



# E-INVOICING IN INDIA

**A HANDBOOK ON THE MANDATE, ITS APPLICATION  
AND IMPACT ON TAXPAYERS**

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## Executive summary

The GST Council, in its 37th Meeting held in Sept 2019, approved the e-invoicing implementation in India. E-invoicing, by and large, is considered as a revolution in area of tax collection and compliance and India joins the league of about 60 countries worldwide who have adopted and implemented e-invoicing.

While there are several ways in which e-invoicing can be implemented, India has chosen a variant clearance model and the scope is limited to specified set of businesses and transactions. These notified businesses need to get their invoices authenticated by the Government before sharing the same with the customers. Additionally, a standard for e-invoice has also been recommended for businesses to follow; the adoption of which will unleash the benefits offered by e-invoicing.

On registering the invoice on Government portal, a unique number called as Invoice Reference Number (IRN) will be associated with the invoice and a digitally signed QR code with select data items and full invoice data, also digitally signed, will be returned to the issuer of invoice, who in turn can share these authenticated details with their customers.

The mandate comes into effect from 1st April 2020 and the businesses need to be prepared for the e-invoicing mandate. While mainly perceived as technical change and low impact for business users, the organisations need to take some key decisions for integrating e-invoicing in their routine business operations without major disruptions. Aligning the business practices, choosing the best-fit solution and the right solution provider will ensure e-invoicing seamlessly works and is miles away from being additional compliance burden.

With new simplified returns expected in April 2020 and the integration of E-invoicing system with the other existing regulatory systems viz. the GSTN and E-way Bill, overall the businesses will stand to benefit and the compliances should become an end-result of streamlined business processes.

This document aims to cover the contours of e-invoicing in India, impact on businesses and IT systems, the key decisions to be taken and some recommendations for being future-ready.







# The Concept

e-invoicing as a standard and as a process already has a wide acceptance with over 60 countries globally having adopted it. Electronic invoicing aka e-invoicing does not mean merely creating an invoice in electronic format but also involves standardization of data to be included, exchange mechanism and involvement of third parties or regulatory authorities to facilitate the exchange. There are many models followed for e-invoicing such as direct interaction between buyer and seller or via a network or clearance model where invoices are routed through tax authorities. Even in clearance model there are various ways wherein either the tax authorities generate the document number and share with the other party, or the invoice generation is done by supplier and needs to get stamping from tax authority before sharing with the other party.

India has chosen e-invoicing model where the responsibility of creating invoices still remains with the businesses, however the created invoice first needs to be registered as per the Government defined practices.

Invoices registered with Government will be considered as valid for any subsequent processes such as sharing with customers, and claiming ITC.

## E-invoicing In India - The two pillars

E-invoicing model has been adopted by many countries globally with varying implementation models. The Indian adoption consists of following components

- 1. A standard for e-invoice** – The standard covers the data fields and its specification. It is recommended that businesses (also referred as taxpayers) should update their systems to follow the e-invoice standard which will allow seamless interoperability and data exchange throughout the eco-system. The CGST notification 02/2020 dated 1st Jan 2020, lists the data fields and their definitions
- 2. A portal for registering invoices** – Invoices and other documents such as debit notes, credits notes (henceforth collectively referred as invoices) generated by the taxpayers need to be registered on the Invoice Registration Portal (IRP) and a successful registration will return a unique invoice reference number (IRN), digitally signed invoice data and digitally signed QR code for the invoice.

## What does it mean for the businesses?

- › **Sales Side:** On the sales side, the business cycle and invoice processing continue as being done currently with an additional step being introduced of getting the invoice registered on Government Portal.
- › **Purchase Side:** On the purchase side, the incoming invoices should have been successfully registered with Government, for claiming ITC. As the mandate covers only notified list of entities, the recipients need to keep check on the vendors who are impacted by the mandate and if the invoices received from such entities include valid IRN.
- › **Accounting /Billing systems:** Accounting / Billing systems of businesses will need an upgrade to enable obtaining of IRN from Government, generating invoice output with IRN details and automated data capturing for incoming purchase invoices which have IRN
- › **Automated GST Compliance:** Ease and reduced effort for GST compliance as e-invoicing details will be auto-populated to prepare GST Returns i.e. ANX 1 and ANX 2 and E-way Bills. As the scope of e-invoicing is limited to certain transaction types, there could be cases where the businesses will need to take care of the balance compliance needs

