
Oracle EBS R12 Application Architecture - Different Models
for Functional consultants
apps2fusion
Training Experts

Presenter

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About the Author

- 14 Years of Oracle EBS Experience
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- Involved in development of several custom extensions
- Experience in Fresh, Upgrade & Re-implementation Projects
- Problem solver & Alternate Solution provider
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- Integration / Interface of Multiple Systems

Reviewer: My Sincere Thanks to my friend Ramesh Bommisetty for review of this document and providing valuable feedback

Agenda

- Oracle R12 Application Architecture - Different Models
- Advantages and Disadvantages of each model
- Recommendations

Acronyms

- BG – Business Group
- LED – Ledger
- LE – Legal Entity
- OU – Operating Unit
- Inv Org – Inventory Organization
- LOB – Line of Business (Refers to Balancing Segment in this document)
- MOAC – Multi Org Access Control
- GBPA – Global Blanket Purchase Agreement
- VMI – Vendor Managed Inventory

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My First ERP Implementation Lesson from the CFO of the Client

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“Software should be configured according to Business and Business should not be amended according to the Software”

Introduction

The primary purpose of this document is to enhance the knowledge of Oracle Application R12 Architecture to

- **Functional Consultants**
- **Project Managers**
- **Technical consultants**
- **and last but not the least to the Customer as well**

Suggested Way forward for Oracle EBS R12 Application Architecture

1. Make the Customer to understand the Oracle Application Architecture

Suggested Way forward for Oracle EBS R12 Application Architecture

2. Evaluate the Right Model for Customer Organization along with customer

Suggested Way forward for Oracle EBS R12 Application Architecture

3. Discuss with Stakeholders of the Organization to decide the most suitable model

Suggested Way forward for Oracle EBS R12 Application Architecture

4. Configure the Most Suitable Model for the Organization with scalability for the future

Suggested Way forward for Oracle EBS R12 Application Architecture

5. Implement and Gain acceptance from the Business

Introduction

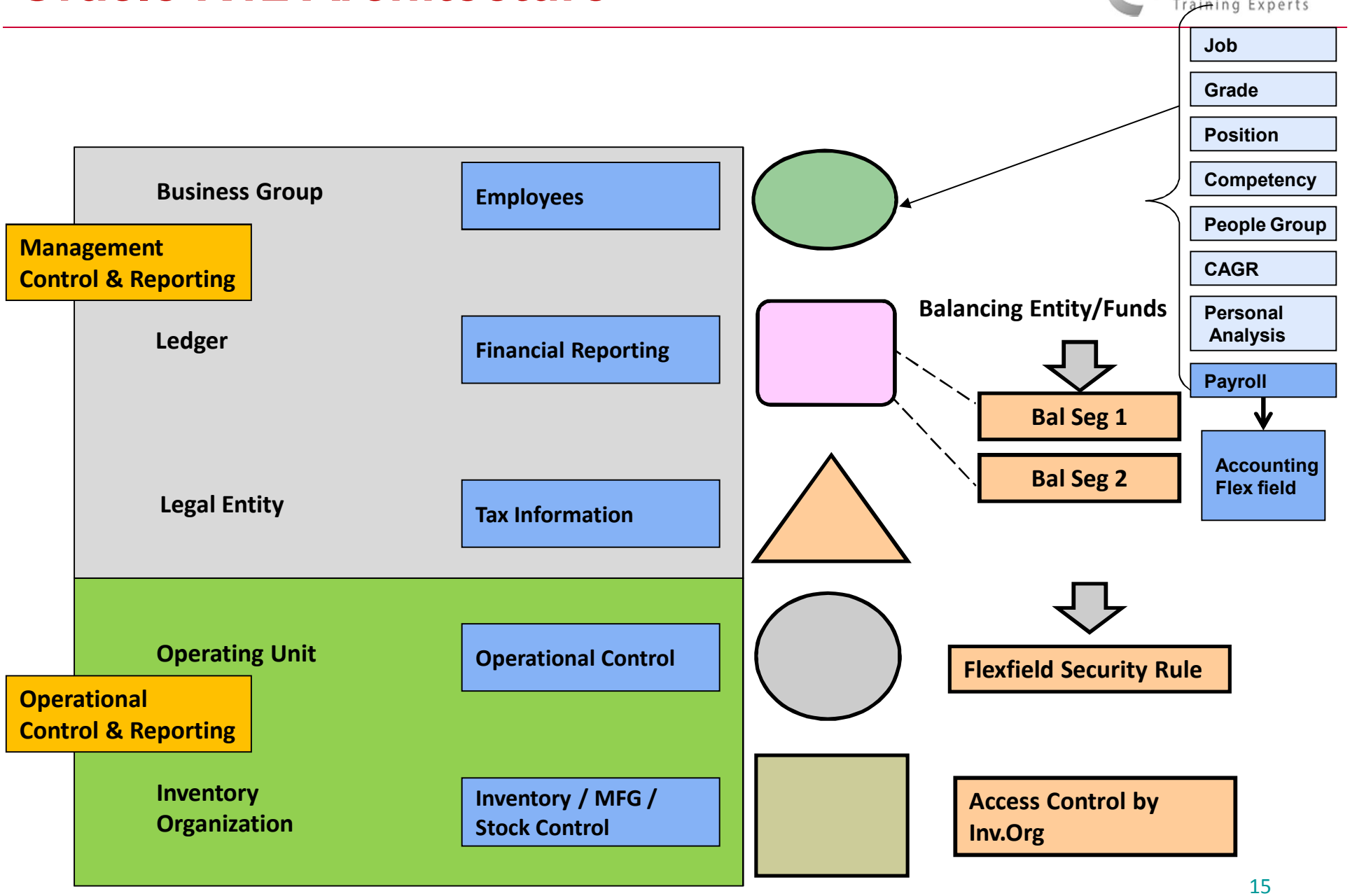
In order to explain the concept, I am using the example of AVIS Business Group throughout this presentation (Reverse of my name SIVA )

The AVIS Group is selling Sports equipment in the name of AVIS Sports Goods LLc., in US and UK and they have another business of owning play grounds in US in the name of AVIS Sports Grounds LLc.,.

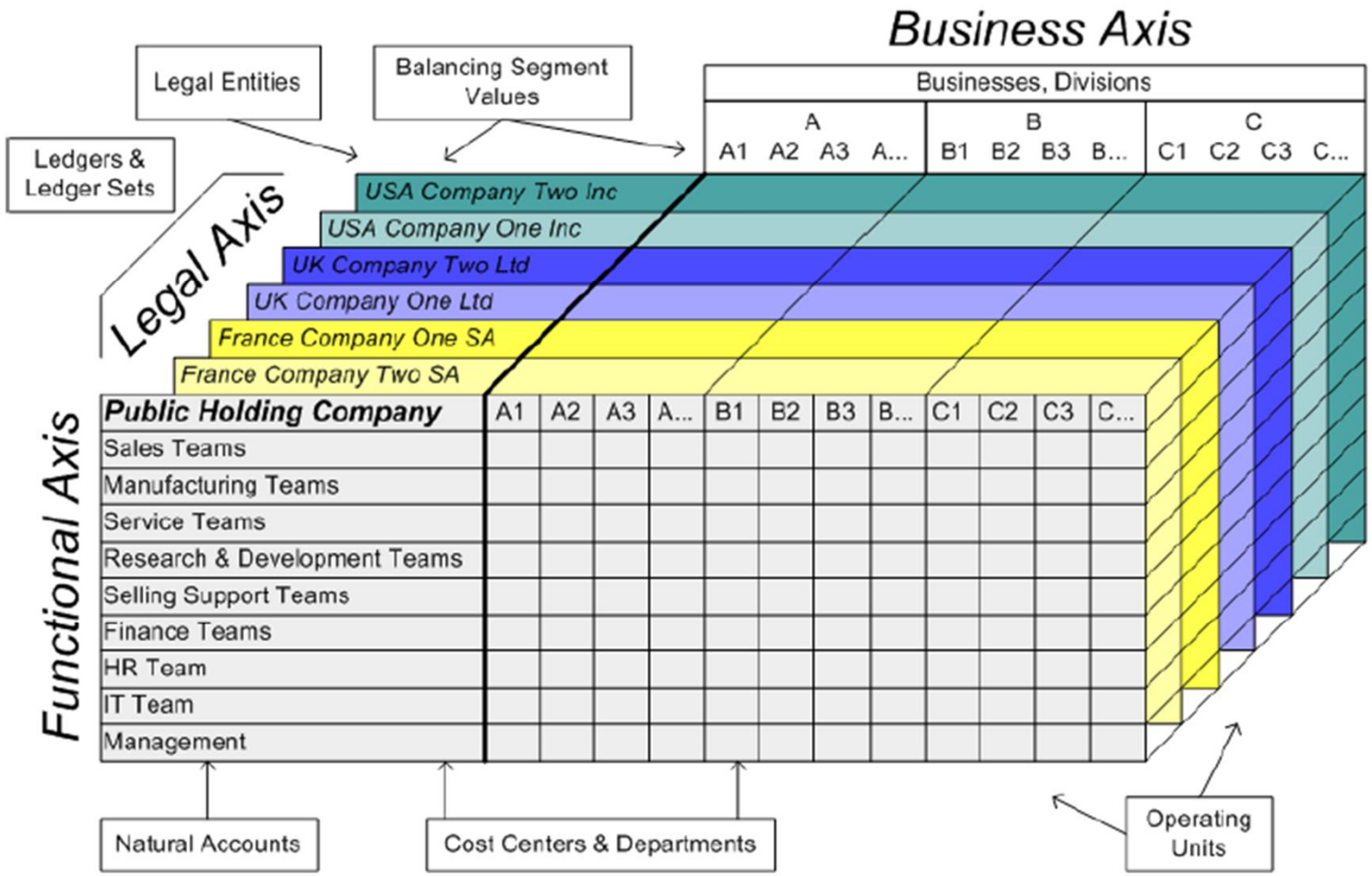
Prerequisites for proper Oracle Application Architecture

- Organization Structure
- Clearly defined Policies and Procedures of the Organization
  - Financials
  - Human Resources
  - Purchasing
- Business Functions Centralized or Decentralized
  - Financials
  - Human Resources
  - Purchasing
- Delegation of Authority (Approvals)
- Implementation of Shared Services
- Reporting Requirements

