advantage and can stack yourself and build a large operating company," says Mr. Egan, managing partner of BDC's diversified venture fund.

OneChip was that "prototypical picture-perfect" company with a combination of solid management experience and the potential to see an explosion in demand for its product, says fellow backer GrowthWorks, which inspired investors to line up with cash in hand – even before the product hit the market.

GrowthWorks's Tim Lee compares the explosion in Internet protocol traffic across multiple devices these days with the heady IT rush seen in the early days of the Internet.

The challenge will be to make sure the company has enough capital to keep going until it becomes self-sustaining, he says.

"It requires the venture investors to provide incoming new talent with the comfort that we are here for the long-term plan. We are here to support this company," says Mr. Lee, GrowthWorks's chief investment officer of venture capital.

It has required some shifts in direction in the company and a modest downsizing last year, Mr. Hjartarson acknowledges. OneChip initially planned to manufacture its product in-house, but determined the cost and complexity would not be practical for the business plan.

As such, the firm eliminated manufacturing employees that were no longer needed and shifted hiring into engineering and sales. Overall numbers are now consistent with last year, Mr. Hjartarson says. OneChip now has 80 to 85 employees globally, with about 70 of those based in Ottawa.

The company, he adds, is already talking about another round of financing in the coming months or so. While not wanting to put an exact figure on that, as it's in the preliminary stages of discussion, Mr. Hjartarson says it will be in a similar order of magnitude to the last \$18-million financing raised.

Further down the road comes the question of the company's future in Ottawa after an exit in the public markets or by takeover.

As for an acquisition exit, BDC's Mr. Egan acknowledges that historically some companies that were taken over have ended up seeing reductions in Ottawa, or an exit from the local market altogether.

In semiconductor companies, he says that situation happens more often when the company has a single product and market and that product or market runs into trouble, forcing the parent company to make a choice to reduce or to eliminate the branch office.

For companies such as OneChip, which are targeting several markets, the chances of such a thing happening are much smaller, Mr. Egan says.

"It's absolutely possible to build a sustainable company after the acquisition, and build a long-term profile in Ottawa."

Jim Hjartarson: resume

- Co-founder and CEO of Catena Networks (acquired by Ciena Corp.)
- Co-founder and vice-president of the Telecommunications Design Centre within Cadence Design Systems
- Director of access peripheral design at Nortel Networks Corp.