



# Marketing SaaS and Software: eBook Samples



## Our Philosophy

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At glassCanopy – we love eBooks.

They make ideal “bait” when trolling for top-of-funnel leads and create a great first impression for your brand – they also provide valuable collateral for your sales force. What’s more, eBooks can be easily chopped into SEO-optimized blog posts and provide the context needed to quickly create videos, datasheets, case studies, and other collateral.

However, to be effective, the research, writing, and overall quality of the eBooks must be top-notch. Nobody feels good about giving out their contact information in exchange for a thinly disguised sales brochure.

Many of our clients felt that no one outside their organization could write an ebook that wouldn’t come off as just marketing fluff. That was **before** they started working with glassCanopy. Quarter after quarter, we produce in-depth eBooks on technical and complicated subjects that our clients (and *their* clients and customers) love.

Here’s a taste of what we can do...

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### Current Challenges to Capital Planning

Budgetary decision-makers are responsible for the distribution of hard-earned investments: from donor funds, investor dollars, and tax-payer money to the time and effort of their organization's workforce. The toughest challenge these financial decision-makers face is accurately allocating precious capital resources while balancing a range of constraints and pressures. One wrong decision can mean millions of dollars lost or poorly deployed.

Whether executives realize it or not, at the heart of this allocation challenge lies an incredible lack of accurate data needed to properly assess facility needs. This inaccurate data problem is running rampant, feeding misinformation from facility directors to asset managers and leading C-suite executives to make less-than-ideal budgetary decisions.

**A Recipe for Guesswork**

Traditional capital planning relies on pulling together several sources of information. Actually determining where money should be allocated requires an accurate capture of current facility asset conditions at both a granular and global level.

Facility directors generally kick off this process by assessing the current state of their facilities and then asking for the money they think they need to keep the buildings warm and the toilets flushing.



### To Tomorrow's Success, and Beyond

AkitaBox provides the precise, accurate insights and metrics required for facility directors to coordinate and communicate needs to stakeholders. Leveraging this information simplifies capital planning by accurately taking into consideration a facility's present condition and needs for the future. Stakeholders can not only establish accurate capital budget plans but also appropriately manage funds on an ongoing basis.

Looking toward the future of preventive maintenance, AkitaBox provides the foundation required to bring together IoT, Big data, and AI models. This base architecture is the first step in building and implementing fully automated predictive maintenance and precise ongoing capital management.

**Ready to see AkitaBox in action? GET A DEMO**



### Improving Capital Planning

In the near future, facilities management, and the capital planning it informs, will be dominated by IoT sensors, autonomous drones, and observational robots that constantly gather granular data to feed AI degradation models in real time. The result will be a clear global view of all assets and predictive models of optimal maintenance and replacement schedules.

*Capital Management strives to capture the nuances of your facilities in ways other platforms can't.*

#### Automated Data Gathering

This "autonomous robot army" will continuously collect data in near-real-time feeding into a larger big data pool. That data is used by AI models and integrates with the maintenance details your techs are already annotating in their everyday workflow. This transforms that data into precise asset conditions.

With less time spent gathering data and fewer reactive work orders, facility teams can focus on preventive and predictive maintenance in a way that is just impossible today.

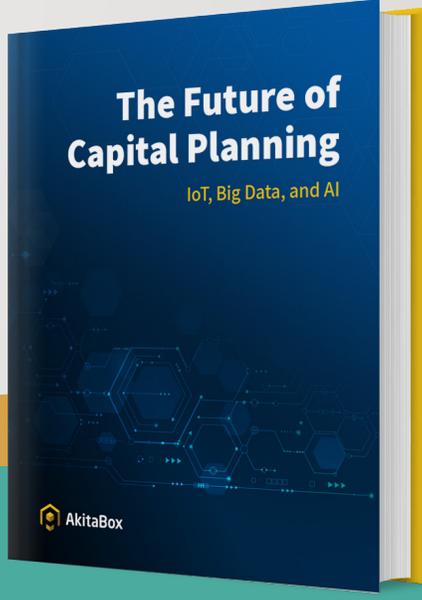
#### Global Pools of Information

Instead of disparate silos of non-actionable data, all that data will be gathered in the cloud and available for use. No more discarding millions of valuable maintenance data points every day or manually gathering data from a dozen disparate sources. Facility directors have the latest information at their fingertips to accurately determine and communicate needs.

#### THE NEW ROBOT ARMY

We aren't talking about the human replacements in *I, Robot* but instead existing connected technologies that are being deployed across facilities in new ways. These devices can be used at scale to streamline and automate data gathering.

- Flying drones to scope rooftop equipment conditions
- Autonomous observational robots that can regularly check on the conditions of various pieces of equipment
- IoT sensors for continuous condition monitoring like temperature checks, fluid levels, or vibration changes



**Client:** AkitaBox



**What they do:** Facility management (FM) software provider



**Summary:** An explanation of how capital planning has evolved over the years and why the right facility and capital management software can leverage new data sources to improve decision-making and power the future of predictive maintenance.

**Want to see the entire 14-page eBook?**

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## What is PIM?

Product Information Management (PIM) is a set of business practices and a category of business applications focused on managing product information for use across an organization from the supply chain to commerce to customers.

