BBN Organization and Management (1957–2003)

Compiled by David Walden[*]

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1957. In our judgement, the computer era at BBN began with the arrival of Licklider in 1957 [see chapter 1, by Leo Beranek, of the book *A Culture of Innovation: Insider Accounts of Computing and Life at BBN*]. He brought other people into the company, including Tom Marill, Ed Fredkin, Jerry Elkind, John Swets, John Senders and (part time) Danny Bobrow [see book chapter 3 by John Swets].

1961. When the first annual report was published in 1961, the list of corporate management included Leo Beranek and president and CEO, Sam Latate as EVP, and Licklider as one of several VPs (the others being on the acoustics side of the house). From his EVP role, Labate handled much of the day-to-day management of the company and did so for many years. Jordan Baruch was VP and Treasurer of the company, but not yet involved in computer activities. Ed Fredkin left the company in 1961.

1962. The 1962 annual report shows no change in the corporate management that relates to the computer side of the company. Computer-related activities are described as Life and Information Sciences business including information systems, engineering psychology, computer science, education and training systems, psychophysiology. The Hospital Project started in 1962, which marked Jordan Baruch's shift to the computer side of the company.

1963. By the 1963 Licklider had left for ARPA. Baruch continues to be listed as a corporate VP. Computer activities described included psychoacoustics, engineering psychology, information systems (including DECAL-BBN [see book chapter 4, compiled by me] and experiments with two-way computer communication over phone lines), and psychophysiology

1964. In 1964, the annual report listed Man-machine Information Systems among the company's activities. Jerry Elkind and John Swets were elected corporate VPs in 1964, with various computer activities reporting to them. For the rest of the time Elkind was at BBN, he and Swets officially were co-directors of various activities; this Beranek's idea. However, in fact, Elkind did most of the managing, and Swets participated in those aspects of management that interested him, e.g., staffing and staff development.

1965. Marill left the company in 1965. The 1965 annual report showed a number of changes that sooner or later related to the company's computer activities. Dick Bolt is listed as chairman for the first time, Norm Doelling is shown in the corporate position of manager of business development [see book chapter 4], Baruch is no longer listed as a corporate VP, and for the first time management substructure is shown:

Advanced Information Systems
Baruch, Division Director and VP
John H. Hughes, manager, Hospital System Project
Boilen, supervisor, System Programming
Paul Castleman, Supervisor, Client Services
Wallace Feurzeig, Supervisor, Educational Technology

Man-Machine-Information
Jerome I. Elkind, Division Director and VP
John Swets, Division Director and VP
John W. Senders, Manager, Engineering Psychology
Daniel D. Bobrow, Manager, Artificial Intelligence

LA Office
Weldon E. Clark, Jr., Manager, Computer Sciences and Services

Data Equipment Company
Raymond J. Davis, VP and GM
George H. Kallen, Director of Engineering

1966. Baruch made a deal with General Electric to start a joint venture [see book chapter 6 by Steve Levy] and left BBN with Shelly Boilen and other people from the Hospital Project to lead that activity. Thus, in the 1966 annual report, while Bolt is listed as chairman of the company, he is also listed leading Baruch's old division, where Telcomp now resided.

Information Technology
Richard H. Bolt, Division Director
Norman Doelling, Manager, Telcomp Services
Paul Castleman, Manager, Medical Information Technology
Wallace Feurzeig, Manager, Educational Information Technology

In the Data Equipment Division, Dave Keast was now Manager, Operations and Division VP.

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[*]The information in this notes came from BBN annual reports (which started in 1961), from information gleaned from other papers in this special issue, and from correspondence with many people who were at BBN at one time or another (in person or by phone or e-mail). BBN's fiscal year ran from July through June with the annual report having the same year number as the second half of the fiscal year and typically came out in October following the end of the fiscal year. **I welcome input to clarify the many questions highlighted in the years after I left BBN in 1995 and input on the years after 2003.**

Also, Frank Heart was recruited by Dick Bolt, based on Danny Bobrow's recommendation, to take on management of the Computer Systems Division