Oracle R12 Architecture



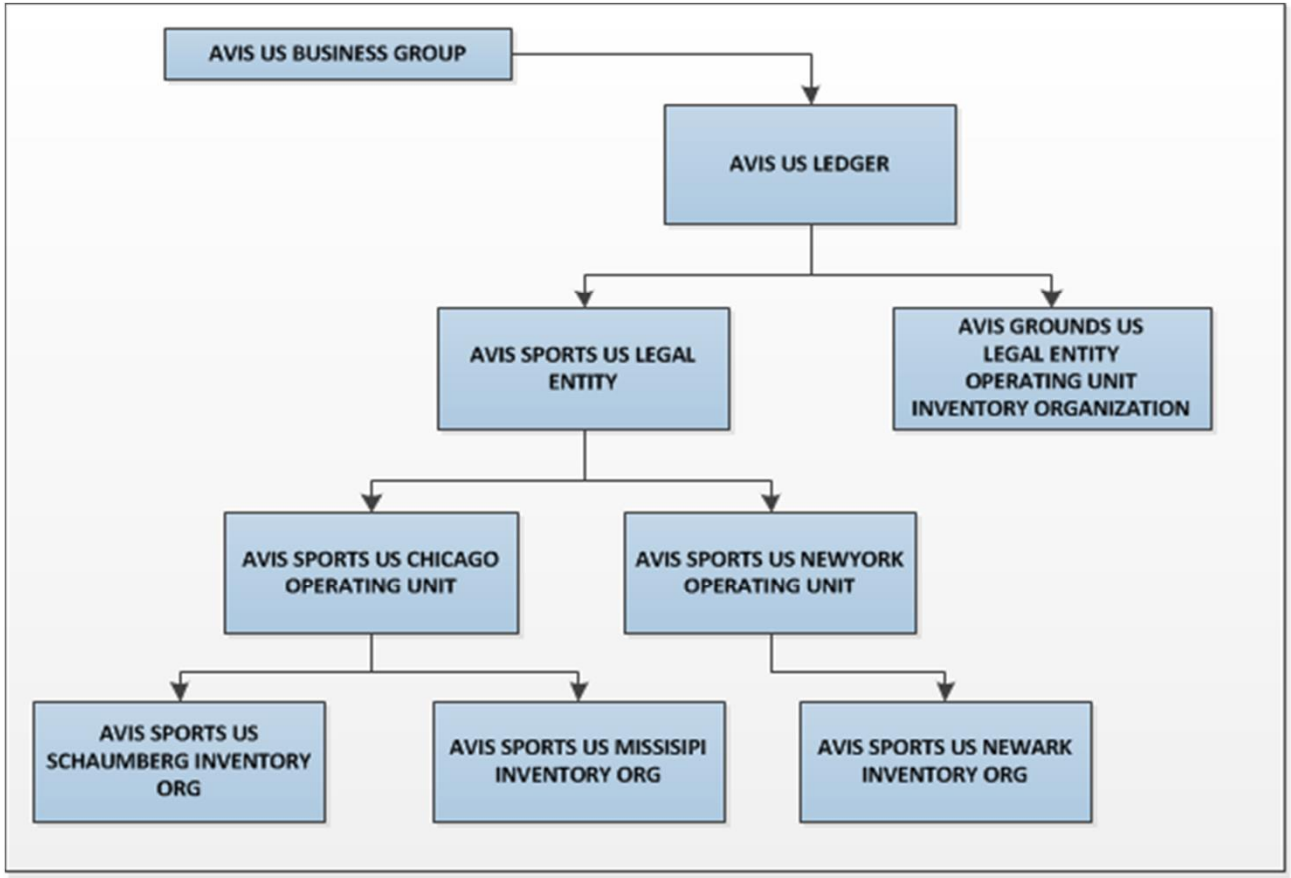
Organization Structure Example

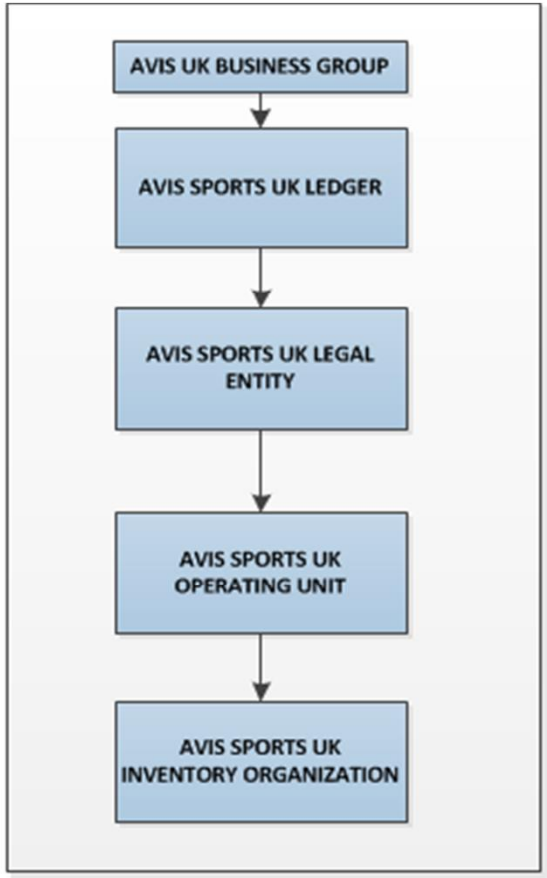


Organization Structure Example

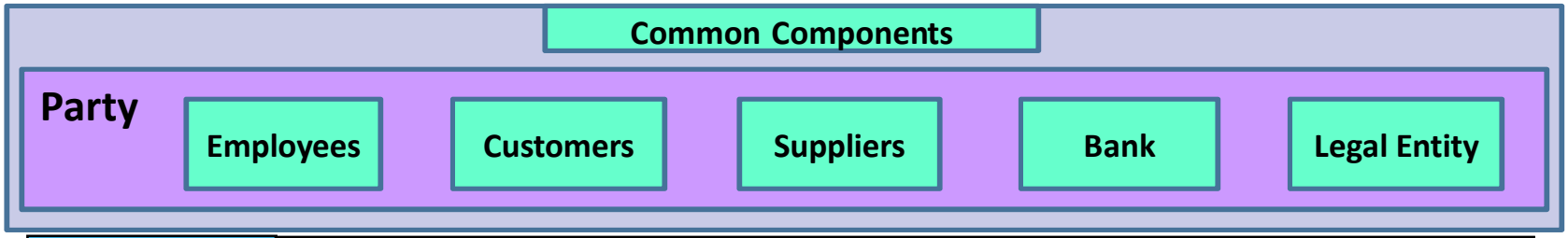
Important Note: Always Design your structure to have BG, Ledger, LE, OU and inventory org in Parent /child model and **never design one child linked to multiple Parents**

Example: Please follow the application architecture design as per sample Diagram provided below in Oracle Applications Administrator user guide





Important Control at Each Level per Instance



Business Group	• Employees • Employee Numbering • Employee Movement	• Payroll • Key Flex fields (Job, Grade) • Assignment	• Single or Multiple BG • HR Organizations • Security Profile
Ledger	• Calendar • Currency • Chart of Accounts	• Accounting Convention • P&L and Balance Sheet • Balancing Segment	• Single or Multiple Ledgers • Document Sequencing • Journals / Period Closing
Legal Entity	• Establishment • Registrations • Tax	• Bank • Inter company Transactions • Link to Balancing Segment	• Single / Multiple Legal Entities • Intercompany Exceptions • History and Contact Info
Operating Unit	• Sub ledger Transactions • Security • Sub Ledger Period closing	• Intra company Transactions • Document Category • Customer / Supplier Sites	• Single or Multiple OU • Shared Services • SLA/Reconciliation/Reporting
Inventory Org	• Costing Method • Sub Inventory Transactions • Inventory Period Closing	• Access Control • Sub Inventory • Items (Row /Rack /Bin)	• Single or Multiple Inv Org • Inventory Transfers • Reconciliation / Reporting

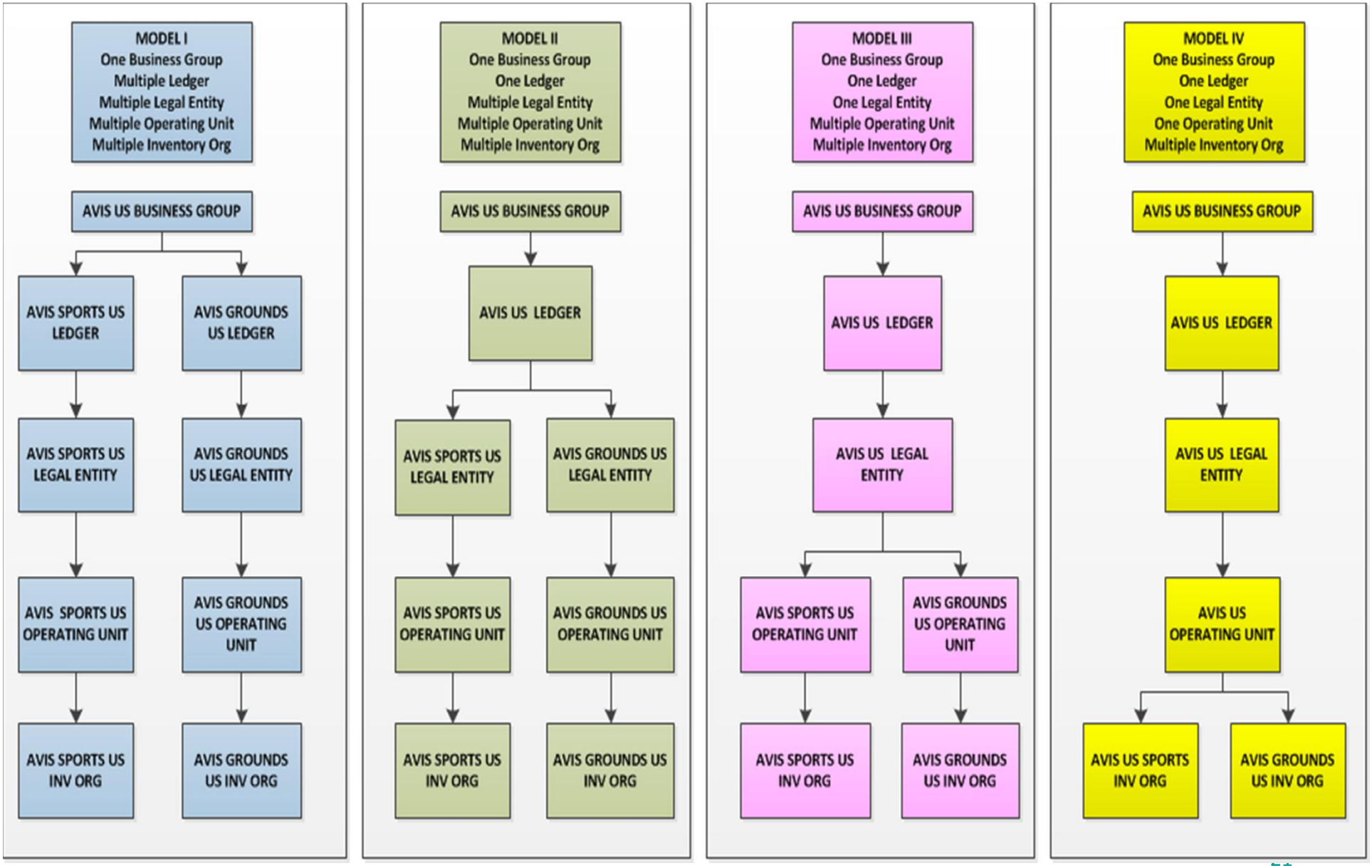
Control Level for Key Flex fields

Key Flex fields	Module	Control
Accounting Flex field	General Ledger	Ledger Level
Category Flex field	Assets	Instance
Asset Key Flex field	Assets	Instance
Location Flex field	Assets	Instance
Account Aliases	Inventory	Instance
Item Catalogs	Inventory	Instance
Item Categories	Inventory	Application
Oracle Service Item Flex field	Service	Instance
Sales Orders	Inventory	Instance
Stock Locators	Inventory	Instance
System Items	Inventory	Instance
Sales Tax Location Flex field	Receivables	Application
Territory Flex field	Receivables	Instance
Public Sector Budgeting	Public Sector Budgeting	Application