## What does it mean for the Government?

- › **Tax Collection:** On the tax collection side, e-invoicing will help to keep a check on under-reporting of supplies and tax liability by the taxpayers, as invoices will need to be routed through the Government.
- › **Refund Claims:** On refund and ITC front, with transparency and authenticity of transactions, claiming of refund and ITC on accounting fictitious transactions and fake invoices will get exposed
- › **Tax Frauds:** Integration of e-invoicing system with other systems like GST, E-way Bill will result in reducing compliance burden on taxpayers. Effectively could result in better compliance and the scope of inconsistent disclosures and fraudulent reporting will get minimized

Overall in the economy and in the eco-system, greater transparency and inter-operability of data can be achieved with e-invoicing going live.

## The Mandate – 4 Things to note

E-invoicing in India will be effective from 1st April 2020 and will be applicable to notified list of entities and transaction types.

### 1. Transactions covered under e-invoicing

#### a. B2B Transactions

All transactions between registered taxpayers are to be registered on Government portal and IRN to be obtained. Additionally, export transactions are also subject to these e-invoicing requirements. Collectively referred as B2B transactions, the following are covered under e-invoicing

- Business to Business(B2B) invoices
- Business to Government (B2G) invoices
- Business to Export invoices
- Reverse Charges invoices related to transactions with registered parties
- Supplies through e-Commerce Operator

#### b. B2C Transactions

Transactions entailing supplies made to unregistered persons or consumers (referred as B2C) are not to be registered with the Government. However certain class of taxpayers needs to generate QR code on B2C transactions



## IRIS Recommends

Other documents such as Import of goods, ISD distribution of credit etc. are not specified in the API specifications. However, it is advisable while upgrading the accounting /billing system, provision for all transaction types should be considered. This will make the taxpayer future-ready whenever the mandate extends to other transaction types.



## 2. Taxpayers covered under the mandate

Taxpayers covered under the mandate

- › Taxpayers with turnover above ₹ 500 cr, need to comply with both and B2C e-invoicing requirement
- › Taxpayer with turnover above ₹ 100 cr (less than 500 cr) need to comply with e-invoicing mandate related to B2B transactions.

## 3. Documents covered

For the B2B transactions, the documents of following type need to be registered on Government portal to get IRN generated

- › Invoice
- › Debit Note
- › Credit Note

For ease of use, the documents are collectively referred as Invoices throughout this document.

## 4. Responsibility of IRN generation

The supplier of the goods or service, who generally issues the invoice, is required to comply with the e-invoicing requirement of generating IRN for B2B transactions. In case of ecommerce transactions, the ecommerce operator will have the option to generate IRN on behalf of supplier.



### IRIS Recommends

Notifications do not specify the content of QR code for B2C transactions. Taxpayers may choose to create QR code on lines of QR code recommendations for B2B considering the fields as applicable. QR code for B2C transaction is internal to taxpayers. Hence other taxpayers to whom mandate is not directly applicable (i.e. turnover between 100 to 500 cr) may voluntarily opt for QR code generation. So as to adopt a consistent practice of having QR code on all invoices

## Summary of the mandate

Whom the mandate applies	Which transactions are covered	What documents to be registered with Govt	Who has to generate	How to generate
Taxpayers with turnover above ₹ 100 cr (1 bn)	<ul style="list-style-type: none"> <li>• B2B</li> <li>• B2G</li> <li>• Export invoices</li> <li>• Reverse Charges invoices related to transactions with registered parties</li> <li>• Supplies through e-Commerce Operator</li> </ul>	<ul style="list-style-type: none"> <li>• Invoice</li> <li>• Debit Note</li> <li>• Credit Note</li> </ul>	<ul style="list-style-type: none"> <li>• Supplier</li> <li>• e-Commerce Operator on behalf of the supplier</li> </ul>	Send the data to Government Portal via API
Taxpayers with turnover above ₹ 500 cr (5 bn)	Business to Unregistered parties or consumers (B2C)	NA. Not to be registered with Govt.	Supplier	Accounting /Billing system to generate QR code

