As plant operations become more complex, proper alarm monitoring becomes very critical to the correct operation of the plant. Alarm flooding and improper alarm settings can pose a risk that may lead to serious plant damage, lost production, environmental incidents, and injury or even loss of life. Alarm rationalization is crucial to ensure that manufacturers will be able to maintain properly functioning alarm systems throughout the plant lifecycle.

Why is alarm rationalization important?

Yokogawa's Alarm Rationalization Services are solutions to sustain your alarm system performance throughout plant lifecycle and are provided in three phases. Clients are allowed to proceed immediately to the phase that corresponds to the current status of their alarm rationalization activities.

What are the advantages?

- **Fundamental Nuisance Alarm Reduction** is the preparatory service to identify the root causes of existing nuisance alarms and take proper countermeasures to reduce them using Exaplog.

- **EEMUA #191-based Alarm System Design** is the main service to establish the consistent policy for alarm system design based on EEMUA guideline and incorporates it with CAMS (Consolidated Alarm Management System).

- **Operational State-based Alarm Management** is the additional service to manage alarm thresholds and alarm suppression based on the different operational states using AAASuite.

*Actual results will depend on the installation.*
### DMAIC

Yokogawa’s alarm rationalization service is based on standardized Six Sigma DMAIC methodology. This provides clear and effective steps to achieve a defined target while ensuring consistent and high levels of service quality.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Define</th>
<th>Measure</th>
<th>Analyze</th>
<th>Improve</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fundamental nuisance alarm reduction</td>
<td>Establish cross-section task force</td>
<td>Analyze A&amp;E logs for multiple operational states</td>
<td>Take practical countermeasures with fast response</td>
<td>Evaluate improvement effect with fast response report in results of service</td>
</tr>
<tr>
<td>2</td>
<td>EEMUA #191-based alarm system design</td>
<td>Establish cross-section task force</td>
<td>Analyze necessary information</td>
<td>Improve new design policy in CAMS with fast response</td>
<td>Evaluate improvement effect with fast response report in results of service</td>
</tr>
<tr>
<td>3</td>
<td>Operational state-based alarm management</td>
<td>Establish cross-section task force</td>
<td>Analyze acquired information to identify requirements</td>
<td>Establish new design policy based on EEMUA #191 guideline</td>
<td></td>
</tr>
</tbody>
</table>

*1 This is a consulting service for CAMS for HIS (Phase 2)/AAASuite (Phase 3) installation.

*2 This service is provided by executing the above five steps of the DMAIC cycle.