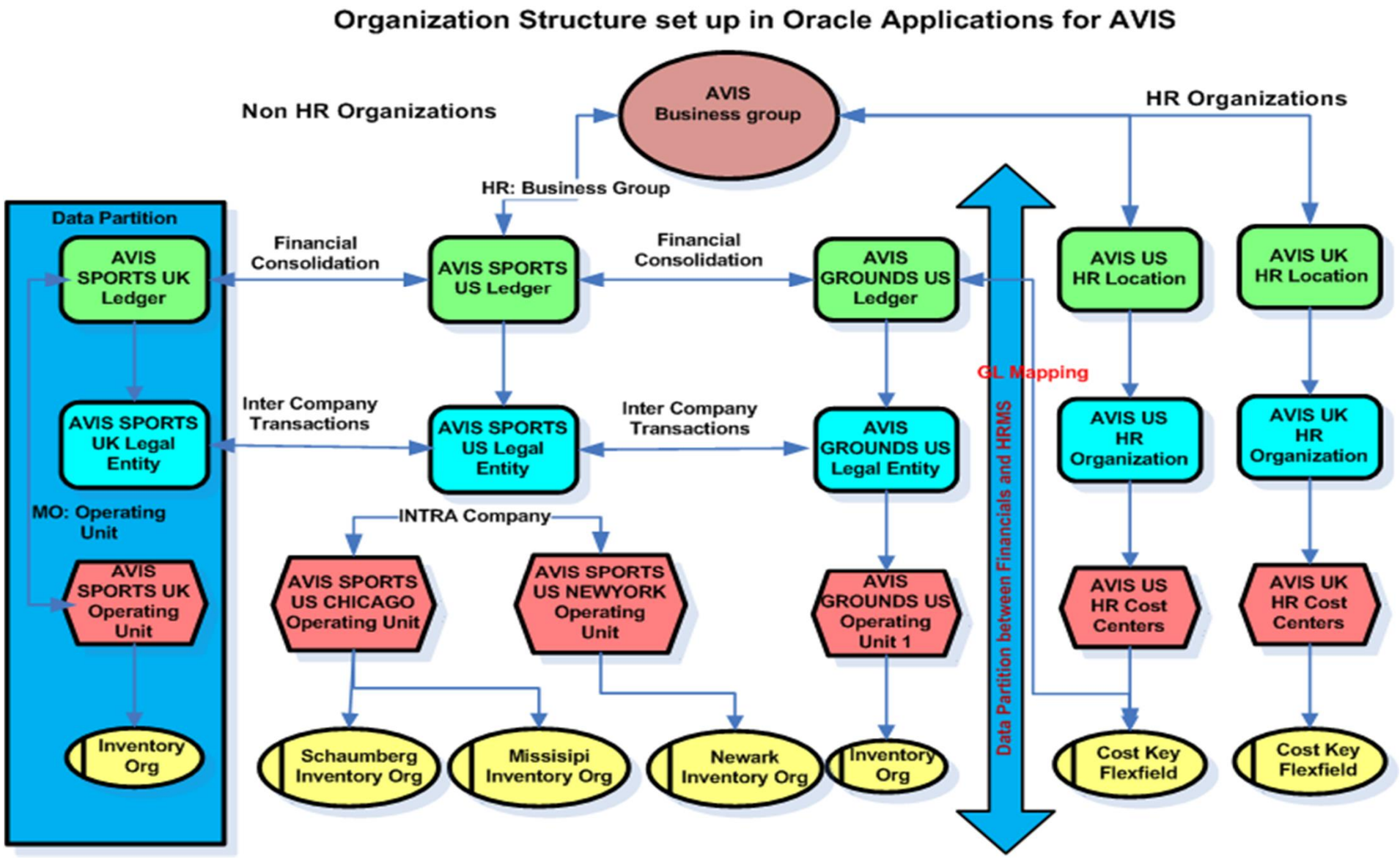
Control Level for Key Flex fields

Key Flex fields	Module	Control
Bank Details Key Flex Field	Payroll	Business Group
Cost Allocation Flex field	Payroll	Business Group
People Group Flex Field	Payroll	Business Group
Training Resources	Learning Management	Business Group
CAGR Flex field	Human Resources	Business Group
Competence Flex field	Human Resources	Business Group
Grade Flex field	Human Resources	Business Group
Job Flex field	Human Resources	Business Group
Personal Analysis Flex field	Human Resources	Business Group
Position Flex field	Human Resources	Business Group
Soft coded Key Flex field	Human Resources	Business Group
Activity Flex field	Enterprise Performance Foundation	Application
AHL Route	Complex Maintenance, Repairs and Overhaul	Instance

Different Architecture Models

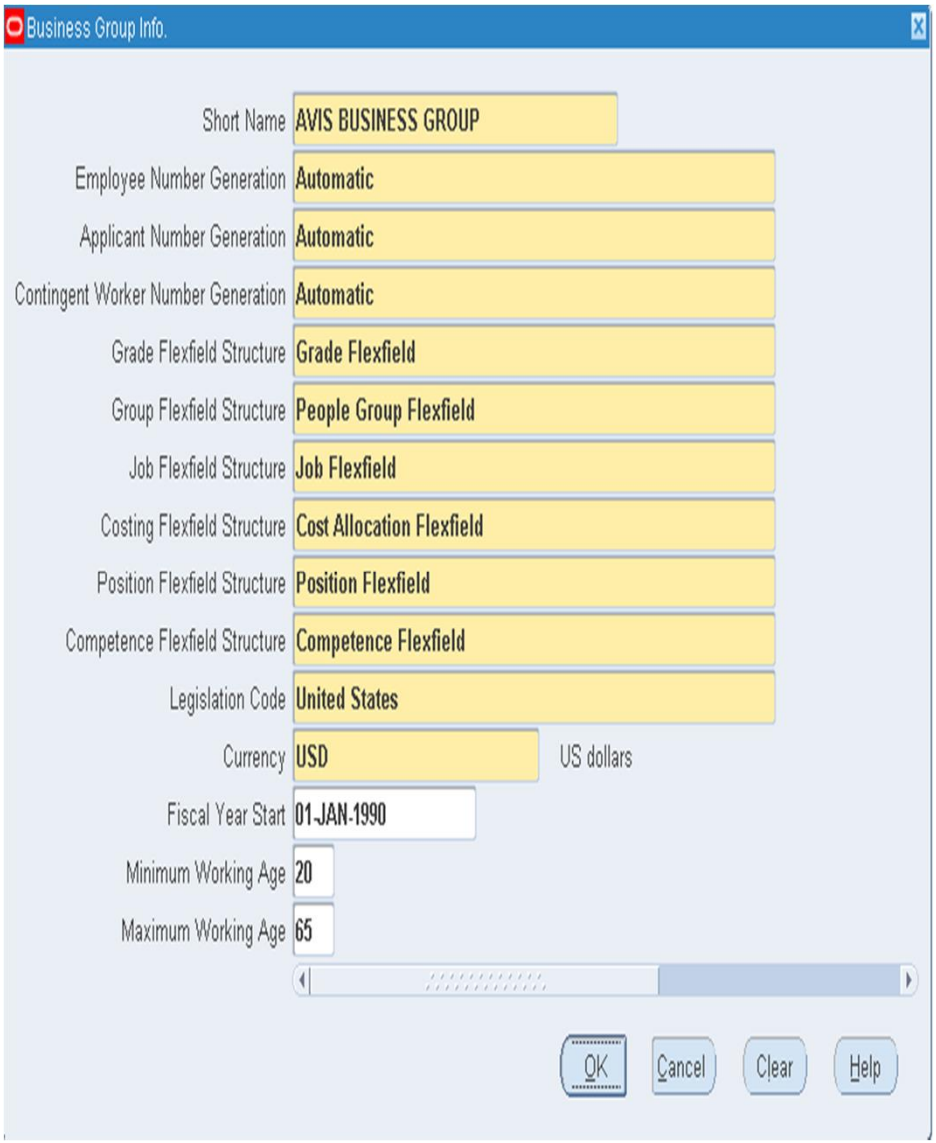


Data Partition between HR & Finance

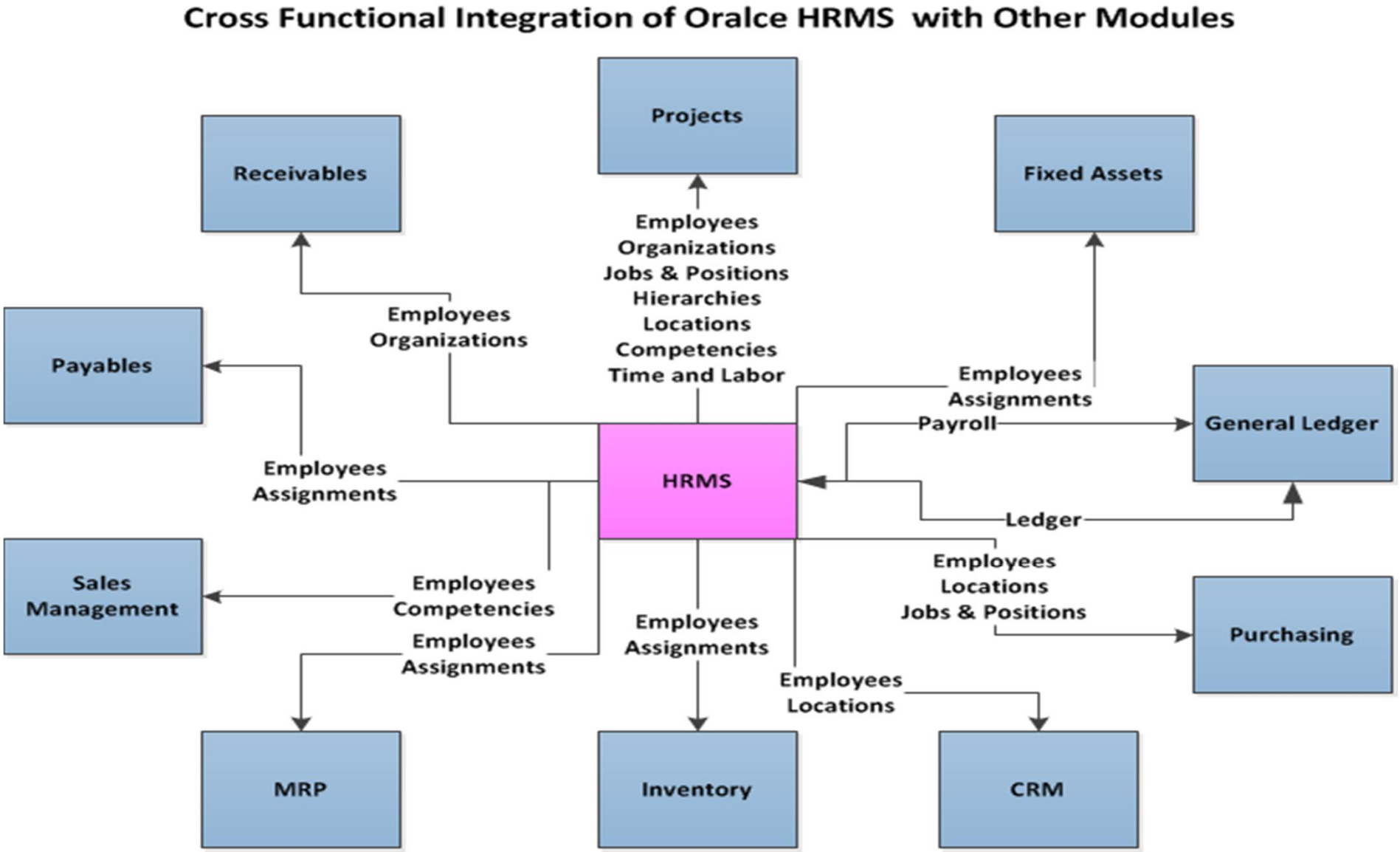


Business Group

- Business Group represents the highest level in the structure such as the consolidated enterprise or a major division of a company.
- The business group is an organization that is set up and configured in Oracle Human Resources.
- Currently "Business Group" has no other purpose but to segregate HR information. If you request a list of employees (in any module) you will only see those employees in the "Business Group" of which your "Operating Unit" is a part.
- Multiple "Legal Entities" can relate to a single "Business Group"
- The business group is used to administer Human Resources payroll and benefits for employees.
- A business group is often related to country-specific legislation
- The jurisdictions it represents roughly correspond to nations. If a group of nations unite together on employment laws, it is possible to implement a single business group for them.
- The business group is partitioned into separate files of Human Resources information and is used to administer Human Resources payroll and benefits for employees.
- Has no accounting impact



