

**Institute for Technology & Enterprise**

Polytechnic University

---

**BRM Technologies Ltd.:**  
**Overseeing the Global Entrepreneurship-Management**  
**Interface**

---

By

Professor Nina Ziv [nziv@poly.edu]

Institute for Technology and Enterprise  
Polytechnic University  
The New York Information Technology Center  
55 Broad Street, Suite 13B, New York, NY 10004  
Tel: 212-547-7030 x.204 / Fax: 212-547-7029  
[www.ite.poly.edu](http://www.ite.poly.edu)

June 1999

## **I. Background for Facing the Future**

In 1995, at a meeting in the outskirts of Jerusalem, Israel, the leadership of BRM made a decision. After seven years as an R&D firm which developed software products, the partnership would change its focus and become a creator of start-ups. BRM would have as its mission to “partner and fund entrepreneurs and share the operational efforts needed to transform breakthrough ideas into substantial businesses.” The key elements of its approach would include:

- operational support in the form of R&D, a sales and marketing group, and a CEO;
- what BRM termed a “venture knowledge network”; and
- a bi-national framework in which research and development is done in Israel and business development and sales are done in the United States.

By providing such broad-based support, BRM claimed, the time to launch start-up companies would be significantly shortened. The BRM partners also made a decision to fund the company using their personal capital.

Since that eventful meeting, BRM has spun off five companies. However, as BRM nears the end of its eleventh year, it is still unclear whether its overall approach is viable. While Check Point, BRM’s claim to fame, is highly successful in the network security market, and Backweb, an enterprise software company, held an IPO in June, 1999, the other three start-up companies which BRM has launched - MediaPath, IPHighway, and ProSight - have yet to become leaders in the software market.

According to BRM, the partnership’s relationship with its start-ups goes beyond that of traditional venture capitalists or incubators where simply money and possibly the minimum support services are provided to an entrepreneur. The BRM partnership contends that the more comprehensive support it provides is needed and that without it, Israeli entrepreneurs generally would not succeed.

Indeed, BRM is not alone in providing such “handholding” in Israel. There are other Israeli companies which provide similar services. Yet, Israeli entrepreneurs have succeeded without BRM-type support frameworks by obtaining funds from venture capitalists, and then developing their companies and launching them into the marketplace. Even the Israeli government’s incubator project has a 51% success rate for projects that it has funded.<sup>1</sup> Furthermore, in the enterprise software arena, BRM’s chosen start-up domain, start-ups, especially those dealing with Internet-related technologies, have been phenomenally successful in the late 1990s. They have relied mostly on venture capital money, which is readily available.

Therefore, it is still an open question as to whether BRM’s approach is an effective, let alone optimal, way to nurture entrepreneurs.

The BRM partners – Nir Barkat, Eli Barkat, Yuval Rakavy, and Charles Federman -- are more than just business associates. Nir and Eli are brothers, and Yuval is a childhood friend. Charlie Federman is also considered a “member of the family.” The relationship between the partners is a key factor in their success. They have called BRM “the venture knowledge group” and

---

<sup>1</sup> David Shalit, “Ministry of Industry and Trade : All Serious Venture Capital Funds Invested in Incubators,” *Globes: Israel’s Business Newspaper* ([www.globes.co.il](http://www.globes.co.il)), July 7, 1998.

claim that one of its big differentiating factors is its extensive knowledge base and network which represents the aggregated experiences of the BRM partners and other employees.

BRM emphasizes the uniqueness of its bi-national approach. On the one hand, BRM spawns companies to compete effectively in the United States marketplace. At the same time, BRM seeks top-notch Israeli entrepreneurs. BRM provides them with local R&D and other related Israel-based support functions and then partners these primed entrepreneurs with a CEO and management team from the United States. BRM also claims its competitive edge is based on its culture, which stresses interpersonal relationships that underpin its bi-national network in Israel and in the United States.

But this bi-national situation has presented significant challenges for many Israeli developers who work 6000 miles away from the US marketplace and user community. BRM argues that it addresses such challenges in a number of ways. It makes sure that the marketing and sales forces in the United States communicate frequently, systematically and effectively with the research and development group in Israel. BRM also uses its extensive network of customers and contacts in the technology industry to validate the ideas generated by the entrepreneurs. As soon as the BRM partners feel that an entrepreneur is ready, BRM moves the entrepreneur to the United States and sets in motion an elaborate validation process which gives the entrepreneur the opportunity to meet customers on their own turf. The feedback from these customer interviews is also communicated to the Israeli R&D group.

Such methods aim to solve some of the problems caused by distance. But is it really possible to conduct research and development in a remote location vis a vis the market, and still dominate or help create the “next technology wave”?

BRM’s bi-national approach is also a source of controversy. The Israeli technology breeding ground is far from the major technology marketplace, the United States, and thus companies must find a way to stay in touch with key customers and industry leaders. While some Israeli companies send their CEOs to the United States regularly but are headquartered in Israel, BRM has chosen to move its start-ups to the United States. Indeed, at a conference run by BRM in early 1998, BRM partner Charles Federman told the assembled audience that the only way in which Israeli start-ups would succeed was to set up the company headquarters in the United States and have the CEOs in the United States to run these companies. This US-centric framework has important implications for the development of Israel as a high tech-center and for the future of companies like BRM which spend an inordinate amount of time ‘bridging the gap’ between the disparate parts of their organizations.

Can this combination of a “venture knowledge network” and extensive bi-national support services successfully result in winning companies in the competitive software arena? Can these BRM partners--entrepreneurs turned investors--effectively mentor other entrepreneurs? The effectiveness of such an approach remains to be seen.

## II. The Business Purposes of BRM

The three major components of BRM's business approach are:

- operational support for the entrepreneurs
- a “venture knowledge network” and
- a bi-national approach which provides services to the entrepreneur in the United States and in Israel.

The operational support provided, according to BRM, is the chief way BRM differs from traditional venture capitalists, who, claims BRM, typically just give entrepreneurs funding and sit on the boards of start-ups. BRM partner Eli Barkat explained that funding is only a small piece of what entrepreneurs get from BRM:

When BRM buys into the idea, it puts the money in first but that's the last thing we talk about. More importantly, it has a group of developers in residence, which it puts into that company that can start designing and developing the product from day one. It could be six or seven developers. These are always the hardest to find. The first six. We provide financial support. An acting CFO who will go in and help you build a business plan and we will put in a partner like a Charlie or a Nir and a BRM partner does a maximum of two deals at a time versus a VC who that will do five, six, or seven. It's fully dedicated resources and at the end of the day because of the operational help we cut anything from six to twelve months in time to market that nobody can compete with. VCs will not do that. VCs will open doors; VCs will take you places. But you on your own cannot do anything with it. It's the biggest differentiation that we have.

All of this operational support is designed to produce a “positive sense of urgency” and spur on the entrepreneur to reach the marketplace as quickly as possible. Eli discussed what “time to market” means to an entrepreneur:

What the entrepreneurs need can be summarized in three words: time to market. In the market that we live today it's all about time to market. You have an idea and how fast can you develop it, build an organization around it, fund it, market it and build a critical mass in the marketplace? This is 90 percent of everything.

According to BRM partner Nir Barkat, Israeli entrepreneurs need the “handholding” that BRM provides. In general, claims Nir, Israeli entrepreneurs underestimate what it takes to develop a business in the United States. He says that there is clearly a gap in the managerial competencies needed to effectively compete in the US marketplace:

Israelis are very aggressive and they do not necessarily understand how to do business in the US. So there are a couple of gaps. One would be how to negotiate. How to do business. When you talk to Israeli entrepreneurs and say please make a list of competitors and companies you want to cooperate with. So the cooperative list is very short, the competitive list is huge because everyone is competing with them to some degree. With an American entrepreneur, it's exactly the opposite. There's only a few very direct competitors and they say let's cooperate. Putting entrepreneurs in this mindset of how to do business and when you go to meet a customer you talk about his vision and your vision and let's look for a common denominator, and try to push that rather than how to compete. To get people

into that mindset about how to do business in the US in general and in IT specifically where tactics and strategy change a lot and it's so dynamic that somebody who is your enemy today is your ally the next day and vice versa. To swim in this environment and not get into these personal conflicts and look at this as business is a challenge. That belongs to the category – there is a big gap in the knowledge of what you should know and also the processes of how to do things. A gap that is very big in Israeli entrepreneurs.

In other words, by partnering with BRM, the argument runs, the entrepreneur obtains access to the numerous resources that BRM possesses at its Jerusalem facility and in the United States, including an engineering group assigned to the start-up project, and financial, marketing, and human resources support.

