Brazil and the Localization of SAP Solutions

For a very long time now, SAP has been offering products tailored to the specific requirements of Brazil.

Ever since the first 3.0 version of the R/3, which was localized in 1996, not only the scope of ERP’s localization has been continuously enhanced and updated, but also the Brazilian version of the portfolio of SAP’s industry-specific products and solutions has increased significantly over time.

Currently, besides the “Classic” ERP components such as FI, MM, SD, HR and CO, there are several generic solutions available, for example CRM and SRM, as well as a growing number of industry-specific solutions, which we present in this brochure.
ABOUT THE COMPLEXITY OF BRAZILIAN LOCALIZATION

Whoever plans to implement an SAP system in Brazil can count on a vast localization, tested in over 1,000 SAP ERP installations. However, there is great complexity in the Brazilian localization, requiring a significant effort in configuring legal requirements. Brazilian companies are used to this complexity and usually face this challenge with due preparation, but foreign companies planning to roll-out risk underestimating the effort required.

It is worth mentioning that the additional effort required to meet legal requirements corresponds to the overall complexity of the Brazilian legislation, which according to a study conducted by the World Bank (IFC), comes in first place in the worldwide ranking of tax bureaucracy: a typical company spends approximately 2,600 hours per year preparing to pay and paying its taxes. An amount 24 times greater than in the United States and more than five times that of the other BRIC countries.

In order to face this challenge in the best possible way, Globalization Services offers 1-2 day-long workshops - in addition to the online documentation - to learn about the main characteristics of the Brazilian Localization.

Moreover, and unlike other countries with localization, the nature of the legal requirements in Brazil, particularly in accounting, causes an impact on the organizational tax structure, on logistics, on costing and on fiscal bookkeeping. Therefore, in order to create a basic configuration of Brazilian legal requirements in an ERP system, it becomes necessary to involve SD, MM, FI and CO consultants, while an FI consultant would be enough in most other countries.

Legal Requirement | Impact on ERP
--- | ---
Fiscal bookkeeping on Branch Level | “The Business Place” as an additional organizational unit
Federal, state and municipal taxation | Very complex tax calculation
Tax on Circulation of Goods | Tax processes impacting logistics, for example, tax calculation in stock transfers
Electronic Tax Receipt | Online authorization process requiring complex messaging architecture and impacting logistics processes
Fiscal Bookkeeping | Extremely complex reports on virtually all of the Company’s physical, accounting and tax flows item by item.
Public System of Digital Bookkeeping (SPED). Various magnetic files or paper books on the federal, state and municipal levels.

In addition, the nature of the legal requirements in Brazil, particularly in accounting, causes an impact on the organizational tax structure, on logistics, on costing and on fiscal bookkeeping. Therefore, in order to create a basic configuration of Brazilian legal requirements in an ERP system, it becomes necessary to involve SD, MM, FI and CO consultants, while an FI consultant would be enough in most other countries.

*Examples of countries with varying degrees of localization complexity: United Kingdom with low complexity; Mexico with medium complexity, Russia and Brazil with high complexity. Unlike what happens in Russia, in Brazil the greatest effort is put into logistics.
LOCALIZATION OF THE SAP ERP HCM SOLUTION HUMAN CAPITAL MANAGEMENT

SAP, the worldwide leader in enterprise application software, has a solution for managing human resources, used in over 9,500 companies, which manages more than 60 million employees in over 70 countries.

The SAP ERP Human Capital Management (SAP ERP HCM) solution offers resources for human capital management and provides comprehensive and effective functionality to HR professionals, as well as executives and line of business managers. The solution ensures that each employee’s goals are aligned with the company’s strategic objectives. Moreover, it combines strategic resources with the workforce’s analytical capabilities, which makes it possible to take full advantage of human capital-oriented strategies and programs, as well as those regarding the assessment of their contribution to the company’s profitability.

The localization of the SAP ERP HCM solution has been developed after a study of the Brazilian labor legislation, as determined by the “Consolidation of Labor Laws”, in order to meet the best business practices in use by organizations of all sizes and segments. From the moment SAP delivers this solution to a customer, there’s a dedicated team that makes new functionality available and keeps the solution updated with the latest legal changes published by the Brazilian government.

The solution also includes additional functionality to meet the needs of public sector companies.

- **Payroll**: attends to the payroll needs. It offers flexibility in maintaining employee data, enabling the storage of information, correspondence data, bank data, salary changes, alimony payments, transfers and more. To meet the specific characteristics of each company, the payroll solution developed for Brazil also allows a more flexible payroll processing by using adjustments and customizations.

- **Income tax and social security charges**: attends to the needs of income tax and social security charges calculation, such as Social Security (INSS), Severance Premium Reserve Fund (FGTS), and others

- **Leave**: attends to the administration of employees’ leave through processing that generates leave quotas entitlement. You can set parameters for those types of absence that can affect the entitlement to leave. When the employees go on leave, the number of leave days is deducted from the days stored in the quotas. Company vacation and double leave are also included in this solution.

- **Benefits**: enables the payment of benefits such as child allowance, night work, bonus, health risk premium, hazard bonus, transportation voucher, food voucher, etc.

- **Union dues**: through parameter setting, the payroll solution lets you collect these dues, such as union, confederate, welfare and association contributions

- **Reserves**: leave and Christmas allowance reserves are forms of settlement. These payments reserves are calculated during the year and are proportional to the month worked by the employee. The solution also lets you reserve the corresponding charges, such as FGTS, INSS and third-party contribution

- **Retroactive Payroll Accounting**: it has the capability to calculate the payroll in order to pay/cash differences in values already calculated in previous months, as well as adjustments in collecting fees and charges paid to the government.

In addition, you can run special pay-rolls, such as leave, biweekly advance payment, Christmas allowance advance payment, Christmas allowance, profit sharing (PLR), termination and complementary adjustments.

The original results are not changed since they may have already been accounted for. Examples of retroactive accounting: retroactive pay increase; retroactive benefits gain or loss, errors, and others. The RRA, accumulated revenue received, is also in the solution.

- **Multinational Companies**: if your company has branches in other countries, then SAP ERP HCM is the right solution for you. The payroll solution is available in many countries through versions developed by SAP or complementary partner solutions, in the country’s specific language, currency and complying with local legislation.
SAP has a Human Resources solution with Public Sector requirements (CLT, Statutory and Administrative). A detailed study of the processes and requirements specific to this sector has been conducted by SAP consultants and external consultants with extensive experience in this area. This is an add-on solution which includes the following functionality for better management of public sector employees.

- **Public Examinations and Hiring:** Administration of public examinations and selective processes in order to control operational activities of recruitment and personnel selection (calling, hiring, nomination, capacity, ownership and actual activity start). Single servants’ register of personal data for payroll management and accounting. It uses some functionality from the e-Recruiting solution: record the public examinations data, the ranked applicants, identify the best ranked applicants and manage all the steps of the process.

