EVENT, DATE

ABB OGC Care

Speaker, position
Agenda

- What is OGC Care?
- Challenges and how we can help
- Risk of operating without a service contract
- Benefits of OGC Care
- Understanding your needs
- Contract models
- Building the right OGC Care Package
- Life cycle contract
- Asset Maintenance Partnership
- Customer cases
- Our contribution to your bottom line
- Benefit summary
What is ABB OGC Care?

Global standardized framework for service agreements

ABB Oil and Gas Care delivers consistent, standardized service contracting agreements that help you cut complexity, control cost and maximize the value of your critical investments.

- Simplifying service interactions and performing all levels of service effectively and efficiently
- Providing the service agreement that best fits your unique needs
- Contributing to your revenue by helping you increase production and avoid unscheduled downtime

ABB OGC Care objective: Understand your needs and deliver services that meet them
Challenges and how we can help

All customers are trying to anticipate equipment or process malfunctions or failures

– We can help optimize your maintenance strategy, and balance risk and cost with predictive, performance-based service

– The more we know about your environment and how you work, the better the service we can provide

– We assess your needs and help you determine the proper level of service engagement
Financial risk of operating without a service contract

Today’s operating facilities need to simplify processes to cut costs, maximize capital, ensure safety and increase production.

Without standardized service contracts, repair costs vary widely and can quickly escalate:

- Determining costs is difficult since most plants do not keep adequate maintenance records
- Emergency repairs require 3 to 4 times more human resources, time and money than scheduled maintenance
- Without management control, costs accumulate due to inefficient planning and scheduling
- A high percentage of all maintenance time, costs and energy are spent on reactive activities
- Many maintenance costs are hidden, such as the cost of shutting down a unit for repair or the cost of deferred production and disrupted schedules
- Reactive maintenance is ~60-70% less efficient than planned and scheduled maintenance

*Source: Strawn, Tracy. The Role of Maintenance in the Oil and Gas Industry, Marshall Institute*
### Benefits of OGC Care

**Subtitle**

<table>
<thead>
<tr>
<th>Standardized and consistent</th>
<th>Tailored service</th>
<th>Local/global</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Checkmark]</td>
<td>![Certificate]</td>
<td>![Handshake]</td>
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**Standardized, consistent service delivery:** ensures companies receive reliable, predictable service across multiple geographies.

**Tailored service contracting:** provides the service agreement that best fulfills each organization’s individual requirements.

**Local engineering expertise with global support:** facilitates faster resolution time for greater equipment and process availability to help maximize production.
Benefits of OGC Care (continued)

**Subtitle**

<table>
<thead>
<tr>
<th>Reduced complexity</th>
<th>Faster</th>
<th>History archival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplifies service interactions and clarifies expectations, improving efficiency, reducing risk and controlling costs</td>
<td>Faster issue resolution time: increases reliability and availability of equipment and processes</td>
<td>Service history archival: provides existing performance data and behavior trends to guide predictive, proactive maintenance models</td>
</tr>
</tbody>
</table>
We start with your assets so we’re on the same page

Electrification, automation, telecommunications
We work with you to understand your needs

<table>
<thead>
<tr>
<th>If you need:</th>
<th>Timely local and remote support</th>
<th>Asset and process support</th>
<th>Improved employee knowledge and skill sets</th>
<th>Latest features and functions</th>
<th>Parts and repair assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Then consider:</td>
<td>Rapid response support</td>
<td>Services designed to support maintenance</td>
<td>Training for plant personnel</td>
<td>Product and system life cycle support</td>
<td>Product and system repair support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If you need:</th>
<th>Higher asset utilization</th>
<th>Lower costs</th>
<th>Longer asset life</th>
<th>Higher production</th>
<th>High asset and process reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Then consider:</td>
<td>Product, system and process optimization</td>
<td>Services that help reduce variable costs</td>
<td>Product and system life cycle support production</td>
<td>Optimized equipment and process availability</td>
<td>Predictable equipment and process performance</td>
</tr>
</tbody>
</table>
OEE and ABB Service portfolio alignment

“EIGHT BIG LOSSES”

1. Shutdown
2. Production adjustment
3. Equipment failure
4. Process failure
5. Reduced speed
6. Abnormal production
7. Quality defect
8. Reprocessing

Availability factor (A)
Performance factor (P)
Quality factor (Q)

ABB OGC Care

Operational Excellence
Performance Improvement
Lifecycle Management
Rapid Response
Rapid Response

Operational Excellence

Performance Improvement

Lifecycle Management

Rapid Response
Restore your production, assets and processes through responsive services that are available all day, every day.

- Technical Support
- Remote Troubleshooting
- Mobilization to Site
- Corrective Maintenance
- Parts
- Training

Contract Management
- ABB Service Desk
- Contract Manager
- Technical Account Manager
- Prepaid Engineering Hours
Lifecycle Management

Extend, analyze and optimize the lifecycle of your equipment.

