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A PROCLAMATION FOR OUR TIMES

Staking IT's Ground in the Funding Challenges Ahead



A STRATEGY GUIDE FROM THE CENTER FOR DIGITAL GOVERNMENT

A PROCLAMATION: *This We Believe*

Whereas, we know there is growing evidence that a public sector revenue recession is putting downward pressure on state and local government budgeting.

Whereas, we know the attendant economic instability is increasing demand for public services in communities across the country.

Whereas, we know government now runs on a digital platform and, like other vital public infrastructures, often prove their value in challenging times.

Whereas, we know that government must modernize, and must continue to modernize, to meet today's needs and tomorrow's expectations for service delivery and public accountability.

Whereas, we know that investing in modernization entails risk but we also know that failure to invest puts public institutions at greater risk of irrelevance.

Whereas, we know that the risks and costs of acting alone can be reduced or eliminated by partnering with others in public, private and civil sectors that have core competencies that complement our own.

Whereas, we know that contemporary digital, networked technologies make ever more robust and responsive partnerships possible, and, furthermore, we know that these technologies are able to change the cost structure of delivering services.

Whereas, we know that information technology cannot and should not compete with cops, kids and criminals for scarce public finances through the general fund.

Whereas, we know that information technology is unique among the tools and strategies available to government in that it can contribute to its own funding.





And finally, whereas we know that we cannot be certain about how communities will look in future years. But through wise policy decisions, coupled with an understanding of the transformational potential of technology on public processes, we can apply sharp tools to the transformation rather than the blunt instruments of externalities.

Now therefore, government must return to principles and core competencies while institutionalizing greater flexibility and adapting more quickly to a changing environment.

To survive and thrive during difficult financial times, government executives must think differently. These times come with a call to action to look beyond the general fund in doing the public's business and act differently in five important ways:

- 1. Be Somebody's Venture Capitalist*
- 2. Use Somebody Else's Money*
- 3. Share Platforms*
- 4. Buy Like Costco, Operate Like Southwest*
- 5. Run Cheap, Turn Green*

Now, Be IT Resolved that this is THE YEAR OF FUNDING AND SUSTAINING GOVERNMENT MODERNIZATION in creating communities that are great places to live, work and raise a family.

Proclaimed This _____ Day Of _____, 20____.

[SIGNATURE OF ONE WHO CHOOSES TO LEAD]



Signed, Sealed and Delivered: Now what?

The proclamation has been signed and your organization has resolved to stake IT's ground in taking a fresh approach to the funding challenges ahead. Now what?

This white paper from the Center for Digital Government begins to answer the question by looking at what works in the laboratories of the states. It examines the key characteristics and challenges of the current environment, addresses perennial questions about the authority to act differently, and details how once novel or alternative funding approaches have become proven parts of the mainstream.

This paper then describes a set of emerging practices that matter in our times and are being used

to modernize government operations even as conventional funding sources constrict. The five hybrids — being somebody's venture capitalist; using somebody else's money; sharing platforms; buying like Costco, operating like Southwest; and running cheap, turning green — hold promise for both getting through economic downturns and being better positioned during and after the recovery that follows.

To get a bearing on our shared future (and how to pay for it), it is useful to examine how we got here, and the factors that are changing what it takes to move forward.

The Rationale: Modernizing with no money

Based on January 2008 data, the Center on Budget and Policy Priorities reports that half of all states will be in deficit by fiscal year 2009 and at least another three expecting trouble by fiscal year 2010.¹ Texas and North Carolina are among those that are in comparatively good shape. For its part, the bi-partisan National Conference of State Legislatures (NCSL) says an anticipated public sector revenue slowdown is deeper and more widespread than first thought, due in large part to drops in property tax collection in a dozen states and the fallout from the subprime mortgage collapse in two dozen states.²

Likewise, the National Governors Association expects to feel the budget impacts in three main areas: increased unemployment filings, swelling of Medicaid rolls and the flattening sales tax rev-

THE NCSL TOP 10 LEGISLATIVE PRIORITIES

1. State budgets
2. Immigration
3. Driver's license standards
4. Uninsured Americans
5. Education reform
6. Concerns for the middle class
7. The environment
8. Consumer protection
9. Pensions
10. Transportation and the nation's infrastructure⁵

enues for the next two years.³ These issues lend themselves to technology solutions or modernization efforts, as does the NCSL's compilation of top 10 policy priorities.⁴

The year began with a much anticipated demographic shift that brings with it unprecedented and still unknown economic and public policy implications. In 2008, the first of America's 78 million baby boomers will turn 62, making them eligible for Social Security retirement benefits. In just three years, aging boomers will begin to qualify for Medicare.