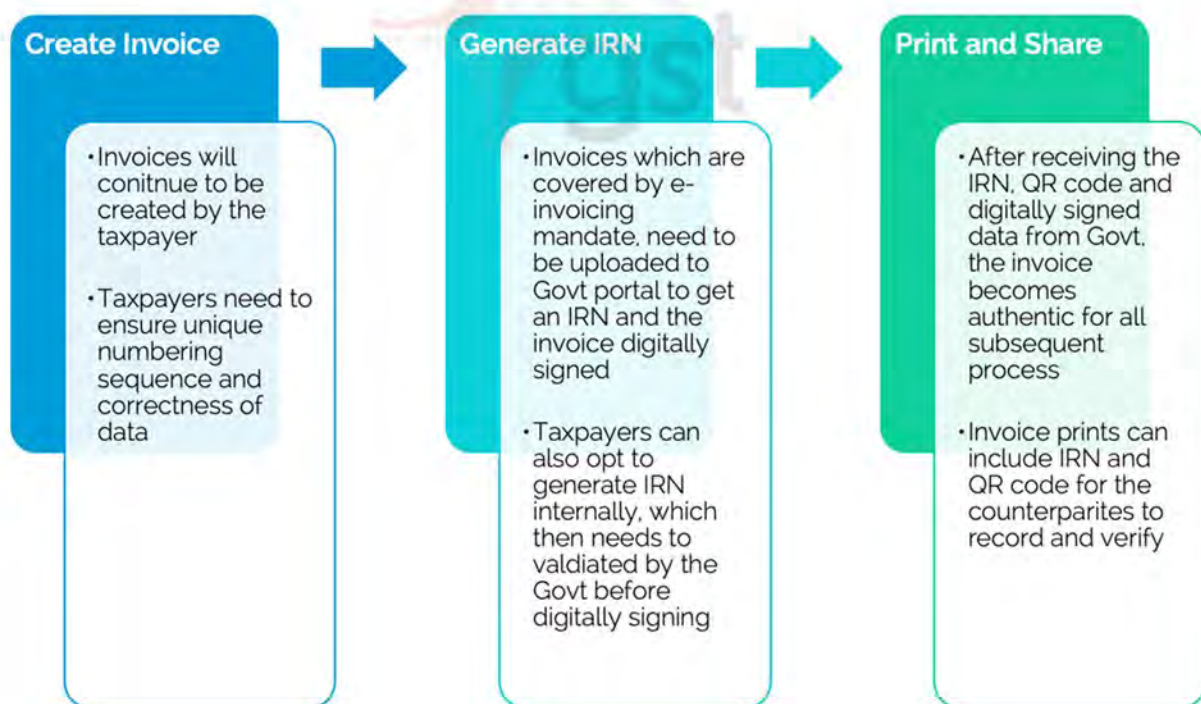


## The Process

India has adopted the e-invoicing model where the invoices generated by taxpayers need to be registered at the Govt defined portal called as Invoice Registration Portal.

### The 3 Key Steps

From the business user's perspective, the high-level flow is



### The Participants

**1. Businesses/ Taxpayers** – The entities who are doing the transactions and generating the invoices (mainly supplier). Important to note it is still the responsibility of the taxpayer to generate invoices. Government is simply going to authenticate the generated invoices.

**2. Government Portal (IRP)** – Invoice Registration Portal, a platform set up by Government to get the invoices verified, registered. The Government system will be accessible to taxpayers via APIs which provide the mechanism of sending and receiving data from the taxpayer. Taxpayers above ₹ 500 CR can directly connect to IRP portal subject to complying with the technical pre-requisites. All other taxpayers can connect via GSPs.

**3. GSP** – GST Suvidha Providers (GSP) are conduit through which taxpayers can connect to IRP.



## Data to be sent to Government

Data should be as per the technical specifications provided in API. It consists of about 50 mandatory fields such as invoice no, date, amounts, product details etc. Broadly, the minimum information to be provided for getting an IRN generated is as follows

CATEGORY	EXAMPLES	MANDATORY COUNT (APPROX.)
Document details	document number, date, type	4
Transaction details	nature of transaction (B2B, B2C etc.), type (regular, bill to-ship to, ecommerce, export etc.), total consideration	8
Buyer and Supplier Details	GSTIN, names, addresses	20
Item details	HSN, Unit price, taxable value	19

