

CONTENT GUIDE

# Sage Business Cloud Enterprise Management

*Solution Capabilities Guide*

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# Financial Management



# 1. Financial Management

## 1.1 Budgets and Accounting

### 1.1.1 Functional domains

- General ledger
- Account payable / Account receivable / Cash
- Cash management
- Cost accounting
- Expenditures
- Budget and Commitments
- Financial reporting
- Fixed Asset management

### 1.1.2 Financial Data model

#### General context

- Enterprise Management is multi-language, multi-company, multi-site, multi-currency, multi ledger, and multi-legislation by design.
- Multi-language: Ability to speak the language of users and partners. It includes the user interface and descriptions.
- Multi-company: Ability to manage several companies in the same database. It enables an organization to share the same repository while dedicating some data to one or several site/companies.
- Multi-site: Ability to manage several structures within a company, due to business, organizational, or geographic needs.
- Multi-currency: Ability to manage transaction currency. The amounts in this transaction currency are translated into a 'ledger' currency.

- Multi-ledger: Ability to define several ledgers for one company. Ledgers can be shared or dedicated.
- Multi-legislation: Ability to manage several companies located in different countries. In this case, local rules are applied depending on the context. These rules can be defined using user-designed settings or may include dedicated processes.

#### Models and ledgers

- Each company is linked to an accounting model that defines the ledgers used (up to 10).
- A ledger is characterized by one currency, one calendar, one chart of accounts and analytical dimensions
- Up to 9 analytical dimensions may be defined for a ledger, up to 20 analytical dimensions for a model
- The charts of accounts and dimensions can be shared or specific to several entities

#### Companies & sites

- Multi-site, multi-company
- Group of sites and companies may be defined for an aggregate crossed view (by activity, function, geographical location), in inquiries or reports
- Each company is associated with one accounting model and one legislation
- Automation of inter-site transactions
- Automated inter-company transactions in purchases and sales modules

# 1. Financial Management

## Currencies

- Unlimited number of currencies and exchange rates, manually entered or imported
- Unlimited number of rate types – daily, monthly, average, budget...
- Currencies may be linked to accounts and business partners
- Transactions entered in foreign currency, converted into the ledger currency
- Automatic rounding
- Automatic exchange variances when matching
- Asset / liability conversion at end of period/year; actual or simulated

## Calendars

- A calendar per ledger; Up to 24 periods per calendar
- Year-initial period for carry forward and year-end period for closing adjustments
- Monthly and annual closing process, with automatic recognition of upstream transactions, accruals, and functional controls

## Journals

- Unlimited number of journals
- Pre-defined types (sales, purchases, inventory, miscellaneous operations, carry-forward, closing), shared or specific to a ledger
- Validity date-controlled
- Close journals independent of period closure
- Site, company, group of sites allowed
- Frequent accounts, dis-allowed accounts

## Accounts

- Length of account fixed or variable, numeric or alphanumeric, configurable
- Validity date-controlled
- Restriction by site, company, group site
- Financial and quantity elements recorded
- User definable management rules (class, matchable, centralized, collective, dimension(s), tax management, default sense, normal sense of balance, transactions for debit/credit, intercompany partner etc.)
- Propagation rules between ledgers
- Up to 9 dimensions (e.g. department, cost center, product line, etc.)
- Multi-level structures (pyramids), up to 99 levels, unlimited number of pyramids

## Business partner

- Unique business partner identification, additional information based on roles (customer, supplier, carrier, factor, sales rep.)
- Rules (payment terms, tax management) distributed per company and per role
- Miscellaneous business partner, such as bank or bank accounts
- Unlimited number of addresses (Ordering, delivery, billing, payment, etc.)
- Unlimited number of bank identification numbers per address
- Linked business partner such as customer ship-to, bill-to, and pay-by as well as supplier buy-from, invoice-from, and pay-to, factor, group and risk
- Risk management (commercial, financial), user definable controls on values outstanding

# 1. Financial Management

## Dimensions

- Validity date-controlled
- Site, company, group of sites allowed
- Restricted combinations of accounts and dimensions, restricted combinations of dimensions and dimensions
- Financial and quantity
- Multi-level structures (pyramids), up to 99 levels, unlimited number of pyramids

## Intercompany partner and flow

- Debit or credit default flow, according to the account
- Inter-company partner management
- Pre-consolidated balance sheet and ledger justifying inter-company transactions and aggregating the accounts according to the rules for the consolidation chart of accounts

## 1.1.3 G/L Accounting

### General characteristics

- Status (temporary, definitive)
- Simulated active or inactive
- Model templates
- User definable transactions, defined by/for the users, automating default values and controls
- Manual journal entries, batch entries
- User-defined templates automating recurring journal entries
- Automatically reversing journals
- Automatic inter-site transactions and balancing of accounts on linked accounts

- Automatic inter-company transactions and balancing of accounts on linked accounts
- Recurring journal entries (fixed, variable), with automatic balance calculation
- Automatic journal entries reversing at a user defined date
- Automatic rounding rules in currency conversions
- Currency conversions selectable among fixed rate, lower-value, and higher value
- Manual or automatic matching (by reference, description, ledger amount, currency amount, by passing balance).

Matching is accompanied by the following automatic functions:

- Automatic generation of matching variance below a user definable threshold
- Automatic generation of exchange variance for currency transactions
- Archiving of matching to restore the situation of matchable accounts to date

### Closing

- Automation of accruals: Invoices to be received, invoices to be issued, etc.
- User definable controls of closing reports: Completeness of records, checking balances, etc.
- Fiscal year-end closing
  - per site or per company
  - Automatic generation of adjustment journal entries account to account (optional)
  - Automatic generation of the result and the carry-forward
  - Generation of automatic journal entries from model templates with amounts calculated by user definable formulas (e.g. quoted part's account balance multiplied by a coefficient)

# 1. Financial Management

## Declarations

- Tax management
  - On debit, on payment
  - Tax prorate management
  - Suspension of tax
  - Services
  - EU VAT
  - VAT on pre-payment, on unpaid items
  - Para-fiscal taxes
  - Report for goods tax declaration (EU Intrastats)
  - Report for services tax declaration (EU Intrastats)
  - Tax reporting management
  - Tax declaration process activation per legislation

## 1.1.4 Accounts payable / receivable

### Invoicing

- Invoice types (invoice, credit note, debit note, proforma)
- Unique numbering (supplier invoices)
- Legal information management
- Automatic calculation of open items based on the payment terms
- Automatic tax calculation (VAT, parafiscal)
- Withholding taxes calculation
- Allocation of charges to dimensions
- Automatic inter-site transaction management

- Automatic inter-company transaction management
- Recurring invoice management with alerts, workflows and traceability

### Open items management

- Automate the calculation of open items for invoices, from the shipment date and the payment term
- Payment schedule management (unlimited number of open items for one invoice)
- Definable transactions for changing open items, according to user rights (Payment mode, due date, pay approval, dispute, etc.)
- Consolidation or expand open items
- Approval for payment, with definable workflows

### Credit management

- Payable/receivable, factor, group and risk business partner management, which may or may not be the same
- User definable rules for calculating business and financial risk
- User definable rules for calculating due amounts, workflow validation
- Charges/discount management
- Aged balance through inquiries with full upstream / downstream traceability, or through reports
- Collection of due amounts by reminder campaign management
- User defined reminder campaign management rules, by representative, risk, group business partner, statistical family, etc.
- Mark business partners as remindable / non remindable and set minimum threshold, by currency
- Global reminder, global per level, global per delay, detailed per invoice

# 1. Financial Management

- Letter, e-mail, telephone, fax, link to the customer service management to create tasks automatically
- Up to 9 levels of reminder, with definable text for each level
- Calculation of charges for delayed payments
- Credit policy management and credit level messaging

## **Payment process**

- Definition of banks and cash, unlimited number
- Bank or cash entries
- Automated payment processing, including international context:
  - User definable processes, defining steps and controls
  - Automation of specific operations such as prepayments made/received, compensation, payment variances, bank charges
  - Automatic user definable posting and matching
  - Transfer/debit automation by automatic proposals submitted for validation
- Quick entry by picking open items
- Automation of inter-site, inter-business partner, inter-collective transactions
- Payment in foreign currency, Payment in a currency other than the billing or bank currency. Automating cross-currency journal entries
- Payment balance declaration to prepare periodic statistical declarations on non-resident payments and receivables/liabilities
- Automatic discount/charge and exchange variance management
- Prepayments with tax management and reports
- Prepayments on order, with full/partial matching against the invoice
- Automation of unpaid postings:

- bank charges management, charges
- re-invoicing, transfer to doubtful
- collective, tax adjustments
- Taking into account the local specific legal and fiscal rules for the country: Letter-check, draft, direct debit, domiciliation, transfer to be made, deposit
- User definable function to describe bank formats, delivering a library of formats ready for use
- Compliance with SEPA SCT and SDD for the Euro SEPA payment transactions
- Mandate management for direct debits (SDD), including managing mandates and integrating mandates into sales and accounts receivable process
- Define XML bank files for direct debit or credit transfer when required by banks
- Integration with Sage Pay to manage online, face-to-face, and phone payments (Available in the UKI only)

## **Bank reconciliation**

- Reconciliation (Bank G/L entries mark)
- Bank statement reconciliation
- Bank statement entered or imported. Structure of the bank statement file is user definable with a dedicated function. It is also easy to include new formats.
- Automatic bank statement reconciliation (Statement vs ledger)
- Tools for manual reconciliation: sorting and searching by amount, type, description, date, reference (N° check, etc.)



