

Fig 1: Deployment of Business Process Module over BPM Core on a Cloud

The FinAcct BPM Suite has different BPM Modules over Core Infrastructure. The simplest deployment has Accounting module over Core. All other modules are configurable as per end user requirement. FinAcct BPM is an integrated, end-to-end platform, where any business process in any type of industries can be mapped to final requirements in a single login.

BPM Core is multi-user, transactional, micro service oriented, web based, REST API enabled and only collaborative platform among all the BPM Providers. In this platform, Company Employee and Admin user collaborate in the HRMS functionalities. Similarly, Company and Partners collaborate in PRM modules, i.e. can work on same records simultaneously. Every modules work in the integrated and business flow driven way. For example, from CRM leads, user can raise Sales Quotation in SCM modules, Sales Order and so forth. SCM module and Production module work cohesively. Similarly, CRM and PRM works integrated way.

FinAcct Platform has all the Core Service management API which can be used by any modules when working with Core. The platform provides template interface which helps to develop any other BPM modules as and when new business demands in a very agile method and short duration without causing any issue in existing systems.

FinAcct BPM – an end user feature and architecture independent Cloud stack:

FinAcct BPM is one of the few Cloud enabled BPM Platforms in the world, which is platform (Hardware and OS) independent, Scalable, SaaS based application suite implemented in end user feature independent way. End user requirements are fulfilled merely by combining already created process flows into custom flows.

In a common multi-tenant deployment, stack is implemented using Enterprise Java architecture and multi layered, staged and asynchronous micro-service framework which can scale to unlimited concurrent user session. On top of the basic ERP business service, is implemented the common template for any end user features to be plugged in based on feature selection framework. The feature selection framework is constantly revamped to the increasing need of end customer requirements by using several attribute based flags in the backend. This helps the FinAcct platform accommodate any new features in shortest possible time without having to do much validation. Feature selection framework works with underlying service template in a non-coupled manner thereby helping the SW stack work in scalable and purely demand driven way.

The FinAcct platform like any other big SaaS platform supports heterogeneous devices to interact over the internet. User can access the application over Web enabled devices as well as Android supported mobile devices. The Platform provides secure REST API to any external applications to interact with FinAcct core. The underlying Data Model in FinAcct is combination of both SQL and NoSQL types in a SQL backend data store of MySQL to reduce the overall latency. The most unique feature of FinAcct ERP is fast response to end user transaction to/from the Server. The FinAcct Platform is hosted in reliable Google Cloud thereby making it 24X7 available. It ensures the constant data backup.

Unique Architecture Details of FinAcct BPM:

a. BPM Data Model:

As mentioned in the abstract, data is balance of SQL and NoSQL based data types where reusable components are tightly correlated (in SQL way) using more normalized data sets. Business Models are top layer data which are mostly disjointed and expands as per the end requirement. Platform specific cloud data model for ERP Systems are mostly immutable.

b. Micro Service Architecture:

The business process modules mentioned in Fig 1, are implemented as part of BPM Core micro services which can be accessed via REST API also. The whole deployment is a three

tier web architecture that has multi-tenant, transactional framework. Presentation layer, as mentioned above has framework which are customizable as per end user needs. The FinAcct BPM is currently deployed as global Cloud infrastructure. This can be deployed in private Cloud mode also.

