For many organizations, improving quality is a challenge. According to LNS Research, over 40% of organizations struggle with disconnected quality systems and many have difficulties measuring quality metrics. However, improving product quality can lead to important benefits to new product launches, on-time delivery, overall equipment effectiveness, and reductions in the total cost of quality. Oracle Cloud Quality Management provides an enterprise solution to define, identify, analyze and correct quality events and improve the overall effectiveness, safety, and profitability of your products and services.

**Connected quality management in the cloud**

Oracle Cloud Quality Management is a modern enterprise quality management solution that complements the Oracle Cloud Supply Chain Management suite of applications with embedded, best practice processes and built-in social and analytic capabilities. Built for the cloud, Oracle Cloud Quality Management connects research & development, manufacturing, inventory, and quality assurance and control to achieve greater quality visibility, insights, and collaboration.

The Oracle Cloud Quality Management solution helps organizations:

- **Design for quality**: Specifications defined at the time of product design naturally flow to inspections plans. It ensures that current and accurate data drives the inspection process without the cost of custom integration between traditional Product Lifecycle Management and Enterprise Resource Planning systems.

- **Perform inspections**: Manufacturing and inventory personnel perform inspections at critical points in supply chain execution, identify non-conforming materials, and alert stakeholders of potentially harmful and costly problems.

- **Manage issues**: Manage identified quality events in a controlled, consistent, and auditable manner. Quality teams guide issues through containment, root cause analysis, and ensure corrective actions are implemented properly.

“Quality is everyone’s responsibility”

W. Edwards Deming

**Key business benefits**

- Increase enterprise visibility to quality information
- Enable quality-based design decisions
- Enforce execution compliance to quality plans
- Centrally manage supply chain quality issues
- Ensure a closed-loop process from issue to resolution
- Drive proactive quality-based improvements
Effectively identify nonconformances through inspections

With Oracle Cloud Quality Management, a quality engineer can define inspection plans to check the quality of an item or category of items or to monitor a production resource. In the inspection plan, you specify a list of inspection characteristics with their quality specifications or tolerances that may be optionally integrated with product specifications and identify criteria for when and where inspection should be enforced in receiving, work in process, or inventory. For a receiving inspection plan, you can also assign the level of inspection based on a user-defined sampling percentage and skip lot frequency according to a supplier’s performance, rather than the default of 100% inspection of every unit.

To ensure compliance and accuracy during transaction execution, you can perform inline, mandatory, incoming, in process, and final inspection using an inspection plan. Automatic sample numbering and product serial number barcode scanning are built into inspection results data collection—whether through a modern, tablet-optimized user interface or REST services. The quality result automatically evaluates and assigns an inspection disposition that drives the quantities to accept vs. reject for the corresponding receiving or work order operation completion transaction. Alternatively, you can create a standalone inspection to collect data for re-inspecting quarantined inventory or monitoring an equipment resource.

As a quality best practice, an inspection failure automatically generates a nonconformance to provide traceability to its root cause investigation and
resulting corrective action and to ultimately prevent costly defects from being discovered at a customer or in the field.

Figure 3. Enter inspection results to determine quality conformance

Manage quality issues and corrective actions

A company’s strategic direction can be at risk due to quality issues of real or potential impact. Unfortunately, the potential impact posed by a given issue is not always clear at the moment of discovery. Therefore, organizations require effective quality tools to guide team members through quality processes and controls in order to implement safe and effective solutions.

Quality issues and corrective actions allow you to:

- Capture the who, what, when, where, why related to quality events
- Navigate/review enterprise information including inspections, work orders, purchase orders, item and specification information
- Drive issues to completion via pre-defined quality workflows and approvals
- Collaborate with enterprise team members via Oracle Social Network (OSN)
- Communicate root cause and corrective actions
- Ensure closed-loop quality by participating in the enterprise change order process
- Provide enterprise participation and visibility by connecting quality to Oracle’s: Innovation Management, Product Development, Product Hub, Manufacturing, and Inventory Management

Figure 4. Corrective action with Oracle Social Network
Graphically track and trace materials throughout its lifecycle

In many industries, there is an ever-increasing need to provide inclusive lot and serial tracking from supplier through production and shipment in order to support quality containment and recall events. If you have a product failure, the Oracle Product Genealogy solution enables you trace the entire history of any serial or lot to determine possible sources of the failure, understand where the problem product is at the moment, where the other potentially impacted items are, and then investigate if the failure has been corrected or if it is ongoing.

Oracle Cloud Applications

The Oracle Cloud offers self-service business applications delivered on an integrated development and deployment platform with tools to rapidly extend and create new services. The Oracle Cloud is ideal for customers seeking subscription-based access to leading Oracle applications, middleware and database services, all hosted and expertly managed by Oracle. The application services are designed for ease-of-use, enabling business users to manage the solution directly with no IT involvement.

Figure 5. View item relationships in product genealogy

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