Shift Left with Omni Sourcing

In the industry with the emergence of CI/CD there has been a lot of discussion around the idea of a "Shift Left."

Shift Left has a variety of definitions, each of which is based on a particular organization's perspective, so it is worth identifying a common definition to work from. One useful definition, cited frequently, considers Shift Left to be "moving the testing phase to an earlier stage in the process, i.e., development: the stage at which the developer is doing the coding and testing of the feature or functionality that they are working on. The "Left" refers to an earlier stage of a supply chain which moves from left to right.

While this definition of Shift Left is a reasonable in practice, it does have a major drawback: it doesn't account for all of the pre-development stages of work. In order for CI/CD work to truly function with the efficiency intended by its' design, quality must also shift as far to the left as possible. That is to say, quality must be built into all of the stages that occur before development, like Requirements, Design, Environments, Data etc. Since quality is more of an act of prevention than one of detection, all of these components have to operate like a well-oiled machine to support CI/CD and yield the benefits organizations are looking to achieve with CI/CD.

The overarching question of Shift Left is this: "how do I get started on this journey? How do I get into first gear - or whatever the first step of Shift Left really is?" The first step in the process is to build a clear picture of my process – to identify what my goals are, and how I am achieving them. Generally, this will begin with the clarification of a timeline towards delivering a project feature. There are many ways to approach this question of process identification. Typically, companies use a variety of metrics, or Key Progress Indicators (KPIs), that measure their organizations' performance. Some examples of common KPIs include timelines, project costs, defect generated, production outages, and many more.

At Omni Sourcing, we have found that all of these indicators can provide a good starting point on your Shift Left journey. We examine the defects generated during testing, issues reported in production, items reported by customers, and customers' explanations of their experience. Once an evaluation of these initial KPIs is complete, it is time to take the first step in addressing them.

First Gear

The first step in the process – is to determine a way to quantify the quality of the defects. This sounds like an oxymoron – what does it really mean? The idea of quantifying defect quality refers to the process of categorizing defects properly according to the root cause. Identifying the source of a problem is a crucial step in addressing it, and that, of course, is the ultimate goal of Shift Left. Most organizations have data in various tracking systems that can be extracted and analysed to determine the nature of the defect, and where it is likely to have taken place. Only after identifying these root causes does it become possible to address them.

After having solved whatever issue was causing the defect, it is essential to turn information about the defects and their causes into data that can be organized and analysed – this is the quantifying process. Isolate data points that can be organized in such a way as to align with an organization's SDLC process. Here is an example of what that data organization might look like.

Quantify the quality of the defects **Addressing the source of the defects** **Collect, organized and analysed the causes**

With that data having been organized, there now exists a quantified, concrete baseline for the health of your organization. Some people think that this is a fairly easy step to take – the reality is that for certain organizations, it can be, but it certainly is not automatic. Defects are naturally a sensitive point in any business structure and there can be a lot of passion invested in the process. Requirements, Development, and Testing teams have a stake in the outcome of root cause analysis and it is necessary to be aware of and to balance the various interests of all of these interested parties. Development teams are measured by quality, outsourced vendors are measured by KPIs, and business units by their overall cost to determine their effectiveness of delivery.

Shift Left cannot occur in a vacuum. It requires effort from every organizational element, and all parties need to participate and contribute to the process. At Omni Sourcing, we have helped companies make their Shift Left effort a reality, but the process is an ongoing effort that requires continual attention. To effectively drive quality in processes, products, and services, an organization must take a careful and considered approach to Shift Left. This has been a brief overview of what the process entails. If your organization is beginning its' journey of Shifting Left, Omni would be glad to guide you through the Shift Left journey, ultimately improving your overall quality and transforming the way you do business.