

The Business Case for Replacing an Underperforming P&I Solution



“Our permitting & inspection software is outdated, performs poorly, and the support is nearly non-existent, but we can’t afford to replace it!”

As the staff of Computronix travel across North America meeting with government agencies of all sizes, statements like this are becoming an increasingly common refrain.

On one hand, government leaders fully appreciate the critical necessity for modernization to serve the escalating demands for digital services and data transparency, with infrastructure capable of defending against [the growing threat of cyberterrorism](#). On the other hand, many agencies are increasingly feeling the budget squeeze from untenable licensing and support costs tied to underperforming legacy software—software that offers little in the way of future cost savings from efficiency improvements or budget gains from new revenue streams.

For many jurisdictions, the very real desire for technology innovation falters at the sight of seemingly insurmountable budget constraints. However, this often ‘first blush’ assessment overlooks two crucial considerations that are vital for any local government, State/Province, or region truly desirous of achieving a paradigm shift in its land management services:

1. Have you fully considered the costs of NOT replacing your current Permitting and Inspections (“P&I”) software solution?
2. Do you have a true sense of the real budget gains achieved from implementing a consolidated land management system?

First, let’s look at the costs of staying status quo with outdated software:

The Costs of Staying Status Quo

Skills Erosion

One of the most punitive aspects of staying 'too long at the fair' with legacy software is the inevitable skills erosion that occurs BOTH inside and outside of your agency. Whether it is your internal IT staff or external vendor support and development staff, human capital and skills application in the technology arena consistently gravitates towards the most modern and user-friendly technologies. As a result, the stewards of legacy and/or highly customized and proprietary government software platforms inevitably find themselves fighting a war of attrition on both the internal staff retention and external vendor support fronts, with the inevitable market forces poaching your most qualified and adroit personnel.

This leaves agencies in the unenviable position of counting on 'internal experts' reliant on oft outdated and infrequently used skillsets OR diminishing returns from external vendor support systems incentivizing your op-

erational migration towards a more modern and supportable platform. Depending on your chosen maintenance and development model, the bottom-line impacts are a depreciation in human capital internally, an escalation in supports cost externally, or both!

Widening the scope beyond platform support and development staff, skills erosion can also occur with operational staff growing weary of outdated software leading to inefficiency and repetitive task frustrations. Much like their IT counterparts, front-line staff eager to gain expertise with more modern and marketable toolsets represent potential employee turnover risks when end-of-life solutions linger too long as the internal systems of choice. Conversely, the introduction of leading-edge technologies creates a resonant recruitment and retention tool, one that can be leveraged effectively to attract and keep top tier talent within your agency.

Opportunity Costs

Inflation

The opportunity costs associated with not replacing your outdated P&I solution are many, but first, let's not belabor the obvious one—inflation. Unless you are planning on never replacing your current solution, there is never a better time to act than the present with

your purchasing power at its maximum. Delaying the inevitable down the road will only cost more in actual budget outlay. Unfortunately, it is the additional unseen opportunity costs that can often prove most prohibitive.

Protracted Development Process

From a land management perspective, the most prohibitive of these unseen costs is the opportunity costs associated with an inefficient or prolonged development approval process.

For land management agencies, protracted development approval cycles directly impede the timely receipt of tax revenues restricting positive operational cash flow until Certificates of Occupancy are issued.

For land and property developers, development approvals in many parts of the continent have gone from taking 2-3 months to as long as 10 or 11 months in some of the fastest growing cities in the US ([Source](#)). Costs from such delays are doubly punitive for developers: impacting them both directly via increased capital, carrying and interest costs, and indirectly via increased time and labor spent managing complex and manually intensive processes that can vary drastically between jurisdictions.

Reputation Cost

In addition to the economic impacts associated with an unwieldy or frustrating development process, there is also the associated reputational costs. The never-ending competition that local governments face to [attract the best companies, workers, and investment capital to your community](#) is interwoven with your tools for cre-

ating and maintaining vibrant infrastructure and amenities. A development friendly software platform gives you a substantial head-start on the competition in fast-tracking winning development projects to create amenities that attract the best and brightest companies and talent, thus growing your overall tax-base.