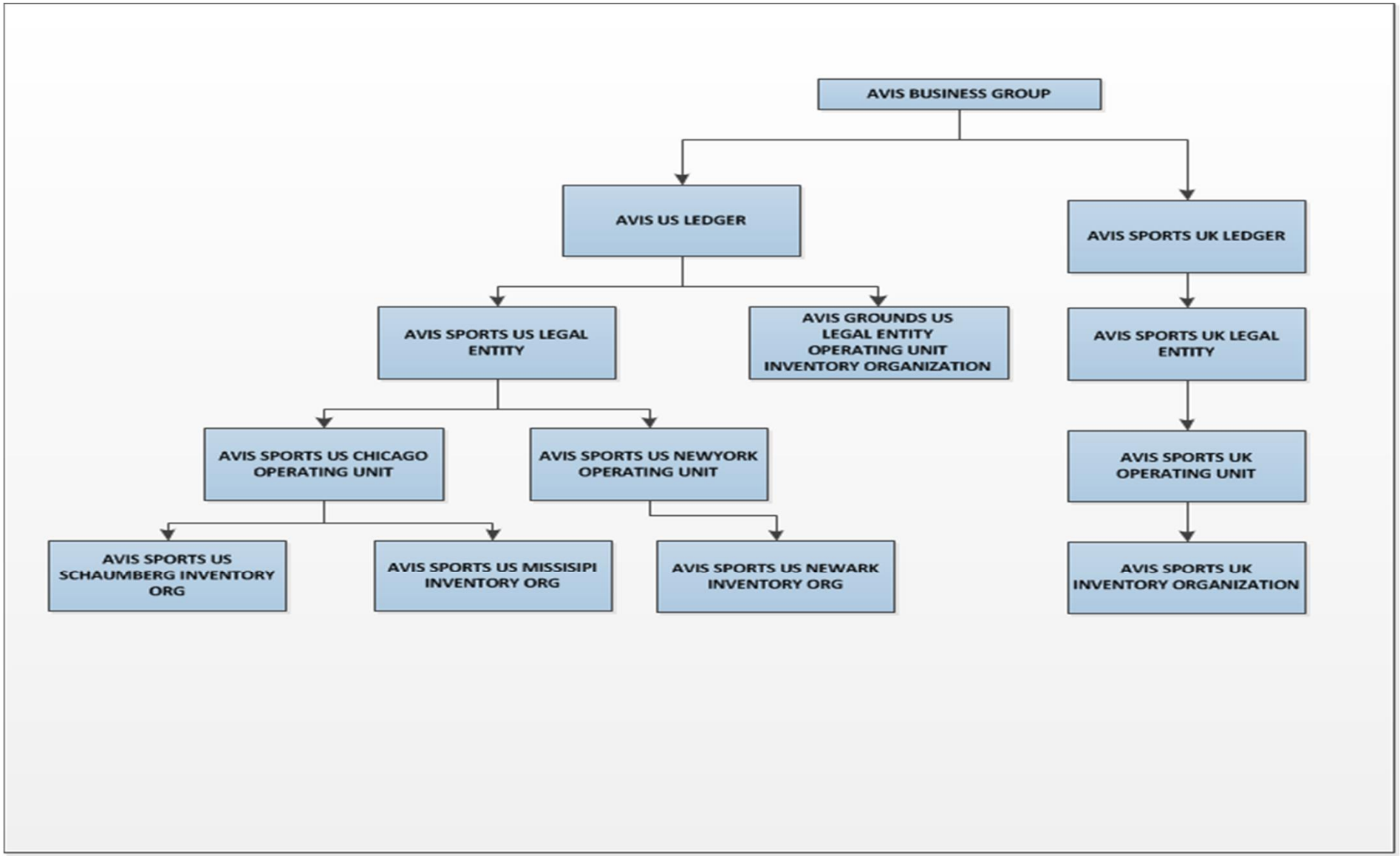
Business Group



Difference between Single BG Vs Multiple BG

Touch Point	Single Business Group	Multiple Business Group
Key Flex field	Only one Key Flex field Segments across all Ledger, Legal Entity and Operating Unit (Job, Grade, Position, Costing, People Group, Competency)	You can have different Key Flex field Structure for each Business Group
Payroll Processing	Only One Currency	Each BG can have different currency. More Suitable, if you have operation in more than one country
Employee numbering	You can use either Manual or Automatic.	For each Business Group, you can set either Manual or Automatic
Employee Movement	Possible to transfer employees across different entities	You cannot transfer employee from one Business Group to another. You need to End date and Recreate in another Business Group
Payroll	You can have multiple Payrolls linked to one or more ledgers. Payroll entries are transferred to GL or CM and not to AP	Same as single Business Group
HR Legislation	You can have only one Localization Patch Applicable to the country	Each BG can have different Localization applicable to specific country

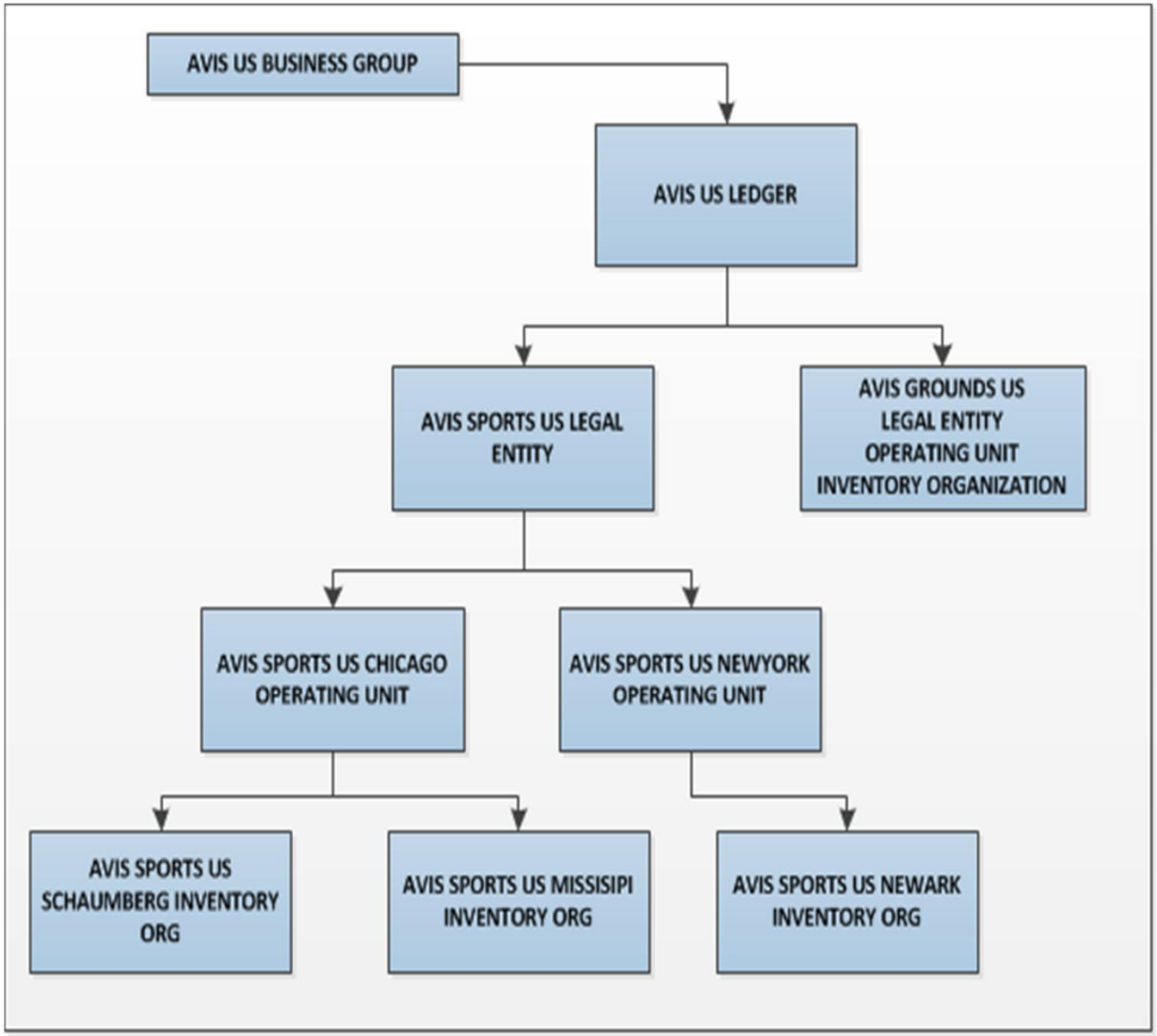
Single Business Group (BG)

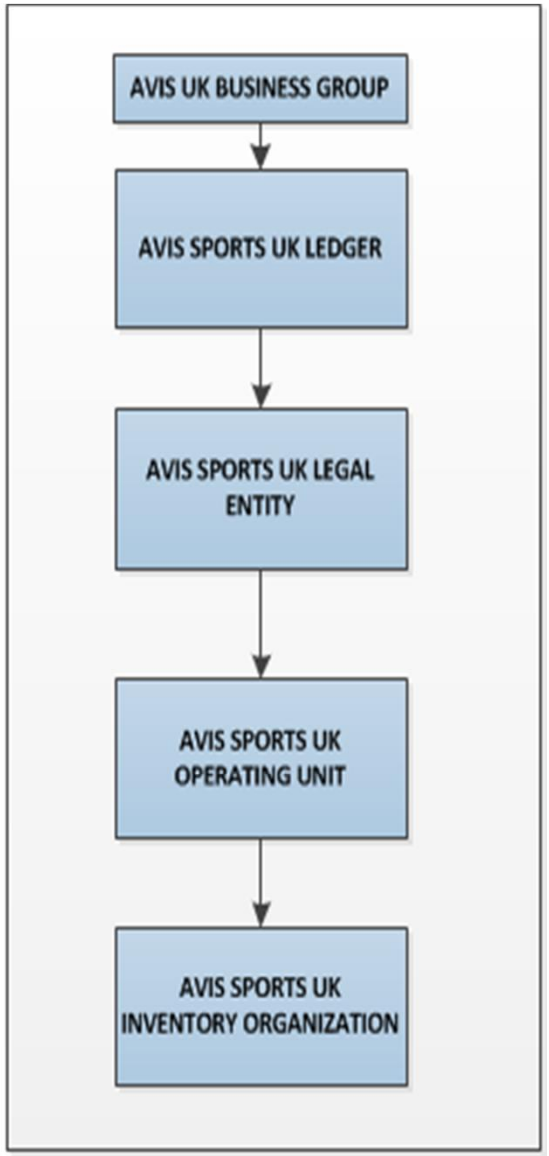


Single Business Group Advantages & Disadvantages

Touch Point	Advantages	Disadvantages
Key Flex field	More suitable to setup multiple companies under one Business Group having common Job, Position, Grade Etc.,	If you have different Job, Grade, Position etc., for each company, then you need to define multiple business groups
Payroll Currency	Each Company under one Business Group can have separate or multiple Payroll if the payment currency is same	If Payment currency is different, then there is only a workaround solution and the company needs to bear the exchange differences
Employee Numbering	You can use either Manual or Automatic.	If you have multiple companies under one Business Group, then you cannot have for one company manual and another company automatic
Employee Movement	Possible to transfer employees across different entities	
Payroll	You can have multiple Payrolls linked to one or more ledgers. Payroll entries are transferred to GL or CM and not to AP	
Approval Hierarchy	Position Hierarchy across multiple companies can be set under one BG	
Localization	You can have only one Localization Patch Applicable to the country	You cannot have multiple Localization Patch within one Business Group

Multiple Business Group (BG)





Multiple Business Group Advantages & Disadvantages

Touch Point	Advantages	Disadvantages
Key Flex field	You can have different Key Flex field (Job, Grade, Position etc.,)Structure for each Business Group	
Payroll Currency	Each BG can have different currency. More Suitable, if you have operation in more than one country	
Employee Numbering	For each Business Group, you can set either Manual or Automatic	
Employee Movement	You cannot transfer employee from one Business Group to another. You need to End date and Recreate in another Business Group	
Payroll	You can have multiple Payrolls linked to one or more ledgers. Payroll entries are transferred to GL or CM and not to AP	
Approval Hierarchy		Setting Position Hierarchy across multiple companies under multiple BG is not possible
Localization	Each BG can have different Localization applicable to specific country	

