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CHOICE IN GOVERNMENT SOFTWARE PROCUREMENT: A WINNING STRATEGY

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ABSTRACT. Court decisions, based largely on principles of equal protection and non-discrimination, throw out laws with preferences for open source software, demonstrating that such laws are not only bad public policy, but may also be illegal, and that neutrality and choice in software procurement is the better approach.

INTRODUCTION

Fueled by expanding e-government initiatives, heightened security concerns, and a keen desire to enhance the interoperability among various legacy and new systems, governments all over the world are re-examining their information technology ("IT") needs and their IT procurement processes. While technology procurement is an important decision for governments, as this article will show, it needs to be made on the merits and not based on express or implicit preferences, both for sound policy reasons and because to do otherwise could very well be illegal.

Governments are such significant purchasers of IT products and services that their purchasing decisions have a substantial impact on the world's IT marketplace. This fact calls into question the wisdom of decisions by a few policymakers (on national, state, and local levels) around the world that have sought to limit the ability of governmental agencies to engage in a truly independent, critical, and objective analysis when deciding about software procurement. Some such policymakers have sought to require that governmental

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procurement officials give varying degrees of preference to open source software ("OSS") when evaluating competing software solutions, claiming, among other things, that such preferences are justified because OSS is cheaper and more interoperable than proprietary software and needs government handicapping in order to enter the market to compete with incumbent proprietary software providers (Center for Strategic and International Studies, 2006).[1]

However, governments around the world (e.g. the United Kingdom, Ireland, Canada, New Zealand, Peru, Costa Rica, Malaysia, et al.), as well as leading scholars and institutions, such as the Harvard Berkman Center (Berkman Center for Internet & Society, 2005)[2] and the International Chamber of Commerce (International Chamber of Commerce, 2005)[3] have increasingly concluded that procurement preferences for specific technology solutions or software licensing/business models, whether overt or implicit, are bad public policy and do not reflect the realities of the current IT marketplace. These commentators correctly point out that such preferences can arbitrarily force product uniformity and vendor lock-in, thereby significantly impeding the benefits of choice, competition, and innovation that flow from technical solutions based on multiple interoperable sources. As a result, governments may be prevented from securing the best technical solution available, which can be particularly imprudent given the current rapid convergence of technologies in an increasingly heterogeneous IT eco-system that permits the ability to choose and combine the best proprietary and best open source products to forge an ideal solution. For example, at a major BEAWorld event in Beijing in December 2005, leading OSS advocates agreed that the greatest prospect for success with OSS involves a strategy of *mixing* OSS with proprietary software. Moreover, they concluded that proprietary software and OSS will co-exist "very long into the future, and competition between them will benefit the customer" (Taft, 2005). In short, software choice, competition, and combination are the better policy objectives, *not* software uniformity or exclusiveness.

Software procurement preferences are not simply regarded as bad public policy, however. The court decisions in Brazil and Belgium discussed below demonstrate that they may also be per se illegal under well-established principles of law including equal protection

and non-discrimination. Ideally, therefore, policymakers should develop procurement policies that are *neutral* with respect to specific technologies or platforms and that allow the governmental decision-maker to choose the best alternative in a particular situation based on reasonable, objective criteria. An example of such criteria is set forth in the model procurement policy attached to this article that was recently adopted by the American Legislative Exchange Council ("ALEC"). Such a neutral, flexible, and objective approach—provided that it is properly implemented and applied—is the optimal way not only to meet the specific business needs of the project and ensure interoperability among diverse IT systems, but also to maximize competition, innovation, and consumer choice.

DISCUSSION

Court Decisions Rejecting Open Source Preference Laws

Governments attempting to impose software procurement preferences for OSS are now experiencing a significant backlash from IT solutions providers that are being arbitrarily excluded from competitive procurement processes. And some of these complaints and lawsuits have led to court decisions invalidating these OSS preference laws. Below are two such examples of high level court decisions invalidating governmental attempts to establish preferences in software procurement.

Brazil

In April, 2004, the Brazilian Supreme Court voted unanimously to bar enforcement of a law passed by the Rio Grande do Sul state legislature, which required the use of OSS in governmental agencies when available. Specifically, the law stated:

> The Direct and Indirect Public Administration, Independent Agencies and Foundations in the State of Rio Grande do Sul, as well as any autonomous bodies and companies under the State control, *shall preferably use software free of any proprietary restrictions (open source software) regarding grant, changes and distribution on their computing systems and devices*[4] (Rio Grande Do Sul Legislation, 2002, Art.1) (emphasis added).

The law defined Open Source Software as follows:

> Software with industrial or intellectual property licenses that do not restrict, under any circumstances, the granting, distribution, use, modifications to its original features, ensuring the user non-restrictive access, with no additional charges, to its source code, and allowing partial or total modification to the software for improvements and adequacy[5] (Rio Grande Do Sul Legislation, 2002, Art.1(1)).

