



# **IS-XML Structure and Interface Specification for Ground Handlers**

**September 2014**

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## 1. Introduction

The Integrated Settlement (IS) platform aims to simplify billing, and remove paper from the entire process, delivering tangible financial benefits to the industry. "IS" is based on the principles of completely paperless billing, invoicing, and settlement.

### 1.1. Purpose of this Document

The purpose of this document is to provide details about the IS-XML Structure and Interface Specification to be used by Ground Handler to participate in IS.

This document describes the interface file formats and explanation of the various record structures including the validation checks that would be carried out on them.

The intended audience of this document includes:

- User's IT Department  
To understand the impact of the changes to the Billing and Settlement process due to IS
- Financial System Providers  
To understand the interfacing requirements for billing Miscellaneous invoices and to carry out automated posting and reconciliation
- Finance Department of the Participants  
To understand and assess the impact of potential changes to the existing business processes

This document is not a User Guide. Hence it does not contain details of how the User will interact with the online interface provided by IS. The User Guide document is available on the IS website ([www.iata.org/sis](http://www.iata.org/sis)).

## 2. Miscellaneous Billings – Impact of IS on Financial Accounting

### 2.1. Overview

The IS-XML Invoice Standard is based on the existing IATA Aviation Invoice standard and enhanced to meet the requirements of SIS.

Refer to the following documents used to define IS-XML:

- IS P3 – IATA IS-XML Invoice Standard - V3.4.xls: defines the structure and layout of the elements within the IS-XML specification.
- IATA\_IS-XML\_Standard\_Base\_Datatypes\_V3.4.xsd: defines the baIS data types used in the schema
- IATA\_IS-XML\_Standard\_Main\_Dictionary\_V3.4.xsd: the standard dictionary
- IATA\_IS-XML\_Standard\_Custom\_Dictionary\_V3.4.xsd: Some elements of the standard are partly open ended, partly dictionary defined. The part that is dictionary defined is documented in the standard dictionary. In the custom dictionary, an implementer can document the additional values that his organization wants to use for these fields.
- IATA\_IS-XML\_Invoice\_Standard\_V3.4.xsd: the schema for the IS-XML Invoice Standard itself
- IATA\_IS-XML\_Invoice\_Standard\_TechDoc\_V3.4.doc: provides the Glossary reference for the IS-XML file

[These schemas have been published on the IS website.](#)

Today, Miscellaneous Billings is mainly paper based process. There is no mechanism to exchange the invoice information in an electronic format. As part of IS, the various types of Miscellaneous Invoices were analyzed and categorized into different groups. The data requirement of each type of Miscellaneous invoice was defined. The existing IATA Aviation Invoice XML standard was extended to support the electronic exchange of different types of Miscellaneous Invoices.

This section describes the various Miscellaneous Invoice types that will be supported by IS.

### 2.2. Invoice Types Overview

The Miscellaneous invoices have been combined into “Charge Codes” which are further grouped under the appropriate “Charge Category”.

Charge Category:

- Distinguishes the broad category of services being billed on an invoice.
- Used by the recipient to decide which IT system or department needs to receive the invoice (work flow)
- For e.g.: *Ground Handling*

Charge Code:

- Specifies the nature of the service charged within a Charge Category
- For e.g.: *Mishandling Baggage, Ramp Handling* services within Charge Category *Gound Handling*

A Miscellaneous Invoice in IS can have only one Charge Category but one or more Charge Codes associated with the specific Charge Category.

The combination of Charge Category and Charge Code will determine the fields to be used for account posting and reconciliation. The following sections give a

- Description of the Charge Category
- Charge Codes under each Category
- Description of Charge Code
- Mandatory & Recommended Fields for the combination of Charge Category & Charge Code. These fields are required over and above the other Mandatory and Legal Fields defined in the IS-XML Specification. The listing of these fields is given below: These are referred to as “**Generic Fields**” in the IS-XML Specification

```
TransmissionHeader
  TransmissionDate TimeDate Time
  Version
  BillingCategory
Invoice
  InvoiceHeader
    InvoiceNumber
    InvoiceDate
    InvoiceType
    ChargeCategory
    SellerOrganization
      OrganizationID
      LocationID**
      ContactName***
      ContactDetails***
        ContactType***
        ContactValue***
        Description***
    BuyerOrganization
      OrganizationID
      LocationID**
      ContactName***
      ContactDetails***
        ContactType***
        ContactValue***
        Description***
    PaymentTerms
      CurrencyCode
      SettlementMethod
    ISDetails
      DigitalSignatureFlag
    Attachment
      AttachmentIndicatorOriginal
  Lineltem
    LineltemNumber
    ChargeCode
    Description
    StartDate
    EndDate
    Quantity @UOMCode
    UnitPrice @SF
```

ChargeAmount @Name  
TotalNetAmount  
InvoiceSummary  
  LineItemCount  
  TotalLineItemAmount  
  TotalAmount  
TransmissionSummary  
  InvoiceCount  
  TotalAmount @CurrencyCode

*\*\* If the Invoice reference data is to be taken from a Location ID defined in the Member Profile, then this field should be populated. This is not required if the reference data is derived from the 'Main' Location ID.*

*\*\*\*These fields are optional and may be provided if there is a need to state the contact name and details of the Billing/Billed Entity. Note these fields are not a part of the Location ID definition and hence will have to be provided even if the Location ID has been stated.*

#### **Mandatory and Recommended Fields based on Charge Category-Charge Code combination**

**Mandatory fields** based on Charge Category-Charge Code combination are those which are required on an invoice to enable automatic reconciliation for the Billed Entity. The invoice will fail validation if these Mandatory values are not provided. These fields are listed in the next section. This facility is provided to allow Participants sufficient time to enhance their financial systems to provide the relevant data. The e-Invoicing Standards Working Group will review this process from time to time and decide when such a practice should be discontinued.

**Recommended fields** based on Charge Category-Charge Code combination are those which add to the data in the Mandatory fields, and enable further allocation to sub-accounts, or cross-referencing with Approval Systems. An invoice that contains these items is more likely to be processed automatically by the receiving airline without manual intervention. Invoices that are submitted without data for the Recommended fields will not fail validation unless if there are any other error in the Invoice.

**Recommended fields will become Mandatory over a period of time as determined by the e-Invoicing Standards Working Group.** However there are certain fields that are marked as '**Recommended Always**' which will always remain as recommended forever.

