Vensoft Inc.

Off-Shore Quality Assurance Services

VenSoft | VAssure | Virtualization Labs | Offshore QA

Off-Shore Quality Assurance Services

Introduction

Virtual infrastructure simplifies IT, so companies leverage their storage, network, and computing resources to control costs and respond faster. The VMware virtual infrastructure approach to IT management creates virtual services out of the physical IT infrastructure, enabling administrators to allocate these virtual resources quickly to the business units that need them most.

Hardware management is completely separated from software management, and hardware equipment can be treated as a single pool of processing, storage and networking power to be allocated and de-allocated on the fly to various software services.

In a virtual infrastructure, users see resources as if they were dedicated to them while the administrator manages and optimizes resources globally across the enterprise.

The virtual infrastructure architecture enables businesses to lower IT costs through increased efficiency, flexibility and responsiveness. Managing a virtual infrastructure allows IT to quickly connect and manage resources to business needs.

VMware ESX Server incorporates a resource manager and a service console that provides bootstrapping, management and other services.
The design of the ESX Server core architecture implements the abstractions that allow hardware resources to be allocated to multiple workloads in fully isolated environments.

The key elements of the system's design are:

- The VMware virtualization layer, which provides the idealized hardware environment and virtualization of underlying physical resources
- The resource manager, which enables the partitioning and guaranteed delivery of CPU, memory, network bandwidth and disk bandwidth to each virtual machine

The hardware interface components, including device drivers, which enable hardware-specific service delivery while hiding hardware differences from other parts of the system.

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ESX Server is virtual infrastructure software for partitioning, consolidating, managing server in mission-critical environments. ESX Server minimizes the total cost of ownership of computing infrastructure by increasing resource utilization and its hardware-independent virtual machines are encapsulated in easy to manage files maximize administration flexibility

VMware ESX Server and VAssure Virtualization Labs will significantly reduce the problems and cost in Infrastructure Management Services, Storage, Server Consolidation and Testing

Infrastructure:

Team has dynamically mapped resources to the business and created Virtual Infrastructure to provide services

One two-processor Xeon server has been configured with ESX Server. The Company's SAN infrastructure is configured to support ESX Server with NIC & Fibre Channel (FC) technology; ESX server is configured to access LUNs (Logical Unit Numbers)*

ESX Server is managed by a direct login via telnet to a service console. The physical hardware of the server is pooled and shared by the ESX Server OS i.e. one or more virtual machines (VMs). Each VM operates as an independent entity running a single instance of a guest OS. Hardware is managed and shared by ESX Server. Hardware such as Network Adapters (NICs) may be dedicated to specific VM or /and shared among various VMs via logical Ethernet switch mechanism. Memory is shared depending on the virtual infrastructure environment.

Another two-processor system with VMware ESX Server is connected to SAN in the secondary data center and configured for recovery mode. VMware SAN volumes and Production Server volumes are mirrored to the secondary data center. In the event of disaster striking the primary data center, applications running on VMware can be recovered / restarted from the second location. VMware Virtual Center can be used to migrate a virtual machine from one VMware ESX host to another while the server is live. This facilitates maintenance or other administrative needs while minimizing application disruptions