- **Leave and Advance Leave Allowance:** Leave calculation in general and payment of advance leave allowance that can be calculated based on a percentage of the month’s net or gross salary, in one portion, on the first day of leave. In more than one portion, on the respective leave dates, if the employee chooses to divide their leave period.

- **Leave Planning:** Planning a leave and the bonus leave means to “schedule” a certain leave period using relevant information to choose a suitable date based on validation rules related to absence limits. We can compare the actual amount of absences and existing planning with the desired quantity of absences for a certain period. Information regarding Christmas allowance advance payment, pecuniary bonus, etc. is managed jointly. It uses ESS and MSS functionalities.

- **Maximum Wage:** Different calculation methods for Federal, State and Municipal spheres based on limits set by law.

- **Pensioners:** Should the servant pass away, dependent persons are entitled to a monthly pension based on the value of the respective salary “if active” or from inactivity if the server was already retired. The pension shall be classified as follows: Temporary or Lifelong Pension.

- **Monthly Payment:** It is the payment due to the public servant for the provision of services deriving from the labor contract or ties to public administration. This payment cannot be stipulated for a period over one month, with the exception of commissions, percentages and gratifications.

- **Additional Payments:** Based on position, time, hazardous work and sixth part.

- **Payroll Deduction Limit:** It is the deduction to the servant’s salary, upon his/her previous and formal approval and written consent on behalf of administration. It is applicable to the consignment process in payroll of public civil servants, of retired workers and direct administration, local government and foundational pensioners of the Union’s Executive power. The system shall make deductions to payroll in what regards optional consignments.

- **Teaching License:** Workday, salary for workday, deduction for days of work missed/delays and payment of overtime hours. The teacher’s workday is comprised of classroom hours that include activities with students, collective educational work (HTPC) and individual educational work (HTPI).

- **Leaves:** Partially paid. There may be cases where the salary is decreased during the concession period, in other words, the salary amount is gradually reduced by a certain percentage. **Bonus Leave:** Granted to servants according to attendance, discipline and length of service in the public sector.

- **Christmas Allowance:** In the public sector, the Christmas allowance is subject to changes due to welfare policies and the maximum wage. In order to attend to the needs of welfare policies: Special and General Regimes
- **Welfare Contribution (general and special regime) and Income Tax**: Welfare in public services deals with issues related to welfare norms of public servants that hold permanent positions in the Union, State, Federal District and Municipalities. Private workers are bound, mandatorily, to the Social Security General Regime, managed by the Brazilian social security institute, known as Instituto Nacional do Seguro Social (INSS). The system calculates taxation on social security charges considering the social security charges progressive table.

- **Assignment**: Servants of the Federal Public Administration, its local governments or foundations may be assigned to another body or entity of the Powers of the Union, the States, the Federal District and Municipalities, including public companies and semi-public companies, to carry out the at-will appointment (that can be the same or different entities) or positions of trust and to comply with the situation foreseen in specific laws.

- **Retirement**: Simulation of eligibility for retirement benefits in accordance with the various rules. And when the servant becomes inactive and retires, different procedures contemplated in the system are necessary.

- **Remunerated job accumulation**: The remunerated job accumulation consists in occupying more than one position within the same organization. For active public servants (public sector and statutory), retired workers and pensioners who accumulate salaries, calculations are differentiated. Three forms can be accessed through this program, they are Declaration, Option Term and Waiver of Responsibility.

- **Public servant registry**: The registration of public servants in the HCM required some adjustments and the creation of new infotypes.

- **Legal reports**: Besides the standard reports, the solution made available for Brazil discloses the following documents, reports and legal files:
  - **Monthly reports**: SEFIP, CAGED, GPS and DARF
  - **Annual Reports**: Magnetic registration of the PIS, RAIS, DIRF, Earnings report
  - **Others**: IN86, Employee Registration, Dependents Statements for IRRF and child allowance, holiday notice and vacation tag, GRRF, MANAD, Homolognet, Unemployment Insurance, Termination Letter and RRA
Localization of the SAP ERP Financials
Solution Financial Accounting

Financial Accounting
In Brazil, there are specific business practices and taxes are calculated during the payment and collection process.

Accounts Payable (FI_AP)

Payment transactions. The payment process involves payment of obligations that can be done through a Boleto or data medium exchange (DME).

DME is an electronic file (specific format) containing all payment information. The electronic file (DME) is used to exchange information between companies and banks.

The file formats available are as follows: FEBRABAN (CNAB240), Itaú (Sispag) and Bradesco (PagFor and CNAB240).

Brazil’s accounts payable system has different forms of payments and the ones below are managed by Brazilian localization: check payment, payment order, account crediting (bank transfer between accounts), DOC (bank transfer to other banks), TED (SPB – online bank transfer to other banks), and “Boleto”.

Checks control: checks with pre-printed numbering (numbered), checks numbered by the system and printing checks.

DDA – Direct Debit Authorized. This is the electronic Boleto, it means there is no Boleto in paper.

The Boleto information, including the barcode, is sent by the bank to the payer.

In this process the DDA file is uploaded and the financial documents that meets the key fields are updated with the barcode.

Accounts Receivable (FI-AR)

The Accounts Receivable process includes commercial practices such as: Duplicata, Boleto, Vendor Operation and DME.

Duplicata Duplicate or commercial duplicate is a nominal document issued by the dealer, with the overall value and the invoice due date.

DME is an electronic file (specific format) containing the information for collection at the bank. The electronic file (DME) is used to exchange information between companies and banks.

The file formats available are: FEBRABAN (CNAB240), Itaú (400 positions) and Bradesco (400 positions/CNAB240).

The different payment methods in Brazil are listed below and are managed by Brazilian localization: Duplicata and Boleto, which can be printed and sent directly to the customer.

Vendor operation is a program developed for companies with the purpose to fund its customers and grant them convenient bank charges. The vendor company guarantees this operation.

Two business scenarios are included in Brazilian localization:

1. The customer makes the payment to the bank: The supplier sells under the conditions (terms and rates) set out by the customer (buyer) and asks the bank to clear the funds. The bank makes a cash payment to the supplier on the same date the funds are cleared for the customer (buyer).

Payments are not made by the customer to the bank: The supplier sells goods under the conditions (terms and rates) set out by the customer (buyer) and asks the bank to clear the funds. The bank makes a cash payment to the supplier on the same date the funds are cleared for the customer (buyer). The customer does not pay the funds on the maturity date at the bank. The payment is made directly to the company

Withholding Taxes

Withholding Tax in Brazil have different posting time as each Withholding Tax is triggered in specific situations.

Withholding Taxes are calculated according to the Business Scenario.