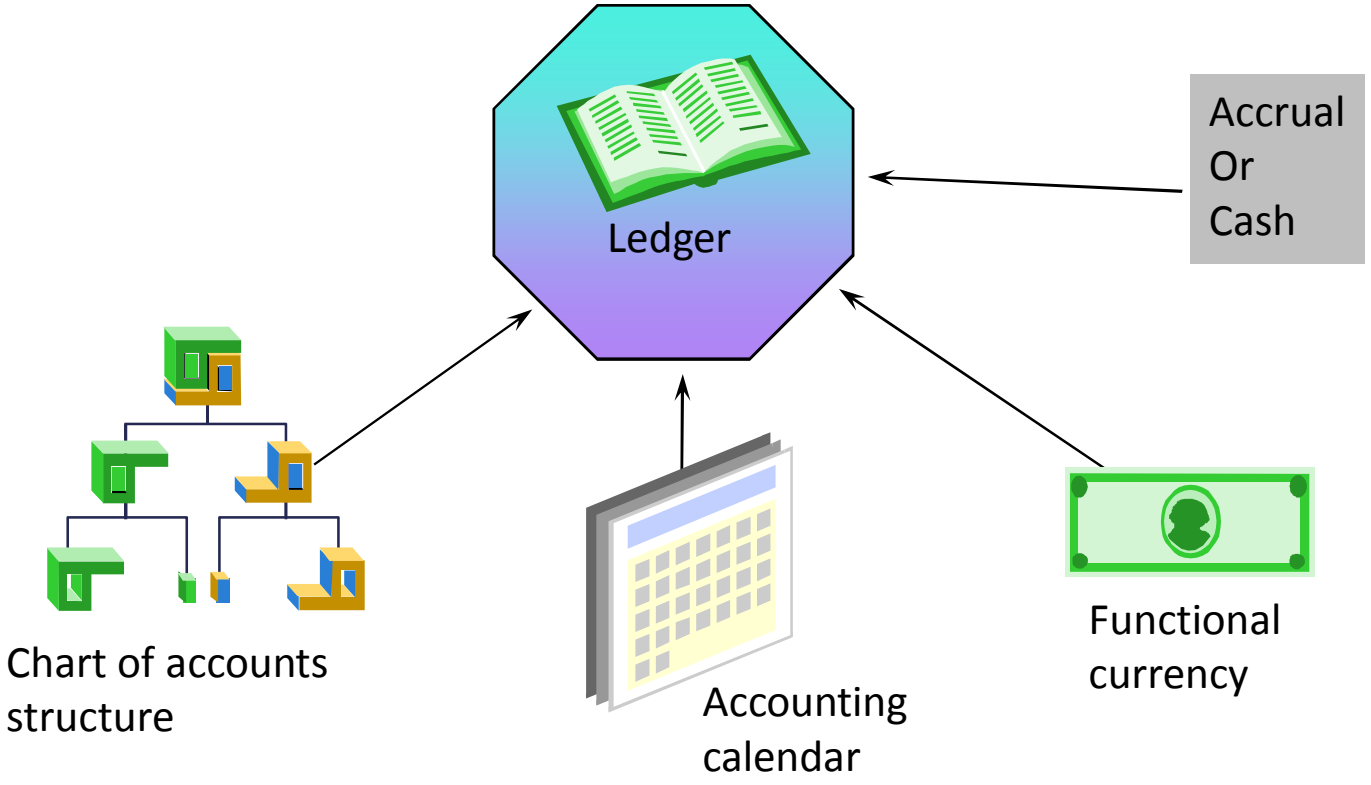
Deciding factors for Business Group (BG)

Determining factors for Single Business Group or Multiple Business Group

- No of country in the scope of implementation and HR Modules is in scope for all countries or not
- More than one Key Flex field Requirement
  - Job, Grade, Position, Costing, Competency, People Group
- Employee Numbering
- HR Legislation

Ledger

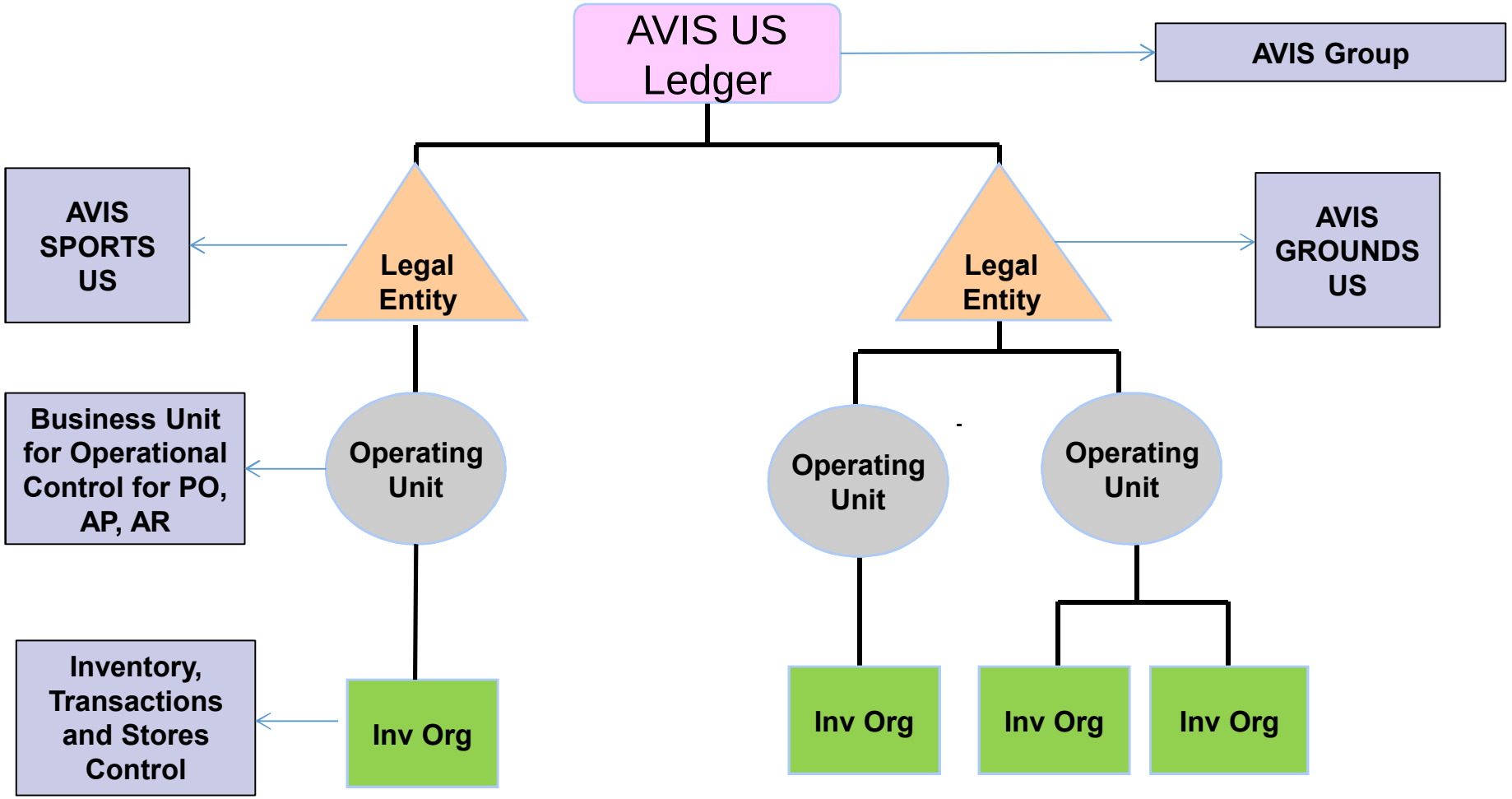
Ledger consists of your *Chart of Accounts, Calendar, Functional Currency* and *Accounting Convention (new in R12)*.



Differences between Single Ledger & Multiple Ledger

Touch Point	Single Ledger	Multiple Ledger
Period Closing	GL Period closing will be only one for all entities	Each Entity can have separate GL Period closing
Calendar, Currency, Chart of Accounts and Accounting Convention	Same for all but GL Period closing is one for all entities	It can be same or Different, but GL period closing is separate for each entity. If the Calendar and COA is same across multiple ledgers, then we can set a Ledger set to simplify the transaction process
Document Sequence	Multiple Journal Categories to be created for each entity and some Personalization is required to restrict one entity using another entity Journal category	Each Entity can have unique Journal category and Document sequence. No Personalization is required
Consolidation	Not Required, Managed through FSG Reports	Consolidation Required. No of Steps are more (Revaluation, Translation, Consolidation and Elimination)

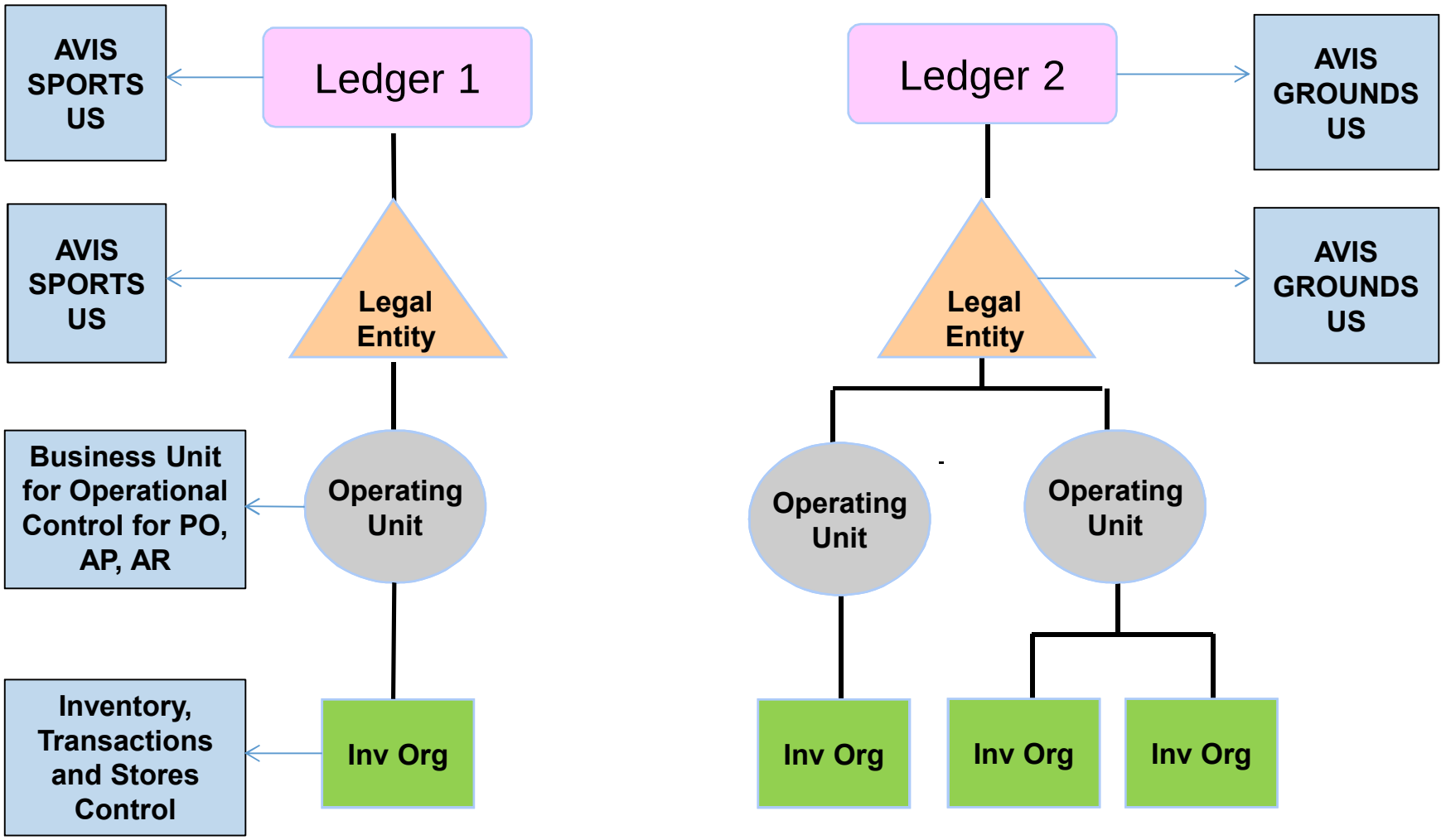
Single Ledger Model



Single Ledger Model Advantages & Disadvantages

Touch Point	Advantages	Disadvantages
Document Sequencing	The Transaction Numbers will be jumbled across multiple entities and there will not be any audit trail	The Transaction numbers will not be unique for a legal entity it is across all legal entities. The Sequence numbers are for a Ledger and not for a Legal Entity
Period Closing	GL Period close is one step across all legal entities.	It serves as a centralized control, but in real practice it is not a practical solution. Each entity cannot close the ledger as and when they complete their work.
Security Rules	We need to define security rules to restrict access of one legal entity accessing other legal entity within one ledger	Involves lot of maintenance work
Cross Validation Rules	If an account combination not to be created, then we need to define CVR	Involves lot of Maintenance work
Consolidation	Consolidation handled through FSG.	
Data Partition		Extremely Difficult
Chart of Accounts Structure	Maintenance is simple with one chart of accounts	Only one Chart of Account Structure for all Legal Entities under one ledger. Excessive standardization
Security Access to Balancing Segment	Controlled through Data Access Set	