Owing to its size and expectations, the baby boomer generation has changed everything it's touched. As they begin to reach old age this year, boomers will create record demand on federal assistance programs — including Medicare, Medicaid and Social Security. According to the Congressional Budget Office, federal government spending on this trio will rise from slightly more than 8 percent of the nation's gross domestic product (GDP) last year to almost 19 percent in 2050. The Concord Coalition estimates that these and other pressures on government services will drive federal government spending from 20 percent of the GDP today to 30 percent in 2030.⁶

The retirement bow wave begins to remove institutional memory from organizations, including government agencies and their IT shops. It also shifts the first slice of these 78 million people from contributors to the public purse to recipients of public benefits.⁷ Ironically, the retirement of the most senior public servants may play an ultimately helpful role in working through the public sector revenue recession. First, as long anticipated, retirees take with them expertise, institutional memory and — in some cases — resistance to change and a jealous guarding of the status quo. Second, the diminished capacity creates the need to automate institutional knowledge, replace or re-host legacy systems orphaned by retirees, and introduce new tools that allow those that remain to carry on in

doing the public's business in new — hopefully sustainable — ways.

Taken together, fiscal downturn and retirement may precipitate a crisis of modernization. The lessons of history, coupled with contemporary assessments, suggest that the downturn need not get in the way of new investments on things that public executives care about.

This environment does come with a cost. All parties can expect increased scrutiny in the justification for IT investments: business cases, return on investment calculations and shared services wherever possible. Funding strategies that take pressure off the general fund are better positioned during downturns. Other funding strategies including those that embrace vendor participation — leasing, self funding, benefits-based or gain share — provide much-needed flexibility when conventional means are both diminished and over-subscribed.

Finally, it is worth remembering that public sector revenue recessions are not new. Public executives and private sector third parties have weathered them before. In the interim, the infrastructures, architectures and applications have been built out in ways that can pay dividends exactly when they are needed most, and provide a platform for the next act. If public and private leaders take advantage of the discipline that comes with downturns, this period may be remembered as a transformational recession.

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The Response:

Moving forward when the economy is stuck in a rut

Economic downturns intensify both the tendency to conserve and the competition for increasingly scarce resources. During such times, it is important to understand the public policy rationale for technology investments, even those that pay for themselves.

Modernization, with its inherent efficiencies and resulting cost savings or avoidance, should not be deferred during revenue recessions. To the contrary, thoughtful and strategic investments in IT can pay significant dividends during budgetary downturns because they are uniquely able to (a) change the cost structure for delivering a unit of service, and (b) expand capacity to meet infinite demand with finite resources at only incremental cost.

From a public policy perspective, modernization using third parties does not necessarily represent the privatization of public service. Instead, it re-allocates resources within the public sector to do those things that government is uniquely able to do, while tapping a universe of potential private

providers of technology services that are best able to deliver technology-based projects at high quality and low cost.

Success in the new operating environment requires matching the unique strengths of the technology and business process industries in the private sector with the unique strengths in the public sector. To that end, public executives are beginning to abandon a view of information technology as a jealously-guarded infrastructure to buy and own, in favor of a recognition that computing is a service to be used. It is beginning to be seen as a platform for service delivery through a suite of applications and transactions that are developed and operated in ways that make distinctions between public and private less apparent and less relevant. Absent traditional distinctions, the public oversight concerns of protecting and promoting the public interest relies on establishing baselines, measuring performance in real-time and ensuring compliance through audits.

Under what Authority:

Can we do IT any other way?

When the commodity Internet arrived in the mid-1990s, governments characterized their early online efforts as an “alternative delivery” channel. In the intervening years, online service delivery has become mainstream and is often the preferred or dominant channel in the service delivery mix.

Similarly, with earlier public sector revenue recessions, governments introduced “alternative funding” strategies to reduce reliance on the general fund for

information technology investments. The result has been the growing use of a hybrid of funding sources from across the country, as summarized in Figure 1. A hybrid of funds allows for the addressing of particular needs of an initiative and reflects the unique priorities and preferences of individual states. Even with the proven use of at least seven funding mechanisms outside the general fund, they are still seen as new “alternatives” or novel and not part of a mainstream funding mix.

FIGURE 1:

FUNDING TOOLS: BUILDING HYBRIDS TO SUIT STATE NEEDS

	Legislative Appropriations	Cost Recovery (Rate Base Revolving Fund)	Technology Investment Fund	Benefits-Based Funding (Gain Share)	Self Funded (User Fees)	Bonds	Diverted Reversions	Leasing
Alabama		•			•		•	
Alaska		•			•			•
Arizona	•		•	•	•		•	
Arkansas	•			•	•		•	•
California	•	•		•	•	•	•	•
Colorado					•			
Connecticut	•					•		•
Delaware	•			•		•	•	
Florida		•			•			
Georgia	•			•		•	•	
Hawaii	•			•	•			•
Idaho		•			•			•
Illinois					•		•	
Indiana		•		•	•			
Iowa	•	•		•	•		•	•
Kansas	•			•	•			
Kentucky	•						•	•
Louisiana	•	•			•		•	
Maine		•			•		•	
Maryland	•		•				•	
Massachusetts		•				•		•
Michigan		•						
Minnesota	•							•
Mississippi		•			•			•
Missouri	•	•	•					
Montana					•			•
Nebraska		•			•		•	•
Nevada						•		•
New Hampshire			•		•			
New Jersey	•				•			
New Mexico	•	•				•		•
New York		•					•	