# 1. Financial Management

## Advanced Bank Statement

- Import bank statement files. Structure of the bank statement file is user definable with a dedicated function.
- Run a process to automatically match each bank operation in the statement to open items according to user-defined search criteria
- Review the result of the automatic matching and process additional manual matches/entries if necessary
- Generate payments after completion of the matching
- Post these payments using the standard payment functions (Payment entry/Remittance generation)

## Factoring

- Receipt generation and printing
- Receipt posting
- Magnetic file generation
- Payment notification
- Outsource payment collections from customers

## Employee expenses

- Personal information entries
- Decentralized expenses entries – access rights and confidentiality
- User definable cost types (Travel, hotel, taxi, etc.)
- User definable caps on reimbursement, user defined thresholds for reimbursement (e.g. km, etc.)
- Tax management
- Reports

- User definable workflow for validation
- Automatic user definable posting
- Control reporting

## Cash forecast and bank positions

- Translation of sales and purchase documents in future cash issue/entry
- One-off and recurring additional events (payroll, taxes, etc.) with rules management
- Analysis of the future cash position by aggregating issues or entries with the current bank positions

## Extension to expert modules

- Transfer to treasury cash flow forecasts, with user definable information
- Short term open items: payments processed
- Medium term open items: Image of unbalanced open items
- Transfer of cash balance to accounting

# 1. Financial Management

## 1.1.5 Budgets

### Analytical budgets

- Definition of budgets, unlimited number, based on:
  - Level: company or site
  - Currency
  - Calendar, which can be different from the G/L calendar (period, start and end).
  - Chart of budget accounts, which may be dedicated, or shared or derived (grouping) from G/L or analytical ledger
  - Up to 9 crossed dimensions that may be dedicated, or shared or derived (grouping) from G/L or analytical ledger
- For a budget, unlimited number of versions, with a status (development, active, closed)
- Budgets transactions by direct entry or by updated records for tracking the changes
- User definable transactions
- Automatic distribution of an annual budget per period, with seasonally adjusted distribution rules
- Automatic procedure for creating a budget version from another version, or a budget by another. Definition of budget formulas (deferral of the initial budget, actual, reassessment by coefficients, etc.)

- For charges:
  - Budget control from commitments, simultaneously on up to 10 budgets
  - User definable workflow validation of commitments, with signature approval cycle depending on whether the budget is exceeded or not
  - Management of key responses and actions, if no appropriate response, if the required response time is exceeded, escalation, etc.
- Standard inquiries comparing the budget, commitments and actuals, with a configurable level of detail, audit trail justifying accumulation by detail, financial data extraction including budget records, implementation of business intelligence standard universes

### Operational budgets

- Setting budget structures and roles (managers, recipients, hierarchical structure of control, reporting and approval)
- Split budget by projects, envelopes, exercises, budget lines. Annual or multi-year envelopes. Multi-year budgets are particularly usable for investment budgets.
- Configurable workflow for approving various budget levels
- Reserves management, outcome amounts
- Expense control from commitments, electronic approval
- Revisions, transfers between budgets
- Procedure for closing with user definable carry-forwards
- Off-budget lines management

# 1. Financial Management

## Expenses commitments

- User definable function – input or import
- Linked to the purchase transactions, optional generation of pre-commitments (from purchase requests), generation of commitments (from purchase orders)
- On request/order date or receipt forecast date
- With/without non-deductible tax
- Pre-commitments balance while ordering, commitment balance while receiving or invoicing
- Commitment control, with user definable signature workflow, which may be different depending on whether the budget is exceeded or not
- Carry-forward of commitments from one year to another
- User definable reporting comparing budget, pre-commitment, commitment and actual

## 1.2 Fixed assets

### 1.2.1 Fixed asset management framework

Fixed asset management in accordance with IAS/IFRS

#### Depreciation context and plans

- Depreciation context based on Accounting data model, to manage a Fixed assets data model in a currency, according to a financial year and interim period schedule
- Accounting and fiscal depreciation context linked to the Company accounting data model:
  - Chart of accounts to determine economic depreciation
  - fiscal plan to determine accelerated depreciation or claw back

- fiscal plan to determine deferrable depreciation and manage deferred depreciation
- IAS/IFRS depreciation context linked to the IAS/IFRS accounting repository (consolidated accounts)
- Ability to manage up to 15 depreciation plans per fixed asset

#### Depreciation methods

- Large list of depreciation methods (Straight line, Declining, Residual, Gradual, Production Unit, Constant, Accelerated, etc.)<sup>1</sup>
- Depreciation method management by non-financial unit, determined by the rate of fixed asset usage
- Option to configure other depreciation methods
- Depreciation basis and method specific to each plan

#### Association of values

- Consistency of depreciation methods via an identification system depending on the value:
  - of the Fixed asset accounting code
  - or the Fixed asset family

#### Extended fixed asset record

- Dual valuation and dual account posting, according to the Company accounting repository and according to the Group accounting repository
- Identification of Type of holding: "Owned", "Leased", "Rented", "Franchised", "Projected"
- Business sector to manage VAT deduction rules
- Visibility of the various depreciation plans on a configurable timescale: option of automatic depreciation plan calculation
- Traceability of physical and analytical movements

# 1. Financial Management

- Traceability of renewals for “Franchised” assets
- Link to related physical element(s) for barcode registration and control stock count purposes
- Link to contract for “Leased” and “Rented” assets
- Link to production plan for assets depreciated by Non-financial unit
- Management of data relating to vehicles in order to produce a preparatory statement for declaration

## 1.2.2 Fixed asset life cycle

- Traceability of Capitalized expenditure
- Taken from records of purchase invoices and third-party supplier invoices
- Creation of Fixed assets from Capitalized expenditure
- Splitting of Capitalized expenditure
- Grouping of Capitalized expenditure
- Fixed asset breakdown management
- Discounting of depreciable costs and depreciation bases, due to additional credit notes or invoices or due to adjustments of VAT deductions
- Commissioning of fixed assets
- Allocation of Fixed assets: geographical and analytical
- Creation and updating of depreciation plans
  - Change of method: duration, mode, prospective or retroactive, in accordance with plan standards

- Impairment management, for recording a loss in addition to the loss recorded through depreciation
- Revaluation management, according to market value or by application of a coefficient
- Splitting of fixed assets, for reallocation or partial issue
- Intra-group transfers: spinoff, merger and demerger operations. Option of simulation before execution.
- Asset issue (sale, disposal, loss), with calculation of capital gain or loss
  - These actions can be carried out individually in a Fixed asset record, or applied in batch mode to a selection of assets
  - Ability to run closing process in simulation mode

## 1.2.3 Interim statements and closing

- Interim statements according to the period breakdown of the Accounting repository, for provisional or final posting of the depreciation and movements for the period
- Traceability and reporting of fixed asset and depreciation transactions by account and by heading
- Journal of detailed account entries
- Closure of fiscal year after application of annual VAT deduction adjustments for partial taxpayers and registrants
- Option of processing the first interim statements for the following fiscal year before closure of the current fiscal year
- Ready-to-use reports to obtain your fixed asset position and movements; BI universe with reports

# 1. Financial Management

## 1.2.4 Fixed asset stock count

- Records of registered physical elements
- Physical element bearing the barcode registration, linked to the fixed asset: n physical elements per fixed asset
- Allocation and movement management at Physical element level, with a validation phase to pass the movement on to the fixed asset: Change of location; Asset issue
- Manage control stock counts, to check the validity of fixed asset accounts
  - Collection of registrations with a Pocket PC (Windows mobile) fitted with a barcode reader and Sage Inventory Tools software to manage stock counts
  - Automatic comparison of stock count file and Physical elements records in order to identify and correct variances or suggest updates

## 1.2.5 Fixed asset financing

- For leased or rented equipment: management of the lease or rental contract:
  - Identification and characteristics of the contract; payment schedule
  - Generation of account entries for the company accounts and consolidated accounts: reprocessing of the fee if the asset is depreciated in the IAS/IFRS accounting data model
  - End of contract management: equipment returned to lessor or purchase option exercised by acquisition of the equipment
  - Production of financial commitment reports
- Management of equipment subsidies
- Calculation of subsidies allocated to investment projects, posting to fixed assets, calculation and posting of the reintegration

## 1.2.6 Franchised asset management

- For equipment made available to the company by a franchisor, generally a local authority:
  - Management of franchise contracts and riders: extension of the franchise with effect on fixed assets
  - Calculation and posting of provisions for renewal
  - Financial depreciation
  - Renewal of franchised assets and traceability of renewals
  - Customer invoice creation on sale of fixed asset



# Reporting and business analytics



## 2. Reporting and business analytics

Enterprise Management provides a large set of features enabling users to analyze data in a self-service manner and to take the right decisions. Realtime analytics, alerts, and notifications empower each role in your organization to respond quickly to changing business conditions.

### Reporting and Analytics

- User-defined dashboards based on trigger events
- Configurable inquiries on any data table, with automatic or manual joins, sorting and selection
- Inquiries to search and filter predefined data collections using a variety of prebuilt parameters
- Requesters define a data view by selecting from the available fields in one or more database tables
- Audit trail from cumulative total to detail
- Library of over 400 reports supplied as standard, including legal reports
- Automatic printout triggering and generation of Word, Excel, text, HTML, or PDF files

For companies that want to go further, Enterprise Management is able to connect with any Business Intelligence technology. Visit the [Enterprise Management Complementary Solutions](#) catalog to learn about:

- **Enterprise Management Data & Analytics** provides users with a hub for managing all data from multiple sources, and built-in data models for reporting
- **Sage Enterprise Intelligence** to help business users reduce time spent on analysis and reporting
- Advanced BI powered by **Business Objects** is designed for customers with very large data volumes or specialized reporting needs

Check availability in your region.



