

A Publication from INPUT

## AT&T/NCR and The Information Services Industry

Note: This is the second Research Bulletin focussed on the AT&T-NCR acquisition. The preceding bulletin examined the new model of computing that NCR had been engaged in developing prior to being acquired.

### NCR's Value to AT&T

AT&T wanted to acquire NCR three years ago. Even then, NCR's attractions were clear. NCR was

- Well managed
- Financially successful
- Internationally focussed
- One of the first sizable computer companies to make a commitment to UNIX

The passage of time heightened NCR's attractiveness as a result of:

- A scalable family of UNIX-based processors offering superior price/performance
- A well-planned applications-enabling environment. NCR was achieving what AT&T had attempted, but failed, to do by itself.

### Potential AT&T Contributions

During the merger struggle, NCR asked, "How can AT&T help us?" The early reports from the transition task forces indicate AT&T's contribution will be largely confined to its communications hardware (see Exhibit 1).

However, AT&T may provide significant advantage to NCR's operations in important, but difficult-to-quantify, areas:

- NCR's technical strategies have not been widely appreciated. NCR should be able to benefit from being associated with Bell Labs, for example, even if the two divisions have few common projects at first.
- By the same token, NCR's open, value-added strategy will gain greater visibility simply by being associated with AT&T.
- NCR has been a consummate niche player, in part because it would be too risky for a company of NCR's size to proceed in too many directions at once. With AT&T's backing, NCR can cover more niche markets and also have greater potential for success in re-establishing itself in the general-purpose computing market.



## NCR/AT&amp;T Product Survivors

Products	NCR	AT&T
Computers	3000 Series	Except Notebook and Starserver FT
Transaction Processing Software	Top End	Tuxedo (if requested)
Application Services Software	Cooperation	Workflow Module
Workgroup Computing Software	LAN Manager/X	Stargroup
Communications Adapters/Internetworking Equipment		

Surviving Products
 Source: INPUT

- Access to additional resources could permit NCR to step up its development and release schedule.
- Finally, a semi-independent NCR within AT&T will demonstrate to customers and prospects NCR's business and technical stability. Ironically, if NCR had repulsed AT&T, it would have been under pressure to produce extraordinary results to prove that it was worth more than the AT&T offer; additionally, in many people's minds NCR would have still been "in play," making it more difficult for NCR to focus on its core business.

Balanced against these potential positive contributions are problems that could be caused by the AT&T parent:

- NCR could be drawn into the measured (and slow) decision-making that has traditionally been the AT&T "process."
- Easily available resources can sometimes produce market overextension and uncontrolled product proliferation.
- AT&T's own reputation in computer-related markets is mixed.
- AT&T is a very large organization whose goals may not always be the same as NCR's.

Exhibit 2 summarizes the upside and downside of the AT&T contribution. NCR may have more ability than most acquired companies to influence the terms of association with its parent.



### Potential Upside and Downside of NCR Acquisition

NCR Issue	Upside Opportunity	Downside Risk
Technical image	Share Bell Labs aura	Lose technical independence
Open, value-added strategy	Gain greater visibility	Less maneuverability
Niche player	Cover more and broader niches	Expand too far, too fast
Flexibility and speed	Gain more resources	Drawn into AT&T's "process"
Long-term stability	Taken "out-of-play"	Changed AT&T direction

Source: INPUT

### Computing vs. Solutions

Much of NCR's strength has come from not competing head-to-head with IBM and DEC. Not only is NCR niche oriented, but its solutions are more likely to be implemented in hardware than are IBM's or DEC's solutions. Both IBM and DEC have been much more aggressive than NCR, for example, in targeting services and applications software. It is not the purpose of this Research Bulletin to assess the feasibility (or appropriateness) of these strategies, but merely to contrast them to NCR's:

- NCR has adopted industry standard operating systems. Not only does this eliminate the significant revenue stream available from proprietary operating systems customers, but it also reduces potential revenue from associated systems software.
- NCR certainly has capabilities for developing software, as exemplified by TOP END and COOPERATION; however, NCR has generally developed only software where it has had to fill gaps in the applications-enabling environment. NCR has chosen, wherever possible, to make alliances with DBMS and CASE vendors (wisely, in INPUT's opinion).
- NCR's processing division, focussing largely on the thrift and retail industries, is relatively small (about \$150 million). This operation could be hampered by the legal barriers to AT&T being in the remote processing business.