Following a constitutional challenge to the law by Brazil's Party of the Liberal Front, the Brazilian Supreme Court granted a temporary injunction on three primary grounds. The first ground (and the one that is the focus of this article) is the Court's holding that Brazilian law requires that, in the interest of open and meaningful competition, all bidders for public contracts be given *equal opportunities*.[6] As set forth in Title III of Brazil's 1988 Federal Constitution, "public works, services, purchases and disposals shall be contracted by public bidding proceedings that ensure equal conditions to all bidders, with clauses that establish payment obligations, maintaining the effective conditions of the bid, as the law provides, which shall only allow the requirements of technical and economic qualifications indispensable to guarantee the fulfilling of the obligations" (Federative Republic of Brazil, 2005, Ch.VII, s.I, Art.37 (XXI)).

Thus, the Court concluded, the law interferes with constitutionally mandated principles of equal treatment and non-discrimination. With respect to preferences in public procurement, the Court explained:

> [I]n order to prove a comparative superiority, it must be demonstrated, during the bidding process, where the technical requirements, technological acquirement and financial costs would be best met by the acquisition, maintenance and adaptation of the product. That is, an analysis should be issued, based on objective criteria and data included in the call for bid rules logically placed within the scope of the Public Administration. Then, the competitor with the best results, according to the provisions in the call for bid, shall be deemed as winner of the process. In short, if open software is, in fact, in the greatest interest to the Public Administration, this must be shown in terms of the highest scores regarding objective criteria in the call for tender rules ("ISC Hails Brazilian Supreme Court Decision," 2004).

The Court also made clear that determination as to the superiority of one product over another must be made on a case-by-case basis and that before-the-fact preferences would not be tolerated:

> The objective scope of the state law being questioned was a declared and before-the-fact preference for a certain type of electronic product: open source software or software entirely exempt of proprietary restrictions. Therefore, the state law itself removes the isonomic nature of the bidding process to replace the Public Administration by issuing a before-the-fact analysis of the superiority of a certain computer-related product before other competitors. These competitors are known to be in large number and equally characterized by an increasing technological sophistication of their products. In other words, the law itself was in charge of creating a preference and thus anticipating a concrete or empiric administrative evaluation; an evaluation translated as a presumption that a certain software better meets the Administration's interests than others. Additionally that it best satisfies these interests at all times, and it should be added, as if the computer products market was not characterized by a huge and unlimited margin for constant improvement ("ISC Hails Brazilian Supreme Court Decision," 2004).

This decision does not reflect a preference for proprietary software, nor does it mean that Brazil's state and federal governmental agencies cannot, or will not, elect to implement open source IT solutions in situations where this is the best option. Rather, it emphasizes the importance of neutral and non-discriminatory practices in all areas of public procurement, including IT and software, in which all potential bidders are afforded their constitutionally guaranteed equal protection of the law and in which the virtues of each software alternative, "may only be confirmed within the process that encompasses the bidding process itself (. . .) on a case-by-case basis, every day, moment by moment, in each bidding, according to the nature of the Public Administration's needs and objectives on one side, and on the other, the ever changing quality of the products in question" ("ISC Hails Brazilian Supreme Court Decision," 2004). This decision should raise the level of concern of any government that has or is considering the adoption of laws or policies that prefer one type of software over another.[7]

Belgium (and the Law of the European Community)

In February, 2003, the Budget Commission of the Assembly of the French speaking community of Brussels ("Cocof") adopted a proposal that would force the Cocof administration to exclusively use OSS. The President of the Cocof Assembly requested the legal opinion of the Belgian Supreme Administrative Court on the proposed decree. The Court characterized the intent of the proposed decree as follows:

> The examined proposal of decree primarily intends to impose on the administration of the French-speaking community commission, the exclusive use of free software, of open data formats and of open communication protocols in order to fulfill its tasks, i.e., the acquisition, the treatment, the archiving, the exchange or communication of computerized data, with the exception of certain specific tasks for which there is no operational solution on the basis of such software (Royal Kingdom of Belgium, 2003).

The Belgian Supreme Administrative Court opinion made clear that such procurement decisions must be made on a case-by-case basis:

> The technical prescriptions—which have to enable the characterization of the object of a market, in order for the product, the supply or the requested service to correspond exactly to the contracting authority's intention—have to be necessarily determined on a case by case basis, according to each market, by the contracting authority itself (. . .) and not by legislative act or an implementing decree (Royal Kingdom of Belgium, 2003).

Such a requirement is necessary to ensure that public contracts are awarded based on a careful assessment of the specific needs (which can change significantly over time) of the government at the time of procurement. This concern is especially relevant when procuring for IT products and services due to the highly dynamic and increasingly heterogeneous IT marketplace.

Furthermore, the Court ruled that any legislative proposal concerning public procurement, whether for software or otherwise, must respect the fundamental principles of equality and non-discrimination because Belgian federal law required compliance with European Community ("EC") law, which, in turn, is based on these

core principles (Royal Kingdom of Belgium, 2003)[8] The principles of equality and non-discrimination are derived from the EU Treaty and have been repeated in the EC Directives, including Directive 2004/18 of the European Parliament and the Council (European Parliament and Council, 2004), which governs most major public sector procurement. This Directive consolidates and amends the rules applicable to public procurement in the EU and unequivocally requires neutrality in the public procurement process. Specifically, Art.2 of the EU Public Procurement Directive provides as follows: "Contracting authorities shall treat economic operators equally and non-discriminatorily and shall act in a transparent way." Likewise, Art.23(2) states, "Technical specifications shall afford equal access for tenderers and not have the effect of creating unjustified obstacles to the opening up of public procurement to competition." These requirements aim to promote competition and prevent contracting authorities from distorting competition and eliminating certain parties from the market or bidding process (Arrowsmith, 2005).