# Supply Chain Management



# 3. Supply Chain Management

## 3.1 Purchasing

### 3.1.1 Purchasing data model

#### Supplier

- Supplier breakdown: ordered, invoicing, paid and group
- Multi-address and multiple bank details
- Management of contacts by address
- Management of discounts/bank charges
- Multi-type and multi-due date payment modes, with management of alternative payment modes
- Commercial and financial monitoring
- Minimum order value
- Multi-line orders
- Supplier quality monitoring
- Supplier ranking
- Supplier work-in-progress control:
  - Real-time work-in-progress status
  - Configurable work-in-progress control (hold/release, etc.)
- Inquiries with audit trail ranging from general to detailed:
  - Commercial risk analysis by site, company or folder
  - Financial risk analysis by site, company or folder
  - Multi-collective account inquiry
  - Recent transactions inquiry
  - Commercial history inquiry

- Supplier prices inquiry
- Supplier reminder by undelivered orders on outstanding products

#### Product categories

- Grouping of products with similar management rules
- Rapid creation of a product inheriting the default management rules and values for the category
- Association of management rules relating to inputs and issues
- Association of configurable allocation rules
- Association of configurable valuation rules

#### Products

- In stock or not, management of serial numbers, lot numbers and sub-lot numbers
- Version number (Major and minor version)
- Commercial products, service provision or sub-contract provision
- VAT and parafiscal tax management
- Product reference, product description, units, minimum purchase quantities customizable by supplier
- Identification of direct order suppliers by product
- Inquiries with audit trail ranging from general to detailed
  - Price catalogue inquiry
  - Stock inquiry by site
  - Product cost inquiry
  - Competing product inquiry and association
  - Product installed base inquiry

# 3. Supply Chain Management

## Units

- Stock units
- Packing units with fixed or variable conversion factors
- Commercial units (sales, purchases)
- Configurable unit conversion rules for taking from another unit: unpacking, incomplete unit management, unit splitting
- Stock label management by packaging

## Prices & Discounts

- Configurable price structure by supplier
- Configurable multi-criteria prices
- Price management by currency, coefficient, quantity or configurable formula
- Inter-company prices
- Prices applicable by date slots (promotions)
- Prices applicable by line and/or by document
- Discounts and costs by line and by order, as a value, as a percentage, as a cumulative total, cascaded
- Simulation of price application
- Archive of prices and discounts applied
- Supplier catalogue import
- Advanced purchasing cost management can include supply chain costs in total purchase costs

## 3.1.2 Inter-company/inter-site transactions

Automated management of commercial transactions between sites belonging to the same company or between sites belonging to different companies:

- Inter-company pricing
- Retail sale orders generated automatically from purchase orders
- Contract orders generated automatically from purchase orders
- Sub-contract orders
- Inter-company invoicing with generation of purchase invoice control on customer site
- Management of logistical transactions between sites belonging to the same company or between sites belonging to different companies:
- Inter-site deliveries
- Inter-site receipts with inheritance of the stock characteristics of the corresponding deliveries
- Customer or inter-site returns with inheritance of the stock characteristics of the corresponding supplier returns
- Immediate inter-site stock movements for sites geographically close to each other
- Setup movement rules and processes to declare subcontracting flows



# 3. Supply Chain Management

## 3.1.3 Commercial documents

- User-configurable entry transactions (quick entry)
- Configurable purchasing cycle:
  - RFQ (Request for Quotation)/Purchase request/Order
  - Purchase request/RFQ/Order
  - RFQ/Order
  - Order/Invoice
  - Order/Receipt/Invoice
  - Order/Invoice/Receipt
  - Direct invoice
- Automatic or manual numbering
- Unlimited links between documents
- User definable printable text in document header, footer and lines
- Custom order code identification by line

## 3.1.4 Advanced Purchasing Costs Management

- APC (Advanced Purchasing Costs) enables users to foresee the purchase costs for international imports using international standards (incoterm) or inland purchases
- Estimate the purchase cost of a good, along with the logistic operations included in the supply chain
- 2 methods of managing APC:
  - Landed cost coefficient
  - Cost Structure
- Reconciliation between the Cost and the Additional Invoice

- On supplier order: purchase cost by line or total, detail by cost nature
- Every step in the transportation of goods can be defined by a cost with different cost calculation
- The cost structure is the list of costs for a transport, including all of the steps.
- Cost-structure affected by product, product-supplier, or product-supplier-site by site
- Management of product costs on the shipment

## 3.1.5 Request for Quotation/Call for tenders

- Request management (multi-product and multi-supplier)
- Request printout by supplier
- Taking purchase requests into account
- Tender comparison
- Responses and reminders
- Price line generation

## 3.1.6 Expenditure authorization

- Real-time budget monitoring management
- Budget control (with warning or freezing) by value or quantity, with override limit by user
- Configurable signature processes for purchase requests, orders and contract orders with additional process in the event of budget overrun
- Main and deputy signatory management, switching
- Workflow engine incorporated into the process
- Automatic generation of pre-commitment (purchase request) and commitment (order) entries
- Disengagement from the previous stage at every stage of the transaction

# 3. Supply Chain Management

- Automatic generation of entries and direct posting of realized amounts on budget line (invoices receivable, credit notes receivable, invoices, additional invoices and credit notes)
- Audit trail from Purchase request, Order, Receipt and Invoice to corresponding accounting document

## 3.1.7 Purchase requests

- Purchase request entry and printout
- Querying and justification of prices applied
- General or commercial purchase requests
- Reorder suggestions taken into account
- Requests for Quotation taken into account
- Manual or automatic purchase request balance
- Order generation depending on authorization
- Associated order inquiry

## 3.1.8 Supplier orders

- Entry and printout of supplier purchase orders or contract orders with delivery schedule
- General or commercial purchase orders
- Rider management
- Pre-payment management
- Validation and signature process
- Reorder suggestions
  - Purchase requests and sub-contract orders taken into account
  - Request for Quotations taken into account

- Automatic generation of direct orders from customer orders with traceability (direct order or order on receipt)
- Manual or automatic purchase order balance
- Back order management
- Querying and justification of prices applied
- Order progress (traceability, receipt, invoices, etc.)
- Inquiries with audit trail:
  - Receipt and invoice inquiry
  - Consumed purchase request inquiry

## 3.1.9 Purchase workflow

- Purchase requests, orders, and open orders to sign
- Signed requests, orders, and open orders
- Historical purchase open orders, and purchase documents signed
- History of documents on which there is an approval or rejection
- Cancellation of the signature action for a document.

## 3.1.10 Logistics

- Optimize freight cost and quantity optimization according to container capacity
- Plan shipments based on product in a container and track the movement of that container from supplier to delivery location
- Supplier shipment coordination to reduce transportation costs
  - Identify other products and suggestions for the supplier
  - View trends to order based on history in product usage
  - Container capacity freight costs estimating

# 3. Supply Chain Management

- Container selection to identify weight and volume capacity
- Compare selected lines with available capacity
- Manually enter weight & volume fields when needed
- User Step Tracking (to specify customized tracking by setting a list of steps)

## 3.1.11 Decision aid tools

### Buyer's workbench

- Consumption of suggestions and purchase requests
- Direct orders
- Supplier choice
- Option to modify the usual direct order supplier
- Standard, inter-company or inter-site order generation

### Overall schedule

- Multi-site analysis by product family or product
- Critical orders highlighted
- Order grouping
- Generation of orders, delivery requests or purchase requests

### Workbench

- Single-site, single-product analysis
- Order grouping
- Generation of orders, delivery requests or purchase requests

## 3.1.12 Stock valuation

- Cost monitoring
- Standard cost, Revised standard cost, Average unit cost, Average lot cost, FIFO, LIFO, last purchase price and simulated cost, standard price and simulated price
- Distribution coefficient
- Valuation of sub-contracted work-in-progress
- Adjustment of supplier invoice (value, quantity, exchange rate)
- Adjustment of additional invoice (carrier invoice)

## 3.1.13 Stock

- Traceability
- Actual or projected stock inquiry with first availability date
- Detailed stock inquiry
- Inquiry by storage site or consolidated inquiry
- Stock movement history inquiry
- Stock in transfer and transit inquiry (inter-site or inter-company)

## 3.1.14 MRP calculation

- Point/periodic/inter-site reordering
- MRP calculation
- Calculation according to safety stock

# 3. Supply Chain Management

## 3.1.15 Receipts

- Direct receipt or receipt by order line picking
- Receipt of inter-site shipments or inter-company shipments
- Receipt of sub-contracted services
- Detailed receipt or quick receipt on the dock with management of storage plans to supplement stock information
- Sub-contract stock issues
- Location, supplier or internal batch and serial number management
- Receipt position (invoices, returns)
- Stock label printing
- Suspended movement and stock-out processing

## 3.1.16 Quality assurance

- Batch and sub-batch number management
- Serial number management
- Use-by date management
- Stock status management: accepted, rejected, inspected
- Re-inspection date management
- Stock sub-status management
- Quality control record creation
- Quality control procedures with analysis request
- Expiry date management
- Upstream and downstream traceability management

## 3.1.17 Returns

- Creation of returns by selecting receipt lines or direct entry
- Reincorporation of returned quantities on order
- Generation of corresponding credit note

## 3.1.18 Supplier invoices

- Configurable invoice types
- Recording and checking
- User authorization based on payment level authorization
- Invoice/Receiving slip/Order reconciliation
- Credit note/Return/Invoice reconciliation
- Additional invoices and credit notes
- Breakdown of invoice footer elements by line
- Value adjustment of stock movements according to invoice variances
- Additional invoice of shipment (to create invoices for carriers, forwarders, other service partners directly for a shipment)

## 3.1.19 Integration to accounts

- Invoices receivable
- Credit notes receivable
- Supplier invoices
- Pre-commitments and commitments with budget control
- Pre-payment management
- Stock movement posting
- Posting of sub-contracted work-in-progress
- Analytical dimension type management

# 3. Supply Chain Management

## 3.1.20 Tax

- VAT on debits and receipts
- EU Intra-community VAT
- Parafiscal tax by value and as a percentage
- Formulae applicable to parafiscal taxes (threshold, quantity, etc.)

## 3.1.21 EU Exchange of goods declaration (EGD)

- Customs nomenclature incorporation and product record association interface
- Recording of data necessary for exchange of goods declaration (rules, natures, delivery conditions, etc.)
- Extraction function for transactions subject to declaration, with option to modify extracted information
- Report for checking information subject to declaration
- Management of specific local features of the EGD report (Portugal, UK, Italy, etc.)