1967. In the 1967 annual report, the management of the computer activities was as follows:

Information Sciences
Elkind, Division Director and VP
Swets, Division Director and VP
Bobrow, Manager, AI
Sheldon Baron, Manager, Control Systems
Joseph Markowitz, Manager, Experimental Psychology

Information Technology
Frank E. Heart, Division Director
Castleman, Manager, Medical Information Technology
Feurzeig, Manager, Educational Information Technology
Robert V. Jacobson, Manager, TELCOMP
William E. Fletcher, Technical Director, TELCOMP

TELCOMP Service Centers
John F. Lanigan, Manager, Boston regional center (Cambridge)
Gerald O. Hearth, Manager New York regional center (East Orange, NJ)
Richard D. Evans, Managing Director, Time Sharing Ltd (London)

1968. By the 1968 annual report, Elkind (nominally with Swets) was directing all of the computer R&D activities of the company. Frank Heart had brought in Ralph Alter (from Lincoln Laboratory) to lead Telcomp (technically?).

Information Science and Technology
Elkind, Division Director and VP
Swets, Division Director and VP
Bobrow, Manager, AI, Div." VP
Heart, Manager, Systems Development, Div." VP
Ralph Alter, Manager, Service Systems
Baron, Manager, Control Systems
Feurzeig, Manager, Educational Technology
David M. Green, Managing Consultant, Psychoacoustics (LA)
Joseph Markowitz, Manager, Experimental Psychology

TELCOMP
F. Laurence Gosnell, Manager, Marketing
Gerald O. Heath, Manager, Sales
Evans, Managing Director Time Sharing Ltd.

1969. The 1969 annual report shows that Leo Beranek had left the active management of the company (to pursue his interest in buying a TV station), and Sam Labate became president and CEO. Elkind (with Swets) were still managing the computer R&D activities, but now there were three division directors reporting to Elkind.

Raymond S. Nickerson, Behavioral Sciences, Division Director
Bobrow, Computer Science, Division Director and Division VP
Heart, Computer Systems, Division Director and Division VP

Telcomp
Ralph Alter, Technical Director
Herbert S. Karas, Marketing Manager

1970. By the time of the 1970 annual report, Jerry Elkind had left the company, and John Swets (with the corporate rank of senior VP) had the division directors (computer division directors Nickerson, Bobrow, and Heart, as well as the three directors of the acoustics divisions) reporting to him (by this time Nickerson was also a Division VP).

The only change in 1970 was that Shelly Baron became a principle scientist in addition to managing the control systems department, a slight (and sometimes recurring) violation of BBN's principle of having separate management and technical hierarchies.

1971. In the 1971 annual report, Swets is listed as SVP and GM of Consulting, Research and Development, with the same division directors reporting to him. Telcomp is gone from this annual report.

1972. The only change in the 1972 annual report is that William (Bert) Sutherland replaced Danny Bobrow as director (and Div. VP) of the Computer Science Division. Sutherland had joined the company a little earlier bringing with him expertise in computer graphics.

The management configuration was unchanged in 1973 and 1974.

1975. By the 1975 annual report, John Swets had stepped down from his general management position and became Chief Scientist, a position he held for the next 23 years until he retired from BBN. Same Labate was still president and CEO, and he appointed Steve Levy to be executive vice president and COO. Bert Sutherland followed Elkind and Bobrow to Xerox PARC, and Ray Nickerson became director of what had been both his and Sutherland's divisions; the combination was renamed Information Sciences. Heart remained director of the Computer Systems Division.

Thus, from 1975 to 1978, the annual report showed:

Corporate Management
Levy, EVP and COO
Swets, Chief Scientist

Information Sciences
Nickerson, Director and VP
Baron, Principal Scientist

Computer Systems
Heart, Director and VP

1979. For some years, Baron and Jerry Burchfiel had been helping Nickerson manage his division, and first Paul Castleman and later Dave Walden had been helping Frank Heart manage his division as assistant division directors. The 1979 annual report listed all of these people. Mike LaVigna, who had been with the company for some time doing business development, was made a corporate VP.[1]

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[1] Steve Levy met LaVigna when Levy was closing down Telcomp and sold it to On-Line Systems in Pittsburgh, and LaVigna handled the On-Line Systems side of the deal. They had remained in touch, and Levy recruited LaVigna to join BBN when he wanted a new business development person for BBN.