Details of data fields are covered in subsequent section

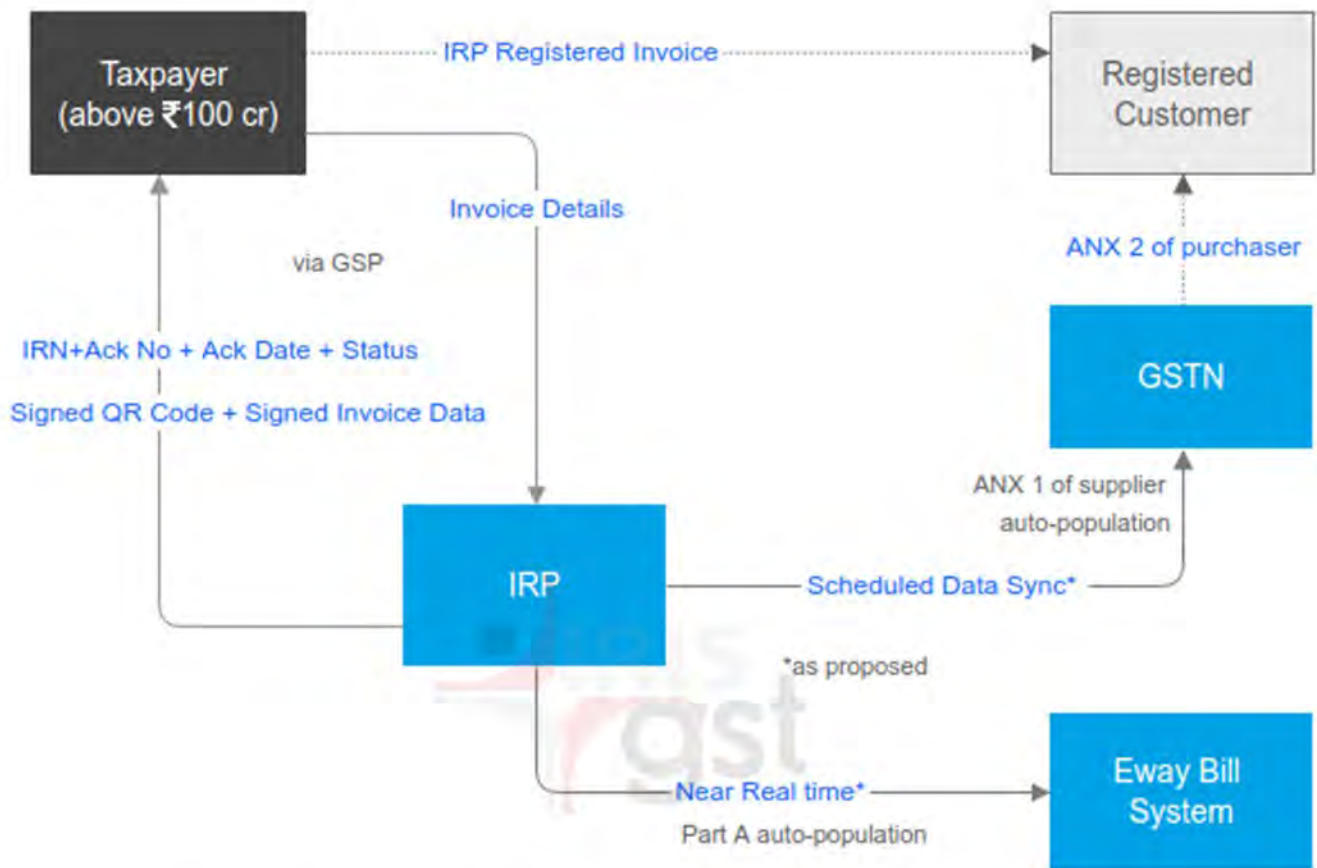
## Response received from Government

After doing basic validation and duplication checks, the invoice gets registered with IRP and following details are provided to taxpayer

Field	Scope /Purpose
<b>Invoice Reference Number (IRN)</b>	A unique number generated using combination of supplier GSTIN, Financial Year, Document Type and Invoice number. Taxpayers can refer to the IRN algorithm published by Government and generate IRN. However, the validation of IRN will be done by IRP.
<b>Ack. Date</b>	The date and time stamp on which the invoice was sent for IRN generation.
<b>Ack. No</b>	A random number generated to acknowledge the successful processing of transaction. Option to search invoices or IRN based on acknowledgment number will be available
<b>Status</b>	Of the IRN generated, whether Active or Cancel. Current rules allow cancellation only within 24 hours of generation.
<b>Signed QR code</b>	Select details of invoice are included in QR code. These select details along with IRN is signed and sent as response. Taxpayers should use the signed QR code on the invoice. Scanning of the QR code should enable to verify if the invoice is registered and has been signed by IRP.
<b>Signed Invoice data</b>	All the details which were sent for registering the invoice. Taxpayers can store the signed data for any future audit or analysis.

