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Sector Report: Information Technology in West Bank/Gaza

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TO THE

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Introduction

The Palestinian information technology (IT) sector began to develop in the West Bank and Gaza in early to mid 1980s. At that time, only a handful of local IT companies existed, primarily to service the demand for computers and electronics sales. By the early 1990s, a much larger number of private enterprises serving the IT industry had come into existence in response to a growing demand for IT services emanating from the private sector, universities and the local government. However, most local IT equipment vendors were simply resellers for Israeli dealers, and their ability to service the products they sold was limited at best. The few Palestinian-owned software companies focused on the design and delivery of accounting-related packages developed for the local market.

Prior to the signing of the Oslo Agreements in 1993, Israel completely controlled the telecommunications infrastructure in the West Bank and Gaza. The Oslo Agreements gave control of critical IT infrastructure components such as lease lines, faxes, satellite links, and telephones services to the Palestinian Authority (PA). At this point, a nascent Palestinian telecommunications industry began to emerge. Shortly after Oslo, the first Palestinian Internet Service Provider (ISP) was established, and the Internet became commercially accessible to individuals, companies and universities for the first time.

With the establishment of the PA, (the largest single IT client throughout the 1990s), there was a surge in the number of new businesses created across a wide range of economic sectors. Also, NGOs and banks opened offices throughout the West Bank and Gaza, and demand for IT services rose at a steadily increasing rate through the mid-1990s.

By 1997, the Palestinian telecom sector was 100% privatized with the establishment of PALTEL, the West Bank/Gaza Telecommunications Company. With its completely digital network connecting the West Bank and Gaza, PALTEL offered a host of IT-related services, such as fixed telephone lines, lease lines, ISDN connections and more.

The Information Technology Sector in West Bank/Gaza

A. Sector Overview

1. ICT Sector Statistics

- Number of Firms: 80 IT companies and more than 150 small computer retail stores
- Number of Workers: 2,500 people (PALTEL employs 1,500)
- Capital Investment: USD $3,000,000 (year 2001)
- Total Sales: USD $120,000,000 (year 2000)
- Average annual growth rate: 25-30% (until 2000)

2. Types of Companies

Most types of IT and IT related service companies are represented in the West Bank and Gaza, including:

- Suppliers of equipment in computing and telecommunications;
- Application software suppliers;
- Providers of professional IT services;
- Professional network services suppliers;
- Office automation suppliers
- Internet service providers
- Professional and technical training

Many internationally-recognized IT companies have already opened offices or established satellite R&D operations in West Bank/Gaza, including IDS, Oracle, 3COM, Timex and Siemens.

3. Geographical Distribution

In response to the increased demand for IT technologies, and due to the regional distribution of the PA offices (the PA being the largest IT customer), the largest concentration of IT companies has appeared in Ramallah and Gaza. The IT sector has established a significant presence in other locations such as Jerusalem, Nablus, and Bethlehem as well.

4. Trade and Investment Patterns

Companies dealing in hardware may import their equipment either directly or through Israeli agents. After the establishment of the PA, most companies sought to become independent resellers and distributors for the brand names they carry. Many of the Palestinian companies have such status these days (e.g. VARs, VADs, etc.). Some Palestinian companies cover regional as well as markets under the terms of their agreements with the parent company.

Exports in the Palestinian IT sector are very much limited to software. Some software companies are already involved in outsourcing and developing projects for regional and international companies, with a small percentage of those companies relying exclusively on their international clients for business. This fits in with the overall objective of the sector, which is to develop the companies' outsourcing capabilities by attracting international contracts. Companies in this sector have participated in multiple trade missions and have exhibited at regional and international trade fairs to serve this purpose.

B. Policy and Regulatory Issues

Since its inception, the Palestinian Authority realized the importance of attracting foreign investment capital to the area and has adopted a proactive stance toward that end. Many laws and regulations, directly or indirectly linked to IT, have been passed in recent years, including the Telecom Law, the Investment Promotion Law, and the Intellectual Property Rights Law (in revision).

It is worth mentioning that the Investment Promotion Law (IPL) terms are very competitive not only in West Bank/Gaza, but also in the regional marketplace. The IPL is one of the most comprehensive and encouraging packages in this part of the world, and it is continuously being updated. The Palestinian private sector and its representative trade organizations are making a concerted effort to capitalize on the benefits provided through the IPL. As an example, a new company can benefit from a 0% income tax for 3-13 years depending on the type of investment. The regular corporate tax rate is a flat 20%.