A PIM solution provides a single place to collect, manage, and enrich your product information, create product catalogs, and distribute information to your sales and eCommerce channels. With PIM, marketers can dramatically improve product data quality, accuracy, and completeness while simplifying and accelerating product catalog management. As a result, enterprises who use a PIM solution can more easily and rapidly create and deliver the compelling product experiences needed to drive good customer experiences, reach more markets, improve sales conversion rates, and take advantage of new sales channels.

Figure 1 depicts an easy way to visualize how PIM works at a high level.

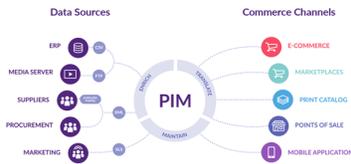


Figure 1: A PIM tool streamlines processes and delivers better quality product information across all channels.

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## Why do I need PIM?

Beyond these focused objectives on improving the product information itself, the larger business context is also a driver for increasing interest in PIM.

If your enterprise is struggling with any of the following, you should be looking at what PIM could bring to your business:

### The imperative to grow

Companies across the globe are seeing markets consolidate as economies of scale become ever more powerful. Effective product expansion has become a bottleneck for many companies seeking to grow with new product offerings across new markets and channels. PIM allows these companies to easily scale their catalogs and spread product information to additional channels.

### Customization and localization

Global scale is only effective when matched with the ability to granularly customize the product experience for every customer. PIM enables global teams to create highly targeted product experiences tailored to different locales, channels, and languages.

### The go-to-market need for speed

Victory doesn't always go to the biggest players. The race to be first to market is more critical than ever. PIM tools empower companies to streamline their product creation and enrichment processes to bring new products and seasonal collections to market much faster compared to wrangling product information in spreadsheets or other unfit-for-purpose systems.

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## Business benefits from PIM

Products are at the core of your business, and therefore it makes sense to ensure your product information is as accurate and complete as possible, and makes an emotional connection with buyers. There is no great customer experience without a compelling product experience.

With the efficiencies it delivers, PIM is a force-multiplier that gives your marketing team the time and ability to ensure that your product information is compelling, up-to-date, consistent, and that it can be personalized across every channel. With a robust PIM in place, you'll be set up to craft the superior product experience you need to deliver a great customer experience.

There are three main benefits your business can get from PIM:

### #1 - Sell more with fewer returns

#### Increase sales conversion rates

Higher quality and more comprehensive product data that includes impactful emotional information converts customers at a higher rate. When that data is made contextual based upon the channel – providing media and product descriptions that are specific to the channel – it further contributes to higher sales conversion rates.

#### Decrease product returns

Incomplete and incorrect product information is a primary driver for product returns - if customers don't get what they thought they bought, they'll return it, costing you money and potentially future sales. PIM helps reduce return rates by eliminating manual data errors, highlighting incomplete product information, and putting in place validation processes to ensure you deliver complete and accurate product information every time.

#### Enable new technologies and personalization

We all know that there are big changes coming to both B2B and B2C commerce: voice, chatbots, augmented reality (AR), artificial intelligence (AI) and smarter customization. What these new technologies share is a voracious need for structured data. Lots of data. PIM centralizes and structures product data making it instantly available for these new technologies while vastly simplifying the process of deploying these new sales and marketing initiatives.

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## How do I convince my internal stakeholders I need a PIM solution?

### CMOs and Directors of eCommerce

#### Compelling product experiences for enhanced brand identity and growth

PIM supports top-line growth and business expansion by enabling better and more efficient product information – which in turn creates better customer and brand experiences across all sales channels. The ultimate result is higher conversion rates, reduced returns, and a greatly enhanced capacity to scale.

[Unify product experiences across channels and accelerate time-to-market.](#)

[Give them this book.](#)

### Other C-Level Decision Makers / General Management

#### A 21st-century sales experience

PIM is a business application. It enables efficient and continued expansion of the business with more product offerings, available in more markets, and across more channels. It powers the product experience and meets today's customer requirements for product information. ROI can be quickly proven in increased sales conversions, reduced product returns, and superior product experience across new channels including voice-activated search.

[PIM provides rapid ROI.](#)

[Send them a copy of \[Scaling eCommerce\]\(#\).](#)

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## PIM vs. PLM:

PLM (Product Lifecycle Management) is a repository for the entire lifecycle of a product from design through end-of-life support. PLM allows manufacturers to track sketches, CAD files, parts, inventory information, disposal details, etc.

A PLM is focused on internal stakeholders and does not contain much, if any, customer-facing information. However, PIM can pull relevant specifications and other product information from PLMs to prepare products for customer-facing merchandising.

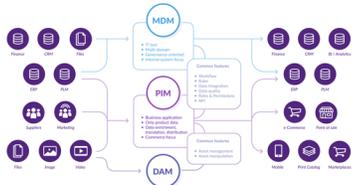


Figure 2: The overlap and differences between PIM, MDM, PLM and DAM systems.

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Client: Akeneo



What they do: Product Information Management (PIM) platform



Summary: An introduction to the benefits of implementing a product information management system (PIM) for eCommerce.

Want to read the entire 20-page eBook?