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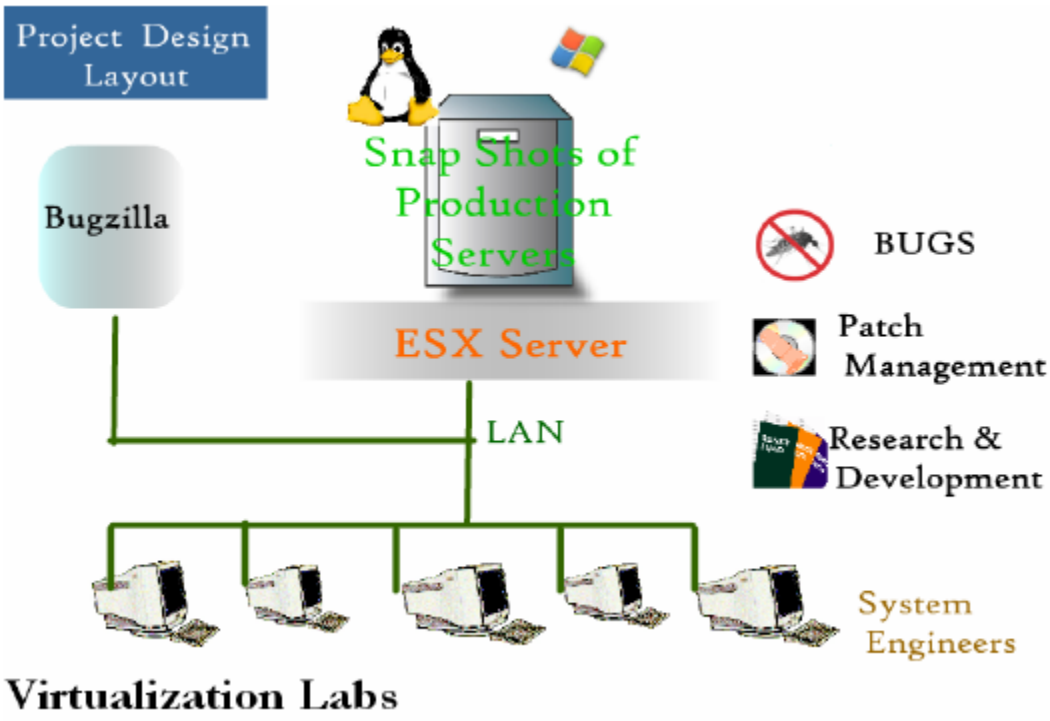

Configuring and Working:

Production Server running on ESX Server is provided a dedicated hardware. VMware facilitates usage hardware sharing between ESX Server and Virtual Machines through a two-layered model. The lower layer executes with in the ESX Server kernel and establishes connection directly with the physical hardware. The ESX Server then provides a virtual device interface for physical hardware. To the next layer, VM makes the virtual hardware visible to the guest operating system running inside the virtual machine, the guest operating system treats the virtualized hardware as a single physical existence

At the guest operating system level, all SAN storage that is managed by the ESX server is connected to a virtual LSI-logic adapter. From the perspective of the guest OS, the storage is treated as local disk.

The underlying technology of Snapshot will make it possible to replicate the data from LUNs / Production Server. In the event of ESX crashing Snapshot enables disaster recovery architectures to be realized for ESX Server scenarios. Once the

LUNs is brought online at the Virtualization Lab Consoles, a new VM can be built on ESX using existing virtual disks

Specific Production Server will be interacting with the respective development center; Writable Snapshot technology will enable replication of testing scenario at production server to the local systems (Virtualization Lab Consoles used by System Engineers) via LAN. Scenario will be put through QA process of combination: VMware Environment for Configurations-specific Testing Tools as applicable – Web enabled Defect Tracking System Bugzilla. The bug is fixed and snapshot is restored back Snapshot technology operations.

This document describes the QA methodology involved in VAssure.

Offshore Software Testing (QA) Services

QA – Methodology

The expertise that we provide, both through our quality assurance consultancy services and our testing tools, is based on two prominent sources of pragmatic, high-quality, state-of-the-art know-how:

- Globally accepted and researched best practices and consolidation frameworks, and internally envisioned and developed world-class assets.

Our methodology research function is a key factor in enabling this double foundation. By combining intensive internal research and a continuously updated wide-angle view of the global testing and quality assurance community, our methodology research team is building a theoretical and pragmatic know-how platform that enables us to bring on a Software Quality Revolution.

The QA services offered by VenSoft are designed to address the challenges faced in software testing field and cover all phases of Quality Assurance activities for the successful testing and release of the software product. We provide total quality assurance program support to our clients encompassing all of the following areas:

- Requirements Analysis
- Program Development
- Implementation
- Evaluation and Assessment

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Requirements Analysis

- Evaluating all requirements documents applicable to the client's organization or operation, determining which requirements apply and to what degree they apply, and recommending how clients can best implement those requirements within their own management framework.
- Summarizing existing client testing procedures and mapping them to the controlling directives and orders in a Required Implementation Matrix to illustrate their degree of compliance.
- Recommending what new testing system controls and implementing procedures are needed.
- Requirement Traceability Matrix ix prepared, which includes the business requirements, system requirements and tests to be performed.