Multiple Ledger Model



Multiple Ledger – Advantages & Disadvantages

Touch Points	Advantages	Disadvantages
Document Sequencing	The Transaction Numbers will be unique for a Ledger	
Period Closing	GL Period close is separate for each ledger	
Consolidation		Consolidation Set up, Mapping of COA and need to perform Consolidation Process of Revaluation, Translation, Consolidation and Elimination
Data Access Set	Not Required	
Chart of Accounts Structure	We can have different chart of account structure for each Ledger	
Data Partition	Possible	
Shared Services	Possible	
Ledger set	Can be defined if Calendar and Chart of Accounts is same	

Deciding factors for Ledger (LED)

Determining factors for Single Ledger or Multiple Ledger

- GL Period Closing
- Document Sequence
- Financial Consolidation
- Calendar, Currency, Chart of Accounts, Accounting Convention
- Single Country or Multiple Country Operation
- Data Partition in future
- Shared Services

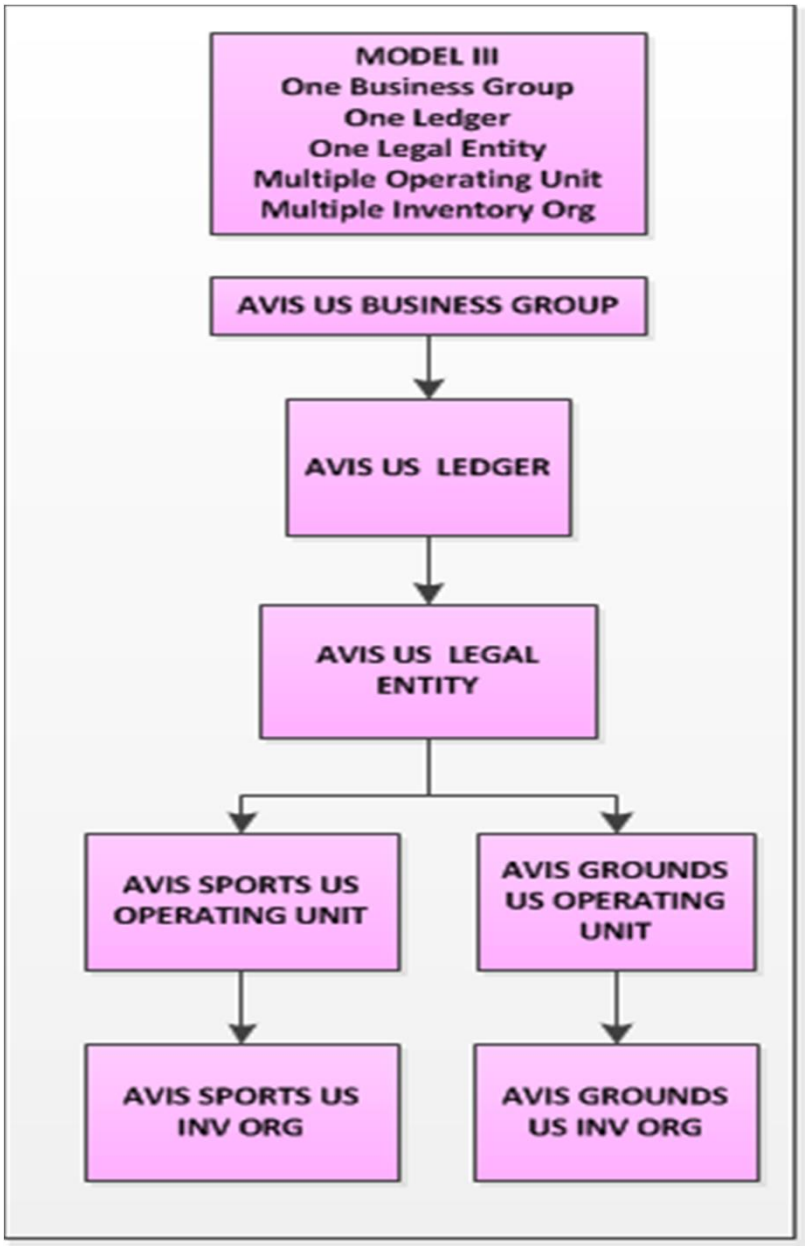
Legal Entity (LE)

- "Legal entity" in the Oracle system corresponds to "legal entity" or "company" in the legal world.
- You can store information about a registered company or other real world legal entity in the "legal entityñ
- In the real world, legal entities have the right to own property, the right to trade, and the responsibility to comply with appropriate laws.
- They also have the responsibility to account for themselves (balance sheet, income statement, specified reports) to company regulators, taxation authorities, and owners according to rules specified in the relevant legislation.
- The Oracle E-Business Suite reflects the real world for legal entities.
- The system legal entity is the first party on business transactions and is the transaction tax filer and payer.
- Legal entities belong to a Ledger and also belong to respective business group. One or more legal entities may be associated to a Ledger, and multiple legal entities may be associated to a business group.
- A Legal Entity Configurator is provided in Oracle to capture attributes which help in various functions like tax calculation, intercompany processing, bank ownership etc.

Difference between Single LE & Multiple LE

Touch Point	Single Legal Entity	Multiple Legal Entity
Establishment, Registration, Jurisdiction, Legal Authorities	All can be defined	Can be defined based on single or multiple (EIN/TIN) Tax identification Number
Banks	Banks are owned by Legal Entity and it is created as a Party in TCA	Banks are owned by Legal Entity but Bank related Transactions are controlled at Operating Unit level in AP, AR and CE
Tax Set up	Governed based on Tax requirements	Decided based on single or multiple (EIN/TIN) Tax identification Number
Legal and Statutory Requirements	If there are no Legal or Statutory requirement, then one Legal entity can be considered if it does not have multiple (EIN/TIN) Tax Identification Number	More Suitable if Line of Business are governed by Legal and Statutory and have distinct (EIN/TIN) Tax Identification Number
Inter Company	Not Possible	Transactions between two legal Entities are considered as Intercompany Transactions if it is within or across ledgers

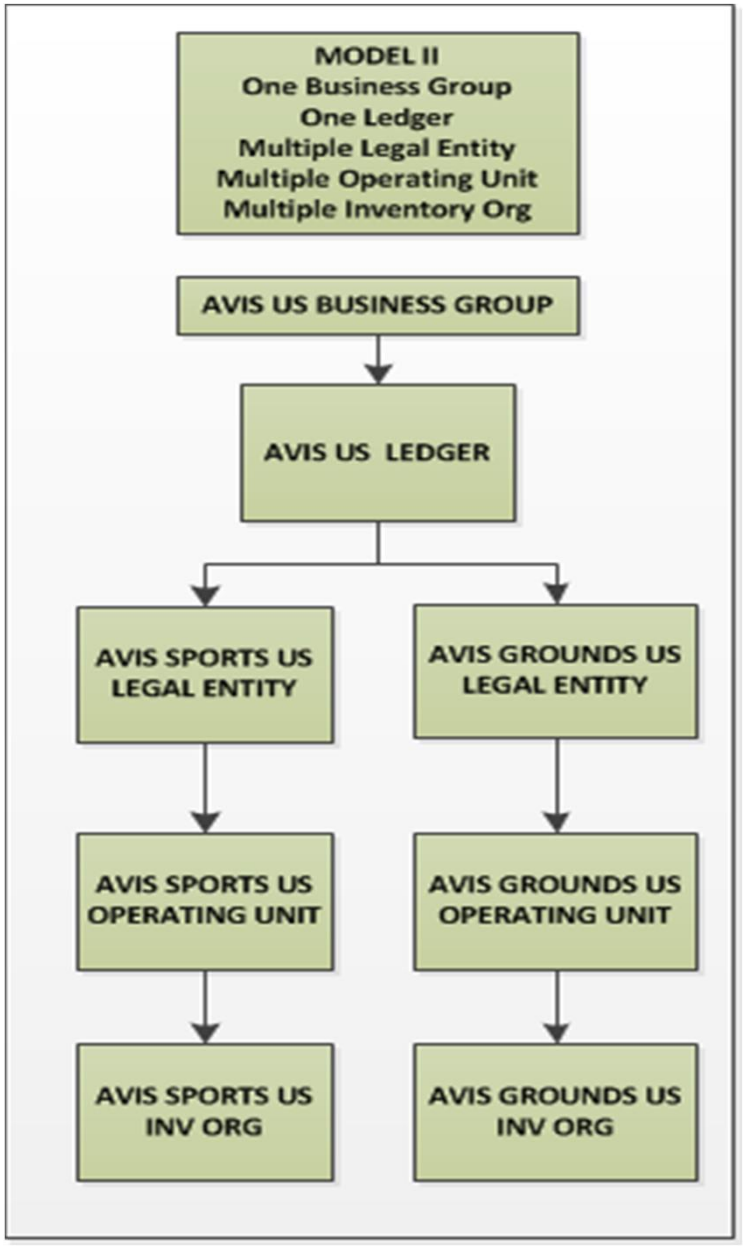
Single Legal Entity Model



Single Legal Entity - Advantages & Disadvantages

Touch Points	Advantages	Disadvantages
Registration	Can be defined	
Establishment	Can be defined	
Bank Definition	Single or Multiple Bank Accounts can be defined for a bank and attached to the Legal Entity. We can use either a Wire Transfer or EFT Payments for One Bank Account making Payments to multiple operating units	If Payments to be made by Cheque then, we need to attach the Bank Account at Operating unit level since the Cheque Print Numbering is controlled at Operating unit level
Bank Transfer across Bank Accounts	Possible	
Tax Definition	Tax Set up is centralized and control can be established at individual OU level	
Intercompany Transactions	Not Applicable. Since it is only one Legal entity.	
Period Closing for Intercompany Transactions	Not Applicable. Since it is only one Legal entity.	
History of Legal Entity	Maintained	

Multiple Legal Entity



Multiple Legal Entity – Advantages & Disadvantages

Touch Points	Advantages	Disadvantages
Registration	Country-wise details can be maintained	
Establishment	Country-wise details can be maintained	
Bank Definition	Single or Multiple Bank Accounts can be defined for a bank and attached to the Legal Entity. We can use either a Wire Transfer or EFT Payments for One Bank Account making Payments to multiple operating units	If Payments to be made by Cheque then, we need to attach the Bank Account at Operating unit level since the Cheque Print Numbering is controlled at Operating unit level.
Bank Transfer across Bank Accounts	Possible to perform bank transfer from within and across legal entities	
Tax Definition	In 11i Tax Set up is controlled at OU level. In R12 this has been shifted to LE level. Hence all OU linked to same LE can share the Tax codes in PO, AP and AR modules.	
Intercompany Transactions	Intercompany Transactions are handled through AGIS Set up with either Purchase/Sale Invoices or through Journal	
Period Closing for Intercompany Transactions	Possible, but an optional set up	
History of Legal Entity	Can be maintained	

Deciding factors for Legal Entity (LE)

Determining factors for Single Legal Entity or Multiple Legal Entities

- No. of Registered Entities
- No. of Establishment
- Banks per Legal Entity
- Tax if applicable
- Intercompany Transactions

Operating Unit (OU)

An operating unit represents an organization that uses any Oracle sub-ledger application, for example, Order Management, Payables. It may be a sales office, a division, or a department. An operating unit is associated with a legal entity. Information is secured by operating unit for these applications. Each user sees information only for their operating unit. Responsibilities are linked to a specific operating unit by the MO: Operating Unit profile option

In the financial applications of Oracle's E-Business Suite, an Operating Unit (OU) is a system organization that:

1. Stores sub ledger data separately from the data associated with other OUs that support a particular ledger ("Partitions").