The master Ground handling table for Charge Category & Charge Codes should be defined as stated in table below.

Charge Category	Charge Codes
Ground Handling	Baggage
	Baggage Delivery
	Cargo Handling
	Catering
	Cleaning
	Commission
	Crew Accommodation
	Crew Transportation
	Customs Service Charge
	Deicing
	Departure Stamps
	Immigration Fines
	Lounge
	Misc
	Mishandling Baggage
	Mishandling Passenger
	Motor Fuel
	Passenger Handling
	Passenger Transportation
	Passenger Security
	Ramp Handling
	Rent Equipment
	Stand
STPC	
Utilities	

### 2.2.1. VAT related Misc invoices:

Please note that in case of VAT invoice the field tax category must be filled with one of the following information: Standard / Zero / Higher / Lower / Exempt / OutofScope/ Reverse Charge.

### 2.2.2. Charge Category – Ground Handling

Services provided to an aircraft while it is on ground primarily those when parked on stand.

The various charge codes in this category are:

#### 2.2.2.1. Charge Code: Baggage

For transportation, loading, unloading or storage of baggage when charged separately from other handling. Covered by Section 3.1 of IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Aircraft Type Code
- Flight Date Time
- Flight Number
- Location Code (Airport Code where the baggage handling happens)



Recommended Fields:

- Charge Code Type

### **2.2.2.2. Charge Code: Baggage Delivery**

Costs for the transport and delivery of mishandled baggage to the passenger's location or permanent address, as specified in Resolution 780 and covered in Section 2.1.7 (e) of the IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Location Code (Airport Code)
- Reference Number (Eg; World Tracer Number)

Recommended Fields:

- Distance (Till delivery Point)
- Flight Date Time
- Flight Number

Please note: If the bilateral agreement requires that the Distance should be stated in the invoice, then it is mandatory to provide it although the system will not validate this.

### **2.2.2.3. Charge Code: Cargo Handling**

For charges related to the acceptance and handling of cargo or mail under a service contract, and security of premises and goods. This includes document handling, production of air waybills and manifests, presentation to customs, recording and processing of irregularities, special handling of valuable, restricted or dangerous goods, transfers to or from aircraft, from shippers and to consignees. Covered by Sections 5 and 7.2 of the IATA Standard Ground Handling Agreement (SGHA).

Does not include claims for damage or mishandling (Use Charge Category Cargo, Charge Code Misc) or Storage (Use Charge Category Cargo, Charge Code Storage).

This code does not include charges for carriage of cargo, or sale or use of cargo space on aircraft, or storage (see also Charge Category Cargo above), or charges made by Customs for inspections (Customs Svc Charge).

Fields required:

Mandatory Fields:

- Location Code (Airport Code where the cargo handling happens)
- Aircraft Type Code
- Flight Number

Recommended Fields:

- Product Id
- Contract Number
- Reference Number
- Flight Date

### **2.2.2.4. Charge Code: Catering**

For charges related to catering services provided to another airline under a handling or other service contract. Includes meals, drinks, bonded stores, customs documentation, catering equipment provided and delivery to aircraft where charged separately. Includes Sections 3.16 and 6.7 of the IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Aircraft Type Code
- Board Flight Date
- Board Flight Number
- CabinClass
- Facility
- Flight DateTime
- Flight Number
- Invoice Disbursements Date
- Invoice Operation Code
- Location Code
- Location Code Type
- Location Code (Airport Code where the catering happens)
- Meal Code
- Meal Type
- Reference Number
- Service Flight Number
- Service Flight Date

Recommended Fields:

- Product Id
- Contract Number

#### **2.2.2.5. Charge Code: Cleaning**

For charges related to interior (cabins and cargo holds) and exterior cleaning services for aircraft, as covered by Sections 3.10 and 3.11 of the IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Aircraft Registration Number
- Aircraft Type Code
- Flight Number
- Location Code (Airport Code where the aircraft is cleaned)

Recommended Fields:

- Charge Code Type
- Contract Number
- Flight Date Time
- Product ID

#### **2.2.2.6. Charge Code: Commission**

For commissions charged on the provision of specific ground handling services provided on behalf of an airline, such commissions or fees for the purchase of departure stamps. Does not include ticket sales commissions or GSA fees.

Fields required:

Mandatory Fields:

- Location Code (Airport Code)

### **2.2.2.7. Charge Code: Crew Accommodation**

Cost of local hotel accommodation for pilots and cabin crew while in transit. Also includes meals provided while on the ground, if appropriate.

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code where the crew stays)

Recommended Fields:

- Aircraft Type Code
- Charge Code Type
- Contract Number
- Staff ID
- Staff Name

### **2.2.2.8. Charge Code: Crew Transportation**

For the costs of crew shuttles either on the airport or between the airport and a rest hotel. This code applies to services provided in support of aircraft operations.

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code)

Recommended Fields:

- Charge Code Type
- Contract Number

### **2.2.2.9. Charge Code: Customs Service Charge**

For costs related to customs services, such as mandatory inspections, cargo checks, bonded warehouse or bar checks, etc.

Fields required:

Mandatory Fields:

- Location Code (Airport Code)

Recommended Fields:

- Flight Date Time
- Flight Number

### **2.2.2.10. Charge Code: Deicing**

For de-icing services on an aircraft to fly in freezing conditions. Includes the de-icing and snow removal services, equipment usage, as well as any costs for de-icing fluids, clean-up and disposal. Covered by Section 3.17 of the IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Aircraft Registration Number
- Aircraft Type Code
- Flight Date time
- Flight Number
- Location Code (Airport Code)

Recommended Fields:

- Charge Code Type
- Contract Number
- Product ID

### **2.2.2.11. Charge Code: Departure Stamps**

For any costs of departure stamps or other similar fees and charges paid for in advance of usage.

Fields required:

Mandatory Fields:

- Location Code (Airport Code)

Recommended Fields:

- Flight Date Time
- Flight Number

### **2.2.2.12. Charge Code: Immigration Fines**

For fines and penalties levied by immigration authorities relating to the landing of inadmissible or improperly documented passengers.

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location code
- Passenger Name

Recommended Fields:

- Ticket Number

### **2.2.2.13. Charge Code: Lounge**

For charges related to first class, business class or other lounge facilities provided to another airline as part of a service agreement.