## 3.1.22 Sub-contract management

- Sub-contracted service or production (components or materials supplied and not supplied)
- Sub-contract bill of materials
- Sub-contract order
- Sub-contract lead time by supplier
- Suggestion and generation of sub-contract orders following net requirements calculation
- Material reorder and deliveries
- Allocations/De-allocations
- Sub-contract order consumption monitoring

- Projected sub-contract cost calculation and inquiry
- Sub-contract cost price calculation and inquiry

## 3.2 Inventory Management

### 3.2.1 Stock data model

#### Product categories

- Grouping of products with similar management rules
- Rapid creation of a product inheriting the default management rules and values for the category
- Association of management rules relating to inputs and issues
- Association of configurable allocation rules
- Association of configurable valuation rules

#### Product base

- Technical information
- Management information
- Commercial information

#### Multi-unit

- Stock units
- Packing units with fixed or variable conversion factors
- Commercial units (sales, purchases)
- Configurable unit conversion rules for taking from another unit: unpacking, incomplete unit management, unit splitting
- Stock label management by packaging



# 3. Supply Chain Management

## Multi-site and multi-company

- Inter-site and inter-company transfer order management
- Inter-site reorder
- Picking location and sub-contract location reorder

## Multi-warehouse

- Stock access control:
- By user group and by transaction type
- Grouping of locations in warehouses

## Multi-location

- Location structure definition
- Fixed or random storage
- Location allocation policy
- Location release policy
- Third-party stock management

## Licence Plate Number (LPN)

- LPN identification
- Products assignments to LPN in stock entries
- LPN movements
- Split/Merge operations
- Stock issue of products in/on LPN

## 3.2.1 Quality Assurance

- Batch and sub-batch number management
- Use-by date management
- Serial number management
- Stock status management: accepted, rejected, inspected
- Re-inspection date management
- Stock sub-status management
- Quality control record creation
- Quality control
- Sampling management (ISO 2859)
- Expiry date management
- Upstream and downstream traceability management

## 3.2.2 Stock movements

- Receipt, quick receipt on dock, storage plan
- Internal movements, grouping, ungrouping
- Shipment preparation
- Delivery (Order, picking list)
- Load preparation (post-load preparation, manual load preparation)
- Customer and supplier returns
- Stock counts
- Allocation plan to work-in-progress
- Grouping/Ungrouping

# 3. Supply Chain Management

## 3.2.3 Cumulative stock totals

- Physical stock
- Allocated stock
- Reserved stock
- Controlled stock
- Available stock
- Ordered stock
- Projected available stock
- Missing stock
- Transferred stock
- Stock in transit

## 3.2.4 Stock inquiries

- Summary stock schedule by period
- Detailed stock schedule
- Inquiries with audit trail ranging from general to detailed:
  - Stock by site
  - Stock by batch
  - Stock by serial number
  - Stock by location
- Current stock
- Available stock
- Projected stock

- Stock past use-by date or inactive
- Stock movements
- Allocation details
- Expired stock
- Traceability inquiry upstream, downstream, by batch or by part
- Stock by version number (Major version)

## 3.2.5 Stock count management

- Stock count session management, incorporating stock count lists
- Comprehensive perpetual stock counts by location, by product
- Configurable stock count transactions
- Reorder management
- Calculation:
  - economic order quantities
  - reorder points
  - safety stock
  - maximum stock
- MRP calculation
- Periodic reorder
- Reorder when reorder point reached
- Preparation area reorder
- Automated data collection (ADC) with handhelds

# 3. Supply Chain Management

## 3.2.6 Stock valuation

- Standard price
- Revised standard price
- Simulated price
- FIFO price
- LIFO price
- Weighted average price
- Last price

## 3.2.7 Analysis tools

- Consumption analysis
- Histories
- Stock Valuation reports
- Stock turnover, etc.

## 3.2.8 Integration to accounts

- Posting of stock movements with aggregation criteria
- Multi-dimension analytical incorporation

## 3.2.9 Additional on-premises capabilities

- The following additional capabilities are available to customers opting for a private cloud deployment, either on-premises or partner-hosted.
- Automated data collection (ADC) with handhelds
- Receipts
- Miscellaneous entries
- Miscellaneous issues

- Shipment preparation
- Stock changes (location and status)
- Inter-site transfers
- Transfers to sub-contractors
- Stock counts
- Storage on list
- Location reorders

## 3.3 Sales Management

### 3.3.1 Data Model

#### Customers

- Customer breakdown: ordered, delivered, invoiced, group, payer, risk and factor
- Multi-address, multiple delivery points, multiple bank details
- Management of contacts by address
- Management of discounts/bank charges
- Multi-type and multi-due date payment modes, with management of alternative payment modes
- Reminder management:
  - Multi-level reminders
  - On minimum threshold
  - Individual or mass customer hold/release on multiple criteria
- Factoring

# 3. Supply Chain Management

- Commercial and financial monitoring
- Minimum order value
- Customer credit control:
  - Real-time customer credit situation
  - Configurable credit control (Company, Folder, hold, etc.)
- Customer inquiry with audit trail ranging from general to detailed:
  - Commercial risk analysis by site, company or folder
  - Financial risk by site, company or folder
  - Aged trial balance inquiry
  - Account inquiry
  - Recent transactions inquiry
  - Commercial history inquiry
  - Customer prices inquiry
  - Customer installed base inquiry

## **Sales representatives**

- Allocation of sales representatives commission by multi-criteria configuration
- Multiple sales representatives per order with automatic allocation
- Management of targets by sales representative
- Allocation of sales representatives by market sector
- Planning or recording of commercial actions (appointments, calls, tasks, etc.)
- Printing of commission allocation notes

## **Prospects**

- Prospect management and follow-up
- Sales contact follow-up
- Allocation to a market sector
- Conversion to customer

## **Carriers**

- Carrier management
- Pricing by weight and volume, by time slot and by region
- Invoicing by threshold
- Simulation tools

## **Product categories**

- Grouping of products with similar management rules
- Rapid creation of a product inheriting the default management rules and values for the category
- Association of management rules relating to inputs and issues
- Association of configurable allocation rules
- Association of configurable valuation rules

## **Products**

- In stock or not, management of serial numbers, lot numbers and sub-lot numbers
- Version number (major and minor version)
- Commercial products, service provision and after-sales
- Commercial bill of materials or kit type products with option and variant
- Alternative and/or replacement product
- Associated packaging (load preparation)

# 3. Supply Chain Management

- VAT and parafiscal tax management
- Commercial information (base price, theoretical price, floor price, minimum margin, etc.) with entry control
- Loan, direct order authorization
- Audit trail inquiries ranging from general to detailed:
  - Price catalogue inquiry
  - Stock inquiry by site
  - Product cost inquiry
  - Competing product inquiry and association
  - Product installed base inquiry

## Units

- Stock units
- Packing units with fixed or variable conversion factors
- Commercial units (sales, purchases)
- Configurable unit conversion rules for taking from another unit: unpacking, incomplete unit management, unit splitting
- Stock label management by packaging

## Prices & Discounts

- Configurable multi-criteria prices
- Price management by currency, coefficient, quantity or configurable formula
- Management of free products
- Inter-company prices
- Set sale price as a coefficient of purchase price
- Prices applicable by date band - promotions

- Prices applicable by line and/or by document
- Discounts and costs by line and by order, as a value, as a percentage, as a cumulative total, cascaded
- Simulation of price application
- Archive of prices and discounts applied
- Price catalogue
- Price revisions
- Price import
- Price rules can be set based on the country and state of delivery
- Tax code management within sales documentation
- Discount policy management for multiple tax levels on the same sale documentation

## 3.3.2 Inter-company/Inter-site

- Automated management of commercial transactions between sites belonging to the same company or between sites belonging to different companies:
  - Inter-company pricing and price recalculation
  - Retail sale orders generated automatically from purchase orders
  - Sale orders generated automatically from contract purchase orders
  - Inter-company invoicing with generation of purchase invoice control on customer site
- Management of logistical transactions between sites belonging to the same company or between sites belonging to different companies:
  - Inter-site deliveries
  - Inter-site receipts with inheritance of the stock characteristics of the corresponding deliveries



# 3. Supply Chain Management

- Customer or inter-site returns with inheritance of the stock characteristics of the corresponding supplier returns
- Immediate inter-site stock movements for sites geographically close to each other
- Management of inter-company credit levels and price controls

## 3.3.3 Commercial documents

- User-configurable entry transactions (quick entry)
- Configurable sales cycle:
  - Quote/Order/Invoice
  - Order/Invoice
  - Quote/Order/Delivery/Invoice
  - Order/Delivery/Invoice
  - Delivery/Invoice
  - Counter invoice
- Automatic or manual numbering
- Unlimited links between documents
- Management of printable text in document header, footer and lines
- Identification by custom order code

## 3.3.4 Commercial configurator

- Choice of products, options and variants
- Creation of multi-level technical data and rules
- Incorporated into quotes and orders

## 3.3.5 Quotes

- Entry/printout of quotes for customers or prospects
  - Delivery address, shipping site, delivery time on quote line
  - Real-time margin calculation
  - Validation and signature process
  - User control of minimum margin and/or floor price and/or minimum value and/or quantity
  - Querying and justification of prices applied
  - Validity date monitoring
  - Open quotes report
  - Pro forma invoice calculation and printout
  - Define rules and processes for sales quotes
  - Document counter for each type of sales quote

## 3.3.6 Orders

- Configurable order type:
  - Retail orders
  - Loan orders
  - Contract orders (delivery schedule, ahead/delay management)
- Order entry/printout for customers and prospects with automatic prospect to customer conversion
  - Rider management
  - Order progress

# 3. Supply Chain Management

- Querying and justification of prices applied
- Total or partial quote conversion
- Delivery address, shipping site, delivery time, carrier, etc. on order line
- Delivery routing available, including mapping
  - Real-time margin calculation
- Validation and signature process
  - Back order management
  - User control of minimum margin and/or floor price and/or minimum value and/or quantity
  - Order book
  - Pro forma invoice calculation and printout
  - Direct purchase order (direct or receipt) or work order generation by line
- Pre-payment management with option of order suspension
- Generate a sales order from a quote
- Define rules and processes for sales orders
- Document counter for each type of sales orders
- Manual hold on sales order

## 3.3.7 Sales workflow

- Sales quotes, order, and open order to sign
- Signed quotes, orders, and open orders
- Historical sales quotes, orders, and open orders signed
- Viewing the history of documents with an approval or rejection
- Cancellation of the signature action for a document

## 3.3.8 Allocation

- Customer reservation with validity end dates
- Posting of reservations on orders
- Manual or automatic stock allocation with configurable criteria
- Manual or automatic de-allocation
- General or detailed allocation
- Stock-out management
- Allocation inquiry

## 3.3.9 Logistics

- Shipment preparation management
- Automatic picking list generation or manual creation
- List of products to be delivered
- Run code management
- Full or part delivery of orders or order lines
- Direct delivery of materials to a sub-contractor
- Load preparation management, for recording purposes or post-load preparation
- Load preparation list, load preparation labels
- Picking list, delivery note, etc. printout
- Management of carriers and associated costs
- Customer return management with or without quality control
- Automated data collection (ADC) with handhelds
- Stock
- Upstream/downstream traceability (Batch, Serial no.)