# IRN generation process

The detailed interaction between the participants is as follows



As one of the objectives of e-invoicing is to interact with other Government systems, an indicative flow of how and when information could be exchanged has been depicted.

## The Data Fields

One of the important aspects of e-invoicing in India was adoption of a standard for invoice fields. While the GST rules (section /reference) do specify the information to be covered in an invoice, businesses have adopted various practices of reporting the same information on an invoice. Paper or PDF invoicing, the most common form of sharing, are prepared for human consumption. For systems to read and consume the data standardization is the key and that's what the e-invoice standard aims to achieve.

The impact of adopting this standard may not be directly seen by the business users who could be viewing the invoice output the same way as they were earlier, however for systems the data becomes more standardized and hence possibilities of enabling automation in sharing, reading and analyzing opens up. Standardised and structured data fields will make it easier to exchange data electronically and eliminate the need to re-key data and do away with erroneous data input.



## Grouping the Data fields

There are about 120 – 150 data fields listed in the standard, and for ease of understanding these can be grouped as

- > **Document details:** Covers the document number, date, type, reference to earlier documents, if any, etc.
- > **Transaction details:** Includes the nature of transaction (B2B, B2C etc.), type (regular, bill to-ship to, ecommerce, export etc.), total consideration, discount and any other charges
- > **Buyer and Supplier Details:** Includes the GSTIN, names, addresses and contact details of parties. In case the actual recipient or actual dispatch parties are different, the respective details of the same
- > **Item details:** Includes the HSN code and description of product and service, unit level price, measurement and quantity, transaction value, discount, tax amount etc. Additional fields such as batch details, expiry, warranty etc. are also provisioned for
- > **Payment details:** Includes the mode and bank account details
- > **Other details:** Such as tax scheme applied, period for invoice etc.

## Different versions of data fields

- > **CSGT Notification dated Notification No. 02/2020 – Central Tax**

This has list<sup>2</sup> of e-invoice standard fields prescribed as part of GST INV 01 for obtaining the IRN number. The list has about 160 items, consisting of header items as well as input data fields along with an indication if the data is mandatory to be reported for IRN generation. Excluding the header items, there are about 130 items, which were used for comparing with API schema.



<sup>2</sup> <https://cbic-gst.gov.in/pdf/central-tax/notfctn-02-central-tax-english-2020.pdf>

## Different versions of data fields

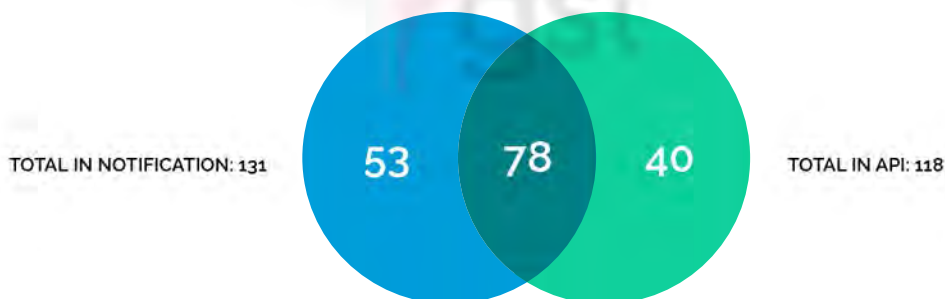
### > API Specification (Sandbox release)

Draft API specification released on 07-Jan-2020 by NIC who has developed the first portal for invoice registration. While by and large, the API specification follows the CSGST notification, there are certain additional data fields and certain omissions if compared with the specification.



## Comparing notification and API schema

Our comparative analysis shows that there are differences in the data fields as specified in the notification and the API schema which was released on 7<sup>th</sup> Jan 2020 on sandbox for testing.



It goes without saying that the notification and the actual system (i.e. API) should go hand in hand. It is anticipated that once the final API specifications are released and the system is live, these differences could get ironed out.