In INPUT's view, NCR's low degree of participation in the "solutions" business will be the largest long-term issue facing the AT&T-NCR merger. This issue will increase in importance as the information technology sector becomes functionally

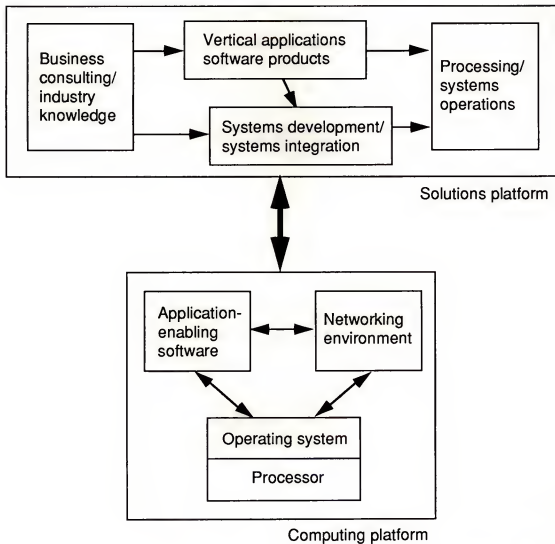


divided between those firms offering computing platforms and those offering computing-based solutions (some companies, like IBM and DEC, offer both). Exhibit 3 shows the constituents of these two "platforms": NCR is very well positioned as a computing platform supplier. However, at present NCR/AT&T is not among the leaders offering computer-based solutions.

Recently published research in INPUT's Systems Integration Program shows the ratings a number of vendors gave themselves regarding their capabilities in solutions-related areas. Both NCR and AT&T rated their capabilities very conservatively. For example, they saw their business consulting capabilities as being low and gave themselves a medium rating for systems design, software development, and integration skills

Exhibit 3

### Computing and Solution Platforms



Source: INPUT





(excluding telecommunications capabilities in AT&T's case).

As noted above, the combined firm faces legal barriers to participating fully in the remote processing, systems operations, and network services businesses. This could be a critical impediment, since firms like EDS and IBM are bidding aggressively for systems operations contracts. Recently, for example, IBM won a systems operations contract with Zale, which includes operating a 2,000-node network now using NCR POS equipment. Trying to sell through and/or to one's chief competitor is no one's idea of fun.

Neither NCR nor AT&T offers applications software products aimed at vertical markets. One rationale for this is the large amount of UNIX software available, much of it aimed at vertical applications. A recent analysis by INPUT, for example, disclosed that there were more MRPII packages offered on the UNIX/Xenix platform than on any other two platforms.

## UNIX Applications Software

It is not clear, though, how NCR can take advantage of the large number of UNIX vertical software products. Firstly, these numbers mask the fact that the vendors offering UNIX packages tend to be quite small (see Exhibit 4). Large software product vendors will often bring business to an associated hardware manufacturer; very small vendors may not even be credible or capable enough to support business a manufacturer brings to them.

Equally important, the independence of UNIX applications software vendors from hardware manufacturers may be counterproductive. Take the case of the AS/400: IBM needed to create a critical mass of applications prior to product launch. Many existing vendors were persuaded to produce AS/400 versions of their established products; others saw that it would be to their advantage to do so. For

certain key vendors, IBM established referral relationships. The base of vertical applications from credible vendors is one of the reasons behind the success of the AS/400. IBM would never have devoted its resources if it had created applications that could run on other vendors' hardware. This is the dilemma facing NCR (and other UNIX-based manufacturers): how to hold onto the value it adds to open systems-based applications.

## Strategic Choices

NCR will have to become more tightly linked to the provision of services and software. Being a semi-OEM could leave the firm dependent on events over which it has too little control.

NCR can build its capabilities to provide solutions directly, although this will not be easy:

- Building up a professional services/systems integration organization internally could be a lengthy process; time would not be on NCR's side.
- Acquisition of a quality professional organization with sufficient critical mass would be difficult — and certainly expensive. Post-acquisition coordination and cultural adjustment issues could be even more difficult.
- Writing new vertical applications is a lengthy process producing untested software. Therefore, acquiring or licensing an existing product (or a company, in some cases) would usually make more sense.

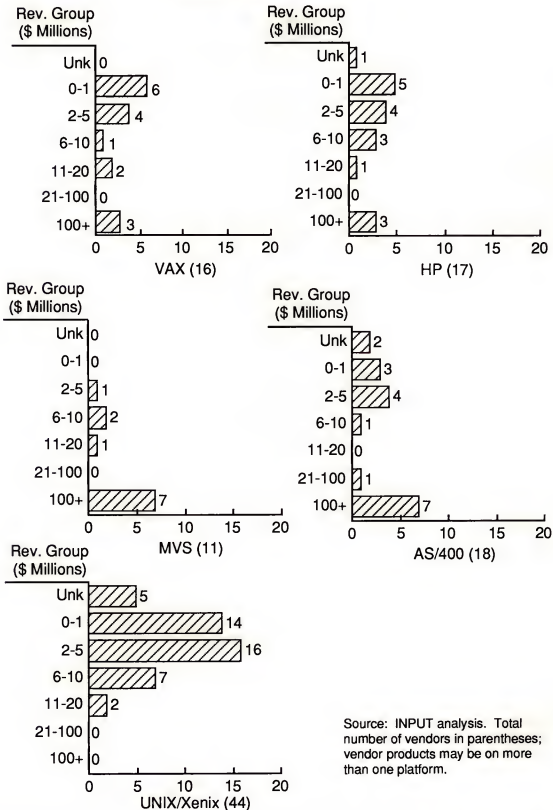
There are also strategic problems associated with NCR building up its internal software and services capabilities:

- NCR will have to be very careful in its selections; mistakes may have to be dealt with for some time.