The Withholding Taxes are:

- INSS - National Institute of Social Security (Instituto Nacional do Seguro Social)
- IRRF – Income Tax (Imposto de Renda Retido na Fonte)
- PIS – Contribution to the social integration Program (Programa de Integração Social)
- COFINS – Social Contribution on Net Income (Contribuição para o Financiamento da Seguridade Social)
- CSLL – Withholding tax social contribution on net income (Contribuição Social sobre o Lucro Líquido)
Localization of the SAP ERP Solution
Logistics and Operations

Organizational Unit

A Branch is an additional Organizational Unit that represents a Legal Entity with its own CNPJ (company registration number). The Branch is associated to the company and to the plant. Each Branch submits their reports. Some federal reports also require identification of operations per Branch.

Nota Fiscal

The tax invoice is an official fiscal document used in logistical and service operations that was created in the SAP ERP as well. This document is the basis for Brazilian legal operations and reports.

It is under Municipality rules and State. The "Nota Fiscal" can be on paper and electronic.

The use of "Notas Fiscais Eletrônicas" (NF-e - electronic tax receipts) means that the official file is digital – magnetic file (.xml format). Since a "Nota Fiscal" on paper is necessary for goods movement, for NF-e there is a printed document known as DANFE (Documento Auxiliar da Nota Fiscal Eletrônica).

SAP developed a SAP NFE product for NF-e ensuring creation and validation in the government system. The NF-e deals with sales, purchases and returns.
Examples of Nota Fiscal: Nota Fiscal for Billing, Nota Fiscal for Shipments, Nota Fiscal for returns and Nota Fiscal for transfers.

There are distinct layouts for service tax receipts ("Notas Fiscais de Serviço") and input/output receipts, which are defined by the Government.

Master records
In Brazilian Localization, items were created or extended to comply with legislation. These fields are used for Reports, Tax Calculation, "Notas Fiscais", and others.

Some objects that contain specific Brazilian fields include company, customer, plant, supplier, material master, group of materials.

Taxes
This functionality handles municipal, state and federal taxes. The localization fulfills the main tax requirements of the three governmental spheres.

Federal Taxes
- IPI – Imposto sobre Produtos Industrializados (Excise Tax)
- PIS - Programa de Integração Social (Employees’ Profit Participation Program)
- COFINS – Contribuição para o Financiamento da Seguridade Social (Social Security Financing Contribution)
- INSS – Instituto Nacional do Seguro Social (Brazilian social insurance body)
- IR – Imposto Sobre a Renda (income tax)
- CSLL – Contribuição Social Sobre o Lucro Líquido (Federal Tax levied on corporations for the financing of Social Security)
- PIS Withheld
- COFINS Withheld

State and Municipal Taxes
- ICMS – Imposto sobre a Circulação de Mercadorias e Serviços (Tax levied on the circulation of goods and services)
- ICMS ST – ICMS Substituição Tributária (Tax substitution)
- ISS – Imposto sobre serviços (Tax Levied on Services)

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<th>Localization Highlights</th>
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The Brazilian sales and distribution process was adapted in several important points: sales order, pricing, delivery, billing and “Nota Fiscal”. In Electronic Invoices, authorization and subsequent steps are also part of the localization.

### Sales Order

Improvements delivered to Brazil enable the creation of relevant merchandise and service operations.

**Pricing:** there are two pricing schemas delivered for Brazil: The Classic schema (RVXBRA) and the CBT schema - Condition-Based Tax (RVABRA). Both supply the base to sell merchandise and services. SAP recommends the usage of the CBT schema, whenever possible.

- Taxes: ISS, ISS WHT, ICMS, ICMS ST, IPI, PIS, COFINS, PIS WHT, COFINS WHT, CSLL WHT, IR WHT.
- ICMS Tax Rate determination on interstate transactions, according to material’s “Fiscal” origin.
- Tax Laws: Used for assignment of the relevant legal text to be printed on the Nota Fiscal, as well as determination of the appropriate Tax situation of the sales process.
- CFOP (Código Fiscal de Operação e Prestação): Fiscal Classification of the Sales Transactions

### Outbound Delivery Document

Improvements were made to enable localization parameters to be determined and maintained in the delivery document: SD Tax Code, CFOP, Tax Law for ISS, ICMS, IPI, PIS and COFINS.

### Billing Documents

Improvements were made to enable localization parameters to be shown in the billing document: SD Tax Code, CFOP, and Tax Law for ISS, ICMS, PIS and COFINS.
Sales or Resale Process

- With or without Taxes: ISS, ICMS, ICMS ST, IPI, PIS, COFINS, PIS withheld, COFINS withheld, CSLL withheld, IR withheld.
- Base reduction for Taxes ISS, ICMS, ICMS ST, IPI, PIS and COFINS.
- ICMS Base Reduction according to Law “Convênio ICMS 100/97”.
- Freight values shown, or not, on the Nota Fiscal.
- Insurance and other expenses shown on the Nota Fiscal.
- Discounts shown, or not, on the Nota Fiscal.
- Returnable Packaging.
- Dealing with ICMS on sale for Manaus Free Trade Zone and Free Trade Area.
- Indexed values in sales order.
- Payment Conditions.
- Batch control

Sales Processes for Consumption

- With or without taxes: ICMS, IPI, PIS, COFINS.
- Base reduction for taxes ICMS, IPI, PIS and COFINS.
- ICMS “Partilha” according to law “Emenda Constitucional 87/2015”.
- Freight values shown, or not, on the Nota Fiscal.
- Insurance and other expenses shown on the Nota Fiscal.
- Discounts shown, or not, on the Nota Fiscal.
- Returnable Packaging.
- Indexed values in sales order.
- Payment Conditions.
- Batch control

Sales of Services

- Municipal ISS Tax according to Complementary Law 116/2003 (LC116) and withholding taxes ISS, PIS, COFINS, CSLL and IR.
- Electronic Freight Invoice (Conhecimento de Transporte Eletrônico / CT-e): supported CT-e processes are normal, complementary, annulment and substitution.
- CT-e Taxes: ICMS, ICMS ST, PIS and COFINS.

Other Sale Processes Supported by the Localization

- Special sales transactions of products.
- Future delivery sales.
- Export: Nota Fiscal creation and complementary Taxes.
- Consignment sales.
- Sale with returnable packaging.
- Triangular transactions: Third Party Sales.
- Sales Return: Goods return with original Nota Fiscal, and creation of incoming Nota Fiscal.
- Sales Return: Posting of return Nota Fiscal issued by the customer.
Localization of the SAP ERP MM Solution Material Management

The Material Management Solution enables closer integration between a company’s supply activities. This integration helps centralize acquisition of goods and services, covering all processes related to purchase requisition management, purchase order management, goods receipt management and invoice management.

The solution also enables improvement of the material storage, with real time monitoring of material availability.

This complete and integrated solution enables the management of the entire process, from acquisition to payment, including logistical processes. Therefore, the solution helps increase cost savings, reduce operational costs and ensure compliance with contracts and policies that represent essential factors to generate real competitive differentiation.

Automated operations make it easier to supply all goods and services, eliminating manual tasks and reducing purchasing mistakes.