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FIGURE 1: (CONTINUED)

FUNDING TOOLS: BUILDING HYBRIDS TO SUIT STATE NEEDS

	Legislative Appropriations	Cost Recovery (Rate Base Revolving Fund)	Technology Investment Fund	Benefits-Based Funding (Gain Share)	Self Funded (User Fees)	Bonds	Diverted Reversions	Leasing
North Carolina	•	•			•	•		
North Dakota	•	•			•	•		•
Ohio	•			•				•
Oklahoma	•			•				
Oregon					•		•	
Pennsylvania	•				•		•	
Rhode Island					•			
South Carolina	•	•	•		•			•
South Dakota	•		•				•	
Tennessee		•	•		•	•	•	•
Texas	•	•		•	•			•
Utah	•	•	•		•			•
Vermont		•		•	•			
Virginia	•	•	•	•	•	•	•	•
Washington	•	•	•		•	•	•	•
West Virginia					•			
Wisconsin		•			•			•
Wyoming	•							

Aggregated from original research and collective sources, including the State of Minnesota Office of Enterprise Technology, *IT funding strategies for the 21st Century: Building a comprehensive array of investment tools*, January 31, 2008; National Association of State Chief Information Officers (NASCIO), *Innovative Funding for Innovative State IT*, 2003, and the Center for Digital Government, *Pay IT Forward: Doing the Public's Business through Digital Technologies while reducing pressure on the General Fund*, 2004.

This continued view of an expanded funding mix as only an alternative to the way that government has always done things — through the general fund — may be rooted in other questions: Can it be done differently? Under whose authority? And under what circumstances?

Figure 1 illustrates that all but one state have earned first-hand experience with using a mix of funding mechanisms for information technology. This track record speaks for itself in that these multiple hybrids are less an unconventional approach than a more holistic view of financing vital public infrastructures.

“It started by looking for precedents,” says Aneesh Chopra, Virginia’s secretary of technology, on his state’s experience with looking beyond the general fund. “We saw examples of working partnerships being formed here and there, many of them without cost to public agencies, and wondered whether we could pursue them at a statewide level. It turns out, we could.”

Virginia now enjoys the benefits of an open-door public-private partnership model through which it initiates competitively created partnerships, including those where an unsolicited proposal is the catalyst. The results of multiple, large-scale partnerships include a statewide end-to-end electronic purchasing system, enterprise infrastructure and application renewal, and a government-to-government application exchange.

Virginia is also one of 21 states that rely on a private company to operate and maintain their official Web sites and most of the applications that operate behind them. That private company began 17 years ago with a proposal to do what had never been done before. Company co-founder Harry Herington remembers having to contend repeatedly with two primary questions from state officials in considering a self-funded portal operated by a third party: “Can we do it? And, is there a prohibition against doing it?” In the early states, new legislation was introduced and passed to provide clear authorization for what was then a new way of doing things. “In the early 1990s, nobody was doing it, which made the legislation necessary,” recalls Herington. “Now, 17 years later, there’s proof that it’s working and, as a result, less need for legislation.”

In fact, he says, in the last 10 states that came his way, there was no special legislation. With almost two decades of experience in doing things

differently, Herington says that it is “important to look back at the broad mandates in (existing) legislation to see what else can be done under its auspices.” Like Chopra, Herington also thinks it’s important to look at what others — higher education, the secretary of state and independently elected officials — are doing under their current enabling legislation to see what can be replicated for other purposes.

In California, the city of Inglewood had developed a particular expertise in processing parking tickets. Officials there saw an opportunity to turn something that they were good at into a shared service, or perhaps even a center of excellence. “If it wasn’t prohibited, we thought we could do it,” says CIO Mike Falkow.

In what began as an enterprise service, Inglewood’s parking processing expertise extended at one point to Chicago and Dallas. In its current form, Inglewood Citation Management Services (ICMS) serves 80 California cities as a public-private partnership — forged with a former private sector competitor — in which both the city and the private processor play to their respective strengths. The city’s share of revenues, valued at up to a half million dollars a year, offsets the cost of information technology across city government.⁹

Though not particularly glamorous, parking ticket processing has proven to have both financial and political benefits for the city. When meeting with his peers, the mayor of Inglewood is able to offer a viable and affordable solution to a common problem faced by cities everywhere. For client cities, ICMS replaces aging internal systems with a service that is available at the incremental cost of a transaction fee rather than large-scale infrastructure investments. For Inglewood, ICMS has

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become the working model of a center of excellence that Falkow is intent on replicating.

"I think it's not only doable," Falkow says, "but if we don't do something at the local government level that either brings in revenue or significantly decreases expenditures, we are not going to be able to function. And that is where we are headed, especially with the rising costs of retirement and the medical benefits because we are just not as efficient as the private sector."