# 3. Supply Chain Management

- Actual or projected stock inquiry with first availability date
- Detailed stock inquiry
- Inquiry by storage site or consolidated inquiry
- Stock in transfer and transit inquiry (inter-site or inter-company)
- Document tracking to the Shipment and Transport
- Management on inbound shipments

## 3.3.10 Loans

- Loan note entry and printout
- Open loan monitoring
- Traceability by serial number and batch number
- Return management
- Unreturned goods invoicing

## 3.3.11 Invoicing

- Configurable invoice type
- Invoice printing with number of copies configurable by customer
- Automatic or manual creation
- Invoicing by customer, order, delivery note, delivery point or period
- Printout of invoice statements by customer or period
- Automatic or manual invoicing of service requests (intervention, parts)
- Automatic or manual invoicing of maintenance contracts (revision by index in particular)
- Automatic invoicing of inter-company stock movements
- Schedule invoices

## 3.3.12 Incorporation into accounts

- Customer invoices
- Invoices for issue
- Pre-payment management
- Stock movement posting
- Analytical dimension type management

## 3.3.13 Tax

- VAT on debits and receipts
- EU Intra-community VAT
- Parafiscal tax by value and as a percentage
- Formulae applicable to parafiscal taxes (threshold, quantity, etc.)

## 3.3.14 EU Exchange of goods declaration

- Customs nomenclature incorporation and product record association interface
- Recording of data necessary for the exchange of goods declaration (rules, natures, delivery conditions, etc.)
- Extraction function for transactions subject to declaration, with option to modify extracted information
- Report for checking information subject to declaration
- Management of specific local features of the EGD (Portugal, UK, Italy, etc.)

## 3.3.15 Sales statistics: examples

- Sales Order turnover by product (by customer, family, sales representative, geographical area, etc.)
- Sales Order turnover for the day
- Invoiced turnover by product (by customer, family, sales representative, geographical area, etc.)

# 3. Supply Chain Management

## 3.4 Customer Service

### 3.4.1 Marketing

#### Competing products

- Competitor product number management
- Comparison of strengths and weaknesses by product

#### Call script

- Production and modification of questionnaires
- Information collection during phone campaigns
- Assisted approval of third-party databases and participants

#### Marketing campaigns

- Marketing campaign and scheduled budget monitoring
- Detailed campaign inquiry and multi-level monitoring of current marketing operations enabling complete monitoring of the entire audit trail
- Microsoft Word mail merge available for quick and easily mass mailing of marketing campaigns; mail merge uses templates you have stored, allowing for visuals to be included

#### Direct mail wizard

- Recipient selection
- Handling of panels generated from advanced targeting
- Sample display
- Message design or emailing retrieval
- Sending method selection
- Sent history creation

- Feedback summary in table format
- Access to detailed information to monitor the entire audit trail

#### Phone campaign wizard

- Panel definition or retrieval
- Call breakdown by cross-referenced criteria
- Call script definition and retrieval
- Feedback inquiry
- Access to detailed information to monitor the entire audit trail

#### Trade show wizard

- Exhibition characteristics entry
- Feedback inquiry
- Access to detailed information to monitor the entire audit trail

#### Press campaign wizard

- Press campaign characteristics entry
- Feedback inquiry
- Access to detailed information to monitor the entire audit trail

### 3.4.2 Commercial action

#### Prospects/customers

- Main and temporary sales representative management
- Automatic handling of checks linked to conversion of prospect to customer
- For customers:
  - Token credit and points debit management

# 3. Supply Chain Management

- Customer installed base inquiry
- Sold-to-party association
- Planning or recording of commercial actions (custom orders, tasks, appointments, calls, service requests, warranty requests, service contracts)
- Global pre- and after-sales history inquiry for creation of an audit trail
- Customer installed base inquiry

## Participants

- Independent participant management
- Management of relationships with third parties, companies, sites, users and accounts
- Market sector management
- Customer/prospect/contact portfolio segmentation
- Manual or automatic multi-criteria allocation of main and temporary sales representatives

## Calls

- Incoming call recording or scheduling of calls to be made
- Association with a custom order
- Option of fuzzy date management
- Automatic call forwarding
- Call attempt management
- Call number search
- Price search
- Call script running
- Commercial action planning: custom orders, tasks, appointments, service requests

## Appointments

- Appointment scheduling
- Association with a custom order
- Option of fuzzy date management
- Multi-participant schedule conflict control
- Direct de-scheduling of conflicting participants
- Resource reservation management
- Meeting address search
- Commercial action planning: custom orders, tasks, calls, service requests

## Tasks

- Management of commercial actions other than calls or appointments
- Association with a custom order
- Requester delay alert management
- Commercial action planning: custom orders, appointments, calls, service requests

## Synchronization with MS Outlook

- Contact synchronization between Outlook and Enterprise Management
- Commercial action synchronization between Outlook and Enterprise Management (tasks, calls and appointments)
- Workbench of records to be synchronized
- Mass processing and update tracking option
- One-click email from customer service functions
- Access to solution functions from Microsoft Outlook client (rich content and hyperlinks in emails)

# 3. Supply Chain Management

## Custom orders

- Competitor management
- Sales cycle monitoring from start to finish, with process automation
- Associated custom order management
- Handling of checks linked to quote creation
- Commercial action planning: tasks, appointments, calls, service requests
- Quote history by custom order

## 3.4.3 Customer Support

### 'Sold to' parties

- Management of several 'sold to' parties per customer
- Configuration of information held against sold-to-parties

### Service providers

- Service provider partner skills management
- Area of activity management
- Management of financial conditions of collaboration

### Products

- Automatic generation of customer installed base on validation of sales movements
- Model contract specification (loan, warranty, service)
- Token credit and points debit management
- After-sales bill of materials management
- Product type: miscellaneous, spare part, labor, travel expenses, service contract
- Automated stock issues on consumption of spare parts managed in stock

## Customer installed bases

- Automatic generation and updates from deliveries, returns, etc.
- Loan units installed base management
- Physical location management
- Splitting by geographical location of installed base
- Breakdown of results by customer type: direct customer, wholesaler or retailer
- Associated service contract history (applicable cover and warranties)
- Installation history

## Service contracts

- Optional approval from a model contract
- Management of different service contract types
- Definition of area of application of cover, management of charging threshold by installed base, component, skill (option of adding restrictive financial rules)
- Definition of cover, management of charging threshold by installed base, component labor
- Definition of area of application taking into account cost constraints
- Automatic generation from sales movements
- Automatic creation from accumulation of purchasing credit
- Automatic management of revaluations, renewals, etc.
- Invoicing schedule calculation
- Management of quality constraints by severity level
- Automatic invoicing
- Invoice, due date and payment history

# 3. Supply Chain Management

- Revaluation and renewal history

## **Warranty requests**

- Warranty coupon management

## **Service requests**

- Option to allocate a sold-to-party per user
- Automatic allocation to skills family
- Identification of installed base and associated after-sales bill of materials
- Option of allocation to:
  - dispatches
  - employee
  - queue
  - commercial department
- Automatic request coverage control
- Automatic time-stamping
- Points consumption in accordance with flat rate and additional debit rules
- Consumption options:
  - parts (stock management)
  - hours of labor
  - travel expenses

- Automatic invoicing
- Solution identification and definition
- Operations planning and recording
- Planning of actions to be performed and recording of completed actions
- Request status history
- Modification history
- Escalation history
- Operations
- Automatic search for skilled, available employees
- Automatic search for skilled service providers in the area of competency
- Schedule conflict control
- Resource reservation
- Operation address management
- Spare parts consumption and stock issue monitoring
- Knowledge base search for solutions
- Report entry

## **Knowledge base**

Search by: multiple key words, original request, solution, skills family, employee, creation date, content



# 3. Supply Chain Management

## 3.4.4 Decision aid tools

### Marketing schedule

- Multi-level view of active campaigns and operations enabling complete monitoring of all activities
- Marketing campaign and scheduled budget monitoring

### Diary – pre-sales workbench

- Graphical display of commercial activities (tasks, calls, appointments)
- Daily, weekly or monthly views (days worked or working days)
- Commercial employee time management
- Outstanding activities: appointments, calls, tasks, custom orders, marketing campaigns
- Late activities alerts
- Review prospect/customer and participant histories for each type of activity
- Accelerated contact search on calling and call forwarding function
- Call script running
- Audit trail, access to details of each activity
- Option to save reports
- Third-party and participant search
- Commercial action planning: custom orders, tasks, appointments, calls, service requests