Architecture & Deployment

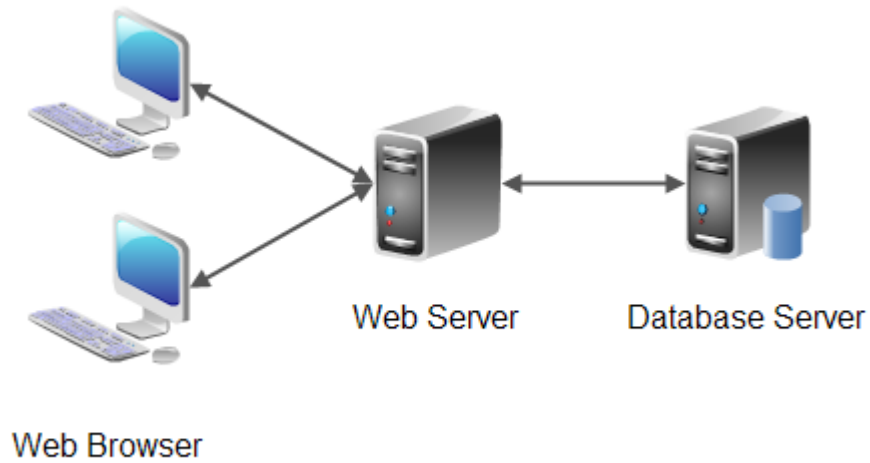


Fig 2. 3 Tier Architecture

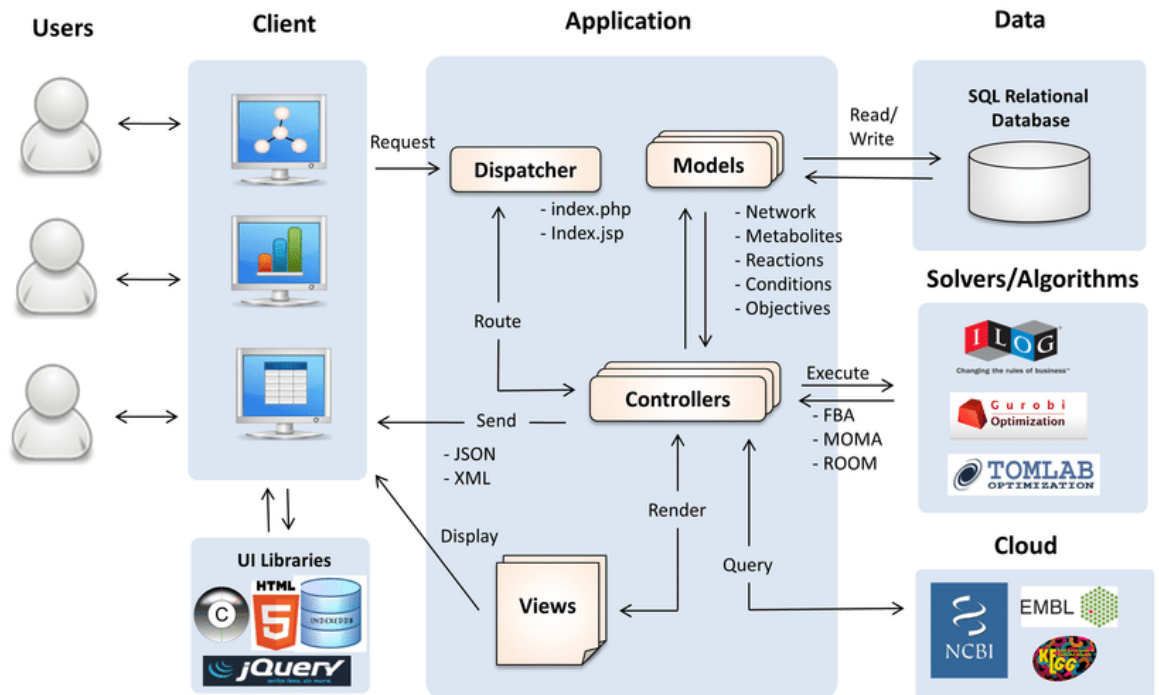


Fig 3: Internal details of three tier architecture

ERP Model:

