

DATAVILLE

A dot-com entrepreneur turns a Cold War bunker into a high-tech haven

BY SUE CARTER FLINN

Anton Self walks across an empty military airfield and lands on the doorstep of what is perhaps Canada's most unusual office building: a 64,000-square-foot "Diefenbunker." Located in Debert, N.S., it's one of six shelters built during the Cold War to serve as emergency government headquarters in the event of a nuclear attack. Fortunately the fallout never came and the bunker was decommissioned. Until Self came along.



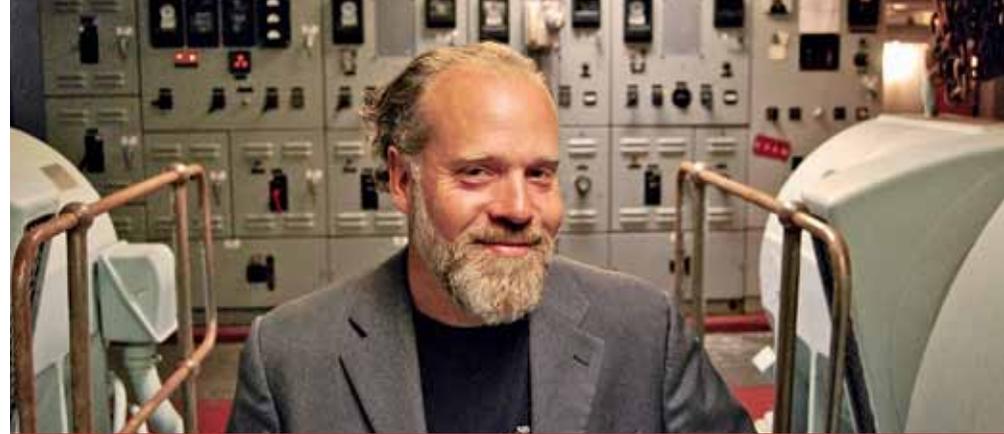
(LEFT) AARON MCKENZIE FRASER; (RIGHT) DAVID T'S FRASER



An American-born businessman and London School of Economics graduate, Self, 44, isn't your typical desk-bound CEO. He has a sailor's tan, slicked-back hair and a full beard. An old-fashioned Orson Welles-like sense of confidence envelops him, as do fragrant clouds of smoke from the Montecristo Mini cigars he frequently has in hand.

When he was in his 20s, Self launched a successful communications company that laid down fibre-optic cable in New York City's "Silicon Alley." Business was good, but he craved the outdoor life he'd known growing up on Martha's Vineyard. One Labour Day weekend, while sailing through Nova Scotia with friends, he stumbled on a cabin for sale on a secluded island in Halifax Harbour. He snapped it up as a weekend retreat, sleeping in a hammock while he fixed up the property. "It was a real dream come true to rediscover nature after living in a concrete jungle," Self recalls. A few years later he left big-city living for good.

But Self began to grow antsy with the simple life. Before long the serial entrepreneur—who had also tried his hand at commercial shellfish harvesting and biotech, among other ventures—had a vision for changing how large institutions processed and safeguarded valuable information. At the time, computer data was primarily processed and stored in urban areas, leaving it vulnerable to security breaches, acts of God and outages. Self's solution: Set up an international data centre lo-



COMPUTER DATA WAS VULNERABLE TO SECURITY BREACHES, ACTS OF GOD AND OUTAGES. ANTON SELF HAD A SOLUTION.

cated far from natural and man-made threats, one that could protect the Internet and electronic records the way a bricks-and-mortar bank protects money. And what better country for this data centre than Canada? Strict privacy laws, a stable economy and a solid infrastructure made it ideal.

Self took the idea to his Wall Street banking customers in 1999. But Canada proved to be a hard sell below the border. "Server huggers"—managers who wanted to keep their hardware a cab ride away—didn't want to contend with the distance. It was, Self now likes to joke, a place his fellow Americans only knew of thanks to the Carly Simon song, "Halfway Round the

World." Undaunted, Self put the plan on hold.

Then came 9/11. Very quickly, big institutions saw just how important it was to run their computer servers and store valuable information away from financial centres. And technology had finally caught up with Self's imagination. Dial-up connections and spotty Internet access were a thing of the past. Three trans-Atlantic fibre-optic cables were under construction between the northeastern United States and the U.K., which meant Self could promise his clients their data would be transmitted, processed and stored in mere fractions of a second. "When you're trading billions of dollars' worth of securities transactions," he explains, "every millisecond delay could lose you millions of dollars." Canada had the potential to be, as he puts it, a "digital infrastructure bridge between the Americas and Europe."



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(THIS PAGE) AARON MCKENZIE FRASER; (OPPOSITE) CHRISTINE E. LANE

And Self was convinced that Nova Scotia, located on the shortest fibre-optic path between financial hubs, could become its gateway.

The challenge he now faced was to find the perfect location. While casting about for a property big enough to house, power and cool tens of thousands of computer servers, he heard about the province's once-top-secret Diefenbunkers—and an available facility in Debert, an 80-minute drive from Halifax.

