

Signed QR Code in E-invoicing system

- ❖ The IRP will generate a QR code containing the unique IRN (hash) along with some important parameters of invoice and digital signature so that it can be verified by an Offline App.
- ❖ IRP system will pass back this 'Signed QR Code' as part of the response to the request made by the tax payer for the IRN.
- ❖ It is the signed QR code which will be easily verifiable by taxpayers as well as Tax Officers to validate whether the e-invoice has been reported to the IRP and accepted by it, as it will contain both the IRN as well as the Digital Signature of IRP as proof of having received and registered the e-invoice. If the signed JSON is tampered, then e-invoice will become invalid and the digital signature will fail.
- ❖ The QR code will consist of the following e-invoice parameters:
 - ✚ GSTIN of Supplier
 - ✚ GSTIN of Recipient
 - ✚ Invoice number as given by Supplier
 - ✚ 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)
 - ✚ Date of generation of IRN
- ❖ The Signed QR Code which is in Base64 form may be used by the tax payer to generate the QR code on the invoice copy.
- ❖ It shall be integral part of invoice and shall be readable by QR code readers / apps. Its size and placing is up to the preference of the businesses.
- ❖ The Signed QR Code can be verified by anyone using the offline app provided on the IRP portal.
- ❖ The Signed QR code, when it is printed will look like as follows


```
{  
  "data":  
  "{  
    \"SellerGstin\": \"37BZNP9430M1KL\",  
    \"BuyerGstin\": \"03BZNP9430M1KL\",  
    \"DocNo\": \"QWE1-454565\",  
    \"DocTyp\": \"INV\",  
    \"DocDt\": \"05/09/2020\",  
    \"TotInvVal\": 16655.99,  
    \"ItemCnt\": 1,  
    \"MainHsnCode\": \"39231010\",  
    \"Irn\": \"301a722ec1dd15c9b45c4df56b959b723a7f2557f4933df9ad6e0aa34c2e08\",  
    \"IrnDt\": \"2020-09-10 12:33:00\"  
  }  
}
```

- ❖ One can verify the signature with this data by using the related DS Certificate from the portal.
- ❖ The above Signed QR Code can be verified using the Public Key as given below.

```
"PublicKey":  
"MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEArxd93uLDs8HTPqcSPpxZrf0Dc29r3iPp0a8filjAyeX4RAH6IWm9qFt26CcE8ESYtmo1sVtswvs7VH4Bjg/FDIRpd+MnAIXuxChij8/vjyAwE71ucMrmZhxM8rOSfPML8fniZ8trr3l4R2o4xWh6no/xTUtZ02/yUEXbphw3DEuefzHEQnEF+quGji9pvGnPO6Krmnri9H4WPY0ysPQQQd82bUZCk9XdhSZcW/am8wBulYokITRMVHlbRXqu1pOFmQMO5oSpyZU3pXbsx+OxlOc4EDX0WMa9aH4+snt18WAXVGwF2B4fmBk7AtmkFzrTmbpmyVqA3KO2ljzMPw0hQIDAQAB"
```