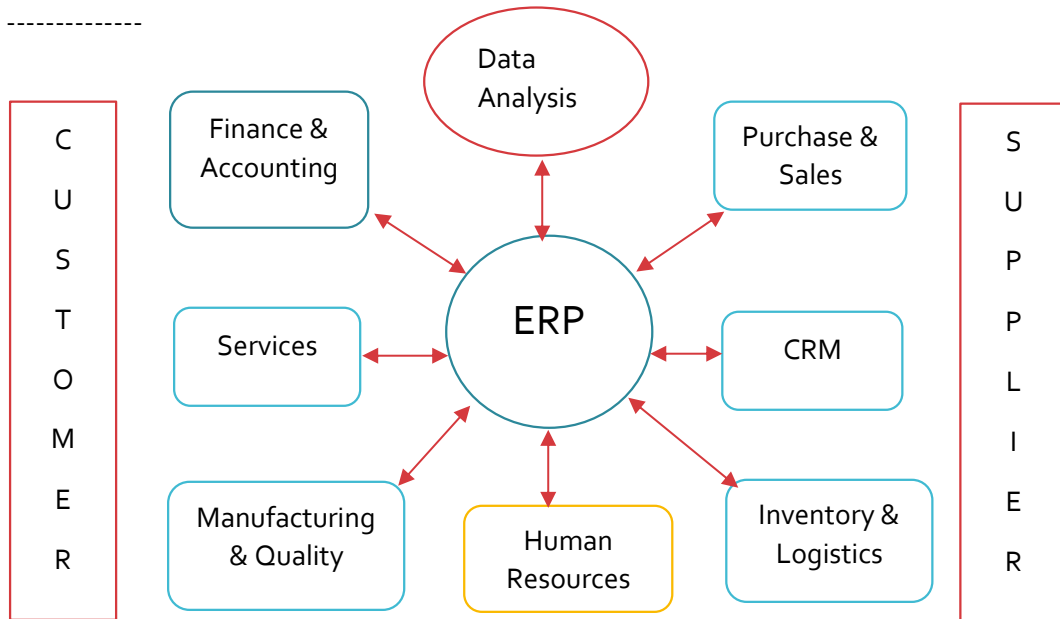


Fig4: ERP data model in BPM suite

Scopes & Objectives:

- This facilitates a company-wide integrated information systems covering functional areas such as accounts, payables, receivables, purchase, sales and distribution, inventory, manufacturing, human resources, customer relationship management, partner relationship management etc.
- BPM integrates and automates most business process and shares enterprise information in real time, thereby improving customer service. It also allows multiple users like company, partner, distributor, employee to collaborate on business processes securely on a cloud.
- This bridges information gaps across a company and focuses on key issues such as productivity enhancement, customer service, inventory management, quality control and faster logistics.
- BPM also provides business intelligence tools like decision support systems, executive information system, reporting, data mining, early warning system via email and SMS, enabling people to make better decisions and improve business processes.

Major Phases of BPM Implementation:

1. Initiation – develop business case, project scope, feature requirement collection and implementation strategy.
2. Planning – establish implementation team, determine goals and objectives and metrics.
3. Analysis and Process design – analyze and improve existing processes, map new processes to be adopted by the system.
4. Realization – install a base system, customize and test the system.
5. Transition – replace the formal system with the new system, data conversion
6. Operation – monitor and improve system performance, provide continued training and technical support.

Major Challenges to BPM implementation

1. Limitations of ERP technical capabilities.
2. Inconsistency with existing business processes.
3. Costs – implementation (hardware, software, training, consulting) and maintenance.
4. Impact on organizational structure.
5. Changes in employee responsibilities.
6. Flexibility of software system upgrades.
7. Implementation timelines.
8. Availability of technical knowledge and resources.
9. Education and training.
10. Implementation strategy and execution.

FinAcct BPM has addressed all the above challenges in the following way.

1. Business flow operation (management) in FinAcct UI is very self-descriptive so that every process is well mapped in automatic UI sequence of operation. Every flow operates on previously generated record which is consistent in all the records.
2. FinAcct workflow and data model is as per any standard ERP workflow available in big ERP players like SAP, Oracle, Microsoft and Others. Hence migrating from any other software to FinAcct or from FinAcct to other software is very smooth.
3. FinAcct being SaaS based software provider, it is the cheapest in terms of resource usage and maintenance
4. FinAcct is very simple and easy to use yet very functionally rich. Existing organizational structure can relate the similar process flow and responsibilities to the software features.
5. As mentioned above.
6. Just like any other Centralized cloud infrastructure upgrade, FinAcct has very seamless software upgrade in very short window period where end user does not get affected
7. It has the minimum implementation time due to custom feature implementation framework from UI to backend.