Program Development

- Determining quality assurance requirements applicable to the particular operation.
- Evaluating existing quality achieving and quality assuring activities.
- Preparing quality assurance plans or program descriptions to integrate requirements with existing controls.
- Determining the need for new and/or revised quality assurance procedures and assisting in preparing them.
- Establishing a graded testing approach, where appropriate, to apply more extensive controls to high-risk activities.

Implementation

- Implementing quality assurance programs in accordance with applicable standards.
- Providing testing implementation documents such as:

a. Quality assurance program descriptions, plans, and procedures
b. Testing evaluation and assessment plans
c. Testing Schedules

- Each test phase identified in the master test plan is accomplished in accordance with the applicable test plan.
- Testing in a given phase does not begin until established entry criteria are met.

- System test and subsequent test phases are conducted in a production-like or production-level environment as appropriate.
- Testing is performed on the appropriate version of the software in accordance with version control procedures.
- The project/application-approved promotion model is followed for testing.
- Problems found in testing are documented in a test problem report.
- Problem fixes undergo the same testing as the software in which the problem was found.

Evaluation and Assessment

Identifying testing requirements, developing testing schedules, assisting in testing

- Evaluations independently or as a team, documenting and analyzing testing results, evaluating and tracking corrective actions, analyzing quality trends and developing program improvement plans.
- Conducting quality assurance assessments, audits, surveillances, reviews, appraisals, and procurement surveys.
- Assisting in managing and coordinating corrective action programs in response to testing evaluations and assessments.

Quality Assurance

Quality assurance (QA) emphasizes the prevention of defects and the addition of quality throughout the software development lifecycle. Our Quality Assurance services are provided onsite, offshore or a combination of both, based on customer's requirements. We provide integrated Quality Assurance solutions that include Test Strategy, Test Automation and Test Execution. The following is a short list of quality assurance principles:

- Test and QA activities start early in the software development life cycle.
- Quality is built into the solution: "Do it right the first time."
- Each step or phase is validated before moving ahead to the next step or phase.
- Repeatable processes are established and used by all like projects.
- Processes are continuously reviewed and improved.

Off-Shore Quality Assurance Services

Quality Assurance Services

While we offer a comprehensive range of Quality Assurance testing services, we also provide our customers the flexibility of choosing testing services that best suite their needs. For instance, testing services such as performance tests, regression tests, and stress tests are particularly useful before deployment of an application for a production run. On the other hand, testing services such as functionality tests, and integration tests help ensure the building of better quality software. Our various

Quality Assurance Testing services include:

1. Integration/Systems Testing
2. User Acceptance Testing
3. Performance Testing
4. Automation Testing
5. Regression Test Suite creation and automation
6. Product Assurance and on-going Release Testing
7. Security Testing
8. Compatibility Testing
9. Configuration Testing
10. Accessibility Testing
11. Performance and Load Testing
12. Usability Review

Outsourcing Testing Services

If you are looking for cost-effective Quality Assurance with a variable QA resource pool from less than one full-time resource to many, you may want to consider our Outsourcing testing solution.

VenSoft can provide a full software testing solution from test plan development to execution. We will analyze your current testing processes and help improve your efficiency all while blending seamlessly into your organization.

Whether you need a full-service testing outsource solution to accomplish your entire quality assurance needs, or variable costs resources to help with cyclical requirements, VenSoft is the perfect quality assurance solution.

Off-Shore Quality Assurance Services

Using our risk-based approach to Quality Assurance we will help you set up a process to apply the appropriate level of QA to your projects. We will manage your QA backlog and provide you with the QA Management and targeted resources you need for your projects, when you need them. All of this means that you save money by paying for resources only when you need them, and you improve quality by having the right skills for each task.

Testing Services/Test Methods

Integration Testing
User Acceptance Testing
Performance Testing
Automation Testing
Regression Test Suite creation and automation
Product Assurance and on-going Release Testing
Security Testing
Compatibility Testing
Configuration Testing
Accessibility Testing
Load Testing
Usability Review

Testing Deliverables

The ultimate deliverable from any testing effort is software that has fewer bugs than before the testing. In order to understand the value of specific testing activities for use in planning necessary revisions to the software, additional details should be provided in the form of:

- Test Logs
- Test matrix
- Incident Reports
- Summary Report

1. Integration Testing

Integration testing consists of building the software solution by iteratively adding program units and then testing the larger system to ensure that the implemented software matches the defined requirements. The objective of these tests is to determine if all the components of the system function properly together. Both the QA/Test and development teams are responsible for performing integration tests.