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Dassault is headquartered in Paris. It was founded in 1981 as a spinoff from Dassault Aviation. Its total 2016 revenue was €1,056 million (FHS). Ten percent of its revenue is attributed to Enovia products. About 29 percent of its revenue is new licenses, while the remaining balance comes from maintenance and services. It employs about 15,000 people globally and claims to have 100,000 customers in 80 countries.

Dassault supports multiple product lines, including Enovia, Catia, Solidworks, Delmia, Simulia, Geovia, Evalex, 3D Via, Novius, Netvibes, and 3D Excite. Dassault's target industries include:

- Aerospace & Defense
- High Tech
- Architecture
- Industrial Equipment
- Engineering & Construction
- Life Sciences
- Consumer Goods & Retail
- Marine & Offshore
- Consumer Packaged Goods
- Natural Resources
- Energy, Process, & Utilities
- Transportation & Mobility
- Financial & Business Services




PTC is a global software company focused PTC is a global software company focused on delivering a technology platform and solutions to help companies design, manufacture, operate, and service things. It was founded in 1985 and is headquartered in Needham, Massachusetts USA. It employs more than 6,000 people worldwide and reported revenue of \$1,64.0 m in September 2017. Of that revenue, \$419 million was from licenses and subscriptions. Subscription revenue equaled 67 percent of all license revenue, because of an early adoption of the cloud (1998) and a substantial dedication towards delivering cloud solutions.

PTC divides its business into IoT (Internet of Things), CAD, PLM, Service Lifecycle Management, Augmented Reality and Engineering Math Solutions. Its focus verticals include Aerospace & Defense; Healthcare; Manufacturing; Oil & Gas; retail; and Smart Cities. Product lines include ThingWorx, Kepware, Vuforia Studio, Vuforia, Creo, Windchill, and Servigistics. Windchill is part of the Solutions Group. Between 20 and 30 percent of PTC revenue comes through its extensive network of global partners.



**Integrated Analytics and Search**

**Winner: Windchill**

Teamcenter provides a traditional search function and metric-focused analytics with a lackluster look and feel. Enovia has a visually exciting platform but lacks focused analytics capability. Windchill not only incorporates advanced analytics, but it uses them to drive product improvements through corrective actions. It also includes a PartLink tool to simplify managing components.

**Extensibility**

**Winner: Windchill**

All three applications offer strong integration capabilities to enable companies to share data with ERP, MES, or CRM solutions. PTC Windchill goes a step further by offering pre-built integrations to other PLM systems, including competitors, allowing users to use the tool they are most familiar with while still providing control. Enovia incorporates advanced design management solutions to support multi-CAD environments.

**Integrated Quality Management**

**Winner: Windchill**

All three systems incorporate CAPA support, and Teamcenter includes complaint capture, but Windchill exceeds expectations by incorporating root cause analysis and a quality report rolup that highlights issues at any level.

**Environmental Compliance and Sustainability**

**Winner: Windchill**

While Siemens Teamcenter and Dassault Enovia both offer some basic functionality to support environmental concerns, PTC Windchill goes well beyond the basics to offer support for conflict mineral management, country of origin audits, due diligence audits, substances of concern, and regulations such as RoHS and REACH.

**Industry Focus**

**Winner: Windchill**

Teamcenter and Enovia claim to support a long list of industries, but both lists are so long that one has to question whether there is actual industry differentiation or just marketing hype. PTC Windchill has a clear focus on a smaller number of verticals but can demonstrate existing customers and industry-specific functionality in each one.



3 HTI was founded in 2002 with the core principle of serving our customers with a relationship-oriented process.

**SERVICE**

With over 210 years of industry experience, we help you develop the right combination of tools and processes to support your workflow.

3 HTI presents a full-line of services and support for your technology investments.

**Support and Maintenance**

3 HTI can help you gain more value from your hardware and software investments. We provide a comprehensive support system for every software and hardware system we sell:

- Technical experts
- On-premise and on-line support
- Proactivity-enhancing resources

**Temporary and Permanent Staffing**

3 HTI provides both permanent placement and temporary contract engineering staffing solutions nationwide.

Our Recruitment Specialists take the time to pre-screen candidates to find the best fit for all projects.

- Flexible staffing
- Fast response time
- Access to the best engineers

**Contract Design Service**

3 HTI can help your firm with a wide variety of contract design services. Our in-house and on-contract engineers can make sure that you make your deadlines with high quality design services.

- Scale up for rush or big projects
- Get additional expertise in specific areas
- Run additional simulations to validate designs
- Tweak designs for final manufacture

**Contract Manufacturing**

Whether you're just looking for a few 3D printed parts, or you're looking to outsource production for short or long-run manufacture, 3 HTI can match you with one of our dozens of manufacturing partners to optimize quality, speed, and cost.

- Onshore and offshore
- Additive manufacturing (3D printing)
- Traditional manufacturing (machining and casting)



**Market Leader PLM Comparison Details**

We ranked each product on a scale of 1 to 4 based on feature maturity and robustness.