The engineering group, which is part of BRM's in-house staff, consists of an R&D manager, a software architect, programmers, and quality assurance people. (BRM's R&D operation is deliberately located in Israel in order to easily tap the engineering talent pool that exists in the country.) This group generally works with a start-up through the completion of the first version of the project and then is gradually replaced by technical personnel from outside of BRM. The group then moves to another start-up within BRM.

Financial support initially given to the entrepreneur can vary. According to Federman, BRM usually invests 2-3 million dollars in an initial round for majority ownership in the company and also commits to supporting the company financially in later rounds as well. Financial expertise also comes from the BRM CFO, whose group assists the entrepreneur with legal issues, accounting procedures and option plans.

In what is considered by BRM as an important competitive asset, BRM assumes what it believes is a unique financial relationship with its start-ups. Federman explained that because the BRM investment is the personal capital of the partners, the partnership has considerable degrees of financial freedom. For example, rather than investing 2.5% of the assets under management (which BRM claims is what a typical venture capitalist does), BRM invests between 5 and 7 percent to build the management support for the companies. Furthermore, classic venture capital funds generally set a specific length of time for the fund's existence, and aim for profitable exits. BRM, on the other hand, invests in companies for a longer timeframe. It continues to support the start-ups even during possibly long non-profitable periods.

BRM provides support under the auspices of its Israeli and United States offices. BRM's headquarters is in Jerusalem in the Har Hotzvim Industrial Park. This facility in mid 1999 is home to approximately 40 people, including 20 engineers, an administrative staff, and a management group. The latter consists of:

- the four BRM partners – Nir Barkat, Eli Barkat, Yuval Rakavy, and Charles Federman
- Rona Segev-Gal, Director of Business Development and her group
- Avi Broder, the Chief Financial Officer and his group
- Ilan Stern, Director of Human Resources
- Yael Basher, head of Research and Development

Charles Federman is in charge of the United States BRM operation, which is based in Fort Lee, New Jersey. In addition to Federman, the US group consists of:

- Israel Fruman, Director of Human Resources

- Mark Finkel, Chief Financial Officer
- Amir Goldman, head of Business Development

In mid 1999, Federman was in the process of expanding the American personnel. He expects to add about 6 more people for a total of 10.

Nir Barkat explained the advantages to having a bi-national company:

What do we have that we want to leverage off of Israel? What are the advantages and disadvantages of Israel and how do we complement this with other parts of the world? First of all, the pros of Israel. You have unbelievable ideas, unbelievable entrepreneurs, very aggressive, never take no for an answer, are able to take big knocks and can still continue under fire. It's like the entrepreneurs from Israel are very, very good. So these are two good things. We also have – the third point is that R&D here is relatively stable and very good. Plus from the tax perspective and other things, it's worthwhile building your company in Israel. That's the good part in Israel.

What we lack is that we are far from the US marketplace. I think marketing and sales skill sets are usually not the best as they are in the US. So what we try to do is leverage the good parts of Israel, and complement that with things that we believe are good in the US to start the company. In the US it is more disciplined. You can get people with a longer view. Sales and marketing skills are I believe better in the US and so what we're trying to do right off the bat when we start the company is combine the good parts of each global part in order to form a unit which can run quickly together. So from the macro perspective, we start in the US and Israel, and we take the entrepreneur and we move them to the US to be closer to the marketplace. There we try to surround him with an active partner, human resource function, marketing function, CFO financial function, that help the entrepreneur get his act together.

With the sales and marketing arms of the company in the United States, and the R&D organization in Israel, BRM has the on-going challenge of making the two organizations work together in support of the start-up. As Chief Technology Officer, Rakavy spends much of his time being the liaison between sales and marketing and R&D. This task is essential says Rakavy, because insufficient communication between the two groups has often resulted in unwise product development decisions:

I'm working a lot with the developers and I also help marketing and product management because I know exactly what is going on with the R&D and there are problems with these companies, in that the R&D is done so far away from the market that there is no informal interaction between marketing and development which happens in most companies during lunch. And this is a problem because a lot of the decisions are taken at the keyboard. Really, a large number of decisions are taken by the engineers at the keyboard and if the engineers do not have a good holistic grasp of the company, there is a chance that they will make non-optimal decisions. So it's very important to transfer knowledge from marketing and sales. Because in a start-up, actually everybody is a sales guy. That's my attitude. It's very important to transfer the knowledge to the developers and it's also very important to do vice versa.

At BRM, face-to-face communication is emphasized even if that means frequent trans-oceanic trips and meetings within the United States or Israel. Technology-based collaborative methods

are seldom used for helping to improve US-Israeli collaboration, communication and coordination.

At some point in the organization building and technology development process, the entrepreneurs selected by BRM are matched with professional managers to build the company. By bringing in a professional manager to run the start-up, the BRM partners hope to improve the start-up's chances of success. BRM also makes sure that the entrepreneur continues to play a central role in the start-up's development. Thus, Avrami Tzur and Amir Ofer, the two founders of Prosight, are still involved in the technical development of Prosight's product line even though BRM recently appointed John Cimral, a former Senior Vice President at Intersolv, to serve as CEO of Prosight.

The BRM partners for the most part look for the professional managers in the United States. Israel Fruman, BRM's Human Resource Manager in the United States, is responsible for recruiting the management group for the start-up. Fruman thinks there is a cultural gap that must be bridged if the partnership between an American CEO and an Israeli entrepreneur is to be successful:

The biggest challenge is the tendency of Israelis to deal with the technology and not think about the product. Bringing US managers who are strong on the product but are sensitive enough to bridge the gap. There is a huge opportunity to translate the Israeli technology into the US market. That is the biggest challenge.

Indeed, BRM has not always succeeded in setting up the optimal combination. While John Cimral has been brought in to head Prosight, BRM has still not found an American CEO to lead IP Highway. As an interim step, Federman became CEO of the company. In spring, 1999, Nir Barkat took over the position until an appropriate CEO is found.

When the BRM partnership is satisfied that the start-up is ready, the start-up is launched as a full-fledged company. BRM continues to remain as a majority shareholder in the company and to provide financial support and other types of assistance. The launch takes place in the United States where the main technology market exists. The BRM partnership believes that if a start-up is successful in the United States, then it is more likely to be successful in developing business in other parts of the world.

### **III. BRM as a "Venture Knowledge Network"**

The experience of the four partners and the people who comprise the leadership of BRM is an important factor in influencing the development of BRM. In addition to knowing each other from an early age, the partners have formed what they call a "venture knowledge network". They argue that this has enabled them to build on each other's strengths, and thus enrich the experience of the start-up entrepreneurs who are serviced by BRM. The BRM partners are involved on a day-to-day basis with start-ups and in some cases, play a significant management role in certain start-up companies. As an "active partner" for example, Eli Barkat has assumed the role of CEO of Backweb, and gives Backweb his full attention.

The overall knowledge base in BRM is large, diversified, and growing. Yet, currently there is no systematic way to share this knowledge across all parts of the organization and to make it easily accessible to entrepreneurs and to other BRM employees. Nir sees this as one of the biggest challenges that BRM faces:

I think [the] number one [challenge] is to give good service to our portfolio companies. That we don't only talk about the knowledge but we pass that knowledge on in a small way. That 's a big challenge for us because we are entrepreneurs ourselves and entrepreneurs are not the best managers in the world. And what we have to do right now and I think it is a big challenge is to get all that knowledge that exists in so many people's heads and to put it in order and to help guide these entrepreneurs and to leverage all the knowledge in the group. That's one big challenge. We know where the knowledge is but we want to make sure it is available to our entrepreneurs. That is a tactical challenge but a very important challenge.

An intranet for BRM is being developed to capture such information. Federman explained:

It [technology] has not been a factor in the growth of the company. I think that it has impeded the growth of the company and it will be a factor going forward. So today, as a self-criticism BRM very much has islands of information and we need to knit them together into a continent. So we're building something called the BRM Knowledge System (BKS). It's based upon Exchange and the intention is to capture and institutionalize individual relationships on behalf of the organization. For example, Backweb is a company that may go public sometime over the next year. And towards that end, we're building relationships with the bankers. Well, these relationships should be sustained for the next IPO and the IPO after that. So we should build a central repository where people's names are captured and the objectives for each of the firms should be captured and how they look at IPOS are, what their concerns are, who the key decision makers are, and whatever else is captured in the central place so that way if the individual people who are involved in the process, Eli, myself and Mark, are no longer with BRM or are detained for some reason, someone such as Avrami or a John Cimral, or an Amir Goldman can rapidly go into a knowledge base, take a look at our past experiences with these organizations, learn from them, and be well positioned for the next interaction with them. That's the system we're building now.

