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Problems of Government Bureaucracy When Contracting for Turnkey Computer Systems

THERE IS NO SINGLE or best approach to portray the idiosyncracies, real and imaginary, involved in contracting in most organizations. However, all this is simplified when the scope of discussion is narrowed to state bureaucracies, and becomes "duck soup" when the state is identified—which in this case is California. Furthermore, in the state of California if those goods and services relate to data processing, massive amounts of unnecessary research are replaced by massive amounts of wasted time interspersed with concentrated effort. This will not be a brief statement of experience, bracketed by remarks and followed by three questions from the floor and a smiling retreat. Instead, the following is a somewhat fictionalized account of real events, of things done by real people to each other. These people are still plying their trades, and many of these real events have yet to become history.

The state of California, although one devilishly nice place to live, is not quite as pleasant when it comes to doing business. Perhaps a brief walk through "the procedures" will clarify the situation. Then, to illustrate the full import of the procedures, we will follow an interactive process, just as in real life, to guide you toward a sensitive appreciation of your own purchasing department, administrative officer, etc. In fact, the guided tour will traverse "the procedures" five times, and I believe you will be better prepared to cope after this exposure. Also, in the interest of intellectual pursuit, you will gain an understanding of the hidden meaning of Sam W. Foss's fine poetic line relating to California, "Bring me men to match my mountains."¹

The organization around which this pilgrimage perambulates is a department of the state of California. However, the sojourn touches as well on other organizational components within the state structure in a slightly convoluted manner, which resembles, most auspiciously, a wheel of fortune. Thus, it seems appropriate to represent it in graphic form as such a wheel (see Figure 1). Since interrelationship among the various participants is at a working level, the resultant structure evades simple Weberian explication. For the time being, it will suffice to say that the relationship is revolutionary, and, before embarking on this journey, to note that a vendor might come into contact with any of the various components.

