Improved Level of Service Concept

- The A DRM brings together aviation industry best practices with respect to the development of world-class airports.

- The A DRM is recognized as one of the aviation industry’s most important guides for airport development (be it the planning of new airports or extending existing airport infrastructure).

- The A DRM content represents the consolidated recommendations of world-renowned industry specialists and organizations seeking to promote the development of sustainable and efficient world-class airport facilities.
The Level of Service (LoS) Concept is an aggregated guidance framework for the planning of new terminal facilities as well as for monitoring the operational service performance of existing facilities.

- The LoS framework basically specifies the minimum service requirements at various terminal sub-systems such as space provision and waiting times.

- These LoS parameters can vary from one sub-system to the other: For example, the space requirement at ‘passport control’ is different from ‘check-in’.

- The LoS Concept is also often used for performance comparisons or as a benchmark that determines whether contractual obligations of airport owners, operators and/or third party service providers are being met.
In the updated ADRM, the LoS framework has been completely revised to better reflect both the dynamic nature of terminal operations and throughput as well as the intention of increasing infrastructure efficiency.

The revised LoS Concept is based on FOUR, very distinct categories:

- **OVER-DESIGN**
- **OPTIMUM**
- **SUB-OPTIMUM**
- **UNDER-PROVIDED**

For LoS Assessment purposes, the improved framework now uses a two-dimensional LoS Matrix. The resulting LoS Category is jointly dictated by TWO important variables:

- **Processing Facilities:** SPACE + WAITING TIME
- **Holding Facilities:** SPACE + OCCUPANCY

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<thead>
<tr>
<th>SPACE</th>
<th>Sub-Optimum</th>
<th>Over-Design</th>
<th>Optimum</th>
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</thead>
<tbody>
<tr>
<td>MAXIMUM WAITING TIME</td>
<td>SUB-OPTIMUM ▶ Consider Improvements</td>
<td>OVER-DESIGN</td>
<td>Optimum</td>
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<tr>
<td></td>
<td>SUB-OPTIMUM ▶ Consider Improvements</td>
<td>Optimum</td>
<td>OPTIMUM</td>
</tr>
<tr>
<td></td>
<td>UNDER-PROVIDED ▶ Reconfigure</td>
<td>SUB-OPTIMUM ▶ Consider Improvements</td>
<td>Sub-Optimum</td>
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The general **objective** of the improved LoS philosophy is the **provision of OPTIMUM passenger facilities**, avoiding over- or underprovision of infrastructure.

Terminal facilities that are designed according to LoS **OPTIMUM** typically…

- provide sufficient space to accommodate all necessary functions in a comfortable environment;
- provide stable passenger flows with acceptable waiting times;
- denote an overall good service (comfort level) to passengers while keeping CAPEX and OPEX at a reasonable level; and
- balance economic terminal dimensions with passenger expectations.
The general approach to LoS has also been modified to better reflect the current aviation market from a global perspective: Different regions, countries and markets require modification of the airport environment to match their specific service needs.

For this reason, the LoS parameters for OPTIMUM are provided as a range of values (for space, waiting time and occupancy) – this flexibility allows an airport to better tailor its service level to the market and region it serves.

The appropriate (or targeted) LoS value should be established through a proper consultation process involving all relevant airport stakeholders such as airport operator, airlines and other relevant service providers.
Experts from IATA and ACI can professionally assist with a wide range of services related to the previous and revised LoS framework:

- **LoS Training**: Coaching on the *improved* LoS concept and its correct application.

- **LoS Agreements**: Modification of SLAs and Concession Contracts (from previous to improved LoS Concept)

- **LoS Assessment Study**: Analysis of the current or future LoS within the passenger terminal, complemented by recommendations for improvements for achieving OPTIMUM.

- **LoS Planning Study**: Technical capacity/demand study to determine the future facility requirements for various passenger facilities (processing / holding / circulation)
**Airport industry standards:** With the ADRM, IATA & ACI define airport industry standards and guidance materials that are commonly recognized and applied globally. The ADRM is the most comprehensive manual for all aspects of airport planning, capacity definition and facilities design. The latest Edition includes new provisions for the Level of Service concept – which is a main criterion for developing passenger terminal facilities or for assessing the provided performance. IATA & ACI are the originators of the airport-related LoS concept and therefore understands best how to correctly apply the LoS system.

**Comprehensive subject matter expertise:** IATA & ACI have played a key role in the aviation industry for decades. During this time, our experts have gained extensive experience in elaborating the multiple LoS studies for small regional airports to big international hubs. Our expert team has hands-on knowledge about international airport planning standards & best practices and can effectively adapt the LoS concept to specific local requirements.

**Easy stakeholder access and consultation:** As the global representative and trade association of the airline and airport industries, IATA & ACI have direct access to their members. Having straightforward access is essential for collecting critical inputs (such as actual processing times, waiting time expectations etc.) when it comes to carrying out studies about the LoS.

**Neutral:** The evaluation process and recommendations pertaining to LoS will be fair and unbiased – to ensure achieving the best possible solutions for the whole airport community.

**Essential planning tools:** Our experts use advanced planning tools –such as simulation– in order to support all kinds of LoS-related studies. Especially in case the analysis requires the detailed assessment of future facility requirements or when the operations have major implications, a dynamic simulation tool is essential to derive precise results.
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