Also consistent with these goals, the European Court of Justice ("ECJ") has opposed contracting bidding processes that would prevent certain entities from participating in the tender process. For example, in *Commission v Ireland* (European Court of Justice, 1988), the ECJ considered a requirement in a public procurement contract for constructing a water main that called for the use of pipes that conformed to a specific Irish standard. In opposing the requirement, the ECJ ruled that the provision had the effect of limiting the companies that could tender as only those companies which were complying with that standard could propose an offer, and that municipality's concerns could be met by an *equivalent* product that also satisfied the purchaser's performance requirements. In another leading case, *Commission v Netherlands* (European Court of Justice, 1995), the ECJ held that reference to technical specifications which mention goods of a specific make or source or of a particular process (in the case, the UNIX data processing system) and which have the effect of favoring or eliminating, whether directly or indirectly, certain undertakings or products is contrary to public procurement law.[9]

Based on its strict adherence to the foregoing principles of equality and non-discrimination required by both the Belgian Constitution and governing EC law, the Initiative for Software Choice hailed the Belgian Supreme Administrative Court opinion as a

landmark decision that will facilitate competition and greater consumer choice:

> [A]ny legislative proposal concerning public procurement must respect the fundamental principles of the Belgian Constitution, in particular the principles of Equality and Non-Discrimination. The ISC believes that proposals like Cocof's fail to reflect the reality of the competitive and globally interdependent ICT eco-system. Governments, their constituents and the ICT industry never gain when options are eliminated and viable choices are otherwise reduced through nothing more than arbitrary law or regulation. This opinion of the Supreme Court should serve as a reference for all legislators, in Belgium and beyond, considering laws imposing the exclusive use of OSS on public authorities. As governments seek to better serve their constituents through ICT, merit-base choice—not restrictive mandates—will help make those services the best that they can be ("Belgian Supreme Administrative Court Says Proposed," 2003).

It is evident from the Brazilian, Belgian, and ECJ decisions discussed above that governments that have established (or are considering) software preferences may be—perhaps without even fully realizing it—exposing their constituent agencies and officials to avoidable legal risks and other significant costs. Although these decisions may not technically be controlling law outside of the respective courts' jurisdictions, given that they are each predicated on principles of equal protection and non-discrimination which permeate jurisdictions across the globe, they will likely be looked upon as examples for courts in other countries that are facing, or may soon face, similar challenges to software procurement preferences. At a minimum, law makers and policy makers should closely examine the applicable legal requirements in their respective jurisdictions regarding these animating principles before considering the adoption of software procurement preferences.

US Federal Government Information Technology and Software Procurement Policy

In an effort to avoid legal challenges similar to those faced by law makers in Brazil and Belgium, the US Federal Government has removed all doubt regarding the use of preferences in IT procurement

decisions. In a July, 2004 memorandum, the Office of Management and Budget ("OMB") reminded agencies of the policies and procedures covering acquisition of software to support agency operations (Evans, 2004). Specifically, the OMB instructed that:

> The Office of Management and Budget (OMB) Circulars A-11 and A-130 and the Federal Acquisition Regulation (FAR), guide agency IT investment decisions. These policies are intentionally technology and vendor neutral, and to the maximum extent practicable, agency implementation should be similarly neutral. As this guidance states, all agency IT investment decisions, including software, must be made consistent with the agency's enterprise architecture and the Federal Enterprise Architecture. Additionally, agencies must consider the total cost of ownership including lifecycle maintenance costs, the costs associated with risk issues, including security and privacy of data, and the costs of ensuring security of the IT system itself (Evans & Reddy, 2003).

Specifically, with respect to software procurement, the OMB memo went on to clarify that:

> This reminder applies to acquisitions of all software, whether it is proprietary or Open Source Software. Open Source Software's source code is widely available so it may be used, copied, modified, and redistributed. It is licensed with certain common restrictions, which generally differ from proprietary software. Frequently, the licenses require users who distribute Open Source Software, whether in its original form or as modified, to make the source code widely available. Subsequent licenses usually include the terms of the original license, thereby requiring wide availability. These differences in licensing may affect the use, the security, and the total cost of ownership of the software and must be considered when an agency is planning a software acquisition (Evans & Reddy, 2003).

This policy reflects the US Government's commitment to neutrality and choice and its desire to consider all relevant factors when making IT purchasing decisions.

