

# Statement of Work



## **Startup Service**

# 1.0 Executive Summary

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The Schneider Electric Integral Systems Test Service provides an operational evaluation of a newly installed Prefabricated Data Center to ensure the equipment meets the intended design specifications.

Proper execution of Integral Systems Test process is a critical step in determining how the data center operates as a system. Customized commissioning of all critical physical infrastructure components assures Data Center viability and maximum data center reliability.

The Integral Systems test may take place over several days, simulating various conditions, and testing over time.

The client receives a Prefabricated Data Center test report describing the systems checks performed and the results, ensuring the system is functional to design specifications at start.

## 2.0 Features & Benefits

| Features                                     | Benefits  |
|--|---|
| Peace of Mind                                | Integral Systems Test performed by specialized Field Service Engineers to warrant a successful deployment of the Prefabricated solution.  |
| Certified Service Personnel                  | Certified Field Service Engineers, specialized in Prefabricated products to ensure correct commissioning process with certified conclusions.  |
| Confirmation of DC operability               | Complete commissioning process of Prefabricated Data Center to confirm holistic operation following the design requirements.  |
| Holistic systems test                        | Equipment tested per manufacturer's recommendations and Schneider Electric standard quality control procedures. Holistic test adapted to Prefabricated Data Center configuration and specific environmental conditions, simulating IT workload. |
| Comprehensive reporting                      | Commissioning report highlighting the individual and inter-system tests performed, how the tests passed or failed and how deficiencies were remedied if the test failed in first attempt.   |
| Commissioning expenses determined in advance | Fixed cost – providing service budgeting stability: travel, labor, tools and test works.  |

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# 3.0 Details of Service

The specific activities of this service are listed below. For each item/activity listed below, Schneider Electric service will perform the work described and will create a Commissioning document containing all the check activities performed with results and conclusions.

Applicable to: All types of IT and Power Modules

| Pre-Test Activities                       |   |
|---|---|
| Activities                                | Description   |
| Planning                                  | A few weeks prior to the commissioning service, qualified individuals will meet with the customer for coordination purposes, indicating concrete test work to perform, defining a calendar of activities and defining resources needed for commissioning activities (power requirements, safety aspects, security aspects, etc.). |
| Identify Weak Links                       | Define a checklist of anticipated functionality inputs and outputs, derived for each critical component listed in the test schedule, as well as a list of weak links to be managed specifically.  |
| Operational test and roll back procedures | Define emergency operational procedures and roll back procedures in coordination with customer.   |
| Holistic Test checklist                   | Generation of commissioning checklist report with customer acceptance to start test process   |

| Integral System Testing |   |  |
|-------------------------|---|--|
| Activities              | Description   |  |
| Operational test        | Simulation of operational conditions, measuring performance parameters and environment conditions (temperature, relative humidity, airflows, etc.). |  |
| Holistic systems test   | Integrated system test checking compliance with manufacturer's recommendations and standard best practice recommendations (ASHRAE, Uptime, ISO)     |  |
| Systems redundancy test | Determine correct operation of Prefabricated solution by testing redundancy.  |  |
| Monitoring system test  | Simulate failure to ensure correct monitoring system detection and alarm notifications.   |  |



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## 4.0 Deliverables

Project deliverables include a Holistic Systems Test report that encompasses the next aspects:

- "As Built" Script Report highlighting the specific system components tested, the tests performed, and an account of results for each component.
- Component Error Log Report detailing the specific system components that failed and the corrective actions applied. Also, will be included recommendations to resolve any deficiency detected.
- Trending Report summarizing identifiable system performance trends, issues that were encountered and resolved, and issues that remain open for future action.

The Integral Systems Test document is part of the operation log book present in the Data Center.

# 5.0 Assumptions

The successful performance of the activities defined is based on the following key assumptions:

- The equipment will have gone through initial start-up, and all systems have full power and functionality.
- All components are in the final stage of design and functionality.

The following items are outside the scope of this standard service offering. They can be integrated into a customized Statement of Work (SOW) at customer request. Please contact a certified sales representative for more details.

- Site Coordination
- Start-up
- Project Management
- Commissioning Agent
- Commission third-party systems unassociated with the solution

# 6.0 Scope of Responsibility

The items stated here are responsibilities of both Schneider Electric service and the customer.

#### 6.1 SCHNEIDER ELECTRIC SERVICE RESPONSIBILITIES

- · Schedule certified personnel to perform service
- Coordinate key stakeholders
- Create a comprehensive test script prior to the commissioning test
- Perform the commissioning test and report to the commissioning agent
- Document and correct or rectify any discrepancies
- Provide a comprehensive commissioning output report, detailing the as-built power, cooling, fire protection system and rest of elements present in the Prefab solution and recommendations for data center critical loads.



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#### 6.2 SCHNEIDER ELECTRIC SERVICE CUSTOMER RESPONSIBILITIES

- Develop an "Owner Team" with representatives from the IT department, facilities, operations, and key business units
- · Verify that installation prerequisites have been identified
- Verify that all system requirements have been met
- Provide time for preliminary testing

# 7.0 Project Work Details

The following details of the project specify the schedule, location and successful completion criteria.

#### 7.1 SCHEDULE

Actual set dates will be discussed and approved between Schneider Electric service and the customer.

#### 7.2 LOCATION

The commissioning service will be performed on-site.

#### 7.3 COMPLETION CRITERIA

Schneider Electric service is expected to have finished its written duties when any of the following occurs:

- 1. Completes all the tasks included in this SOW.
- 2. This project and SOW are terminated for other reasons, within the Customer Agreement.

## 8.0 Terms and Conditions

Schneider Electric Standard Terms and Conditions apply.

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