Additional fields of notification which can get added in API	Additional fields of API which will continue /notified
<ul style="list-style-type: none"><li>• Freight</li><li>• Insurance</li><li>• Packaging and Forwarding</li><li>• Transporter Id</li><li>• Mode of transportation</li><li>• Distance of transportation</li><li>• Transporter Name</li><li>• Transporter Doc No</li><li>• Transporter Doc Date</li><li>• Vehicle No</li><li>• Digital Signature of the Document</li></ul>	<ul style="list-style-type: none"><li>• Total Invoice value in Foreign Currency</li><li>• Export Category: DIR-DIRECT, DEM-DEEMED, SEZ-SEZ, SED-SEZ DEVELOPER</li><li>• Export Payment – Y for With Payment, N for Without Payment</li><li>• Shipping Bill No.</li><li>• Shipping Bill Date</li><li>• Port Code</li></ul>

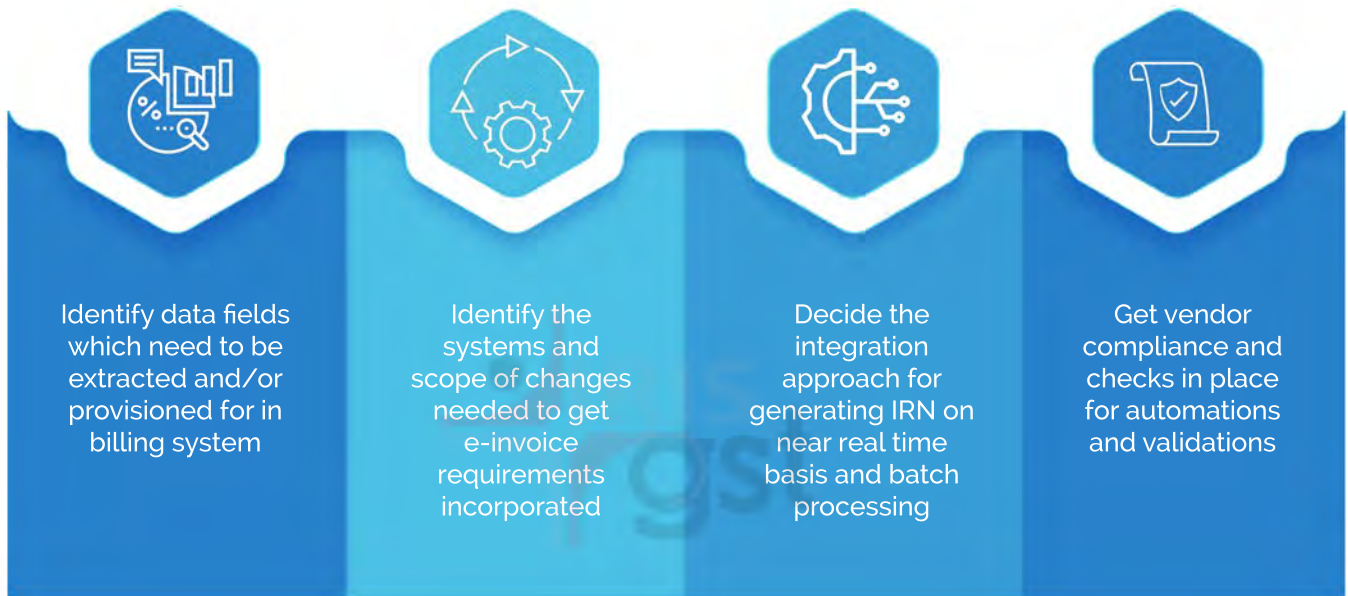


# Getting ready for the change

Looking at the benefits that new IRP system has to offer, e-invoice standard and the e-invoicing process definitely can be considered as positive changes. Though the scope in the initial phase is limited to B2B transactions, the taxpayers need to take a futuristic and holistic outlook. The full benefits of e-invoicing can only be realised when the IRN and digital signature is recorded back in the accounting systems. In other words, end-to-end integration.

## Key decisions to be taken

The key strategic decisions which taxpayers need to carefully evaluate and decide



These decisions will decide the approach the taxpayers want to adopt and hence the expectations from the solution providers for e-invoicing

## Selecting the right solution

At the outset, the e-invoicing is a straightforward process of sending data to Government and getting IRN and signed data in returns. Invoicing is one of the core business processes and has a life cycle in itself. Taxpayers should look for solutions which enable them to seamlessly embed IRN generation as a routine business function and at the same time manage the complete invoicing process and the subsequent GST and E-way Bill compliance.