No Viable Upgrade Path or Product Roadmap

One of the surest signs that your current P&I solution is overdue for replacement is its marginalization in ongoing product roadmap and upgrade path considerations. Whether your solution is a mature internal build or an external vendor COTS solution, there can arrive an extinction threshold in its life-cycle when the costs associated with a theoretical upgrade path to compete with more modern platforms and user experiences approach or exceed the costs associated with an actual replacement system. This is particularly the case with underperforming enterprise systems hobbled by data access and compatibility constraints across a typically siloed operational footprint.

Given the paramount focus now on [“single door” data access](#), transparency and citizen engagement, the vast majority of outdated Permitting & Inspections solutions with more limited datasets are giving way to wider-scope [Land Management Systems](#) capable of performing as true enterprise pillar applications for multiple Community and Economic Development-oriented stakeholders, including planning and development, building permitting and inspections, business and professional licensing, neighborhood code enforcement AND external builders, developers, licensed business operators, and citizens.

“Computronix is helping us be a leader in our industry because all of our stuff is seen as very forward-thinking. A lot of municipalities in our region look to Surrey first...We are considered a leader, and without Computronix we wouldn't be.”

Melanie Atkinson, Business Analyst, City of Surrey, British Columbia

Potential Cybersecurity Damages

Another key contributor in the decision to remove a solution from further roadmap considerations is the inability of the system to provide adequate defense against escalating cybersecurity threats.

With cyber threats against State-/Provincial-level and local governments [increasing in both frequency and severity](#), it is mission critical that you give your legacy P&I systems an honest appraisal to decide if they can be truly secured for the long-term to achieve the necessary data security while still delivering effectively against the often contrary remit for improved information transparency and citizen accessibility. One key question to consider is whether your current software platform has already been compromised via an exploitation with another agency in another jurisdiction? Given the organized syndicate structure of modern hacker networks, successful incursions are often attempted and rep-

licated in other locales where cyber-terrorists recognize an opportunity to leverage similar security deficiencies to their advantage. [Examples of such incursions](#) should be monitored closely to ascertain if the compromised systems in question pose a similar threat to your own P&I solution and architecture.

Much like the theoretical cost of a prohibitive cyber-ransom attack, the various costs associated with not replacing an underperforming P&I system (skills erosion, escalating support costs, inflation, development economic impacts, reputation costs, loss of upgrade path, cybersecurity gaps, etc.) can seem more abstract than real, but that doesn't make them any less impactful on the bottom line. Moreover, when all these costs are considered in unison, it becomes abundantly clear that there is a significant price to be paid for staying status quo with a system nearing or past its end-of-life.

Strategy

Budget Wins From P&I System Replacement

Wider Scope Solution Facilitates Economies of Scale

One of the big wins associated with modern land management systems such as POSSE LMS is the ability of these low-code solutions to be configured for the benefit of a much larger organizational footprint than conventional P&I solutions. Unlike the previous generation legacy systems, stakeholders across the organization (in building, planning, engineering, permitting, inspections, code enforcement, licensing and more) can leverage the much improved data accessibility and workflow automation of these highly configurable platforms to facilitate a diverse range of internal business processes, citizen services and revenue streams. The net result is a wider scope business case and funding opportunity that better positions government procurement efforts to allocate budget for overdue system replacement from a forecastable revenue gains perspective, as opposed to evaluating solely through an internal infrastructure lens.

“Permits, authorizations, tenures, licenses and more—the e-Licensing experience has proven that the business processes of their issuance and management is very similar across government, and lends itself to opportunities for automation and subsequent reuse of a single, integrated solution.”

Mike Kelley, Director of E-Licensing, Government of British Columbia

Budget Friendly Licensing Model

In addition to achieving true economies of scale in software procurement efforts, many jurisdictions are fast-tracking the procurement process for a new [land management solution](#) to escape an outdated and untenable licensing model. One common and particularly archaic model scales the active user pricing for citizen portal access based on population bands, thereby penalizing larger jurisdictions.

Another particularly prohibitive licensing model charges user access for each individual module within a much larger system architecture,

creating a corresponding increase in licensing, support AND maintenance costs. Such policies unnecessarily confine technology utility within an organization preventing ease of access during absences, vacations or peak operational cycles.