Case studies: Massachusetts, California, Costa Rica, Peru, Malaysia, Rio de Janeiro, and Chile Retreat from Efforts to Impose Software Procurement Preferences

A prime example of the significant uncertainty, waste, and delay that can arise when policy makers attempt to impose software procurement preferences can be seen in Massachusetts, where, for more than a year, a battle waged on about the legality of a proposal to remove much of the discretion from governmental IT purchasing decisions.

In September, 2003, the Secretary of Massachusetts's Department of Finance and Administration stated in a memorandum that "[e]ffective immediately, we will adopt (. . .) a comprehensive Open Standards, Open Source policy for all future IT investment and operating expenditures" (Gardner, 2004, p. 1). The policy shift was immediately seized upon by state law makers who questioned whether such an approach was even legal under Massachusetts's code. In a formal letter, state Senator Marc Pacheco, Chairperson of the Post Audit and Oversight Committee, demanded to know: (1) "[u]nder what legal authority is the Administration purporting to act in implementing its Open Source/Open Standards Policy"; and (2) "how the policy, which appears to be a preferential policy, does not run afoul of the Massachusetts General Laws" (Gardner, 2004, p. 1). In a committee hearing that followed, Senator Pacheco explained that "[w]e have a procurement statute that's on the books that allows and directs open competition" (Bray, 2003, 1). He further explained that, since the new policy would so heavily favor OSS, it would not only exclude local software companies from competing for a significant portion of the state's $230 million annual IT budget (Semilof, 2003), it would arbitrarily force state agencies, etc. to use OSS even if traditional software would be a better fit (Bray, 2003, p. 1).

Chapter 30B, s.14 of The Massachusetts Uniform Procurement Act states: "Unless no other manner of description suffices, and the procurement officer so determines in writing, setting forth the basis for the determination, all specifications shall be written in a manner which describes the requirements to be met without having the effect of exclusively requiring a proprietary supply or service, or a procurement from a sole source" (Commonwealth of Massachusetts, 2007).

Based, in part, on these statutory requirements, Massachusetts was required to scrap the OSS preference plan and, instead, adopted a policy requiring all IT solutions to be "selected based on best value after careful consideration of all possible alternatives including proprietary, public sector code sharing and open source solutions" (Enterprise Information Technology Acquisition Policy, 2004). This "best value evaluation" requires agencies to "consider, at a minimum, total cost of ownership over the entire period the IT solution is required, fit with identified business requirements, reliability, performance, scalability, security, maintenance requirements, legal risks, ease of customization, and ease of migration" (Executive Office for Administration and Finance Information Technology Division, 2004).

It should be noted that it is not sufficient for Massachusetts (or any other state or national government) to simply *adopt* a policy based on choice and neutral objective criteria; it must also faithfully and vigilantly *implement* and *apply* this policy in each situation and not use it simply to shield discriminatory or outcome-determinative procurement decisions that would deprive consumers and industry from experiencing the various benefits in increased competition, innovation, and choice discussed in this article.

Massachusetts is not alone in its decision to revise its procurement policy to eliminate preferences. Other US states, and indeed governments around the world, are questioning existing policies and responding to the concerns of both law makers and major segments of the IT marketplace. For example, in California, the California Performance Review Recommendation SO10, *Explore Open Source Alternatives,* was interpreted by some as recommending or establishing a preference for open source solutions. In response, California's Chief Information Officer (Kelso, 2005) issued a statement clarifying the state's policy of software neutrality as follows:

> CPR Recommendation SO10, if interpreted as establishing a preference for open source solutions, does *not* reflect state policy. There is no policy giving a preference in project design or in procurement for open source or proprietary solutions. The architecture of individual information technology projects is determined initially by the project owner, and the analysis supporting those decisions typically appears in a Feasibility

> Study Report (FSR). Our standards require consideration of reasonable alternatives in an FSR so that we can ensure the State receives a solution that is well aligned with our business needs. The goal of an information technology procurement is simply to get "best value" for the State. Although there are certain statutory preferences that may affect procurements, there is no preference for open source solutions or for any other software architectures.

Many state legislatures across the United States have also been quick to reject similar technology preferences. In 2007 alone, no less than five state bills (*e.g.*, in Connecticut, Florida, Oregon, California, and Texas) seeking to mandate the use of certain document formats by government agencies have been defeated (Lai & Keizer, 2007).

Likewise, on October 17, 2005, Peruvian President Alejandro Toledo approved Law 28612, 2005, mandating neutral technology procurement in the central government (Kanellos, 2005). This marked a dramatic reversal by Peru to reject its prior attempts to enact a procurement policy that would have established an express preference for open source software over proprietary software. The adopted policy instead requires consideration of all relevant software in procurement. Before acquiring software, governmental agencies must produce a public report comparing the value of alternatives and identifying the software that best meets their needs. The law requires that procuring entities apply the principles of technology neutrality, transparency, efficiency, and austerity when making acquisitions.

