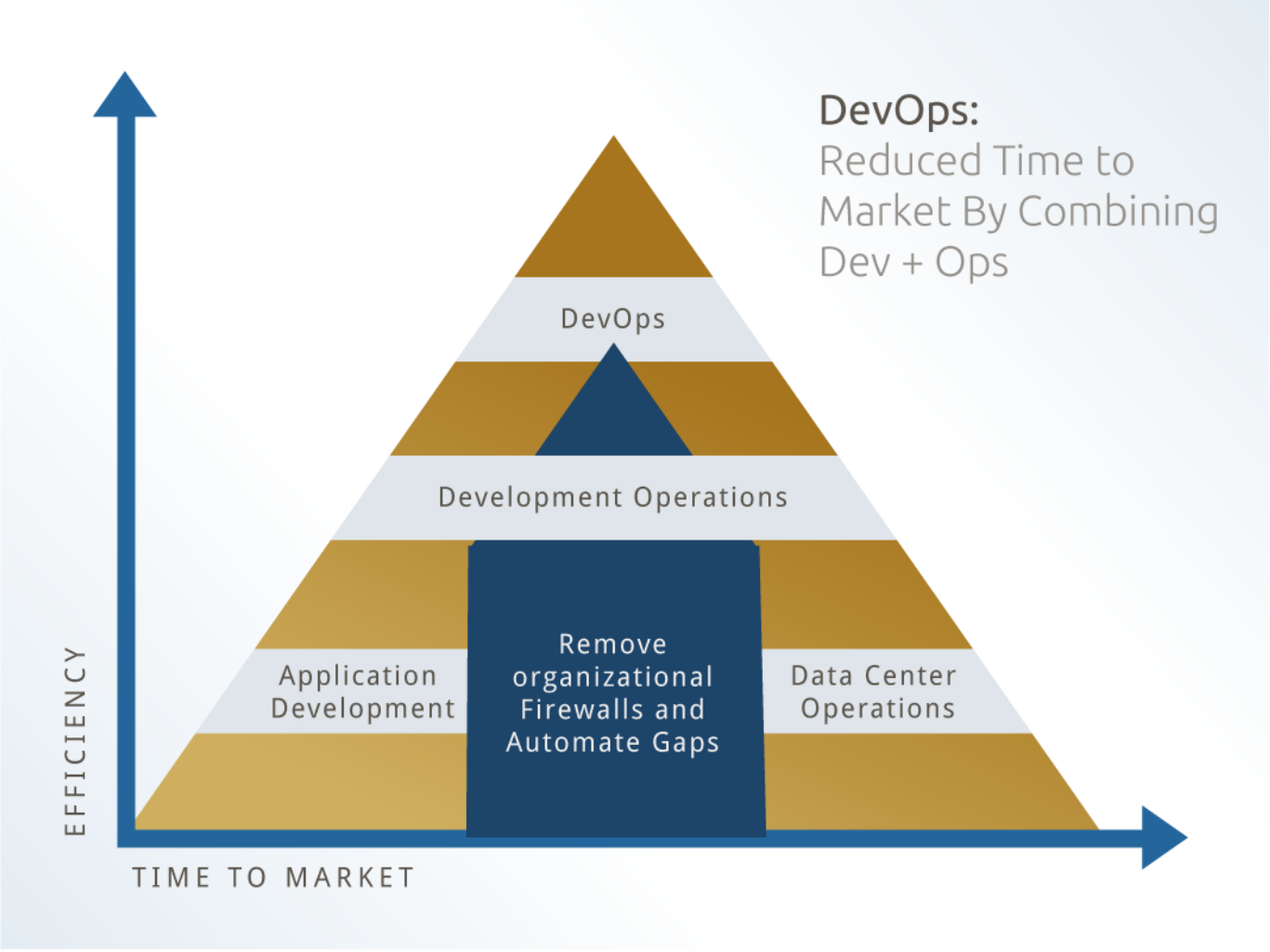
Contact Us: (415) 545-8474 | info@thpii.com

DevOps - Application Internet Development Within Corporate IT:

A Tutorial Guide To Get IT Started

By Telegraph Hill Program Initiatives, Inc.



The Payoff: Reduced Time to Market = Increased Revenue + Lower Costs +LESS STRESS on your TEAMS!

What is DevOps?

The App Internet market requires ever more frequent software releases to meet the demand of mobile and web application users. Smart phones, cloud infrastructure, Internet API standards, and open-source tools now enable rapid releases at low marginal cost to mass markets.

Because they now experience the benefits of rapid releases in their daily mobile consumer experience, users now expect such services from their business service providers as well. These trends (mobile, Internet, cloud, open source, "consumerization") are playing out across all industries, including yours.

But as time to market release intervals shrink ever shorter, IT managers quickly discover that segregated development disciplines must converge into a single integrated process. We call this new paradigm "DevOps"

DevOps is not just a management process change, but a technology change as well. With rapid, mass server provisioning enabled by cloud virtualization, tasks that could be practically handled manually in the past must now be automated for reasons of time, cost and service quality.

DevOps will drive re-tooling of many disciplines, from requirements analysis, to architecture, infrastructure engineering, design, coding, testing, QA, information security, operations and support.