Corporate management
Levy, President and CEO
LaVigna, VP business development

Information Sciences Division
Nickerson, Director
Baron, DVP
Burchfiel, DVP

Computer Systems Division
Heart, Director
Castleman, DVP
Walden, DVP

1980. By the 1980 annual report, Steve Levy was president and CEO; Sam Labate still served aas chairman of the board, working every day at BBN; . John Swets stepped into the Chief Scientist position, originally created when Leo Beranek ceased to be general manager of BBN's R&D activities. Mike LaVigna served as VP—Business Development.

In 1979, BBN Computer Corporation (BBN CC) had been formed with Ben Barker leaving Frank Heart's division to lead it as its president (Heart was chairman); it's activities as described in [**?, ?**]. In 1980, BBN Information Management Corporation (BBN IMC) was formed with Dave Walden as president and John McQuillan as vice president; it's activities are described in [**?**]. Bob Bressler replaced Walden as divisional VP in Heart's Computer Systems Division.

1981. BBN Computer Corporation ran into some financial trouble, and Mike LaVigna and Dave Walden took over its day-to-day management as president and CEO and executive vice president and general manager. Ben Barker replaced Frank Heart as chairman, breaking the connection with Heart and his division. John McQuillan took over as president of BBN Information Management Corporation.

1982. By the 1982 annual, the part of Frank Heart's division that was mostly closely associated with the work of BBN Computer was split off into its own Communications Systems Division led by Bob Bressler, leaving Paul Castleman as Heart's only divisional VP.

1983. However, later in 1982, Dave Walden moved back BBN proper to be general manager of the traditional contract R&D activities, reporting to Steve Levy and with Bob Bressler, Frank Heart, and Ray Nickerson and their divisions reporting to him (as well as the acoustics activities). Also, BBN Information Management Corporation was judged to be too early for its anticipated market. Its activities and employees were folded into BBN CC, and John McQuillan gradually transition out of BBN to start his own highly successful consulting business.

In the months that followed, Walden worked with Levy and LaVigna at BBN Computer to realign various parts of the company. By the 1983 annual report, Bressler and most of his division had been moved to join the BBN Computer activities which had been renamed BBN Communications Corporation, with Terry Fagin (who had been recurited by LaVigna from On-Line Systems to lead BBN CC's sales activities) as its president and Bressler leading it development and engineering organizations. Mike LaVigna moved to be BBN's president and CoO report to Levy as chairman and CEO, and Sam Labate retired from the chairmanship. Ben Barker moved to Levy's corporate staff as a senior VP, concentrating on business development activities.

The remainder of BBN's traditional R&D acitivites were renamed BBN Laboratories Incorporated. In an effort to keep Paul Castleman interested in remaining in BBN Laboratories, Walden also appointed Castleman to be a division director, further reducing Heart's domain.

1984. However, it was also clear that part of Castleman's division the RS/1 activities) was ripe for commercial exploitation and Castleman (and his right hand man, Chan Russell) were anxious for more commercial experience. Thus, by the 1984 annual report, BBN Software Products Corporation (BBN SPC) had been set up to sell RS/1 and some other software products with Ean Rankin as its president (another person LaVigna recruited from On-Line Systems to BBN CC to run a sales territory) and Castleman and Rusell as senior VP and VP—development and engineering. In BBN Laboratories, the remainder of Castleman's division was folded back under Heart.

This configuration of BBN and its subsidiaries and management continued through the 1985 annual report.

[Need help for when the Scotland office came into the picture.]

