Global Technology Infrastructure Qualification SOP

Industry: Information Technology (IT)

Audience: Information Technology (IT)

Global Technology Infrastructure Qualification Standard Operating Procedure

Document Control

- Document ID: SOP-20260227-1706
- Version: 1.0
- Effective Date: 2026-02-27
- Industry: Information Technology (IT)
- Target Audience: Information Technology (IT)

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Purpose and Scope

Purpose and Scope

The Global Technology Infrastructure Qualification SOP aims to ensure that all IT infrastructure is properly qualified and validated to meet the required standards and regulations. This SOP outlines the procedures for qualifying IT infrastructure, including development of test scripts, obtaining approvals, and conducting testing.

Step-by-Step Procedure

- Method: Use a template to create the IQP document, ensuring it includes all necessary details, such as test scripts, timelines, and responsible personnel.
- Acceptance Criteria: The IQP document should be complete, accurate, and approved by relevant stakeholders.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure all personnel involved in the qualification process have the necessary training and expertise to perform their tasks safely and effectively.

1 **Define Infrastructure Qualification Plan (IQP)**: Develop an IQP document that outlines the scope, approach, and timeline for infrastructure qualification. The IQP should be based on the As Built document and include test scripts for all components and configurations.

- Method: Submit the IQP and As Built document to stakeholders for review and approval, ensuring that all comments and feedback are addressed.
- Acceptance Criteria: The IQP and As Built document should be approved by all relevant stakeholders.
- Time Estimate: 60 minutes
- Safety Considerations: ■ CRITICAL: Ensure that all approvals are properly documented and retained for audit purposes.

1 **Obtain Approval for IQP and As Built Document**: Obtain approval for the IQP and As Built document from relevant stakeholders prior to commencing testing.

- Method: Use a structured approach to develop test scripts, ensuring that all components and configurations are adequately tested.
- Acceptance Criteria: Test scripts should be complete, accurate, and cover all necessary testing scenarios.
- Time Estimate: 180 minutes
- Safety Considerations: ■■ WARNING: Ensure that all test scripts are reviewed and approved by relevant stakeholders prior to testing.

1 **Develop Test Scripts**: Develop test scripts based on the components and configuration outlined in the As Built document.

- Method: Execute the test scripts, ensuring that all testing is conducted in a controlled and safe environment.
- Acceptance Criteria: All testing should be completed successfully, with no critical defects or issues.
- Time Estimate: 240 minutes
- Safety Considerations: ■ CRITICAL: Ensure that all testing is conducted in accordance with established safety procedures and guidelines.
- Quality Checkpoints:

- ✓ CHECKPOINT: Verify that all test scripts are executed correctly and that results are properly documented.
- ✓ CHECKPOINT: Ensure that all defects or issues are properly reported and addressed.

1 **Conduct Testing**: Conduct testing in accordance with the approved IQP and test scripts.

Overall Time Estimate

The overall time estimate for this procedure is 600 minutes.

Definitions and Abbreviations

Definitions and Abbreviations

This section outlines the key definitions and abbreviations used throughout the Global Technology Infrastructure Qualification SOP.

- Method: Read through the definitions and abbreviations carefully, taking note of any unfamiliar terms.
- Acceptance Criteria: All definitions and abbreviations are understood.
- Time Estimate: 15 minutes
- Safety Considerations: None

1 **Review Definitions and Abbreviations**: Review the list of definitions and abbreviations provided in this section to ensure understanding of the terminology used in the SOP.

- Method: Research each term to understand its meaning and context within the IT industry.
- Acceptance Criteria: Ability to explain each term in own words.
- Time Estimate: 10 minutes
- Safety Considerations: None

1 **Familiarize with Industry-Specific Terms**: Familiarize yourself with industry-specific terms such as IQP (Infrastructure Qualification Plan), As Built document, and IT (Information Technology).

- Method: Review relevant safety protocols and regulations.
- Acceptance Criteria: Ability to list key safety requirements.
- Time Estimate: 10 minutes

- Safety Considerations: ■■ WARNING: Failure to comply with safety regulations can result in injury or legal action.