The testing methods used to validate the integrated software solution are the same as the predefined unit testing methods. These methods are input range, positive, negative, and boundary value, and performance tests. Refer to the Unit Testing Methods section of this document for further details.

In Integration Testing, using base-lined specification documents and associated project records, we create the test scenarios, test conditions, test cases, test scripts and test data guidelines required to ensure full coverage of the functionality of the application. This is followed by efficient test execution using simulated data in a controlled test environment. Defect management and pre-determined test start/exit criteria ensure test completion within the stipulated time frames.

2. User Acceptance Testing

Acceptance testing verifies the application conforms to functional and programming specifications in “live” configuration environments.

Our domain knowledge has led us to work with client’s right from the Requirement Definition stage and to effectively participate and manage the user acceptance testing process. Starting with the Business Requirements document, the Black Box approach is utilized to produce full-coverage end-to-end business scenarios to uncover critical defects.

The functional test cases can be used to develop the acceptance test plan. All or a portion of the workflow scenarios may be included for the user community or representative user to execute. Acceptance criteria for the success of this phase must be either quantitatively or specifically defined. Wherever required, test beds are created using in-house tools to simulate large volumes of data. The entire user acceptance testing approach is from the business user perspective to ensure the system satisfies user requirements.

3. Performance Testing

The purpose of performance testing is to measure the application under load conditions. Another name for performance test is capacity test. The performance requirements and objectives are quantitatively defined in the Business Requirements Document. These quantitative expectations are measured during the test effort. Performance is usually defined in terms of throughput, response time, and availability. Performance testing often incorporates parts of stress testing; therefore, they are combined in this test phase.

The core process involves laying down criterion for validations and measurements that enhance the application's performance. The criterion is arrived after a thorough understanding of system requirements and end-user experience.

Performance tests can be done manually or simulated using performance and stress testing tools. Manual type of test requires that:

1. representative test scripts be developed for each user to follow,
2. all users are trained on how to follow the test scripts,
3. all efforts are synchronized during the test interval, and
4. The terminals and network connections are available to support the test.

Automated performance testing tools simulate the load on the system being tested eliminating the necessity of employing dozens of users and obtaining the required equipment. These tools gather performance results, analyze them and provide statistics of these results. They can also predict potential bottlenecks, based on the performance analysis.

At VenSoft, the process of performance testing follows a methodology that was developed based on our experience and expertise. The methodology uses world-class tools to ensure we spot bugs and the issues that are not apparent in normal real-time situations.

4. Automation Testing

At VenSoft, we've implemented numerous successful automated test systems at many companies, from e-commerce web to clients/server database applications and from financial & mission-critical to multimedia & networked applications. Automation Testing can evaluate your product, determine the feasibility of automating test types and feature areas, and make recommendations regarding the scope of the effort. We can help you decide:

- Is automation needed and justified for this product?
- Which parts of the product can be automated?
- Which parts of the product should be automated?
- How much time and money will be necessary?
- What should the overall automation strategy be?

5. Regression Test Suite creation and automation

Regression testing verifies new versions of the software have not adversely affected previous working functionality and that known problems that were fixed have not resurfaced. Regression testing occurs throughout the entire software development lifecycle. Anytime a change is made to the application the area the change was made in must be tested as well as any other areas or interfaces that may also be affected.

Regression Testing ensures proper behavior of your application, including navigation; data entry, processing, and retrieval after fixes or modifications have been applied to the software or its environment.

Regression testing is the most labor-intensive part of software testing; therefore, an automated tool is used. The module dependencies are also captured and documented to ensure that the correct modules are tested when a dependent module is changed. This improves the effectiveness of regression and integration testing.

We build Regression Test suites that are executed while testing the enhancements to ensure that the change in code does not change existing functionality. Regression test suites could be executed manually or with the help of an automated tool. It helps our clients to reduce overall maintenance testing costs and timelines.