1986. By the time of the 1986 annual report, Bob Bressler left BBN CC to move to Silicon Valley. Also, some of BBN's parallel processing activities were spun out of Frank Heart's division in BBN Laboratories, becoming BBN Advanced Computers Inc. [**?**] with Paul Castleman and Chan Russell leading it as president and VP—product development and support; they wanted more responsibility than they had with Rankin as president of BBN SPC. Randy Rettberg from Heart's division also joined BBN ACI as VP-research and engineering. **[Need input for what happened at BBN SPC.]**

1987. In the year that follow, the top management of the four subsidiaries (BBN Laboratories, BBN CC, BBN SPC, and BBN ACI) remained relatively stable. However, BBN bought Delta Graphics Inc. to augment its simulation and training activities in BBN Laboratories, and made it another subsidiary with Mike Cyrus (Delta Graphics founder) as president and reporting to Dave Walden. Also, with BBN CC, BBN ACI, and BBN Delta Graphics all having hardware manufacturing to do, BBN Manufacturing Corporation was established with Gerry Davidson as president.

1988. By the time of the 1988 annual report, Mike Cyrus had left BBN Delta Graphics, and that subsidiary was collapsed

into BBN Laboratories, now renamed BBN Systems and Technology Corporation (BBN STC). Randy Rettberg had also left BBN ACI to seek his fortune in Silicon Valley.

However, BBN CC was beginning to struggle with some network delivery and financial problems.

1989. Thus, by the 1989 annual report, Terry Fagin had left BBN CC, and Mike LaVigna, Ben Barker, and Bruce Glabe (BBN CFO), were serving day-to-day at the top management of BBN CC, while retaining their corporate titles. Gerry Davidson was also recalled to BBN CC, and Glenn Lohnes replace Davidson as president of BBN Manufacturing. Ean Rankin also returned to BBN CC to head its sales activities, and Bruce Rampe replaced Rankin as president of BBN SPC (Rampe had come to BBN in a failed effort by BBN to buy the Visicalc group of Bricklin, Frankston, Tracey Licklider, et al.).

In BBN Laboratories, Al Stevens was now leading all of the training and simulation activities including the Delta Graphics activities.

1990. In 1990, Dave Walden asked Steve Levy to relieve him from service as president of BBN STC; he was feeling stale in the job (and others perhaps felt he had done enough damage). Nick Ide was recruited from outside the company to replace him. Walden joined the corporate staff leading BBN's business process improvement activities. Also, Gerry Davidson moved to BBN STC to help manage the training and systems activities. Finally, Ray Nickerson retired after years with the company.

By the time of the 1990 annual report, LaVigna had returned to his job as BBN COO, and Ean Rankin and Bruce Glabe were leading BBN CC as president and senior VP and general manager. Castleman and Russell had left BBN (they were perhaps looking for even more independent because they later started two successful software companies with Russell as CEO and Castleman helping Russell). Ben Barker replaced Castleman as president of BBN ACI, and the business direction of BBN ACI was completed changed.

1991. By the 1991 annual report, BBN ACI was closed, its activities were merged into BBN CC, and Barker was back on the corporate staff (and planning a leave of absence to sail across the Atlantic). BBN Manufacturing was also folded back into BBN CC. Glabe was leading BBN CC alone with a lot of SVPs and VPs reporting to him. Ean Rankin had become president of all BBN international activities.

1992. However, BBN CC continued to struggle. Barker was recalled from his sailing trip, and he and Walden were moved to BBN CC. Initially (before Barker could get back), Walden ran the activity day-to-day as executive VP, reporting to Glabe as president. Then, Barker arrived (just after the 1992 annual report), replacing Glabe in the president's position, and Glabe returned to the corporate staff.

1993. By the 1993 annual report, BBN had abolished its subsidiary structure, Mike LaVigna had left the company (and

Steve Levy took back the president title), Heart was now president of the Systems and Technologies Division (replacing Ide who left the company), and Rampe was leading the Software Products Division. Barker and Walden were managing the Communications Division, with Barker (with the help of Rankin) leading the ATM switch business, and Walden leading the traditional network systems business.

1994. By the time of the 1994 annual report, Steve Levy had brought George Conrades into the company to replace Levy as president and CEO (Levy retained the Chairman position). Conrades had been a career IBM person who had been near the top of the company, and had left when a new CEO had been brought in from outside. Conrades had been located in a search for someone to lead the BBN CC activities Barker was leading, but Levy saw Conrades as able to take on much more.