DevOps is Application Development and Data Center Operations coming together. The two organizations still exist, but smart firms are automating the gaps between Development and Operations and breaking down organizational firewalls to reduce the time to market for App Internet releases.

DevOps is compatible with the ITIL framework, and smart firms understand the relationship of ITIL to Agile Application Development and DevOps.

Why DevOps?

DevOps is all about how to enable a business to react to mobile and Internet market forces faster while reducing costs via automation and open source products.

Are these problems you are facing?

- Are your IT customers demanding ever more frequent release cycles for App Internet software projects until you are releasing at least once a month?
- Have you adopted Agile development practices, but find yourself having to push Agile onto the IT Operations, Information Security and Customer Support teams?
- Are rapid releases stressing the way you staff; e.g. either by creating cross-functional teams, or realigning matrix functions like testing, security, configuration and release management, or using SaaS and consultants to augment employee resources?
- Are your development managers asking for ever more environments every day, even as utilization rates remain very low?
- Are your server management costs rising even as the unit costs of computing infrastructure plummets?

If so, then Telegraph Hill has a solution for you! *DevOps Startup Package*

How much does implementing DevOps cost?

Solutions need to be aligned to your budget and desired business goals. But most of the tools can now be open source, and cloud infrastructure ever cheaper by the day, so an optimized service resource plan is key.

How long does it take?

We find every client's business needs are unique, and therefore our approach is customized for each client urgency and risk appetite.

How can I learn how?

Smart firms implementing DevOps are performing all the following activities to expedite adoption. We have developed a complete set of tutorials and guides to enable your teams to become more efficient in developing and operating your App Internet software. Each of our eBooks is a practical handbook of best practices to help you overcome a specific DevOps adoption challenge.

- **eBook 1 – Environments for the Cloud --** Keep your development teams all on the same page by agreeing on common environment terminology up front. Learn how to elicit requirements, establish naming conventions, describe high level development life-cycle activities, and how to take information security, network, and role-based access control policies into account.

- **eBook 2 - Baseline DevOps Release Data Flows --** Don't end up with more environments than you can afford or need by defining your release work-flow up front. Just because servers are easy and cheap to provision doesn't mean they will be easy to manage. We show you how a focus on the most basic, baseline development, test and release environment workflows, with a discussion of milestone triggers and organization roles and responsibilities.

- **eBook 3 - Defining Your Cloud Platform --** Critical to cloud development success is the ability to focus on the application and not be distracted by the the infrastructure platform. Clearly define your platform engineering layers and software components and you will realize significant application life-cycle benefits without losing agility.

- **eBook 4 - Production vs Non-Production Operations --** How to enable rapid development while assuring security and operational rigor of production releases. Clearly identify roles and responsibilities between in-sourced and out-sourced operations management and your unique blend of service providers.

- **eBook 5 - Product Management in the DevOps World** – What does requirements management look like when releases are coming all the time? How do the Agile methods for requirements management play out between Platform and End-User App, and between functional and non-functional requirements?

- **eBook 6 - The Internet Market Release Process** – How does IT sync up with the market-facing release teams within business units? What are the challenges of field, alpha and beta testing? And what does it mean to have multiple releases all in production simultaneously?

- **eBook 7 - Guide to the Cloud Development Tool Kit** -- How do you pick and choose between a bewildering and ever growing array of tools ranging from Agile process management to configuration management, continuous integration builds, testing, secure coding assurance, etc. We also also discuss issues with the migration from and co-existence with legacy tools.

- **eBook 8 - Testing Releases in the Cloud** – The tools and processes you need to enable continuous QA concurrent with rapid feature development using your development methodology (RUP, Agile, etc.)

- **eBook 9 - Securing the DevOps Product** – From secure coding practice validation, to platform and application penetration testing, the tools and processes you will need to assure a secure release on cloud infrastructure.

- **eBook 10 - Supporting the DevOps Product** – Incident triage, the break/fix process, new feature requests, and technical support interactions for App Internet products.

How can my firm get started?

Engage THPI for our ***DevOps Startup Package***.
Most customers have a typical 4 week calendar duration.
We begin with a one-week facilitated session, after which you will:

- Understand basic DevOps concepts and have a common vocabulary
- Define the problem space for your firm
- Scope primary adoption activities
- Begin to create a backlog of DevOps work
- Get teams on the same page about where and how to get started
- Build trust using a transparent process based on a shared vision of success
- Begin requirements elaboration and strategy definition focus on client content
- Engage 2 to 40 people in the working sessions for the same rate

The week-long process is designed for two days of scoping work with key managers, two days of facilitated sessions with your cross-functional teams, and one day for output creation, facilitated using Grove Graphic Facilitation methods.

Then we follow up with a 3-week infrastructure provisioning project to demonstrate the DevOps concepts in actual practice. THPI works with your SMEs to create a tier of Cloud environments and release your initial App Internet application using tools like OpenStack/KVMj, chef and Puppet. Continuous build, test automation, app monitoring, log aggregation, database backup, database replication, load balancing, failover, and automatic DNS are all immediately demonstrable. The exact details are up to you, but Telegraph Hill's approach provides visible benefits to you quickly.

Thank you for your interest in DevOps and in Telegraph Hill Program Initiatives, Inc. We welcome your feedback. Contact us info@THPII.com.