2. Administers sub ledger rules such as those associated with transaction types, sequencing schemes, and other sales tax or VAT regulations ("Complies").

3. Administers user access to the data for processing and reporting ("Secures").

4. Is not product specific and automatically links all sub ledger products that post to a specific ledger.

5. Applies to sub ledger business transaction and document data and associated data such as customer details. Sub ledger accounting data is not tagged with OU identification unless you elect to do so. General ledger and Fixed Assets data is not managed through OUs.

Difference between Single OU & Multiple OU

Touch Point	Single OU	Multiple OU
Modules Impacted	All the modules need to be set only once. ÅPayables ÅReceivables ÅCash Management ÅPurchasing ÅOrder Management ÅProjects ÅAdvance Collections ÅRelease Management ÅIncentive Compensation ÅSales Online ÅMarketing Online ÅService Modules	All the modules need to be set for each OU. ÅPayables ÅReceivables ÅCash Management ÅPurchasing ÅOrder Management ÅProjects ÅAdvance Collections ÅRelease Management ÅIncentive Compensation ÅSales Online ÅMarketing Online ÅService Modules
Business Need	More suitable for Centralized Control	More Suitable for Decentralized control
Data Access	Data is not partitioned. Need to set security rules and Cross Validation rules	Data is Partitioned. No need for Security or Cross Validation Rules
Period Closing	Each Sub ledger has a period closing.	Each OU has a period closing. But if you close PO module in OU, it will close PO module for all OU.
Document Category	Control is at Ledger Level.	Need to create multiple Document Category with prefix of OU name

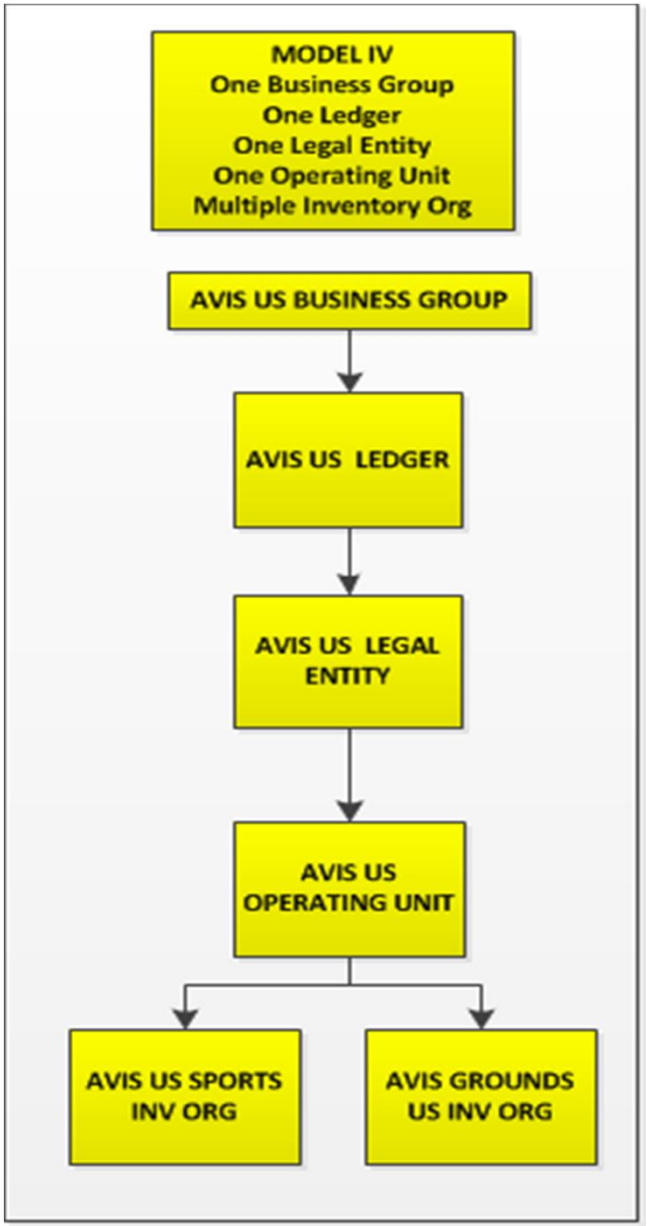
Difference between Single OU & Multiple OU

Touch Point	Single OU	Multiple OU
Customers and Suppliers	Any new Supplier or Customer indirectly creates a Party in TCA Architecture at Instance level. The moment a site is created the data is partitioned by OU. Each LOB needs to be defined as separate site	Each LOB itself will be defined as separate OU. So the site defined under each OU is related to the respective LOB
Banks	Banks, Bank Branches are maintained at Party Level. Bank account when it is assigned to an OU, then it becomes OU specific	One Bank Account can be assigned to multiple OU. But the Bank reconciliation becomes difficult as the banker provides only one bank statement for each bank account.
Purchasing Function	More Suitable for centralized control	More suitable for Decentralized control
Reports	The Reports will have data of all LOB	We need to run the report for each OU. If we need consolidated statement of same Customer / Supplier in multiple OU, then the report needs to be customized
Receipts	Centralized control and can apply Receipts to invoices that belong to multiple LOB	Decentralized control. One Receipt cannot be applied to two different invoices of same customer that belong to two different OU

Difference between Single OU & Multiple OU

Touch Point	Single OU	Multiple OU
Payments	Payment batch process can be run to generate payment across multiple LOB Can use Wire, Cheque and EFT modes	Cheque Printing numbering is controlled at OU level. Hence we cannot use Cheque printing for a supplier that belong to two different OU to process invoices recorded in two different OU.
Maintenance	Simple	Complex
Splitting		Need to create new OU and bifurcate data. Need Implementer support
Merging	End date the closing OU and create a new LOB and recreate the balances. Need Implementer support	

Single Operating Unit



Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Sub Ledger Modules Impacted	All the modules need to be set only once. ÅPayables ÅReceivables ÅCash Management ÅPurchasing ÅOrder Management ÅProjects ÅAdvance Collections ÅRelease Management ÅIncentive Compensation ÅSales Online ÅMarketing Online ÅService Modules	One time Set up	1. Multiple Supplier Sites needs to be defined to get balances for each LOB 2. Set up Parameters will be same for all LOB. Ex (2 way, 3 way matching, Payment Terms Default etc.,
Business Need	Based on Business need, we can decide whether to go for single org or Multi Org. If you have more than one line of Business it is suggested to go ahead with multi org	1. Good for centralized Operations 2. Data Partition is not applicable across LOB in Single Operating Unit	1. Conceptual Understanding is difficult

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Prerequisites	1. Business Group 2. Ledger 3. Legal Entity	Most Suitable for Centralized Control in 1. Finance 2. Purchasing	
Set Up Parameters	All set up Parameters like Payment Terms, Payment Method, Discount etc., will default for all Line of Business the same value. You need to manually go and change while creating Transactions.	1. Maintenance of Data is simple	1. LOB wise separate Set up cannot be established
Data Access Control	Securing Data Access from one LOB to another LOB	Can create Security Rules and Multiple Responsibilities to control data entry to Balancing Segment and Cost Center	No Control. Any User can access other line of Business Data.

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Suppliers	Defining Suppliers each LOB wise	All Line of Business will have same Liability, Prepayment, Payment Terms etc., For each line of business, multiple sites need to be created to segregate vendor controls at LOB level. Alternatively, for each LOB, same vendor needs to be created again which will result in duplication and data quality issues	1. If you place hold on a supplier, then it is applicable to all LOB 2. Supplier Classification is available only at Header Level.
Customers	Defining Customers each LOB wise	All Line of Business will have same Receivables, Revenue, Earned and Unearned Revenue account and Payment Terms etc., We can create those many sites based on line of Business	Customer Relationship can be established only between two customer accounts of same OU or different OU and not between two sites of same customer.
Document Sequence	Transaction Voucher Numbering	You can have uniform Document Sequence across various line of Business. You cannot segregate Vouchers based on Line of Business.	If you need each LOB should have sequence then several document category to be defined still not a viable solution

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Purchasing function	Purchasing Function is Centralized with all line of Business and User has option to choose other Line of Business under Shipping button, distribution lines and the system generates automatic Intra company transactions	1. Using Global Purchase Agreement Prices can be fixed across OU for common items. 2. Each Line of Business will have access only to their own PR & PO and not to other LOB. 3. Using Security Rules one person can raise PR,PO for other LOB from single Responsibility	1. If a PR or PO contains Two Line items belong to two LOB and if you want to allocate to two different persons for approval, it is NOT possible. (i.e) PO Line Level we cannot assign to two different person for one PR or PO. PR or PO approval is only at Header Level and not at Line Level
Purchase Invoice	We can have Invoices created for all LOB and make Payments for all LOB	Centralized Control and Intra Company Transactions are generated for transactions across LOB	
Payments	Payment to Suppliers	Payment possible through all Payment methods	

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Sales Invoice	Sales Invoices needs to be segregated only based on Transaction Type. Data can be imported from several sources like OM, Projects, Property Manager or any other External system etc.,	Helps in controlling & monitoring the Sales and collection Data in an effective manner	
Credit Limit	Setting credit limit is difficult if we have one customer site for all LOB. We need to define Multiple Customer Sites for each LOB	Better credit control and credit review can be performed	Reports are generally for an Operating Unit and few reports are available at Site Level. AR to GL Reconciliation is done at OU level and not at site level
Receipts	If Customer has given One Receipt for multiple LOB then the Intra company Transactions are generated	Suitable for Centralized Control Accounting organizations	Settlement across LOB and Link to Receipt and Invoice will be difficult

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Banks	Each LOB has separate Bank ,then no issues. If one Bank is used for Multiple LOB, then intra company transactions are generated	Bank Reconciliation is made simple if we have one Bank for all LOB.	Segregating customer collections and Supplier Payments for each LOB is difficult if we have only one Bank account
Bank Reconciliation	Bank Reconciliation is simplified, if we have one Bank across LOB	Reconciliation is simple	Banker cannot provide a separate Bank Statement for each LOB. Hence data segregation LOB wise is difficult.
Period Closing	If you close Period in Sub Ledgers like PO, AP, AR, & INV it is closed for all Line of Business	Suitable for Centralized Control	Not Suitable if each LOB would like to have independent closing for sub ledgers like AP, AR, PO & INV
Security Rules	Security Rules needs to be written for every Line of Business to prevent users from accessing other LOB Data	Maintenance is Less and Number of Sub Ledger Closing is less	security rules needs to be modified every time when there is addition or modification to LOB