In November 2006, the Permanent Committee on Government & Administration ("PCGA") of the Legislative Assembly of Costa Rica voted down an OSS preference bill that would have obligated all government institutions to use OSS in their information and data management systems. The failure of the bill was due, in large part, to the strong negative opinions that were voiced by many key public institutions, including the Central Bank, the Attorney General's Office, and the Controller General's Legal Counseling and Management Division. Chief among the many concerns raised by the consulted institutions was that "each government agency should have the power to decide which type of software best meets its conditions and requirements" (Costa Rica Sub-Commission Rtp., 2006). The Public Services Regulatory Authority added that the purported benefit of substantial cost savings is not necessarily true because it does not

consider the hidden costs of "free" software, such as customization, updates (which require ensuring that the latest software updates will not alter the operation of a customized application(s)), and ongoing technical support, that should rightly be taken into account when making such procurement decisions (Costa Rica Sub-Commission Rtp., 2006). Ultimately, in rejecting the bill, the PCGA stated unequivocally that:

> [T]he Government cannot make decisions that tend to favor the use of a certain technology over another. Government should not bet on a specific technology and force anybody wishing to use certain services to use a particular technology. On the contrary, the process of technological development itself should be the mechanism determining which technology best meets established purposes. Regulations should therefore not favor one technology over another or one investment form over another. Consequently, the rules to be adopted should not be conditional to a specific format, technology, language or transmission medium" (Costa Rica Sub-Commission Rtp., 2006).

Malaysia, too, recently reversed the OSS preference policy it had established in 2004, as part of the "Malaysian Open Source Software Master Plan," which sought to expand OSS implementation within the public sector. The policy statement accompanying the Master Plan dictated that "[i]n situations where advantages and disadvantages of OSS and proprietary software are equal, preference shall be given to OSS." In November 2006, however, the Malaysian government adopted a neutral technology platform policy that does not favor either OSS or proprietary software. Instead, the government procurement policies will now be based on the merit of the solutions available. In explaining the government's elimination of OSS preferences, Malaysia's Minister of Science, Technology and Innovation, Datuk Seri Dr. Jamaludin Jarjis, noted that "[t]here has been a lot of negative reaction towards open source [from the IT market] and that's why [choosing] the technology platform should be neutral … It's about choice. Let the market decide" (Kembangan, 2006). The deciding factor in public procurement decisions will now, according to the Minister, "be based on whether the solution has added value in contributing towards job creation, technopreneur development, industry growth and creating a whole ecosystem that

can promote economic growth and wealth creation among local players" ("Software Democracy Is Here," 2006).

In Brazil, in 2006, the Mayor of Rio de Janeiro vetoed an OSS preference bill (Bill 324/2005) that had been passed by the City Council. The Mayor took this appropriate action on the grounds that the OSS preference law was unconstitutional and inconvenient for the Public Administration, particularly in light of the Brazilian Supreme Court decision discussed above which had enjoined a similar OSS preference law. Despite the Mayor's decision, however, the City Council overcame the veto and the bill became Municipal Law No. 4355/2006. Thereafter, the Mayor filed a Claim for the Declaration of Unconstitutionality with the state court. On May 7, 2007, the Special Panel of the Court of Appeals of the State of Rio de Janeiro issued a unanimous decision holding the city's OSS preference law unconstitutional (Special Panel of the Court of Justice, 2006). The court ruled that, under both the federal and state constitutions, "the Executive Branch of the government is exclusively responsible for all decisions related to the organization of its services and to the structure of its departments." Since Municipal Law 4355/2006 interfered with the Mayor's prerogative over the "organization and functioning of the administration…[which] represents a violation to the principle of separation of powers," it was declared unconstitutional and deemed "void and ineffective" (Special Panel of the Court of Justice, 2006).

Finally, it is worth noting that, on August 13, 2007, the Chilean Camera de Diputados (House of Representatives in the bicameral legislature) passed an "Acuerdo" (or legislative statement) requesting that Chilean President Bachelet take the steps necessary to apply the principle of technology neutrality to IT acquisitions by the state. While the legislative statement, which passed with 77 votes in favor, none against, and one abstention, does not have binding legal effect, it firmly establishes technology neutrality as an important principle that calls on government agencies to select the best technological solution, on an objective basis, to meet a particular need. The statement also requests that President Bachelet order the agency in charge of public purchasing and contracting to develop guidelines to ensure that public entities implement and maintain technology neutrality.[10]

Procurement laws and policies like those described above are aimed at ensuring that governments are able to obtain the best technology solution available, irrespective of platform. Equally as important, they are designed to protect the integrity of the governmental procurement process and ensure equality and non-discrimination for all bidders. The requirement of equal protection of the laws (upon which both the Brazilian and Belgian courts relied and upon which the above-referenced EU Directives are based) is a bedrock component of most state constitutions.[11] Thus, the fundamental principles of fairness, equal treatment, and non-discrimination in all extensions of governmental authority, including purchasing, will continue to guide courts and law makers faced with preference laws. States or countries that have implemented or are considering policies or legislation imposing direct or indirect preferences for particular types of software can expect to encounter similar legal challenges based on their own requirements for equality and non-discrimination in governmental procurement procedures.

