



Top 10 Reasons Your Company Needs a Technology Gatekeeper

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There are many obstacles that can hinder a company's success, growth, or team efficiency. For many technology companies, there is an all-too-common issue that continues to plague the industry. Every time new code is released, a company's base code goes through changes and brings on undetected risks. In order to maintain a complete healthy ecosystem for their website and applications, similarly to an elite sport car engine, companies must clear the *gunk* that affects the productivity and the overall health of their *engine*. Whether a company's technology group is in-house or outsourced, they'll probably find that their code could use a *tune-up*.

A company's technology group tends to consist of developers with varying experience levels who are recognized for the individual codes they write on a specific area. This is even worse for outsourced development work. As a result, although the entire application may function, the risk to stability and security lies in the patchwork of code compromising the application. This is due to inconsistent coding practices and methodologies of the development team. As a preventative measure, savvy technology companies have begun to utilize a master development Gatekeeper (aka *Sentinel*) to ensure their code is written in accordance with best practices, and considering maintainability and security, to create a cohesive whole across multiple applications. Without the Gatekeeper securing this required consistency, a company has no way of maintaining the proper coding they need across the entire application to mitigate risks that arise as a result.

Here are the top 10 ways a technology Sentinel Gatekeeper can help your company:

- 1. Increase productivity by ensuring all code utilizes standardized best coding practices.** When code is written with best practices, it enables other developers to better understand the code's purpose and functionality, and enables them to write new code or debug the existing code effectively. Although there are many ways to achieve a desired result when writing code, industry best practices work in tandem with coding standards to ensure clean, high quality code that is both maintainable and extensible. Best practices are techniques that are generally accepted to be better than alternative methods because they produce superior results, and as such, have become the de facto desired standard within the industry. Though best practices should not be treated as gospel, they allow today's codes to be written by learning from past missteps.
- 2. Improve performance and ensure new code works seamlessly with other codes.** Gatekeepers will consider the entire software ecosystem and assure new and updated code will work seamlessly with the existing application. Why wait for the QA team to raise a red flag once they've found an issue? Why assume a problem will be noticed by the QA team to begin with? What if it's a latency affect due to poor coding, but not actually a bug? Why wait until the code is written and the problem arises, only to then spend valuable resources rewriting the code? How can they best ensure the most seamless integration were required? Having such a Gatekeeper will keep everyone writing code with a common vision, and not waste resources backtracking to make corrections.

3. All new codes would consider long-term goals and possibilities. While individual developers are typically focused on the specific task at hand, Gatekeepers will consider the entire software ecosystem and ensure that all code is written with tomorrow's interests in mind. Additionally, if the documentation given to the developer was not vetted properly by someone such as a Gatekeeper, they would not write code with future possibilities, upcoming projects, or feature rich enhancements in mind.

4. All codes would be properly documented. By conducting proper requirements gathering and documenting details for the desired results, the Gatekeeper will ensure all records are thorough and consistent. This will then allow any follow-up development to have the proper documentation to complete their work.

5. You'll be in control and less reliant on "old" resources. There are many stories of technology companies beholden to the original developer who wrote the initial application, and as a result, is the company's "keeper of all knowledge". This is not necessarily because they are more skilled, but because they wrote the first code in their own style. This typically leads such companies to rely too much on this person's preferences and style in order to maintain the code and add future enhancements.

6. You'll be periodically evaluating your standards and best practices. To remain relevant, a company's coding standards and best practices should be evolutionary. As times change, so do technologies and techniques. What may have been standard a few years ago, may be antiquated in today's world. As a result, a Gatekeeper should periodically evaluate their technologies and conventions to identify obsolescence and make changes accordingly. This will help ensure the application remains efficient, performant, and secure even as the technologies and the world around us changes.

7. You'll have unbiased opinions of your development partners. Gatekeepers not only monitor the quality of code written by each person on the development team, but can also provide an assessment of potential technology partners, including their methodologies and coding standards. When companies look for technology partners, such as web designers, they can make an all-too common mistake of only seeing what is above the surface and miss the poor coding hidden below. An assessment should consist of:

- a. A review of their portfolio
- b. An assessment of coding tools and scans they perform
- c. An evaluation of internal coding practices and adherence to standards
- d. A review of their software development life-cycle
- e. An assessment of quality assurance testing

8. Ensure your company is getting the most benefit from outsourcing expenditures. Gatekeepers can help select a partner that follows agile practices such as daily standups and incremental delivery through a periodic sprint model. This will allow them to monitor the progress of the deliverable as it is developed instead of waiting to evaluate it in its entirety upon completion. There are many benefits of working in an agile manner - those unfamiliar with the process should learn about them (sample resource at <https://martinfowler.com/agile.html>). Following agile principles is now the norm in software development, so selecting a partner that has embraced them is advisable.

9. Utilize the new smart trend of onshoring. A trend that promises to continue to increase is the outsourcing of software development projects to a partner that has a domestic developer presence. The term onshoring refers to companies that have developers in locations throughout the US. This model promises to provide many additional benefits over the offshoring model. The cost savings for offshoring have diminished over the years as the salary gap between offshore and domestic resources is lessening. Also, development shops are likely to increase their domestic presence due to the anticipation of fewer H-1B visas being issued. Leveraging an onshore partner will also be more conducive to following the agile practices mentioned before, since the development partner will have much less of a time and cultural difference than what might be seen with an offshore approach. A Gatekeeper can work with the outsourcing partner, but if they are an onshore service, this would help realize these benefits.

10. Protect your company's reputation. The last thing your company would want are hacking headlines involving your customers' data. Staying at least one step ahead of cyber-attacks starts with solid code reviews of your application. The Open Web Application Security Project (OWASP) provides the governance of the most critical flaws in application development and a Gatekeeper maintains the ongoing fluctuations of this ever moving target from hackers. Your company has worked long and hard to preserve your customer's trust - ensuring your application's security ensures that the trust continues with your future endeavors.

The saying "it's just the tip of the iceberg" refers to the notion that the bigger mass hidden out-of-sight, below the water's surface, is the real danger which the tip may represent. What would happen if your organization doesn't have someone on the lookout, watching for icebergs? What if the people on the lookout are too busy looking for other types of dangers, and don't know what icebergs are, or the dangers they represent? The dangers hidden below the surface of any code can have the same disastrous results to any organization as the iceberg had to the Titanic. No ship is too big to survive such accidents. Although the damage may only seem to cause a small leak in your framework, the damage to the entire structure can be disastrous.

Take a moment to identify if you have experts looking out for those icebergs, how far away can they see, do they know what to look for, and how to maneuver away from such dangers while maintaining a path to your desired destination. Whether you have someone internally, or bring on experts such as JKL Web Technologies, having a trusted Gatekeeper will help secure your development ecosystem and ensure smooth sailing for your organization.



What Makes JKL Different

- Holistic Approach
- One Stop Shopping
- Fitting Into Your SDLC
- Foundation Built On Standards

Jeffrey Walton

Managing Partner

Jeffrey.Walton@JKLWebTechnologies.com

484.302.0146

Rich Dome

VP, Business Development

Rich.Dome@JKLWebTechnologies.com

215.272.3036

Robert Rashtian

VP, Client Solutions

Robert.Rashtian@JKLWebTechnologies.com

310.736.5076