Features:

1. Customer Relationship Management (CRM)

FinAcct CRM provides detailed view of every customer and department to help maximize the interaction. Customer profiles and sales productivity tools help user identify opportunities and be proactive. It also helps to drive forecasting and make decisions with team and management.

FinAcct CRM delivers back office integration with ERP systems and provide solutions that delivers scalable framework which allows organization to experience single and unified platform. This has features like Sales Lead Management, Customer Profiles management, converting leads into opportunities and final sales deal. Sales deal eventually integrates with ERP via sales order management.

CRM Marketing, Sales and Service

This helps company to run Campaign through Email, Website and Social Platform. This also helps channel partner to publish the marketing stuff from vendor to end customer.

- a. Campaign management – Running Campaign, tracking activity, generating lead from it and tracking response in it helps company analyse the sales and marketing potential of any product and costs incurred in it.
- b. Marketing List and Member: To create targeted campaign, marketing list can be created and contact member be added to it
- c. Marketing content publish via social media and other channels – Publishing product catalog, brochure in social media and other online advertising portal helps product marketing bring better sales potential
- d. Lead Management – Once lead is added in CRM, all activity via email, event can be tracked in FinAcct. Lead statistics for open/close deals can be generated in lead dashboard.
- e. Opportunities, Contact and Account Management – Once leads are converted into opportunities, further activity tracking can lead to closure of final deal. Sales Quotation can be sent to probable lead contact can be initiated. Once leads gets

closed, corresponding Account and Contact for the given customer can be managed for after sales service and support.

- f. Event management and lead capture – Any Event can be captured in CRM modules to add participant and register to it. They can be further followed up to generate sales lead. This helps track all the events and find best suitable way to run product marketing.
- g. Sales Goal and Forecast – This helps maintain Sales goal for given period and track sales outcome against it. This also help to add Sales forecast for a given period of time.

FinAcct CRM Sales Field Automation (SFA) enables company to schedule and run sales person visit and capture their visit record to optimize management of sales force. It also helps company to automate field services of sales person by planning customer visit in a given period and their tour location path.

- a. Sales person activity planning – add sales person visit schedule for a given date and time with customer product details. The corresponding visit schedule can be checked from each employee login.
- b. Sales Person tour planning – For any sales person, multiple client visits can be scheduled according to optimized route of customer locations so that maximum customer coverage is achieved in shortest time and rout path.
- c. Sales Person Visit report capture – For every client visit, sales person should maintain visit report which can be verified by manager and above.
- d. Target Customer planning – This logs the customer visit details with sales person assigned.

CRM Service handles the after sales service through customer issue and ticket management. For every customer issue logged either by sales person or Authorized Service Centre, unique Job or case ID is generated. This involves allocating case id to concerned service centre and repair management.

- a. Customer AMC and product warranty management – The system maintains the warranty details of the product sold to customer and AMC details if used by customer. This helps the company better to do service for repair or replacement for any job ticket.

- b. Customer Service Request and Job Allocation – For every customer issue logged into the system, unique Job or Case ID gets generated. Further Activity processing and servicing is referred by this Job ID.
- c. Service Job Scheduling and management – Every Job allocated is assigned to authorized service centre or Company Head Quarter. Service visit followed by the job allocation is done subsequently to send repaired or replaced items.
- d. Service Visit record capture – Every service visit with details of repair and replacement is captured and analysed. This helps company and Service centre to plan for future servicing in better and faster way.
- e. Collaboration with Authorised Service Centre (ASC) – ASC can request for spare parts to company head quarter. The company can fulfil the request and raise the bill for that. Company and ASC can collaborate on the customer data like AMC, product warranty, PM schedule etc.