Feature/Function/Capability	Siemens Teamcenter	Dassault Enovia	PTC Windchill
Platform for Collaboration	3	2	4
Design and Simulation	4	4	3
IoT Support	3	3	4
Integrated Analytics & Search	3	2	4
Extensibility	2	4	3
Integrated Quality Management	3	1	4
Environmental Compliance and Sustainability	2	3	4
Intuitive UI	3	4	4
User Productivity	3	2	4
Data Management	4	3	4
Change Management	3	3	4
Sketching	4	2	4
FreeStyle Modeling	3	4	3
Role-Based Navigation	3	2	4
Support	3	3	4
Flexible Design Process	3	2	4
Data Security	3	3	4
Built-in Automatic Approval Process	3	3	4
Deployment Flexibility	2	2	4
Industry Focus	2	2	4




**Client:** 3 HTI



**What they do:** Sell software and hardware that supports manufacturing including CAD, PLM, and 3D printers.



**Summary:** A feature and benefit comparison of the top product lifecycle management (PLM) solutions including Siemens Teamcenter, Dassault Enovia, and PTC Windchill.

**Want to read the entire 10-page eBook?**

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**SWIMLANE**

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**SWIMLANE**

### An Overview of MSSP Business Challenges

The core MSSP services are only the starting point for competitiveness. Monitoring and management of security devices and systems are "table stakes." The real challenge is keeping up with an ever-evolving threat landscape that forces MSSPs to continually update their internal processes. This includes adapting to a proliferating set of specialized security products, and a combination of personnel shortages and turnover that make 24/7 operations a constant challenge. When employees leave, they take vital procedural knowledge with them.

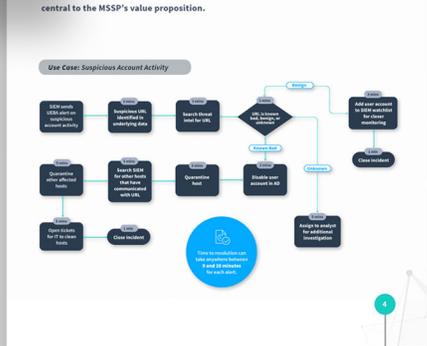
### What It Takes to Succeed as an MSSP

Succeeding as an MSSP means getting many details right in a complex services-oriented business. It means anticipating and then following through on all the various details of the service agreement. In many cases, the SLA and/or less formal agreements call for client-specific actions and response times ... which often differ significantly from the MSSP's default operating procedures. This is a potential minefield for staff handling dozens of different client accounts and one of the areas that MSSPs often struggle with as this knowledge is typically unevenly distributed across the MSSP's own staff.

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MSSP knows that basic SLA compliance is not enough. The responsibility of an MSSP is to deliver airtight security, and when it comes to preventing a breach, every minute in responding to an alert. Technically meeting an SLA but still allowing a breach is MSSP nowhere. If the client is breached, the MSSP's ostensible adherence to an SLA might keep them from being sued, but they'll still lose the business.

MSSP-client relationship is based on trust and accountability, factors that cannot be captured in a paper agreement. Earning the client's trust by being **accountable, transparent, and able to accurately and quickly act and report on an incident** is central to the MSSP's value proposition.



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### Understanding Security Automation and Orchestration

SAO offers a solution to productivity challenges and other risks to profitability and competitiveness faced by MSSPs. It's a technology category that is adaptive and varied, so it resists simple definitions. In general, though, it refers to processes and tools working in concert to automate otherwise disparate security tasks that can be tedious and time-consuming. Most solutions share several common characteristics, including the following:

#### Centralized Security Operations

Figure 1: Example of the Swimlane automated incident response and security orchestration dashboard.

An automated incident response and security orchestration solution provides a centralized view into multiple security management platforms. Staffers can use it to handle tasks that require the use of secondary systems. Through a single console, for example, an MSSP staffer can easily monitor and interpret the consolidated outputs of their SIEM, IDS, and multiple firewalls. Figure 1 shows an example of this kind of security automation dashboard.

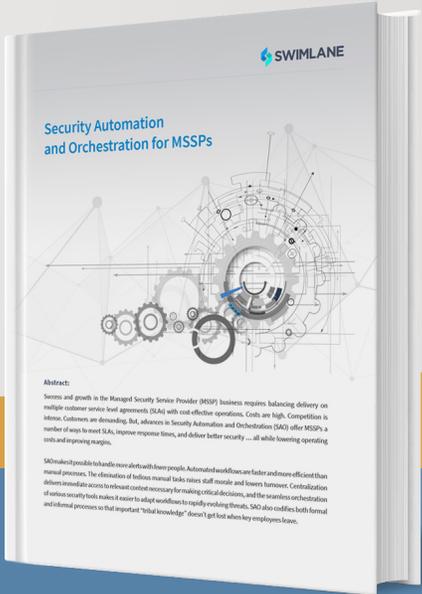
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MSSPs also gain productivity from having their operations simplified via the "single pane of glass" through which an SAO presents a broad range of security operations and procedures. The MSSP can use the SAO UI for centralization of security management. Or, if the MSSP has an existing portal, it can aggregate SAO information and integrate it into their preferred management interface. With a single console for managing multiple customer SLAs, there is reduced cost in task and customer switching. **Staffers spend less time having to look up what they should do for a particular customer - it's built into the system.** The staffer just follows the process outlined for that customer.

