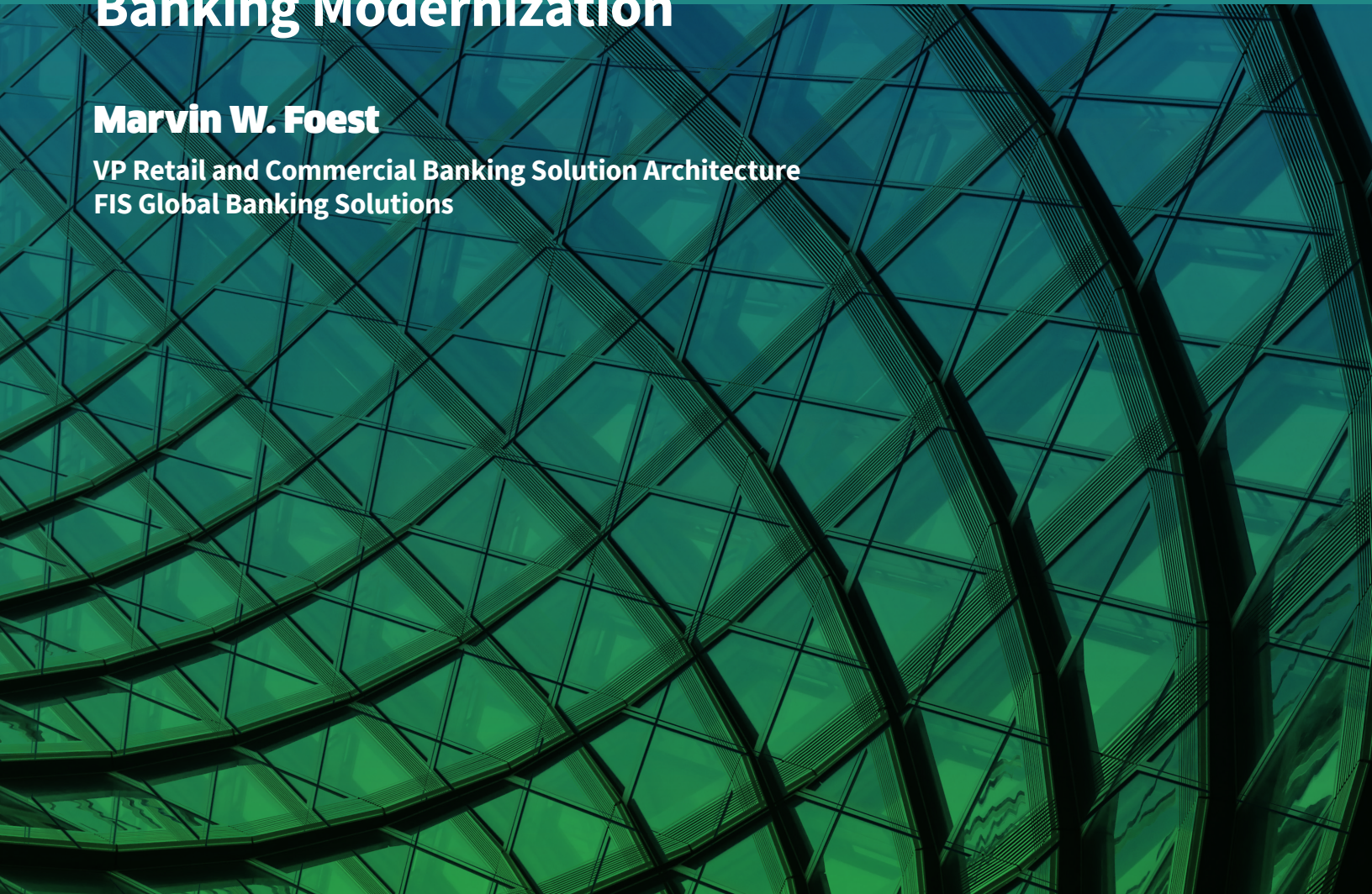## WHITE PAPER

MODERN METHODOLOGIES AND CULTURAL MODELS FOR ACCELERATING BANK GROWTH

Adopting Two-speed Architecture to Achieve Banking Modernization

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Blending Technology + Culture + Process = Successful Banking Transformation

This white paper examines how the interaction of technology, processes, company culture and people impacts the banking transformation journey. Plans related to two speed architecture and sustainable DevOps methodologies too often are oversimplified. To ensure success, the bank's strategy must include considerations for transitioning Cultural, Process and Technical architectures.

