Defining and Designing an Effective Beta Test

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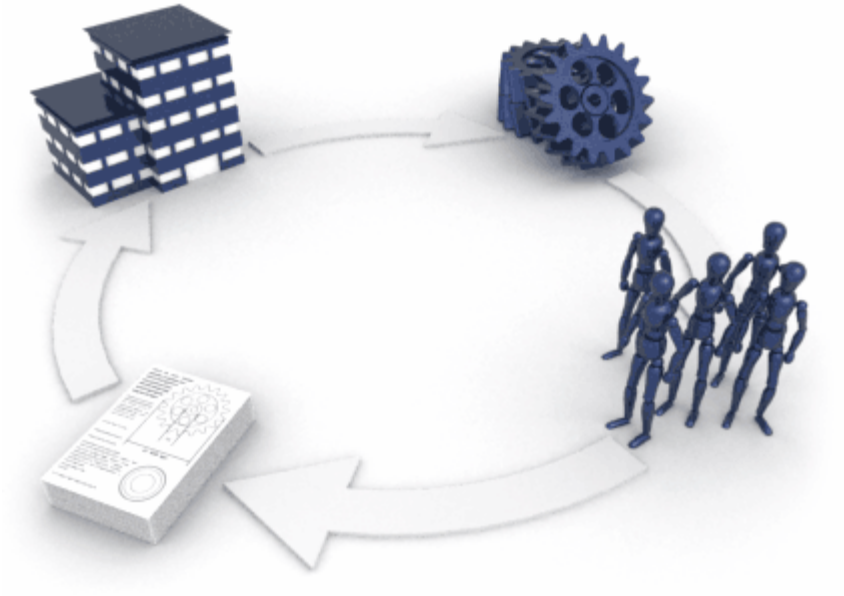
Introduction

Beta test is an elusive aspect of product development. Often, it exists within varied organizations and produces mixed results. Through the integration of a web based information system and effective communication, beta can become a valuable part of the product development process.



Definition of Beta

Beta test is often viewed as a "user test." While this is the essence of the definition, there is a wealth of information that can be gained from effective beta testing. Encompassing usability, functionality, compatibility and reliability testing, beta test provides a company with much more than a standard user perspective.

Beta testing is the managed distribution of a product to its target market; the gathering of feedback from that market; the evaluation of the feedback into manageable data forms; and the integration of the data into the organizations it affects.

Beta test adds value to a product because it allows the "real" customer an opportunity to provide input into the design, functionality, and usability of a company's products. This input is not only critical to the product being tested but is also an investment into future products when the gathered data is managed effectively.

Beta test is not a lab environment. Often, beta will discover issues that cannot be found or even duplicated in a test lab. The eclectic and diverse nature of the beta test participants often exploits limitations in products and tests the entire product development process.

Beta test pushes a company outside its "frame of reference." It keeps them in touch with the customer's needs and provides guidance in the design of a product. Beta test can help improve the understanding of the impact of issues, viability of concepts and assist in making important decisions about a product's future.

The data gathered from a properly run beta test can be instrumental to the success of a product. If understood, distributed and managed effectively, feedback gathered from this process can provide valuable data about everything that touches the product.

Utilization of Beta Test

There are many effective ways to use beta to ensure a successful product. When properly utilized, beta can provide a wealth of data for the entire organization. The following explores aspects of the testing and how it benefits different organizations within a typical corporate infrastructure.

The primary application of a beta test process is a development or engineering product design evaluation. Product is distributed to customers to prove concepts, ensure technical compatibility and test features. This application acts as a final phase of quality assurance testing and is focused on looking for anomalous behavior. In most cases, the product must pass certain functional criteria prior to entering and leaving the beta phase of testing.

Engineers and designers often focus the efforts of beta on ensuring that each product feature and the core functionality are performing as designed. In addition, they want to see that the product works well within the specified operating environment.

Within the engineering organization, each component of the product will have an owner and that owner will have specific interest in his or her piece. Beta can effectively test each aspect of the product and provide specific data to each owner.

Beta is also used in a similar capacity by the marketing organization. Gathering useful customer feedback provides “proof of concept” data. However, this data is used to compare to market research rather than technical specifications. In addition, customers review materials owned by the marketing organization such as manuals, packaging, features and sometimes product materials.

Marketing, typically the driving force behind a product, will also attempt to gather customer opinions and material suitable for promotion of the product. Beta provides this data in many different forms. Often quotations about the product, comparative data to similar products or test participants act as customer referrals.

The customer support organization also has a vested interest in the performance of a beta test. As the only time the customer sees the product prior to its release, beta can provide support with much valuable data. It points out potential support issues, provides a customer's input into the design and allows customer support to be more effectively prepared for the product when it enters the marketplace.

Customer support will often use the beta test period to test their infrastructure. Offering support to the test participants, support will ensure its staff understands the test product and that it has sufficient resources to support the product.

On a general level, beta can also be utilized to promote or terminate a product depending on the focus. Nothing is more invigorating to a development team than to hear that the first customers to look at their product have positive things to say about it. In the same instance, nothing is more effective for stopping a potential product risk than customer data showing negative feedback.

Effective Beta Introduction

No other organization within a company has as vast a scope than the beta test team. They are expected to effectively test all aspects of the product to ensure that is ready for the real world.

Typically, beta test is the last test prior to release. It is the "acid test" of a product. Thus, it is watched closely to ensure that there are no serious risk items. However, it is easy to let the pressure of a release schedule diminish the effectiveness of the beta test. Therefore, managing the beta effectively starts with ensuring the product is ready for this test.