1 **Understand Compliance Requirements**: Understand the compliance requirements for General Safety in the context of IT infrastructure qualification.

- Method: Study each best practice and consider how it applies to the current project.
- Acceptance Criteria: Understanding of how each best practice contributes to successful infrastructure qualification.
- Time Estimate: 15 minutes
- Safety Considerations: None
- Quality Considerations: ✓ CHECKPOINT: Ensure that all best practices are incorporated into the qualification plan.

1 **Review Best Practices**: Review the best practices for infrastructure qualification, including following a typical life cycle approach and developing test scripts based on components and configuration in the As Built document.

- Method: Submit the documents to the relevant authorities and await formal approval.
- Acceptance Criteria: Receipt of approval for both documents.
- Time Estimate: 30 minutes
- Safety Considerations: ■■ WARNING: Proceeding without approval can lead to non-compliance and safety issues.
- Quality Considerations: ✓ CHECKPOINT: Verify that all approvals are properly documented.

1 **Obtain Approval for IQP and As Built Document**: Obtain approval for the IQP and As Built document prior to testing.

Responsibilities and Authorities

Responsibilities and Authorities

The Global Technology Infrastructure Qualification SOP outlines the roles and responsibilities of individuals involved in the infrastructure qualification process.

- Method: Use a Responsibility Assignment Matrix (RACI) to clearly define roles and responsibilities.
- Acceptance Criteria: A completed RACI chart with signed acknowledgement from team members.

- Time Estimate: 60 minutes
- Safety Considerations: ■■ WARNING: Ensure all team members are aware of their responsibilities to avoid confusion and potential safety hazards.

1 **Define Roles and Responsibilities**: Identify and document the roles and responsibilities of the qualification team, including the Qualification Lead, Test Engineers, and Document Controllers. Ensure that each team member understands their tasks and deliverables.

- Method: Submit the IQP and As Built Document to the approval committee and obtain signed approval.
- Acceptance Criteria: Signed approval documents from the approval committee.
- Time Estimate: 30 minutes
- Safety Considerations: ■ CRITICAL: Ensure all documents are approved prior to testing to avoid potential safety risks.

1 **Obtain Approval for IQP and As Built Document**: Obtain approval for the Infrastructure Qualification Plan (IQP) and As Built Document from the relevant authorities prior to testing.

- Method: Use a templated approach to develop test scripts, ensuring that all components and configurations are covered.
- Acceptance Criteria: A complete set of test scripts that cover all components and configurations.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure all test scripts are thoroughly reviewed to avoid potential safety hazards.

1 **Develop Test Scripts**: Develop test scripts based on the components and configuration outlined in the As Built document.

- Method: Follow the approved test scripts and document all results.
- Acceptance Criteria: Completed test scripts with documented results.
- Time Estimate: 240 minutes
- Safety Considerations: ■■ WARNING: Ensure all testing and qualification activities are conducted in a safe and controlled environment.
- Quality Checkpoints: ✓ CHECKPOINT: Verify that all testing and qualification activities are conducted in accordance with the approved IQP and test scripts.

1 **Conduct Testing and Qualification**: Conduct testing and qualification activities in accordance with the approved IQP and test scripts.

- Method: Use a standardized reporting template to document all results.
- Acceptance Criteria: A completed report that includes all results, deviations, and issues.

- Time Estimate: 60 minutes
- Safety Considerations: ■■ WARNING: Ensure all results are thoroughly documented to avoid potential safety hazards.
- Quality Checkpoints: ✓ CHECKPOINT: Verify that all results are accurately documented and reported.

1 **Document and Report Results**: Document and report all results, including any deviations or issues encountered during testing and qualification.

Required Materials and Equipment

Required Materials and Equipment

To initiate the Global Technology Infrastructure Qualification process, gather the following materials and equipment:

- Method: Access the document repository and verify the document's version and approval status.
- Acceptance Criteria: The As Built document must be version 1.0 or later and approved by at least two stakeholders.
- Time Estimate: 15 minutes
- Safety Considerations: None

1 **Gather Infrastructure Documents**: Collect the As Built document, which outlines the infrastructure's components and configuration. Ensure the document is up-to-date and approved by the relevant stakeholders.