"Be competitive in the market or be prepared to be left behind." Sound familiar? The statement is still relevant even after 50 years of computerized banking. What is different today, however, is the frequency, size and extent of change that a bank must achieve to stay competitive. There are many internal and external opposing forces that banks need to consider, and with the globalization of banking the risk to becoming a bank of commodity products and services is very near.

Banking modernization is a complex topic that is intermixed with many aspects of how banks are positioning to modernize their banking architecture. A flexible and "digital-enabled" banking system built on modern technology can mean the difference between both future success and potential failure for many financial institutions in today's market. But technology is only one of the required enablers.

Banks, often led by their technology groups, may believe that achieving a two-speed IT or multi-speed architecture that is iterative and agile can be solved by technology alone. Tactics include open source software tools, building out an API abstraction layer, virtualizing data residing on legacy systems and more. Banks have also attempted to re-engineer their business process architecture, with business architects adopting Business Process Management (BPM) tools and capabilities, and now embracing the robotic artificial intelligence (AI) automation of business processes. These are all important and valid measures for the bank, but it still comes down to a combination of People, Process and Technology architectures that need to change for a bank to be successful in transitioning to a two-speed architecture or to achieve some level of a DevOps methodology.

Shifting the culture of employees, their mindsets and their willingness for change should not be understated, as it represents a competing force to starting and proceeding during the transition of adopting a two-speed, DevOps methodology. Often, banks create Digital Channel teams that are very iterative and quick to deliver changes to online and mobile solutions and often these horizontal-layered approaches leave a bank fragmented between two or more methodologies. Before a bank must consider handling the continuously arising challenges, a bank needs to introduce vital changes inside the organization and adjust its culture and processes with the formation of horizontally and vertically aligned end to end cross-functional teams, squads, chapters and tribes.

DevOps: An amalgamation of "development" and "operations"

DevOps describes the organizational structure, practices, and culture needed to enable rapid agile development and scalable, reliable operations.

This includes the culture, collaborative practices, and automation that aligns development and operations teams so they have a single mindset on improving customer experiencess, responding faster to business needs, and ensuring that innovation is balanced with security and operational needs.

This organizational culture transformation through the adoption of Agile DevOps processes is critical in all design, development and testing domains of the bank – top channel tier, mid-tier enterprise business applications, enterprise integration tier, and product system tier. This multi-tiered approach allows businesses to focus solely on delivering end-to-end value to their customers, reducing having to worry about the complexity of technological implementation. Allowing each tier to abstract the level and frequency of release changes saves the bank critical time-to-market with reduced development cycles and reduced regression testing, as well as simplified, consistent and repeatable team interaction models. It's all about small and frequent releases. These releases are decoupled releases and span across the cross-functional teams.

As a bank scales to create and adopt an enterprise DevOps process that works effectively across hundreds of applications and thousands of people, it will inevitably discover that things don't work the same way they did back on the developer's laptop with a single team or a single environment.

There are some great examples of banks (ING Netherlands) and fintechs (Spotify) that have published their learnings and modifications to approaches of how best to adopt a DevOps methodology. Cultural challenges are common in enterprise Agile and DevOps, but ING knew there had to be some way to minimize these conflicts. The number one barrier to agile success is company culture being at odds with core agile values. Whereas most enterprise executives choose to believe there is only so far that Agile and DevOps can take a banking organization, ING leadership chose to look at what tech "unicorns" such as Google, Zappos, Spotify and Netflix were doing. Based on this research, they found that a key commonality involves establishing flat organizations that are responsible for products and features, and soliciting feedback from their customers to help guide the future of the products. With this approach, banks can transform their business to be more agile.