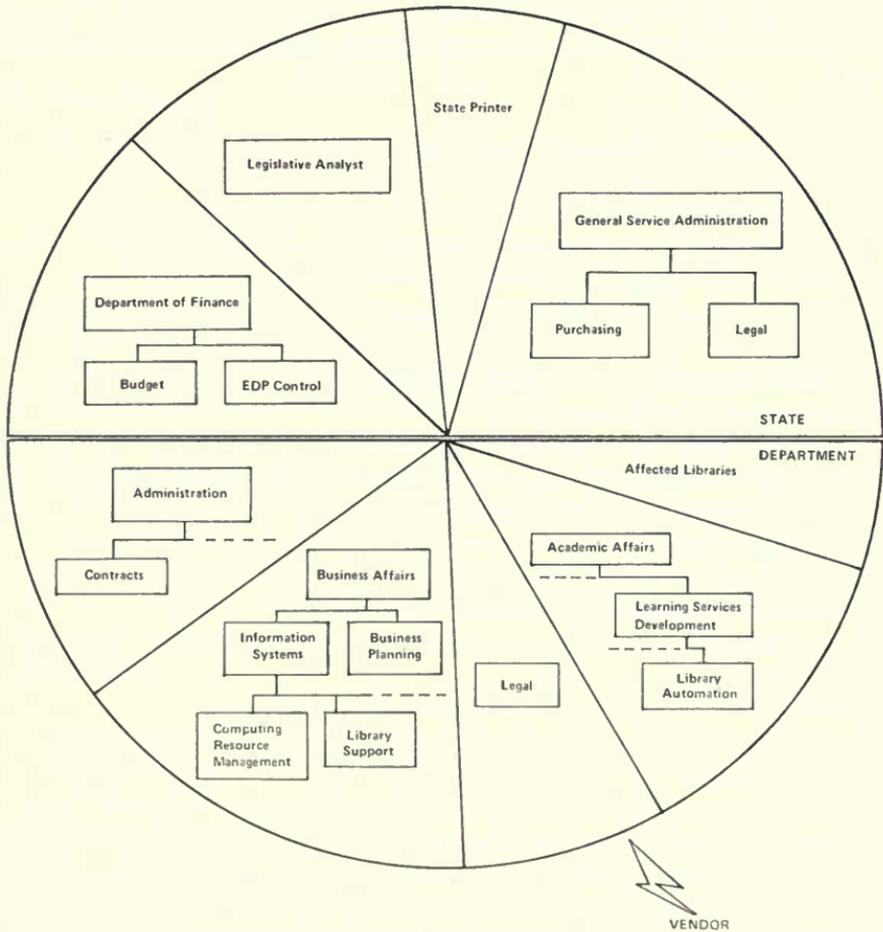


FIGURE 1. THE PROCUREMENT CIRCUS

Our objective is the procurement of what is called an off-the-shelf or turnkey circulation control system: a minicomputer with some mass storage, assorted terminals and the appropriate software to provide a computer-assisted property management system for our state/university libraries. The rules of the game are contained in: (1) the state administrative manual, (2) the current version of section 4 of California's annual budget act, (3) the state university's administrative manual, and (4) the Uniform Commercial Code. Further guidance can also be found in a volume written by Moses Maimonides entitled *Guide for the Perplexed*,² and a popular work sometimes referred to as the synoptic Gospels.

For a department of the state of California to buy anything even smelling like computers, the wheel is spun and all of the participants represented are brought into play. Such requests, rational or not, are immediately subjected to processing through the following twenty-eight steps:

1. Consult and plan
2. Obtain approval for the plan from the libraries
3. Prepare the budget
4. Sell the budget
5. Obtain department and state approvals
6. Obtain the budget
7. Prepare a purchase request or make it known that you need something
8. Obtain department and state approvals
9. Prepare a feasibility study
10. Obtain department and state approvals
11. Prepare invitation for bid document (IFB) and evaluation plan
12. Obtain department and state approvals
13. Release IFB
14. Hold bidders' conference
15. Respond to bidders' questions in writing
16. Wait for bids
17. Evaluate bids
18. Prepare selection and recommendation
19. Obtain department and state approvals
20. Sign contract
21. Obtain department and state approvals
22. Vendor installs computer system
23. Affected campus begins pilot use
24. Report on pilot use
25. Obtain department and state approvals for pilot use only
26. Obtain department and state approvals to begin procedure for next campus (if applicable)

27. Direct vendor to proceed to next scheduled campus (if applicable)
28. Repeat steps 22 through 28 (if applicable) for either the next "few" campuses or all campuses at the delectation of the control people (departmental *and* state)

The entire process can be interrupted at any point, and by almost *anyone*. One must then "take it from the top" or "downbeat." Interruptions may come from other vendors, in-laws, outlaws, casual spear carriers, parking lot attendants; all are empowered to grab the steering wheel—and have!

Although the steps outlined above are not entirely self-explanatory, they will be understood after having circled the wheel five times in an attempt to get an off-the-shelf/turnkey circulation control system. Bureaucracies are dynamic creatures and, since these five attempts span a 5-year period, one may expect assorted changes in rules and personnel; variety is, of course, the spice of life.

The First Attempt

In 1973, the planning and budgeting were completed, the words were written and the approvals obtained. Specifically, there were many meetings with library staff members, a workshop was held, and a "white paper" specifying the required functions was written by a committee of librarians. Concurrently, a feasibility study was made covering a pilot implementation and the subsequent installations of the system at all nineteen campuses; this was approved by the department's data processing procurement experts and their counterparts in the department of finance. An IFB was written and approved for the pilot and for subsequent installations, and an evaluation plan for bids was also written and approved. The IFB was distributed to approximately fifty potential vendors, a bidders' conference was held, and any questions which arose were answered in writing. Bids were received from nine vendors and were evaluated by a committee of librarians and members of the chancellor's office staff. From these a winner was selected and a recommendation report begun. Then a new man came on board as head of the department's data processing division.

The new man was not acquainted with the operations of libraries and, on meeting with the evaluation committee, found that the librarians were not data processors. As a result, he became anxious about a computer located somewhere on campus other than at the computer center. One objection was that such a computer would not be available for curricular support, thus depriving the students from data processing exercises. Almost instantly, the new man discovered his control agency role and communicated his reservations to all concerned. The resultant committee report aborting the procurement was, of course, approved. Time spent on

this first attempt—from conception to abortion, so to speak—was nine months.