The key policy issues are the Internet dissemination, the telecom monopoly, the high-tech industrial zones, university curriculum upgrades, telecom regulation, and the ".PS" ccTLD (country code Top Level Domain).

1. The Private Sector Policy

Due to the relative newness of the ICT sector in West Bank/Gaza, the relationship between the private sector and the educational sector is still weak. High school and university curriculums are still under-developed when it comes to introducing the ICT concept. However, new partnerships have recently emerged between the two sectors under a new initiative. IT firms are teaming up with universities to offer on-the-job training for senior students, mainly to prepare them for real job-market activities. ICT sector leaders frequently meet to discuss incorporation of a specialized curriculum into the educational system. In addition, steps are also being taken on higher education levels to separate Management Information System (MIS) specialties from ICT specialties.

Another positive step taken by the private sector is the creation of the *Palestinian Information Technology Association*, (PITA) a professional membership-based association with the aim of focusing the efforts of the ICT sector, including determining the human resources needs of the sector.

2. The Government Sector Contribution

The government has undertaken several initiatives to support the ICT sector, including cooperation with the World Bank to develop a national IT policy, choosing a location at Al Khadoury College near Tulkarem as a site for an IT incubator, as well as the update and revision of the *Investment Encouragement Law*.

3. Sector Support

West Bank/Gaza today has all the elements necessary to support IT business, including international banking and auditing firms, investment-friendly and foreign ownership laws, and a modern 100% digital telecommunication infrastructure. New intellectual property rights laws are already being drafted and will soon be introduced. West Bank/Gaza benefits from an organized private sector led by the Palestinian Information Technology Association, PITA, and a governmental commitment to ICT sector development. The international donor community has also identified the ICT as a key area for continuing capital and technical support.

C. SWOT Analysis for the ICT Sector

Despite its infancy, the ICT sector within the Palestinian economy has found strong support and has proven its potential for growth.

1. Strengths

The strengths of the sector can be summarized as follows:

- ICT sector witnessed positive growth over the period 1997-2000
- Continued emphasis on investment in education
- Proximity to the high-tech corridor in Israel, a global IT stronghold
- A highly advanced telecommunication infrastructure
- Strong private sector participation
- ICT sector was included in the PA 5-year strategic economic plan
- The ICT sector is widely seen as one of the most promising sectors within the Palestinian economy

2. Weaknesses

The Palestinian ICT sector weaknesses can be summarized as follows:

- The high cost of telecommunication due to lack of competition
- Strategic confusion regarding the tapping of the Israeli ICT Market
- Lack of a unified sector marketing strategy
- Highly price sensitive local market
- Lack of recognized sector performance indicators
- Lack of Arabic-based discussion and documentation on sector concerns

3. Opportunities

ICT sector opportunities are:

- Considerable donor funding can help boost the ICT sector
- Benefiting from regional focal points in IT, mainly Jordan, Egypt, and Dubai Internet City, through establishing points of presence, for purely networking and marketing purposes. PITA is currently taking the initiative to open such an office in Dubai.
- Recently some Arab countries have been opening their doors to Palestinian products
- A service-based economy offers good basis for ICT growth
- Future peace will provide attractive incentives to international IT firms to be present in West Bank/Gaza.

4. Threats

The threats to the ICT sector can be summarized as follows:

- The current political situation continues to hinder the Palestinian economy, including the ICT sector

- There exists a fear of IT brain drain
- Continued lack of competition in communications sector
- Although the Palestinian ICT sector has developed quickly in the past few years, growth may still not be fast enough to compete on a regional level
- Regional development may exploit weaknesses, and threaten continued sector development
- Lack of awareness in other trade sectors of the importance of ICT

D. ICT People and Potential

West Bank/Gaza is a nation that benefits from its unique mix of the traditional and the new. It has a strong commitment to education and a history of resourcefulness and the development of creative solutions. Building on this foundation, the recently achieved self-government, alongside the re-building process, has offered opportunities to learn from others and to start from the top in the areas of telecommunications infrastructure, business environment, education and law. Moreover, West Bank/Gaza's youthful and internationally aware population is the source of constantly fresh perspectives and innovative ideas. Together, these factors have supported the Palestinian ICT sector's remarkable growth to date, and they promise to be the building blocks as ICT strides into the future.