But within and outside of BRM, some wonder if the skills and competencies entrepreneurs need can be captured in such an intranet-oriented database. Perhaps this database would be a good source of "explicit" information, such as names of "key decision makers". But, it may fall short in its ability to provide invaluable so-called "tacit" knowledge required for venture creation, which is mostly embedded in the BRM's partners' personal experiences and relationships. Codifying such "tacit" knowledge is difficult. Also, there are questions as to whether transferring knowledge acquired from developing a company such as Backweb (a push technology company) which is a different kind of company than, for example, IPHighway (an enterprise application company) makes sense.

#### **IV. Evaluating Entrepreneurs**

In any case, BRM claims that its bi-national approach and venture knowledge attracts entrepreneurs and create new markets. Based on this assumption, BRM has created an elaborate process for evaluating the entrepreneurs and their ideas.

One major criterion is to seek big opportunities. Similarly, BRM rejects candidate companies that are merely based on tools or complements for products that already exist. For BRM to commit its resources and money, the idea must also be strong enough to generate a large return on investment. Accordingly, BRM seeks entrepreneurs with ideas that potentially create new markets or industries.

Furthermore, the entrepreneur's idea must potentially present a significant technology entry barrier to potential rivals, specifically in enterprise software. Yizhar Shai, former Director of Business Development at BRM, explained:

Amazon.com is a great success but it is built around a world of business that we do not know. We know how to take a technology or an idea to take the technology to match it, to productize it and to build a business model to sell the product. That's what we know. And we also want to look for a technology entry barrier. There is no atomic invention in doing Backweb but there is a significant technology barrier around which the product is built.

BRM counts on the companies it generates to follow in the footsteps of its partners' great success story, Check Point. The founders of Check Point – Gil Schwed, Marius Nacht, and Shlomo Kramer - did indeed create a new market. After the Internet became more pervasive in the corporate world, it was clear that software to protect the internal information in a corporation was necessary. By early 1993, Check Point's flagship product, firewalls which protect internal computer networks, had 4,000 installations around the world. It was then that the founders asked the BRM partners to make an investment in their company. In June 1993, BRM invested \$300,000 in Check Point. It also provided the young company with administrative services, marketing consultants, accountants, and lawyers. BRM's partners became members of the Board of Directors of Check Point – with Nir Barkat serving as Chairman - and gave the company the benefit of their expertise and their industry contacts. In addition, Yuval Rakavy helped to write some of Check Point's software code.

Check Point ([www.checkpoint.com](http://www.checkpoint.com)) continued to develop under the leadership of Gil Schwed and held an extremely successful IPO in July 1996. Today, Nir and Eli Barkat, and Yuval Rakavy own a total of 25 percent of Check Point, valuing their initial \$300,000 investment at over \$750 million. Indeed, the money from their equity holdings in Check Point in June 1999 is the sole revenue stream into BRM.

Check Point is now considered the world leader in network security software for enterprises. It has a broad range of software solutions including firewalls and various products which integrate network management and security. During 1998, Check Point's net income went up 77% as it continued to consolidate its position in its market niche. In the same period, its revenues climbed 71% from \$82.9 million to \$141.9 million. (Exhibit 1) Its stock price also rose but has recently leveled off. (Exhibit 2)

While the BRM partnership claims that Check Point is its "product" and indeed BRM's first success story, this is a matter of some debate. Gil Schwed, who is its current CEO in Israel, contends that Check Point is not a BRM spin-off. Except for providing some help and acting as an involved shareholder, Schwed insists that BRM did not substantially contribute to the development of the company. Instead, according to Schwed, it was Schwed and his two partners who came up with the idea for Check Point, tested it out in the market place, and then launched the company. The three Check Point founders claim that they went to BRM primarily because they needed to raise money for their endeavor.

Through June 1999, BRM's other start-up attempts have had mixed results. In 1995, Backweb ([www.backweb.com](http://www.backweb.com)) was developed internally by a team of engineers headed by Eli Barkat, who had assumed the role of Director of Business Development. Eli was charged by his BRM partners to have two projects up and running within three months. He assembled a team to

develop the conceptual framework for the company. The initial focus of the company they created was an architecture that enabled customers to “push” news and other types of information onto users’ desktops. Later, the company refocused its product line to automatically deliver business critical information to various constituencies in a company such as the sales force and its partners. (Appendix 1) Backweb has positioned itself as a provider of Internet communication infrastructure and applications software and is trying to establish its software as the *de facto* standard in the industry:

We intend to establish BackWeb Foundation as the leading infrastructure software platform for Internet communication. We believe that the recent adoption of BackWeb Foundation by leading companies across various industries validates our technology and should facilitate its broad market acceptance. In addition, we believe that the selection of our products by industry leaders should promote the adoption of our Internet communication solution by these companies' partners, suppliers and distributors. We also believe that this adoption, along with the competitive advantages achieved with our products, will drive other industry participants to adopt our products as their preferred solution. We intend to continue to focus our development efforts on increasing the functionality and flexibility of BackWeb Foundation to facilitate its continued adoption and to increase the technological barriers to entry.<sup>2</sup>

However, Backweb has continued to incur substantial losses and is currently operating at a deficit:

We have not achieved profitability and expect to continue to incur net losses for at least the foreseeable future. We incurred net losses of approximately \$7.7 million for the year ended December 31, 1996, \$15.0 million for the year ended December 31, 1997, and \$14.6 million for the year ended December 31, 1998 and \$3.7 million for the three months ended March 31, 1999. As of March 31, 1999, we had an accumulated deficit of approximately \$41.2 million.<sup>3</sup> (Exhibit 3)

Moreover, Backweb continues to have a very involved financial and R&D relationship with BRM's partners:

In 1995, [BRM] signed an agreement with EliBarkat Holdings Ltd., a company controlled by Eli Barkat, BackWeb's Chairman of the Board and Chief Executive Officer, NirBarkat Holdings Ltd., a company controlled by Nir Barkat, BackWeb's former Chairman of the Board, and Yuval 63 Holdings (1995) Ltd., a company controlled by Yuval Rakavy, a former director of BackWeb. In accordance with the terms of this agreement, these three companies loaned BackWeb an aggregate of \$500,000. The loan is denominated in NIS and is payable at a rate of 2.5% of cumulative consolidated revenues in excess of \$5,000,000. As of March 31, 1999, \$927,000 remained outstanding under the two loans after reflecting currency conversion adjustments and repayment.

BackWeb historically has paid to BRM Technologies Ltd., a company controlled by Eli Barkat, Nir Barkat and Yuval Rakavy through their holding companies, fees for research and development services on the basis of cost plus 15% and expenses at cost. Amounts incurred for these services were approximately \$1.6 million, \$1.2 million and \$873,000 during the years ended December 31, 1996, 1997 and 1998 and \$67,000 during the three

---

<sup>2</sup> Backweb Technologies Ltd, Prospectus, June 7, 1999, p. 31

<sup>3</sup> Backweb Technologies, Ltd. Prospectus, June 7, 1999, p. 4

months ended March 31, 1999. Currently, BackWeb is reducing its use of these services and expects that amounts payable in connection with these services will be immaterial beginning in the second quarter of 1999.

EliBarkat Holdings Ltd., NirBarkat Holdings Ltd. and Yuval 63 Holdings (1995) Ltd. agreed that in connection with our Series A Preferred Stock financing they would:

- purchase shares of our Series A Preferred Stock; and
- forego their right to acquire additional shares of our Series A Preferred Stock in exchange for the right to designate employees and consultants of BRM Technologies Ltd. as beneficiaries of options to acquire up to 792,167 ordinary shares of BackWeb, all of which have been granted.<sup>4</sup>

MediaPath was also founded in 1996 as a result of internal development at BRM. MediaPath's primary product is called Media Agent, a software agent that manages, controls, and tracks CD-ROMs that move around a company's network. It thus enables an organization to improve its control over the data on CD-ROMs, and also decreases the organization's data maintenance costs. While the product had some merit and seemed to satisfy a need in the marketplace, in the end, the company did not take off. BRM decided to sell MediaPath's technology licenses to a company in New Jersey that now bears its name.

The two most recent companies in the BRM portfolio appear to fit the BRM's criteria of establishing a technology entry barrier and creating a new market. In 1997, two entrepreneurs, Dr. Shai Herzog, an expert in Quality of Service [QoS] software and David Zvilichovsky, an experienced entrepreneur in the high technology arena, approached BRM with an idea for developing a company to provide enterprises and Internet Service Providers (ISPs) with QoS software. These applications would enable them to prioritize traffic on their networks. BRM invested \$2 million as seed funding in the new company, which is called IPHighway ([www.iphighway.com](http://www.iphighway.com)). The BRM partners enthusiastically believe that IPHighway has created a powerful, novel way to provide quality of service over the Internet or within an enterprise. As market creator, according to this line of thinking, IPHighway will dominate in a market that has been estimated at \$2 billion.