6. Product Assurance and on-going Release Testing

We have engaged with Product Companies to maintain and continuously run comprehensive test suites to ensure that every product release is defect free and complies with stated features and requirements.

7. Security Testing

Security testing determines how well your system protects against unauthorized internal or external access or willful damage.
Security testing tests the application against unauthorized internal or external access, willful damage, etc. Usually, the tester of an application or a system ensures that the application or system being tested is doing what it is supposed to do. To ensure that security testing done at VenSoft is adequate, effective, and fool-proof, we adopt sophisticated testing techniques. This technique involves giving constantly invalid inputs and corrupted data, checking for buffer overflows during runtime, etc. While testing, we also keep in mind the usability aspect so that implementation of security does not restrict flexibility, which may irk the end user.

8. Compatibility Testing

Compatibility Testing evaluates how well your software performs in a particular hardware, software, operating system, browser, or network environment.
VenSoft Quality assurance services can provide an organization with a cost-effective means to validate an application's functional performance on a wide range of platforms. Our experienced engineers and consultants test web applications, client/server applications, and wireless applications against a variety of databases, servers, operating systems, browsers and hardware/software configurations.

We can execute entire functional and regression test cases set against the configurations chosen by the client or select a subset of key functionality that is to be checked against a host of other configurations.

9. Configuration Testing

Configuration management is a discipline that ensures the integrity of all components involved in designing, developing, testing, deploying, and maintaining any system. Configuration testing encompasses testing various system configurations to assess the requirements and resources needed. We check whether your site has the proper look and feel on all supported browsers and operating systems and do all the user interface controls and plug-ins function correctly on all configurations.

We can execute test case set against the configurations chosen by the client or select a subset of key functionality that is to be checked against a host of other configurations. Testing activities are buttressed with detailed reports, which reflect our testing results and observations of the application's behavior under various conditions, configurations and platform combinations.

Our configuration management strategy focuses on three CM disciplines:

- ♣ Version and build management - Version management manages the integrity of the items that have been logged as being under version control by the configuration management system. These items can be source, binaries, user documentation, requirements, specifications, etc
- ♣ Release management - Processes need to be established to assist in the determination of which software build should be flagged as the release candidate, processes for concurrent development of subsequent phases, and appropriate tagging methods of which build is the release build in the CMS.
- ♣ Change management - Changes to software or documentation need to be controlled by a change management process. The purpose of change management is to minimize the impact a change will have on current development and ensure changes are made in an orderly fashion.

A standard CM solution provides many benefits such as:

- ♣Improve the complete software development and maintenance cycle.
- ♣ Make testing and QA easier
- ♣ Remove error-prone steps from product release management.
- ♣ Provide traceability of related components.
- ♣ Automate the CM processes and procedures.
- ♣ Improve change management and problem tracking challenges.

10. Accessibility Testing

Did you know that 20% of the population is considered disabled? Did you know that the government requires that all electronic and information technologies used by Federal agencies be accessible to all people, including those with disabilities?

Physical disabilities, such as mobility barriers, are usually easy to recognize. It's the other disabilities, such as language and literacy impairments, that often go unrecognized. People working in these constricted environments need to access technology in a different fashion we can help you to determine what special accessibility options are needed in your design and/or assess the effectiveness of existing options. No matter what constraints your customers operate under, we can help you to ensure their comfort, productivity, and enjoyment of your product.

11. Load testing

With the help of load testing, it's possible to determine how effectively your Web site or application will accommodate an increasing user load.

Load testing is an essential, but often neglected part of the development cycle. By modeling and simulating real-life demands, critical performance and scalability issues can be identified and eliminated. Without a load testing analysis, there's no way of knowing what might happen when your Web site or application has to function under a heavy load.

VenSoft removes the guesswork from your process, helping you predict system behavior and performance by:

- Exposing Bottlenecks Early On
- Accelerating Product Deployment
- Maximizing Productivity
- Pinpointing Scalability & Performance Concerns
- Comprehensive management reports and metrics will help clarify problems and keep the testing progress out in the open.

12. Usability Review

We provide a range of corporate web site-, portal web site- and web application usability tests for all types of software products. We have access to users, user groups and usability research expertise that can be brought into our in-house laboratory for close examination of actual user behavior to engineer the user. Each usability and testing technique is tailored to the particular stage in the development process and the kind of feedback required. Our usability test equipment is flexible enough to provide access to even the most difficult-to-reach users.

