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Issue Paper
Defense Working Capital Fund Task Force

Issue Description:
Should the pricing structure be changed to positively influence customer behavior?

Background:
A major goal of the Defense Working Capital Fund (DWCF) is to promote efficiency and reduce total costs by promoting total cost visibility and fostering buyer/seller relationships in which customers and providers become more cost conscious. Current policy and practice generally requires that all costs associated with a particular DWCF activity be allocated to each unit of sale on a uniform basis. However, prices paid by DWCF customers often include costs that are not directly related to the cost of producing the product or service and sometimes lead to purchase decisions which sub-optimize total costs.

Customers seeking the lowest price provider, often perceive the price charged by the DWCF provider to be too high, due in part to the inclusion of costs unrelated to the desired service or good. Inclusion of costs beyond the control of the provider prevent the provider from being able to lower its total cost, thereby defeating one of the goals total cost visibility was supposed to achieve.

Prices paid by DWCF customers also reflect the fact that our military providers have special features (e.g. special packaging, spare capacity for times of crisis, etc.) that are in excess of commercial equivalent services. Some of these features are typically only needed in times of national crisis, while others are needed on a continuing basis. There are also gray areas, where, although some militarized requirements may have some usefulness at all times, they are principally there for strategic reasons or national crisis. In the area of communications services, these military requirements are guaranteed access/bandwidth, multiple levels of precedence and preemption, security, and diverse routing. Current policy provides for some military unique costs of resources set-aside for wartime use to be excluded from DWCF rates. However, the rules for doing so are relatively restrictive.

Problem Statement:
Setting rates in a way that allocates indirect costs equally to each billing unit sometimes provides an incentive for customers to seek other sources of supply, resulting in increased total cost to the military where infrastructure still needs to be maintained to support the capability. With each customer that exercises the option to obtain services elsewhere, the rate to remaining customers must be increased to recapture total costs across a decreased customer base. This, in turn, increases the disparity between the rates of the DWCF service provider and non-DWCF providers, increases dissatisfaction among DoD customers with the DWCF service costs, and results in increasing abandonment of DWCF services.

Navy Supply data seems to indicate that high surcharges have a direct impact on customer behavior. Perturbations in surcharges are driving Navy Working Capital Fund losses and a cash drain in years of high surcharge. For example, the FY 1995 supply surcharge was 48 percent, causing a loss of $120M in sales (~3 percent). When the FY 1996 surcharge was decreased to 14 percent, sales increased by $26M (~1 percent). When the surcharge rate increased, again, in FY 1997 (to 27 percent), sales dropped, again, by $182M (~6 percent). In this instance it appears that the surcharge, which impacts the total charge, is driving customer behavior.

Price discrepancies may appear so high that customers choose to go outside of the DWCF system even when policy requires using a certain provider. For instance, the Office of the Assistant Secretary of Defense for Command, Control, Computers and Intelligence (ASD/C3I) is encouraging the development of the Defense Information Infrastructure (DII) enterprise concept. But individual Service purchases of unique networks outside of the DII still occur partly because the non-DII network prices appear cheaper because costs such as provisioning, network management, depreciation, security, connectivity with deployed forces, and interoperability with sister Services are not included. When services go outside of DII, the DII is less able to decrease its costs by taking advantage of economies of scale. A pricing policy making services procured from DII more competitive in price to Service procured services would be more effective in increasing DoD participation in DII than policy direction alone.

The inclusion of costs in DLR prices that are not directly related to component repair, such as configuration management and base support, sometimes leads to local repair contracts or use of military personnel to accomplish repairs (sometimes by cannibalization). Because fixed overhead costs included in DLR rates must be funded by the Air Force, regardless of DLR sales volume, alternative repair decisions by local operating units do not result in the least cost to Air Force unless the alternative purchase costs are less than the "marginal" costs reflected in DLR (DWCF) prices. A RAND study recommended that DLR prices not include a surcharge and that costs unrelated to repair should be recovered through separate billings to customers.

A RAND study on Army DLRs also found that local repair decisions were being distorted by high DLR prices. RAND found that high hourly rates were, at times, driving local repair that was actually more expensive than depot repair, even though there was a local savings of operations dollars. Specifically, the Avionics Days Sensor cost $16,214 to repair locally, but units were charged $71,218 for a depot repair. It appeared to local decision-makers that there was a $55,004 savings by repairing locally. However, the real depot repair cost was $12,354, so local repairs actually cost the Army $3,860 more for each repair.