Finally, automated workflows can greatly speed up remediation of security problems in three separate ways:

1. The portions of processes that can be automated are obviously faster than their manual counterparts. Typical task automation rates are 80-90%.
2. Centralizing threat data contributes to faster incident response and resolution.
3. The 5-10x speed increase of the above allows for every alert to be responded to in a more timely manner with less backlog occurring during a spike in incidents.

**By radically reducing Mean Time to Resolution (MTTR), SAO strongly enhances the level of security and service that MSSPs provide their customers.**



**Client:** Swimlane

**What they do:** Security Orchestration Automation and Response (SOAR) platform

**Summary:** A review of the unique challenges faced by managed security service providers (MSSPs) and the benefits of implementing security orchestration, automation, and response (SOAR).

**Want to see the entire 18-page eBook?**

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### Why are customers abandoning their carts?

55% due to unexpected fees, including shipping costs

33% because they can't remember a password

18% due to complicated or lengthy checkout experiences

17% due to lack of trust and fear for their credit card security

24% because they wanted them to create an account

### Adapting To A Cookie-Less Future

There's no question that there will be some inevitable drop-off in initial engagement with website visitors, but it is still possible to create personalized shopper experiences without cookies. Cookies have long been a catalyst for personalization, but a merchant can still establish a personalized connection with the shopper in their absence. The best way to achieve this is by converting anonymous shoppers into login customer accounts without disrupting the shopper experience.

7. Statment Institute, 44 Cart Abandonment Rate Statistics, 2020

**Bolt** | Build vs. Buy Ecommerce Options

### Single Sign-On (SSO) Commerce

Bolt helps merchants capture more email addresses via account creation, which in turn will help them with targeted advertising. People-based advertising using first-party data, such as email addresses, is far more effective than 3rd-party cookies.

Bolt SSO Commerce intelligently creates store accounts and unites retailer accounts with Bolt network accounts to create a single log-in that works across multiple merchants—shoppers are recognized as a return shopper even at sites they've never been to before.

The cookie apocalypse and the urgent need to get first-party customer data will likely make you think about upgrading parts of your checkout.

Now comes the big decision, what is best method to implement incremental functionality?

**Bolt** | Build vs. Buy Ecommerce Options

### Coding and Development

Building your own upgraded checkout means doing the work of designing the software and then coding it. Your team will need to determine the architecture of any third-party integrations, including integration with payment gateways. You'll also be responsible for the testing and release cycles as well as the complete deployment process.

### Ongoing Maintenance and Troubleshooting

From there, you own it. When you code your own software, "you own it," so to speak. Your team is responsible for maintaining the code and all of its integrations. As operating systems and related system components are upgraded, whatever impact those events have on your code, you will have to deal with them as well. If your team decides to make additional updates to the functionality, you will have to restart the whole develop-test-integrate-deploy cycle all over again.

Software development and running a checkout solution in-house also means taking responsibility for security. Merchants must continuously protect against breaches of user account data. This means continuously hardening, monitoring, and testing the site and checkout process. There's plenty of risk and ongoing, costly security operations involved. Bolt's "passwordless" multi-factor authentication and one-time password (MFA/OTP) approach provide an effective countermeasure that demands no work at all from the merchant.

**Bolt** | Build vs. Buy Ecommerce Options

Given the current state of the cookie apocalypse, retailers are looking to innovative ways to collect and retain first-party data and increase store account registrations. By implementing Bolt, you reap the benefits of our iterative, continuous process of enhancing the checkout experience—without having to add it as another "to do" to your development team's never-ending project list. The Bolt platform even analyzes and continuously evaluates the end-user experience across our merchant network. We review the metrics of new features, which can be selectively enabled using an A/B testing approach. Based on the results, we improve and refine the features if necessary.

Bolt's continuous development methodology iterates rapidly to bring new and enhanced features to market. Each Bolt release adds new features, improves existing features, and resolves bugs and vulnerabilities. Our product and engineering teams innovate quickly on new product features, and our approach ensures that no new features break existing capabilities—a common source of difficulty in the traditional "build" scenario.

**Bolt** | Build vs. Buy Ecommerce Options

### Conclusion

The world of ecommerce is undergoing a serious change due to the "Cookie Apocalypse" and resulting in changes in shopper tracking and privacy policies. Merchants will need to adapt or face the consequences of no longer being able to track website visitors. Logging checkout is one of the most compelling solutions to the challenges introduced by this cookie apocalypse.

The question, however, as with any major shift like this, is whether to build or buy an upgraded checkout solution. While there are merits to build as well as buy, the decision to build—in some cases, rebuild—a complex checkout stack comes with several serious costs and long-term resource commitments. Bolt offers new options that change the terms of the build vs. buy conversation. With Bolt, it is possible to upgrade checkout without a major disruption to your ecommerce business.

**Bolt** | Build vs. Buy Ecommerce Options

### Build vs Buy

Exploring Ecommerce Checkout Options

What's Inside: **Supercharge your checkout:** explore the issues for Build vs Buy, including key considerations and new options available for enhancing functionality without displacing your existing ecommerce technology stack.