A Better Approach: Model Language Endorsing Choice and Neutral, Objective Criteria

For governments and agencies looking to update and clarify their software procurement policies, it may be helpful to review the American Legislative Exchange Council's[12] ("ALEC") model legislation regarding neutrality and integrity in software procurement. ALEC's model legislation is primarily designed to preserve choice, competition, and integrity in the selection and installation of software products. Generally, it requires that software procurement decisions made by the contracting authority consider: (1) the total cost of ownership during the full life of the software, including service and maintenance; and (2) performance criteria and value of the software based on its ability to meet the specific needs of the state, such as reliability, ease of learning, ease of use, security, privacy, and interoperability. The model law also prevents the contracting authority from limiting software choice through express or implied preferences for any specific model of software licensing. Appendix A of this article sets out the full text of the model legislation.

CONCLUSIONS AND RECOMMENDATIONS

Governmental preferences for particular types of software (such as open source software or proprietary software) are increasingly and widely considered bad public policy in that they arbitrarily force product uniformity and vendor lock-in. As a result, such preferences significantly impede the benefits of choice, competition, and innovation that flow from technical solutions based on multiple interoperable sources. This approach is particularly improvident in light of the rapid convergence of technologies in the current heterogeneous IT eco-system that permits the ability to choose and combine the best proprietary and best open source products to forge an ideal solution.

But such preferences may not simply be bad public policy; they may also be per se illegal. As the court decisions in Brazil and Belgium discussed above demonstrate, such preferences in software procurement policies contravene well-established principles of equal protection and nondiscrimination set out in federal or state law, constitutional provisions, and governing EC law. Because such principles are at the center of societies and governments worldwide, these decisions should serve as a cautionary tale to *any* government that is considering the imposition of such procurement preferences.

The better public policy approach, and the one that is most consistent with these animating principles and with the constitutions and laws of jurisdictions across the globe, is for policy makers to develop procurement policies that are both *neutral* with respect to specific technologies or software platforms and based on reasonable, objective criteria, such as the following: (1) the overall cost of procuring the software and the administration over the projected life of the product; (2) interoperability; (3) reliability; (4) vendor support; (5) ease of use; (6) security; and (7) availability of warranties and indemnities for intellectual property claims.

Likewise, efforts by governments to mandate a particular path to interoperability to the exclusion of others—such as the requirement to use *only* a specified open standard—may wind up curtailing the flexibility of government agencies or organizational divisions to use alternative means that would have resulted in even *greater* levels of interoperability had they been pursued. For example, if a government mandates reliance on a particular open standard that is immature and unproven, and that ultimately turns out to be costly and

ineffective, it may have foregone significant interoperability advances that could have been obtained had the government instead been more flexible in allowing alternative, broadly accessible proprietary standards, certain industry collaborations, and/or other means to chart its interoperability course. Accordingly, to avoid these pitfalls, and to maximize the level of interoperability, governments should embrace a policy that allows for "choice" by their software procurement and other divisions seeking interoperability solutions—*choice* as to which one of various options is the best means of achieving interoperability in a given situation; *choice* regarding which open standard(s) and/or proprietary standard(s) to rely on under the circumstances; and *choice* between open source software and proprietary software in the procurement process. This flexible approach predicated on choice is particularly appropriate in the rapidly converging IT world, in which customers and governments increasingly rely on a *combination* of proprietary and open source software, as well as open standards and proprietary standards, to develop an ideal interoperability strategy.

For the convenience of governments interested in pursuing this approach, this article attaches in Appendix A model legislation regarding neutrality and integrity in software procurement that was adopted and is endorsed by the American Legislative Exchange Council.[13] Whether governments use this particular model legislation or their own customized version of it, such a neutral and objective approach—which is increasingly being embraced by governments around the world,[14] as well as by scholars and learned commentators such as the Harvard Berkman Center and by the International Chamber of Commerce—is the optimal way (provided that it is faithfully implemented and applied) not only to meet the specific business needs of the project and ensure interoperability among diverse systems, but also to maximize competition, innovation, and consumer choice.

NOTES

1. Various countries have taken different approaches to software procurement in attempts to mandate open source software, for example: *Australia*—proposed amendment requiring Public Service Agencies prefer OSS "wherever practicable" (September 2003); *Columbia*—proposed bill mandating that all state

institutions and state majority owned enterprises exclusively use OSS in their information systems (August 2002).

2. According to Harvard's *Roadmap for Open ICT Ecosystems,* "[t]echnology and brand neutrality in procurement specifications (. . .) reduces the possibility of vendor or technology lock-in by emphasizing choices and procurement decisions based upon what works best. It will also reduce costs, increase competition and help smaller vendors to compete. Use metrics that focus on performance characteristics, business needs and contributions that help open the ICT ecosystem." Other scholars have also explained that the realities of the current IT marketplace do not require government intervention in the area of software procurement. For example, James V. DeLong has made clear that "[f]or governments to embrace open source as *the* model would be a serious error. The only rational policy for governments is to let the models compete on a level playing field. If open source is superior it needs no preference; if it is not; it deserves none" (DeLong, 2004). David Evens and Bernard Reddy have explained that "[o]ne would need to evaluate open-source software and proprietary software on a case-by-case, product-by-product basis. (. . .) The market will veer toward open-source software solutions if they are superior, so there is no reason why the government needs to push the market in that direction. As we have noted earlier, governments have bad track records at picking technology winners and losers" (Evans & Reddy, 2003).