SAP’s Material Management solution enables the purchase team to make decisions and act quicker due to simplified and personalized access to key information.

With SAP ERP MM, the acquisition process becomes the focal point of the business and a strategic activity for the growth and economy of companies.

Operations with Goods Receipt

Brazilian localization provides solutions to the following purchase transactions:
- Purchase for Industrialization
- Purchase for Resale
- Purchase for Use and Consumption
- Purchase of Assets
- Purchase of Services
- Purchase of Freight Services

Operations related to industrialization, resale, use and consumption make it possible to calculate ICMS, IPI, ICMS ST, PIS and COFINS taxes, as well as IR, CSLL, ISS, PIS and COFINS withheld taxes. These operations also make it possible to include planned freight, unplanned freight, insurance and exceptional expenses.

For the purchase of services, the solution makes it possible to calculate tax withheld or not, such as IR, ISS, PIS and COFINS, and become aware of planned and unplanned freight. The solution also allows assessment of costs against stock.

For the purchase of freight services, the solution enables the posting of incoming Conhecimento de Transporte Eletrônico (CT-e), supporting ICMS, ICMS ST, PIS and COFINS taxes calculation.

Special Processes

Brazilian localization provides solutions for special processes. Due to the need to issue/receive “Notas Fiscais”, the following special processes were adapted to comply with legislation.

- **Future Delivery** – The solution makes it possible to receive a “Nota Fiscal” for billing prior to goods receipt. Therefore, when the goods are received, the “Nota Fiscal” is created for the goods receipt.

- **Consignment** – The solution makes it possible to receive the goods without payment until the material is consumed. As soon as the material is consumed, the “Nota Fiscal” for billing is created.

- **Returnable Packaging** – The solution makes it possible to issue the “Nota Fiscal” for the return of the returnable packaging of the purchased product.
- **Subcontracting (Industrialization)** – The solution makes it possible to issue a "Nota Fiscal" to deliver the shipment of components to be industrialized, as well as receive the "Nota Fiscal" with the return of components together with the industrialized material.

- **Triangular Operations** – Customer – The solution allows that a "Nota Fiscal" for the goods received is created for a delivery supplier, called a "Nota Fiscal de Remessa", by account and order of third parties, and also the creation of a "Nota Fiscal" for the billing for the supplier of the order.

- **Triangular Operations** – Supplier – The solution allows the supplier to issue a purchase order to another supplier to attend the demand of a sales order. The solution allows the supplier to receive a symbolic "Nota Fiscal de Remessa" and third party sale.

- **Import** – SAP does not have a solution for foreign trade in Brazil. However, it is possible to the customer to issue a "Nota Fiscal" on behalf of their foreign supplier.
Receipt of "Notas Fiscais"

Brazilian localization provides solutions for several types of existing "Notas Fiscais" and also provides improvements to make it easier to receive those "Notas Fiscais":

- **Automatic determination of CFOP code** – With prior configuration, the solution can automatically determine the CFOP without the user having to type it in manually.

- **Automatic maintenance of texts for "Notas Fiscais"** – With prior configuration, the solution can automatically determine the texts of ICMS, IPI, ISS, PIS and COFINS Tax situations for the database used by the "Nota Fiscal".

- **Receipt of complementary "Nota Fiscal"** – When there is a need to correct amounts and/ or quantities, the system is prepared to receive a complementary "Nota Fiscal".

- **Receipt of bill of Lading** – The solution also receives freight bills.

- **Issuing a return "Nota Fiscal"** – If necessary, the system is prepared to issue a return "Nota Fiscal", in MM transactions.

- **Receipt of "Nota Fiscal Eletronica"** – The system is currently prepared to receive "Notas Fiscais Eletronicas".

Inventory Management

In order to manage stocks in Brazilian localization, the solution offers functionalities such as real time stock appreciation in three currencies (Material Ledger), transfers and returns of goods between centers and storage control through Warehouse Management.
Localization of the SAP ERP CO Solution Controlling

Actual Costing / Material Ledger is a functionality used to calculate the real average monthly costs, updating material and stock movements with the same assessed cost. The update is carried out for materials purchased and produced internally.

The WIP Revaluation (Revaluation of Work in Progress) is a complementary solution to the current Actual costing/Material ledger functionality, allowing full absorption of the real cost assessed, updating stock in progress with the average cost, on a monthly basis.

The objective is to safeguard integrity in the assessment of costs in accordance with accounting, tax journals and balance sheets.
Localization of the SAP Solution for Tax Journals and Magnetic File

Tax Journals
- Logbook of Production and Inventory Control (Model 3)

This book is used for quantitative control of production and goods inventory. It also contains data to fill in documents containing information for the tax office.

Set of Books
- Daybook

According to commercial legislation, companies must register their day-to-day operations in a Daybook. The Daybook’s bookkeeping must comply with Brazilian Accounting Standards.

- Ledger

The Ledger is vital for good accounting, because it is used to register all accounting operations and each page must contain the accounting records of only one account.

- Record of Receivable Trade Bills

The Record of Trade Bills is mandatory according to commercial legislation and optional according to Income Tax legislation

Magnetic Files
- DIRF (Withheld Income Tax Return)

The DIRF is an ancillary tax obligation due by all legal persons. It contains the identification by type of withholding and identification of the beneficiary, under the terms established in Income Tax Regulation

- ICMS 57/95 payment agreement – SINEGRA

SINEGRA consists in a set of administrative and computational support systems procedures. Taxpayers that use Electronic Data Processing are obliged to submit a validated magnetic file to State Tax Administrations containing data on all internal and interstate transactions (purchase and sale, acquisitions and services) they may have undertaken.

- IN86

Regulatory Instruction n° SRF 86 addresses legal person’s obligation to keep digital archives and systems at the disposal of the “Brazilian Federal Revenue” (SRF – Secretaria da Receita Federal), for the period foreseen in tax legislation. Relevant legal persons are defined as persons who use the electronic data system to register business and economic or financial activities, write up books or prepare accounting or fiscal documents.
- **Public System of Digital Bookkeeping (SPED)**

The SPED provides the possibility for accounting and fiscal books and documents to be issued in electronic format. The SPED unifies the activities related to reception, validation, storage and authentication of books and documents that are part of the commercial and fiscal bookkeeping of businesspersons and companies.

- **Digital Accounting Bookkeeping (ECD)**

The accounting SPED or ECD substitutes bookkeeping on paper. It substitutes, in a sole file, daily book and its ancillary documents, Ledgers and its ancillary documents, and the books comprising Daily Trial Balances, Balance Sheets and posting forms evidencing the entries made therein.

- **Digital Fiscal Bookkeeping (EFD)**

The Fiscal SPED or EFD is a digital file consisting of a set of records of fiscal documents and other information, as well as tax verification records and regarding operations and services carried out by the taxpayer. The Fiscal SPED contemplates the substitution of Receipt and Issue Records, ICMS and IPI Tax Determination Logbooks and Inventory Logbook.