Modern SaaS solutions steadfastly avoid such punitive usage models, and should your jurisdiction find itself hamstrung by an unsustainable licensing model carried over from a previous generation legacy solution, this can form the foundation for a solid business case for system replacement going forward.



Operational AND Environmental Savings

One of the most obvious and visible budget wins is the operational efficiencies achieved following implementation of automated, citizen-centric land management services. The replacement of outdated service desk processes with interactive citizen portals greatly reduces submission errors and permit throughput times while also facilitating a quicker more collaborative citizen experience and improved data integrity across the

breadth of the organization. Moreover, the elimination of in-person visits and paper-centric processes creates numerous positive environmental impacts reducing the overall carbon footprint and reinforcing the public perception of your agency as an innovation leader delivering new and improved opportunities for automation-led digital transformation and citizen engagement.

“The software is configurable and adapts to meet the business requirements. We consistently have a number of projects underway at any given time that are expanding the use of the system to other business areas. We use POSSE as part of our ERP landscape and it is, by far, the best value for the City.”

Tim Beauchamp, Enterprise Architect, City of Edmonton

Ability to Leverage a ‘Risk Based’ Operating Model

Finally, a major shift is underway within regulatory agencies towards a risk-centric operating model in which technology becomes a central strategic asset for identifying and assessing level of risk and for understanding where an agency can best focus its limited resources and funds for maximum public safety benefit and efficiency. Government agencies are under increasing pressure to do more with less. **Limited resourcing – especially in the areas of inspections and enforcement – means agencies must find ways to identify and focus most on problem areas, while releasing highly compliant, lower-risk operators to a higher level of trust and less routine scrutiny.**

Modern land management systems, such [POSSE LMS](#), include an ability to create and apply algorithm-based “[Risk Assessment Program](#)” (or “RAP”) paradigms to your business so that staff can quickly assess at any given time where inspections and enforcement efforts should be focused. Further automation can be used to manage frequency of inspections cycles on Inspectors’ To Do List workloads as those RAP indicators change over time for each operator. Similarly, automation can also be leveraged to “auto-approve” low-risk permits, licenses, and other approvals without any need whatsoever for staff intervention and oversight, thereby elevating staff time for more important functions.

Economic Impact of Streamlined Development Process

As a number of [recent studies](#) confirm, expediting the land development and review process not only speeds the time to market for entrepreneurial businesses that play a vital role in the economic growth engine, but an expedited development process also fundamentally improves the availability of affordable local housing. With affordable housing projects disproportionately impacted by escalating costs associated with

regulatory delays (due to the smaller profit margins of such projects), a protracted development and review cycle inevitably results in fewer affordable housing units being built ([Source](#)). Faced with this challenge, shorter turnaround times for development approvals have now become a key metric for consideration by government leaders keen to address the nationwide issue of affordable housing stocks in their communities.

“Since replacing our legacy building permitting system with POSSE, we have experienced significantly reduced waiting times and greatly increased customer satisfaction. Computronix understood our business requirements and delivered a first-rate system.”

Theresa O’Donnell, Chief Planning Officer, City of Dallas

Vetting Your Government Software Provider To Ensure a Perfect Product Fit

For jurisdictions frustrated with an underperforming or end-of-life P&I system, this cost benefits analysis should prove helpful in helping to build a business case that includes both cost elimination factors and viable budget efficiencies into your overall budget considerations. As you consider your options on these fronts, it is important to note however that the long-term cost efficiency and sustainability of your chosen software solution will be directly impacted by the operational model of your chosen solution provider.

As you progress into more concrete procurement and vendor vetting processes however, you will inevitably discover that companies like Computronix are a rarity in this space (i.e. a privately owned, debt-free company with a 40+ year history devoted exclusively to developing award-winning software for government agencies).

The more common operational profile for a government enterprise software vendor is a formerly independent company now guided by a private equity firm.

Why is this relevant to your vendor vetting efforts? To answer that question it's important to first appreciate the primary objectives of private equity firms in principle. Such firms are in the business of investing in or outright acquiring 'growth' companies to maximize their return on investment. Achieving this end typically involves: A) a focus on extensively 'streamlining' operations of the acquired company to maximize profit margins, and/or, B) a focus on increasing the short-term profitability and marketability of the acquisition to facilitate a profitable re-sale.