Exhibit 4

### Number of MRPII Vendors by Platform and Vendor Revenue Size



Source: INPUT analysis. Total number of vendors in parentheses; vendor products may be on more than one platform.



- There will be a gap in "NCR-branded" offerings because of the prohibition in supplying remote processing.
- To the extent that NCR builds up its internal capabilities in a particular area, it will be more difficult for NCR to establish and grow partnerships with outside firms.
  - There will often be pressure to use the in-house resource even if an outside source is more suitable.
  - Potential partners will not be certain when NCR is acting as a competitor, a partner, or a supplier of work. This tends to make both sides of a potential partnership cautious in making referrals, since a service firm may ultimately find another hardware partner or vice versa. Consequently, such relationships are generally short term, ad hoc, and subcontracting oriented.
- In the medium term NCR will probably have little choice but to use partnering arrangements in offering forbidden network-related services.
- With vertical applications, NCR might have to break new ground in the UNIX marketplace. One way of doing so would be to use NCR's enhanced UNIX environment as a semi-proprietary platform for porting selected UNIX applications. Such applications would still function on traditional UNIX, but they would be far more effective in the NCR environment. This arrangement would provide mutual incentives for NCR and vertical application vendors to work together.

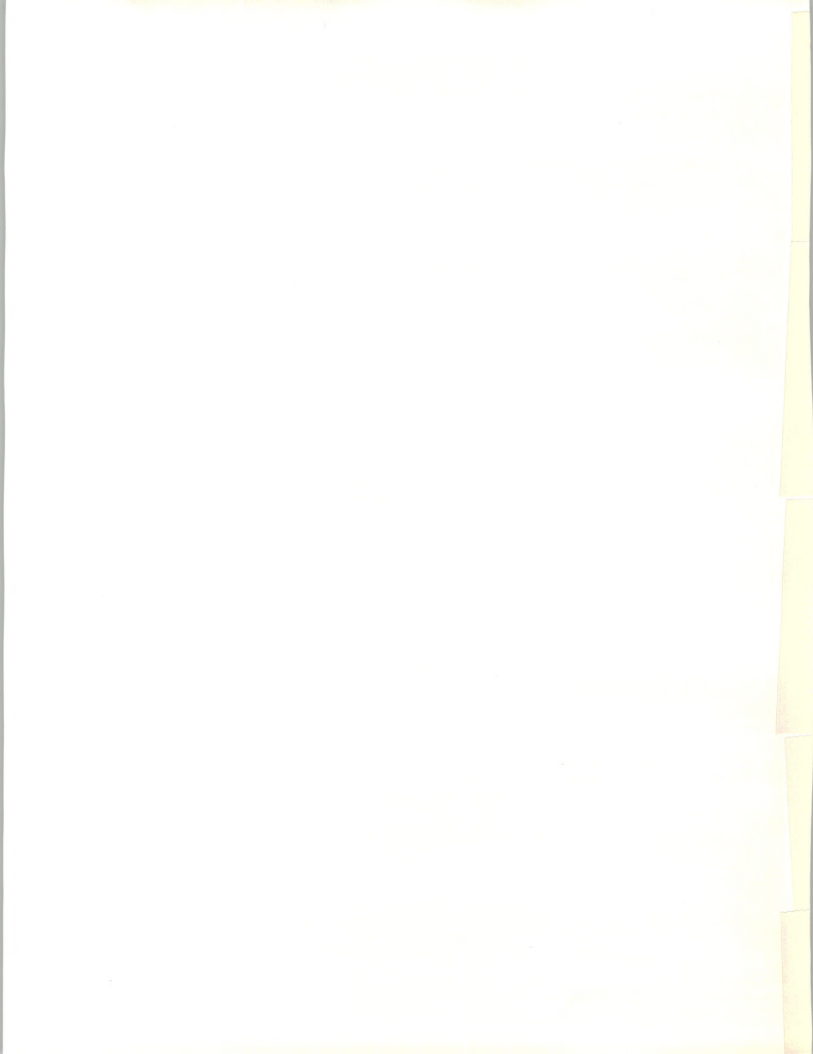
In one sense, NCR has more options than other hardware firms since it starts with virtually a clean slate from the standpoint of supplying vertical solutions. NCR would have the opportunity to establish a different type of relationship with its partners:

- An NCR that was largely non-competitive with professional service/system integration firms could have much closer, tightly knit relationships. There would be a limited number of preferred vendor relationships that would be driven by mutual business advantage.

It is too early in the life of the NCR/AT&T combination to predict the exact form that their involvement with software and services will take. This bulletin lays out some of the issues involved. There should, however, be significant opportunities for information services firms, since many of the characteristics of NCR that were appealing to AT&T should also be interesting to potential partners.

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