1. Human Resources

Education has always played a major role in Palestinian society. The Palestinians have a high literacy rate percentage, compared to the peoples of the region, and rank higher than most in higher-level university education. Roughly 18.3 percent of the national budget is targeted towards education.

As far as basic education, there is 100 percent attendance for first-graders, 97 percent attendance for first through tenth graders, and 57 percent attendance for 10-12 graders. There is an additional increase of 65,000 new students each year, or a 6.2% increase.

Table 1: Distribution of Students and Classes, by Education Level and Supervising Authority, 1999/2000

Authority	Basic		Secondary	
	Students	Classes	Students	Classes
Government	518,483	14,387	68,294	2,154
UNRWA	223,085	4,782	0	0
Private	51,422	1,974	4,256	241
Total	792,900	21,143	72,550	2,395

University enrollment for the 1998/1999 school years was 63,000 students, with the vast majority undergraduates. Graduate programs enrollment totaled 650 students.

Table 2: Number of Students Enrolled in Palestinian Universities, 1999

Faculty	Male	Female	Total
All Courses	31,192	24,421	55,613
Science	4,516	3,621	8,137
Engineering	2,546	1,007	3,553

E. Global Outlook

The Palestinian IT sector has a unique global outlook, with worldwide links through the Diaspora population. A large number of Palestinians complete their higher education internationally and return technically skilled and multilingual, with an international business perspective. A commitment to international quality standards, such as CMM and ISO, and supportive international trade agreements, are additional reasons why leading names like Siemens and Timex choose to work in West Bank/Gaza.

F. Areas of Future Investment

Preliminary findings on IT-related services in West Bank/Gaza show that some services in the ICT sector do exist, and others, like call-centers, can have a comparative advantage in the future:

Call centers

Call centers are one of the areas that have potential growth within the ICT industry. There are no call centers operational in West Bank/Gaza to date. They are heavily dependent on communications facilities and infrastructure. The cost of telephone lines is also a consideration. Potential lies in telemarketing and help desk operations for large companies and corporations. Government ministries might also be a potential source of clients. Staffs need low-level technical training and the knowledge of 2-3 languages. This option is feasible in cooperation with multinational partners.

Data conversion

The basic technical skills for performing data conversion are available in West Bank/Gaza. A few ad-hoc projects have been completed in this area. However, the main issue is the continued supply of demand to run an operation specialized in data conversion. Hooking up with a solid international company that needs such services will insure a good start. Staff needs low-level technical training and basic knowledge of the major programming languages and tools.

Back office operations

Back office operations are considered part of the call centers. It requires result-oriented services. This activity is more feasible in markets with large population. It is correlated with the telecommunication infrastructure and cost.

Software development

It is one of the most promising areas for the Palestinian ICT sector. It has great potential in outsourcing business as well as in providing turnkey solutions. The areas of coding, implementation, conversation, maintenance, and system design are all possibilities in terms of software development potential.

Arabization

Translation of major software packages into the Arabic language may become a major service hub, with competition mainly coming from Egypt and Jordan. The Arabization of software requires the cooperation of a sophisticated marketing company to work jointly on business development.

The Palestinian Information Technology Association (PITA)

The private IT sector is represented through PITA, The Palestinian IT Association of Companies. Established in Ramallah in 1998 as a membership-based non-governmental and not-for-profit organization, PITA seeks to serve its 61 members, and to expand the IT sector in West Bank/Gaza thorough quality services and positive partnership with the government and other related sectors.

PITA seeks to represent the interest of its members by proactive dialogue with the government and all of the major stakeholders in the industry.

PITA’s plan for the year 2002 includes a plan to assist members to qualify for international quality standards, such as ISO certification, and to help open for them new markets in the region and internationally through participation in international exhibitions.