- **Digital Fiscal Bookkeeping (EFD) – CONTRIBUTIONS**

The EFD PIS/COFINS is a digital file to be used by private legal persons in the bookkeeping of contributions to the PIS/ PASEP and COFINS (non-cumulative and/or cumulative tax system), based on revenue obtained as well as costs, expenses, charges and acquisitions generating credits from non-cumulative taxation, and Social Security over revenue.
SAP Tax Declaration Framework for Brazil

The SAP Tax Declaration Framework (TDF) for Brazil is a HANA based repository to centralize all legal compliance relevant data in a promptly consumable way. It generates the Statutory Report files accordingly to Brazil’s public system of digital bookkeeping (SPED) legislation.

By use of SAP TDF, companies can vastly improve the efficiency of their Tax processing, gain unprecedented insight into fiscal data, which allows improving process quality, reducing risk of non-compliance and fines, improving tax planning and optimizing tax burden.

Central Tax Repository (CTR)

The complete tax and fiscal data model (especially the tax objects reusable views) is in HANA and it is called Central Tax Repository, in short CTR.

With CTR, all fiscal data from different source systems are centralized and consolidated in just one unique place, known as “the single source of truth,” so to make sure that every report from SAP, from Partner solutions, or customer-developed reports will have the same source of data, assuring compliance and governability.

CTR is a collection of tables and views, which exposes the Tax and fiscal data in a business and SPED layout related terminology, making it also easy for usage directly by the business users via Analytics tools.

TDF and certified partner applications consumes the CTR, but is also available for building customer-specific applications taking advantage of the HANA processing speed.

Features

- SPED file generation for ECD, ECF, EFD ICMS/IPI, EFD Contribuições, as TDF native reports.
- SPED eFinanceira, eSocial, and REINF uses the TDF Messaging Framework to communicate required business data events with the governmental services.
- Tax Obligations Monitor (TOM), which supports the users throughout the entire cycle of report compliance, controlling the status of each obligation generated both by TDF or partner software. In addition, the files generated by the applications, as well as other relevant files involved in the compliance process, are stored and recovered securely.
- With Fiscal period control, it is possible to decouple the financial closing from the fiscal closing.
- Fiscal document correction module helps the partner and customer solutions to correct and create documents in the proper source system.
- Process logging and trace offers a set of services, which are useful for analysis, troubleshooting, and auditing purposes.
- TDF-Services consists of integration and interoperability services, enabling partner and customer additions to run seamlessly.

TDF also made ERP Enhancements to improve the tax and fiscal data quality, from the master data to the transactional processing. By implementing them, customers will have much more governance and control over the daily activities related to tax processing, assuring enriched processes with fiscal intelligence from the start moment:

- Automatic Determination of Tax Code for MM / SD
- Control of CIAP (ICMS Credit for Fixed Assets) – Integrated with Block G
- Nota Fiscal Writer with Accounting interface – Non-valuated scenarios
- Nota Fiscal automatic creation for Inventory – Adjustment postings
- On-line Validation Engine (Master Data, Logistic and Financial transactions).
Localization of SAP NFe Solution Nota Fiscal Eletrônica

Companies that have international, interstate and intra-state businesses in Brazil must follow Brazilian legislation, and the challenge lies in assuring information transparency in an electronic system known as the Public System of Digital Bookkeeping (SPED).

The new government program has several objectives, one of which is highlighted: eliminating or significantly reducing the paper used in several legal reports, which reduces expenses with processes including sales, receipt and storage of invoices for auditing.

The Brazilian electronic tax receipt regulation, which is part of the SPED, adresses electronic invoice practices that companies must present.

The SAP Nota Fiscal Eletrônica solution is an application that enables companies to comply with the requirements laid down in legislation, automating, certifying and assuring interfaces with governmental software on a state and federal level.

The SAP Nota Fiscal Eletrônica solution helps companies comply with legislation minimizes incorrect transactions and eases communication and collaboration with the supplier chain. The application offers the following benefits to assure companies are complying with the law:

- Increasing supplier chain efficiency
- Improving support given to services and customers
- Integration within existing business solutions, as well as financial processes and logistical operations
- Reducing operational and audit costs

**Entry Automation**

SAP NF-e 10.0 automates processes related to the entry of electronic tax receipts related to purchase order processes and to movement of goods between centers (stock transfer). This includes simulating and comparing the data from "Notas Fiscais" and purchase orders, simulation of "Notas Fiscais", delivery creation and follow-up on goods entry and creation of invoices in SAP ERP's receivables. The system also includes electronic receipt and validation of the freight "Nota Fiscal".

**Features**

- **NF-e Automation Processes:**
  - Normal Purchasing
  - Stock Transfer Order
  - Subcontracting
  - Future Delivery
  - Consignment
  - Returnable Packing
- **Acceptance and Rejection Functionalities**
- **DANFE Simulation**
- **CT-e Automation with Logistic Execution System (LES) and Transportation Management (TM)**
- **Events Monitor**
- **Gate Monitor**
- **Receivers Acknowledgement Solution**
- **Reports**
- **Mass download**
- **Archiving**

- **NF-e / CT-e Monitor in SAP ERP and SAP NF-e**
- **MDF-e Monitor in SAP NF-e**
- **Cancellation and Skipping Processes**
- **CC-e, Cancellation and ICMS extension events**
- **Skipping Number Range Report**
- **Manual and Automatic Contingency**
- **Batch Monitor**
- **Event Monitor**
- **Service Status Monitor**
- **Data Validation**
- **B2B Process**
- **Contingency**
  - Security paper
  - SVC
  - EPEC
- **Digital Signature**
- **Mass Download**
- **Archiving**
SAP Transportation Management supports the transport processes for Shippers and Logistic Service Providers. With TM, it is possible to plan, leverage and optimize the transport processes ensuring efficiency and cost reduction using the following functionalities:

- **Transportation Requirement Management**
  TM manages the transport requirement in extensive way, comprehending since the freight unit until the integration with the financial process. For this management, it's considered aspects of time, requirement and conflicts of cargo.

- **Freight Planning**
  Possibility of planning, consolidating and optimizing each transport considering the limitations, cost and penalties.

- **Freight Execution**
  Integration with Event Management to accompany when and where the transport events occurred, such as loading

- **Freight Tendering**
  Possibility of choosing the carrier in collaborative way based on defined rules, ranking or preferences.

- **Freight and Forwarding Settlement**
  Document creation related to financial. It also generates ERP integration by creating a freight purchase order or billing document.

The Localization for Brazil integrates the transport processes created in TM with creation of "Conhecimento de Transporte Eletrônico (CT-e)" in SAP ERP. It's done by the integration of TM Business Partner with the CT-e partners, ensuring that the Brazilian tax calculation as ICMS, PIS and COFINS are calculated correctly. The objective is to create the CT-e with the data already planned and managed by TM, both for full truckload, multiple pickups and multiple deliveries scenarios.