Fields required:

Mandatory Fields:

- Flight Number
- Location Code (Airport Code where the lounge is located)
- PassengerName

Recommended Fields:

- Contract Number

- Cabin Class
- Ticket Number
- Reference Number

#### **2.2.2.14. Charge Code: Misc**

For charges related to ground handling services not otherwise specified in the listing of available charge codes. Supporting information must be provided to allow the receiving airline to properly allocate and validate the charge.

Fields required:

Mandatory Fields:

- Location Code (Airport Code)

Recommended Fields:

- Contract Number
- Aircraft Registration Number
- Aircraft Type Code
- Flight Number
- Flight Date

#### **2.2.2.15. Charge Code: Mishandling Baggage**

For charges related to mishandled baggage, including passenger amenity expenses as covered in Section 2.1.7 (d) of the IATA Standard Ground Handling Agreement (SGHA), and compensation for loss, delay, pilferage, theft or damage in accordance with Resolution 780.

Does not include delivery of recovered baggage to the passenger (see Baggage Delivery).

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code where the mishandling of baggage has occurred)
- Mishandling Type (To indicate the type of claim/ mishandling; Loss/ Delay/ Pilferage/ Damage)
- Passenger Name
- Reference Number (e.g. World Tracer Number, Our Reference Number, Your Reference Number)
- Waypoint Code (To define the routing; entry, exit and/or intermediate points)

Recommended Fields:

- Charge Code Type

#### **2.2.2.16. Charge Code: Mishandling Passenger**

For charges related to mishandled passengers, including accommodation in case of delay, meals, amenities, transport to hotels or alternative airports, etc.

Does not include the costs related to missing baggage (see Mishandling Baggage).

Expense vouchers supporting debits for passenger meals and sundry expenses must be provided to the billed airline as scanned documents or otherwise as agreed between the parties. Each service type should be stated as a separate line item in the invoice and the description should state the service type. Example, if there are charges for transportation and meals, then there should be two line items, one for 'Transportation' and one for 'Meals'.

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code where mishandling of passenger has occurred)

Recommended Fields:

- Reference Number

### **2.2.2.17. Charge Code: Motor Fuel**

For fuel, petrol, diesel, oil, LPG, etc. used for ground equipment such as passenger or crew transport, aircraft tugs and other motorised equipment. Also covers fuel farm services for ground equipment under Section 6.4 of the IATA Standard Ground Handling Agreement (SGHA).

Fields required:

Mandatory Fields:

- Location Code (Airport Code where mishandling of passenger has occurred)

### **2.2.2.18. Charge Code: Passenger Handling**

For charges related to passenger services provided as part of a ground handling agreement. Includes charges for check-in desks, transfer desks, special transports, wheelchairs, medical support, recording of lost and damaged baggage, denied boarding costs, passenger handling staff and other services provided to or for passengers. Covered in Sections 2.1, 2.2, 2.3 of the IATA Standard Ground Handling Agreement (SGHA).

Does not include provision of lounge facilities to priority passengers (Lounge), compensation for lost or delayed baggage (Mishandling Baggage), cost of delivering mishandled baggage to passengers (Baggage Delivery) or provision of check-in or departure control systems (Ramp Handling).

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code where the passenger is being handled)

Recommended Fields:

- AircraftRegistrationNo
- Aircraft Type Code
- Charge Code Type
- Contract Number
- Product ID (this field do not appear on the PDF invoice.)

### **2.2.2.19. Charge Code: Passenger Transportation**

For charges related to transportation of passengers to and from an aircraft, or to and from alternate locations as described in Sections 2.1, 2.2, 2.3 and 6.6 of the IATA Standard Ground Handling Agreement (SGHA).

Not for transportation to and from hotels or alternate locations in case of delay or disruption (see Mishandling PAX).

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code where the Passenger transportation has been provided)

Recommended Fields:

- Aircraft Type Code
- Charge Code Type
- Flight Direction (Arrival/ Departure)

#### **2.2.2.20. Charge Code: Passenger Security**

For charges related to security services provided as part of a ground services support agreement. Includes passenger and baggage screening and reconciliation as described in Section 7.1 of the IATA Standard Ground Handling Agreement (SGHA).

Does not include security charges when provided by an airport or government agency as required by law (see Airport & ATC above).

Fields required:

Mandatory Fields:

- Flight Number
- Location Code (Airport Code where the security is provided)

Recommended Fields:

- Flight Date
- Aircraft Type Code
- Charge Code Type

#### **2.2.2.21. Charge Code: Ramp Handling**

For charges related to ramp services such as marshalling, cooling and heating, ramp communications, passenger steps and jetties, loading and unloading of baggage and cargo, aircraft starting and moving, ground power, toilet and water servicing, management or storage of cabin equipment and material, safety inspections and control of access to and security of aircraft and aircraft equipment. This section applies to both passenger aircraft and freighters. Covered by Sections 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.12, 3.13, 3.14, 3.15, 7.3, 7.4 of the IATA Standard Ground Handling Agreement (SGHA).

The Charge Code includes load control services, pre-flight briefings for crews, VHF/UHF/HF ground-air communication services and assistance, flight planning, fuel requests and filing and crew administration (but not accommodation), as covered by Section 4 of the IATA Standard Ground Handling Agreement (SGHA).

The Charge Code includes use of computer equipment and service and ULD control as covered by Sections 6.2 and 6.3 of IATA Standard Ground Handling Agreement (SGHA)

If all ground handling services are provided as an undifferentiated whole (i.e. there is no breakdown provided, and all services are included as a single line item), then this Charge Code is to be used.

This Charge Code should also be used for management services, where itemised separately, as described in Section 1 of the IATA Standard Ground Handling Agreement (SGHA).

Does not include charges for use of parking bays, stands or hangars (see Stands), or rental of office or storage space as provided in Section 6.1 of the IATA Standard Ground Handling Agreement (SGHA). Use Charge Code Property.

Fields required:

Mandatory Fields:

- Aircraft Type Code
- Flight Date Time
- Flight Number
- Location Code (Airport Code)

Recommended Fields:

- Charge Code Type
- Contract Number
- Flight Type Code
- Product ID

#### **2.2.2.22. Charge Code: Rent Equipment**

For charges related to rental of ground equipment, parts or spares to an airline as part of a ground handling agreement.