In 1998, ProSight was also founded under the BRM banner. ProSight provides enterprises with system software that enables organizations to automate the management of large-scale information technology projects. ProSight's focus is on developing a system that allows extremely efficient and effective application development to take place within an enterprise. ProSight was co-founded by Avrami Tzur and Amir Ofer, both successful technologists who were interested in introducing a new idea into the marketplace. The BRM partners see ProSight as having as great a potential as IPHighway, because it will create a brand new market in the management of software projects.

One of the cornerstones of the BRM approach is its extensive evaluation of entrepreneurs. Finding an entrepreneur whose idea will be the "next big thing" is no easy task. There are three major sources of entrepreneurial talent:

---

<sup>4</sup> Backweb Technologies Ltd. Prospectus, June 7, 1999, p. 45

- the universities where there are a large number of students who are studying in computer-related disciplines;
- the Israeli technology community, specifically from leading established companies, such as Intel and Motorola, which have company branches in Israel, and from other start-up companies; and
- the army, which turns out large numbers of highly qualified people especially in Computer Science.

Assessment can take four to eight weeks and includes evaluating the idea, the technology, the entrepreneur, as well as the market and business potential. In 1998, over 250 projects were reviewed.

When asked about his criteria for evaluating entrepreneurs, Yizhar Shai said, "I have a short definition. An entrepreneur will achieve his or her goals." BRM looks for people who are driven to succeed and who can make sacrifices to the venture. But they also must be able to take criticism, and accept BRM's support and guidance.

Having substantive experience in the relevant technology is also considered essential. For example, Shai Herzog, one of the founders of IPHighway, possessed a substantial background in TCP/IP research and development. This was viewed as a great asset by BRM even before Herzog had a business plan for his idea.

BRM initially places its emphasis on finding and nurturing an entrepreneur. The partnership believes that entrepreneurial spirit is much more important in the early stages than managerial skills. Yizhar Shai explains:

We do not necessarily need a CEO. We do not look for the greatest business person and not necessarily a great development manager but we need a spirit and this is one of the most important things we are looking for. Because as BRM, we can complement what is missing. This is a little bit different than what you will be told by VCs because VCs generally look much more carefully into the group to verify that there is a potential CEO that can take over. This is not the BRM approach. We think we need an entrepreneur. If there is no CEO that is fine. We have our network. We have our contacts and our experience how to measure a good CEO and this is an important professional function we can complement.

Once an entrepreneur passes initial selection, evaluation accelerates. The BRM R&D group, along with members of Business Development, conducts a broad-ranging analysis of the technology, which includes examining the technology specifications, projections of development time, and the number of people needed for development.

Concurrent with the technology assessment, Avi Broder, Chief Financial Officer and his group conducts a financial and business review which includes discussions with potential customers and other industry contacts.

Customers' viewpoints are especially critical. The entrepreneur, along with a member of BRM management, holds a series of carefully structured meetings with key customers. The customer is asked to describe particular business problems that warrant attention either in the near term or in the future. From the BRM perspective, it is important for the entrepreneur to understand and be sensitive to the issues facing potential clients before even discussing specific products

or technology. In subsequent meetings, the entrepreneur presents technology solutions to customers and receives feedback.

Such feedback often has a significant effect on future development. For example, Prosight was originally developed as a tool for helping project managers run projects. After a series of customer meetings, it became clear that a much bigger need was how to manage a large *portfolio* of projects. As a result, Prosight changed its focus entirely from producing a tool into being more of a broad-based enterprise information systems company.

Also, at this time, the entrepreneur and BRM reach agreement on the financial aspects of the deal.

### **V. BRM's Alternate "Pre-Seed Model" for Creating Companies**

The majority of BRM's candidate entrepreneurs come with ideas ready for evaluation. But not all. The partnership has also supported talented people who have only a general notion of what they would like to do. This alternate approach is called the "Pre-Seed Model" at BRM. Groups of entrepreneurs, usually two to three, are housed at BRM's headquarters in Jerusalem, and are provided with significant support. BRM hopes to nurture three start-ups in this fashion in 1999.

This was the case with Avrami Tzur and Amir Ofer, the founders of Prosight, who approached BRM. They wanted to develop a company but were not exactly sure in what area they wanted to focus. Tzur spent most of his career as the interface between customers and products; he understood the needs of customers and was able to translate them to products. Ofer came to BRM from a very prestigious job in the technology industry, and was also extremely well versed in the needs of customers. BRM gave Tzur and Ofer access to research, analysts, customers, and BRM's own engineering group. They also received salaries and obtained office space. Their obligation was to create BRM's next company. After nine months, Prosight was founded.

### **VI. Emerging Issues for BRM**

BRM anticipates introducing one or two new enterprise software companies by the end of 1999. The partnership also has several other companies in the pipeline. However, the partners would like to see BRM launch more than one or two companies a year and are debating how to do this, including adding partners and enlarging the engineering group. Rakavy suggests that the partnership has a number of options open to it:

I don't think we will change our business model to become a product company and produce products but we can either scale that or create more spin-off businesses like a traditional VC especially if we get older. Right now, the business that we run is extremely demanding and each of us is going twenty times a year abroad and now we are still young and we like to be in the trenches. And one of the things we need to address in our business is when you are fifty or forty-five I'm not sure that we would like to fly twenty times a year to the US. So it's something we will have to look at with open eyes. So either we manage to scale and have new partners, younger partners. I mean one of the things that happened is that we became eleven years old. Although we feel like a start-up, we are not.

But there are also concerns about the impact of growth. The unique nature of the relationships among the partners and their influence on the BRM culture could change if new partners join the leadership.

In addition to the issue of appropriate scale, other critical aspects of BRM's approach are also being scrutinized. For example, the notion of what constitutes the best bi-national approach is being discussed. For one thing, despite the partners' enthusiasm for the R&D talent pool that exists in Israel, Charles Federman has suggested that perhaps some components of BRM's research and development group should be in the United States. Moreover, Federman has stated on more than one occasion, that unless a start-up's headquarters is located in the US, preferably Silicon Valley, it has little of chance of success. This means that both the entrepreneur and the CEO (who may be Israeli but is mostly likely an American) should reside in the United States. Federman explains:

It's a very emotional issue when you go to Israel, a country which is incredibly proud and possessive of its intellectual resources. It's highly contentious. But similar to a strategy where if you have regression towards the mean, you have a diluted strategy and you will surely fail, that's how strongly I feel I'm right about this. And it's very simple. The chief executive officer what's his responsibility. The first thing he does. The first thing is he owns the P&L. And if you own the P&L let's think about where the P&L's being spent and being earned. If I looked at the revenue and the gross spending on IT, 60% of the IT spending is done in the United States between 50 and 60% depending on the study you read, 25% in Europe, 15% in Japan, and 10% in the rest of the world. So if you have an environment where half the world's spending on IT is going to be in one country, it means that you should anticipate that half of your revenue is going to be earned in one country. And for your expenses I would postulate that more than half of your expenses will come in the US because the rest of the world tends to follow the US example because if you're successful in the States you will probably be successful elsewhere. Successful elsewhere and you come to the United States, you probably will not be successful because you have lost your first mover advantage. So if you have an environment where the CEO owns the P&L, and more than half of the P&L's revenue and more than half of the expenses are going to be in one place, the United States, by all logic, he should sit near that P&L.

Federman emphasizes that the CEO must be responsible for financial performance and long-term strategy, which means begin close to the market, near the customers and latest developments. The market and customers are in the United States. Therefore, the CEO must be in the United States, not wasting time doing transatlantic commuting:

If the CEO won't be in the States, he's going to spend most of his time commuting to the States. East Coast and West Coast. He's going to be a physical wreck and it's going to be unsustainable and it's going to place such a time and distance between him and the key members of his team, he's going to delegate responsibility if he's a delegator that the communications will become inefficient as well.

The critical geographical and logistic issue is delineated in Backweb's June, 1999 Prospectus:

If we fail to manage our geographically dispersed organization, we may fail to meet or exceed our business plan and our revenues may decline. Our research and development facilities are located in Canada and Israel, and our directors, executive officers and other key employees are similarly dispersed throughout the world. In addition, we maintain offices

in the United States, Canada, Japan and Europe to market and sell our products in those countries and surrounding regions. This geographic dispersion requires significant management resources that our locally-based competitors do not need to devote to their operations. In addition, the expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources.<sup>5</sup>

Up to June 1999, BRM focused on the software market. However, the partners are considering diversification. Two areas under consideration are medical devices and electronic commerce. Yuval Rakavy points out that most medical devices are software intensive. BRM knows how to develop software and run a development organization. He also suggests that BRM can afford to support longer development cycles and bigger investments than was previously the case.