- Inspections and Diagnostics
- Preventive Maintenance
- Life Cycle Assessment
- Engineering and Consulting
- Software Management
- Parts: Gap Analysis
- Spare Part Management*
- Upgrades*
Performance Improvement

Operational Excellence

Improves the reliability of your equipment and production processes.

- Condition Monitoring*
- Predictive Maintenance*
- Parts: Supply Analysis

Lifecycle Management

Rapid Response
Operational Excellence

Optimizes the availability and efficiency of products and systems to improve the profitability and performance of your assets and production plants.

- Alarm Management
- Process and Functional Safety
- Cyber Security
- Process Optimization

Performance Improvement

Lifecycle Management

Rapid Response
We help you build the right OGC Care package

Contract models

Created value

Created value

Life cycle contract

Asset Maintenance Partnership

On-demand contract

Commitment

Operational Excellence
Optimizes the availability and efficiency of products and systems to improve the profitability and performance of your assets and production plants.

Performance Improvement
Improves the reliability of your equipment and production processes.

Lifecycle Management
Extend, analyze and optimize the lifecycle of your equipment.

Rapid Response
Restore your production, assets and processes through responsive services that are available all day, every day.
Life cycle contract
Contractor responsibility for life cycle services and cost planning

Life cycle costs

Typical life cycle costs for DCS ~6% of installed base value

Includes:
- Regular maintenance costs for preventive maintenance, spare parts and technical support
- Life cycle activities for hardware replacement and updates/upgrades

Requires long-term commitment

Reduce costs up to 20% for 15+ year contract
A performance-based approach to increase productivity and reduce costs

To increase productivity we must understand:

• What are the operational risks?
• What are the operational costs?
• How to optimize the maintenance strategy to balance operational risks and costs

Productivity = balanced operational risk versus operational costs
Asset Maintenance Partnership
A performance-based approach to increase productivity and reduce costs

**Assessment phase**
Installed base, customer targets, maintenance strategy (FMEA, RCA, maintenance plan), KPIs, proposal generation

**Service agreement phase**
Maintenance teams (site manager, technology manager, engineer, HSE officer), generate, plan and execute work orders, continuous improvements, reporting, verify and optimize, collect and report KPIs

**Performance index**

A shared-gain approach drives actions that produce value
Putting experts in place to improve your process and system performance

Local service with global support

More than 1,800 global service specialists backed by world-class tools and processes
## Customer cases

<table>
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<tr>
<th>Customer need</th>
<th>Contract model application</th>
<th>Customer benefit</th>
</tr>
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<tbody>
<tr>
<td>Offshore oil producer in Brazil needed to <strong>maximize equipment availability</strong> to ensure running production</td>
<td><strong>Rapid Response</strong> includes 24/7 technical support with guaranteed response time, corrective maintenance and recommended spare parts</td>
<td><strong>Increased productivity</strong> can be worth more than 150 kUSD/hour, when downtime is decreased by returning equipment to operation quickly, with an <strong>opex reduction of 20 to 30%</strong> across the operational life cycle</td>
</tr>
<tr>
<td>Offshore oil producer in Asia wanted <strong>assurance its site would be available</strong> to produce safely and efficiently for as long as possible</td>
<td><strong>Lifecycle Management</strong> includes life cycle assessments, inspection and diagnostics and preventive maintenance to optimize and extend equipment life through efficient upgrade solutions</td>
<td><strong>Extended capital lifetime</strong> by more than 15 years can be achieved along with decreasing <strong>total cost of ownership by up to 20%</strong> via long-term planning</td>
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</table>
## Customer cases (continued)

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<tr>
<td>Offshore oil producer in the United Kingdom needed to <strong>optimize its maintenance plan</strong> to save costs and keep plant integrity at the highest level</td>
<td><strong>Performance Improvement</strong> includes condition monitoring solutions and predictive maintenance for optimization of equipment and processes</td>
<td><strong>Increased HSE and productivity</strong> can be achieved and <strong>maintenance costs can be reduced by 8 to 12%</strong> when compared to preventive maintenance*</td>
</tr>
<tr>
<td>Offshore oil producer in Norway needed to <strong>improve asset utilization, reduce operating costs and increase production efficiency</strong> to raise its recovery factor</td>
<td><strong>Operational Excellence</strong> includes process optimization, alarm management, cyber security and functional safety services</td>
<td><strong>Improved operations</strong> with <strong>seven days of additional production</strong> per year can be achieved at the same time as HSE is improved</td>
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Our contribution to your bottom line

We can help you reduce total cost of ownership and increase productivity

[Diagram showing the life cycle of a project with stages such as Concept, Pre-FEED, FEED, Detail design, Fabrication, Hook-up, Commissioning, Start-up, Operation, and Late Operation. The diagram highlights the ability to influence cost and the relationship between CAPEX and OPEX.]
ABB Oil, Gas and Chemical Care delivers consistent, standardized service contracting agreements that can help you cut complexity, control cost and maximize the value of your critical investments

• We simplify service interactions and perform all levels of service effectively and efficiently
• We provide the service agreement that best addresses your unique needs
• OGC Care contributes to your revenue by helping increase production and avoid unscheduled downtime