Fields required:

Mandatory Fields:

- Location Code (Airport Code where the equipment rental is provided)

Recommended Fields:

- Aircraft Type Code
- Contract Number
- Flight Date Time
- Flight Number
- Part Number
- Product ID

#### **2.2.2.23. Charge Code: Stand**

For charges related to use of aircraft stands and stand services, such as power and lighting, when not charged by the airport or government agency. Includes charges for long term standing, parking bays or use of hangar space when not charged as part of an engineering services agreement.

Fields required:

Mandatory Fields:

- Aircraft Registration Number
- Aircraft Type Code
- Flight Date Time
- Flight Number
- Location Code (Airport Code where the aircraft is parked)

Recommended Fields:

- Contract Number
- On Stand Date & Time
- Off Stand Date & Time
- Stand Number
- Stand Type



#### **2.2.2.24. Charge Code: STPC**

For the costs of passenger accommodation, meals and transport covered by the Stopover at Passenger Convenience (STPC) provisions of the Multilateral Integrated Traffic Agreement (MITA).

Fields required:

Mandatory Fields:

- Flight Date Time
- Flight Number
- Location Code (Airport Code)

Recommended Fields:

- Ticket Number

#### **2.2.2.25. Charge Code: Utilities**

For charges related to utilities not otherwise specified in the listing of available charge codes.

Fields required:

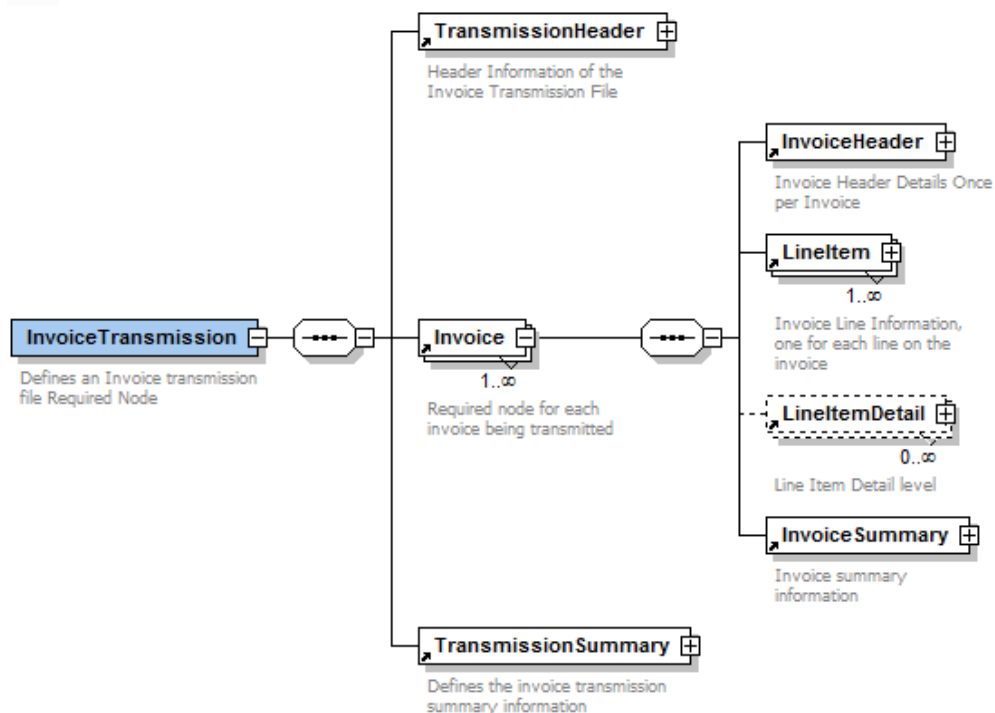
Mandatory Fields:

- Charge Code Type
- Location Code (Airport Code)

**Note: There could be addition of new fields in the future. Hence, all are advised to make their systems flexible to be able to incorporate these changes.**

### 2.2.3. IS-XML

The structure of the IS-XML file is as shown below:



#### Transmission Header

The Transmission header element contains header level data that describes the transmission. There is only one instance of this element for each transmission.

#### Invoice

The Invoice element is the main component business wise of a transmission. There can be multiple invoice elements for each transmission. The Invoice element contains four main elements:

##### Invoice Header

- Provide header information about the invoice

##### Line Item

- In one invoice several types of services and products can be invoiced (one per line item)
- Each Invoice element contains one (at least) or more line item elements.
- The line item provides a summary-level data for line item detail elements.

##### Line Item Detail

- The detail information is quite specific of the type of product and service being invoiced.
- It contains detailed data about each line item element.
- The line item detail information provides the customer with all information needed to reconcile the amount being invoiced in each line item. This is very much what can be found in the supporting documents in the paper world.

##### Invoice Summary

- It provides summary information for each invoice.

## Transmission Summary Element

This element will be used by the recipient of the electronic message to make some validation and ensure that the data has not been damaged during its creation or transfer. It contains totals for the overall transmission.

Refer to [Chapter 2 – Section 2.1](#) for details of the IS-XML Record Structure

The IS-XML file can be provided on a daily baIS to IS. There is no restriction on the number of IS-XML files that can be submitted in a day. The output IS-XML file will be generated on a weekly basis.

### Note:

1. It is recommended that, where possible, the User standardizes on the IS-XML for all of electronic invoices. This includes suppliers and any other e-invoicing companies.
2. It is recommended that User's system is developed so that all fields in the standard are available to be used. While the fields may not be considered mandatory, or even optional, today for a given charge category/code it is possible that:
  - a. As a billed participant, you might receive data in one of the fields that isn't currently optional or mandatory for that given charge Category/Code; or
  - b. A field may be made optional or mandatory for that given Charge Category/Code

## 2.3. Note on AddOnCharges and Tax Information

### 2.3.1. AddOnCharges

AddOnCharges are additional charges or deductions that can be applied to a service provided on an Invoice. This charge can be applied on the Line Item details level (applicable for individual sub-service provided within a Charge code) and/or at the Line Item Level (applicable for all sub-services within a Charge Code) and/or at the Invoice Level (applicable for all Charge Codes listed on an invoice).

Listed below are few examples which illustrate how the AddOnCharges need to be defined in the IS-XML file. The same is also applicable for capturing the details on IS-WEB.

The following should be ensured while providing the AddOnCharge detail.