We seek to furnish customers and providers with incentives that will lead to the required level of readiness at the least cost to the military. However, the system is out of balance, with the net result that DWCF customers are not incentivized to make decisions that minimize overall DoD costs. Excessive focus on the concept of total cost visibility through total cost recovery has made us forget that the real bottom line is to minimize overall DoD costs.

Alternatives:

The DoD needs a rate structure and financial management policies that encourage providers and customers to behave in ways that will reduce total DoD-wide costs while maintaining and improving necessary DWCF support services.

Five alternative approaches summarized below were considered (An analysis alternative is provided in the attachment).

1. **Charge "marginal" rates that allow customers to make a fair comparison between different providers. Recover fixed costs by billing the customer or through direct appropriation. The determination of what constitutes "marginal" rates and fixed costs as well as the recovery methodology would vary for different business areas.**

2. **Convert all DoD appropriated funded services that compete with DWCF services to DWCF funding.**

3. **Encourage customers to obtain service from DWCF activities.**

4. **Revise the rate exclusion section of the FMR (mobilization chapter of FMR 7000.14-R) to allow exclusion of military unique costs as well as mobilization costs. Also, OSD establish a budget exhibit and justification process to firmly establish unutilized and underutilized plant capacity and war mobilization costs.**

5. **Continue with the DWCF status quo.**

Recommendations:

Alternative 1 ("marginal" pricing supplemented by recovery of fixed costs) should be implemented, as appropriate, across the DWCF.

Alternative 4 (revising the FMR mobilization chapter). The FMR should be modified to insure military unique features are excludable from DWCF rates. Also, OSD should establish a budget exhibit and justification process to firmly establish unutilized and underutilized plant capacity and war mobilization funding requirements.

The term "marginal rate(s) (or price)" in the context of this paper refers to a single rate (or set of rates for an activity group) which are calculated to recover something less than the full cost (as currently defined) of producing goods or services. The term does not refer to the incremental cost of producing an additional unit, as would be used by an economist to explain production and profit maximization theory. The recommendation does not imply or anticipate removal of significant indirect costs from the DWCF. Although some items may be recommended for direct funding by the Components, the vulnerability to Congressional reduction of this type funding is widely recognized.

Each component must look at its' business areas and determine which "marginal" pricing methodology best fits the business area. Each Component should submit their recommended "marginal" pricing structure to the Defense Working Capital Fund Policy Board in time for inclusion in the DWCF budget no later than the FY 2002 budget.

With respect to military unique requirements, there is a need for more compelling budget justification of these costs. OSD, in conjunction with components staffs, should develop a budget exhibit to portray these costs, and should work with Congressional staff members to establish the need for such costs. Procedures should be developed to insure consistency between WCF budget requests, O&M budget requests, and witness statements to best defend war contingency requirements.

Implementation Concerns/Impediments and Benefits:
"Marginal" pricing with recovery of fixed costs through different mechanisms is a major change in operating philosophy for DWCF. The DoD and Services should spend some resources educating providers and customers on the new concept. For pricing to properly incentivize behavior, everyone needs to understand the pricing mechanism.

The best way to recover costs will require careful thought, for instance, the determination of a "fair" availability fee. Availability fees applied to non-active customers is a new concept for DWCF activities and their customer base, although it is a basic billing practice in the water utility industry. The key to determination of the fair availability fee portion of fixed costs to be applied to usage and non-usage "customers" will be the identification of the military value of the business area and the development of an algorithm for proper apportionment of the military value across all DoD.

Need to educate the Congress. Since creation of the DBOF, Congress has expected all costs associated with DWCF activities to be recovered through a "rate". In the past, direct passthroughs from appropriated accounts to the revolving funds have been more susceptible to Congressional reductions than items funded via revolving fund rates. For example, Unutilized Plant Capacity (UPC) is similarly financed by direct appropriation in the budget. In FY 1999 Congress reduced more than $45 million from the Services O&M budgets for UPC because of its apparent low priority.

Resource Implications:
Initially, each provider will require time to define the proper division between marginal and fixed costs and develop more appropriate billing methodologies. Changes to budgeting and accounting systems may be necessary. Where direct billing is chosen as a way to recover fixed costs, billing mechanisms may have to be developed.

Realignment of funding in support of marginal pricing/direct billing across customer accounts must be carefully managed and articulated to customers, OSD, OMB, GAO, and Congress to protect DoD Total Obligation Authority (TOA) and WCF solvency.