Palestinian Information Technology Association

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ANNEX 1: List of PITA Members[1]

	Company Name	City	Tel	Fax	E-Mail	Website
1	Al- Jaffal Group Co.	Ramallah & Al-Bireh	970-2-2959001	970-2-2959014	ibrahim@jaffalgroup.com	http://www.jaffalgroup.com
2	AL-HELOL INTEGRATED COMPUTER SYSTEMS	Gaza	972-8-2830179	972-8-2830189	pdmain@palnet.com	http://pdmain.com
3	Alem Al Mohandison co	Ramallah & Al-Bireh	970-2-2984970	970-2-2984977	information@mohandison	http://www.mohandison
4	Applied Information Management	Ramallah & Al-Bireh	970-2-2981566	970-2-2981567	sbahour@palnet.com	http://www.AIM-WEST BANK/GAZA.com
5	Arab supernet	Ramallah & Al-Bireh	970-2-2403645	970-2-2403645	salhi@a-supernet.net	http://www.a-supernet.net
6	Arab Technology Systems (ATS)	Ramallah & Al-Bireh	970-2-2987011	970-2-2964850	info@ats-pal.com	http://www.ats-pal.com
7	ASAL Technologies	Ramallah & Al-Bireh	970-2-2409101	970-2-2409103	asalameh@asaltech.com	http://www.asaltech.com
8	Babil Soft	Ramallah & Al-Bireh	970-2-2989217	970-2-2989218	muhana@babil.com	http://www.Babil.com
9	Bailasan For Computers & Internet	Ramallah & Al-Bireh	970-2-2964970	970-2-2964971	bailasan@bailasan.com	http://www.bailasan.com
10	Bisan Systems Ltd.	Ramallah & Al-Bireh	970-2-2985941	970-2-2985942	info@bisan.com	http://www.bisan.com
11	Borders for Integrated Systems & Telecom (BIS&T)	Gaza	970-8-2845017	970-8-2825353	tarek@bis-t.com	http://www.bis-t.com
12	C.M.C - Computer Media Center	Jerusalem	972-2-6274271	972-2-6261989	hani@cmc-center.com	http://www.cmc-center.com
13	Castle Establishment Company	Gaza	970-8-2845885	970-8-2833211	castle@castlesoft.net	http://www.castlesoft.net
14	Computer & Communications Systems	Ramallah & Al-Bireh	970-2-2954746	970-2-2954745	Dibrahim@CCS-PAL.COM	
15	Daman For International Trading Services	Nablus	970-9-2387665	970-9-2387422	info@daman.net	
16	Duracom Telecommunications co. LTD.	Nablus	970-9-2392930	970-9-2332434	Duracom@zaytona.com	http://www.duracom-ps.com
17	Electronic Digital Information Systems	Ramallah & Al-Bireh	972-2-2963237	972-2-1980151	edisco@palnet.com	
18	Epco computers and systems	Gaza	970-8-2869688	970-8-2823288	epco@palnet.com	
19	European Trading & Technology Co. (Eurotec).	Nablus	970-9-2387701	970-9-2382964	eurotec@palnet.com	
20	Future Information Systems	Gaza	972-8-2820065	972-8-2820207	jihad@future-is.com	http://www.future-is.com
21	Galaxy Training & Services	Ramallah & Al-Bireh	970-2-2958444	970-2-2958807	mmb@hally.net	http://www.galaxyctec.com
22	Global Software Service Inc. (IDS Software	Ramallah & Al-Bireh	972-2-2962155	972-2-2962151	Joan@idsintl.com, kareem@idsintl.com	http://www.idsusa.com

[1] PITA currently has 61 members. Listed are 54 members.

