WARRANTY MANAGEMENT & PRODUCT REPAIR FOR MICROSOFT CRM FOR MANUFACTURING AND FIELD SERVICE COMPANIES
Armanino’s comprehensive Warranty Management and Product Repair Solution for Microsoft CRM is designed to support the processes of manufacturers and distributors throughout the product lifecycle.

This solution includes fully functional Return Material Authorization (RMAs) and Field Service management capabilities, which enable warranty contract management that can be associated with the customer’s product install base.

Through the use of this solution, Cases can be created and managed, allowing for better product and resource tracking, more thorough reporting, and improved scheduling. Cases provide the ability to:

- Execute install base lookups
- Check Warranty status (both standard and extended warranties)
- And assist Customer Service Representatives (CSRs) with proper support resolution techniques through the use of CRMs

Additionally, products can be tracked by model number, serial number and product repair options, which include:

- RMAs that provide the ability to ship defective parts back to a repair location (termed “Depot” within the solution) or
- Scheduling of field service technician(s) to perform the repair or replacement onsite

In both Depot Repair and Field Service options, Work Orders are created to simplify product repair and failure analysis.

The RMA functionality includes:

- The ability to send replacement parts
- Track shipping and automate the creation of return instructions
- Alert CSRs along the shipping, repair, and return processes
- A work order is used within the Depot to:
  o Track parts
  o Manage required inventory
  o Coordinate repairs
  o Provide product disposition (e.g., scrap, return to customer, or return to inventory)

- Field Service support resource tracking of skills and schedules
- The capability to reserve assets or equipment needed for the repair
- Support of 3rd party repair technicians that can be paid and requested directly through CRM

Once assets, locations, and resources are identified, a list of available times can be presented to the CSR, simplifying the scheduling process with customers.

Through this solution, technicians can utilize Microsoft CRM to see “serviceable parts” of the product to be repaired as well as repair truck stock, prior to their onsite visit. This allows technicians to order the
necessary parts in advance of the scheduled repair date.

The system also supports a field service report, resolution, and cost of repair logging, such as time and expenses. This can then be billed to customer or to be used to track the total cost of the warranty repair.

**Additional Functionality**

Manufacturers and distributors in any industry can utilize this solution to facilitate complaint management tracking and support.

**How it Works**

Upon case creation, should a complaint be identified, a complaint form compliant with federal regulations can be submitted and routed to the proper department and software solution required for root cause analysis and regulatory reporting.

**About Armanino**

Armanino is a Microsoft Dynamics Inner Circle member, ranked in the top 1% of partner in the world as a value-added reseller (VAR) and implementation partner for Microsoft Dynamics CRM, AX and GP, SharePoint and Microsoft Office 365.

Armanino (www.amllp.com/dynamics) has achieved dual Gold Certified Partner status for both Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM). As a Gold Certified Partner, Armanino has demonstrated a notable level of industry expertise in selling and implementing Microsoft Dynamics software, providing consulting services and support, and achieving a high-level of customer satisfaction.
Features and Screenshots from Armanino’s Warranty Management and Product Repair Solution for Microsoft CRM

A Customizable Serial Number Entity
This entity relates Serial Numbers to Products and can be used to track serialized products right off the assembly line, before any service call or product registration takes place. Companies that do not require serial number tracking have the option of converting lookup fields on linked forms to simple text fields that can still be used to capture serial numbers but not track them to specific products.

Screenshot of Customizable Serial Number Entity in Microsoft CRM (above)

Service Products
Service Products are divided up into a 3-tier schema. At the top level sits “Installed Products.” It represents the entire install or whole product. Installed Products has a one-to-many relationship with the “Serviceable Items” that comprise it. Installed Products also allows for multiple Cases and Spare Parts Requests to be related to it, and also accommodates file attachments.

Screenshot of Installed Products in Microsoft CRM
**Serviceable Items**

Serviceable Items are the major components that make up the Installed Product. They are generally serialized. Serviceable Items are made up of “Serviceable Item BOMs” (Bill of Materials) and therefore have a one-to-many relationship with them. They also have a one-to-many relationship with Spare Parts Requests and a Many to Many relationship with Cases. This allows for multiple Cases regarding a Serviceable Item as well as Multiple Serviceable Items on a single Case.

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**Serviceable Item Bill Of Materials**

Serviceable Item BOMs make up the Serviceable Items. Here we can track serialized or non-serialized parts as well as swap outs.
Case Form and Case Type

Armanino's Case form features a “Case Type” dropdown, which keeps the form streamlined or ease of use.

If Case Type > Field Service is selected, the form will show a hidden “Field Service” section which includes Serviceable Items related to the case, Service Activities scheduled on the case, and related Spare Parts Requests.

If Case Type > Depot Repair is selected, a hidden section is displayed with additional Depot Repair fields and Repair Reports. This is shown in the screenshot below:

Case with Hidden Depot Repair and Field Service (above)

Case Type with Field Service Selected (above)

Case Type with Depot Repair Selected (above)
**Repair Report**

The Repair Report form is an activity entity whose “regarding” field can be set to anything (for example, Installed Product, Serviceable Item, or Serviceable Item BOM). It includes a dedicated field that allows it to be related to a Case.

<table>
<thead>
<tr>
<th>General</th>
<th></th>
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<th>Status Reason</th>
<th>In testing</th>
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<tbody>
<tr>
<td>Subject</td>
<td>Repair Report</td>
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<td>Start Date</td>
<td>4/10/2014</td>
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<tr>
<td>Case</td>
<td>Armanino - Depot Repair with RMA</td>
<td></td>
<td>Due Date</td>
<td>4/10/2014</td>
</tr>
<tr>
<td>Work Order/Service</td>
<td>--</td>
<td></td>
<td>Owner</td>
<td>David Maharg</td>
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<tr>
<td>Priority</td>
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<tr>
<td>Root Cause Category</td>
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<tr>
<td>Initial Inspection Note</td>
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<td>Root Cause</td>
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<tr>
<td>Final Inspection Note</td>
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<td></td>
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</tr>
</tbody>
</table>

**Spare Parts Request**

A Spare Parts Request can be related to the Installed Product and/or the Serviceable Item and contains a dedicated field to relate it to the Case. The Spare Parts Request has a fixed requester while the record ownership remains flexible and may be assigned to someone else to fill.

<table>
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<tr>
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<th>Requester</th>
<th>Ken Johnson</th>
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<tbody>
<tr>
<td>Request</td>
<td>RMA Replacement Parts</td>
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<td>Part</td>
<td>Micro Drive MD200 etc</td>
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<tr>
<td>Account</td>
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<td>Installed Product</td>
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<tr>
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</tr>
<tr>
<td>Case</td>
<td>Armanino - Depot Repair with RMA</td>
<td></td>
<td>If Unused Return to</td>
<td>check mark</td>
</tr>
</tbody>
</table>

| Status           | Active               |                      | Status Reason | Requested |

| Address          |                      |                      | City          | Saint Helena |
| Ship To          |                      |                      | State         | CA           |
| Street Address 1 | 1185 Saint Ave       |                      | Zip           | 04574        |
| Street Address 2 | --                   |                      |               |             |

**Notes and History**
Work Orders
Work orders are used to support material tracking, to prioritize work effort within the Depot, and to log and record product repair and replacement activities.

CAPA Compliant Product Complaint Form
The Product Complaint form is fully compliant and assists in facilitating CAPA reporting for Life Sciences companies. This form is related to Case and Account and can accommodate file attachments.