3. The "ICC opposes government procurement preferences and mandates that favor one form of software development or licensing over others. Governments, like all potential and existing customers, should choose software on a technology neutral and vendor-neutral basis, examining the merits of the technology based upon the performance factors stated above. As a general rule, governments should not discriminate against or ban the procurement of software based on its licensing or development model. Such preferential policies prevent public authorities from effectively weighing all relevant factors in their procurement decisions."

4. The original version reads as follows: "A administração pública direta, indireta, autárquica e fundacional do Estado do Rio Grande do Sul, assim como os órgãos autônomos e empresas

sob o controle do Estado utilizarão preferencialmente em seus sistemas e equipamentos de informática programas abertos, livres de restrições proprietárias quanto a sua cessão, alteração e distribuição."

5. The original reads as follows: "Entende-se por programa aberto aquele cuja licença de propriedade industrial ou intelectual não restrinja sob nenhum aspecto a sua cessão, distribuição, utilização ou alteração de suas características originais, assegurando ao usuário acesso irrestrito e sem custos adicionais ao seu código fonte, permitindo a alteração parcial ou total do programa para seu aperfeiçoamento ou adequação."

6. Beyond the violation under principles of equal protection, the Court also found that: (1) the state legislation flouts federal procurement prerogatives, as it is exclusively the federal government that has the ability to establish such general policy norms for government contracting; and (2) the legislation runs afoul of the requirement that there be a separation of powers between the state's legislative and executive branches. This article does not focus on these two alternative findings.

7. According to Gilberto Galan, Latin American representative for the Institute for Software Choice, "[t]he 10-0 ruling shows that the Court sides with open competition driven by merit, not by intentional bias designed to limit options … Thankfully for public and private stakeholders, the ruling will promote greater choice by allowing all parties to sit at the table instead of a chosen few." Further, Galan explained, "[t]hese types of laws are devastating to the local ICT industry. Our research shows that more than 80 per cent of the Brazilian ICT industry sells or develops commercial solutions. When you wall this group off from access to government markets, you had better have a compelling reason for it. Yet, none exists. The market works, the local ICT industry thrives, local innovation flourishes, and consumers are receiving what they need and want. The Court must have seen this, realizing that the Rio Grande do Sul's preference law is inimical to free competition, which has brought about tremendous public and private-sector benefits."

8. Specifically, the Court described how Belgian law requires compliance with European Directives, such as *Directive 92/50*

(European Parliament and Council, 1992), and *Directive 93/36* (European Parliament and Council (1993).

9. From these cases, the theory of equivalence developed. Contracting authorities may refer to a specific standard or make, provided, however, that companies whose products or services do not comply with that particular standard but are equivalent to the standard (or otherwise meet the procuring entity's functional requirements) are also able to participate in the procurement bidding process. Neither is this equivalence requirement limited by Council Decision 87/95 on standardization in the field of IT and telecommunications, [1987] O.J. L36/31 (the "IT Standards Decision"), which imposes an obligation on public contracting authorities to use European or international standards when procuring for IT products and services (Arrowsmith, 2005). Professor Arrowsmith further explains that "[i]f a procuring entity uses recognized standard specifications without indicating that it will accept equivalents (. . .) there will be a violation of the EC Treaty obligation to draft specifications in such a way as to indicate that the entity will accept all products that meet its functional requirements, as well as a violation of the directives' obligations on specifications" (Arrowsmith, 2005).

10. On December 13, 2005, the Spanish Parliament also rejected, by a vast majority, two draft laws that would have introduced a categorical preference for OSS in the Spanish public administration.

11. See, e.g., *California*— Art.I, s.7(a) (in part): "A person may not be deprived of life, liberty, or property without due process of law or denied equal protection of the laws; provided, that nothing contained herein or elsewhere in this Constitution imposes upon the State of California or any public entity, board, or official any obligations or responsibilities which exceed those imposed by the Equal Protection Clause of the 14th Amendment to the United States Constitution with respect to the use of pupil school assignment or pupil transportation"; Art.1, s.8: "A person may not be disqualified from entering or pursuing a business, profession, vocation, or employment because of sex, race, creed, color, or national or ethnic origin"; *Texas*– Art.I, s.3: "All free men, when they form a social compact, have equal rights, and no man, or set

of men, is entitled to exclusive separate public emoluments, or privileges, but in consideration of public services."

12. Founded in 1973, ALEC is the nation's largest bipartisan individual membership association of state legislators, with more than 2,400 members nationwide. In addition, with more than 300 corporate and private foundation members, ALEC is one of America's most dynamic public-private partnerships. ALEC provides its public and private sector members with a unique opportunity to work together to develop policies and programs that effectively promote the organization's mission (See *www.alec.org*).

13. ALEC graciously granted the author permission to reprint this model legislation in its entirety as an attachment to this article.

