

# SAP BusinessObjects Electronic Invoicing for Brazil 10.0 Introduction

Introduction to Electronic Invoicing for Brazil



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Welcome to the Introduction to SAP BusinessObjects Electronic Invoicing for Brazil.

## Introduction: Unit Overview



### Unit: Introduction

#### Lesson 1: Introduction

Lesson 2: Landscape Overview

Lesson 3: Navigational UI Tour

Lesson 4: User Scenarios

The first lesson will be an introduction to Electronic Invoicing for Brazil, or as it is often referred to, Nota Fiscal Eletronica.



**After completing this lesson, you will be able to:**

- Explain Electronic Invoicing in Brazil
- Identify new features and enhancements for Electronic Invoicing (NFE) 10
- Discuss Inbound versus Outbound Processing
- Describe basic system interaction between GRC, ERP and Brazilian government

After completing this lesson, you will be able to explain Electronic Invoicing in Brazil, identify new product features and enhancements, discuss inbound versus outbound processing, and describe basic system interaction between GRC, ERP, and Brazilian government.

### 1. Electronic Invoicing in Brazil

2. New Features in NF-e 10

2. Inbound versus Outbound

3. System Interaction

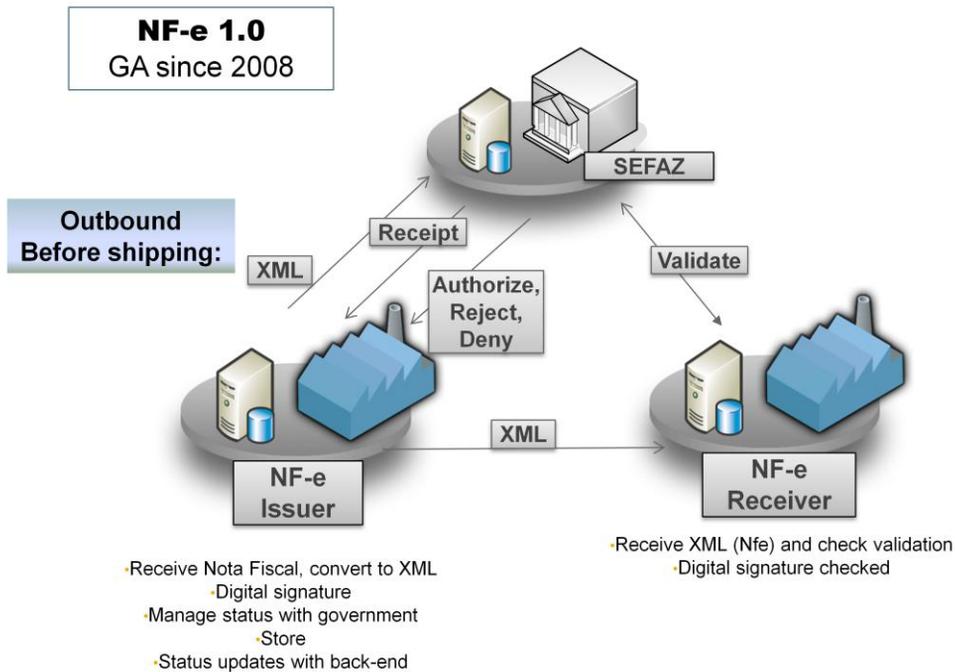
This topic is about electronic invoicing in Brazil.

- Enables companies doing business in Brazil to meet electronic invoice requirements established by the government
- Supports compliance with the trade and tax regulations
- Minimizes incorrect transactions
- Facilitates communication and collaboration with all supply chain partners
- Expanded to include greater support and automation for managing the receipt of inbound electronic invoices

The SAP® Electronic Invoicing for Brazil (also known as SAP Nota Fiscal Eletronica or NF-e) application enables companies doing business in Brazil to meet electronic invoice requirements established by the government. SAP Electronic Invoicing supports compliance with the trade and tax regulations, minimizes incorrect transactions, improves supply chain efficiency and facilitates communication and collaboration with all supply chain partners.

The first version of the solution, 1.0, was focused on managing invoices issued by the seller of goods, or outbound invoices. With version 10.0, this has been expanded to automate the management of receiving NF-e's, or inbound invoices.