Required Policy and Legislative Changes:

DoD 7000.14R, Financial Management Regulation (FMR), Volume 11B, Chapter 65, regarding Mobilization Costs requires modification. FMR Volume 11B, Chapter 9 should be updating to reflect modification (or modification in the interpretation) of the full costing policy. Also, it may be necessary to seek a legislative change in a few instances in the event alternative financing by direct appropriation is proposed to recover some costs. Public Law 105-261, the FY 1999 Department of Defense Authorization Act, amends Section 2208 of Title 10, USC by requiring, in part, that charges for goods and services provided through a working-capital fund include amounts necessary to recover the full cost of the goods and services provided. In those instances where it is determined that costs now included in DWCF rates do not contribute to the cost of goods and services, it should not be necessary to seek legislative change.

Alternatives Analysis

Alternative: #1

Charge "marginal" rates that allow customers to make a fair comparison between different providers. Recover fixed costs by billing the customer or through direct appropriation. The determination of what constitutes "marginal" rates and fixed costs as well as the recovery methodology would vary for different business areas.

Description:

The term "marginal rate(s) (or price)" in the context of this paper refers to a single rate (or set of rates for an activity group) which are calculated to recover something less than the full cost (as currently defined) of producing goods or services. The term does not refer to the incremental cost of producing an additional unit, as would be used by an economist to explain production and profit maximization theory.

There are a number of ways to calculate a marginal rate (or price); the best way to calculate the rate will depend on the business activity. For instance, tiered (or banded) rates may be most appropriate for activities like transportation, where the costs of providing the service can be split between a large initial handling fee and a smaller fee related to mileage and/or weight. Another form of banding would be where two (or more) rates would be established during the budget process. The first, or basic rate "band" would cover CORE workload and recover full costs through a fully burdened rate. The second "band", would price workload based on only the direct or marginal costs (since the fixed overhead costs would be fully recouped from the workload in the basic or CORE workload price band). In order for customers to buy workload at the second band, they would have to enter into a "work load contract" or agreement (similar to the guaranteed manday program in the Shipyards) with the provider during the PPBS process. This price banding would allow providers to attract "opportunity" workload during execution by offering very attractive marginal priced rates for new work.

Most likely, business areas like supply and maintenance would use a much different marginal price. The "marginal" price for those business areas should be related to the replacement of the item, either the acquisition or repair cost, depending on the type of item (consumable or repairable) in question.

"Marginal" rates must be carefully constructed to minimize costs to DoD as a whole. Some business areas may need the flexibility to adjust the calculated "marginal rate" to be high enough to suppress customer appetite for unreasonable quantities of the product or service while still low enough to encourage the use of the DWCF activity, somewhat insulating the DWCF activity from unintended competition from other activities. The DWCF goal of total cost recovery can still be met by combining "marginal" prices with the recovery of some fixed costs through another mechanism..

The DWCF goal of total cost recovery can still be met by combining "marginal" prices with the recovery of some fixed costs through another mechanism. There are four approaches that could be used to recover the DWCF costs over and above those recovered by the "marginal" rate:

A. A head-tax.
B. Up-front buy of some of the infrastructure costs.
C. Availability and usage charges from the water utility example.
D. Marginal price bands for negotiated workload above CORE levels.

Availability charges could be used for services that must be maintained during peacetime, but chiefly support wartime capabilities. Such charges might be modeled on water utilities that charge fixed and variable rates for usage of water service. The water utility also charges for "available" but unused services from potential customers through other mechanisms, such as through an addition to the property tax. These available charges are most often associated with the fire protection portion (e.g. proximity to fire hydrants) of the water system where the protected property may not be a water customer in the normal sense.

For the DoD Common User Communications and Computing/Information Processing (at the mid-tier/client server level) business areas it is recommended that a "marginal" pricing strategy be implemented, where the "marginal" rates are set high enough to suppress customer appetite for unreasonable quantities of the product or service while still low enough to encourage the use of the DWCF activity. Also that the availability charge concept from the water utility example be used in conjunction with the fixed portion of the rates. Together, these would sufficiently insulate DWCF business areas from unintended competition from other activities.

Pro:
- Encourages users of military supplied goods and services to make decisions that are efficient for the military as a whole, not just the local customer, by making the cost of material and parts obtained through DoD supply systems more comparable to alternative or local procurements.
- Supports specialized military capabilities, including those needed under crisis conditions.
- Can retain the identification of total cost from the current DWCF system. Direct billing could improve cost identification because indirect costs currently are combined in a way that is difficult to distinguish the cost drivers.
- Inhibits "cream skimming" competition.
- Would encourage use, rather than circumvention, of the central supply system, leading to improved statistical data regarding demand and reliability of materials and parts. Comparable improvements would be realized in other DWCF activities.
- Provides a better match to the financial accounting and management systems that are actually available to DWCF providers and customers than the current DWCF system.
- Would improve total cost recovery by making the recovery of some fixed costs less reliant on accurate sales forecasts.
- Supports total cost visibility.