Wait a minute, you say. Isn't increasing the profits and business valuation the goal of all successful companies? Why is this a concern?

Recognizing Potential Conflicts of Interest Associated With a Private Equity Model

A predominant focus on profits alone is a concern because the implementation of a legitimate enterprise software solution for a broad government footprint anticipates a generational product lifecycle that is considerably longer than that of more conventional product lifecycles. Given the cost and complexity associated with deploying such solutions, it is imperative that the software vendor possesses the commitment and where-withal to design, develop, maintain and upgrade such solutions for this generation AND the next. Doing so ensures that a government client achieves the ideal solution profile where operational skills and technology improvements are advancing in unison over a period of years, thus maximizing returns on your technology investment while simultaneously attaining peak efficiencies in your organization.

At Computronix for example, we've been building and implementing government enterprise software solutions for over 40 years with an unprece-

dent 100 per cent project success rate, and we fully intend to continue doing so for the next 40 years! **This type of generational product and services commitment runs contrary to the shorter-term profit expectations and timescales of a prototypical private equity firm.**

Over the years, the pitfalls of this potential conflict of interest have become abundantly clear as we meet with prospective clients who are consistently expressing some of the systemic challenges associated with maximizing the benefits from a private-equity-owned government software vendor relationship.

Whether you're pondering the possibility of replacing your current P&I solution to solve these issues permanently or simply looking to improve a deteriorating situation with an existing vendor where possible, it is important to be aware of the drawbacks associated with this short-term investment profit vs. long-term product commitment conflict of interest.

Potential Pitfalls of the Private Equity Software Vendor Model

1. Support Costs Increase While Support Quality Decreases

While an equity funded model is undoubtedly beneficial in the beginning stages when exorbitant R&D costs threaten the viability of even the most well managed company intent on building a true enterprise scale solution, it becomes less beneficial as products mature and investor interests dictate the need for ever-growing profit margins. For this reason, equity funded software vendors typically follow a shorter lifecycle approach to

product implementation and solution support, ramping up support resources when products are first released and then scaling back available resources as products mature to maximize profit margins.

A clear indication of such motivations are increasingly punitive support models designed to push clients towards self-service or automated support solutions.

In addition to support automation, equity owned software vendors are increasingly outsourcing core services such as new product development and onsite implementations to third-party companies lacking the nuanced understanding of these complex systems that is best acquired through initial and ongoing immersion in product development and client implementation.

Such practices, while undoubtedly more profitable, are doubly problematic from a new client perspective. Not only does an outsourced implementation carry the potential for your system launch to take longer,

cost more, and be more fraught with errors; this six degrees of separation from the actual product development experts compromises the experience and acumen available to you as ongoing resources throughout the extended lifecycle of your solution.

Lacking an intimate knowledge of the codebase and product design architecture, outsourced implementation and support teams will invariably fail to deliver the same quality and timely turnaround of support outcomes as those realized from a vendor delivering a full product and services solution, from implementation to maintenance to upgrade and beyond.

“I’ve never had a vendor that’s as responsive to our support requests as Computronix. They are there for us anytime we’ve ever asked for anything.”

Julie Crask, Applications/Database Manager, Hamilton County, Indiana

3. Client Input Into Current and Future Product Development is Minimized

Another area in which private equity guidance seeks to maximize its investment returns is an ongoing effort to commoditize product(s) to facilitate a 'one size fits all' approach to initial project requirements and ongoing product development priorities. This strong avoidance of product customization manifests itself in: A) profit skewed implementation proposals that proactively push clients away from much needed custom configuration work in favor of more limited 'vanilla' solutions, and B) marginalization of client requirements in ongoing product roadmap and upgrade plans.

The evolution towards COTS, and now [COTS+ solutions](#), is undoubtedly a positive trend in enterprise software

delivery, mitigating as it does the excessive risks associated with building a custom solution from scratch. That said, there truly is no such thing as 'one size fits all' for an enterprise scope government software solution when you consider all of the variables of existing technology infrastructure, operational processes, data availability, and staff resources that factor into an agency's optimal system requirements.

For this reason, Computronix developed its [award-winning POSSE Platform](#) as a highly configurable workflow and business processes engine designed specifically for the purpose of facilitating the integral custom configuration work required to ensure a precision fit between client and software.