14. "UK Governments will consider [open source] solutions alongside proprietary ones in IT procurements. Contracts will be awarded on a value for money basis" (Government of UK, 2004). More recently, the Asia-Pacific Economic Cooperation ("APEC") Committee on Trade and Investment (2006) endorsed this technology neutral approach. Specifically, under APEC's "Technology Choice Pathfinder" initiative, the participating economies (currently, Australia; Canada; Chile; Hong Kong, China; Japan; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; Singapore; Taiwan, China; United States; and Viet Nam) agree to:

    1) promote technology neutral policies and regulations, where appropriate, that will allow flexibility in the choice of technologies in order to ensure competition, maximize benefits for governments, businesses, and consumers, and bridge the development gap;

    2) refrain from imposing mandatory technical regulations or requirements that have the potential to stifle innovation, limit technology choice, hinder competition, or serve as a barrier to market access, except where such measures are necessary for legitimate public policy objectives (e.g., health, security, and safety); and

    3) promote procurement practices, with respect to the acquisition of technology, that are transparent, nondiscriminatory, openly competitive, and merit-based,

including with respect to the procurement of open source and proprietary software, in accordance with the APEC Non-Binding Principles on Government Procurement.

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APPENDIX A
Neutrality and Integrity in Software Procurement Act[1]

Summary

This Act amends the state's procurement rules to preserve choice, competition, and integrity in the state's selection and installation of software products. It requires that software procurement decisions made by the state consider: (1) the total cost of ownership during the full life of the software, including service and maintenance; and (2) performance criteria and value of the software based on its ability to meet the specific needs of the state. The Act also prevents the state from limiting software choice through express or implied preferences for any specific model of software licensing. Finally, the Act prevents state employees from circumventing procurement rules and information security requirements when acquiring or installing software.

Model Legislation

Section 1. Title

This Act may be cited as the "Neutrality and Integrity in Software Procurement" Act.

Section 2. Legislative Findings

The legislature finds that:

A. There is a broad variety of software products designed to serve Public Agencies;

B. Public Agencies are capable of evaluating software choices in terms of performance, value, cost, and licensing terms conveying varying rights and restrictions.

The legislature proposes:

A. to require that software procurement decisions made by Public Agencies take into account the Total Cost of Ownership; and

B. to require that software procurement decisions made by Public Agencies take into account the overall value and performance of the software, with respect to the specific needs of the Public Agency and general criteria such as reliability, ease of learning, ease of use, security, privacy, and interoperability; and

C. to prevent Public Agencies from limiting software choice through express or implied preferences for specific models of software licensing; and

D. to prevent Public Agencies or public employees from circumventing procurement rules when acquiring or installing software.

Section 3. Definitions

"Public Agencies" means a state government agency, department, commission, council, board, bureau, committee, institution, college, university, technical school, government corporation, or other establishment of the executive, legislative or judicial branches. Public Agencies also include interstate or regional entities participating in multi-state or multi-jurisdictional procurements. Public Agencies also include local political subdivisions such as counties, municipalities, school districts, or public service districts.

"Procurement" means buying, purchasing, renting, leasing, licensing, or otherwise acquiring any goods or services. It also includes all functions that pertain to the obtaining of any goods or services, including description of requirements, selection and solicitation of sources, preparation and award of contracts, installation, maintenance, and all phases of contract administration.

"Computer Software" means a set of Computer Programs, procedures and associated documentation concerned with computer data or with the operation of a computer, Computer Program, or Computer Network.

"Computer Program" means an ordered set of data representing coded instructions or statements that, when executed by a computer, causes the computer to perform one or more computer operations.

"Software Source Code" means pre-compiled, human-readable versions of a Computer Program.

"Computer Network" means a set of related, remotely connected devices and any communications facilities, including multiple computers with the capability to exchange data via communications facilities.

"Total Cost of Ownership" means the sum of all costs borne by the Public Agency during the useful life of the software, including costs for software acquisition, installation, worker training, conversion or loading of existing data, interface and integration with related information systems, and long-term costs for software maintenance, upgrades, and technical support.

Section 4. Main Provisions

A. Decisions by Public Agencies regarding the requisition, procurement, and installation of Computer Software shall be based upon performance and value criteria, including quality, functionality, security, reliability, interoperability, and Total Cost of Ownership.

B. Decisions by Public Agencies regarding the requisition, procurement, and installation of Computer Software must be neutral with respect to:

   1. whether such Computer Software is provided by a for-profit entity or a non-profit entity; and

2. the licensing model under which such Computer Software is provided.

C. However, nothing in this Act shall preclude Public Agencies from considering the effect of specific licensing terms in software procurement decisions, including licensing terms that govern the availability of Software Source Code, rights and restrictions regarding software modification, redistribution, warranties, and intellectual property indemnification.

D. Public Agencies and public employees must conform with the state's software procurement and acquisition rules regardless of the licensing model under which software is provided.

Section 5. Effective Date

This Act will become effective immediately upon signature by the Governor.

Note: 1. Adopted by ALEC's Telecommunications & Information Technology Task Force at the Annual Meeting July 30, 2004. Approved by full ALEC Board of Directors August, 2004. Reprinted with Permission by ALEC.