Con:
- Could decrease incentives from current providers in maintaining cost efficient operations.

- Setting an appropriate "marginal" cost can be difficult because the line between what is a marginal and fixed cost is not always clear. Further, setting an incentivizing marginal cost to influence customer behavior while still holding rates down may need a new management model more in line with utility regulation rather than business competition.
- Mechanisms for direct billing would have to be developed and may be difficult or impossible for some activities.
- Total cost visibility may be more difficult.
- Having the fixed costs placed in the appropriated budget of the provider would make the funds more likely to be a target for being cut.

<u>Alternative</u>: #2
Convert all DoD appropriated funded services that compete with DWCF services to DWCF funding.

Description:

The Military Departments sometimes acquire the same services that are available to them from the DWCF from providers whose activities are funded through appropriated funds.

Pro:
- Drives compliance where OSD policy on using DWCF providers has not been sufficient.
- Allows the identification of total cost, which is not possible today where some providers are a mix of appropriated and DWCF.
- Removes much of the appearance of noncompetitive rates from existing DWCF providers by requiring all DoD providers to set rates based on same total cost structure. Simplifies cost comparability.
- Inhibits "cream skimming" competition.

Con:
- Decreases apparent incentives from current providers in maintaining cost efficient operations.

<u>Alternative: #3</u>
Encourage customers to obtain service from DWCF activities.

Description:
Policy should encourage customers to use DWCF providers. In order to do so efficiently, DWCF activities should be supported as utilities rather than expected to be businesses.

Pro:

- Establishing the concept of DWCF as utilities rather than business would clear up the confusion and contradiction in policy making with respect to DWCF activities.

- Provides predictable customer base on which business area managers can base workload and cost analysis and set rates.
- Retains the identification of total cost as a central tenant of the current DWCF system.
- Removes issue of competitiveness of rates from DWCF customer/provider relationship.
- Prevents "cream skimming" competition.
- Would reduce total military costs for activities that are considered "core." When the military must maintain the infrastructure for a core business area, it is cheaper for the military to maximize use of that infrastructure rather than paying to maintain the infrastructure and paying another provider for the same services.

Con:

- Policy has not been a successful tool for requiring customers to use DWCF providers.
- Establishing utility style regulatory boards to oversee DWCF "utilities" would require new management structures in DoD.
- Removal of competition removes incentive from DWCF providers to be efficient and cost effective, which can be mitigated by an overseeing utility board.

Alternative: #4
Revise the rate exclusion section of the FMR (mobilization chapter of FMR 7000.14-R) to allow exclusion of military unique costs as well as mobilization costs. Also, OSD should establish a budget exhibit and justification process to firmly establish unutilized and underutilized plant capacity (UPC) and war mobilization costs.

Description:
The mobilization provision of the FMR allows for exclusion from DWCF pricing the costs of resources set-aside for wartime use. While these provisions may work well for physical resources that are reserved exclusively for use in times of war and that can be physically separated from peacetime resources, it is not applicable to business areas where the mechanism must be built into the systems as a permanent feature. It also does not apply to those military unique requirements that must be in use all of the time, to insure that the system will still operate properly in times of national crisis.

There is a need for OSD, with component coordination, to design a budget exhibit and to work with professional staff members to establish the need for UPC and mobilization funding related to war taskings and national security.
Pro:

- Would allow better comparability of prices by commercial and military providers.
- Supports specialized military capabilities, including those needed under crisis conditions.
- Removes appearance of noncompetitive rates from DWCF providers.

Con:
- Decreases apparent incentives from current providers in maintaining cost efficient operations.
- Determination of services that should be exempt is a more subjective decision than the same determination made in support of excluding unused physical supplies or plant equipment.
- Congressional support on mobilization budgets is inconsistent and the TOA could be at risk.

Alternative: #5
Continue with the DWCF status quo.

Description:
No Change to current policy or practice.

Pro:
- Provides incentives for customers to find the lowest cost provider.
- Fosters competition between DWCF, other service providers, and the commercial sector.
- Based on rates that provide identification of aggregate total cost of the service for the business area.

Con:
- Incentivizes customers to minimize their costs, but not necessarily total military costs.
- Gives DWCF providers the appearance of noncompetitive rates.
- Encourages "cream skimming" competition.