	Systems)					
23	Good Shepherd Engineering & Computing (GSE)	Bethlehem	970-2-2770804	972-2-6769161	gse@gsecc.com	http://www.gsecc.com
24	Hally Computers & Electronic Eng.	Nablus	970-9-2384646	970-9-2387528	hally@hally.net	http://www.hally.net
25	Horizon Computer Technology	Ramallah & Al-Bireh	972-2-2988128	972-2-2988128	info@just-horizon.com	
26	Industrial Details - ID	Nablus	970-9-2384518	970-9-2384519	id-nablus@id-annukhba.com	http://id-annukhba.com
27	Intertech	Ramallah & Al-Bireh	970-2-2957270	970-2-2955289	ala@p-ol.com	http://www.intertech-pal.com
28	Isra' Software & Computer Co.	Nablus	970-9-2373001	970-9-2373002	Husam@iscosoft.com	http://www.iscosoft.com
29	ITOUCH	Jerusalem	972-2-2343960	972-2-2343960	itouch@p-ol.com	http://www.itouch-pal.com
30	Jaffa.Net Computer Systems	Ramallah & Al-Bireh	970-2-2961060	970-2-2966613	jaffanet@i-jaffa.net	http://www.i-jaffa.net
31	Jamal Sons Telecom Computers Systems Ltd.	Gaza	970-8-2867199	970-8-2833507	mod55@palnet.com	http://www.jamalsons.com
32	Madek for Investment and Trade	Ramallah & Al-Bireh	970-2-2966711	970-2-2966710	info@madek.com	http://www.madek.com
33	Management Consulting Services	Ramallah & Al-Bireh	970-2-2954001	970-2-2986410	mcs@mcs-West Bank/Gaza.com	http://www.mcs-West Bank/Gaza.com
34	Massar Associates	Ramallah & Al-Bireh	970-2-2952818	970-2-2959110	info@massar.com	http://www.massar.com
35	MBC Inc Communication & Advanced Technology	Ramallah & Al-Bireh	970-2-2981108	970-2-2964167	said@mbc-pal.com	
36	MicroNet - Networking & Communications	Ramallah & Al-Bireh	970-2-2963077	970-2-2963076	micronet@micronet-pal.com	http://www.micronet-pal.com
37	Microtech for investment co.	Ramallah & Al-Bireh	970-2-2986816	970-2-2986820	sales@microtech-pal.com	http://www.microtech-pal.com
38	Modern Arabian Business Corporation (MABCO)	Ramallah & Al-Bireh	970-2-2405764	970-2-2406196	mabco@palnet.com	http://www.mabco.net
39	Modern Electronics Center - Sharp Agent -	Gaza	970-8-2868530	970-8-2825037	mecsharp@yahoo.com	
40	ModernTech Corp.	Gaza	970-8-2824199	970-8-2840317	mtcg@mtcgaza.com	http://www.mtcgaza.com
41	New Techni Comp	Ramallah & Al-Bireh	970-2-2959984	970-2-2963468	info@ntc-pal.com	http://www.ntc-pal.com
42	Noursoft	Ramallah & Al-Bireh	970-2-2405756	970-2-2401039	info@noursoft.com	http://www.noursoft.com
43	OFFTEC - WEST BANK/GAZA OFFICE TECHNOLOGY	Ramallah & Al-Bireh	970-2-2959780	970-2-2959782	pal@offtec.com	http://www.offtec.com
44	West Bank/Gaza Online	Ramallah & Al-Bireh	972-2-2981103	972-2-2984167	info@p-ol.com	http://www.p-ol.com
45	Palestinian Internet Services	Gaza	970-8-2843197	970-8-2843377	ahmed@p-i-s.com	http://www.p-i-s.com
46	Palnet Communications Ltd	Ramallah & Al-Bireh	970-2-2403434	970-2-2403430	info@palnet.com	http://www.palnet.com

47	PCNC 2000 Networking Ltd	Bethlehem	972-2-2747503	972-2-2744992	iqumsieh@pcnc2000.com	http://www.pcnc2000.com
48	Rama International	Ramallah & Al-Bireh	970-2-2958765	970-2-2953139	info@rama-intl.com	http://www.rama-intl.com
49	Safad Engineering & Electronics Ltd.	Ramallah & Al-Bireh	970-2-2957229	970-2-2980142	Ibrahim_Barham@safad.com	http://www.safad.com
50	SAMCO Co.	Nablus	970-9-2389168	970-9-2372626	samir@samco1980.com	http://www.samco1980.com
51	Sidata Information and Communication Systems Ltd.	Gaza	970-8-2825131	970-8-2824665	belwazir@hally.net	http://www.sidata.net
52	Siemens ICT Ltd.	Ramallah & Al-Bireh	970-2-2965740	970-2-2965742	Tareq.Maayah@ICT.Siemens.com	http://www.siemens.com
53	Timex Resources Limited	Ramallah & Al-Bireh	970-2-2401191	970-2-2401194	kwassali@timex.com	http://www.timex.com
54	Tork Computers	Ramallah & Al-Bireh	970-2-2980293	970-2-2980293	tork@palnet.com	

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