We take a look at your site and make recommendations for improving usability based on:
• who uses your site or application
• what these people are trying to accomplish
• how many steps must be successfully completed to accomplish each task
• how easy these steps are to complete

By breaking down the tasks that users must complete to experience success on your website, we can identify likely problem areas, and offer solutions that are appropriate for your budget.

Project Management and Planning

- **Requirements Evaluation**
- **Risk Assessment**
- **Lab Setup**
- **Defect Tracking System Setup**
- **Test Plan Creation**
- **Test Case Creation**
- **Checklist**
- **Project Management**
- **Defect Management**
- **Team Management and Staffing**
- **Project Reporting**
- **QA & Testing Metrics**

1. Requirements Evaluation

It’s the phase of testing where we outline the system test suite. A test suite document is an organized table of contents for your test cases: it simply lists the names of all test cases that you intend to write. The suite can be organized in several ways. For example, you can list all the system components, and then list test cases under each. Or, you could list major product features, and then list test cases for each of those.

We make sure that we have agreement on the requirements for test automation. We'll have test requirements, which will describe what needs to be tested. These will be detailed in our test designs. And we will have automation requirements, which will describe the goals for automation.

2. Risk Assessment

Risk assessment validates that your project will succeed. Software development experts evaluate and test the software-based technical and business risks as they relate to your business, market, and service plans. The significant risks are identified and detailed in comprehensive Risk Event Descriptions. You are also provided with a quantification of each risk’s impact on cost, revenue, and schedule.

Features of Risk Based Testing
1. Using a risk analysis to plan testing
2. Quality criteria
3. Risk catalogs
4. Risk based release decisions
5. When to use alternate methods to mitigate risk

3. Lab Setup

Our testing labs are equipped to meet a tremendous range of testing requirements. Our QA Engineering teams have tested everything from medical devices to advanced imaging solutions to high-profile Web sites. We maintain extremely high technical testing standards, while continuously evolving to meet customer specifications.

4. Defect Tracking System Setup

At VenSoft, we follow detailed testing metrics deployed for the entire project cycle. From defect tracking to testing progress, our clients have complete visibility into all of our projects.

Our tracking system provides insight into all project defects in real time via a Web-based interface. Our customers have the option to select how they want the interface to look. The net result is a testing system that is tailor-made specifically for each project.

5. Test Plan Creation

Creation of Test Plan includes planning the testing activities. During the creation of the test plan the following items will be considered as top priority:

- Creating a test plan that provides strong methodology to specifically verify that the criteria defined are met.
- A master test plan which addresses the test phases approved for the project/application is documented, reviewed and approved.
- Test Plans for each testing phase identified in the master test plan are documented, reviewed and approved.
- Test cases and expected results are documented and verified for each test phase
- Creating a test plan that will allow clear and precise results to be delivered showing how criteria has been met, or what improvements need to be made to meet the criteria.
- Creating a test plan that is as easy to understand as possible.
- Creating a test plan that shows that the product works as advertised
- Where possible, include in the designing of the test plan, test cases that validate customer performance, scalability, and functionality claims for the product as part of the Subjective Criteria.

6. Test Case Creation

Challenging circumstances, short project life cycle, and incomplete product specifications? Our staff is experienced and trained to design and develop test cases in complex circumstances. Our staff will develop test cases in a structured and clear format. The test cases are used to confirm your software operates as expected for new and existing software development projects. We implement your test cases test cases that validate customer performance, scalability, and functionality claims for the product.

7. Checklist

This checklist provides a mechanism for verifying that the Business Requirements comply with the Requirements Management process. The checklist is to be used by a Quality Reviewer as part of the project's SQA activities, and/or by other members of the project team while developing the requirements.