### Diary – after-sales workbench

- Open and pending service requests
- Pending and delayed operations
- Dispatching content
- Employee and queue load statistics
- Temporary employee management
- Search:
  - for solutions
  - for service requests
  - by description
- Operation planning or recording
- Plan actions to be performed and record completed actions
- Service request tracking
- Third-party or participant identification
- Inquiries:
  - service requests
  - queues
  - employees
  - skills
  - escalations

# Production Management



# 4. Production Management

## 4.1 Data model

### 4.1.1 Manufacturing management

- Association of categories and product families, etc.
- Different management methods (on order, from stock)
- Allocation of reorder policies, seasonality
- Data used for management control
- Multi-production unit
- Association of attachments

### 4.1.2 Bill of materials management

- Multi-bill of materials (Commercial, Production, Sub-contracting, etc.)
- Current bills of material
- Mass maintenance
- Manage changes on a product and bill of materials
  - Control the use of a product for a version number in different flows (Sales, Purchases, Manufacturing, Subcontracting, Stock issues)
- Version number management (Major and minor version)

### 4.1.3 Technical data management

- Calendar and timetable management
- Work center group management
- Work center management:
  - machine, labor, sub-contract center
  - multi-work center
  - calendar exception management
- Routing sheet management:
  - multi-routing sheet
  - current operations
  - parent routing sheets
  - standard operations library
  - change of units
  - operation sub-contracting
  - inter-operation scheduling principles
  - plan association
  - mass maintenance of technical data
- Product and technical data configuration via configurator, also accessible in quote and sales order management
- Use of data generated by configurator
- Version number (Major and minor version) in the routing

# 4. Production Management

## 4.2 Production launch

- Multi-product work order launch
- Multi-level work order launch
- Feasibility test (trial kit)
- Material and load updates
- Scheduling function
- Order smoothing
- WO updating
- Production folder
- Production monitoring (WO by WO or mass)
- Management without WO

## 4.3 Decision aid tools

### 4.3.1 Overall schedule

- Multi-site analysis by product family or product
- Critical orders highlighted

### 4.3.2 Workbench

- Single-site, single-product analysis
- Order grouping
- Planners' and Buyers' decisions and analysis

### 4.3.3 Production indicators

- Use of resources
- Delay analysis
- Lead-time analysis
- Operations output
- Material output
- Production output

### 4.3.4 Inquiries

- Stock-in-progress by product
- Load stock-in-progress
- Current projected stock
- Material stock-outs
- Material consumption
- Industrial cost price analysis
- Allocation details
- Orders to be rescheduled
- WO progress
- Monitoring by WO
- Sub-contracted operations

# 4. Production Management

## 4.4 Automatic processes

- Mass allocation/de-allocation
- Series WO re-planning
- Mass scheduling/un-scheduling
- Automatic launch
- WO suspension/re-activation
- Direct work order
- WO and/or mass operation shifts

## 4.5 Reorders

- Reorder when reorder point reached
- MRP reorder (on order, from stock):
  - Configurable reorder policies (MRP, technical batch, cover and seasonal safety stock)
  - Requirement origin traceability (pegging)
- Inter-site reorders based on conclusion of contracts between two partner sites

## 4.6 Management control

- Valuation and overheads section definition
- Projected cost calculation (standard cost, revised standard cost, simulated cost, budget cost)
- Production cost price calculation (projected/actual)
- Stock-in-progress valuation
- Variance analysis by product
- Work-in-progress accounting interface (stock movements and time spent)
- Multi-dimension analytical interface

## 4.7 Non-Conformance Management

- Direct Non-conformance for a product or without product
- The Non-conformance triggers from a document:
- Customer Return
- Purchase receipt
- Production Tracking
- Automatically preloaded with the document link
- Link Non-conformance on document header or line
- Root causes analysis
- Status management (New, in progress, Plan, Implement, Complete, Closed)
- Action plan Preventive or corrective actions
- Management of priority and deadline monitoring
- Report on the causes analysis

# 4. Production Management

## 4.8 Change Control Management

- Manage all changes made to a product or system
- Enter a change, review the potential impact and send to approval
- Full traceability and security that changes are done only by authorized users

## 4.9 Configure to order

- Custom order management and monitoring of production (customized or special product)
- Custom order creation from quote
- Custom order broken down by batch or task (design, sub-contracting, production, costs, etc.)
- Custom order line budget definition (entered or calculated)
- Sub-custom order management
- Posting of purchases and time spent per custom order
- Custom order progress monitoring
- Projected, committed and actual budget monitoring and control
- Macro load schedule per custom order
- Custom order balance sheet

## 4.10 Additional on-premises capabilities

The following additional capabilities are available to customers opting for a Single-tenant SaaS, Single-tenant PaaS, or on-premise deployment option..

### 4.10.1 Weigh scale

- Weigh scale definition in technical data
- Weighing box and box grouping
- Scales authorized for different weighing stations
- Material weight management during production process
- Workbench for selection of work orders for weighing
- Management of different types of raw material (Excipients and Materials QSP and Rectification materials)
- ISH (Instructions, stock and handling) technical data sheet
- Weighing and weighing reconciliation
- Container management
- Weighing status
- Interface with weigh scales

### 4.10.2 Planning

- Projected consumption management
- Master production schedule (multi-site, use of macro bills of materials (Planning BOMs), macro routing sheets, operational plans, budget, simulation)
- MRP calculation:
  - Multi-site
  - Suggestion analysis
  - Re-planning messages

# 4. Production Management

## 4.10.3 Production Scheduler

- Interactive planning capabilities
- Constraint-based finite-capacity scheduling
- Multi-criteria scheduling and Graphical load analysis
- Take raw material availability into account
- Grouping of production order operations
- Linking between work orders
- Load balancing optimization with a list of useable work or machine centers
- Configurable visual markers
- Views including
  - Resource, Production Order & Custom Gantt charts
  - Load chart & Resource Sequence list
- Key performance indicators and analysis of advances/delays

## 4.10.4 Shop Floor Tracking

- Collection of labor time
- Direct labor (setup and run)
- Indirect labor (breaks and indirect time)
- Actual and elapsed time
- Multi-tasking (synchronized or unsynchronized)
- Automatic breaks

- Time and attendance (Clock in/out)
- Indirect Time Entry (Clock in/out)
- Break Time Entry (Clock in/out)
- Team Entry
- Shop Floor Tracking Workbench

## 4.10.5 Automated data collection (ADC) with handhelds

- Material consumption
- Production declaration
- Production time monitoring
- Shop floor tracking

## 4.10.6 Application extensions

- PLM Connector (Product Life Cycle Management)
- APS Connector (Advanced Planning & Scheduling)
- MES Connector (Manufacturing Execution System)
- PM Connector (Plan Maintenance)



# 4. Production Management

## 4.10.7 Project management – PJM

### Project planning

- Entirely integrate into all Enterprise Management processes, Project link with quote, purchasing, sales, work order and MRP
- Project Work and Product Breakdown Structure (PBS and WBS) Multi-level description of the tasks, preparing the operational and manufacturing process
- Task dependencies / Task operation dependencies
- Task progress estimation
- Advanced project duplication function

### Project follow up

- Project Snapshot
- Global Project overview task and budget

### Financial follow up

- Project Cost Breakdown Structure (CBS) Multi-level description of budgets, allowing the project cost follow-up
- Multi-project consolidation
- Financial follow-up function to monitor the budget and expenses of projects
- Financial snapshot and comparison
- Stock allocations on project tasks
- Expenses link with project
- Saleable
- Sold product
- Schedule invoice

### Time management

- Employee assignments (to assign employees to an operation)
- Time entries to enter the time spent on a project at the operation, task and budget level
- Time entry control



# Advanced Warehousing





# 5. Advanced Warehousing

The following additional capabilities are available to customers opting for a Single-tenant SaaS, Single-tenant PaaS, or on-premise deployment option.

## 5.1 Data Model

### 5.1.1 Multi-site and multi-consignor

- Stock ownership management by consignor
- Multi-consignor shipment, location and receipt
- Multi-site stock consolidation
- Multi-site shipment management

### 5.1.2 Multi-site and multi-consignor

- Product, container, consumables, hazardous materials type product management
- Stock unit, multi-container, multi-stacking pattern
- Batch no., support no., serial no. management
- Turnover, allocation, prohibition and stock count category management
- Container equivalents, incomplete unit percentage
- EAN code on product packaging and supplier EAN
- Turnover category calculation
- Single-level kit
- Stock traceability display

### 5.1.3 Location data

- Warehouse type, multi-warehouse
- Multiple storage type: bulkhead, bulk, picking, bin, etc.
- Location control
- Overflow and transfer warehouse management
- Single picking per container and single-batch picking
- Multiple picking per product and pivot picking

### 5.1.4 Communication

- Bar code use
- Standard documents and labels
- Standard interfaces with other applications and with Sage X3
- Communication with industrial equipment
- Automated data collection (ADC) with handhelds

# 5. Advanced Warehousing

## 5.2 Input

- Management of a portfolio of expected inputs, receipt management
- Management of suspensions and disputes
- Automatic or manual addressing
- Addressing near picking
- Automatic compacting on receipt
- Straight-through receipt and addressing
- Dynamic location management
- 5-dimensional address structure management
- Receipt by supplier EAN, SSCC and support no.
- Multi-product and multi-batch location management
- Dock and carrier appointment management
- Projected load management
- Supplier sampling management
- Receipt quality control management
- Location positioning management
- Cross-docking receipt management
- Automated data collection (ADC) with handhelds

## 5.3 Issues

- Management of a portfolio of delivery orders
- Delivery order partial preparation management
- Back order management
- Commercial priority management, Emergency and stock-out management
- Date management (retention, sell-by date, use-by date, etc.)
- FIFO management by configurable dates
- Creation and simulation of tasks
- Manual load preparation
- Preparation order management
- Picking reorder management
- Preparation progress supervision
- Statistics for the portfolio to be processed
- Order Preparation
- Optimized movement of people and equipment
- Delivery order sequencing
- Batch no., rules, single batch issue management
- Minimum FIFO management
- Projected load management