While the basic e-invoice operations will be available in all solutions, some additional features a taxpayer should consider are –

### Does the solution-

- Offer flexible integration options which can align with taxpayers business processes without major disruption?
- Allow to customize view and invoice print templates?
- Manage all GSTINs and access rights for users?
- Enable operations at a PAN or a business group level?
- Ability to handle high transaction volumes?
- Allow sharing and collaboration with the customer and vendor eco-system?



# E-invoicing - A quick recap

A quick summary of e-invoicing in India and the way forward

- › E-invoicing mandate in India requires taxpayers to get their B2B invoices registered on the Invoice Registration Portal, and obtain a unique IRN and signed QR code and some additional details
- › Mandate currently is applicable to taxpayers having turnover above 100 cr. Additionally for taxpayers above 500 cr, the B2C invoices to have QR code on the invoice
- › There are about 50 mandatory fields which the taxpayers need to provide for getting IRN generated
- › Given the differences between the data elements specified in notification and as available on test system, some changes can be expected. Thus, taxpayers need to be prepared for these changes
- › While upgrading the accounting/billing systems, provision to store back the generated IRN and also capture IRN in case of purchase invoices should be made. This will help to automate many subsequent steps

At the outset, it may appear to be an additional process that businesses need to follow and efforts will be needed to get data ready as per the specified e-invoice standard. However, with e-invoicing becoming an integral business process, it will have more benefits to offer, such as:

**Standardization:** One format and standard data fields applicable to all businesses. Thus, eliminating the need to generate invoice data in varied formats and purposes.

**Seamless Reconciliation:** Reconciliation and data verification between suppliers and recipient will be seamless and thus provide better control over input tax credit computation and claim.

**Automation:** The e-invoicing system will auto-populate invoice data on to the EWB system and ANX 1. ANX 2 will be auto-populated from ANX 1.

**Lesser Compliance:** Reduction in overall compliance burden.  
Information Availability: Near real-time availability of information to all the relevant participants in the supply chain.

On the other hand, the e-invoicing system will allow the tax authorities to keep a check on under-reporting and reporting of fictitious transactions, which probably can result in tax evasion.





# IRIS Onyx – A complete e-invoicing solution

IRIS Onyx, an e-invoicing solution from IRIS GST, is a one-stop platform to view, share and collaborate with your customers and suppliers alike, while managing the entire communication with the GST systems in a hassle-free manner.

One-stop solution

Organisation Hierarchy and access controls

Robust data validations

Aligns to your business needs

Define your views and templates

A name to Trust

**REGISTER FOR DEMO**



## Annexure 1: Algorithm for IRN

Logic for IRN generated as published by IRP (<https://einv-apisandbox.nic.in/irn.html>)

- Each Invoice uploaded by the tax payer will get the unique number called as Invoice Reference Number (IRN).
- IRN is of 64 Characters length.
- This IRN is unique number in the GST system, irrespective of tax payer, financial year and document type.
- IRN is generated by the e-invoice system once the tax payer uploads the invoice details.
- IRN can also be prepared by the tax payer and uploaded with the invoice details. The e-invoice system verifies this and accepts it accordingly.
- IRN is generated using the computer algorithm (RSA256) based on the combination of the Supplier GSTIN, Document Type, Document Number and year of the Invoice (Financial Year).
- IRN is hash of Supplier GSTIN + Fin. Year + Doc Type + Doc Number.
- Financial Year is calculated based on the date of invoice.
- Document types are INV for Invoice, CRN for Credit Note, DBN for Debit Note.
- Document Number is a number printed on the Document, being issued to the purchaser, and it is to be of maximum of 16 alphanumeric and / -.
- The prefixing zeros, / - are ignored. However appearance of these characters in the middle and suffixing places are accepted as it is.

### IRN Generation Illustrated

- > tax payer with 01AAAAAggggA19N has issued the Invoice with Number ABC01234 on 12.12.2019 to his supplier, string used for hashing is  
01AAAAAggggA19N2019-20INVABC01234.
- > Removal of prefixing 'o', '-', '/': If the invoice number is 01234 or /AB123 or -1234, then 1234 or AB123 or 1234 is used for hashing.
- > In case the invoice number is AB/123 or AB-123 or AB0123, then they are taken as it is.