Besides the integration, the Localization also allows the freight cost distribution in the material accounts considering the Brazilian taxes, when applicable.
Localization of the SAP TRM Solution
Treasury and Risk Management

SAP Treasury and Risk Management is a solution that enables the financial areas management, analysis and optimization. The solution manages financial transactions, both in securing resources and in applications on the financial market.

Using this solution, the Treasury department can have a more comprehensive view in the management of assets, which, in turn, will allow it to the several types of financial transactions in only one place to formulate a quick analysis and subsequent short and long term strategic definition.

Below are some of SAP Treasury and Risk Management solution’s functionalities, in accordance with Brazilian legislation:

- **Bank Deposit Certificate** is a fixed income financial application that allows the investor to know the terms and conditions of the remuneration ahead of time. There are applications with redemption grace periods and all applications are subject to Income Tax and Financial Operation Tax (IR and IOF) according to the investment holding period. The solution offers conditions for progressive interest rates according to the time period of investment. The solution allows the taxes accruals calculation and posting by reset or difference method.

- **SWAP** term means “exchange”. An operation that protects the company’s profit against risks associated to interest rates, key figures and currency rates. With no initial disbursement, protection begins on the maturity date of operation. Transaction settlement for the net value (assets and liabilities) and subject to tax income return if there is profit on the settlement according to the investment-holding period. Profit accruals, loss and income tax are accomplished by the reset method, recognized short or long term.

- **Investment Funds** is a financial application for higher remuneration, with a product range to assure greater balance and protection to the investment and immediate liquidity. The investor’s resource are transformed in shares at the start date of investment. The share amount will be defined according to portfolio composition. It is subject to six-month income tax return and upon redemption according to the investment-holding period. Income Tax rates are defined according to the investment funds portfolio that can be short or long term. It is subject to tax on financial transactions if there are redemptions with an investment-holding period of less than 30 days.

- **Loans Agreements** (Intercompany Loans) is a loan transaction between companies belonging to the same group that is subject to the same legal rules as a normal loans made directly on the Financial Market. There is coverage of two characteristics: taxes as expenses and taxes affecting the debit balance. Subject to income tax collection according to the investment holding period and tax on daily financial transactions.
Localization of SAP Banking Solutions

General Localization Functions considering the foundation solution for Funded Loans and Tax Manager.

Funded Loans is a common solution that supports funding organization grants to a Bank, synchronizes the payments, generated an integrated cash flow and calculation the repaid projection amount. It is only adherent with Localization for Brazil country-specific.

- Fund Pool is an internal bank account that concentrates all incoming and outgoing funds values from single (1:1) or multiple loans given (1:N).

- Loans Taken is a product that contains funds business requirements for governments or funding organization lends to the bank.

- Loans Given is a product that contains funds business requirements in order to link to the Loans Taken functionality.

Tax Manager is a common solution that supports tax calculation from certain transaction based considering rates, limits, exemption and other configured specific condition.

- Financial Operation Tax (IOF) for Loans Given contracts.

- Taxes, rates and limits applied to this operational tax area. Treat the exemption or special rates for the given Business Partner or Account.

- Financial Operation Tax (IOF) for Current Accounts transactions.

Country-specific Localization for Brazil considering the legal and general business requirements in the area of Accounting Management:

- Business Partner master data stores data for checkbook management, payment processing and savings accounts.

- Bank Branch Calendar controls the posting dates according to the bank branch calendar and to determine how the system handles posting coming from different channels.

- Payment Advice enables to process payment advices in line with the requirements of debit interbank transfers.

- Deposits Management covers the legal and most important business requirements for deposits accounts for checking accounts, checkbooks, savings accounts and time deposits, considering for Financial Operation Tax (IOF) and Income Tax (IRRF) when applicable.

- Loans Management covers the legal and most important business requirements for Financial Operation Tax (IOF), compound interest, index contracts, Number of installments in a loan account, payment plans and Manage detailed status information on loan disbursements, installment billing, and customer receivables.

Bank Analyzer

- The localization for Brazil comprises Business Content, including settings that are aligned with COSIF (Brazilian banks chart of accounts). The preconfigured accounting principle considering the legal accounting process in order to complete the end-to-end scenarios financial instruments localized in the Account Management component.
Localization of the SAP SRM Solution
Supplier Relationship Management

SAP SRM is a tool that helps you improve your purchase strategy, from the effective management of cooperation with suppliers to the execution of better market practices, through detailed tracking of documents within a product that is entirely integrated in the ERP. This solution is focused on end results and helps reduce costs with goods acquired in your entire company, improving supply efficiency and increasing the value of relationships with your business partners.

In order to better serve the needs of the Brazilian market, the following functionalities are available:

- Additional fields required to register products, such as use NCM Code, Origin of Goods, Indicator of product manufactured In-house and CFOP Category. Integration within the SAP ERP entails the transfer of fields from the material register within the ERP to the SRM register. Any subsequent change in the SAP ERP may lead to automatic replication in the SAP SRM. These fields are also available for sporadic purchases without material register, in other words, for items that only have a descriptive text. Services can also be acquired within the SRM.

- Additional fields required to register suppliers/business partners to calculate taxes and generate reports.

- Calculating taxes and visualizing them in the creation of a shopping basket, of orders and local purchase contracts. In this case, all taxes are calculated on SAP ERP (back-end) and visualized on SRM per tax type.

- On the Sourcing Cockpit’s monitoring tool, where it is possible to identify suppliers and create subsequent documents, the fields that are relevant for Brazil were inserted on the line of the item for goods and services, as well as information regarding the tax code.

- Request for Quotation / Auction creation: Fields that are relevant for Brazil are included on the line of the goods and services item, as well as information regarding codes of taxes that are relevant for the process.

Compliance with PIS/COFINS Laws (Law 10.833/2003) and with the ISS Complementary Law (LC116/2003). For customers that want to purchase the SRM solution that did not implement the SAP ERP, they must obtain parameters required to calculate taxes and generate documents during the implementation project.
Localization of the SAP PPS Solution
Supplier Relationship Management for the Public Sector

Complementing the SAP SRM solution for private or public corporate purchases that require tax calculations on the transactional documents, SAP also developed a solution for governmental purchases that have specific legal requirements in this sector such as Law nº 8.666/93 and others, namely the ones regulating electronic auctions. Included in the many improvements contained in this product are:

- **Bidder Mask**: Possibility of hiding the identification of bidders in the Quotation and Electronic Auction processes.

- **ATA Generation**: Creating and printing documents that supply all entries made in each quotation and auction process, such as data regarding registry of participants, history of the bids, messages exchanged, process winner as well as other complementary texts that can be added.

- **Additional fields in the bidder register**: ME Indication for micro-companies and small companies that are subject to Law nº 123/2006; Inserting the CRC number - Master Records Registration; Information on delivery of the Waiver of Responsibility.

- **Complying with Complementary Law nº 123/06**: For micro-company and small company bidders that participate in electronic auctions.