The Second Attempt

Following this first attempt failure were meetings, discussions, threats, promises, and a decision to make a second try. The previously prepared and approved feasibility study was apparently still valid (at least no one asked for a new one), but the IFB was completely redone for greater specificity. The project still required a pilot, with systems at eighteen campuses subsequently to be installed. The IFB was approved; an evaluation plan was written and approved. The IFB was distributed to approximately fifty potential vendors and a bidders' conference was held. Questions which arose during this conference were answered in writing. Right on cue, one of the potential vendors became cranky: "Why not use magnetic stripes?" "Haven't you heard of permanent magnetism?" "The sound emission requirement is the product of a . . ."

However, cooler heads prevailed and Computer Universal Everywhere, Inc. reluctantly contemplated the faint possibility that we, the potential buyer, may have a vague idea about our users (a quarter-million budding Einsteins cheating the system through electromagnetic skulduggery) and about our working environment. ("You mean every time a book 'goes out,' that thing shoots holes in a piece of cardboard? Why, Doris will be driven mad!") The bids were received; Computer Universal Everywhere, Inc., having an extremely heavy commitment to magnetic stripes and loud equipment, did not bid. Several others did not bid either; in fact forty-eight of the fifty vendors elected not to bid.

In order to explain the next event, I must review briefly some of the mechanisms designed by the state of California to protect itself and its citizens from the nefarious activities of swindlers, blackguards and thieves. It is well known that swindlers, blackguards and thieves have pursued careers in either data processing or law, thus making it necessary to protect oneself and one's constituency from these shady rascals. In order to recognize early the imminent danger daily confronting the state's citizens, there evolved swift sure safeguards designed to cow all but those honest aspirants who would do business with the state.

These safeguards are hidden in the codes and manuals cited earlier and, for example, cause any procurement document which provokes from the private sector only a single bidder (i.e., fewer than two "qualified" vendors) to be suspect. This is what befell the second attempt. One of the two potential vendors asserted that (and I paraphrase): "Since telephone line charges may apply to the cost of the proposed system, and we are not the telephone company, we cannot freeze those line charges for seven

years [the life of the contract], so the total cost of our proposed system may be subject to change." This flagrant lack of insight into the state's rules, regulations and procurement personnel (who believe that all honest firms do business on a fixed-price basis) was cause to disqualify the errant bidder. (I personally suspect that not even the offending firm was ever aware of its blunder.) Thus, there was only one bidder, and a procurement with only one bidder is unacceptable. Time spent on the second attempt: seven months.

The Third Attempt

After the accusations had subsided, and egos had healed, it was realized that the required system was still required. The war cry became: "Let's do it again!" Again, the same feasibility study was used, and more meetings with the librarians (to "firm up that specification") were held. Assorted communications with possible vendors took place (like trying to breathe novelty and excitement into a trip to the dentist), as well as high- and low-level meetings and strategy sessions in men's rooms—all the activities near and dear to the bureaucratic mind were undertaken, and were successfully completed.

The third IFB was released to vendors, a bidders' conference was held, and at about the time written responses to questions were to be mailed, a new lead programmer was hired in the Data Processing Division, but whose salary was funded by the Learning Services Development Division. This staff addition was deemed necessary because of the workload.

The new lead programmer also expressed almost immediate concern about this particular project. He reviewed the bid and evaluation documents and, finding nothing technical to attack, waited for the bids to arrive. Five of the vendors responded. A committee of librarians and the lead programmer evaluated the bids and selected a winner. Approvals were sought—almost.

The lead programmer had twinges of squeamishness. He felt that there was something (not technically) wrong about the winning vendor—something financially wrong. He discerned that the winning vendor would not last long enough to receive the contract in the mail, let alone deliver one system, much less nineteen. Essays relating to sound business practices were prepared, "acid test" ratios and schemes were developed to determine and predict the solvency of companies, and his past experience as an employee of a stock brokerage firm lent credibility to his concern. The firm selected was obviously a "loser," and was notified that it would have to exhibit unshakable financial backing in order to be permitted to do anything for the state of California. Meanwhile, a major automation dealer,

General Telephone and Electronics (GTE), announced its withdrawal from the computer market (following in the footsteps of Xerox, RCA, General Electric, Singer Business Machines and other fly-by-night companies). The lead programmer was promoted to supervisor.