# 5. Advanced Warehousing

- Required cross-docking management
- Pre-load preparation management
- Issue movement re-addressing
- Kitting management
- Automatic task creation and launch
- Carrier parcel no. calculation
- Reorder level definition for each picking location
- Pre-palletization management
- Delivery order scheduling
- Cumulative transaction preparation (2 phases), with or without pre-load preparation option
- Cross-docking management (as a priority or on stock-out)
- Independent production of composite goods (assembly order)
- Multi-picking management with or without traceability
- Automated data collection (ADC) with handhelds

## 5.4 Shipping

- Shipping run management
- Shipment forwarding
- Cancellation of shipments and reintegration of stock
- Dock and carrier appointment management
- Projected shipping load management
- Transport pre-invoicing

- Handling unit management
- Transport cost simulation
- Automatic calculation of transport information from delivery order
- On dock depositing of parcels and handling units
- Palletisation assistance
- Traceability up to delivery
- Parcel and HU transfer on shipping dock
- Proof of delivery (POD) report
- Transport EDI
- Automated data collection (ADC) with handhelds

## 5.5 Stock

- Transfer management with simultaneous collection and consignment or in 2 phases
- Multi-criteria mass stock transfer
- Compacting in stock and reorganization
- Stock count management by product, address or campaign
- Re-addressing of reorder balance
- Automatic stock adjustments
- Stock quality control management
- Preventative stock count procedure

# 5. Advanced Warehousing

## 5.6 Pre-invoicing of logistical services (Geoplo)

- Invoicing folder by consignor
- Definition of headings, prices, services
- Logistical service pre-invoicing management
- Simulation, execution and sending of information

## 5.7 Directive assignments (Geomips)

- Management of resources and their activities and schedules
- Management of IT and handling equipment
- Definition of assignments and associated equipment by resource
- Definition of physical assignment areas
- Withdrawal location
- Allocation of assignments to human resources according to their equipment, authorization and location
- Assignment statistics by resource and equipment

## 5.8 Picking or slotting enhancements (Mapping)

- Dynamic picking location optimization
- Seasonality calculation by product type
- Issue projections
- Calculation of an ideal category by product according to issue movements
- Calculation of physical rearrangements of the picking area according to logistical gripping and volume category
- New picking allocations, reallocation with or without stock transfer



# Human Resource Management





# User Workspace





# 6. User Workspace

## 6.1 Home pages

- Users access Enterprise Management through landing pages
  - Landing pages are designed to give the user an overview of the data and access to visual process maps.
  - Access to functions and data available is based on security rules in place for the role and user.
- Inclusion of internal dynamic data in landing pages
  - Query results in table or graph format
  - Statistics results in table or graph format
  - Calendars
- Inclusion of external dynamic data in portal
  - External URLs
  - Notes
  - Documents (PowerPoint, Word, PDF, etc.)
- Role-based landing pages can be personalized to suit the unique needs of the individual user by the user or by the administrator
  - Add and remove data to suit user needs
  - Change data within the page for quick access to most relevant data
- Navigation through
  - The site map with a left panel to navigate per module, collapsible sections, and search feature
  - The function breadcrumb and a search for function, available from any page
  - Bookmarks in a menu or as a collapsible bar

## 6.1.1 On-line help center

- Interactive in HTML, customizable
- Functional documentation (by function and in field)
- Technical documentation (Data model, dictionary, entry points, detailed description of standard configurations supplied)
- Access to tutorials and videos
- Documentation published to a semi-public server
- Up-to-date documentation without user installation or maintenance required

## 6.2 Decision aid tools

- Statistics based on trigger events defined as a batch or in real time:
  - multi-level analysis by up to 8 criteria
  - configurable interval (day, week, fortnight, month, etc.)
  - comparison of values and quantities over several periods, rankings and classifications
  - graphical presentation and publication via portal
  - complete audit trail from cumulative total to detail
- Standard integration of advanced Business Intelligence solutions
- Transfer to Excel simply by clicking on any query screen
- Advanced marketing targeting:
  - physical counts, extractions, merge data from the database
  - direct mail generation or export of results to Excel

# 6. User Workspace

- Link explorer:
  - manual or automatic hyperlink creation with configurable semantics between information
  - links can be defined by user group, viewed as a tree structure for navigation by clicking. For example, a link can be established between product and customer, with the semantic “customer particularly satisfied with product”

## 6.2.2 Inquiries

- Configurable inquiries:
  - in presentation (list and order of columns)
  - in data selection (memos defined by users and/or jointly)
  - audit trail can be followed at all levels
- Integrated requester:
  - used to create inquiry screens on any table in the database, with automatic or manual joins, sorting and selection, zoom, etc.
  - a library of over 500 pre-configured inquiries delivered

## 6.2.3 Printouts

- Based on Crystal Reports™:
  - a library of over 400 reports supplied as standard, incorporating specific legal reports for the legislations supported
  - automatic printout triggering, with configuration depending on context, real-time or deferred, with screen display (Web and client-server), on file, on printer
  - generation of Word, Excel, text, HTML, PDF files

## 6.2.4 Search

- Based on Elastic Search™
  - Search feature allows users to easily find data or functions by searching a keyword for the data that is included on the pages or select only a subset of the data searchable. Search excludes content of attached documents

## 6.2.5 Online document storage

- Document saving (Microsoft Office, Adobe PDF, and more)
- Document sharing with defined teams or tagged for later access

## 6.3 Mobility

- Runs on any mobile browser
- Adaptive layout allows to optimize mobile presentations

### 6.3.1 Microsoft® Office integration

- Enterprise Management integrates with Word, Excel, and PowerPoint
- Plug-ins included to create a Enterprise Management tab within your programs for simplified integration.
- The plugin accesses Enterprise Management as a client while applying access and user rights.
- Meta data is available to define the data to read and to set up filters.
- Document storage allows users to save their Word, Excel, and PowerPoint documents to Enterprise Management.
- Integration examples

# 6. User Workspace

- Word: insert data into documents, create documents from Enterprise Management, and mail merge using templates
- Excel: export data and create direct links between your data and workbook; data can selectively be refreshed
- PowerPoint: data integration, including import data and charts directly into PowerPoint; the integration allows you to refresh the data with the click of a button

(\*) This feature is only available for Windows Client environment with local Office installation.

## 6.3.2 Interactive graphical processes

- Web interface is HTML 5 compliant for use with multiple browsers
- Web browser functions, like back button or F5 to refresh the page, remain in place for intuitive user experience
- Use
  - Processes organized by role with which user groups are associated, enabling graphical, interactive, customized transaction representation. For example, a common portal can be created for buyers, different portals for each sales representative, a portal for financial controllers, etc.
  - Table of Contents-based structure
  - Integrated into the landing pages
  - Tab definition by authorized user, by drag & drop from existing process list

## 6.3.3 Process editor

- Customizable background management
- Delivery of ready-to-use graphical element libraries
- Visual configuration (text font, color, frames, etc.)

- Link to Enterprise Management functions, URLs or published documents, for example company procedure documentation
- Process Table of Contents configuration
- Easily add pages to the favorites bar with one click for easy navigation to often used screens
- All addresses included are easily mapped with Google Maps to simplify navigation to customer sites or for routing of multiple sites

## 6.4 Workflow engine

- Configurable triggering, on any management event:
  - message sending by any MAPI-compatible messaging system (Outlook™, Lotus Notes™, etc.), SMTP/POP3 and ccMail
  - execution of actions
- Configuration by definition:
  - of the function triggering the transaction, and the operations involved (creation, modification, deletion, printing, validation, predefined action).
  - of additional conditions (modified fields, selection from record content, launch parameters for printouts or tasks, etc.)
  - of the recipient list depending on the context (internal users, third parties identified by code and function within the company)
  - of message text and any attachments
  - of reply conditions (contextual link to a function and data linked to the original context, insertion of links to trigger actions by clicking in the message, etc.)
  - of storage of information linked to the context in a log table

# 6. User Workspace

## 6.5 Customizing the interface

- Generators are used to define the following by simple configuration:
  - inquiry screens
  - movement entry screens (presence of fields, number
  - of tabs, default rules)
  - use of customized business vocabulary
  - user styles (for highlighting by color, font, background color, screen fields depending on context)
  - other interface elements (properties of each record, left-hand browse list, etc.)
  - Interactive graphical processes
- Vocabulary customizing function
- Personalize mode allows users to configure a page in responsive design to:
  - Organize blocks and sections in staked or in column mode
  - Hide elements on mobile and/or desktop type devices, or make elements a collapsible block
  - Based on this information, the layout adapts automatically to the size of the screen and the size of labels (that depends on the language)
  - The action panels are also adapted to the device (on the right of a desktop page, at the bottom of a mobile page)
  - Several page personalizations can be available and shared between groups of users
- Landing pages can be personalized by:
  - Adding widgets
  - Organizing them by drag and drop

# Mobile Web Apps



# 7. Mobile Web Apps

Enterprise Management is designed to be accessed by web browser, including smartphones, tablets, and desktop computers alike. Responsive design makes it possible to design online pages suitable for mobile, tablet and desktop pages.

For increased usability on devices with smaller screen sizes, like smartphones, special web applications have been created for increased usability. The Mobile Web Applications are designed for use on smartphones like iPhone and Android devices.