© 2021 Bolt vs. Buy Ecommerce Options



**Client:** Bolt



**What they do:** The world's first checkout experience platform



**Summary:** An eBook explaining the issues in the Build vs Buy decision for eCommerce merchants including key considerations and new options for enhancing functionality without displacing the existing technology stack.

Want to read the entire 16-page eBook?

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## ABSTRACT

DevOps and other modern CI/CD practices are being quickly adopted in enterprise software development and are making their way into the embedded world.

Market demands for ever more complex systems and faster development cycles mean that the adoption of more efficient development methodologies is rapidly turning into an absolute imperative for embedded systems companies. Even if you had infinite budget, there aren't enough qualified engineers to get the work done. Using traditional embedded development methods wouldn't allow the sort of gains that you would see by adopting more efficient methodologies.

Wind River® has risen to meet this trend by developing a portfolio of tools that enable the implementation of new DevOps processes. Wind River Linux, VxWorks®, Wind River Helix™ Visualization Platform, and Wind River Cloud Platform all include critical features in their core architectures that facilitate the DevOps and CI/CD workflow, while Simics® provides the needed system simulation to avoid getting bogged down with test hardware.

## INTRODUCTION

Markets demand ever more complex systems and faster development cycles. Meanwhile, there is a shortage of qualified embedded engineers and developers. Even if infinite budget were available, there simply aren't enough people resources to get the work done when relying on traditional development methods.

This is driving the urgent need for embedded development teams to adopt the agile methodologies that have revolutionized data center development efforts.

The software and tools in the Wind River portfolio enable the implementation of DevOps and CI/CD methods and is made for the specialized needs of embedded systems.

## DevOps and CI/CD: A Workflow Comprising Separate but Interdependent Toolsets

Turning DevOps and CI/CD theories into practice requires toolsets that, although technically separate, are interdependent to complete CI/CD processes. Figure 1 shows a simplified version of the most common DevOps-to-cloud-CI/CD workflow. Each step in the workflow is supported by a specific type of tool.

Figure 1. DevOps and CI/CD as a workflow that relies on numerous separate but interdependent toolsets

For DevOps and CI/CD to be successful, developers, testers, security people, and operations teams must be able to collaborate in real time as code moves through this workflow. Their software development tools and cloud platforms must support the tools and workflow in order to make the entire process work. (The examples shown here should not be viewed as authoritative. They merely represent a small sampling from a large pool of DevOps and CI/CD technologies.)

Organizations need ways to effectively integrate portions of the embedded development process to produce better software faster.

## BARRIERS TO THE DevSecOps VISION

The primary barriers to the adoption of CI/CD and DevSecOps are:

- CULTURE
- SECURITY
- TOOLSETS
- HARDWARE

## CULTURE

Not every embedded systems company has an easy time making the move to DevOps, even when there is a strong intent to get it going. One issue that comes up is a lack of coordination between groups. Simply declaring that DevOps will be the mode of software development and release is inadequate to get teams to integrate their processes.

Adopting DevOps must be a revolutionary change in management processes. Team members need to be trained on the new methodologies and tools. They need the chance to ask questions and determine how these novel methods will work at their specific organization. DevOps and CI/CD are cultural shifts as much as they are technical and procedural.

Wind River has more experience in agile development in the embedded systems world than any other organization. We pioneered the process for the development of our own products. Our Professional Services team can help your organization make the leap to DevSecOps with best practices for making the most effective use of our cutting-edge development tools.

Effective CI/CD implementation requires a shift in management processes and company culture.

## REALIZING THE DEVOPS VISION IN EMBEDDED SYSTEMS



**Client:** Wind River

**What they do:** Software that supports the development of embedded systems

**Summary:** An overview of how embedded development is changing and why software must evolve in tandem.

Want to read the entire 21-page eBook?

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### DO YOU REALLY WANT TO SUPPORT YOUR OWN UNIQUE LINUX DISTRIBUTION?

Newcomers to embedded Linux often don't understand that every RYO Linux platform created in-house is by definition a unique and custom Linux distribution. Embedded Linux requires compiling and linking on a host system for download to a target host.

The creation of all of the right puzzle pieces to make the OS run on an embedded target is effectively an in-house distribution of Linux. For this reason, embedded Linux is different from desktop and server Linux, where one typically uses a well-known distribution already packaged and ready to go. Companies deciding to roll their own Linux must understand that they are taking on the maintenance and support of a custom Linux distribution, which requires significant expertise and staff, a commitment that **dramatically increases over time.**

While community support for Linux abounds for current releases of the kernel and distribution releases, support quickly wanes as versions become outdated compared to the most current releases.

It's unrealistic to expect open source community support for an older version of the Linux kernel that, for example, has been built into a product and been on the market for several years. The community is typically focused on the leading edge of development, and older components (kernel, libraries, packages) are mostly left unmaintained, untested, and unsafe to use. As the years go by, companies must rely on internal specialized expertise to support their products. This goes well beyond the capabilities of most organizations' IT departments.

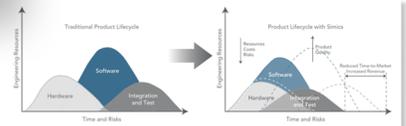
Beyond the heavy personnel costs involved, organizations must ask themselves if this is how they want this engineering talent tied up—in maintenance—or if their time would be better spent in product development. Indeed, there's a risk that companies might lose key engineering talent altogether if those employees are not enthusiastic about maintaining an old embedded distribution.