1. Nodes should be mutually exclusive. This means that if an 'AddOnCharges' node has been provided at the Line Detail level, the details SHOULD NOT be repeated at the Line Item level or Invoice Summary level.
2. The details of the AddOnCharge applied at the Line Item Detail level should be provided in an 'AddOnCharges' node at the Line Item Detail level only.
3. The details of the AddOnCharge applied at the Line Item level should be provided in a 'AddOnCharges' node at the Line Item level only.
4. The 'AddOnChargeAmount' of all 'AddOncharges' nodes at the Line Item Detail level and the 'AddOnChargeAmount' of all 'AddOnCharges' nodes at that Line Item level should be summed up and added to the field 'TotalAddOnChargeAmount' of that Line Item level.
5. The details of the AddOnCharge applied at the Invoice level should be provided in a 'AddOnCharges' node at the Invoice level only.
6. The summation of the value of the field 'TotalAddOnChargeAmount' at all Line Item levels and 'AddOnChargeAmount' at the Invoice level should be added to the field 'TotalAddOnChargeAmount' at the Invoice Summary level.

#### ***Example 1: Ground handling Ramp handling (Additional charges at the line item detail level and invoice level)***

Charge Category: Ground handling

Charge Code: Ramp Handling

Line #	Description	Charge Amount	Additional Charge	Net Amount
1	Ramp handling	\$600.00		\$600.00
2	Equipment rental	\$300.00	\$100.00	\$400.00
		\$900.00	\$100.00	\$1000.00
Invoice Discount (5% discount on Charge Amount)				-\$45.00
Invoice Total				\$955.00

- Line Item detail #1: Fixed Labor Charge without any additional charge
- Line Item detail # 2: Material Consumption. This is made up of two detail items. An additional handling fee is applicable on the details of line item # 2.
- 5% discount on the Total Charge Amount applicable at the invoice level.

#### **Breakdown information on IS-XML:**

##### **Line item detail level:**

There will be one AddOnCharges node in the line item detail level:

(There is no base amount and percentage stated as this is a flat fee.)

Line Item Detail #2  
 AddOnCharges  
   AddOnChargeName: Handling Fee  
   AddOnChargeAmount: 100.00

**Line item level:**

There will be no AddOnCharges node in the line item level to show the Handling Fee applied at the detail level.

The field 'TotalAddOnChargeAmount' = \$100.00 i.e. Summation of the Additional Charge at the line item level (\$0.00 as there are no additional charge at this level) and the Handling Fee (\$100.00) at the line item detail level.

**Invoice Summary Level:**

There will be one AddOnCharges node to show the discount applicable on the invoice:

AddOnCharges  
   AddOnChargeName: Discount  
   AddOnChargePercentage: -5%  
   AddOnChargeableAmount: 900.00  
   AddOnChargeAmount: -45.00

The field 'TotalAddOnChargeAmount' in the invoice summary level = \$ 55.00 (\$100 - \$45)

**Example 2: Ground handling Ramp handling (Additional charges at the line item and invoice level)**

Charge Category: Ground handling  
 Charge Code: Ramp handling

Line #	Description	Charge Amount	Additional Charge	Net Amount
1	Ramp handling	\$600.00		600.00
2	Equipment rental	\$300.00		300.00
Line Total		\$900.00	\$100.00 Handling Fee	1000.00
Invoice Discount (5% on the Total Amount)				-50.00
Invoice Total				950.00

- Line Item Detail #1: Fixed Labor Charge with no Additional Charge
- Line Item Detail # 2: Material Consumption with no Additional Charge
- Handling Fee of \$100.00 at the Line Item level
- 5% discount applicable at the invoice level.

**Breakdown information on IS-XML:**

**Line Item Details level:**

There will be one AddOnCharges nodes in the line item details level:  
 (There is no base amount and percentage stated as this is a flat fee.)

**Line Item Level**

AddOnCharges  
   AddOnChargeName: Handling Fee  
   AddOnChargeAmount: 100.00

The field 'TotalAddOnChargeAmount' = \$ 100.00

**Invoice Summary Level:**

There will be one AddOnCharges node to show the discount applicable on the invoice:

AddOnCharges  
 AddOnChargeName: Discount  
 AddOnChargePercentage: -5%  
 AddOnChargeableAmount: 1000.00  
 AddOnChargeAmount: -50.00

The field 'TotalAddOnChargeAmount' in the invoice summary level = \$ 50.00 (\$100 from Line Item level - \$50 from Invoice Level)

**Example 3: Ground handling and Ramp Handling (Additional charges at the line item details, line item and invoice level)**

Charge Category: Ground Handling  
 Charge Code: Ramp handling

Line #	Description	Charge Amount	Additional Charge	Net Amount
1	Ramp Handling	\$600.00	10% discount (-\$60.00)	540.00
2	Equipment rental	\$300.00	-\$15.00 discount	285.00
Line Total			\$100.00 Handling Fee	925.00
Invoice Discount (10% on the Total Amount)				-92.50
Invoice Total				832.50

- Line Item Detail #1: Fixed Labor Charge with 10% Discount
- Line Item Detail # 2: Material Consumption with a discount of \$15
- Handling Fee of \$100.00 at the Line Item level
- 5% discount applicable at the invoice level.

**Breakdown information on IS-XML:**

**Line Item Details level:**

There will be twoAddOnCharges nodes in the line item details level:

LineItemDetail #1

AddOnCharges  
 AddOnChargeName: Discount  
 AddOnChargePercentage: -10%  
 AddOnChargeableAmount: 600.00  
 AddOnChargeAmount: -60.00

LineItemDetail #2  
 (There is no base amount and percentage stated as this is a flat fee.)

AddOnCharges  
 AddOnChargeName: Discount  
 AddOnChargeAmount: -15.00

**Line Item Level**

AddOnCharges  
 AddOnChargeName: Handling Fee  
 AddOnChargeAmount: 100.00

The field 'TotalAddOnChargeAmount' = \$ 25.00 (\$100 of Line Item - \$60 of LineltemDetail1 - \$15 of LineltemDetails2)

#### **Invoice Summary Level:**

There will be one AddOnCharges node to show the discount applicable on the invoice:

#### **AddOnCharges**

AddOnChargeName: Discount  
AddOnChargePercentage: -10%  
AddOnChargeableAmount: 925.00  
AddOnChargeAmount: -92.50

The field 'TotalAddOnChargeAmount' in the invoice summary level = \$ 67.50 (\$100 from Line Itme level - \$60 from Line Item Details1 - \$15 from Line Item Details1 - \$92.50 from Invoice Level)

### **2.3.2. Tax/ VAT Information**

Tax/ VAT can also be applicable on multiple levels. Hence Tax/ VAT can be applied on the Line Item details level (applicable for individual sub-service provided within a Charge code) and/or at the Line Item Level (applicable for all sub-services within a Charge Code) and/or at the Invoice Level (applicable for all Charge Codes listed on an invoice).