In the vast majority of cases, legislative bodies direct executive agencies on what to do, and infrequently prescribe how something is to be done. Falkow often fields questions about having the authority to do things differently. While careful not to exceed it, he says innovation requires presuming on existing authority. Falkow also says forward progress is sometimes impeded by a bureaucratic tendency to ask for permission to do things you are already authorized to do. "Be creative, be entrepreneurial," Falkow says of success in a tight fiscal climate. "Where the limitation exists is that most public sector folks that rise to the level of IT director or the CIO or CTO of a city, they probably have 15 to 20 years of public sector experience. They probably do not have 15 to 20 years of private sector experience, where being entrepreneurial is the name of the game — looking outside of the box, being creative, saving money, doing more with less — all those old clichés. I am always looking for ways to sell services to other entities because I think I can do a better job sometimes and I've got idle people."

In Washington state, the Department of Information Services (DIS) was created to sell services to other entities. DIS is a discretionary service provider of computing, network, telephony and related services to public entities across the state

on a cost recovery basis, which affords them the opportunity to reinvest a portion of revenues into infrastructure renewal and expansion without having to request an appropriation. To be clear, DIS can only do what the legislature has specifically authorized in terms of supporting the programs of customer agencies but on the question of how, the department's enabling statute directed DIS to "implement ... possibilities."¹⁰

One of the practical out workings of the "implement possibilities" mandate came with the introduction of digital signatures in the mid-1990s. The technology was new, the legal framework ill defined, the processes complex, the applications uncertain but the potential value was enormous. As the initial legislation was passed and revised in the early years, controversy arose over the scope of use of digital signatures in state government. Critics expressed concern over costs, noting how many times bureaucrats sign things to meet legal requirements. Assuming a one-to-one correlation between signatures on paper and digital signatures, they anticipated a huge additional cost to doing routine business in an online environment. The issue of concern: The burdening of standard paperwork with the additional cost of digital signatures in transitioning to the online world. In time, a legal review was requested to differentiate between statutory requirements for a legally binding signature on one hand — a required digital signature — and for proof of authorization on the other — a simple online check box. The analysis indicated that, in the vast majority of cases, there was no legal requirement for a signature. People had been signing forms as a matter of convention, where initials or even a check mark would have been sufficient. The review allowed the state to move forward, using digital signatures on those transactions that required and warranted them, leaving proof of authorization to be attested to by the click of a radio button.

The digital signatures story illuminates the question, “Is it all right to do it this way?” only after answering the question, “What does the law actually require?”

“When in doubt,” reminds Herington, “engage independent legal counsel” or a level-headed assistant attorney general or a curious staff counsel.

CASE STORY

That’s the Ticket

Diverted Reversions and Shared Services based on a Center of Excellence

Inglewood, Calif. — Everything you know about parking tickets is probably true. They get more expensive the longer they linger unpaid in the glove compartment of your car. They can also be a lucrative revenue stream for local governments provided they have cost effective means of issuance, tracking delinquencies, handling appeals, taking payments, pursuing collections, towing and booting, and ultimately suspending vehicle registration of violators.

But the lowly parking ticket has also provided an unlikely case study in stability in the wake of the “growth-at-all-cost” dot-com frenzy and is now positioned to teach some important lessons in operating a shared service while reducing reliance on the general fund.

Parking tickets were the heart of the transaction processing business at GovWorks and represented the lion’s share of the company’s salvage value as it careened toward bankruptcy in 2000. Now relegated to a historical footnote: the personality driven, venture-capitalist fueled GovWorks collapsed in real-time on camera during the filming of “Startup.com” (2001), which came from the same documentary producer who subsequently gave us “The War Room” and “The Control Room.” In “Startup,” when the company’s death spiral was in full view, there was a frenzied last-ditch attempt to save the one part of the company that worked — parking ticket processing.

Four and a half years later, a public sector variation of the story was playing itself out in Inglewood, Calif. The small West Coast city had developed an enterprise service for processing parking tickets two decades ago. Inglewood began bringing its neighbors into the fold by assisting them for a fee. Soon there were 80 entities involved, including some as far away as Chicago and Dallas. In late 2004, the processing service that had been running quietly in the city’s IT shop was thrown into a crisis. After losing Chicago a few years earlier when the city decided to begin processing tickets in-house, Dallas and Berkeley, Calif., each announced their intention to put processing up for competitive bids.

When Michael Falkow was hired on at Inglewood in the fall of 2003, he says he “didn’t have a clue what the city was doing” with its foreshadowing of a shared service. Before long, he owned the enterprise service, and the crisis that came with it.

Falkow — a self-described cross between project manager, systems analyst, and sales engineer — discovered the program was teetering toward system failure. Most urgently, the city had to figure out whether and how to respond to the requests for proposals (RFPs) being issued by their “customers.” Moreover, the mainframe parking system was over 20 years old, and the city was unable to invest in its future the way its private sector competitors could and were. Both ACS, which went on to win the



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Dallas bid, and Duncan Solutions had developed client-server and Web-based solutions. Then there was the issue of whether a public entity should compete with private businesses.