### Managed Services with Wind River

Wind River® offers end-to-end Linux development products and services—from prototype to optimization, to deployment and beyond. Wind River Linux subscription service delivers Yocto Project-based source code for platform developers. It includes maintenance, long-term support, compliance artifacts, and security updates. All enhancements and fixes to the Yocto Project-based Linux source code are upstreamed for the entire community to leverage. Wind River also provides a premium service to help customers customize, manage, and optimize their Linux platform and applications. Wind River also provides a premium service that delivers a dedicated team to help customers customize their distribution, manage source code and binaries, support from branch distributors, and optimize their Linux platform and applications to meet specific market requirements.

### Full System Simulation

An example of an extremely useful category of software tools is the full-system simulation—the simulation of not just the embedded target processor, but also the system-on-chip (SoC) features, board-level hardware, and even interconnected targets in a complete system of subsystems. Developers, with their commercial development tools, can deploy and test on a simulated full system. This innovation greatly improves the support for iterative and agile development processes, but also removes the hardware supply bottleneck that plagues most embedded development projects.



"The ability to shorten our development period by 15% was a remarkable result of using Wind River Linux. This led to a considerable reduction in development costs."

—Takahide Inoue, Sharp Corporation

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## CONCLUSION

Commercial embedded Linux offers a clear return on investment versus RYO, in-house developed, and maintained Linux. Not only is the total cost of ownership lower, but the technical, business, and legal risks of commercial embedded Linux are much lower. The ability of the commercial embedded Linux vendor to supply training, services, maintenance, security updates, and support greatly increases productivity and also reduces the overhead of maintaining your own, unique embedded Linux distribution.

Success in a competitive market means concentrating on what you do best—building great products—and avoiding the risk and expense of platform development that adds to neither your feature set nor your bottom line.

### Carrier-Grade Linux? Check.

Need carrier-grade reliability? Wind River Linux offers carrier-grade capabilities, which deliver 99.9999% availability, clustering, security, virtual routing and forwarding (VRF), test suites, and more.



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### Export Compliance and Encryption Disclosure

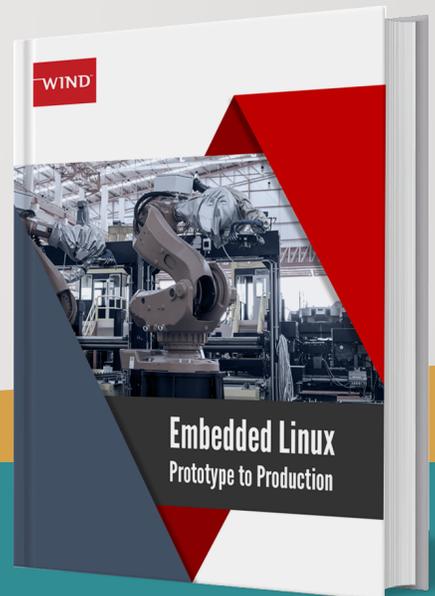
Preparing products for international export adds another layer of compliance complexity to the documentation of open source software. In addition to the necessary license compliance requirements, export compliance largely centers on the disclosure of cryptography software, which presents security concerns in many countries.

This is an additional reason software suppliers, application developers, and device manufacturers need to have formal processes in place for tracking open source software (OSS). When it comes to documenting OSS in general and cryptography in particular, many technology companies experience a disconnect between the engineering and export teams. Export teams typically expect engineering to know everything in the code base so they can properly report on the cryptography used in a product. If the product has a large number of OSS components and the engineers did not actually write the code, however, they may not have a clear understanding of the cryptography inside. But export disclosures rely on accurate information from the engineering team, so organizations need to improve the quality of their cryptography discovery in OSS.

When there are hundreds or even thousands of OSS components within a product, a manual search is not practical. Some type of automated tool is needed, but automation alone is likely to yield some false positives, which then have to be reviewed manually. The most efficient solution—the one Wind River employs—is a combination of automation and encryption expertise. First, a tool is used to search the code for encryption, and then a designated team trained in encryption technology analyzes the findings to weed out false positives. A report detailing the levels and types of cryptography found is generated and added to the compliance envelope. The export team can then more accurately determine which instances of cryptography need to be reported based on the requirements of the country.

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**Client:** Wind River



**What they do:** Software that supports the development of embedded systems



**Summary:** A review of the pros and cons of different types of embedded Linux offerings for embedded engineers.

Want to read the entire 23-page eBook?

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## Introduction

Before you read any further, I want you to visualize three things:

**First,** think about your team's initial excitement when you dumped your creaky old CRM and invested in Salesforce.com. Think about the benefits you hoped to gain:

- ✓ A single source of truth for sales, marketing, and operations.
- ✓ One-click sales forecasts that were always accurate and up-to-date.
- ✓ A truly distributed CRM system with universal usage and shared nomenclature used by every sales rep, customer success team member, and executive in the company.
- ✓ 100% capture of relevant sales and prospect data that would power ever-more accurate and useful decisions by the entire management team.