- **Price Registry**: Creating and printing a formal price registry.

- **Random time in Auction**: Possibility of defining a period chosen randomly by the system to close bids.

- **Recollection**: Also known as “Fine exemption” enables creation of new bidding and trading processes referring them to previous processes. Used for example in desert auctions or when all proposals have been disqualified.

These functionalities are available to all customers as of the SRM 7.01 SP05 version.
Localization of the SAP CRM Solution

Customer Relationship Management

SAP Customer Relationship Management (SAP CRM) provides marketing, sales and service professionals with complete customer intelligence to manage relationships and customer-related processes. It enables you to define customers based on their industry and personalize the customer experience. It handles information between different SAP components and non-SAP components. Link: SAP CRM

CRM Localization
Due to complex legal requirements, the Brazilian localization of SAP CRM is necessary and has been available since 2001.

There is no support for stand-alone SAP CRM in Brazil (stand-alone refers to situations in which requests, tax calculation, pricing and invoicing are done all within CRM). In Brazil, billing and subsequent creation of "Nota Fiscal" constitute an essential part of the sales and services process and are vital to assure the company’s revenue flow. The "Nota Fiscal" is an official document and must be created along with the invoicing document.

Brazilian Localization of SAP CRM solution supports master data and the creation of sales orders. Billing and creation of "Notas Fiscais" are done in SAP ERP.

Localization Highlights
- Pricing and Tax calculation through the Condition-Based Tax (CBT) scheme
- Full integration with SAP ERP Financials
- Billing and creation of "Notas Fiscais" in SAP ERP
- Improving master data (Business Partner and Materials)

Master data improvements
- Business Location, Business Partner and Material Master Data adapted to comply with localization requirements.
- Specific fields transferred from ERP to CRM as tax classifications.
- Delivery plant represented in a CRM by a vendor Business Partner

Pricing scheme
- The Condition-Based Tax (CBT) pricing scheme should be implemented in ERP and subsequently downloaded to CRM
- The sales tax calculation considers the customer and material tax classifications
- Taxes calculated in CRM are ISS, ICMS, ICMS ST, IPI, PIS and COFINS

Sales Order in the ERP (CRM7.0/2008)
Customers can use ERP sales order with CRM web client UI. Both CRM WEB Client UI and CRM B2B Web Shop UI supports the use of SD transactions from SAP ERP. It enables flexible UI configuration available in standard CRM UIs.

Since the use of CBT scheme is required for Brazil localization of SAP CRM, customers who do not use CBT are not able to execute SAP CRM for a background that requires localization. IS Oil & Gas is an example. CBT is not available for Oil & Gas yet due to the complex localization requirements. ‘ERP Sales Order’ is a feature that enables Oil & Gas customers and others who do not use CBT as pricing scheme yet, to use SAP CRM for sales transactions.

CRM Billing (CRM7.0 EHP3 SP08)
- CRM Billing is enabled for Brazil and supports the creation of the NF document in ERP.
- CRM sales order is created, delivery is processed in ERP, CRM Billing is performed, triggering the creation of NF document and FI document, both in ERP
- Determination of CFOP
- Determination of Tax Laws at item level of CRM Sales Order

Link: CRM Billing
Localization of SAP Contract Accounts Receivable/Payable for Utilities (FI-CA), SAP Contract Accounts Receivable/Payable for Telecommunications (RM-CA) and SAP Insurance Collection and Disbursements (FS-CD)

The solution offered by Brazilian localization for Utility, Insurance and Telecommunications companies deal with revenue, collections and payments processes.

**Accounts Receivables / Collections**

Brazilian localization offers three collection methods and data medium exchange (DME) related to information exchanged between companies and banks:

- Bar Code
- Boleto
- Direct Debit

**Bar Code** (applicable to IS- Utilities)
The bar code printed on the "Nota Fiscal" contains data required for collection such as expiration, amount, industry sector and bank details. The "Nota Fiscal" is sent to the Business Partner (consumer) who will make the payment at agencies, terminals, at the bank, via internet or telephone.

**Boleto** (applicable to IS-Utilities/ IS-Telco/ IS- Insurance)

A boleto is a financial instrument that contains all details of the bar code related to the collection. The boleto can be printed on the "Nota Fiscal" (IS-Utilities) or individually.

Boletos are generated and processed in lots or individually. The DME file is created in FEBRABAN (CNAB240) format.

**Direct Debit**

Direct Debit or automatic debit is a payment method in which the Business Partner authorizes the bank to debit the total amount in the "Nota Fiscal" from their bank account.

The business partner authorizes the bank to process the debit or authorizes the debit at the agency of utilities or telecommunication or insurance companies whom update the register.

The DME format consists in several records in a file that contains details for collection, new direct debit authorizations and new business partner information.

The DME file is created in FEBRABAN (CNAB240) format.

**Accounts Payable/ Disbursements**

Brazilian localization offers the calculation of withholding taxes on Insurance Payments and the payment processes.

**Withholding Taxes**

The business processes covered are:

- Legal Entity (INSS, ISS, IRRF, PIS / COFINS / CSLL)
- Natural Person / Autônomo (INSS, ISS, IRRF).

Withholding Tax rates are defined per benefit type.

The Withholding Tax codes can be defined at contract account, insurance object or at document item.

**Bank Transactions**

DME file created according to FEBRABAN (CNAB240) format.

The disbursements processes are:

- Bank Transfer
- Credit Account
- Boleto
Localization of SAP for OIL & Gas solutions

SAP for Oil & Gas assists Oil & Gas industry processes, from exploration to secondary distribution. Large oil companies are using IS-Oil Upstream and/or Downstream functionalities, such as Saudi Aramco, Shell, British Petroleum, Exxon Mobil, Chevron, Pemex and Petrobras.

The oil and derivatives industry solution enables the calculation of the volume conversion for hydrocarbons, which is vital for this type of industry. Some of this solution’s essential functionalities are:

- Product Control in tanks and silos
- Sediments and water calculation
- Rates and Tax Calculation
- Pricing based on commodity quotations
- Marketing contracts and order entries
- Transportation and Distribution
- Calculation and entry of gains and losses
- Transportation planning and execution
- Production and Revenue Accounting

SAP’s standard functionalities used together with the IS-Oil, such as MM for purchases and SD for sales.

Brazilian Scenario

In order to comply with Brazilian Legal Requirements, Oil Industries operating in Brazil require complex and various functions for the registry, printing and processing of business data, especially the ones related to taxes.

