

## 11.3 RECOMMENDED MINIMUM SYSTEM REQUIREMENTS FOR AIRLINES AND COORDINATORS

### 1 Recommended Minimum System Requirements

#### 1.1. Introduction

Minimum system requirements are required of airlines, Slot Coordinators and Schedule Facilitators, at Level 2 and Level 3 airports, in order to comply with the IATA Worldwide Slot Guidelines (WSG), local regulation and local guidelines. The system specification should provide participants with the capability for efficient, accurate and responsive communication.

System solutions vary significantly according to the complexity of the users operation, but core functionality is required, as described in this annex. Additional desirable functionality, while not essential, is included in *italics*.

Airlines and coordinators should ensure that actions are taken regarding their respective slot management system, their email system and/or their security systems to avoid sending irrelevant messages (including spams, duplicated slots requests and wrong slots requests) to coordinators. Sending such messages can degrade airlines and coordinators information systems performances.

As systems are more interconnected it is required that airlines' and coordinators' systems send only formatted messages to the address specified by their partners for this purpose.

Systems should have effective cyber security protection and be regularly tested.

### 2 Airline System Functionality

2.1 Scheduling Systems and Slot Tools	
	Appropriate security controls.
	Resilient back-up facilities to prevent loss of essential data.
	Compliance with all mandatory fields detailed in the IATA Standard Schedules Information Manual (SSIM) Chapter 6.
	Systems must work in UTC time format. <i>The ability to work in local time is desirable.</i>
	Systems should be accessible remotely. For example, when working from the IATA Slots Conference.
	<i>Ability to use Extensible Markup Language (XML)</i>
2.2 Message Handling	
	Ability to automatically generate properly formatted SCR, SAQ, SIR, SMA, WCR and WIR messages and send them to the generic email address specified by the relevant coordinator for this purpose.
	Ability to receive and process SCR, SAQ, SIR, SMA, SHL, SAL, WCR, and WIR
	Avoid manual data entry wherever possible.
	Ability to process SHL messages that incorporate the new scheduling period date range.
	Integrate the allocated slot time as the reference for any later changes.
	Ability to process SSIM message requests via email.
	Store and process coordinators' offers

	Desirable: provide an interface via webservice based on the IATA XML standard
<b>2.3</b>	<b>Outstanding Requests and Changes</b>
	Ability to reconcile allocated slot details with preferred schedule details.
	Ability to highlight discrepancies to be resolved
	System to automatically generate an SCR or SMA for discrepancies between the allocated slots and revised schedules and send them to the relevant coordinator/facilitator.
	Maintain a record of all outstanding slot requests
<b>2.4</b>	<b>Slot Usage at Level 3 Airports</b>
	Ability to reconcile actual operations with allocated slots.
	Ability to track compliance with the use it or lose it rule.
	Ability to identify services that regularly fly at times other than the allocated slot time or which operate in a significantly different way from that indicated at the time of slot allocation
<b>2.5</b>	<b>Internet Access</b>
	Reliable internet access to manage slot portfolios with the coordinator or facilitator.
	Reliable email access to send and receive slot related communications.
	<i>Use of online slot coordination systems to compliment other systems and /or interface with coordinators' systems via IATA standard XML based webservice.</i>
	Ability to access websites such as AppCal to register for and manage diaries at the IATA Slot Conference.

## 3 Coordinator System Functionality

<b>3.1</b>	<b>Scheduling Systems and Slot Tools</b>
	Appropriate security and accessibility controls.
	Resilient back-up facilities to prevent loss of essential data.
	Compliance with all mandatory fields detailed in the IATA Standard Schedules Information Manual (SSIM) Chapter 6.
	Systems must work in UTC time format. <i>The ability to work in local time is desirable.</i>
	Systems must be able to contain data for all active, current and future seasons.
	Ability to archive data according to regulatory requirements or at the minimum for the previous equivalent season for referencing purposes.
	Data must be accessible when working from outside of coordinator's office for example, when working from the IATA Slots Conference venues.
	Systems must be able to take 'snapshots' of the database at key stages in the coordination process, for example, at the Historic Baseline Dates for reference during the calculation of historic precedence.
	Capability to provide secure system access to the designated authority, for the processing of short notice slot requests.
	<i>Provide an interface via webservice based on the IATA XML standard</i>