Beyond its intriguing history, the site had other benefits. The Diefenbunker was buried ten metres below the surface, so it was naturally cool—perfect for tempering the tremendous heat generated by computer servers. A nearby underground lake would

Dataville already feels postapocalyptic, as if Dr. No might lurk behind the thick steel doors. Self leads me past former decontamination showers into a 1,000-square-foot loft where he sometimes sleeps on late work nights. Jo-Dee, an Australian shepherd dog who belongs to a Dataville employee, herds us through an empty cafeteria. Café Bustelo coffee cans are lined up like props for an Andy Warhol painting. Jo-Dee trots ahead, past walls of control panels, a former CBC Radio emergency broadcasting room and a series of locked doors. Caged computer servers hum in a former command centre for Norad's early-warning missile system.

The cavernous bunker holds dozens of tech staff who work all hours

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provide geothermal cooling for millions of watts of heat, cutting operating costs in half. And because it was built to withstand nukes, the bunker was solid: One structural engineer told Self that the building—valued at a little over \$1 million—would last another 500 years.

So in 2009, after reams of paperwork and another million-plus dollars in legal fees and closing costs, Self was the proud owner of a bomb shelter. He christened it Dataville and began extensive renovations to bring the mechanical and electrical systems into the 21st century.

of the day to reconfigure computer servers, maintain generators and update networks. Many make the commute from Halifax and, when necessary, stay over in the second-floor bedrooms originally built for government officials.

When asked what it's like sleeping in a bomb shelter, Self says, "It's really womblike. People have great sleeps here."

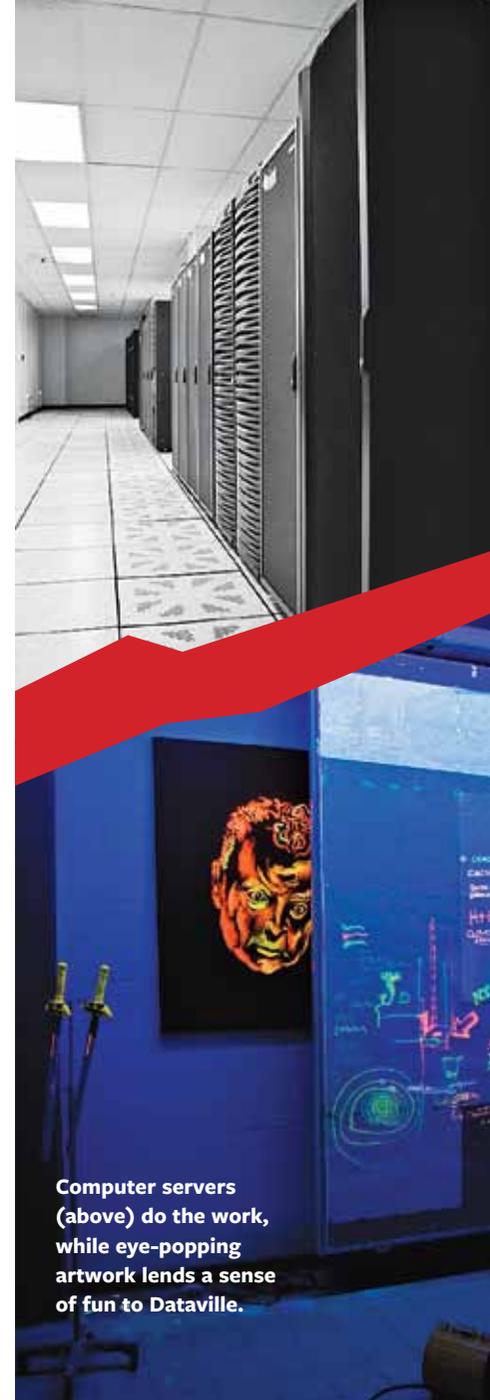
The atmosphere at Dataville is playful, and at times the bunker seems more like a child's giant underground fort than the home of a high-tech computer company. In 2011 Mitchell

Wiebe, a painter from Halifax, became one of its first artists-in-residence; his pop-art portraits of John Diefenbaker hang on the walls. Self zips around on a push scooter, taking meetings in a boardroom located in a former disaster-control area. The walls are still covered with the bunker's original floor-to-ceiling maps of Nova Scotia, behind protective Plexiglas. At some point black lights were installed, and the room glows in the dark like a 1970s roller rink.

As trippy as it seems, Dataville is serious business. It brings high-quality Internet to countries as far away as China and, thanks to that geothermal cooling system, is arguably the most energy-efficient data centre in existence. (There are two dozen operational data bunkers in the world, including the Bahnhof data bunker in Sweden, which hosts WikiLeaks.) Hundreds of corporations use Dataville's facilities and related services, and the company managed to turn a small profit last year.

Self, a born entrepreneur, dreams up ideas for the future between jaunts on the scooter and games of tennis in the cafeteria. Eventually he wants to take the bunker off the grid and even has plans to build a rooftop greenhouse. Using heat recycled from the computer servers below, he envisions a kind of data garden: "The heat generated by a few clicks on your Web browser is enough to grow a leaf of lettuce," says Self. And if he gets his wish, Dataville will be a new kind of concrete jungle. ■

(ABOVE) DAVID TS FRASER; (BELOW) AARON MCKENZIE FRASER



Computer servers (above) do the work, while eye-popping artwork lends a sense of fun to Dataville.