Heart didn't stay at BBN long after Conrades took over, and Conrades was acting leader of BBN STC for some time. Conrades brought in John Kish from Silicon Valley to replace Bruce Rampe as leader of BBN Sofware Products, and Rampe left the company. Jon Crane was brought in to lead Ben Barker's activities at BBN CC (now know as Lightstream Corporation, a joint venture with Ungermann-Bass), but Barker continued to help Crane with that activity from his position as Conrades' chief technology officer; eventually it was sold to Cisco. When Barker was through helping with this, he left BBN to seek his own business to lead. Dave Walden stayed around long enough to help the remainder of BBN CC get folded back into BBN Systems and Technologies, mostly under Steve Blumenthal, and then he was excused from BBN employment, leaving on the first day of 1995.

1995. By the 1995 annual report, Conrades had hired Dave Campbell to lead BBN Systems and Technologies, Paul Gudonis to lead the Internet activities (which had been separated from BBN Systems and Technologies under the name of BBN Planet), and Julie Donahue to lead BBN's recent commercial product activity in speech processing [**?**]. (However, at some point [**which year?**], Julie Donahue abruptly left the company and her activity was spun out as Parlance under the leadership of Jack Reilly, a long-term IBMer and friend of George Conrades.

1996. According to the Wayback Machine (`http://web.archive.org/web/19970116213513/http://www.bbn.com/investor_relations/annual_report/board-directors.html`), at the beginning of 1997 the company top management was

George Conrades, Chairman, CEO, and President
Ralph Goldwasser, SVP and CFO
David Campbell, President, BBN Systems and Technology Division
Paul Gudonis, President and CEO, BBN Planet Corporation
John Kish, President and CEO, BBN Domain Corporation

So presumably this was the top management in 1996.

At some point **[which year?]**, BBN Software Products and John Kish left the company. Paul Gudonis stayed with BBN Planet through the GTE purchase and later spinout under the name Genuity at the time of the Verizon purchase.

1997. In 1997, Conrades sold BBN to GTE and left BBN to become a venture capitalist with the money he made in his few years at BBN.

1998. During the Conrades-Campbell years, BBN's components of BBN's traditional R&D group were managed by a number people who had come from outside the group and had new ideas for how the R&D capability should be exploited. Eventually, a committee of three people sympathetic to BBN's traditional R&D business model undertook a search for a more traditional BBN person to take on responsibility for the R&D business. In 1998, Edward Starr, who had been with the company since the 1950s, agreed to serve as senior vice president general manager of BBN Technologies's Research and Development (also known at the time as BBN Classic). Starr reported Campbell who was managing a larger part of the BBN-GTE combination. Starr, who was already anticipating retirement, made it a condition of his serving as general manager that a successor was also named. Tad Elmer, a long-time BBN scientist and branch manager in BBN's R&D activities, went to work with Starr as vice president and deputy general manager, learning the bigger BBN R&D business.

1999. In 1999, Ed Starr transitioned to part-time, still helping Tad Elmer from time to time; and Tad Elmer was appointed president of BBN Technologies (as it was known by then). About this time, Dave Campbell left GTE. Ed Campbell (no relation to Dave), who had been with BBN for 20 years in a variety of technical and management positions took over the position of deputy general manager. **[this year?]**Steve Milligan, another long term and highly respected BBN technologist took the position of chief technologist, with some of the R&D intrastructure functions (computer centers, library) reporting to him.

2000. In June 2000, Bell Atlantic and GTE "merged" to form Verizon. The BBN Planet Internet business was spun out as Genuity, and the traditional BBN R&D business continued to operate as BBN Technologies, a division of Verizon.

2003. Today, Tad Elmer, Ed Campbell, and Steve Milligan— three long-time BBN R&D people—continue to lead BBN Technologies. Despite the death of its formerly successful BBN CC and BBN SPC activities, the disruptions of the Internet dot com era, and the sale to first GTE and then Verison, BBN Technologies (in somewhat reduced form) continues business of interesting and often innovative research and development that Dick Bolt and Leo Beranek launched the company into in 1948.

2012. Update: As of June 2012, Tad Elmer had left the company. At this point Ed Campbell is acting president.

Acknowledgments