## Annexure 2: Content of Signed QR Code

IRP sends QR code which is signed and has the following data

- GSTIN of supplier
- GSTIN of Recipient
- Invoice number as given by Supplier
- Document Type (Invoice, Debit note, Credit note)
- Date of generation of invoice
- Invoice value (taxable value and gross tax)
- Number of line items
- HSN Code of main item (the line item having highest taxable value)
- Unique Invoice Reference Number (hash)
- Name of signing authority (currently it is NIC)

# Annexure 3: FAQs

## 1. Can a taxpayer generate IRN?

Yes. The logic for generating IRN has been published by the Govt. However, the IRN generated will be verified by the Govt and only then the digital sign will be attached. Full details and logic are available at <https://einv-apisandbox.nic.in/irn.html>

## 2. If any corrections are needed in the document for which IRN is generated, what is the procedure?

Once an IRN is generated, the data cannot be changed. However, taxpayer can cancel the IRN generated within 24 hours of generation and then re-generate IRN with the updated invoice details. While the invoices could be available on GST portal for making changes if any before filing the return, it is recommended to make carry out changes using debit or a credit note. This will ensure consistency in data

## 3. Will e-invoice mandate impact purchaser's ITC claim?

Yes. Rules say that document with IRN will be considered as valid. ITC rules say ITC can be claimed if document is as per rules. So, interpretation is that for claiming ITC, the invoice needs to have IRN.

## 4. How will I as a purchase know that the vendor is covered under e-invoicing mandate and that the invoice should include valid IRN?

As of now there is no API nor any information directly available in public domain which can help to ascertain whether a vendor is into e-invoicing bracket or not. For now, companies should be doing an internal exercise of checking with vendors and maintain that. It is expected that ANX 1 and ANX 2 APIs should get updated to include IRN.

## 5. Is IRN required for purchases from unregistered parties?

As per specifications and validations rules mentioned on IRP sandbox portal and schema, transaction of 'Reverse Charges' is allowed only for B2B invoices. The JSON schema does not accept of "URP" for supplier GSTIN. URP indicates unregistered parties. The interpretation is that for purchases from unregistered parties for which self-invoices are created, IRN is not required

## 6. In case of B2B invoices which are under reverse charge, who is supposed to get the IRN generated?

As per specifications and validations rules mentioned on IRP sandbox portal Request for the IRN/e-Invoice can be made only by the supplier of the goods or services. However, the e-Commerce Operator can request for the IRN/e-invoice on behalf of the supplier. In this case, the e-Commerce Operator should have registered on the GST portal accordingly. Hence interpretation is that in case of B2B invoices of reverse charge nature, supplier only has to generate IRN as only suppliers are allowed to generate IRN.

### Abbreviations used:

- IRN - Invoice Reference Number
- ITC - Input Tax Credit
- QR Code - Quick Response code
- ISD - Input service distributor
- NIC - National Informatics Centre
- HSN - Harmonized System of Nomenclature
- IRP - Invoice Registration Portal
- GSP - GST Suvidha provider
- B2B - Business to Business
- B2G - Business to Government
- B2C - Business to Consumer



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*We are a bunch of accounting professionals with collective experience of more than 15 years in regulatory compliance & technology. We all came together in 2017 to start the GST journey. GST is a new concept in India but our experience in global regulatory technology has helped us to create products that have simplified taxpayer's lives immensely.*

*We are now bringing an integrated solution for E-Invoice, EWB & GST compliance. This eBook tries to answer questions around the new mandate of e-invoicing and how to prepare for it. Feel free to contact us for any of your queries on [support@irisgst.com](mailto:support@irisgst.com)*

## About IRIS

IRIS Business Services Limited (IRIS) is a leading Reg-Tech company with a stack of structured data solutions for organizations globally. The Company has over twenty years of proven expertise in regulatory reporting with regulators and corporates as clients in over 30 countries around the world.

In India, IRIS' compliance product suite has clients that include over 1000 corporates including companies like Amul, Coal India, Tata Steel, Reliance Industries, TVS Group, Godrej and L&T groups and over 100 scheduled commercial, private and cooperative banks such as HDFC Bank, SBI, ICICI, Bank of America, Credit Agricole etc.

IRIS was one the few companies appointed by GSTN as GST Suvidha Providers in the first round and offers GST solutions under its business division – IRISGST.

IRISGST provides a comprehensive integrated solution around e-invoicing, Eway Bill and GST filing for Indian Corporates. The feature rich ASP solution is leveraged by more than 650 companies for their GST filings. Having users across industries, our reconciliation module addresses almost all the reconciliation issues peculiar to industry types.



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