Recasting Culture and Leadership in Your DevOps Environment
When it comes to transforming the modern software factory leveraging agile and DevOps methodologies, no challenge is more significant than affecting a wholesale change in culture.

While building cross-functional teams that span the entire spectrum of the application delivery lifecycle is relatively simple in theory, the reality of effectively assembling all the various types of expertise is no easy feat. Human resistance to change is well-established, regardless of domain; bringing together all the formerly disparate elements of software production inarguably presents a unique set of obstacles. That said, lessons learned by organizations already involved in this transformation help pave the way to success.

In this eBook, CA Technologies’ leading DevOps experts share their observations and advice with organizations that want to dramatically shift their internal culture to accelerate and improve the quality of the applications they deliver.
If embracing DevOps strategy was as simple as merely incorporating a specific set of tools, most organizations would likely adopt those products in hopes of becoming advanced practitioners.

However, DevOps transformation actually requires a sweeping cultural shift—no easy feat—long before considering other elements like retooling. Wikipedia identifies DevOps as: “a culture, movement or practice that emphasizes the collaboration and communication of both software developers and other information-technology (IT) professionals.”

Perhaps that’s why only 20 percent of organizations leveraging DevOps today have already achieved “advanced” status.

As noted by CA Technologies DevOps expert Peter Waterhouse in the blog “5 Tips for Building a Winning DevOps Culture,” this challenge remains daunting because it requires that organizations transition from “safe mode” into “sustained innovation.” Waterhouse notes that despite the nascent state of today’s DevOps landscape, some best practices for cultural transformation have in fact started to emerge:

1. **AVOID BUILDING ELITIST DEVOPS TEAMS.**
   Creating elite forces of DevOps expertise is antithetical to fostering larger organizational change—this effort is about deconstructing siloes, not redefining them.

2. **CULL ELITISTS AND DESTRUCTIVE NARCISSISTS.**
   DevOps culture is based on collaboration and empathy, on sharing success and learning from failures—you want big thinkers versus big talkers.

3. **REWARD WISHFUL THINKING AND CRAZINESS.**
   Experimentation and failure stand as critical DevOps mantras, so think big—be ready to take chances and learn from them.

4. **HAVE A HEALTHIER RESPECT FOR FAILURE.**
   As Waterhouse notes, “If you want to kill DevOps before starting, go ahead and talk up past failures.”—be forward-thinking, not fixated on history.

5. **WALK THE PEOPLE AND PROCESS PIPELINE.**
   Enacting a cultural revolution requires focused management—stay engaged and adaptive to constantly improve process.

Waterhouse suggests that while “Carving out opportunities from the digital chaos and disruption is the perfect place for DevOps,” organizations should be careful not to get carried away because change won’t happen overnight.
One of the most exciting and heady elements of the agile development revolution can be described with a single word: autonomy.

Leveraging agile to remove constraints that introduce delays and defects within traditional waterfall development is a big deal. That said, ramping the ability for development teams to build software code in a far more autonomous manner, without engaging other stakeholders—the very lifeblood of DevOps—may create more headaches than benefits.

It should go without saying but is worth repeating that DevOps is all about collaboration. That’s why unlocking the autonomy of development teams without keeping an eye on how their work will impact operations, security and even legal officials, defeats the very purpose.

A CA customer once said, “Leveraging agile without applying DevOps just allows me to create more efficient stovepipes.” That’s why creating cross-functional DevOps teams—those that bring developers, operations and security experts to the same table—is a necessity, not an option.

This is where the reference to the 1980s hit TV show “The A-Team” fits, perhaps even beyond that offered by CA Technologies DevOps expert Peter Waterhouse in his blog, “Building a Winning Software ‘A-Team’ with DevOps.” Waterhouse compares the A-Team and autonomous developers, noting that allowing crack troops to innovate on the fly, without considering other stakeholders, is a potential disaster. Yet, he overlooks the fact that the A-Team itself was made up of a wide range of assorted skill sets. B.A. Baracas was a talented driver, engineer and sharpshooter. Templeton “Faceman” Peck was a crafty strategist and con artist. H.M. “Howling Mad” Murdock was a fantastic pilot and linguist (despite his psychosis). Without them, A-Team commander John “Hannibal” Smith could never have pulled off one of his elaborate rescue or escape schemes.

Maybe that’s too much ‘80s TV trivia, but the truth is that the A-Team actually served as a great model for architecting DevOps success. Assemble a diverse coalition of software engineering, operations and security experts and make sure that they’re always working together as a tight-knit unit.
Beyond those rare unicorns—organizations that seem predestined for DevOps success—a wider range of practitioners are beginning to prove that adoption has its merits.