## 7.1 Sales

### 7.1.1 Sales - My Customers

- Displays a list of key customer information such as:
  - Customer notes
  - Contacts and addresses
  - Credit limit
  - Orders with advance payments not received on time
  - Orders exceeding the credit limit of the customer
  - Blocked orders
  - Active quotes and quotes to remind
  - Order book, pending and late orders
  - Deliveries to validate and to bill
  - Return with or without credit memo expected
  - Invoices validated and non-validated
  - Allocated payment and unallocated payments
- Allows to block or unblock each document
- Allows to block or unblock a customer

### 7.1.2 Sales - My Actions

- Allows approving or reject quotes, orders, and open orders
- Each document type based on its status: Signed or to sign

### 7.1.3 Sales Price Inquiry

- Sales price for a product, on a site, for a dedicated customer and the requested quantity
- Displays the price details: the gross price, discounts, and charges are used to calculate the net price by unit

## 7.2 Purchase

### 7.2.1 Purchase – My Actions

- Allows approving or reject requests, orders and open orders
- Each document type based on its status: signed or to sign

### 7.2.2 Purchase Price Inquiry

- Purchase prices for a product, on a site, for a dedicated supplier, and the requested quantity
- Display the price details: gross price, discounts, and charges are used to calculate the net price by unit

### 7.2.3 Available Stock

- Available stock for a product, on a site, for a dedicated date
- Available stock consolidated in days, weeks or month
- Available Stock by date: available for sales, including future needs and resources



# 7. Mobile Web Apps

## 7.2.4 My Expenses

- Entry of expense notes, attachment of electronic documents
- View approved and unapproved status of the expenses

## 7.2.5 Fixed Assets

- Access, track and manage physical assets

# Administration and Support

# 8. Administration and Support

- Users access to Enterprise Management through landing pages
  - Landing pages are designed to give the user an overview of the data and access to visual process maps.

## 8.1 General configuration

- Folder concept
  - used to define data structures and management rules common to a set of companies
  - with folder types (operating, test, development) and inheritance rules that can be defined between folders
- Management rule definition
  - by folder, company, site, user
  - with default rule inheritance between hierarchical levels
- The software package is natively:
  - multi-company and multi-site
  - multi-lingual (including right to left languages)
  - multi-currency
  - multi-ledger
  - multi-legislation
- It manages the following types of business partners:
  - multi-type (customer, supplier, carrier, representative, sold-to-party, service provider, etc.)
  - multi-address
  - multi-contact
  - multiple bank details
  - multi-collective

## 8.2 GDPR tooling

- A set of features is dedicated to help a company in his GDPR compliance journey and available from a visual process that:
  - Provides access to the Data administrator homepage
  - Provides access to the various functions available in Enterprise Management around GDPR compliance
  - Provides the identity of the Data Protection Officer from the Contacts tab in the company settings
  - Generates a list of companies in and outside of Europe and identifies the associated Data Protection Officer
  - Generates a list of the data types related to personal information
  - Exports all fields associated with an individual
  - Provides tools enabling a search on personal data
  - Provides access to personal data records (Users, Business partners etc)
  - Provides templates for the export of personal data records
  - Extracts all phone numbers and emails when required to address a situation where data has been breached

# 8. Administration and Support

## 8.3 User and security management

- Administrators can access a landing page that allows management of multiple functions from a single page.
- This includes assigning users to roles, groups, and collaborative teams
- User definition
  - Administrator and sub-administrator definition by function
  - User and messaging address hierarchies for workflow
  - Set of definable settings by user
- Access control
  - on functions, transactions, fields
  - view, modify and execute access
- Information restricted depending on user
  - by group of companies, company, group of sites, site
  - by group of logical data (access codes to accounts, budgets, third parties, technical data, etc.)
  - by configurable user access restriction types (for example customer, supplier, sales representative, payer, etc.); external third parties can be given access just to the information relating to them.
- Traceability and security
  - Single login allows users to connect to multiple folders across legislations or folders for easy user management
  - Ability to manage a second level of signature to sign modifications on critical fields
- Compliant with corporate security tools: LDAP, OAuth2 (google account, Microsoft live), SAML2 and Sage Id (Single password)
- Option 'Remember me' (4 weeks) brings the same comfort to users than a strict SSO
- Management of numbers of simultaneous connections by account and user group
- user monitoring and configurable trace of operations performed by user
- time-stamped trace of modifications
- definition of user and messaging address hierarchies
- Database-level traceability (triggers) with configurable storage of values before and after modification
- Security configuration
  - Platform components are connected through certificates
  - Configurable http security policy with white list definition, allowed domain list, allowed encryption algorithms
  - Configuration of http security header options

# 8. Administration and Support

## 8.4 Batch tasks

- Batch server for automated launching of functions, in particular:
  - data integration/extraction
  - deferred printouts
  - operation such as end-of-year operations, matching, MRP calculation, reordering, etc.
  - Subscription definition on a monthly, weekly or daily frequency basis, with operating calendar management
  - Deferred task launch and satisfactory completion control
  - monitoring screen
  - task launch deadline
  - automatic interruption of tasks that take too long
  - completed operations tracing
  - task chaining
  - task launch and control by depositing of files

## 8.5 Operation management

- Save functions
- Alert configuration (log files)
- Monitor
  - batch tasks in progress
  - connected users
- Purging and archiving
  - Definition of information retention time before archiving and before purging in number of days or years

- On-line viewing of archived data with the same reporting tools as for current data
- Launch product updates with one click, patch from a .zip file
- Accounting engine
- Any management document (invoices, stock movements, payments, WIP, etc.) can generate entries in a configurable manner. These entries can be exported to external software or be integrated directly into accounting. Option of multiple posting (for example into company accounts and IAS accounts).

## 8.6 Connectivity between applications

- Electronic Document Interchange (EDI)
  - Perform secured data exchanges for sales and purchase events
  - Handle universal EDI formats according to EDI partners, companies or business partners rules
  - Generation of XML files including attachments and signatures
- Import/export templates
  - Used to import and export data in different formats:
- variable length with separators (spreadsheets, for example),
- fixed length
- XML
  - Code conversion tables
  - With over 100 standard templates provided



# Cloud Connectivity



# 9. Cloud Connectivity

## 9.1 Deployment choices

Sage Enterprise management is able to deploy in various configurations:

- On premise installation on physical or virtualized servers
- Multi-tenant SAAS (operated by Sage)
- Single-tenant SAAS (operated by Sage and/or partners)
- Single-tenant PAAS (operated by partners, hosted by Sage)

The features available in Enterprise management are available in every configuration, with some rare exceptions mentioned in this document (linked to add-ons availability or to connectivity / security constraints).

## 9.2 Cloud capabilities

*The SAAS and PAAS solution provided by Sage are based on Amazon Web service platform and propose the following services. The level of service and service commitment depends on the options chosen:*

- Performance optimized storage
- Amazon Elastic Block Store (Amazon EBS) allows dynamic compute capability, high performance, secure (encrypted), highly available and low latency storage for application and backups
- Secure access to the environment through the use of SSL/TLS certificates
- Disaster recovery offered through AWS, enabling rapid recovery of your IT infrastructure and data.

- Automates upgrades and updates of hardware and infrastructure
- AWS RDS offering elastic, highly scalable database management in the cloud
- AWS Auto Scaling that offers on-demand environment scalability to manage demand spikes
- Web Services testing to analyze bottlenecks and volume
- Secure node.js platform for SOAP web services to improve cloud compliance, deploy web services easier and keep compatibility with previous web services and subprograms
- Use APIs in interactive mode, to manage HTTP call to an external web server, Batch task creation, send rich mails and manage asynchronous calls
- Optimize exchanges based on data volume through load balancing sessions
- API definition in accordance with web services standards (WSDL/SOAP), invocation of external web services and external publication of web services.



# Customization



# 10. Customization

## 10.1 Customization

Different levels of personalization are possible on Sage Enterprise Management:

- Standard configuration by changing meta data configuration (activating options, for example)
- Advanced set-up through formulas (changing the posting rules for any type of document, for example)
- Integration of external services through APIs
- Integration of add-ons provided by partners (for example, vertical add-ons or localizations for countries that are not in the scope of the standard delivery) (\*)
- Addition of bespoke code to complete or change the standard behavior for a given customer (\*)

(\*) These level of customization are not available (bespoke development) or might be restricted by some rules (such as preliminary certification or security check rules for add-ons) on Single tenant SAAS.

### 10.1.1 Configuration

- Define and activate structural options at folder level (for example, mono or multi-legislation, manage revision control on products, manage non conformance, manage serial numbers, manage lots, manage potency on lots, manage single or double valuation, manage loans, manage food allergens...). Based on the setup, the pages of the ERP and the data structure is automatically updated.
- Activate or deactivate languages available to the users

- Define the structure of companies, sites, and grouping of sites for functional and reporting purposes
- Define parameter values (such as default values or control rules) at any level of structure and/or by user
- Define the traceability options
- Cost accounting structure definition, GL structure description with up to 9 ledgers per company

### 10.1.2 Advanced configuration

- Manage advanced set-up based on meta data definition and formulas. Examples of these setups are:
  - Define posting rules for documents (values transmitted to accounting, grouping rules, conditions...)
  - Define costing structures and grouping rules for inventory valuation
  - Define price list structure and price determination structures (by crossing various criteria, managing free items, grouped prices). Based on these set-up, the system generates automatically forms to enter or import detail of criteria values and associated prices and discounts.
  - Set-up signature rules for documents based on combination of criteria from the data structure. Based on this set-up, the system generates form to enter the detail of approval criteria

### 10.1.3 Integration through APIs

- Define connected applications that will be called with authentication based on JWT token.
- Supply REST or SOAP web services called from an external software.
- Access to Enterprise Management objects published in GraphQL format (query and mutations)

### 10.1.4 Integration of add-ons or bespoke development

- Complete the business logic possible through the integrated object 4GL with new Enterprise Management objects
- Complete the Dictionary with new tables, screens, objects, data types, with marking of objects or object elements with dedicated activity codes to ensure durability
- Update and upgrade management with protection and retention of specific features developed
- Entry point access to new objects
- Use of standard component libraries
- Check customizations made within folder and validate compliance with the update best practices tool
- All types of customization possible through the integrated object 4GL or via web services to Enterprise Management objects or methods (in any language on the market)
- Dictionary customization (tables, screens, objects, data types) with marking of objects or object elements with dedicated activity codes to ensure durability
- Entry point access to all standard objects
- Eclipse development environment



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