Exploration and production, refineries and distributors follow different tax and fiscal rules determined by the Government. SAP Oil & Gas provides additional functions for the complete chain. Follows some localized functionalities:

- Tax Determination: Determining tax rules and processing specific tax data for oil and derivatives, lubricants, alcohol and non-derivative fuels;
- Periodic "Notas Fiscais" for gains and losses;
- Complementary "Notas Fiscais": if the amount calculated in the "Nota Fiscal" that accompanied the issue of goods needs to be changed in the invoice, it is possible to use the invoicing list to generate an additional "Nota Fiscal" containing corrections to the original amount, based on price formation rules or product quality.
Tax Calculation and Tax Code Determination

Standard functionalities used to calculate Brazilian taxes allow companies to fulfill legal requirements through the identification of rules that determine the following items:

- Types of applicable taxes
- Tax calculation formulas
- Amounts used in tax calculation
- Data required of each type of “Nota Fiscal”
- Tax Journals
- Journal entries

Performing appropriate tax calculations, entries of “Notas Fiscais”, fiscal bookkeeping, and journal entries, the solution for the Oil & Gas industry provides functionalities that define certain exceptions in the calculation of existing taxes and enables automatic determination of tax code on sales, purchases and hydrocarbon transfers.

Nota Fiscal Eletrônica – NFe

Oil & Gas companies are one of the first industries obliged to issue electronic tax receipts. The standard solution for NFe is applicable to Oil & Gas but some additional notes should be applied for the process to function correctly. Specific Oil & Gas modules, such as TD (Transportation and Distribution) are adapted to generate and receive NFe’s.

Additional Functionalities

Localization of IS-Oil & Gas was developed in the classic TAXBRJ scheme. All calculation rules are defined in configurable tables that are connected to formulas that accompany specific Oil & Gas conditions in the TAXBRJ scheme. Processes carried out specifically in the oil and gas industry in Brazil, such as product loans and storage in/of third parties, are easily configured using standard functionalities. The control of own products, third party products and products held by third parties can be done using functionalities in SAP ERP as well as in the Oil & Gas solution.

Localization Highlights

- Determining tax codes for sales, purchases and transfers
- Calculating specific taxes for oil and derivatives, gases and alcohol
- Complementary “Nota Fiscal” for adjustments and/or final price by using commodities price
- Periodic “Nota Fiscal” for gains and losses
- Nota Fiscal Eletrônica (NFe)
Localization of SAP for Mining Solutions

SAP for Mining or IS-Mine supports mining-specific processes and provides you with key information that enables you to run your mining business effectively and profitably. SAP for Mining integrates production, commercial and support processes to enable enterprise-wide planning, execution, and reporting.

The characteristics of mining products can be changed during the transportation process, such as moisture, which affects their quality and consequently, the price. IS-Mine allows the calculation of the new price based on changes on the product quality between goods issue from the mining company and goods receipt at customer site – besides the composition of the provisional price because mining products are commodities and their prices are based on external quotations from commodities Exchange.

These changes in both price and quality generate notes of debit or credit to the customer. Thus, when the mining company issues the ore to the customer, it also issues a provisional invoice. It is provisional because it considers the provisional price of the product. When the ore is received by the customer, this company analyzes the quality, which can be better or worse than the quality during goods issue at the vendor’s site. These fluctuations may generate adjustment invoices that can be debit or credit.

Several analysis can be done by the customer and consequently, several adjustment invoices.

Brazilian Scenario

Mining characteristics of quality may be changed during the transportation process, such as moisture, thus affecting the price in the billing document. Besides, mining products are commodities and their pricing composition is by external quotations from commodities exchange.

Since in Brazil, all transported goods require a “Nota Fiscal”, the provisional invoice is a Nota Fiscal for sales and the adjustment invoices can be debit (Complementary Nota Fiscal) or credit (no Nota Fiscal is issued, but a NF is generated in the NF database in the system), depending on pricing changes of the mining products – both quality and pricing composition.

However, when multiples items are involved in an invoice, some may valorize while others depreciate. Therefore, a specific routine allows the split of items in the differential invoice and each item will have its adjustment Nota Fiscal.

Localization Highlights

- **Multiple adjustment invoices with Complementary Nota Fiscal**: the mining sales process contemplates the issue of one or several adjustment invoices due to changes on product quality and/or price composition. The adjustment can be a debit or a credit.
- **Adjustment invoice for scenarios with Credit and Debit**: SAP IS-Mine localized for Brazil allows the creation of complementary “Notas Fiscais” for the adjustment invoices for debit as well for credit. IS-Mine localization generates complementary “Notas Fiscais” for debit adjustment invoices and correction “Notas Fiscais” in the ECC database for the credit ones. Complementary “Notas Fiscais” are correctly created with only the complement value.
- **Adjustment invoices with Split of values**: IS-Mine performs the Split of the adjustment if the original “Nota Fiscal” has more than one item and one adjusted as credit while the other one adjusted as debit. Therefore, generates two documents: one for the debit and another for the credit.
- **Versions**: ECC 6.05 SP06 and ECC 6.06 with CBT (TAXBRA and RVABRA).
- **Important**: Although IS-Mine component is based on IS-Oil, IS-Mine localization is available only for CBT, while IS-Oil localization is available only for Classic (TAXBRA and RVXBRA).
Localization of SAP for Utilities Solutions

SAP for Utilities is an Industry Solution developed to respond to requirements of Utility companies of all sizes. SAP for Utilities system is integrated in SAP ECC, focused on sales processes and information that supports Utility and waste company services.

Used in more than 1000 companies all over the world, it ensures a high degree of flexibility and adaptability to meet the requirements of several types of Utility Industries, including generation, transmission, distribution companies and metering services.

The solution complies with Brazilian legal and business requirements such as tax calculation, amount truncation, bank file generation, numbering of "Notas Fiscais", on-site billing, mini and microgeneration, and tax proration.

Brazilian localization was created with the purpose to fulfill the regulatory Entity's legal requirements as well as the needs of Brazilian companies business.

Tax Calculation and Proration

The solution enables ICMS, PIS and COFINS to be calculated in the invoice, as well as the deduction of PIS/PASEP, COFINS, CSLL and IRPJ of public sector customers.

As of release 6.0 EhP4, it is possible to prorate ICMS in case there are changes to tax rates and to use alternative parameters for dynamic determination of taxes.

Numbering of “Notas Fiscais”

Numbering of "Notas Fiscais" was done according to the invoice date or the invoice due date, depending on state regulation.

Mini and Microgeneration

As of release 6.0 the following features are available to deal with the electricity compensation system established by Resolução ANEEL nº 482/2012:

- Compensation Prioritization
- Energy credits account maintenance
- Compensation in Billing

Bank Files Generation

The system enables the creation of remittance bank files according to FEBRABAN layout (boleto, direct debit and bar code). Clearing of open invoices is carried out when return files are received in FEBRABAN layout.

On-site billing

As release 6.0 EhP4, some new functionalities for Brazil were added in order to allow the issuing of bills at the customer site. Functionalities are as follows:

- Numbering of "Notas Fiscais" issued on-site.
- Definition of the calculation that is preferred in case there are differences between the pre-invoice calculated at the company and the invoice created on-site.
- Making BADI's available to define the customer's specific situations.
- Event to deal with tax differences found in billing at the company and billing on-site.