Money presented vexing problems on a number of fronts. The city could not pay a sales commission to staff charged with bringing in new customers because that would be a gift of public funds; so much for cash incentives. The city also could not afford to lose another client such as Berkeley, because that risked putting the service on the wrong side of the break-even point and causing an illegal subsidy from the general fund to stay afloat.

Falkow and other city executives explored many dire alternatives. Shutting the service down was the most obvious but least desirable option. "Our customers had come to very much depend upon us," recalls Falkow, who also acknowledges 11 jobs and between \$350,000 and \$500,000 or more in net profit each year. "We liked the revenue." After all, the diverted reversions from the shared service's revenues reduce the direct costs of IT throughout the city.

The city eliminated options to build a new Web-based system or change code to a new platform because they were lacking the \$2 to \$3 million needed. Even if the IT Department borrowed the money from another fund, there was no guarantee sufficient profits could pay back the loan.

In the end, the city created a hybrid public-private partnership that fit the needs of the city, its 80 institutional customers, and the other market players. It is now known as Inglewood Citation Management Services (ICMS) and has taken the form of a co-sourced shared service. Citation processing is now handled by Duncan Solutions,

with Law Enforcement Systems responsible for collections and the city playing to its strengths too.

"We do know the business really well," says Falkow. "Not only are we the provider of this service, but we're also a receiver of the service. We know it the best from both sides. If we can offer the best practices, contract administration, and purchasing capabilities, that government-to-government relationship can be very powerful. We can also be the watchdog of the vendors." Inglewood still shares in the transaction fees and is able to collect more of what is rightfully owed.

What's Next? Five approaches for our times

An old axiom suggests that when the only tool you have is a hammer, every problem becomes a nail. In discussions of technology funding, the legislative appropriation is often characterized as the hammer — at once a powerful, dominant but limited tool. The limitations can be seen by analogy to the toolbox. In that context, screw drivers or power tools are not alternatives to hammers. They are uniquely designed to do things that hammers cannot do and are commonly used in conjunction with them.

In considering the funding of new construction or renovation of the technology systems relied upon by government, earlier studies have taken a tool-by-tool approach to describing each instrument, its uses and users, and the results.¹¹ The purpose here is to consider the toolbox as a whole and the scenarios made possible by using these tools in combination, not to the exclusion of the hammer — appropriation — but with the intent of reducing pressure on the general fund.

The five hybrid strategies that follow are not exhaustive of the possibilities but each is well-suited to the current fiscal conditions and the increasing need to do something quickly and sustainably.

1. BE SOMEBODY'S VENTURE CAPITALIST

Initial capitalization is a hard nut to crack. Without it, even the best ideas — with compelling business cases, feasibility studies and return on investment projections — languish. Ironically, the harder the times are fiscally, the more governments could use the next great idea. Of course, public agencies will never realize the operational and efficiency gains from

systems they cannot afford to build. To get around this dilemma, a dozen states have used bonding to raise capital funds for technology projects while nine have created a technology investment fund.

Both bonding and the public sector equivalent of “venture capital” are well suited for covering the considerable upfront costs in the design and development of major system modernization. While bonding takes advantage of governments’ generally low cost of capital for start-up costs for major systems, federal regulations require, and the market demands, a premium where the write-down rate exceeds three to five years.¹²

The eight technology investment funds identified in Figure 1 all differ from each other according to the policies and priorities of their originating states. That said, most tend to shift allocation decisions for a select group of technology projects from the legislative branch and place greater discretion and responsibility on the state executive. Such investment funds also share a core set of uses, as described in a recent report from the state of Minnesota:

- Enterprise ‘venture capital’ seed money for enterprise-wide development projects,
- Accumulation of funds for the replacement of systems over the period of their life cycle,
- Encourage business process reengineering, technological innovation and innovative business practices built on empowering technologies, and
- Loans to agencies for planning and predesign projects, or for development or modification efforts in emergency situations.¹³

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On this last point, “loan” is the operative word. Without the expectation of repayment to the fund, a couple of dire situations may occur:

1. The financial disciplines to deliver the project’s hard dollar benefits and return on investment are undermined and the promised public value is not realized; and,
2. Except those that are chosen for the initial round of funding, agencies that agreed in good faith to participate in the investment pools find themselves at the wrong end of a pyramid scheme and left with no prospect of using the investment fund and diminished prospects the next time around in front of more skeptical legislators who also got burned by the process.

That said, the legislatures of both Minnesota and Washington were asked to consider creating and expanding, respectively, a technology investment fund during the 2008 session.