Further, with the ongoing provision and perfection of government software solutions alone as our sole corporate mission, it is to our mutual benefit to invite and facilitate an inclusive dialogue with each of our customers to best inform future product roadmaps and upgrade plans. This product input and our adoption of same ensures the total client satisfaction and repeat business upon which our privately-owned business model is predicated—to be your preferred provider of government software solutions for this generation and the next.

While facilitating product commoditization to maximize per project yields is undoubtedly a more profitable pursuit in the short term, such investor driven motivations are antithetical to a more long range, customer-service-centric philosophy focused on broadening the utility and appeal of a product platform—as opposed to limiting its functionality and implementation flexibility to reduce short term overheads.

“Whatever we need, POSSE has been able to provide in terms of process management. POSSE is such a solid, configurable product and they are so open to inventing new things with us.”

Terence Quinn, Community Development Director, Douglas County, CO


4. Software Vendor is Slow to Embrace Emerging Technology Trends

One of the most telling aspects of the public equity investor and government software provider relationship is the timing of the partnership. Typically, such relationships are cemented when most, if not all, of the cost-prohibitive R&D work has been completed to arrive at a viable product solution. New technology innovation, while marketable in a re-sale scenario, is not nearly as profitable for the umbrella investor as immediate

product commoditization and monetization.

For this reason, government software providers guided by equity investment interests are often slow to research and develop new technology and product applications until the demand for such innovations reaches a drastic tipping point requiring such innovation to remain competitive in the marketplace.





By contrast, an enterprise software provider prioritizing long term customer retention over short term profit maximization places a large emphasis on preserving a fixed R&D investment over the lifetime of their business to ensure their product platform maintains its utility for both current and emerging usability applications. Additionally, the maturation of the client and customer relationship over a generational lifecycle inevitably leads both parties to broaden the solution footprint into other business areas to better leverage the employee skills and experience associated with the established and widely adopted toolset. As an example, the City of Edmonton, one of our first

POSSE customers now includes over 3500 internal named users utilizing over 250 active business workflows!

With these customer centric priorities in mind, Computronix invests in excess of 12 per cent of its annual operational budget into ongoing product research and development to further refine a government enterprise platform that we've already been developing for nearly 40 years! That is the kind of commitment that a software vendor demonstrates when they are interested in one thing, and one thing only—to build the very best government software solutions in the world to ensure total client satisfaction.

“POSSE is the most adaptable work management system that I have seen on the market. It can be supported by non-IT professionals. The company has been extremely responsive to our needs and is one of the most technically knowledgeable organizations that I have ever worked with.”

**Ken Schmidt, GIS Administrator, Planning and Permitting,
City and County of Honolulu, Hawaii**

Building Your Ideal Vendor Profile

Given the critical importance of avoiding the potential costs and conflicts of interest identified in Parts 1 & 2 of this report, we highly recommend that your agency develop an optimal Vendor Profile using the reference checklist that follows. Developing this profile with your key project stakeholders, in advance of developing your project specific requirements, will help your organization to identify the key attributes that you require and value in a prospective project partner. Remember, [picking the right partner](#) at this stage not only sets the stage for project implementation success in the short-

term; it empowers your agency to [achieve true generational impact from your technology investment](#)—setting a foundation for vibrant innovation within sustainable budget expectations for many years.

Once you've completed this Vendor Profile checklist, you'll have a much better sense of the specific attributes that your technology partner should possess to provide both an optimal fit for your immediate project requirements AND your agency as a longterm partner compatible with your corporate culture.



Our preferred software solution provider:

1. Provides closed loop service from development to implementation to support (no third party outsourcing). Yes No
2. Utilizes open source and cloud technologies to maximize system interoperability. Yes No
3. Applies best practice implementation and project management methodologies. Yes No
4. Codified a proven implementation approach and service philosophy specific to government technology. Yes No
5. Utilizes a phased approach to project implementation to gain user acceptance and build project momentum. Yes No
6. Possesses an intimate knowledge of business processes and workflows specific to our government agency. Yes No
7. Excels in change management consultation with internal experts and processes dedicated to same. Yes No
8. Encourages citizen participation to optimize user experiences for citizen engagement and usability. Yes No
9. Leverages decades of experience specific to government-centric enterprise software implementations. Yes No
10. Provides access to their entire client roster to reference check vendor's implementation track record. Yes No

