

Largest Sector, Fewer Jobs

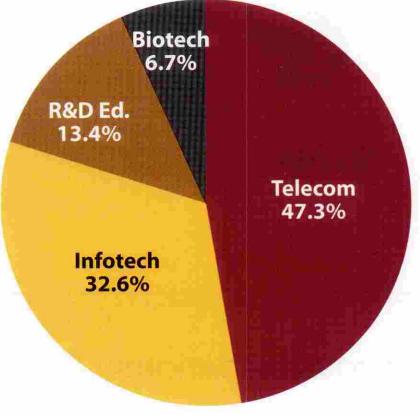
Despite layoffs and acquisitions, the telecommunications industry begins the new year with rejuvenation

Telecommunications is a loosely defined industry. And here is why: According to federal standards, telecommunications includes call centers, Internet providers, cellular phone services and radio and television stations. It represents the largest (44 percent) portion of Hawaii's private-technology sector, comprising 47 percent of jobs.

Despite its mammoth size, telecommunications jobs fell by about 2 percent in 2001, based on reports by the Department of Business, Economic Development & Tourism. Information technology jobs, on the other hand, increased 10 percent in 2001. Research/development and technology education jobs grew 1 percent in the same year.

Clearly, the slowdown in telecom activity is a direct result of industrywide acquisitions, layoffs and mergers. Last year, two major call centers in Hawaii announced plans to streamline their operations: Genesys Conferencing and Verizon Wireless, both located in downtown Honolulu. Genesys let go more than 100 people, while Verizon laid off more than 60 customer-service representatives. Other Honolulu-based companies that closed their call centers over the past year were Hawaiian Wireless, Northwest Airlines, WorldPoint, FedEx and Sprint PCS.

Pihana Pacific – the data center with Honolulu headquarters and international offices in Singapore, Jobs by Type of Technology, 2001 (Total Jobs: 13,553)



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Tokyo, Seoul, Hong Kong, Los Angeles and Sydney – last October announced that it would lay off its Honolulu employees and streamline its Honolulu data center. It also announced that it would be acquired by California company Equinix Inc.

Albeit bad news, the call-center layoffs and the Pihana acquisition merely reflect national trends. And Hawaii is no different.

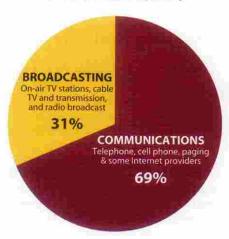
"The good news is that the telecom industry is no different than other industries and economic problems that are worldwide – except in very isolated places like China, where growth is going gangbusters there for reasons," says Hoyt Zia, executive director of the Pacific Telecommunications

Council. "There's a lot of hope that

2003 will be a reversal of fortune and that at the end, the industry will start picking up again."

Agrees Bill Spencer, president of the Hawaii Venture Capital Association: "Hawaii has a lot of telecommunications capacity that is not being utilized, so I think over time, things will change for the better." Already, that is happening. Take, for example, these new companies:

Telecommunications Sector Jobs, 2001 (Total Jobs: 6,405)



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- Iris Wireless entered the Hawaii market late last year, with a new communications service that allows cellular phones, PDAs, pagers and e-mail addresses to send and receive short, wireless text messages - across all platforms and service providers. The company has operations in Greenwich, Conn., and Nashville, Tenn., but plans to use its Honolulu location for research and development. "Strategically, Hawaii is an ideal place for Iris, and the investment-tax credits offered by Act 221 were critical to enable PacifiCap to fund much of the capital required for Iris' expansion to Hawaii," says Rick Cho, managing director of PacifiCap Group, a Honolulu-based investor for Iris Wireless.
- In late 2002, Landmark Networks expanded its Silicon Valley operations to Hawaii, with plans to turn Waikiki into a wireless area, using

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WiFi (wireless fidelity) 802.11 technology. The local operation, headed by Tareq Hoque, former chief executive officer of Adtech, is the latest addition to HiBEAM's (a local technology accelerator) portfolio of companies. Landmark is one of several Mainland companies that moved to Hawaii to take advantage of tax incentives, defined under Act 221. (See Hawaii Business December 2002 issue for more information about Landmark Networks. Also see page 54 of this issue to read about Act 221).

 Broadband iTV (BBiTV Channel 326), an interactive online cable channel developed by a group of local investors, formed a partnership with Oceanic Time Warner Cable of Hawaii that allows digitalcable subscribers to view interactive on-demand videos, featuring local automobile dealers, realtors and kamaaina travel services. At the



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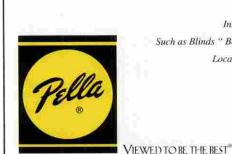
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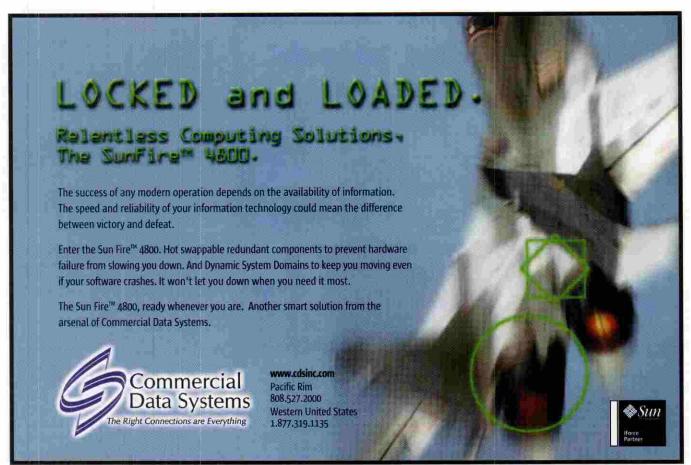
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Hawaii Technology Sector 1996-2001

	OPERATING UNITS	Technology Sector Total	Telecom.
	1996	741	167
	1997	756	157
	1998	806	164
	1999	881	181
	2000	1,056	194
	2001	1,152	209
	% Change '00-'01	9.10%	7.70%
	AVERAGE PAID EMPLOYMENT		
	1996	10,607	6,323
	1997	11,110	6,561
	1998	12,031	6,727
	1999	12,417	6,598
	2000	13,016	6,534
	2001	13,553	6,405
	% Change '00-'01	4.10%	-2.00%
	TOTAL WAGES (\$MILLIONS)		
	1996	435	270
	1997	285	285.4
	1998	534	293.2
	1999	582	308.1
	2000	646	321.1
	2001	688	322.3
	% Change '00-'02	6.50%	0.40%
	AVERAGE ANNUAL WAGES		h. Th
	1996	41,019	42,705
١	1997	42,758	43,497
	1998	44,414	43,589
	1999	46,893	46,700
	2000	79,649	49,146
	2001	50,762	50,319
	% Change '00-'01	2.20%	2.40%

SOURCE DEPARTMENT OF BUSINESS ECONOMIC DEVELOPMENT AND TOURISM

time of this writing in late November, BBiTV reported an average of 100,000 views per month for its 37 videos. The company plans to expand services to Maui and the Big Island.

These companies, plus many others, propel Hawaii to the forefront of telecommunications advancements. Industry leaders say Hawaii still has a lot of room to grow. But it will only survive, if it grows at its own pace. "Most of our technology will be focused inward – being for the local market as opposed to setting the standards," Zia says.

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