I will not detail the bureaucratic process to which the selected "winner" was subjected. I will make only one observation: bureaucracies are paranoia-ridden, appearing to require red herrings as vitamins and scapegoats as entrées. The corporate "we" finally decided to scrap the procurement rather than go to the next lowest bidder (a possibility) because, after aggravating the original "winner," the corporate "we" feared that the "winner" would legally protest the selection of another "winner." Such action, while oblique to spectators, is known in bureaucratic terms as "asbestos trouser seats." Elapsed time was nine months. By now everyone involved had become financial experts, and the libraries got nothing.

The Fourth Attempt

In the summer of 1976 our Bicentennial was in full flurry, and somewhere in the state of California a small band of masochists were busily lighting fire crackers under their tails. By this time the IFBs for circulation control transactors had been cataloged in several libraries as an irregular serial, and librarians were wondering if the run was complete. To nobody's surprise, number four was released (and promptly received a call number).

In preparation for its release, high and low decisions were made; essays were written, refuted and refined; the virtues of high finance were acknowledged (a Chinese restaurant next door went out of business); and the drawbridge was lowered. There ensued consultations relating to what the libraries wanted; schemes to bar backyard mechanics, such as RCA, GTE, Xerox and others, from bidding; and the release of soothing memos between the department and state to assure all concerned that we were "on the right track" and that "any time now. . . ."

The pattern was retraced again: same feasibility study, same IFB, same vendor list, same festooning with approvals (with the new people at the state level asking: "What's circulation?"), a bidders' conference, written responses, bids, an evaluation, a winner, and then, for about five or six months, nothing. The winner had not really gone to sleep, it was simply reorganizing. A search party was formed to find the winner, since mere telephonic communications were inadequate, and they found the winner. What happened is not worth belaboring. As a result of the search party's ensuing encounter with the vendor, the contract was rescinded—mutually. Elapsed time from agreement to garbage heap: thirteen months.

Lessons learned: none. Gains attributable to the effort: the lead programmer was now an experienced supervisor building a staff.

The Fifth Attempt

By this time my unlisted telephone number had been leaked, and I was receiving threatening calls from irate, anonymous colleagues. I had the phone disconnected. The next few weeks were spent reselling the project to a variety of people. In cases in which the viewpoint was "I don't believe such a thing exists," field trips were made to libraries less sophisticated, but in more favorable procurement positions than our own. As a result, the popular refrain became: "Why don't we have something like that?"—and we were back on the track again.

Up to this point there was apparently an organizational feeling that the issue, like acne, was temporary; that the need for this system would somehow be outgrown. With the fourth failure, however, the state began to sit up and take notice. Like the Katzenjammer Kids, we within the department had been "doing it" to ourselves. Once a year we had had to sell the budget to the state, and year after year the state had bought the same program only to hear complex excuses at each year's end when the unused funds were returned.

Now, fired with enthusiasm, questions and vigor, we streamlined the specifications for the required system to attract more vendors. "What do you need a reserve book room capability for?" "Git rid ob dat noise spec!" "Cut those mandatory requirements." "Be less specific." Detailed meetings were held with librarians in which once-specific requirements became casual comments or were eliminated, and a workshop was held with the potential vendors to ensure that the new specifications could be met by all (essentially we returned to the specifications of the first attempt). Then we turned to the procurement itself to see if perhaps we had been asking for something in the wrong way. The conclusion was that we had, i.e., we had been asking for the time-phased implementation of all nineteen campuses, and this was inappropriate. Instead, we should be requesting implementation for a smaller number, with the option to add more later. (This would, of course, require additional feasibility studies and more approvals.) To the casual observer, these decisions may or may not make sense. To the individual with a vested interest in the outcome, to need something and to be eliminated by an arbitrary decision is significant. There were obviously complaints; remember, nineteen libraries were involved, and the pending procurement was arbitrarily limited to seven installations.

Business is business, and if a firm is to survive it must receive money for its products. A contract, purchase order or agreement for a multi-unit

purchase, calling for delivery of one unit each year over a period of several years, and which is subject to cancellation at whim, *cannot* be sold to a bank—and banks, after all, have the money without which firms cease to exist. Limiting the number of installations, shortening the period of time over which those installations would take place, and providing for up-front cash payments following each installation neutralized most of the financial venom encountered in the previous attempts. Cancellation by whim, however, remained a feature of the specifications.