# What's Electronic Invoicing for Brazil (AKA NF-e)?

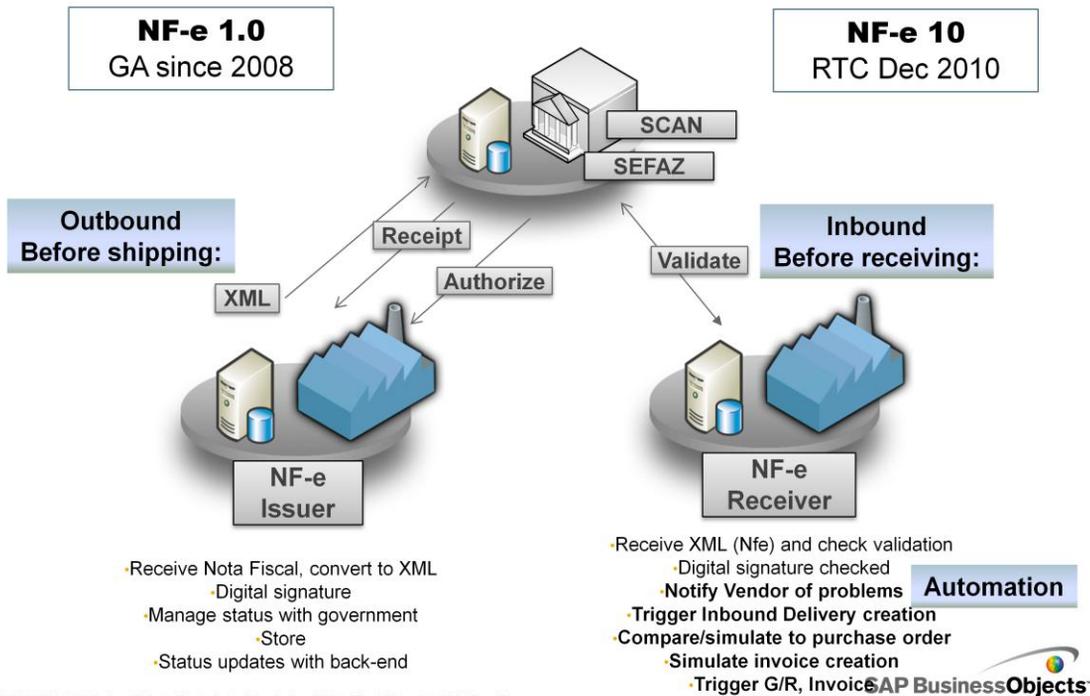


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In the first version of Electronic Invoicing for Brazil, or NF-e 1.0, the focus was on managing invoices that a company issued to their customers. Before shipping their goods, companies are required to obtain authorization of their NF-e from the government SEFAZ system and also provide it to their customers. The scope of NF-e 1.0 was on managing this outbound process from the perspective of the seller of the goods, who was the issuer of the NF-e. It did include very basic capabilities to enable the receipt of an NF-e from a vendor, but these capabilities were very limited and basic.

# What's Electronic Invoicing for Brazil (AKA NF-e)?



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Where the 1.0 version of NFe focused on issuing NF-e's to customers, version 10.0 is focused on the process required to receive, validate and automate the processing of electronic invoices customers receive from their vendors. In addition to the receipt and basic validation of the inbound NFe XML that was possible with version 1.0, 10.0 allows companies to further process the inbound XML by finding and assigning the purchase order/items, simulating an invoice to see if postings would be possible in the back-end ERP system, create an inbound delivery, compare quantities of goods received to those planned in the XML, and trigger the G/R and invoice creation in the back-end. All of this allows greater efficiencies in handling the high-volumes of inbound NF-es often experienced by companies in Brazil.

In addition, by allowing for the early identification of any problems with an inbound NFe and notification to vendors electronically if an inbound NFe is rejected, companies can attempt to resolve issues before goods are physically received. This improves supply chain efficiency and speed by automating much of the process and allowing goods to be received and processed quickly without delays to correct NFe-related issues.

Released just prior to but also included in NF-e 10.0, the solution also provides capabilities for utilizing the government's electronic contingency system, or SCAN. When the main tax system, SEFAZ, for a region is not available, the NF-e solution is able to automatically notify the back-end system of this status and allow for the Nota Fiscals to be issued via SCAN, or under what is referred to as electronic contingency. This is of value because it allows for continued automation of the authorization process, and greatly minimizes the use of expensive security paper if the manual contingency process is used.