**Second,** think about how reality has played out:

- ✓ Limited adoption by some key salespeople and executives.
- ✓ Limited data entry in many records ... resulting in the loss of critical data and business insight.
- ✓ Leads, opportunities, and contacts aren't used consistently across the organization, making a lot of the reporting and dashboards messy or even misleading.
- ✓ Poor data quality in general.
- ✓ Limited management transparency and forecasting ability.
- ✓ Initial enthusiasm has turned to frustration with consumers of data looking for answers outside of Salesforce®.



**Finally,** I would like for you to visualize how much **money** your organization spends on Salesforce licenses every year.



## How to Transform Your Company Culture and Get Great Data

### Step 1: Talk to Your Users

Talk to your most ardent users of Salesforce and find out why they use it so faithfully, how they got started, and what benefits they get from it. Then, go to your worst users. The ones who have never signed in, only use it as a Rolodex, etc. Find out what barriers keep the recalcitrant users from complete or enthusiastic adoption.

### Step 2: Make a Plan and Set Key Milestones for Salesforce Usage

Rome wasn't built in a day, and achieving ubiquitous Salesforce use will take some doing too. Don't try to tackle it all at once.

Break your Salesforce users into functional groups and evaluate what stage of usage each group is at. Focus on the laggard users so that you can eventually bring the entire department to the same level.

For instance, you might have the following four stages of usage:

1. Logging in daily.
2. Using Salesforce regularly but poorly; rampant data issues.
3. Consistently using Salesforce and logging data; only minor data issues.
4. Using Salesforce as the single-source of information with department-wide data consistency.

- Break down your program into large, overarching goals and specific steps.
- For instance, you might have a long-term goal of better sales forecasting. To achieve that, you will need to get your team to:
  - Properly convert leads to opportunities.
  - Accurately estimate deal amounts.
  - Consistently update the close date.

Of course, if your users are not all logging into Salesforce yet, you'll need to start there.

## About ThinkSmartOne™

ThinkSmartOne™ is a revolutionary automated motivation software built upon the Salesforce.com platform.

### Features Include:

- Automated reporting
- Real-time dashboards
- Out-of-the-box readboards and gamification
- Template galleries that provide inspiration, sample rules, premade notification templates, and allow for new programs to launch in minutes
- Built-in measurement and optimization tools
- Integrated and customizable reward fulfillment with no markup



Find us in the Salesforce AppExchange for a free install



For more information about ThinkSmartOne™, or an online demo or proof of concept, contact us at +1 (855) 373-5374.

ThinkSmartOne™ is the product of the global incentives consultancy ThinkSmart. This publicly listed company has worked with many of the largest brands in the world on improving employee motivation and performance through the use of employee rewards programs.

These organizations rely on ThinkSmart to power their rewards:



For more information about transforming your legacy rewards program to a modern motivation program ...

Download our eBook: Transform Your Rewards Program



### Native Salesforce® Apps Have an Advantage

Although there are many modern motivational systems that aren't Salesforce® native, keep in mind that when it comes to monitoring your team's Salesforce usage, a native Salesforce application like ThinkSmartOne™ has a huge advantage.

Once installed via the Salesforce AppExchange, ThinkSmartOne™ is ready to rock. There's no outside website, no gitchy syncing of data, and no manual processes. ThinkSmartOne™ instantly maximizes the data already in Salesforce:

- **Users and Email Addresses:** You always have up-to-date information on participants. New hires, terminations, and transfers are already handled via your existing Salesforce administration.
- **Department Designations:** ThinkSmartOne™ will mirror your departmental, executive, and other designations in Salesforce so that you can launch department-specific programs with the click of a button.
- **Usage Data:** Instantly track performance on the quality and quantity of Salesforce usage on data points like:
  - Log-in frequency and/or duration
  - Filling in all critical fields in a record
  - Completeness of records
  - Lead creation/conversion rates
  - Updating lead or opportunity stages
  - Logging calls, tasks, and events

If it's in Salesforce, it can be tracked and improved by ThinkSmartOne™



**Client:** ThinkSmartOne



**What they do:** Automated motivation software that plugs right into Salesforce



**Summary:** An introduction to the benefits that automated incentive software can have for organizations implementing Salesforce.



Want to see the entire 14-page eBook?

CONTACT US

## About glassCanopy



You could probably write a fantastic eBook every quarter that would engage your prospects and customers... if you had the time. glassCanopy effectively creates that time by taking on all of the heavy lifting: conceptualization, research, writing, and final layout. All you have to do is provide feedback and revisions.

We then take those eBooks and integrate them into a lead generation machine that we run for you. We handle everything:

- Content creation
- Ad buy planning and execution
- Landing page and banner design
- Integrating with your CRM and marketing automation
- Lead nurture campaigns
- Closed-loop analytics, reporting, and optimization

Our core services cost between \$10-25K per month plus media buys. We're best suited to companies with complex products/services with average deal sizes of \$10K or more.

**If you're interested in seeing what we can do for you:**



**Give us a call at  
(415) 663-7826**



**Send us an email at  
[rich@glasscanopy.com](mailto:rich@glasscanopy.com)**



**[Get in touch](#)**