According to Gartner, 70 percent of the IT market is focusing on DevOps and another study found that 88 percent of organizations have adopted agile methodologies, but only 26 percent of organizations have broadly adopted test automation. The focus of many Agile and DevOps conversations revolve around accelerating delivery, but executives don't want to accelerate delivery at the cost of decreased quality, increased risk and worse compliance.

As Agile and DevOps matures, banks will continue to break down cultural challenges. There was a time not so long ago that the biggest banks in the world had embraced Agile, but said DevOps couldn't be done in the enterprise. According to Gartner, 70% of the IT market is now focusing on DevOps.

In summary, technology and process re-engineering tools are only part of the required enablers to transition a bank to successfully adopting a two-speed architecture. Continuous release programs of hundreds of business capabilities are being released and going live every day. However, it still comes down to a combination of People, Process and Technology architectures that need to change before a bank is to be successful in transitioning to a two-speed architecture or to achieve a scalable level of a DevOps methodology. Learn from the unicorns, adopt a flatter organization with cross-functional autonomous teams.

Sometimes, a Picture Is Worth a Thousand Words

The following depiction of Spotify's Engineering Culture is a great illustration of the interplay between methodology and cultural aspects. As your bank moves forward, consider what your institution's culture looks like now, and what you want it to become as the organization transforms and grows.

Credit:

https://labs.spotify.com/2014/03/27/spotify-engineering-culture-part-1/

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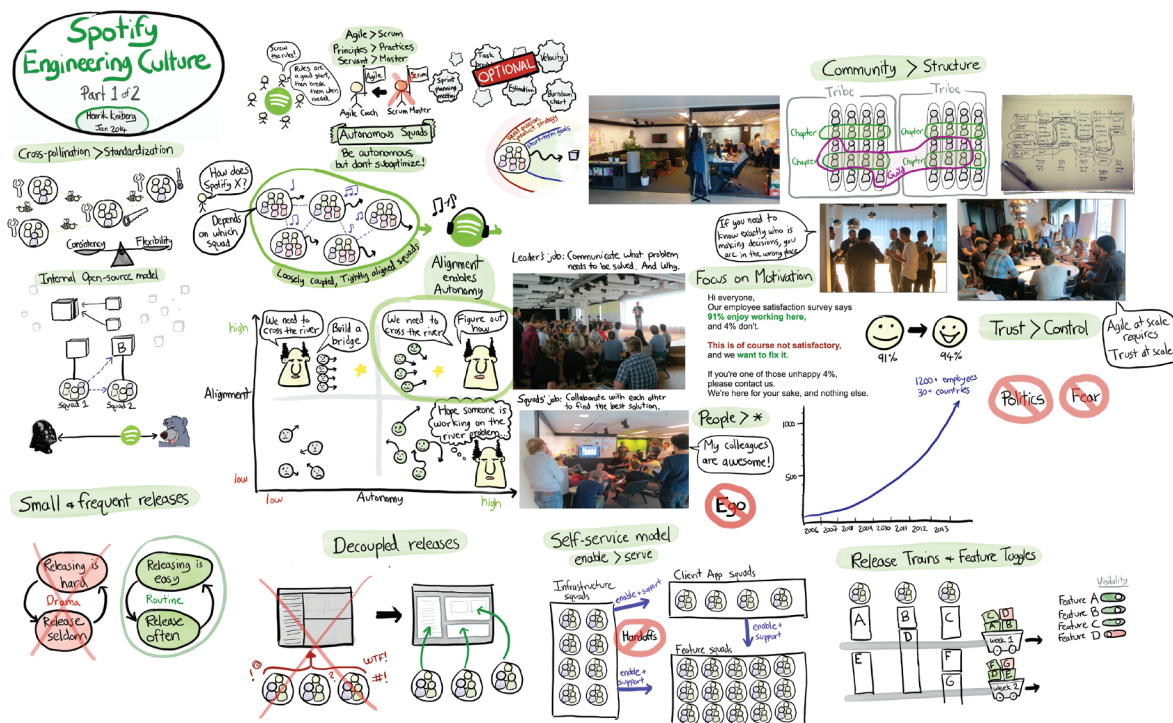
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