

Introduction

Over the last 6 years, OpenCredo has worked with many organisations, across many sectors. During this time OpenCredo's consultants have noticed a number of recurring problems that clients face, and have experienced first hand what happens when these are not dealt with quickly enough.

The Big 3

OpenCredo has identified 3 very common challenges faced by several large organisations. While these challenges are most common in large organisations, there is no lower limit on when an organisation can start experiencing them.

Old Skills And Old Tools

The problem that frequently brings organisations to us, is that of staff not having the right skills, or legacy systems and practices causing ever-growing problems, and making it hard to adapt to changing times. This manifests in low quality software, stale technology, slow release cycles, unaddressed technical debt, and the tendency to treat IT as a cost centre, rather than as an integral part of how the business will succeed.

Changes That Don't Last

Once engaged, OpenCredo's team of consultants are often tasked with finding out why employees are not open to change, why changes do not scale and why they don't last. Why doesn't management hear honest reports of the challenges encountered by new initiatives? Frequently, these questions come paired with resistance to new ways of doing things, teams dismissing what others are working on, with a tendency to say "We've always done it this way", and responsibility falling on individuals, when systemic failures are the likely culprit.

Siloed Organisations

Both of these problems frequently appear with another, less visible, non-technical challenge; we call this 'silo mentality'. Over time, as organisations grow, communication becomes more difficult, and people who haven't been taught the value of communication or the skills to communicate effectively end up in positions of responsibility. Without communications training, people tend to favour what's familiar to them; they focus on their teams, rather than the larger organisation. This difference in focus leads to conflicting goals between teams, which can be damaging to the organisation. This comes across as difficulty getting different teams to work on the same things, incompatible goals held by ostensibly related teams, and a feeling that people are pulling in separate directions, instead of working together to solve a common problem.

As far back as 1968, computer scientist Melvin Conway wrote, "Any organization that designs a system will inevitably produce a design whose structure is a copy of the organization's communication structure." A statement that still resonates today.

What Happens When These Problems Are Left Untreated?

In our experience, the above problems tend to be self-perpetuating, insidiously leading to a stale organisation.

Technical debt, for example, if not dealt with, quickly leads to frustration amongst engineers as more of their time is spent working around the code and less on new features. This frustration leads to the best engineers leaving before they lose their passion for engineering. The remaining engineers don't have the experience to tackle the technical debt and the vicious cycle continues. It must be noted that many 'total rewrites' stem from technical debt issues that were allowed to get out of control.

This story is similar within software delivery and testing. Ineffective testing practices increase the chance of failures during releases. When a release fails, sometimes spectacularly, the intuitive reaction is to 'protect' production which leads to teams releasing less frequently. Less frequent releases lead to more risk during the release, which results in staff from all over the organisation, from support to CTO, waiting on tenterhooks for releases to be completed. If left unchecked, each release becomes bigger and scarier, and extra process is frequently created around the release process to manage this risk with the result being more cumbersome releases, happening even less frequently. As the size of releases grows, the likelihood of there being a problem during a release increases, feeding back into a cycle of larger, less frequent releases.

The urge to 'protect production' is an example of silo mentality - one of the main causes of friction between development and operations departments. Development departments are incentivised on change: getting new features out. Operations departments are incentivised on stability: preventing damage to production, which often leads to reluctance to allow changes through. This can lead to a stalemate between the two departments which is beneficial to neither department - nor to the organisation.

An organisation with problems of this nature develops a reputation which makes it difficult to hire new staff. Word gets out, good engineers have no shortage of options, and companies that have a reputation for unpleasant code, stressful releases and an inability to work on exciting new technology are likely to find themselves only able to attract people with the same sort of experience they already have.

Light At The End Of The Tunnel

If any of the above seems 'close to home', don't worry. Over the last 6 years OpenCredo has developed a keen sense for spotting problems early and an ability to break the cycle once they occur.

The core of OpenCredo's approach is Lean - an iterative process geared toward generating results at regular intervals and using feedback loops to decide the next steps.

Lean is fundamentally about trying something and seeing if it works. By helping clients adopt lean methodologies OpenCredo make learning, experimentation, and dealing with failure an integral part of each project. The result is de-risking change, allowing it to become part of normal operations, which puts the organisation in a very good position to continuously adapt to a changing world.

It just so happens that this lean approach is also excellent for discovering and treating 'silo mentality'. Rather than hearing one side of the story, OpenCredo gets stakeholders from all silos together to identify their common problems, and create solutions that work for everybody. Common side effects of this approach are that the silos themselves are identified as being a major pain point, and the team's involvement in identifying solutions gets them more engaged in the process of improvement.

Of course, "trying something and seeing if it works" requires a definition of "something" and that's where OpenCredo's learning culture comes into play. Having seen technological challenges of all shapes and sizes our consultants are able to source the right technical solutions for the problem and constantly keep themselves abreast of new developments.

OpenCredo's approach is not to fix problems, but to help organisations to fix their own. On each project OpenCredo's consultants work collaboratively with the on-site team, transferring knowledge and experience, to make sure the team can continue to improve and deliver once we are gone.

In Summary

The Benefits Of Agile Transformation:

- An agile company can react more effectively to customer demands and changes
- Accelerates innovation within the organisation whilst building business value