Our preferred software solution:

1. Leverages feature rich COTS solutions AND a fully configurable workflow automation platform. Yes No
2. Utilizes a Low Code development platform enabling agencies to quickly iterate cross-platform apps. Yes No
3. Empowers our green initiatives via automation workflows reducing our carbon footprint and paper processes. Yes No
4. Facilitates full data accessibility (integration, transparency, actionability) for all internal stakeholders and citizens alike. Yes No
5. Ensures stringent cybersecurity with FedRAMP certified data centers audited to SOC 1 & 2 standards. Yes No
6. Creates feature rich and cost-efficient citizen services improving service delivery times and outcomes. Yes No
7. Facilitates operational efficiencies driven by robust data access and automated business workflows. Yes No
8. Encourages user acceptance with easy-to-use operational interfaces and citizen services user experiences. Yes No
9. Presents as leading-edge technology with demonstrable awards and extensive customer references to verify. Yes No
10. Enables sustainable longterm ROI as confirmed via an extensive and directly comparable project portfolio. Yes No

Our preferred software solution provider:

1. Facilitates reference access to their full client roster to confirm effectiveness of support methods and satisfaction with same. Yes No
2. Commits over 12% annually to ongoing research and development to ensure technology remains leading edge. Yes No
3. Presents a strong technology and innovation pedigree with demonstrable international award recognition. Yes No
4. Specializes in government enterprise software solutions only with a clear focus on workflow automation. Yes No
5. Emphasizes a strong service commitment with zero client turnover and strong customer satisfaction ratings. Yes No
6. Confirms industry leading staff retention rates ensuring long-term domain expertise & skills maturation. Yes No
7. Maintains the highest industry certifications for every aspect of its technology stack and service offering. Yes No
8. Conducts business to a high ethical standard with zero failed projects, lawsuits, acquisitions or bankruptcies. Yes No
9. Demonstrates the acumen and infrastructure to serve large citizen populations at a high performance level with extremely minimal downtime. Yes No
10. Possesses a client verified track record of successful government software project implementations. Yes No

Our preferred software solution provider:

1. Is a debt-free, privately owned vendor with no conflicts of interest inherent to the public equity investment model. Yes No
2. Delivers a robust and viable upgrade path ensuring our services remain cost effective and leading edge. Yes No
3. Gives us a strong voice in ongoing feature prioritization for upcoming product roadmaps and upgrades. Yes No
4. Maintains an accessible client community and annual conference to share and compare best practices with comparable agencies. Yes No
5. Provides a dedicated 24/7 support desk staffed by technology stack certified experts. Yes No
6. Manages full lifecycle product support for a broad client list utilizing directly comparable software systems. Yes No
7. Leverages modern low code technology encouraging widespread adoption and internal skills retention. Yes No
8. Utilizes experienced technical support staff with firsthand knowledge of our agency specific configuration (No third party support outsourcing). Yes No
9. Avoids product/support pricing ill equipped for widespread user adoption and extended product lifecycles. Yes No
10. Demonstrates extensive experience sustaining government software solutions over extended lifecycles (30+ years). Yes No

Building Your Ideal Vendor Profile

Does your prospective partner need to match a 'Yes' response for every item on this checklist? Not necessarily, though Computronix does! What's most important in this exercise is that it enables you to start considering every facet of your new technology project from initial implementation to ongoing operations & support, to full lifecycle product management for new features and emerging technologies.

Are you ready to start building your business case to replace an under-performing P&I solution? If yes, we encourage you to utilize the resources provided throughout this document to help inform your planning. Additionally, our experienced solution consultants are available at your convenience to help you develop your initial business case and subsequent procurement plan.

Ready to take the next step? Visit us today @

[Computronix.com](https://www.computronix.com)





White Paper By:

Computronix provides state and local government agencies with transformative enterprise software solutions for land management, alcohol beverage control and enterprise licensing. Powered by POSSE, an award-winning platform cited in the Smithsonian Institution's collection of ground-breaking software, this wholly integrated suite of enterprise products empowers public sector agencies to automate critical processes and streamline business workflows for improved efficiency, accessibility and civic engagement.



Distinctive Software. Exceptional Service.