The future evolution of BRM also related to how the partners view their roles in the company. All four partners consider themselves first and foremost as entrepreneurs. But, they are also investors in the start-up companies in their portfolio. Their entrepreneurial bias to see a company succeed can impede a hardheaded assessment of a start-up's viability from an investor's perspective. This was the case with MediaPath which had clearly lost momentum at a certain point. The MediaPath external investors wrote off the company two years earlier than BRM's partners. As entrepreneurs, says Rakavy "it's very hard for us to kill a project."

While the debate goes on about the future of the company, the partners believe, like Rakavy, that the essence of BRM is change:

One of the things that makes BRM unique is that we change a lot. If you look at what the company did ten years ago and what it is doing now, all the people are the same but the rest is different and we believe this is the way. When we started the anti-virus business, there were five other anti-virus companies in Israel. I think that three and a half of them are gone because they didn't know how to change. At one point, to be able to say, the anti-virus software is a commodity. Let's move away. That was pretty unique. Then we did it because we were lucky but now when we look back on it that one of the qualities of the company is to always recalc what you are doing what is your position are you doing the right thing not to be afraid of moving. And one of the problems when you scale and get larger and larger it becomes harder and harder to do that.

Moreover, BRM's method, which combines entrepreneurial handholding with a bi-national orientation also remains untested. The partners all agree with Rakavy that "we need to prove that our concept is working." Evidence to Rakavy are "the exits, and probably we will have one in Backweb. I would still say we need to prove that the theory works."

In June 1999, Backweb filed for an IPO, and this exit signifies the first important test case of BRM's approach. Although Backweb's stock initially soared in its offering price from \$8.00 a share to \$22.00, it does not yet appeared to have captured the attention of investors like other Internet-related stocks. (Exhibit 4). In addition, according to the June 1999 Backweb Prospectus, Backweb faces competition from some formidable companies in the software infrastructure arena:

---

<sup>5</sup> Backweb Technologies Ltd. Prospectus, June 7, 1999, p. 7

We have experienced and expect to continue to experience increased competition from current and potential competitors. Many of these companies have greater name recognition, longer operating histories, larger customer bases and significantly greater financial, technical, marketing, public relations, sales, distribution and other resources. In addition, some of our potential competitors are among the largest and most well capitalized software companies in the world. We expect to face competition from these and other competitors, including:

- companies addressing certain segments of our market such as Marimba and Tibco;
- sales force automation and enterprise resource planning, or ERP, vendors that may introduce products competitive to BackWeb Sales Accelerator; and
- communications and information management platform companies such as IBM and its subsidiary Lotus Development Corporation, Microsoft and Sun Microsystems.

Additional competition could come from operating system vendors, online service providers, client/server applications and tools vendors, multimedia companies, document management companies and network management vendors.<sup>6</sup>

The other two companies that BRM has successfully launched, IP Highway and ProSight, are still seen as early-stage “market creators.” IP Highway for example, faces obstacles. Aside from whether its product will actually perform as claimed, there is potential competition from such giants as Cisco and 3Com who have the resources to enter into this new market.

The underlying premise of BRM’s bi-national approach is that Israeli entrepreneurs need broad-based help to succeed. While Nir Barkat and his partners may prefer that much of the deal remain in Israel, the actual thrust of BRM is to move the technology to the United States as quickly as possible. Indeed, Federman thinks that BRM cannot afford to support Israel-centric start-ups:

The option is that Israel holds onto its best people and encourages them not to go and then has failing companies...If the country is going to pursue [this] tactic which will be a losing tactic, that will shut off the flow of capital to the next generation of Israeli technology companies. Capital is incredibly viscous. It flows to opportunity. If you don’t see opportunity, it will go to Japan, it will go to India, it will go elsewhere. It’s flowing to Israel because of success right now. If success shuts off, it’s going to abandon Israel. So let’s think about how Israel is going to be successful and then the capital and the opportunities will flow for the next generation of entrepreneurs.

With their headquarters in Silicon Valley, Backweb, IP Highway, and Check Point, are viewed as American companies rather than as Israeli ones. In fact, Gil Schwed, CEO of Checkpoint, believes that to some extent, Check Point’s growth is due to the American image of the company. The correct balancing of tapping distinctive seedbeds of technological innovation around the world with the equally important need of being close to markets and complementary technology developments still needs to be found. (Appendix 2)

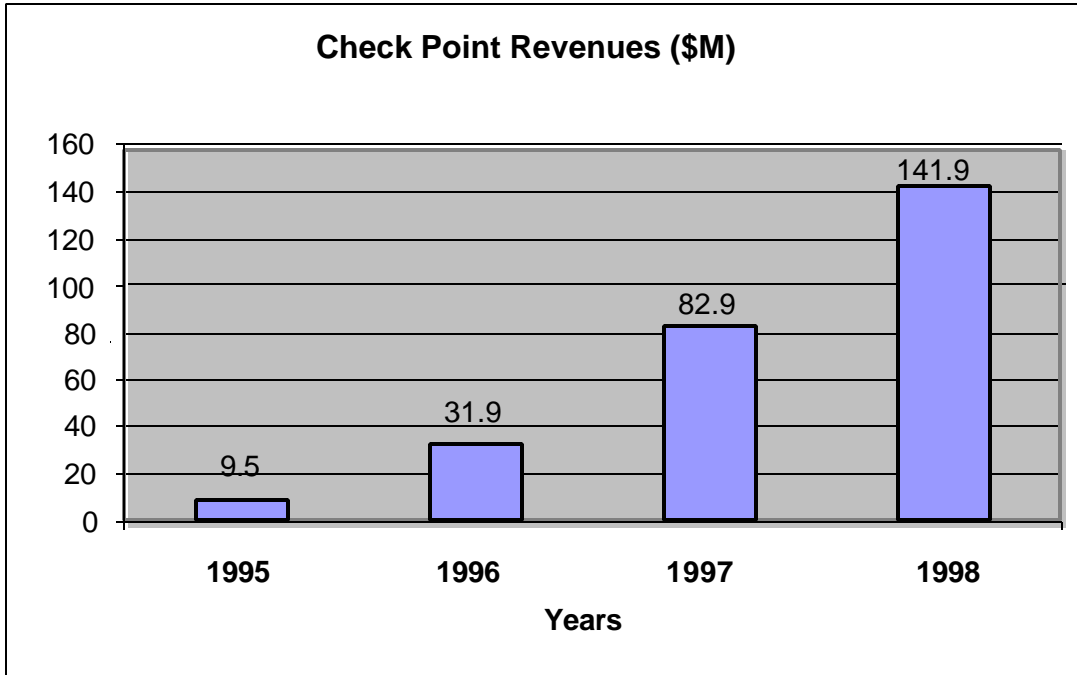
---

<sup>6</sup> Backweb Technologies Ltd. Prospectus, June 7, 1999, p. 36

As its leaders have stated, BRM will continue to reassess its approach and if necessary, change its direction. In parallel, the debate will continue in the industry about how and where successful companies should be created. As BRM evolves and spawns new companies, the validity of its model and its leaders' philosophy will be ultimately be tested by the global technology marketplace.

**Exhibit 1**

**Check Point Software Technologies Ltd.  
Revenues 1995-1998**



Source: Checkpoint Software Technologies Ltd, January 1999, [www.checkpoint.com](http://www.checkpoint.com)

## Exhibit 2

### Check Point Software Technologies Ltd. Stock Performance 1998-1999



Source: Merrill Lynch & Co., June 15, 1999 [www.ml.com](http://www.ml.com)