## Topics



1. Electronic Invoicing in Brazil
- 2. New Features in NF-e 10.0**
2. Inbound versus Outbound
3. System Interaction

The next topic will cover the new features available in NF-e 10.0

## New Features in NF-e 10.0



Major New Features in NF-e 10.0 include:

- Automation of Inbound Processing for NF-e's
- Receipt and Validation of Electronic Freight Invoices (CT-e's)
- Fiscal and Logistics Clerk Workplaces
- Support for use of SCAN
- Change to ABAP Digital Signature Service

The major new features delivered with NF-e 10.0 are listed above



### Inbound Processing

- Assign, compare, and simulate purchase
- Simulate invoice
- Trigger Inbound Delivery
- Identify differences in planned versus actual received quantities
- Trigger Goods Receipt and Invoice
- Flexibly automate by Vendor
- Vendor notification of rejection or acceptance
- Increased flexibility by enabling customer-specific processes

Automation of the processing of inbound NF-e's is the major focus of the 10.0 release. By leveraging the tight integration with a back-end SAP ERP system, companies can more quickly identify discrepancies between the orders they placed on vendors and electronic invoices received from them, discrepancies that could prevent creation of postings in the back-end, differences between quantities in the inbound NF-e and actual quantities received. All of this enables notification of problems back to vendors much earlier, allowing for corrections before time consuming cancellations may be required or even before the goods may have physically left the vendor location.

Triggering the creation of Inbound Deliveries provides greater visibility to goods coming into a location and may speed up receiving activities. Triggering the goods receipt and invoice creation automatically also speeds up the overall process and minimizes the opportunity for manually created errors. All of this automation may be fully or partially enabled in the system, and done on a vendor by vendor basis if desired to provide flexibility based on the history and relationship with each partner.

Automating the process of managing Inbound NF-e's provides numerous benefits, including:

- Visibility to inbound materials for supply chain planning and logistics activities
- Identification of inconsistencies or errors in the NF-e XML received from vendors to enable corrections prior to receipt of the physical goods or subsequent processing and transactions
- Faster processing of physical goods receipts due to minimized delays resulting from vendor XML errors
- Improved efficiency due to process automation
- Resources focused on managing process with less accurate or less familiar vendors
- Leverage same solution for handling inbound NF-e's for standard as well as customer-specific business processes

The benefits from this automation of the inbound processing of NF-e's is described above. Given the very high volumes of inbound NF-e's experienced by many companies, these can translate into significant savings and improvements in operating efficiencies.

## Receipt and Validation of Electronic Freight Invoices (CT-e's) Introduction



Receipt and validation of inbound Electronic Freight Invoices (CT-e's) provides the benefits of:

- Providing Fiscal Clerks a single point from which to manage not only the NF-e's associated with the purchase of goods, but also the purchase of the freight associated with those goods
- Use of same digital signature process as is already in place for NF-e's
- Use of same archiving process already in place for NF-e's

Now in addition to being able to receive NF-e's with the NF-e solution, companies can now also receive inbound electronic freight invoices (CT-e's) in the NF-e 10.0 solution. So not only can the Fiscal Clerk manage the electronic invoices associated with the purchase of goods, they can now also handle the invoices associated with the freight for many of those same goods.

## Receipt and Validation of Electronic Freight Invoices (CT-e's): Benefits



New ability to receive and validate inbound Electronic Freight Invoices (CT-e's)

- Receive XML, check digital signature and check the authorization
- Archive XML's
- Visible in Fiscal Clerk Workplace

Now in addition to being able to receive NF-e's with the NF-e solution, companies can now also receive inbound electronic freight invoices (CT-e's) in the NF-e 10.0 solution. So not only can the Fiscal Clerk manage the electronic invoices associated with the purchase of goods, they can now also handle the invoices associated with the freight for many of those same goods.



### New Fiscal and Logistics Clerk Workplaces

- Quick visibility to all Inbound NF-e's being processed
- Rapid identification of NFe-s requiring user action and resolution of issues
- Enable identification of discrepancies between planned and actual receipts
- Use of POWL (Personal Object Worklist) framework enables individualization of worklists
- Dashboard provides a summarized view of NF-e's for which the Fiscal Clerk has responsibility

With the introduction of Workplaces for both the Fiscal and Logistics clerk, users responsible for processing inbound NF-e's and their related activities may now quickly identify actions they need to take, problems requiring resolution, and overall volumes of NFe-s in process. The majority of activity will occur in the Fiscal Clerk's workplace, with the Logistics Clerk workplace intended to more simply enable the recording of actual quantities received so they may be compared to the planned quantities in the NF-e XML. Additionally, introduction of the POWL framework enables greater flexibility in how each user structures their views of NF-e's for which they have responsibility. A new dashboard has also been provided which gives the Fiscal Clerk a summarized view of NFe-'s for which they have responsibility over different timeframes, which are in process or have been completed. Different statuses are within each of these categories is also available, providing additional information in an easy-to-consume manner.