In his blog, “Digital Disrupters—Building a DevOps Leadership Profile,” CA Technologies expert Matt Hines discusses a survey of over 1,400 IT practitioners which illustrates how such organizations are beginning to chart significant advancements. The report details how those organizations enacting DevOps transformation differ from those that have yet to follow suit.

The benefits identified by these digital disruptors include goals such as:

- **49%** Improved Customer Satisfaction
- **44%** Better Workforce Productivity
- **41%** Improved Customer Experience
- **38%** Improved Competitive Differentiation
- **37%** Better Agility/Speed-to-Market
- **35%** Opening up of new markets
- **30%** Creating new business models
- **26%** Creating new routes to market

Organizations that have aggressively adopted DevOps methodologies are already appreciating related success, particularly compared to those that have not.
So, what are some of the winning DevOps ways characterized among these leaders?

Disruptors cite numerous best practices, including:

- **ALL ABOUT SOFTWARE.**
  Citing their vision as software-first in general, some 84 percent of disruptors directly consider themselves to be software companies, regardless of industry, compared to 40 percent among the masses.

- **MAKING REAL CHANGE.**
  Directly empowering DevOps, 92 percent of leaders have actively moved to break down traditional silos between Dev and Ops, with only 18 percent of mainstream organizations claiming to have done the same.

- **JUST DOING IT.**
  A majority, 77 percent of disruptors, have adopted agile development, with 70 percent “broadly” implementing DevOps. By comparison, for non-leaders, these figures are only 31 percent and 21 percent, respectively.

- **EXPERIMENTATION IMPLEMENTATION.**
  Some 93 percent of disruptors seek to “experiment and fail quickly on the road to success” to drive innovation, compared to only 58 percent of mainstream organizations.

- **APIS EVERYWHERE.**
  Among leaders, 68 percent use APIs to integrate third-party services into their apps, with 66 percent offering external access to systems and data. Non-disruptors compare at only 26 percent and 24 percent, respectively.

The organizations taking direct steps to engage agile and DevOps are seeing a long list of highly strategic achievements that track closely with the top-line objectives of many companies.

Some of the research related to the 2016 State of DevOps Report, also highlights the increasing gap between leaders and laggards. Clearly, time is of the essence.
Getting in Touch With Transformational Tendencies

**Attempting to drive DevOps transformation with an iron first likely won’t cut it; employing empathy to engender solidarity is a more viable option.**

Empathy isn’t the first word that comes to mind when conceptualizing the required skill set for architects of organizational change. Yet, upon closer examination, it just may be the most important DevOps leadership trait.

Taking a Kung-Fu approach to transforming your software factory might sound tempting, particularly given the degree of necessary change relative to longstanding culture and practices. However, unlike a Chuck Norris movie, real-world transition involves complex sociological issues that won’t respond well to draconian measures.

For today’s CIOs, who are most often charged with steering the massive sea change that is digital transformation via agile and DevOps methodologies, feeling out your development, IT operations and security troops is a critical enabler to success.

As outlined in the blog, “Why Transformational CIOs Need to be Empathy Ninjas,” by CA Technologies DevOps expert Peter Waterhouse, ensuring shared vision and communication around the difficulty such initiatives impose on the workforce will keep people engaged throughout the process. By maintaining empathy for all their charges, the CIO stands a far better chance of hitting their own goals and pleasing their respective bosses, Waterhouse notes.
So how does the average or, in particular, newly-anointed CIO perform a self-assessment to ensure they can stay in touch with the people?

Waterhouse offers a few suggestions, including:

1. **Test yourself with a digital workout.**
   Rather than dictate from on high, CIOs should roll up their sleeves and engage in a hands-on exercise related to some area of change—to understand where the rubber hits the road.

2. **Gather field intelligence across the software factory.**
   Forestalling the likelihood of middle-management blame games, CIOs should garner information directly from many quarters to maintain a square perspective.

3. **Rally your troops behind metrics that matter.**
   Metrics that span the entire DevOps gamut and that tie performance directly to organizational objectives will keep everyone focused—across the ranks and upper management.

DevOps is one movement where C-level ninjas must tread carefully and strike with a million soft blows.
Drive your own DevOps cultural evolution; these critical best practices and well-informed tips can help you avoid some of the common pitfalls.

Whether you're building a case and consensus for DevOps from the top down or the bottom up, make sure you pay close attention to the human element.

Once you've started tackling the cultural aspect of DevOps, a logical next step is to start exploring best practices for establishing related workflows and adopting related tooling—topics we'll cover in our next e-book: “Advancing DevOps Methodologies to Establish Best Practices.”

For more insights into improving your process maturity, check out the newly published book, “DevOps for Digital Leaders.”

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