### Exhibit 3

#### Selected Consolidated Financial Data – Backweb Technologies Ltd.<sup>7</sup> (US Dollars)

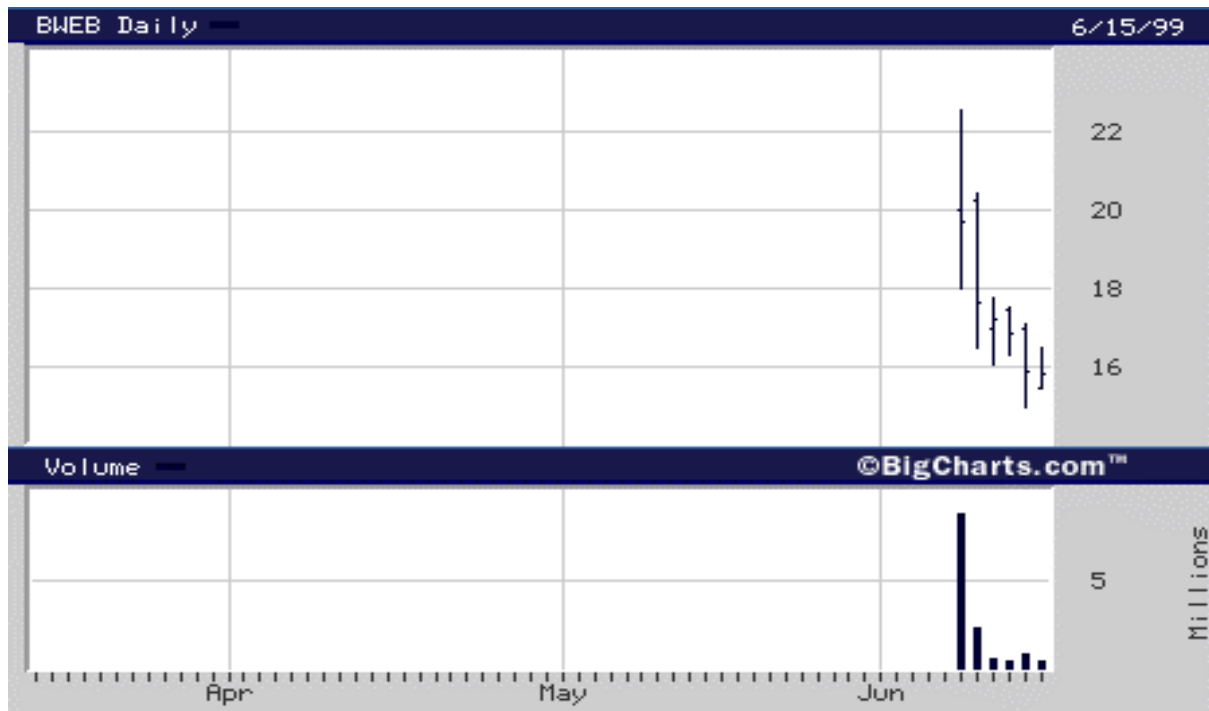
	TWO MONTHS ENDED DECEMBER 31		YEAR ENDED DECEMBER 31,		THREE MONTHS ENDED MARCH 31,	
	1995	1996	1997	1998	1998	1999
Revenues:						
License.....	\$ --	\$ 71	\$ 5,311	\$ 7,980	\$ 1,395	\$3,308
Service.....	--	--	290	1,557	184	789
Total revenues.....	--	71	5,601	9,537	1,579	4,097
Cost of revenues:						
License.....	--	--	182	266	55	73
Service.....	--	--	796	1,353	297	592
Total cost of revenues.....	--	--	978	1,619	352	665
Gross profit.....	--	71	4,623	7,918	1,227	3,432
Operating expenses:						
Research and development.....	120	1,781	3,955	4,555	1,277	997
Sales and marketing.....	--	4,535	12,224	13,182	3,321	3,831
General and administrative.....	116	1,396	2,981	3,182	811	931
Amortization of goodwill, other intangibles, and deferred stock compensation.....	--	--	557	1,824	401	1,202
Total operating expenses.....	236	7,712	19,717	22,743	5,810	6,961
Loss from operations.....	(236)	(7,641)	(15,094)	(14,825)	(4,583)	(3,529)
Interest income (expense), net.....	(2)	(43)	132	218	(18)	(157)
Net loss.....	\$ (238)	\$(7,684)	\$(14,962)	\$(14,607)	\$(4,601)	\$(3,686)
Basic and diluted net loss per share.....		\$ (6.95)	\$ (6.96)	\$ (6.07)	\$ (2.02)	\$ (1.40)
Shares used in computing basic and diluted net loss per share.....		1,106	2,151	2,408	2,283	2,627
Pro forma basic and diluted net loss per share (unaudited).....				\$ (0.69)		\$ (0.16)
Shares used in computing pro forma basic and diluted net loss per share (unaudited).....				21,208		23,058

<sup>7</sup> Backweb Technologies Ltd. Prospectus, June 7, 1999, p. 17

### Exhibit 4

## Backweb Technologies Ltd. Stock Performance

June 1999



Source – Merrill Lynch & Co., June 15, 1999, [www.ml.com](http://www.ml.com)

## Appendix 1

### Backweb Technologies Ltd. Product Line

(Reprinted from Backweb Technologies Ltd. Prospectus, June 7, 1999)

Our infrastructure software platform is powered by three core technologies that we have developed: Polite Communications, Attention Management and Closed Loop Delivery.

**POLITE COMMUNICATIONS.** Polite Communications enables the transmission of significant volumes of digital data through existing networks without interfering with normal network applications and traffic. Polite Communications enables companies to provide any user with rapid communication of bandwidth-intensive data, regardless of whether they utilize high-speed data access services. This bandwidth-sensitive delivery is accomplished through the use of various components including the following:

- POLITE AGENT - monitors the network activity of the client workstation and communicates with Backweb servers only when the connection is idle.
- POLITE PROXY monitors wide area network, or WAN, connections in the same manner, using available bandwidth.
- POLITE NEIGHBORCAST enables the automatic transmission of digital data from one BackWeb Client to others on the same local area network, or LAN, obviating the need for transmission of the data from the server to each BackWeb Client. The transmission from BackWeb Client to BackWeb Client on the same LAN is a fast, efficient and cost-effective means of disseminating the data.
- POLITE UPSTREAM enables the automatic transmission of digital data from BackWeb Clients to the BackWeb Server when the network connection is idle.

Polite Communications further improves the efficiency of transmission by reducing the amount of data to be transmitted through various techniques including:

- compression of data;
- updating only the information which has changed since the user's previous download; and
- eliminating the need to re-send an interrupted transmission progressively resuming at the point where it was interrupted.

**ATTENTION MANAGEMENT AND FLASH NOTIFICATIONS.** Attention Management is an automatic notification system that alerts users to the delivery of business-critical information through a variety of display techniques including tickers and Flash notifications. These techniques enable companies to attract immediate attention to time-sensitive information. Flashes are a particular display technique that can be customized to notify users and, if desired, can allow management to track the usage of the information. For example, the recipient can be required to acknowledge their receipt of the information, or to immediately launch and interact with a designated application. In addition, Attention Management displays can be programmed

to play automatically according to specific scheduling and expiration parameters, after which the information and associated data can be automatically purged.

**CLOSED LOOP DELIVERY.** Our Closed Loop Delivery capabilities allow companies to track, manage and survey the effectiveness of communications throughout their extended enterprise. Companies can track the status and use of any digital data delivered via BackWeb or generate reports on the overall usage of the system on a per-user or per-content basis. Using these reports, companies can determine what types of communication are most effective or most popular and adapt their communication strategy appropriately.

**BACKWEB FOUNDATION.** Our infrastructure software platform, BackWeb Foundation, is based on a set of flexible components including BackWeb Server, BackWeb Client and BackWeb Add-On Components. These components enable an organization to capture information from virtually any data source, including websites, file servers, databases, applications and legacy systems, and efficiently and reliably deliver it throughout its extended enterprise. BackWeb Server is a software server which runs on standard hardware servers, and communicates with BackWeb Client, our software program operating on personal computers or workstations.

BackWeb Server. BackWeb Server communicates with BackWeb Clients and is capable of receiving digital data from various sources, such as the Internet, intranet sites, databases, applications and legacy systems and automatically distributes that data to BackWeb Clients. The BackWeb Server is highly scalable and optimized to support a large number of clients concurrently. Components of BackWeb Server include:

- BackWeb Server Console. A console that allows a system administrator to manage BackWeb Server and control the information flow across the enterprise through a point-and-click graphical user interface.
- BackWeb Server Extension API. An application programming interface that allows companies to integrate the BackWeb Server with any digital data source, enabling automated publishing of content or files from any source to the BackWeb Server.
- BackWeb Automation SDK and Automation Editor. Includes application programming interfaces and a library of BackWeb-supplied programs which perform tasks between the BackWeb Server and external data sources.
- BackWeb BALI Editor. Our BackWeb Authoring Language Interface Editor is used by companies to create and modify Flashes.

BackWeb Client. BackWeb Client, our software program operating on personal computer or workstations, operates in the background and communicates with designated BackWeb Servers during the idle time of a user's network connection, thereby allowing the user to receive data transparently while using other applications without disruption. BackWeb Client:

- displays information through Flashes and other displays and user interfaces, which may be customized;
- provides an application programming interface to enable customer and third-party applications to integrate with BackWeb Client; and

- can be deployed by a single automatic installation file of less than 100k in size that can be sent to the user via the Internet, e-mail or floppy disk.