The following should be ensured while providing the Tax/ VAT detail.

1. Nodes should be mutually exclusive. This means that if a 'Tax' node has been provided at the Line Item Detail level, the details SHOULD NOT be repeated at the Line Item level or Invoice Summary level.
2. The details of the VAT/ Tax applied at the Line Item Detail level should be provided in a 'Tax' node at the Line Item Detail level only.
3. The details of the VAT/ Tax applied at the Line Item level should be provided in a 'Tax' node at the Line Item level only.
4. Where TaxType=Tax, the 'TaxAmount' of all 'Tax' nodes at the Line Item Detail level and the 'TaxAmount' of all 'Tax' nodes at that Line Item level should be summed up and added to the field 'TotalTaxAmount' of that Line Item level.
5. Where TaxType=VAT, the 'TaxAmount' of all 'Tax' nodes at the Line Item Detail level and the 'TaxAmount' of all 'Tax' nodes at that Line Item level should be summed up and added to the field 'TotalVATAmount' of that Line Item level.
6. The details of the VAT/ Tax applied at the Invoice level should be provided in a 'Tax' node at the Invoice level only.
7. The summation of the value of the field 'TotalTaxAmount' at all Line Item levels and 'TaxAmount' (Tax nodes where TaxType=Tax) at the Invoice level should be added to the field 'TotalTaxAmount' at the Invoice Summary level.
8. The summation of the value of the field 'TotalVATAmount' at all Line Item levels and 'TaxAmount' (Tax nodes where TaxType=VAT) at the Invoice level should be added to the field 'TotalVATAmount' at the Invoice Summary level.

Listed below are few examples which illustrate how the VAT/ Tax need to be defined in the IS-XML file. The same is also applicable for capturing the details on IS-WEB.

Please note that the example below shows VAT but the same process has to be used for Tax.

#### ***Example 1: VAT applicable at the Line Item Detail Level only***

##### ***Assumptions:***

- Line Item Detail Charge Amount = \$ 1000
- VAT @ 10% applicable only on the Line Item Detail level Charge Amount

##### ***How to provide the VAT amount in input file***

- Detail of this VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Line Item Detail level ONLY as shown below.

Tax

TaxType: VAT  
 TaxSubType: VAT  
 TaxText: VAT @10%  
 TaxPercent: 10  
 TaxableAmount: 1000.00  
 TaxAmount @Name: 100.00 (Attribute 'Name' is NOT used for Miscellaneous Billing Category)

- The 'Tax' Nodes present at the Line Item and Invoice Summary levels will not repeat the VAT breakdown details provided at the Line Item Details level. In case any amount of the invoice is exempt from VAT, these will be provided in the 'Tax' node at the Invoice Summary level.
- The calculated 'TaxAmount' (\$100) should be added to the field 'TotalVATAmount' which is present at the Line Item Level. Hence the value of this field 'TotalVATAmount' is '100.00'.
- The amount in the 'TotalVATAmount' field at the Line Item level should be added to the field 'TotalVATAmount' which is present at the Invoice Summary Level. Hence the value of this field 'TotalVATAmount' is '100.00'.

**Example 2: VAT applicable at the Line Item Detail Level and Line Item Level only**

**Assumptions:**

- Line Item Charge Amount = \$5000.00
- Line Item Detail Charge Amount = \$ 1000
- VAT @ 5% applicable on the Line Item level Charge Amount
- VAT @ 10% applicable on the Line Item Detail level Charge Amount

**How to provide the VAT amount in input file**

- Detail of the Line Item level VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Line Item level ONLY as shown below.

Tax

TaxType: VAT  
 TaxSubType: VAT  
 TaxText: VAT @ 5%  
 TaxPercent: 5  
 TaxableAmount: 5000.00  
 TaxAmount @Name: 250.00

- Detail of the Line Item Detail level VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Line Item Detail level ONLY as shown below.

Tax

TaxType: VAT  
 TaxSubType: VAT  
 TaxText: VAT @10%  
 TaxPercent: 10  
 TaxableAmount: 1000.00  
 TaxAmount @Name: 100.00

- The calculated 'TaxAmount' (\$100) at the Line Item Detail level and the 'TaxAmount' (\$250) at the Line Item Level should be added to the field



'TotalVATAmount' which is present at the Line Item Level. Hence the value of this field 'TotalVATAmount' is '350.00'.

- The tax details provided at the Line Item Detail as well we Line Item level will not be repeated at the Invoice Summary level. In case any amount of the invoice is exempt from VAT, these will be provided in the 'Tax' node at the Invoice Summary level.
- The amount in the 'TotalVATAmount' field at the Line Item level should be added to the field 'TotalVATAmount' which is present at the Invoice Summary Level. Hence the value of this field 'TotalVATAmount' is '350.00'.

**Example 3: VAT applicable at the Invoice Level, Line Item Detail Level and Line Item Level**

**Assumptions:**

- Invoice Total Line Item Amount = \$5000.00
- Line Item Charge Amount = \$5000.00
- Line Item Detail Charge Amount = \$ 1000
- VAT @ 3% applicable on the Invoice level Total Line Item Amount
- VAT @ 5% applicable on the Line Item level Charge Amount
- VAT @ 10% applicable on the Line Item Detail level Charge Amount

**How to provide the VAT amount in input file**

- Detail of the Invoice level VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Invoice Summary level ONLY as shown below.

```
Tax
TaxType: VAT
TaxSubType: VAT
TaxText: VAT @ 3%
TaxPercent: 3
TaxableAmount: 5000.00
TaxAmount @Name: 150.00
```

- Detail of the Line Item level VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Line Item level ONLY as shown below.

```
Tax
TaxType: VAT
TaxSubType: VAT
TaxText: VAT @ 5%
TaxPercent: 5
TaxableAmount: 5000.00
TaxAmount @Name: 250.00
```

- Detail of the Line Item Detail level VAT should be stated in the Tax Node (indicating TaxType = VAT) at the Line Item Detail level ONLY as shown below.

```
Tax
TaxType: VAT
TaxSubType: VAT
TaxText: VAT @10%
TaxPercent: 10
TaxableAmount: 1000.00
TaxAmount @Name: 100.00
```

- The calculated 'TaxAmount' (\$100) at the Line Item Detail level and the 'TaxAmount' (\$250) at the Line Item Level should be added to the field

'TotalVATAmount' which is present at the Line Item Level. Hence the value of this field 'TotalVATAmount' is '350.00'.