2. Partner Relationship Management (PRM)

This helps channel partner management, collaborative sales planning, and marketing. It has channel Sales goal, Lead sharing from vendor to partner, deal registration etc.

- a. Partner Resource Library and Collaborative Training – Company can upload all resource library like marketing, sales and product brochure and other training materials into Content Library and share to any given partner. Partner can login and access those contents securely.
- b. Channel Lead Management via vendor CRM tools – Company can transfer any of its leads to partner and that lead will be available in that partner access and further management of lead can be done by that partner.
- c. Channel Deal Registration using same CRM tools – Once any lead given by Company is managed by partner, it can be converted into opportunities and final deal registration can happen by partner activity just like company closing final deal.
- d. Tracking Partner sales against the goal – Partner goal can be set by company in an agreeable way. Partner can achieve sales value which can be compared against this target value. Company and partner can work together to achieve better sales in future.
- e. Joint Business Strategy Planning – Company can create Joint business plan for partner to work with. It has SWOT analysis for the products and plan strategy,

quarter wise sales plan, marketing plan, target date, campaign strategy, training plan to achieve certain targets. Partner can also contribute and update the same record and collaborate among themselves.

- f. Common Sharing Forum and collaboration – Company can create as many forum records as required. They could be for Event of types Product launch, Deadlines, Sharing Plans, Promoting Webinar or any other purpose of collaboration. Every Forum object has start and end date and Location, address where that particular event can take place.
- g. MDF Fund Management – Management Development Fund is created by partner for company to provide financial support to partner. Partner can evaluate that and allocate the amount they can afford for collaborative way doing business in mutually successful manner.
- h. Partner Online Catalogue and Shopping Cart – Company can create catalogue and add products for partner to order products from Company in Bulk and make order request which can be fulfilled by company.
- i. Secondary Sales Order Management from dealers/distributors – Company raise primary sales order to Distributor and Dealer and they inter raise secondary sales order to end customer.
- j. Automated Fulfilment to Partner and Inventory tracking – for every bulk order request from partner, company can add sales order in ERP and send the delivery and fulfilment record and partner can collaborate on the same fulfilment via FinAcct PRM features.

3. ERP (SCM, Inventory, Production, Quality, Shipping and Warehouse Management)

FinAcct offers solutions to manufacturing companies that produce complex products and need technology and industrial functionality that is intuitive, user friendly and can be implemented quickly by smaller capital investment.

FinAcct is built to address your business needs beyond ERP system to manage the complexities associated with projects, contracts, billing terms, quality requirements and

Best ERP solution that delivers great value in time and helps to get the financials, supply chain management, manufacturing, project management capabilities, experience industry specific functionality.

It's Safe & Secure solutions on cloud and collaborate and work with integrated solutions. It helps with production tracking and Life Cycle Management and Material Resource Planning and Production Planning, Quality inspection of the goods, shipping and Delivery of goods to Customer and Warehouse Management.

- a. Supply Chain Management (SCM) – It has sub-modules for procurement of materials, transformation of materials into the products and distribution of products to the customers. It allows enterprise to anticipate the demand and deliver the right product to the right place at the right time at the lowest possible cost to satisfy the customers. FinAcct SCM helps multiple department like purchase, store, inventory and sales to work collaboratively. Once sales demand is created in the system, store and purchase department can work together to make sure enough input materials are available to deliver final goods to customer in time and quality. This involves proper inventory check and demand based purchase requisition handling, approval of purchase order. After purchase order is confirmed, store department raises GRN followed by quality check of input materials. Purchase department also makes sure that invoice is raised after GRN or against advance payment if made to suppliers. Accounting department also makes sure that payables to suppliers are handled in time after invoice is raised with GST amounts also taken care of. Sales department, based on customer demands, can raise work orders which can help production department to check availability of raw materials using FinAcct Material Requirement Planning (MRP) tools. Production department also needs to check and plan for scheduling Production using Manufacture Resource Planning (MRP II) tools which helps to estimate production based on raw materials, Labour and Machine. Production department hereby works with sales and shipping department to further plan for shipping and delivery of goods to end customer.
- b. Inventory & Material Management – Inventory is quantity of stock items available after GRN of goods are logged into ERP and goods are shipped out of warehouse. As the processes take place, movements of stock are tracked into system. Production department can request for issue of materials and store department will issue materials from one location to other. FinAcct tracks material issue and return into the system by batch no for each stock item.
- c. Production – This module simulates the production process for any finished good starting from defining the Bill of Material (BOM) of goods, defining the Routing Process of