BackWeb Add-On Components. BackWeb Foundation, our infrastructure software platform, also includes the following add-on components:

- BackWeb Enhanced Security Module. Provides encrypted communications between BackWeb Server and BackWeb Clients and certificate authentication of data packages. This module incorporates industry standard technologies from RSA Data Security and Verisign.

- BackWeb AutoFile Update Manager. Enables the automatic replication of files or file directories from any directory accessible to the BackWeb Server. Allows the placement of the replicated files in any location on the user's system. Allows management to have complete flexibility over the organization of information on the user's desktop.

- StarBurst Connector. In cooperation with StarBurst, we created optional add-ons to the BackWeb Server and BackWeb Client that allow them to communicate via StarBurst's multicasting Internet protocol. These add-ons work in concert with our protocols to provide a deeply integrated communications solution for customers with multicast Internet protocol environments.

- NewsEdge and Reuters BackWeb Connectors. In cooperation with the NewsEdge and Reuters corporations, we created a pre-packaged set of connectors to their content for the automatic feed of information channels from NewsEdge and Reuters, respectively, to a customer's BackWeb Server.

- BackWeb Polite Proxy Server. A software server that:

- caches frequently accessed material for a group of BackWeb clients eliminating the need for redundant data transfers from a company's server;

- monitors the WAN connection and communicates only when the network connection is below a certain threshold; and

- enables a system administrator to manage the BackWeb Proxy Server Console

**BACKWEB SALES ACCELERATOR.** In December 1998, we introduced BackWeb Sales Accelerator, our first packaged application built on BackWeb Foundation. BackWeb Sales Accelerator allows companies to keep their extended enterprise equipped with the most up-to-date documents, market information and management announcements by automating the collection and dissemination of business critical information. This application is targeted at companies that need to communicate to geographically dispersed sales forces and indirect sales channels to accelerate their business execution and response time to critical changes affecting their business. Examples of information typically communicated by BackWeb Sales Accelerator include:

- competitive and industry news and announcements;

- new pricing policies and updated price lists;

- product release announcements and associated fact sheets, white papers, and training materials;
- new or updated software tools;
- critical executive announcements, in video or other formats, regarding company acquisitions, or strategic priorities; and
- new or modified sales presentations and demonstrations.

BackWeb Sales Accelerator consists of the Market Intelligence Manager, Strategic Publishing Manager and Automated Marketing Encyclopedia modules:

- Market Intelligence Manager automatically monitors, collects,organizes information from Internet or intranet sites to keep an organization's sales force abreast of the latest industry news competitive announcements and customer information.
- Strategic Publishing Manager enables managers to publish and direct the immediate attention of their constituents to time-sensitive and business critical information. Editorial, publishing and access rights are centrally controlled. The published information can be disseminated to users' desktops using our Flash technology.
- Automated Marketing Encyclopedia enables a company to create a library of sales information and productivity software to which extended enterprise users can subscribe. Once subscribed, users automatically receive this information, software and any subsequent updates.<sup>8</sup>

---

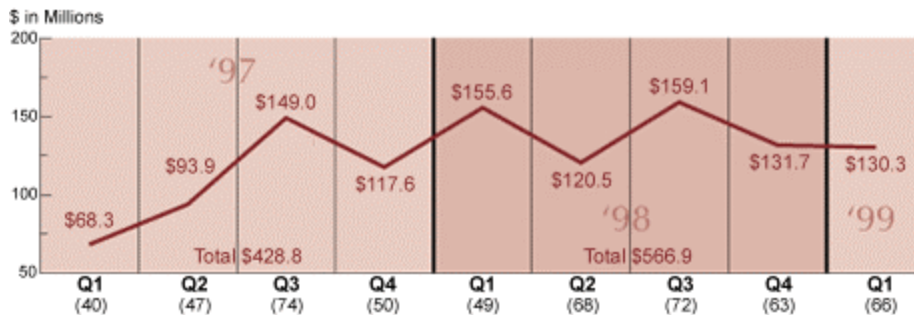
<sup>8</sup> Backweb Technologies Ltd. Prospectus, June 7, 1999, pp. 32-35

## Appendix 2

### Overview of the Israeli Technology Industry—Brief Background Note

At mid year, 1999, “Silicon Wadi”, as Israel’s high-tech industry is known, is thriving. Israel’s entrepreneurial community is prolific: in 1998, an estimated 2000 start-ups were founded in the country. Indeed, with a start-up rate of approximately 5.4%, Israel ranks with the United States and Canada, as one of the most entrepreneurial active countries.<sup>9</sup> Between 1990-1998, the venture capital community established over 90 funds and invested approximately \$2 billion into high tech firms; in the first quarter of 1999 alone, \$130 million was invested.

#### Investments in Israeli Companies – 1997 – Q1 1999

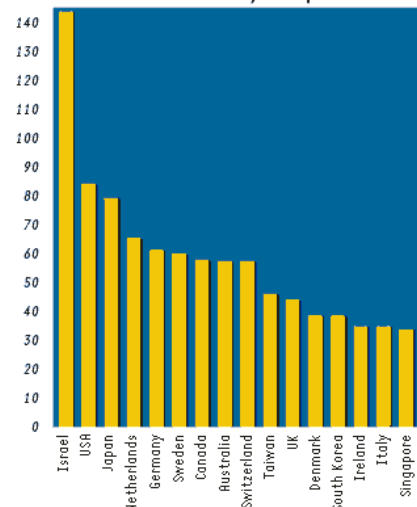


Source: PricewaterhouseCoopers – June 1999, [www.pwcglobal.com](http://www.pwcglobal.com)

Israel has over 100 companies trading on NASDAQ, AMEX, and NYSE. It follows number two-ranked Canada on NASDAQ. Many of these Israeli companies, including ECI Telecomm, Comverse Technology, and NICE Systems, are world leaders in their technology fields. Major established global corporations in the technology industry such as IBM, Intel, Motorola and Microsoft, have R&D facilities in Israel. Indeed, few people know that Israel has the distinction of being the birthplace of the 8088 Intel microprocessor, the i386 processor, and the i486 chip.

The underpinnings of Israel’s technological development are its highly educated, skilled workforce: in 1998 for every 10,000 workers, there were 140 scientists and technicians. In comparison, the United States had 80 scientists and technicians for every 10,000 workers.

*Scientists & Technicians per 10,000 Workers/Country Comparison*



Source: Forbes Magazine, 1998

<sup>9</sup> Paul D. Reynolds, Michael Hay, & S. Michael Camp, “Global Entrepreneurship Monitor – 1999 Executive Report”, Kauffman Center for Entrepreneurial Leadership at the Ewing Marion Kauffman Foundation, p. 33.

Israel has a technologically advanced population. There is a personal computer in nearly one out of two households, a ratio similar to that of the United States and Canada. Local expenditures on information technology (computing and telecommunications) were estimated at \$2.4 billion in 1997 with a steady growth rate of 12-15% annually.<sup>10</sup>

The potential for continued and expanded growth of the technology sectors has not been lost on the Israeli government. In its desire to help Israel move beyond an agricultural economy and embrace what has been called “twenty-first century Zionism”, the Israeli government has funded new technology ventures, established 26 incubators, and passed several laws giving new technology companies substantial tax breaks. In addition, Israel’s educational institutions and some private entities have set up a variety of support frameworks. Universities such as the Technion in Haifa and Ben Gurion University in Beersheba have technological incubators. The RAD Group, the Formula Group, and Elron Electronic Industries, among others, have established holding companies and venture funds which provide varying degrees of support for entrepreneurs.

As a result of such activities, the high tech industry has had a significant impact on Israel’s economy. Indeed, the Bank of Israel estimates that high tech accounts for two-thirds of Israel’s industrial output and 80 percent of its industrial exports.<sup>11</sup>

Moreover, there have been an array of success stories of companies which have been subsequently acquired by non-Israeli companies and/or have been successful in the US technology marketplace. For example, Mirabilis, an Internet personal messaging company, was sold in 1998 to America On-Line for close to \$300 million. VocalTec, another Israeli company, is a leader in the Internet telephony market.

Like many other high-tech clusters, the challenges facing the Israeli technology industry include remaining technologically sophisticated, developing and sustaining a large number of successful companies, and continually fueling the innovative engine. Israel however, has another specific challenge that it must address: it is geographically far from the major technological marketplace in the world, the United States. Because of the distance from this marketplace, where customers, users, and potential key industry partners and competitors are easily accessible, Israeli companies must find ways to market their products and stay in touch with these important US market forces.

Some Israeli companies assume a bi-national approach. They have their R&D done in Israel and business development in the United States. Some companies send their CEOs regularly to the US or simply establish their companies in the United States, preferably in Silicon Valley. With many Israeli high-tech professionals also leaving to go to the United States, the Israeli technology industry is experiencing something of a “brain drain” and some claim, shortage of trained professionals. Furthermore, the trend toward moving out of Israel has actually impeded the growth of a critical mass of indigenous technology companies. Such clustering, along with the presence of large companies like Motorola, Intel, and Oracle, fosters continued needed innovation.