## Fiscal and Logistics Clerk Workplaces: Benefits



Fiscal and Logistics Clerk Workplaces provide:

- Single point from which users can quickly identify actions they need to take regarding inbound NF-e's
- Flexibility in organizing their work to make users more efficient
- Proactive focus on NF-e's with issues requiring attention, while those without problems continue through the process automatically

By leveraging the POWL framework now introduced with the Clerk Workplace, users may organize NF-e's using multiple criteria to allow for quick identification of issues and focus to be on resolving problems. New "queries" may be created using these criteria, which act like virtual file folders to organize NF-e's into various groupings that may require action, review and or resolution of errors.



### New Support for SCAN

- Automatic shift to SCAN when SEFAZ not available
- Released prior to 10.0, but included in new version

When the primary tax system for a region, SEFAZ, is not available, the NF-e solution now enables an automatic shift to the back-up system or SCAN. The SCAN system allows companies to process their nota fiscals under contingency, but instead of the typical manually intensive contingency process that requires use of expensive security papers for printing of the documents, this is an electronic contingency system. So there is greater automation and the ability to use standard A4 paper instead of the expensive security paper.

Companies receive several benefits through the solution's support of SCAN:

- Reduction in costs through minimization of the use of security paper
- Greater efficiency by enabling an automatic shift of electronic messaging from SEFAZ to SCAN

The benefits of using SCAN are described above.

### New Digital Signature Service

- No longer requires installation of Java stack
- Now uses ABAP-based Digital Signature service in NF-e 10.0

NF-e 10.0 also provides for the use of an ABAP-based digital signature service. The previous version of NF-e 1.0 leveraged a Java-based digital signature service, which is no longer part of the solution. Capabilities will still be provided which allow customers to utilize alternative 3<sup>rd</sup> party digital signature services as well.

## ABAP Digital Signature: Benefits



Through the shift to an ABAP Digital Signature service, NF-e 10.0 enables:

- Reduction in TCO due to no longer requiring a Java server
- Simplified architecture

The benefits companies can achieve by utilizing the new ABAP Digital Signature capabilities are listed above.

## Topics



1. Electronic Invoicing in Brazil
2. New Features in NF-e 10.0
- 3. Inbound versus Outbound NF-e's**
4. System Interaction

The next topic will discuss Inbound versus Outbound NF-e's

- NF-e now has the capability to process Inbound NF-e's.
  - Electronic invoices issued by a vendor
  - Authorized by the appropriate government system (i.e., SEFAZ), then transmitted as an XML to the vendor's customers
  - Customer is then required to verify:
    - The validity of the XML
    - That the information in the message is valid and agrees with what the customer ordered and receives
- "Inbound" process related to purchasing activities, in which a company is receiving inbound invoices from their vendors
- Original outbound NF-e process, which continues to be available with 10.0, is related to sales activities and a company's issuing of electronic invoices to their customers following the appropriate validation
- The NF-e solution is still focused on processing and managing the NF-e's associated with the sale and purchase of physical goods.
- Electronic invoices associated with service activities are not yet covered by the solution.

As described briefly in previous slides, the new 10.0 version of NF-e is focused on Inbound NF-e's. These are the electronic invoices issued by a vendor, authorized by the appropriate government system (i.e., SEFAZ) and then transmitted as an XML to the vendor's customers. The customer is then required to verify the validity of the XML, assure that information in the message is valid and agrees with what the customer ordered and receives.

The first version of the NF-e solution was focused on assisting companies in issuing, authorizing and sending NF-e's to their customers. NF-e 10.0 now enables the flip-side of that process and allows companies receiving these NF-e's to process them quickly, accurately and in an automated fashion.

The NF-e solution is still focused on processing and managing the NF-e's associated with the sale and receipt of physical goods. Electronic invoices associated with service activities are not yet covered by the solution.