different stages of production steps involving Labours and Machines in their appropriate usage. This helps estimate the raw materials input demand based on work order output demand using MRP II modules. Once raw materials are handled with purchase and store department, production scheduling starts. Advance Production Scheduling (APS) module of FinAcct helps company to optimize process in such way that all work orders demand are planned well in advance or postponed in scheduled date based on availability of labours and machines. If needed, this also helps to plan for further capacity enhancements by adding Labour or machines to accommodate more demands. Production processes are analysed in terms of final delivery and costs using task processes.

- d. Quality – It involves sample inspection of individual inward items or finished goods before final delivery. Quality master allows user to configure inspection parameters and sample parameters can be measured in these terms. FinAcct Quality system automatically gives user the option for acceptance/rejection after quality inspection. Following the quality inspections, user can handle repair service managements on faulty products
- e. Shipping and Warehouse management – Finished goods are recorded into the system. Delivery planning with shipping details are added so that shipping department will prepare for final shipping to end customer. Warehouse is managed in terms of shelves, rack and bin. Goods are placed in the warehouse after GRN is added. Similarly, goods can be transferred from place to another in warehouse. The System helps the user to track and find goods. Outward goods delivery also updates the stock status in warehouse.

4. Fixed Asset Management

Company can register fixed asset like machinery, equipment, parts, and electronic goods into FinAcct FA module. This gives asset depreciation over time as per IT act and Company Act. It also gives depreciation (WDV method) for new addition and deletion of assets in a financial year.

User can execute fixed asset Check In and Checkout, Movement from one location to other using FinAcct FA transactions. Asset can be disposed and recovered so that they are able to be tracked. It shows all the FA tracking reports for a given time period.

5. Financial Accounting

FinAcct offers complete capabilities for your finance department starting from general ledger to reporting. It provides access to customized information to users anywhere anytime. With industry specific functionalities, you get what you need without complex customisation.

It offers end to end capabilities with integrated solutions and delivers security and flexibility on cloud, infuses with specific functionality to avoid costly customisations. It is part of the BPM Core that has system for General Ledger, Ledger Transactions, Receivables & Payables and Reconciliation Management. It also calculates depreciation used in Company accountings using Asset Management. The general accounting has basic Journal Transaction, Cash Management. It provides user the advanced Financial Reporting, Budget & Variance Analysis, Cost Centre Management, Branch Accounting besides the basic Ledger Transaction report, Profit & Loss Report, Balanced Sheet report, Trial Balance report. Tax analysis and reporting and Fixed Asset Management with asset tracking are two import sub modules in the BPM. FinAcct can work with any general and global Tax system. Tax master can be configured to support the above.

- a. Accounting Transactions – This includes bank, cash payments and receipts, contra and Journal Transactions as per standard. FinAcct gives option of adding transactions from the payables/receivables records with all the invoice details automatically added in the transactions. It also supports TDS Journal transactions so that TDS computations and filling following that can happen very smoothly.
- b. Service Invoice – Both Service Invoice and Input Service Invoice can be managed in the financial modules. This also provides resource billing module to manage the invoice amounts derived from human resource outsourcing business. Resource billing transactions in turn provides the next flow of service invoice management.
- c. Budget and Cost Centre Management – Company can add and manage the budget monthly/Quarterly. For every transactions, cost centre can be associated in such a way that analysis and reporting for given cost centre is available easily.
- d. Financial Reports (MIS) – Company Profit & Loss, Balance Sheet, Trial balance, Cash Flow reports are available for any given time duration. It also provides specialized reports like Age wise analysis, Cost Centre Analysis and Budget Variance Analysis. There are all kinds of voucher wise transactions reports which can be analysed for financial account balance and year-end financial closing.