---

<sup>10</sup> Nisso Cohen, “The Israel High Tech Industry- Fifty Years of Excellence”, *Facts about Israel: Science and Technology*, [www.israel.org.mfa/go.asp](http://www.israel.org.mfa/go.asp)?

<sup>11</sup> David Rosenberg, “Ahead of the Game: A Look at the Meteoric Rise of Israeli High Tech,” *Israel: Fifty Years of Finance & Industry*, Supplement to *The Jerusalem Post*, 1998 [www.jpost.co.il/com/Finance](http://www.jpost.co.il/com/Finance)

Still, the Israeli technology industry has emerged as one of the world's most important centers of technological development. With venture capitalist investments, creative and effective approaches relevant for technology and managerial development, and a continuing stream of Israeli entrepreneurs in the pipeline, it is anticipated that "Silicon Wadi" will continue to flourish.

For further information on the Israeli technology industry, see the following websites:

- *Globes* – Israel's Business Newspaper – [www.globes.co.il](http://www.globes.co.il)
- *The Jerusalem Post* – [www.jpost.com](http://www.jpost.com)
- State of Israel – Ministry of Foreign Affairs – Report on "Fifty Years of Science and Technology in Israel" - <http://www.israel-mfa.gov.il>
- State of Israel – Ministry of Industry and Trade – OCS – Center of Incubators for Technological Initiatives – <http://www.incubators.org.il>
- "Beating Swords in IPO Shares," *Forbes ASAP*, June 1, 1998, [www.forbes.com/asap/98/0601/092.htm](http://www.forbes.com/asap/98/0601/092.htm)

## Appendix 3

### The BRM Partners

#### **Nir Barkat**

Nir Barkat is one of the founders of BRM. After directing BRM's anti-virus projects, he played a central role in BRM's growth. Nir directed joint ventures with global software companies including Norton/Symantec and Phoenix Technologies. He participated in the launch of Check Point and served as Chairman of the Board from its foundation until the summer of 1997. Nir was heavily involved in the launching of BackWeb, IPHighway, and ProSight. Nir studied Business Administration and has a degree in Computer Sciences from the Hebrew University of Jerusalem.

#### **Eli Barkat**

Eli Barkat is one of the founders of BRM. He initially led the development of new business opportunities and has played a pivotal role in developing the vision for new products and businesses. Eli is also Backweb Technologies' founder and has served as its CEO since its establishment in 1995. Eli is a graduate of the Hebrew University of Jerusalem in Computer Sciences and Mathematics.

#### **Charles Federman**

Working out of New Jersey, Charles heads BRM's US operations. Before joining BRM, he was Chairman of Broadview Associates, one of the technology industry's leading investment banks. Federman has handled over 100 acquisitions and investments including international and Israeli deals. After some twenty years in the information technology industry, *BusinessWeek* voted Federman one of the twenty-five most influential individuals in Silicon Valley. Federman has brought a broad array of relationships and financial know-how to the partnership at BRM. Federman is a graduate of University of Pennsylvania's Wharton School.

#### **Yuval Rakavy**

Yuval Rakavy is BRM's Chief Technology Officer, and one of the company's founders. At the forefront of all BRM's research and development activities, Rakavy has significant influence on the technological direction of BRM's projects, particularly in the early stages. Rakavy has been instrumental in identifying leading-edge development tools and methodologies, and integrating them into BRM's development environment. Rakavy supervised operations in network anti-virus, backup and network backup products in cooperation with BRM's partners – Norton/Symantec and Phoenix Technologies. He played a central role in the R&D for CheckPoint, BackWeb and most recently, IPHighway and ProSight. Rakavy studied Computer Sciences at the Hebrew University of Jerusalem.

## Appendix 4

### The BRM Portfolio of Companies

#### **Check Point Software Technologies Ltd.**

[www.checkpoint.com](http://www.checkpoint.com)

Check Point Software Technologies Ltd. was founded in 1993 by Gil Schwed, Marius Nacht, and Shlomo Kramer. Check Point is a leader in providing secure enterprise networking solutions. Its product line includes *Firewall-1*, a suite of integrated security applications, *Flood Gate-1*, a policy based, enterprise-wide bandwidth management software, *Provider-1*, which enables the management of multiple security policies from a single point, and *Intrusion Detection*, a real time attack recognition and response system. Check Point's customers include MCI Worldcom and the Kansas Bureau of Investigation. Check Point became a public company in 1996. Its headquarters are located in Ramat Gan, Israel and in Redwood City, California.

#### **Backweb**

[www.backweb.com](http://www.backweb.com)

Backweb was founded in 1995. Backweb's initial product line was focused on the "push" technology market. Its architecture was designed to provide such customers as *The Wall Street Journal* and Ziff Davis with a means of disseminating timely information such as news updates and sports scores to their client bases. Backweb later refocused its products and became a provider of applications in the enterprise market space. Its software enables companies to proactively deliver business critical information to the sales chain which includes the internal sales force as well as customers and external partners. Backweb's current clients include Canada's largest national wireless company, Rogers Communications, and Carlson Leisure Group, one of the largest travel and hospitality companies in the world. Backweb held an IPO in June 1999. Backweb's headquarters are located in San Jose, California.

#### **IP Highway**

[www.iphighway.com](http://www.iphighway.com)

IP Highway was co-founded in 1997 by Shai Herzog, David Zvilichovsky and BRM. IP Highway is a provider of end-to-end quality of service (QoS) network solutions. IP Highway's product line includes *QoS Master*, a software solution of ISP-connected networks, that automatically generates QoS requests of voice, video, and data applications based on policies set by network managers; and *Open Policy System*, which is a centralized QoS software solution for Fortune 1000 enterprises and provides policy management and enforcement. IP Highway's customers include ISPs and Fortune 1000 companies. Its headquarters are located in Fort Lee, New Jersey and it has a research and development center in Israel.

## **ProSight**

ProSight was founded in 1998. It provides software that automates the management of large-scale information technology projects in a corporation. The software enables managers to set development policies, manage and monitor single projects or several projects at a time and track and predict the progress of these projects. ProSight's headquarters are located in Fort Lee, New Jersey.

## **Other Members of the BRM Group**

In addition to the portfolio companies that BRM has founded or co-founded, BRM has invested in Netect, Scribe Technologies Corporation, and PC Data.

### **Netect**

[www.netect.com](http://www.netect.com)

Netect is based in Massachusetts and provides organizations with easy to use anti -hacker software that is specifically designed for network and systems administrators. Though BRM views its investment in Netect as more of a traditional venture investment, it did help the company in a number of ways because of its experience in enterprise security software. Charles Federman sat on the Board of Directors and helped the company recruit a CEO as well as define the direction of the company. BRM also assisted in developing the business and gave Netect the benefit of its expertise in technology. BindView Development Corporation, a leading supplier of security assessment and systems management software, recently acquired Netect.

### **Scribe Technologies Corporation**

[www.scribe.com](http://www.scribe.com)

Scribe Technologies Corporation provides enterprise reporting software solutions. The software delivers timely information to employees over the intranet and to customers, partners, and suppliers over the Internet. Brio Technology Inc, a decision support developer, recently acquired Scribe in a stock swap valued at \$270 million.

### **PC Data**

[www.pcddata.com](http://www.pcddata.com)

PC Data is a market intelligence firm that is the computer industry's primary source for software, hardware and video game sales information. PC Data tracks what products are actually selling, and supplies that sales information to more than 800 subscribers at software and hardware firms.

## Appendix 5

### **BRM Milestones**

- 1988 BRM develops UNVIRUS – anti-virus software
- 1989 BRM closes distribution rights deal with Fifth Generation Systems (FGS)
- 1991 BRM begins developing software for the Norton Group/Symantec following acquisition by Symantec of FGS and BRM rights
- 1993 BRM co-founds Check Point – Firewall and Security Vendor
- 1995 BRM decides on new company-building strategy
- 1995 BRM focuses on founding new IT companies: Backweb, a company which provides enterprise communication applications for the sales distribution chain and MediaPath, a tool company which provides companies with a way of manipulating the data on its CD-ROMs
- 1996 Check Points holds an IPO in July
- 1997 BRM provides seed funding for IPHighway, a company which provides policy based QoS software company
- 1998 Charles Federman joins BRM as a Managing Director heading BRM's US operation
- 1999 BRM founds ProSight, a company which provides automated management of large-scale IT projects
- 1999 Backweb holds an IPO in June