2. USE SOMEONE ELSE’S MONEY

The trick to using someone else’s money is to focus on new applications that pay for themselves. To that end, 14 states have entered into benefits-based funding arrangements. Moreover, 34 states have opted for a user-fee based approach to sustaining systems, with 21 of these states opting for what has become known as the “self-funded” model. Under the self-funded model, states contract with a third party to run the state portals — and many of the Web applications — at no cost to the state. In exchange, the third party receives a share of the revenues from providing enhanced access to certain classes of commercially valuable records held by the state.

Benefits-based funding is a more nuanced arrangement. Under this model, alternatively called gain share, the private third party also assumes the

upfront costs of system development. The third party provides the capital investment and gets paid back from the incremental funds generated as a result of the implemented improvements. Because this is revenue that was previously uncollected, this model creates permanent increased revenue for the state.

But unlike the self-funded model, the third party becomes more deeply involved in the business processes of taxation and revenue agencies because it gets paid only by increasing the collection of revenue already owed. Those payments end when the cost of the system is recovered.

During a five-year period, eight benefits-based tax projects across five different states enhanced revenues by \$1.5 billion. In each case, the respective tax authority had accounted for the levels of delinquency in its accounts receivable department, but the owed funds were not collectable with existing technology. With the new systems, each of the states was able to collect more of what it was rightfully owed without raising taxes. The enhanced capabilities also came with the added benefit of more streamlined and effective auditing.

3. SHARE PLATFORMS

Software developed by government for the unique needs of government is better shared as a service than sold as software. With a few notable exceptions, efforts by public agencies to commercialize, commoditize and sell software have distracted these agencies from their public missions with the business challenges and risks of being a software manufacturer.

“The public sector competing with the private sector in software: I don’t see that as being a viable option unless they can do it better than the private

sector, which again, I don't see as viable," says Falkow. "So, I stay on the services side."

Falkow goes on to state that instead of selling services, local governments can share services with one another.

"Where (local governments) are geographically close to one another... sharing some services makes sense," he says. "We have to look at the fact that we all kind of do the same thing in a lot of different ways, and some of us have developed expertise in various areas."

That public entities do many of the same things has long been the elephant in the room for the public sector IT community, prompting repeated efforts to take advantage of the opportunity to share common solutions across jurisdictional lines. The results to date have been decidedly mixed. In some ways, the 26 states that operate data centers and network services on a cost recovery basis demonstrate the long term viability of sharing platforms. While not a new idea, the use of a common framework or shared service through contemporary service-oriented architectures has given rise to a platform view of service delivery. These digital platforms have evolved into centers of excellence for the providing jurisdictions while creating options to subscribing agencies that previously lacked the capabilities.

eCityGov.net, a joint initiative of dozens of cities in King County, Wash., is among the longest running and most recognized of shared platforms. Variations on the theme are also delivering public value in communities across North America — from the North Central Texas Council of Governments' iCommunities, and the New York Digital Towpath, to the Newport News Open eGov content manage-

ment collaborative and a commercially provided common functional architectural framework that has sustained Service New Brunswick for almost two decades (see sidebar), the latter two of which have been adopted by other governments around the world.

By early 2008, some local governments had begun serious experimentation and limited implementation of what is commonly referred to as Web 2.0 offerings: YouTube, Google Maps, Flickr, Twitter and social operating systems, such as LinkedIn, Facebook, MySpace, Ning, Nexa and Twango. For its part, Microsoft unveiled a component-based Citizen Service Platform as part of its "software-plus-services" version of the larger Software as a Service (SaaS) movement in the industry. At the same time, the commonwealth of Virginia, in cooperation with local governments and with neighboring jurisdictions looking on, launched a government-to-government applications exchange with Salesforce.com, itself repositioned to be a much wider platform provider than its name suggests.

All this new activity builds on a well established practice of diverting reversions in 20 states where, like the Inglewood example, some or all of the excess revenues and savings are captured before returning to the general fund, and are allocated to invest in and offset the cost of technology.

4. BUY LIKE COSTCO, OPERATE LIKE SOUTHWEST

Costco is synonymous with America's penchant for mass consumables.¹⁴ The business model is deceptively simple: buy in bulk and pass the savings on to its customers.¹⁵ Costco's standardization on one or two items per product category also results consistently in favorable pricing. The same dynamic is at work when a single entity aggregates demand for

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FUNCTIONAL ARCHITECTURAL FRAMEWORK AS A PLATFORM

A pioneer in creating digital platforms for the delivery of services across jurisdictional lines, Service New Brunswick was born in the mid-1990s at the intersection of the knowledge economy, economic vitality and sustainability.

The Canadian province adopted a functional framework that had reverse engineered every

transaction type used by its political subdivisions into six architectural components to which all subsequent transactional services could be built. The framework supports consistent multi-channel — Web, phone, joint service centers — delivery of services on behalf of all provincial and municipal government entities.