- Method: Follow the test environment setup guide to configure the servers, ensuring each meets the specified hardware requirements.
- Acceptance Criteria: All 5 servers must be configured correctly and operational.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure proper grounding and follow electrical safety guidelines when handling server equipment.

1 **Prepare Test Environment**: Set up a test environment that mirrors the production infrastructure. This includes configuring 5 servers with Intel Core i7 processors, 16 GB of RAM, and 1 TB of storage each.

- Method: Use a scripting tool (e.g., Python or PowerShell) to develop the test scripts, referencing the As Built document for accuracy.

- Acceptance Criteria: The test scripts must cover all infrastructure components and functions as outlined in the As Built document.
- Time Estimate: 180 minutes
- Safety Considerations: None

1 **Develop Test Scripts**: Create test scripts based on the components and configuration outlined in the As Built document. Ensure the scripts cover 100% of the infrastructure's functionality.

- Method: Follow the document submission and approval process, ensuring that at least two stakeholders approve both documents.
- Acceptance Criteria: Both the IQP and As Built document must be approved by at least two stakeholders.
- Time Estimate: 30 minutes
- Safety Considerations: None
- ✓ CHECKPOINT: Verify that all approvals are properly documented and stored in the project repository.

1 **Obtain Approval for IQP and As Built Document**: Submit the Infrastructure Qualification Plan (IQP) and As Built document for approval to the relevant stakeholders.

- Method: Conduct a thorough review of all materials, checking for any discrepancies or missing information.
- Acceptance Criteria: All materials and documents must be complete, accurate, and approved.
- Time Estimate: 30 minutes
- Safety Considerations: None
- ■ CRITICAL: Ensure that all materials and equipment meet the specified requirements to avoid delays or failures in the qualification process.

1 **Review and Finalize**: Review all gathered materials, equipment, and documents to ensure completeness and accuracy.

Safety Requirements and PPE

Safety Requirements and PPE

To ensure a safe working environment during the Global Technology Infrastructure Qualification, follow these steps:

1 **Review Safety Protocols**: Review the company's safety protocols and procedures, paying close attention to electrical safety, fire safety, and emergency evacuation procedures. Method: Read the safety manual and attend a safety briefing if available. Acceptance criteria: Understand and acknowledge the safety protocols. Time estimate: 30 minutes.

■ CRITICAL: Familiarize yourself with the location of fire extinguishers, emergency exits, and first aid kits.

■■ WARNING: Never work on live electrical equipment without proper training and authorization.

1 **Wear Personal Protective Equipment (PPE)**: Wear the required PPE, including safety glasses, gloves, and a lab coat, when working with electrical equipment or in areas with potential hazards. Method: Put on the PPE before starting work and ensure it is properly fitted. Acceptance criteria: PPE is worn correctly and consistently. Time estimate: 5 minutes.

✓ CHECKPOINT: Verify that all team members are wearing the required PPE before starting work.

1 **Conduct a Risk Assessment**: Conduct a risk assessment before starting any work, identifying potential hazards and taking steps to mitigate them. Method: Use a risk assessment checklist to identify potential hazards and develop a plan to mitigate them. Acceptance criteria: A risk assessment has been conducted and documented. Time estimate: 15 minutes.

■■ WARNING: Never ignore a potential hazard or take unnecessary risks.

1 **Obtain Approval**: Obtain approval from the relevant authorities before starting any work, ensuring that all safety protocols have been met and the necessary permits have been obtained. Method: Submit a request for approval and wait for confirmation before starting work. Acceptance criteria: Approval has been obtained and documented. Time estimate: 10 minutes.

■ CRITICAL: Ensure that all necessary permits and approvals have been obtained before starting work.

1 **Monitor the Work Environment**: Continuously monitor the work environment, identifying and addressing any potential hazards or safety concerns. Method: Regularly inspect the work area and report any hazards or concerns to the relevant authorities. Acceptance criteria: The work environment is safe and free from hazards. Time estimate: Ongoing.

✓ CHECKPOINT: Verify that the work environment is safe and free from hazards at the start and end of each workday.

Approval Signatures

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

Approved by: _____ Date: _____