Products that have undergone a majority of internal preparatory testing and have been properly submitted to all government and safety organizations are usually ready for the beta phase of testing. Confidence in the product should be high among all parties involved with the development.

If a product seems ready for test, a plan that maps out the scope and design of the test should be written. The beta test plan covers items such as the number of test participants, duration of the test, specific items to test, participant profiles and details of the test process.

A properly written plan will ensure that the test covers the needs of all involved parties while limiting the scope of the test. It is very easy to let beta encompass more than can be handled in a single test. The plan provides focus and objectives to ensure success.

The team managing the beta test should be involved with the product development team from late development to pre-beta phases. It is critical that the beta team have a comprehensive understanding of the product. In addition, this involvement will help in the development of the plan materials.

Proper Beta Preparation

Once it is determined when the test will begin, the beta test team needs to take the plan and build the test around it. From selection of participants to procuring the proper materials for the test, early and detailed preparation is key for a test to be effective.

Selection of testers needs to be done as close to the test time as possible. Potential candidates need to be identified but should not be notified. As product development timelines are constantly shifting, notification too early will only frustrate potential test candidates.

Samples that will be used in the test should be acquired as early as possible. Often, as release grows closer, materials for test will typically be consumed for other purposes. It is important to understand that this is not because beta is not valued but other priorities become critical as release approaches.

Another item of early concern will be the variety of legal documentation that needs completion prior to test. From non-disclosure agreements for the test participants to laws governing the distribution of different

products, it is important to understand all the legal issues of beta prior to beginning the test.

Last, it makes sense to designate a primary contact for the test period. Someone should be assigned to ensure that all these preparatory materials are gathered and properly distributed to the test participants.

Effective Data Gathering Tools

The Internet provides the single greatest communication tool to manage beta tests. A web-based infrastructure is the most effective way to achieve the best results. Test participants have continuous access to test materials; online forms provide an efficient tool for gathering test data; and, most important, the Internet allows all team members to work with the same tools.

All communication during the test phase should be done electronically. This provides a way to document the correspondence and gather tangible data on the test participant's activity. In addition, a telephone call or fax limits the amount of manageable data. Both consume valuable communication time and are difficult to document and track.

Utilizing e-mail and an online system will allow more results with fewer people to manage the test. These tools are more successful for properly passing data along to development members.

Using Beta Data Efficiently

Data gathered from the beta test process has a wide impact on a product in development. Thus, it makes sense to ensure that is efficiently distributed to parties responsible for the respective information. Qualifying data when it arrives is a critical part of this process.

Not all data gathered in a beta is of a technical nature and it is helpful if representatives of each component of the product have involvement in this process. Whether it is reviewing, supporting or responding to the submitted cases, these people usually "own" his or her component.

The most effective manner for doing this is by allowing team members to actively participate in the test or to put data in an easily accessible format. Once again, using a web-based infrastructure is the simplest way to enable team participation with the least amount of labor.

Providing data on a web server in a format that is easy to read and access will improve participation by the development team. However, there will always be people who do not take the time to look at the data. Therefore, it is important to qualify the data as it arrives.

Data that has potential impact on the product's success should be distributed immediately in order to ensure priority attention. Data that has limited impact but is obviously a concern should follow in priority. Last, unverifiable, inaccurate or indicative data should be made accessible to the team but not emphasized.

When data is effectively qualified, teams are more likely to be responsive to the material gathered during the beta test. It is easy for people to become unresponsive when there is too much or too little information. Successful tests manage the data internally and externally to ensure both generate the most results possible.

Parameters and Performance

Tests are successful when expectations of beta are clearly understood prior to entering the testing phase. Managing test participants is similar to managing the data. Parameters need to be established and users need to be qualified. Excellent testers need to be reward for their performance and poor testers need to be removed from the test.

One of the most complex and difficult tasks of administrating a beta test is producing test results. It is difficult because while these people are testers, volunteering to actively participate in a beta test, they are also your customers. Establishing test parameters can handle much of this difficulty.

Establish clear and definitive goals early into the test. Let the participants ask questions about these goals and make certain they all understand what their role is in the test. Provide these parameters in a written form (preferably online) so they can be referred to during the test.

Defining these parameters is often challenging. Making them too rigid will generally cause too much focus and less data. Making them too loose opens up areas that the test is not concerned about. A well-managed balance will generate the necessary feedback.

Test participants who meet the parameters stipulated in the test need to be provided a reward or incentive for their work. This can be in the form of the test product itself or some other tangible item. It may seem ostensible that rewards will be granted at the end of the test. Do not take that for granted.

Participants need to understand that their effort will be rewarded. It is important to be clear and define what they will receive. Arbitrarily awarded gifts or products rarely meet the expectations of the participant. Clarify the expectation and let them decide if they want to participate.

Closing Test

Beta must be an efficient operation to be profitable. As silly as it sounds, it must have a clear beginning and end. Very often, revisions, schedule changes, product changes push out end dates of tests, leaving participants apathetic about the tested product and the company.

Motivated test participants need to understand early on that the test has a limited period for activity and that their attention needs to be focused on this period. If no period for closure is defined, test procrastinators might miss a crucial development window, enthusiastic participants will burn out and normal testers will be left confused.

Establishing the closure time to testers should be a priority. If the date shifts due to unforeseen circumstances, test participants should be the first people notified of the change.

Conclusion

Beta test can produce valuable information when efficiently managed. Using the latest in web based communication tools, data can be effectively gathered, reviewed and distributed with the greatest results.

Managing data and testers efficiently is a critical step in this process. With involvement from the entire development team, beta can produce better quality products.