# Well Test - Validation & Performance Monitoring using BPM



## 1. Business Challenge

- Need to perform faster and more accurate well tests
- Lack of automatic well test detection, real time monitoring of tests progress and partial results
- Performing tests on wells spread across giant geography in various areas and fields
- ☐ Sharing the results across all the business units for record tracking
- Managing User hierarchy and user allocations across huge number of wells.
- ☐ It is believed that data volume for O&G increases by **5X** every year

#### 2. Solution

- Unified process for all users across various geography
- □ Solution components BPM, BAM, ADF, ODSI, SOA, OSB...
- Data Virtualization using ODSI
- Reduced time between initial well uptime & production, with visibility & actionable analytics into O&G operations.
- Real time identification of Test Start & End point as well as production entities & Well-test progress monitoring
- □ Re-validation based on inputs/comments provided
- Monitoring dashboard for real time monitoring of test status and trends in well parameters

## 3. Results / References

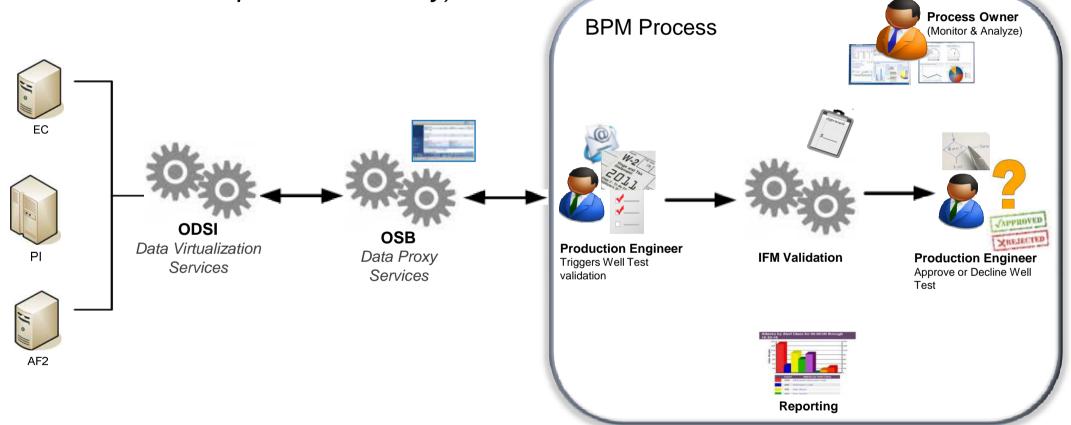
- □ Newly unified business processes have improved transparency, compliance reducing risk, time & efforts increasing efficiency
- □ Seamless integration with tools like Energy Components, IFM etc. to achieve more accurate production allocation
- Proactively plan production issue in a timely manner, even for remotely & geographically scattered drilling rigs, wells, platforms, pipelines, & reservoirs.
- □ Reduce well downtime through realtime monitoring
- ☐ Human intervention & full control over process

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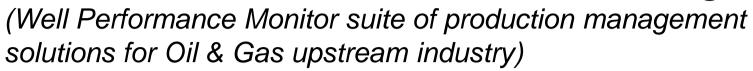
(Well Performance Monitor suite of production management solutions





L&T Infotech

# Well Test – Validation & Performance Monitoring





### **Business Process Overview**

Creation of Well Test Data in EC Database

Notify Production Engineer

Data Aggregation from EC and PI\_AF

Well Test Triggered by Production Engineer

IFM Validation Well Test Report
Accept/Reject/ReValidate

Best practice BPM-driven solution to enable **End-to-End** automation of the well test validation process for an Oil & Gas industry – From creation to the acceptance of the well test..

## **Strategic Goals**

- Reduce operational costs & Optimize throughput of the Well
- Observe trends in Well's Physical and Calculated parameters
- Be more competitive in the Marketplace
- Provide greater visibility into ongoing cost-savings opportunities in other process areas

## **Process Advantages**

- · For making smarter & faster decisions
- For better user allocations across wells
- For production & price optimization
- Centralizing process and enterprise knowledge and experience



# **Functionalities and uses**



## Monitor, capture, modify, analyze, accept well tests and validate against the well

- Well Test Validation is an engineering productivity solution providing real value in the quantity and quality of well tests. It is
  part of the Well Performance of production management solutions for Oil & Gas upstream operators. Well Test Validation
  enables the engineer to monitor well tests in real-time and interactively modify measurement and calculation parameters to
  analyze and compare the well test with benchmarks before accepting any definitive well test results.
- Focus on the workflow and the business benefits rather than the technical implementation
- Streamlines the process of well test collection and need for Production Engineers involvement is 'by exception'.

Users	Activities
Production Engineer	<ul> <li>Validation and correction of the well production models</li> <li>Depletion or evolution of skin and PI (productivity index)</li> </ul>
Operations	Prioritization of well to optimize production
For Hydrocarbon Accounting	<ul><li>Well rate estimates</li><li>Reporting</li></ul>
For Reservoir Management	For reserves maturation and tracking

## **More Information**



- ☐ How can customers adopt the solution? Deploy the solution on Oracle BPM Suite
- ☐ Can the partner host the solution in the cloud? Yes
- ☐ Who is the contact? Pandurang Ranjalkar



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