- The amount in the 'TotalVATAmount' field at the Line Item level and the calculated 'TaxAmount' at the Invoice level should be added to the field 'TotalVATAmount' which is present at the Invoice Summary Level. Hence the value of this field 'TotalVATAmount' is '500.00'.

#### **VAT EXEMPT AMOUNT:**

Amount on which VAT has not been applied should be stated at the invoice level as 'VAT Exempt' amount.

#### **Display of VAT on PDF:**

VAT applied at all levels will be grouped by the following fields and shown on the PDF.

- VAT Sub Type
- VAT Category
- VAT Percent
- VAT Text

#### **Display of Tax and AddOnCharge on PDF:**

- Note that Tax and AddOnCharges will NOT be grouped and shown on PDF invoice.
- Each Tax/ AddOnCharges node applied at the Line Item and Invoice Levels will be shown as a separate row on the PDF invoice.
- The details of the Tax and AddOnCharges applied at the Line Item Detail level will be shown in the Detail Listing report.
- However, only the summed up amount of all related Line Item Details for a Line Item will be shown as a separate single row on the PDF invoice.

This is explained with the help of an example below:

#### **Assumptions:**

In an invoice there is one line item and this line item has two line item details. The amounts and the various AddOnCharges and VAT that are applicable on this invoice at various levels are as stated below.

#### **Line Item Detail Level:**

- Line Item Detail # 1 Charge Amount = \$ 3000
- AddOn Charge @ 5% applicable on Line Item Detail # 1 Charge Amount = \$ 150
- VAT @ 10% applicable on both the Line Item Detail level Charge Amount = 10% on 3150 = \$315
- Line Item Detail # 1 Net Amount = \$ 3465
  
- Line Item Detail # 2 Charge Amount = \$ 2000
- AddOn Charge @ 10% applicable on Line Item Detail # 2 Charge Amount = \$ 200
- VAT @ 10% applicable on both the Line Item Detail level Charge Amount = 10% on 2200 = \$220
- Line Item Detail # 1 Net Amount = \$ 2420

**Line Item Level:** The amounts at the Line Item details are summed up and shown in the Line Item level along-with the AddOnCharge and VAT applicable at the Line Item Level

- Line Item Charge Amount = \$5000

- AddOn Charge @ 5% applicable on Line Item Charge Amount = \$250
- TotalAddOnChargeAmount = 250+150+200 = \$600
- VAT @ 10% applicable on the Line Item level Charge Amount + AddOn Charge Amount = 10% on \$5250 = \$525
- TotalVATAmount = 525+315+220 = \$ 1060
- Line Item Net Amount = \$ 6660

**Invoice Level:** The amounts at the Line Item are summed up and shown in the Invoice Level along-with the AddOnCharge and VAT applicable at the Invoice Level

- Invoice Total Line Item Amount = \$6660
- VAT @ 5% applicable on the Invoice level Line Item Amount = 5% on \$6660 = \$333
- Invoice Total Amount = \$6993

**The above is represented as shown in the PDF below. You will note that the VAT has been grouped and shown while the AddOnCharges have been shown as they were applicable. The breakdown of the AddOnCharge applied at the Line Item Detail level has not been shown in this PDF; only the amount has been shown. The breakdown will be provided in the Detail Listing report.**



## Miscellaneous Invoice

Digitally Signed

<b>Billing Entity</b> Cyprus Airways Public Ltd <b>Entity Designator &amp; Num. Code</b> CY-048 <b>Location ID</b> CY0001 <b>Contact Person</b> James <b>Street</b> 21 Alkeou street <b>City</b> Engomi <b>Nicosia</b> <b>Prov/ State/Region</b> <b>Zip/Postal Code</b> CY-2404 <b>Country</b> Cyprus <b>Tax/VAT Registration #</b> CY 10000314J <b>Company Registration #</b> 314	<b>Invoice #</b> MI12307890 <b>Date</b> 25-Jun-2009 <b>Month/Year</b> Jun-09 <b>Period</b> 04 <b>Charge Category</b> Ground Handling <b>Currency of Billing</b> USD <b>Settlement Method</b> ICH <b>PO Number</b> ABC123 <b>Location Code</b> FRA <b>Transmitter Code</b> <b>Transmitter Name</b> <b>Attachments</b> Yes <b>Line Item Details</b> No	<b>Billed Entity</b> KLM Royal Dutch Airlines <b>Entity Designator &amp; Num. Code</b> KL-074 <b>Location ID</b> KL0001 <b>Contact Person</b> Rene <b>Street</b> PO Box 7700 <b>1177, Schiphol Arprt</b> <b>City</b> <b>Prov/ State/Region</b> <b>Zip/Postal Code</b> 7700 <b>Country</b> Netherlands <b>Tax/VAT Registration #</b> NL004983269B01 <b>Company Registration #</b> 33014286
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Header Notes:

Line #	Date of Service	Charge Code	Location Code	Description	Quantity	Unit of Measure	Unit Price	Base Amount	Additional Amount	Tax	VAT	Line Amount
1	01-Jun-2009 to 20-Jun-2009	Ramp Handling		Ramp Handling Charges	1	EA	5000.00	5000.00	600.00		1060.00	6660.00
<b>Line Item Sub Total</b>								<b>5000.00</b>	<b>600.00</b>		<b>1060.00</b>	<b>6660.00</b>
<b>Invoice Additional Amount</b>												
<b>Invoice TAX Amount</b>												
<b>Invoice VAT Amount</b>												<b>333.00</b>
<b>Total Due in Currency of Billing</b>									<b>USD</b>		<b>6,993.00</b>	

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## Miscellaneous Invoice

Digitally Signed

<b>Billing Entity</b> Cyprus Airways Public Ltd	<b>Invoice #</b> MI12307890	<b>Billed Entity</b> KLM Royal Dutch Airlines
	<b>Date</b> 25-Jun-2009	

VAT Breakdown	Label	VAT Text	Base Amount	VAT Rate	VAT Amount
	VAT	VAT @ 5%	6660.00	5%	333.00
	VAT	VAT @ 10%	10600.00	10%	1060.00

Additional Amount Breakdown	Level	Additional Amount Name	Chargeable Amount	Charge Rate	Additional Amount
	Line 1	Handling Charges	5000.00	5%	250.00
	Line 1 Details				350.00

DO NOT PAY. SETTLEMENT THROUGH CLEARING HOUSE.