The Original: SERVICE NEW BRUNSWICK NEW BRUNSWICK, CANADA

- Processes 4 million transactions each year across 16 provincial departments and 60+ municipalities
- Hundreds of transaction types, 42% of all transactions handled through electronic channels
- User satisfaction at 92%
- Financial benefit estimated at \$140 million annually

The Transplant: JOINED TOGETHER GOVERNMENT SUFFOLK, UNITED KINGDOM

- 500 transaction types now supported by software framework originated in New Brunswick
- Common data supports Internet portal platform, call center and one-stop over-the-counter service center
- Public-private partnership among Suffolk County Council, Mid Suffolk District Council, BT Group and CGI
- Suffolk is saving an average of 20% in delivery costs for each of the services across all three channels

LESSONS LEARNED:

- In a platform environment, you stop building applications and start building transactions.
- Software is not meant to be written, modified and maintained as much as it is to be exercised.

- The platform approach accepts the fact that systems across government are not integrated and won't be for some time, but finds a way to extend their value even as it draws previously discrete entities together at the edges.

commodity technology — PCs, laptops, printers and peripheral products — across multiple public agencies and makes bulk purchases on their behalf.

This concept is exemplified in North Carolina. “The state saved more than \$1.4 million (through

a) bulk purchase initiative by consolidating agency requisitions for desktop and laptop PCs and printers,” said Patti Bowers, North Carolina’s chief IT procurement officer, in a memorandum. “(We did this) by standardizing configurations and soliciting bids from term contract vendors.”

The bulk purchase of 3,588 PCs and laptops netted the state a 26 percent savings, bringing total costs down from approximately \$5.5 million to \$4 million.¹⁶

Greater economies of scale are available as aggregation scales, through multi-state initiatives such as U.S. Communities and the Western States Contracting Alliance (WSCA). Over time, the WSCA has broadened the scope of the goods and services covered under its contracts and the number of eligible jurisdictions has increased. It is now informally positioned as being open to all states in the union. The increased scope and volume has resulted in predictably aggressive pricing that exceeds the discounts negotiated by even the most seasoned contracting officials in individual states.

If Costco has taught us how to take advantage of bulk purchasing, Southwest Airlines has become an exemplar of efficient, standardized operations. Southwest makes some 3,200 flights a day but it has standardized on a single platform — a fleet of 500 Boeing 737 planes. Management and technology consultancies have long pointed to Southwest as an apt analogy for thinking through IT consolidation and complexity management in at least eight areas:

1. Complexity management
2. Standardized parts inventory
3. Standardized knowledge management
4. Economies of scale
5. Strategic sourcing relationships
6. Lifecycle planning
7. Organizational design
8. Process effectiveness¹⁷

Put another way, the standardization means crews need to know how to fly only one kind of plane, mechanics only have to know how to

maintain and repair one kind of plane and parts inventories only have to be maintained for one kind of plane.

By analogy, standardized configurations of desktop and laptop PCs promise the same kind of efficiencies and savings for organizations for the same reasons: operations, support, maintenance and parts. Standardized IT platforms provide an additional benefit that even the best airframe platform cannot: They can be managed remotely over the network.

5. RUN CHEAP, TURN GREEN

Green is the new buzzword for marketers and policymakers alike, propelled to prominence through major institutions — the Academy Awards and the Nobel Peace Prize, to name a few — along with the surging public concern about sustainability and climate change. Thirty-five states have adopted a climate action plan and more than 600 mayors are signatories to the U.S. Conference of Mayors Climate Protection Agreement.

With popularization has come politicization and polarization, the latter bookended by casting sustainability as a “moral imperative” on one hand and opportunistically trivializing it through lip service or “green washing” on the other.¹⁸

The information technology industry has been a catalyst in the creation of public-private-civil society consortia on energy efficiency in:

- PCs, laptops and servers: Climate Savers Smart Computing Initiative¹⁹
- Data centers: The Green Grid²⁰
- Transparency about the resulting carbon footprint: Carbon Disclosure Project²¹
- Earth friendly disposal: Solving the E-waste Problem (StEP)²²

Be IT Resolved

While much of this activity is still in the development stage the U.S. government's long running Energy Star program is demonstrating its value to the bottom line. According to preliminary assessment by the commonwealth of Virginia, the replacement

of 60,000 aging PCs and laptops under its enterprise infrastructure renewal partnership has reduced energy consumption by 32 percent. In terms of hard dollar benefits, that totals \$12 million in energy savings each year by refreshing to Energy Star rated machines.

Conclusion: Remaining resolved

With or without an official proclamation, this could be the year of funding and sustaining government modernization. The public sector revenue recession has focused the minds of policymakers and government managers on moving forward even while it seems that new initiatives are getting stuck in a budgeting dilemma.

Worsening economics have again precipitated a crisis that forces hard decisions and sends bureaucracies in search of novel ways to correct the latest predicament. Over time, and through a number of these cycles, alternative funding options have proven viable and found their place within multiple hybrid strategies that reduce pressure on the oversubscribed general fund.

Remaining resolved to government modernization will require the compromising seen in the early days of government; we have to not only lay out change designs in a preamble, but follow them through with tangible articles and amend our plans as needed.