- e. Bank Statement Reconciliation – FinAcct also provides with the Manual version of Bank statement reconciliation for a given period of time.
- f. Migration of third party financials – This provides the tool for importing third party financials in the form of excel/CSV formatted data.

6. Compliance, Tax and Filing

FinAcct BPM has dedicated Tax monitoring module which gives details and the option of drill down of tax amount in a given period. It also shows the details TDS amount collected party wise. It maintains other compliance like PF, ESI and PT report and the option of filing. It has dedicated module for filing of PF, TDS, GSTR₂, GSRT_{3B}, GSTR₄, and ITC₄ for Job order goods in and out tracking. The every filing process collects all the details from Financial data module for given period and shows the user for preview and correction before finalizing for filing. For example, TDS filing process collects all TDS payment party wise from TDS journal transactions in FinAcct financial module and gives the user for preview. User needs to upload TDS challan details obtained from IT website and generate the required zip file to finally upload to IT server. Similarly, GSTR filing collects all the GST related transactions in a preview and then generates JSON formatted record to be uploaded to GSTN server via GSTN service provider API. This needs OTP based user authentication before uploading the invoices. The system shows filing status and penalties due to delay in filing.

7. FinAcct HRMS

Growing company needs human capital management solutions without adding unnecessary maintenance, deployment time and cost. It is necessary for HR to have modern HRMS that are up to the challenge.

Built on cloud to adapt evolving business requirements, complex processes, systems and workflow, it creates significant value across the organization. It manages Organization/ Employee Structure, Benefits, Employee relations, absence, time entry, Pay & Deductions, Gross to Net, Time & attendance, Income Tax Computations, Compliance Management & Filing.

- a. Candidate Selection and Hiring – This involves Job Requisition management, Candidate selection, interview and other hiring and on-boarding process.

- b. Employee and Salary Management – The core of payroll processing is based on employee and salary master. On-boarding details of employee is added either by each employee from ESS portal or by payroll admin. Investment details of each employee can be added from ESS or by admin. After validating these records, employee and salary master are added in the system for each employee. Employee Gross salary and other IT computations are done. Monthly Salary for all the employees are generated for a given FY and month once. Generation of pay slip is done by payroll admin and sent to each employee via email. Pay slip can be downloaded to the local machine and then can be distributed based on demand.
- c. Leave Management – Employee leave request can be posted from ESS portal and granted by admin and final leave data is entered into the system. Admin can also directly add employee leave data. Company can define leave policy for different grades of employee. Holiday list is also defined for any company.
- d. Attendance Management – Admin can define the employee attendance policy in terms of later entry time or half leave formulae etc. Attendance can be added daily for each employee with their time in and time out hours or it can be imported for a whole month via biometric timesheet exported via excel file.
- e. Claims, Bonus and Incentives Management – Expense claims are submitted by employee from ESS portal or added directly by admin into the system. It is then verified and payout is done as part of next salary. Bonus and Incentives are also maintained in the system by admin only in a given month.
- f. Monthly Addition and Deductions – Any kind of monthly additions and deductions are managed and adjusted in monthly salary. These can be configured for each company as per their requirements.
- g. Payroll Reports – Other than basic employee details, salary, leaves, claims and attendance reports, FinAcct payroll also provides compliance reports like PF, PT and Monthly ESI for employees.
- h. ESS portal – Admin can create user login credential as part of employee master and can issue access to Employee Self Service Portal. Currently, web access is provided to each employee. There is a plan to provide Mobile app based access to ESS data. Employee can download his/her monthly pay slip, check IT computations, total tax withheld so far.