The various Requirements Management Process Elements include:

- **Elicitation**
  - Were all stakeholders identified?
  - Were candidate requirements captured via surveying, brainstorming, joint requirements definition and/or interviewing?
- **Analysis**
  - Were the requirements decomposed?
  - Did the requirements have quality attributes (e.g. completeness, necessity, consistency, feasibility and verifiability)?
  - Were the requirements traceable?
  - Was the rationale for any decisions captured?
- **Documentation**
  - Were formal requirements documents developed?
  - Was the supporting information documented?
- **Verification**
  - Were the requirements inspected for quality attributes?
  - Were inconsistencies among the requirements identified and corrected?
  - Were redundant requirements identified and corrected?
  - Did the stakeholders verify that the documentation accurately represents their needs?

- **Approval**

  Were the requirements documents approved by the stakeholders?
  Were the requirements documents baseline and placed under version control?
  Was approval to proceed from the Project Sponsor obtained?

8. Project Management

Project management is one of the critical factors in a testing project. Our management team, together with an on-site Project Manager, will strategically plan your testing effort and manage the day-to-day tactical implementation of your testing effort.

The management of the project in testing phase should be based upon a tried and true testing methodology. We will develop a testing Methodology that will suit your organization. We will engage an experienced test manager, who can guide and supervise your test team effectively.

9**. Defect Management**

Defects should be logged in a defect management tool. Information included in each defect entry is at least:
Steps to recreate the problem

- Configuration the problem was found in
- Configuration the problem was found in
- Function/module the problem was found in
- Severity of problem

Severity Classifications - Defects will be fixed based on severity. Those defects entered as Severity 1 (System Crashes) or Severity 2 (Major Problem) will be corrected prior to the application being deployed. Severity 3 (Minor Problem) and Severity 4 (Enhancement) will be corrected based on criticality as collectively defined by the QA/Test lead, team lead, and project manager.

Status Classifications - Status codes will be assigned to a defect to define where in the life cycle the defect resides. The status code will change as the defect progresses through the life cycle from the initial entry to resolution. The status is entered as New, Investigation, Development, Duplicate, Not Reproducible,

Deferred, Works as designed, Verify, System Test-QA and Closed.

10. Team Management and Staffing

VenSoft has access to a number of resources with varying levels of experience in the testing field. Our qualified staff has experience with the following:

- Test Case Creation
- Manual Test Execution
- Automated Functional Test Creation and Execution
- Automated Load Test Creation and Execution
- Test Management

Unlike most staffing companies, we verify that the resources we provide to our clients have the skills necessary to satisfy their needs. We don't send resources in hopes that someone may fit the skills that are required.

11. Project Reporting

Our testing metrics provide complete coverage of the testing process from beginning to end. Not only can the testing progress be monitored through the daily charts, but specific test data driving the chart may be tracked as well. Main reporting activities include:

- Actual results are documented, compared against the expected results, and approved as appropriate.
- A report summarizing the results of testing is documented, reviewed, and approved.
- Test problem reports are tracked to closure.

So if you would like to know what is going on during your next Software Quality Assurance project, choose us as your partner.

12. QA & Testing Metrics

Test Automation is an ideal solution for many projects. When selecting an automated test tool, there are certain things you need to know and take into consideration. Let us help you with your evaluation and selection, and increase your chances of success.
Our Test Automation Experts are experienced in writing, implementing, and

executing automated test scripts. Don't leave a test tool on the shelf; let VenSoft help you with all aspects of your testing metrics implementation.

Throughout the process of quality assurance program development and implementation, we obtain and encourage full participation from client's operating personnel and management. Our quality assurance approach fosters team building, which results in increased quality awareness and assures our client's ultimate success.

Diagram below shows the typical testing framework model used in our testing projects with three processes: Planning (Requirement Analysis), Execution (Development and Implementation) and Improvement (Evaluation) and their respective process milestones.

Step 1 Planning	Step2 Execution	Step3 Reporting
Identify the tests to be conducted for the projects	Preparing the test environment	Document Issues found
Identify the tools to be utilized during testing	Execute test cases/Scripts	Provide clients daily, weekly and end of test cycle reports
Design Project Inception Checklist	Identify issues following test cases and logical thinking	Discuss through conference calls (if needed)
Create Test plan	Investigate the bug found until its impact is fully understood	
Create Detailed Test Cases/Scripts	Perform Fix Validation process	
Create Test Data		
QA/Testing		

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VenSoft promises a compelling experience that will generate new and greater revenue opportunities, increasing customer loyalty and hence gaining competitive advantages for your organization.