The five funding hybrids discussed here — being somebody's venture capitalist; using somebody else's money; sharing platforms; buying like Costco, operating like Southwest; and running cheap, turning green — are not mere speculation but

proven methods that work in the (sur)real world of public service.

The explorers and pioneers have done their work in opening the new world of fiscal sustainability, domesticating what were once seen as only alternative funding approaches and making them safe for the much wider population of settlers.

This handful of hybrids is not an exhaustive treatment of funding government modernization. They represent the first five options — all of which are proven and are delivering public value in a growing number of jurisdictions by expanding capacity while reducing the pressure and reliance on the general fund. Because their track records speak for themselves, it is no longer as necessary as it once was (to paraphrase Hunter S. Thompson) to ask for permission or forgiveness in expanding and stabilizing the funding of IT investments and their related programs.

As noted above, the five hybrids at the heart of *Be IT Resolved* hold promise for both getting through economic downturns and being better positioned during and after the recovery that follows. All five hybrids contribute to the simple proposition of reducing the cost of delivering a unit of service, with particular attention to those transaction types that

involve millions of transactions each year. The late U.S. Senator Everett Dirksen is well remembered for a quote about government spending. The quip applies equally to the impact of thoughtfully adding to

the funding mix for government modernization: “A billion here, a billion there, and pretty soon you’re talking real money.”

Endnotes

- ¹ The January 2008 data is subject to updating as more states release their estimates. See <http://www.cbpp.org/> for more information.
- ² Local governments have exposure to the subprime mortgage meltdown, which has significantly undermined the tax base in a number of American cities (U.S. Council of Mayors, January 2008). The subprime problem has been compounded by the disproportionate reliance on once obscure auction-rate securities, which have cratered after being sold to local governments as an inexpensive long-term financing vehicle, but are resetting in ways similar to the subprime market and putting institutional borrowers at risk. (Wall Street Journal, Feb. 19, 2008)
- ³ National Governors Association, February 2008
- ⁴ NCSL Top 10 list annotated at www.ncsl.org/programs/press/2007/pr121407.htm
- ⁵ A note on the nation’s infrastructure: the Internet itself is four decades old and, like roads, bridges and other vital public infrastructures, is in need of refresh and expansion to meet competitive needs of a broadband world.
- ⁶ The Concord Coalition is a member of a joint initiative with the Brookings Institution, the Heritage Foundation and the U.S. Comptroller General. It maintains a Web site for the Fiscal Wake-Up Tour at www.concordcoalition.org/events/fiscal-wake-up/index.html.
- ⁷ Concord Coalition, Brookings Institution, Heritage Foundation, 2008.
- ⁸ With this method, funds that would otherwise revert at the end of the fiscal year are diverted in whole or in part to technology infrastructure investments. The rationale is it reduces reliance on the general fund by capturing unanticipated receipts for infrastructure investments and refurbishments.
- ⁹ For more information, see the imbedded case story: *That’s the Ticket*.
- ¹⁰ Revised Code of Washington (RCW) 43.105.17 (4c)
- ¹¹ For example see the Center for Digital Government, *Pay IT Forward: Doing the Public’s Business through Digital Technologies while reducing pressure on the General Fund*, 2004.
- ¹² The write-down rate refers to reducing the book value of an asset because it is overvalued compared to the market value. Source: Investopedia.com.
- ¹³ State of Minnesota Office of Enterprise Technology, *IT funding strategies for the 21st Century: Building a comprehensive array of investment tools*, January 31, 2008, pp. 15, 24.
- ¹⁴ Costco Wholesale is a warehouse club chain and is America’s fifth largest retailer. Source: InternetRetailer.com
- ¹⁵ The second part of the Costco model is to turn inventories quickly and invest the float — the number of shares held by the general public — for additional profit until the invoices are due.
- ¹⁶ Patti Bowers, Chief IT Procurement Officer, *Memorandum: Desktop and Laptop Computer and Printer Purchases*, State of North Carolina, February 23, 2005. See: www.scio.state.nc.us.
- ¹⁷ Michael Topalovich, Southwest Airlines and the Boeing 737, *The Mikan Group Blog*, November 13, 2007. See: www.mikangroup.com/the-mikan-group-blog/southwest-airlines-and-the-boeing-737.html and www.boeing.com/commercial/news/feature/profit.html and
- ¹⁸ www.boeing.com/commercial/737family/background.html and
- ¹⁹ www.southwest.com/about_swa/airborne.html.
- ²⁰ Paul W. Taylor, *Simply Green: A Few Steps in the Right Direction*, Center for Digital Government, 2008.
- ²¹ See Climate Savers Smart Computing Initiative at www.climatesaverscomputing.org.
- ²² See The Green GridSM at www.thegreengrid.org.
- ²³ See the Carbon Disclosure Project at www.cdproject.net.
- ²⁴ Solving the E-waste Problem (StEP) is an initiative began by the United Nations University. See: www.step-initiative.org.



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