Legal Text Placeholder that will be required.

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### 3. Glossary

Term	Definition
ATA	(Air Transport Association) – The trade group for U.S.-based airlines.
Audit trail	A chronological sequence of audit records.
Billed Entity	The Billed Airline or Supplier
Billing Category	The Category of the Integrated Billing Invoice. The billing category for Ground Handlers is Miscellaneous
Billing Date	The Billing Date field refers to the month period of settlement. This field is referred extensively in RAM chapter A13 in case of Miscellaneous billings.
Billing Entity	The Billing Airline or Supplier
Billing Entity Code	The Numeric code of the Billing airline or the Alpha numeric code of the Supplier
Billing Period	Billing Period refers to the Period of the Clearance Month used for billing. As the current Integrated settlement is on a weekly basis, there are 4 periods in a month. The billing period is represented as 01, 02, 03 and 04.
Billing Record Database	This is the data store within IS which will maintain the Invoice data provided by IS Participants in IS-Format. The data is kept in the system till the time the transactions are expired.
Central File Repository	Central File Repository is the data store within IS which maintains the input and output files including the Supporting documents for the billing transactions.
Charge Category	The major types of Miscellaneous Invoice billed between carriers
Charge Code	The sub group within the Charge Category which identifies the different reasons for the Miscellaneous Invoice claim.
Clearance Month	It represents the month of Integrated Billing.
CSV File	Comma separated file
Detailed Validation	This is the second phase of the IS-Validation process in which the billing data is loaded in the Billing Record Database and each and every data element in the billing data is validated.
Digital Signature	Digital Signature is a mathematical scheme for demonstrating the authenticity of a digital message or document. A valid digital signature gives a recipient reason to believe that the message was created by a known sender, and that it was not altered in transit
DS	Digital Signature
E-Archiving	E-archiving is an optional service provided by SIS. This service allows Participants to store digitally signed invoices in an external Legal archive for a longer period as required by the local regulations.
EST	<b>Eastern Standard Time</b>
F12	The file that a carrier uploads to the clearinghouse on a weekly baIS to complete settlement. This file does not contain all billing data; rather it contains the totals of each invoice being cleared.
File Naming Convention	Rules followed for construction of the file name
GL	General Ledger
HTML files	Files in Hypertext markup language. HTML is a structured file format used in websites, which includes tags.
ICH Period Closure Day	This is the time by which ICH Members should submit their Web F12 claims file to the ICH-WEB to be considered for settlement.
Index File	An index file contains the mapping information of the various supporting documents and its corresponding Batch Key. There

Term	Definition
	are two formats of index files supported by SIS. These are CSV and XML
IS	Integrated Settlement Integrated Settlement is the name for the collection of systems which provide the functionality behind Simplified Integrated Settlement.
IS Calendar	The Calendar used by IS to trigger various automated processes. It also has deadlines for some of the processes impacting the end-users of SIS.
IS Calendar Billing Output Generation Date	This is the date and time stamp by which IS will generate the billing output files and keep it ready for download,
IS Format	IS Format is a generic term used to define Invoice data provided to IS in either automated formats like or IS-XML or manually over IS-WEB
IS WEB	IS WEB is the online user interface of the IS System. It allows users to capture data, pull out reports, as well as configure the Member profile information.
IS XML	IS XML is the new interface file format defined for MISC . This file format is based on the existing IATA Aviation Invoice Standard.
JPEG Image files	<b>Image files in JPEG</b> (Joint Photographic Experts Group) format.
Late Submission	Invoices submitted after the IS Submission Deadline but within the Late Submission Acceptance Window to be considered for settlement in the previously close period
Late Submission Acceptance Window	Time window in which Late Submission can be submitted.
Location Code	Code of the Member's location.
Location IDs	User defined code that uniquely identifies the Member's location in the Member Profile.
Member Profile	Centralized functionality that enables the participants to: <ol style="list-style-type: none"> <li>1. Create and Manage Users of IS</li> <li>2. Configure the various processes within SIS</li> <li>3. Set default values to be used at the time of processing</li> <li>4.</li> </ol>
Participant	An Airline or a Non Airline Entity who is a signatory or a potential signatory to IS Services.
Payables	Billing received from other Integrated partners for a billing period is referred to as Payables
PDF	<b>Portable Document Format</b>
Prime Billing	First time billing or billings of original documents (like coupons, air waybills) are referred to as Prime Billings
Processing Dashboard	Module in IS for: <ul style="list-style-type: none"> <li>• Viewing processing details</li> <li>• Submitting of invoices/ files for late processing</li> <li>• Increment the period of the invoices</li> </ul>
Protest	Protest is the action taken by a billed entity against an erroneous billing done by a billing entity before the amount in error is settled by the Clearing House.
RAM	Revenue Accounting Manual
Receivables	Invoices billed to other Integrated partners is referred to as Receivables
Reference Data	Reference data relates to the basic legal information of the Billing and Billed entity. This includes details like the Company Legal Name, Tax Registration ID, Address details etc.
Sanity Check	This is the first phase of IS-Validation, where a file is checked

Term	Definition
	for Construction errors. If an error is encountered in this phase the entire file is rejected by SIS.
Settlement Method Indicator	The field Settlement Method Indicator in the Invoice data drives the Settlement process of the Invoice.
Submissions Open Date	The date and time from which IS starts accepting Billing Files for a particular Clearance period
Supporting Attachments	The additional documentation provided to support Integrated billing claim. The Supporting Attachments needs to be provided in electronic format
Supporting Attachments Linking Deadline	The date and time stamp by which the system will stop manual and automated linking of supporting documents for the clearance period
TIFF Image files	Tagged <b>Image File</b> Format (TIFF) is a <b>file</b> format for storing images.
Time Stamp	Sequence of characters, denoting the date and/or time at which a certain event occurred
VAT	Value added tax