for abuse." When asked about the FBI's mass collection of data on internet use, Wagner – then XACCT's vice president of technology – washed his hands of any complicity in FBI wrongdoing by replying: "We provide them with a weapon; they could abuse the use of the weapon, but it's up to them."

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The integrated electronic circuits made by this US multinational, semiconductor company are at the heart of military radar, communications and avionics equipment. ADI's products are used in unmanned aerial vehicles, night vision

goggles, navigation equipment and flight control systems for warplanes. With assets of US\$4.3 billion (2010), ADI is a leading manufacturer of data-conversion and signal-conditioning technology, such as Digital Signal Processors (DSPs). ADI also makes gyroscopes and accelerometers used in a variety of missiles.

Although ADI's wholly-owned subsidiary, Analog Devices (Israel), was established in 1980, it wasn't until

1996, that ADI established its R&D "Design Centre" in Israel. From its inception until its closure a decade later, the ADI's centre was led by Ran Talmudi, who began his high-tech career at Elbit Systems, Israel's largest weapons manufacturer. (See pp.28-29.)

When ADI's president Jerald Fishman, went to Israel for the ADI centre's opening, he told the *Globes* business paper that during the previous year ADI sold US\$20 million worth of products to Israel's communications and "defense electronics industries." He estimated that ADI's future sales to Israel's military sector alone would comprise 40% of its total sales.

In its reportage, Israel's *Globes* newspaper noted that "Even though Fishman, one of the Analog Devices founders, is a Jew, the company's Is-

raeli connection comes through chairman Ray Stata." Stata, who cofounded ADI in 1965, also started Stata Venture Partners. This investment firm's holdings include Teradiode, a laser manufacturer that says its products "enable many defense applications, including infrared countermeasures, target designators and directed energy weapons."

Fishman and Stata gave ADI's Israeli R&D Centre "the job of developing the TigerSHARC." A scan of ADI's website finds more than 11,000 pages mentioning the military applications of TigerSHARC DSPs.

Although its R&D Centre in Israel was closed in 2006, Analog Devices (Israel) is still active in Ra'anana distributing ADI's products.

ADI electronics are embedded in countless weapons systems including those made by Israel's second largest military company, the state-owned Israeli Aerospace Industries.



ADI also has a broad network of "Third Party Developers" (TPDs) in Israel. TPDs are companies whose products rely on ADI electronics. Of the eight Israeli firms that ADI lists as its TPDs, six are described by ADI as supplying the "Military" (M) and/or "Security & Surveillance" (SS) markets. These firms are: MasterKey (SS), Galium (SS), Imaging Diagnostics (M, SS), Jungo (M, SS), Linux4biz (M, SS)

and Orlead (M, SS). Another company in ADI's database of TPDs is Elliptic. This Ottawabased firm says it supplies both military and security/surveillance markets. Elliptic, which uses ADI's SHARC and TigerSHARC processors, also says that it exports to customers in Israel.

One of ADI's top Israeli customers, Elta Electronics, is a subsidiary of Israel's second largest weapons maker, Israel Aerospace Industries (IAI). (See "State-owned Israeli War Industries," pp.48-49.) IAI's website has numerous references to its reliance on ADI's "SHARC" DSPs for such military products as:

- "Airborne, maritime and ground based multimode [weapons] fire control Radar, SAR [Synthetic Aperture Radar],"
- "Image and video processing,"
- "Communication, Cryptography, ELINT [Electronic signals intelligence] and COMINT [Communications Intelligence]," and
- "Sonar, Electronic Warfare, Automatic Target Recognition."

ADI's wares can also be found in major US weapons systems of the kind transferred to Israel. For example, in 2000, ADI received a worth US\$775 thousand contract from US Aviation and Missile Command for applied research related to AH-64 "Apache" attack helicopters. ADI also received US contracts in 2003 and 2007 to supply microcircuits for F-16 "Falcon" fighter/bombers. AH-64s and F-16s transferred to Israel were used in air strikes against Lebanon (2006) and Gaza (2008-2009).

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Previously called the American Telephone & Telegraph Co., AT&T evolved from the American Bell Telephone Co., or "Ma Bell." When forced by an antitrust lawsuit to break up its monopoly in 1984, AT&T formed seven regional holding companies or "Baby Bells." One of these, Bell Atlantic, evolved into Verizon Commu-

nications. (See table, "CPP Investments," p.53.)

With assets of US\$268 billion, AT&T is still enormous. In fact, besides being the largest telephone provider in the US, AT&T is the seventh largest US firm by total revenue, and the 14th largest company in the world by market value.

Of the US\$6 billion in contracts that AT&T had with the US federal government between 2000 and 2009, US\$3.4 billion were with military departments or agencies. During six of those years, AT&T ranked within the US military's top 100 contractors.

AH-64 Attack Helicopters

One of the contracts received by AT&T Government Solutions, was to configure automatic data processing equipment for AH-64 "Apache" helicopters. US attack helicopters of this kind were transferred to Israel's military, which has used them in attacks on Lebanon in 2006, and Gaza in 2008-2009.

Israeli Military's Website

In 2000, the Israel Defense Forces (IDF) announced that it had "called upon AT&T after hackers... downed its

site." An article in Israel's business paper, *Globes*, explained that the IDF

"decided to obtain the assistance of the US communications provider AT&T, which will store a parallel copy of the NetVision server, in order to reduce the pressure on the [IDF] site."

News of AT&T's web support for the IDF sparked calls for a US boycott of the company. An action alert for that campaign noted that "the IDF website is being used to propagate justifications for the mass killings and repression of Palestinian civilians in the occupied territories."

Spy Scandal and Israel's Narus

In the mid-2000s, AT&T was at the cen-

tre of a scandal linking it to mass surveillance done intelligence companies from Israel. Another telecom caught in this intrigue was Verizon. Both companies turned over their customers' web communications and phone call records to the US National Security Agency. This huge transfer of data - often

done without court orders or legal warrants – amounted to billions of daily messages.

To accomplish this monumental task, AT&T employed the services of Narus, a mass surveillance firm founded in Israel. This was revealed by a 22-year veteran of AT&T named Mark Klein. When Klein blew the whistle on his former employer, his testimony became central to a class-action lawsuit which revealed that AT&T's illegal transfer of data to the NSA was done using a Narus supercomputer called the STA 6400. (See "Israeli Spy Companies," pp.43-47.) The Electronic Frontier Foundation lawsuit met an untimely demise in 2008, when the US Congress passed a law granting retroactive, blanket immunity to telecoms for their complicity in the government's unwarranted eavesdropping program.