## Topics



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- 4. System Interaction**

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The next topic is System Interaction

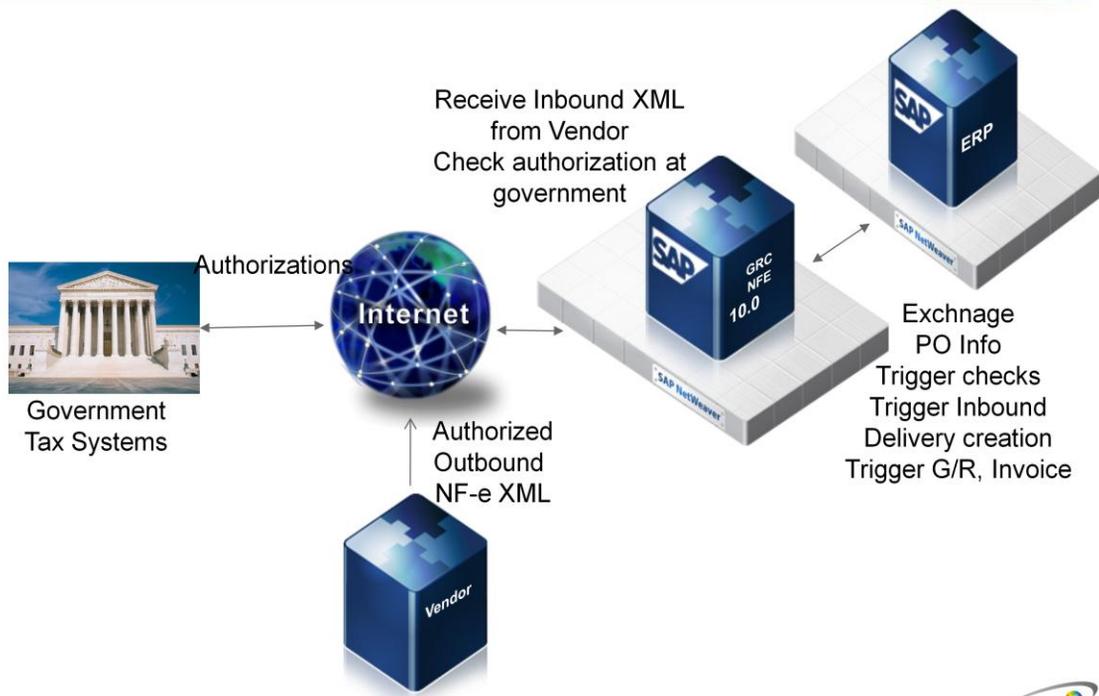
3 major systems are involved in processing NF-e's:

- Back-end operations and logistics system
  - Sales and purchase orders are created and managed
  - Billing documents and Nota Fiscais are created and managed
  - Typically an SAP ERP system, often localized for Brazil
- NF-e system
  - Manages the sending, receiving and validation of NF-e's between the back-end systems and the tax government systems
  - Automates the processing of inbound NF-e's
- Tax systems associated with state and federal governments in Brazil

The 3 major systems involved in the processing of NF-e's are:

- One is a back-end operations and logistics systems, which typically handles a company's orders, shipping, and billing activities including the creation of the Nota Fiscais. For utilizing the automation capabilities delivered with NF-e 10.0 this back-end should be an SAP ERP system
- The second system is NF-e solution itself. It sits between the companies back-end system and the government tax systems, and manages the sending, receiving, validation and checking of the NF-e's. It also automates the processing of inbound NF-e's leveraging information pulled from or sent to the back-end SAP ERP system
- The third system (or really systems) are the Brazilian government tax systems, with each state in the country maintaining their own. The NF-e solution provides the connectivity and management of electronic messaging with all of these systems for processing NF-e's.

## Basic System Interactions for Inbound Processing



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This diagram represents a high-level view of the system interaction for NF-e's. With the Inbound process, an NF-e XML representing a vendor's invoice is received by the NF-e solution. Validation is done to check the digital signature and then the appropriate SEFAZ system is called to determine whether or not it is an authorized NF-e.

Once these checks are completed and passed, the NF-e solution then interfaces with the back-end ERP system to receive purchase order and tax-related information. ERP also uses information received from the NF-e solution to simulate creation of the NF-e and check whether a goods receipt and creation of invoice could be carried out.

The NF-e solution will also provide the back-end ERP system with the information required to trigger creation of an inbound delivery, and subsequently trigger the actual goods receipt and invoice.

To fully leverage the capabilities in NF-e 10.0 for automating the processing of inbound NF-e's, an SAP back-end ERP system is required.



### You should now be able to:

- Explain Electronic Invoicing in Brazil
- Identify new features and enhancements for Electronic Invoicing (NFE) 10.0
- Discuss Inbound versus Outbound Processing
- Describe basic system interaction between GRC, ERP and Brazilian government

You should now be able to explain Electronic Invoicing in Brazil, identify new product features and enhancements, discuss inbound versus outbound processing, and describe basic system interaction between GRC, ERP, and Brazilian government.

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