It was a joy to write the amendment to the feasibility study. My attention did not wander during the bidders' conference, and when the award was made, it was to the same firm that earlier had been eliminated because it was expected to die momentarily. The process had reached step 23 and although we would see step 22 again (and again and again), we would not have to return to step 1, at least not until we had completed step 26.

Observations

I have singled out this struggle for a turnkey circulation control system solely because it is over. I could recount efforts to obtain on-line cataloging support, a union list of periodicals and serials, and other things (as it says in my job description) as required. These other examples, however, are either not turnkey, are still in process, or were done in-house. In all instances the same rules apply, and in most cases, circumstances arise in which the approvals required amount to several approvals from the same agency.

An example, without specifying a particular data processing item, may help. Let us say, for instance, that Good Guy Services is the vendor. Good Guy Services requires that funds be budgeted two fiscal years in advance. Assuming approval of the budget request by the department and the Department of Finance and Legislature for the fiscal year in which Good Guy Services is to be funded, a feasibility study will have been prepared and also assumed approved by the department and another office in the Department of Finance and Legislature. A purchase estimate is prepared. Since, in this example, Good Guy Services requires support hardware, two more estimates are required: one for the hardware and one for maintenance of the hardware. Bear in mind that although all these things will be provided by Good Guy Services, the services themselves are approved and controlled by one group of bureaucrats, the equipment needed to use the services is controlled by another group of bureaucrats, and the maintenance of the equipment is instantly delegated to anyone foolish enough to be at his desk at the time the "in" basket is emptied.

Each purchase estimate may require a separate bid cycle, or ration-

alization essay (if it is a sole-source situation), with subsequent approvals. Then a contract or contracts is required, bringing into play both the department's legal staff (to work out appropriate language) and the state's legal staff to review and approve. The contract(s) is then sent to the vendor to be signed and returned to the originating department. More "chop marks" are applied as the documents pass through final departmental review.

The entire process is then repeated at the state level, with different groups drawn into the picture (each group specializing in the individual products comprising the required service). Assuming that no one was on vacation, that all applicable documents were kept together during this convoluted circuit, and that the final "chop marks" were applied in synchronism, the services may begin. I can heartily assure you that in very few instances do things proceed in synchronism, or do all the documents remain together.

Drawn from these experiences are a few brief observations to provide guidance for what I perceive to be the situation in the majority of libraries. I believe they are self-explanatory.

1. Get your people educated in data processing (just reading a book about it does not qualify) through hands-on courses in which the permanent, professional staff members are exposed to the rigors of specifying and coding successful computer programs.
2. Do not attempt projects which take more than one calendar year to show significant, tangible results. Protracted projects have a high probability of turning sour and will either lose support of the librarians, the funding agency, or both.
3. Once you have set a project in motion, support it in a positive manner until it is completed. For those in multiple-institution organizations this may seem dictatorial. However, even though you may not have an immediate use for the targeted product, that does not mean others do not need it either.
4. Be able to specify in detail what you desire, and at the same time, be fully prepared to compromise those desires into a set of needs which the vendor can accommodate.
5. Remember that vendors require money to exist. Avoid parsimonious payment schemes and odd delivery schedules (e.g., contracts ordering thousands of widgets in quantities of one each at 6-month intervals will either provoke "no bid" responses or, if accepted by a vendor, will be treated with equal gamesmanship). The typical vendor, in the absence of cash, must have contracts (paper, in the jargon) which will support loans or can be sold (factored) to get cash.

6. Be aware of jurisdictional jealousies. Computers are magic devices. They may cause warts when not in computer centers. The data processors are understandably trying to save you from covering your body with warts. Knowing this, structure your viewpoint; by acknowledging the expertise and sensitivity of your technical colleagues, you may move together toward the desired compromise.
7. Have patience—or to paraphrase Sam W. Foss, “Give me patience to match these procedures.”

REFERENCES

1. Foss, Sam W. “The Coming American.” In Burton Stevenson. *The Home Book of Quotations*. New York, Dodd, Mead & Co., 1967, p. 56.
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