<b>3.2 Message Handling</b>	
	Ability to automatically receive process and respond to properly formatted SCR, SAQ, SIR, SMA, WCR and WIR messages to the generic email address specified by the airline for this purpose.
	Ability to generate SCR, SAQ, SIR, SMA, SHL, SAL, WCR and WIR messages.
	Systems should avoid manual data entry wherever possible.
	Ability to generate SHL messages that incorporate the new scheduling period date range.
	Ability to process SSIM message requests via email.
	<b>Ability to receive, process and respond to General and Business Aviation slot requests</b>
	<b>Desirable: ability to process SSIM equivalent requests made via webservice based on IATA XML Standard</b>
<b>3.3 Database Editing</b>	
	Ability to make non-message based database changes including the following;
	View flights in the database according to selection criteria.
	Change existing allocated or waitlisted slots.
	Delete existing allocated or waitlisted slots.
	Add new slots.
	<i>Provision of online tools to enable timely airline database editing.</i>
	<i>Ability to provide automated slot availability offers via an online tool.</i>
	<b>Desirable: ability to provide use it or lose it status for each series of slots</b>
<b>3.4 Outstanding Requests</b>	
	Systems must be able to maintain a waitlist of all outstanding requests by airlines.
	Outstanding requests must be regularly updated, <i>preferably automatically</i> , as airline requirements change.
	<i>Where terminal and/or aircraft parking constraints are relevant, the ability to record outstanding aircraft type and/or seat count requirements is desirable.</i>
	<i>Software to automatically search for possible slot exchanges and improvements to waitlisted slot times is desirable.</i>
<b>3.5 Constraint and Resource Modelling</b>	
	The system must be capable of modelling the coordination requirements of the airport. This may include facility areas such as runways, taxiways, aircraft parking stands, gates, terminal security, immigration, baggage delivery, check-in and night restrictions or environmental constraints etc.
	Systems must automatically evaluate any database changes against the utilisation of each coordination parameter and report any constraint breaches,
	Coordinator systems must be able to allocate flights to specific airport resources according to criteria such as, service type, operator code, season etc.
<b>3.6 Availability and Utilisation Displays</b>	
	There must be an ability to visually display available capacity or utilisation of all

	coordination parameters, with appropriate use of colors to aid visualisation.
	It must be possible to provide airlines with depictions of available capacity, such as histograms or a table of availability for a specific week, for planning purposes.
	<i>The ability to display and provide capacity or utilisation of multiple constraints merged together is desirable.</i>
	<i>The use of an online tool to display availability and utilisation is desirable.</i>
<b>3.7 Reporting</b>	
	Systems must be able to produce listings of flights held in the slot database including GA/BA as printouts and/or in electronic formats based on selection criteria.
	Systems must be able to produce a historic listing of flights held in the database.
	Systems must be able to produce statistical reporting data, for example, slots per hour, by operator, etc.
	<i>The ability to provide reporting data from an online tool is desirable.</i>
<b>3.8 Slot Monitoring</b>	
	Ability to receive and display uploaded operational actual flight data to facilitate slot monitoring.
	Ability to reconcile actual operations data with allocated slot data.
	Ability to calculate compliance with the Use-it-or-lose-it rule.
	Systems must be able to track the difference between allocated and actual slot information to identify potential slot misuse by airlines.
	<i>The ability to report on slot performance according to specified criteria is desirable.</i>
	<i>The ability to provide slot usage data from an online tool is desirable.</i>
<b>3.9 Data Feeds</b>	
	Appropriate data feeds to Airport Operating Systems with the capability for updates to be provided on a seasonal or dynamic basis day and night.
	<i>It is desirable to have the ability to distribute automated reports to authorized stakeholders.</i>
<b>3.10 Internet Access</b>	
	Reliable internet access to facilitate slot coordination with airlines and the distribution of slot data to airports.
	Reliable email access to send and receive slot related communications.
	Ability to access websites such as AppCal to register for and manage diaries at the IATA Slot Conference.
	<i>Provision to support online tools that enable the timely editing of schedules and the visibility of planning and usage data.</i>