

Automated Testing Solution Helps Enphase Energy Cut Costs and Improve Efficiency

Industry

Energy and Solar Panel
Manufacturing

Technologies

Oracle Fusion Cloud applications,
Attest (Test Automation Solution)

Business Gains

Improved efficiency and speed of testing, resulting in
faster and more reliable release of software updates



Customer:

Enphase Energy is a California-based company that produces microinverters designed for solar panels. Their innovative microinverter technology has transformed the solar industry, converting sunlight into a dependable, safe, scalable, and resilient energy source.

Enphase's operations rely heavily on the Oracle Fusion application suite, which includes Financial, Distribution, Manufacturing, and other related applications. In addition to these applications, Enphase seamlessly integrates a blend of internally developed and pre-packaged applications with the Oracle Fusion application suite.



Challenge:

In 2022, Enphase Energy switched from using Oracle EBS to Oracle Fusion Cloud applications to manage its key business operations. As part of the Oracle Fusion Cloud system, Enphase must install patches to the baseline application every quarter. However, they are responsible for testing and validating each patch to ensure that it does not negatively impact their standard functionalities, custom extensions, or integrations with other applications. This testing process typically takes up to a month.

Enphase's primary concerns were that manual testing was time-consuming, assembling a testing team every quarter was not practical, and managing data was challenging. Manual test execution was overly reliant on individual team members.



Solution:

Attest was able to help Enphase Energy comply with its automation requirements by automating all the steps of its critical end-to-end business processes.

Our team of experts was able to perform the following tasks:

- ✓ Identified over 200 business functions that spread across 15 Oracle Fusion and custom application modules and processes for automation.
- ✓ Built automation scripts for each business function modularly, allowing for their reuse across multiple business processes.
- ✓ Facilitated the maintenance of multiple datasets for each end-to-end process to allow for testing different data variations without extensive data mining.
- ✓ Maintained detailed audit trails for all testing.
- ✓ Provided business users with a link to the test results and allowed for their review and sign-off on the test execution.

Enphase Energy selected our solution over other competitors in the market due to its ability to fulfill all the selection criteria and the successful results of a POC.



Results:

Attest's solution for Enphase Energy resulted in several significant benefits, including automating over 200 individual business transactions and delivering greater efficiency and cost savings.

- ✓ 8x improvement in testing time compared to manual testing.
- ✓ Freed up at least 30% of the time of PM/BSA/business super users for other projects.
- ✓ Over 50% reduction in all testing costs.
- ✓ Single portal for complete visibility into business processes, test data, test results, and interdependencies.
- ✓ Complete audit trail of all transactions stored and available for viewing on Attest.
- ✓ Greater confidence and agility for the IT organization.



Tools:

The Attest solution covered the following modules during implementation:

Enterprise Resource Planning (ERP)

Financials:

- General Ledger
- Accounts Payable
- Accounts Receivable
- Cash Management

Procurement:

- Sourcing
- Supplier Portal
- Purchasing

Project Portfolio Management (PPM)

Project Financial Management:

- Project Costing
- Project Billing
- Project Control

Project Execution Management:

- Project Planning
- Scheduling
- Resource Management

Supply Chain Management (SCM)

Order Management:

- Order Capture
- Order Orchestration

Procurement:

- Sourcing
- Supplier Management

Product Lifecycle Management:

- Product Development

Logistics:

- Transportation Management
- Warehouse Management
- Global Trade Management

Manufacturing:

- Production Planning
- Shop Floor Management

Procurement

Self Service Procurement:

- Purchase Requests
- Approval Workflows

Sourcing:

- Supplier Sourcing

Supplier Portal:

- Supplier Collaboration
- Order Management

Procurement Contracts:

- Contract Lifecycle Management

Manufacturing

Manufacturing Operations:

- Work Order Management
- Production Scheduling

The ATTEST Solution

Create Automation components

Assemble Test Data

Create Test Automation Roles

Schedule / Run Tests

View Results

1. Identify end-to-end scenario
2. Create Functions
3. Create Scenarios
4. Create Test Suite

1. Create Date Queries
 - a. Static - Excel spreadsheet
 - b. Dynamic - SQL queries
2. Create Data Sets combining Test Suites & Test Data

1. Set up roles
2. Associates roles with users
3. Create application signatures
4. Associate signatures with test functions

1. Select Test Environment
2. Schedules Tests for a later run (or) Run Tests immediately

1. View Test Results in a browser
2. Create your own reporting dashboard