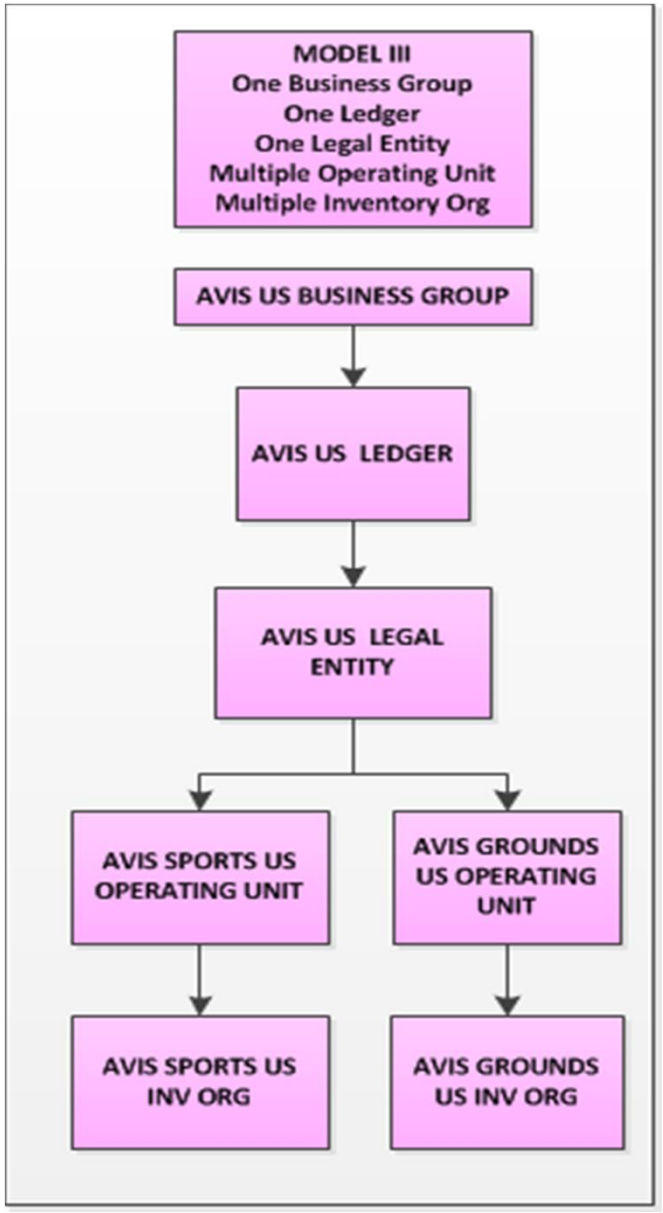
Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Fixed Assets	FA is not OU specific	Nil	
Access to Data in General Ledger	Access and posting transactions which in turns update Trial Balance using Data access set	GL is not Operating unit specific. Using Data Access set we can restrict access to each LOB	
Reports	All Reports are Operating Unit Specific	Reports are partitioned by each OU.	Only few standard Reports are Customer Site / Supplier Site Specific. If there are no Standard report available at Site Level, it needs to be customized
Splitting one Operating Unit to Multiple Operating Unit	Need to identify data and segregate Data for each	Need to perform a set up for all the modules and Load the transactions for the split OU	Time Consuming and Complex exercise and need an Implementer to handle this issue

Single Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Trial Balance	We can generate Trial Balance for each LOB	With separate balancing segments for each LOB, trial balance generation is simple	
Intra Company Transactions	Transactions across LOB	Intra company Journals are created automatically.	
Data Partition	Data Partition each LOB wise		Very Difficult and cumbersome exercise
Maintenance	Maintaining the OU Setup post Implementation	It is simple. Because you need to make change in one place so it is automatically reflected for all LOB	The Parameter will be same for all LOB

Multiple Operating Unit



Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Sub Ledger Modules Impacted	All the modules need to be set separately for each OU. ÅPayables ÅReceivables ÅCash Management ÅPurchasing ÅOrder Management ÅProjects ÅAdvance Collections ÅRelease Management ÅIncentive Compensation ÅSales Online ÅMarketing Online ÅService Modules	1. Data Partition 2. Set up Parameters can be different for each OU	Set up has to be done for each OU for same module (i.e) Payables each LOB wise
Business Need	Based on Business need, we can decide whether to go for single org or Multi Org. If you have more than one line of Business, it is suggested to go ahead with multi org	1.Use Single Instance to support Multiple Organizations 2.Secure data based on user 3.Access multi org data using single responsibility using MOAC	Conceptual Understanding is difficult

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Prerequisites	1. Business Group 2. Ledger 3. Legal Entity	Most Suitable for Decentralized Control in 1. Finance 2. Purchasing	1. Large Effort Required for set up 2. Maintenance is difficult
Set Up Parameters	Set up for every Module for Multi Org has to be performed which is time consuming exercise if number of OU is more (PO,AP, AR, CE,OM, Inv etc.,)	Data is partitioned Access is restricted Security established	Maintenance of Data Reports across Org to be Customized
Data Access Control	Securing Data Access from one LOB to another LOB	User access restricted based on the access to the responsibilities	GL is not OU specific and hence if the user has access to GL he can access other OU Data. Need to set data access set for each LOB

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Suppliers	Defining Suppliers each LOB wise	Each LOB will have separate Supplier Account (different Supplier Number for each OU) and Supplier Site	
Customers	Defining Customers each LOB wise	Each Line of Business will have separate Receivables, Revenue, Earned and Unearned Revenue account and Payment Terms etc., We can create those many sites based on line of Business. Each LOB will have separate Customer Account (different Customer Number for each OU) and Customer Site	Customer Relationship can be established only between two customer accounts of same OU or different OU and not between two sites of same customer.
Document Sequence	Transaction Voucher Numbering	You can segregate Vouchers based on Line of Business.	

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Purchasing function	Purchasing Function is Decentralized with each line of Business	1. Each Line of Business will have access only to their own PR & PO and not to other LOB. 2. Purchasing is Decentralized and the Document Control, Document Sequence for PR, PO can be established for each OU.	1. Global Blanket Purchase Agreement cannot be used across Operating Unit for Budgetary Control purpose 2. The PR, PO creation cannot be combined for multiple LOBs and separate PR, PO needs to be created 3. While creating PR, PO you cannot choose other LOB in Distributions lines
Purchase Invoice	Creation of Purchase Invoice and Payment Separate for each OU (LOB)	Decentralized Control	Purchase Invoice needs to be created to specific OU and one Invoice cannot be matched to two POs belong to two different OU
Payments	Payment to Suppliers	Payment across OU possible only through Wire Transfer and EFT	Payment across OU is NOT possible using cheque Payment

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Sales Invoice	Each Source like OM , Projects, Property Manager and External System can be integrated with different OU	1. Each Customer Balance specific to each OU (LOB) 2. AR to GL Reconciliation can be performed by each OU (LOB)	Customer Statements and Dunning Letters needs to be customized to get Consolidated outstanding for the customer across multiple OU
Credit Limit	Credit Limit can be set for each LOB at Customer level or site level.	Better credit control and credit review can be performed	Reports are generally for an Operating Unit.
Receipts	If Customer has given One Receipt for multiple LOB then the receipt needs to be split into two and created separately in each OU	Each LOB Can collect money only for his LOB and not for other LOB	Receipts needs to be split and created for each LOB. Splitting Single Receipt into two is not accepted by many Business people

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Banks	Same Bank Account needs to be defined for each OU and different Bank account can be attached if there is only one bank	Bank Reconciliation is made simple if we have separate Bank for each LOB.	Segregating customer collections and Supplier Payments for each LOB is difficult if we have only one Bank account
Bank Reconciliation	Bank Reconciliation is simplified, if we have one Bank across LOB	Reconciliation is simple	Banker cannot provide a separate Bank Statement for each LOB. Hence data segregation LOB wise is difficult.
Period Closing	Separate Period closing for each LOB for AP, AR, PO & INV	Suitable for Decentralized Control. Biggest advantage each business can decide according to their own choice without waiting for other line of Business	Time consuming exercise. In order to close GL, all the Sub ledger Periods needs to be closed for all OUs
Security Rules	No need to define Security Rules	Data itself is partitioned based on each OU	

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Fixed Assets	FA is not OU specific	Nil	
Access to Data in General Ledger	Access and posting transactions which in turns update Trial Balance using Data access set	GL is not Operating unit specific. Using Data Access set we can restrict access to each LOB	
Reports	All Reports are Operating Unit Specific	Reports are partitioned by each OU.	If a Report is required across multiple OU, then it needs to be customized
Merging Multiple Operating Unit into Single Operating Unit	Extract Open Transactions Data from the Closing OU and End Date the OU and related Responsibilities	Need to Load the Open Transactions from the closing Operating Unit into the open operating unit	Data Partition after merger is very difficult

Multiple Operating Unit - Advantages & Disadvantages

Touch Point	Description	Advantages	Disadvantages
Trial Balance	We can generate Trial Balance for each LOB and each LOB can be linked to a OU	We need to define separate Balancing segments for each LOB and link to OU	
Intra Company Transactions	Transactions across LOB	Intra company Journals are created automatically.	
Data Partition	Data Partition across LOB	Very simple and supported by the multi org architecture	
Maintenance	Maintaining the OU after System is up and running	Each LOB have the flexibility to define Parameter according to the business needs	Maintenance is complex. If you need to make a change in one parameter, we need to make the change for all OU

Deciding factors for Operating Unit (OU)

Determining factors for Single Operating Unit or Multiple Operating Unit

- Purchasing / Finance function is Centralized or Decentralized
- Data Partition / Data Access Security across LOB
- Receipt and Payment at Operating unit level
- Sub Ledger Level Period Closing
- No. of Banks per entity
- Report Requirements
- Business need of Split/merger of Operating Units in future

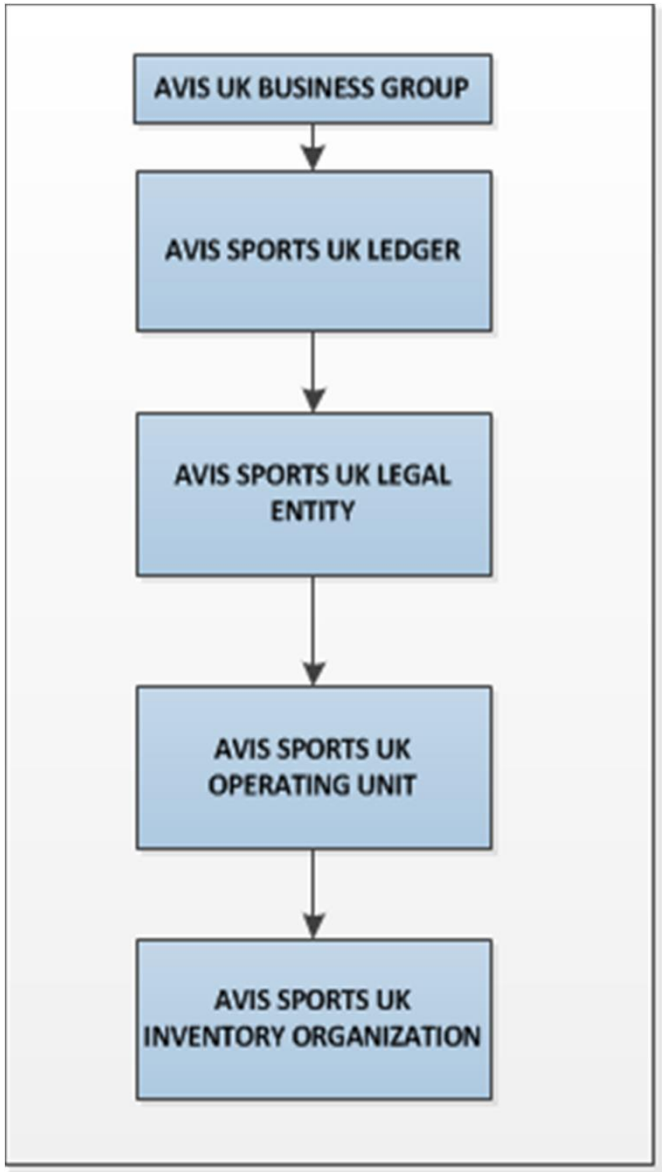
Inventory Organization (Inv. Org)

- Inventory Organization is an óOrganizationô for which you track inventory transactions and balances, and/or that manufactures or distributes products.
- Oracle Inventory, Bills of Material, Engineering, Work in Progress, Master Scheduling/MRP, Capacity, Quality, Cost Management, Supply Chain Planning and Purchasing (receiving functions) secure information by óInventory Organizationô ó
- An inventory org rolls-up through one operating unit, but can be used in more than one operating unit within the same business group.
- Inventory orgs to be accessed can be controlled as per responsibility by using Organization Access function.
- In addition, the following can be controlled by Inventory Organization:
  - Serial or Lot Number Control
  - Manufacturing Workday Calendar
  - Item Sourcing Rule for Replenishment etc
  - Inventory Costing/Valuation Methodô
- Various functions in the Oracle E-Business Suite use this organization classification. For example, to activate the "Purchasing Receiving" function, your responsibility must have access to an organization that is classified as an Inventory Organization.
- Through its parent Operating Unit, the Inventory Organization financially impacts the Ledger to which it rolls up. For example, requisition transactions or replenishment of supplies are created against an Inventory Organization, which then have a financial impact on the Ledger.

Differences between Single Inv Org & Multiple Inv Org

Touch Point	Single Inv Org	Multiple Inv Org
Key Flex Field	Control is at Instance level	Same as Single Inventory Org
Costing Method	You can have any one of the costing method (Standard, Average, FIFO, LIFO)	Each inventory Org can have different costing method
Location		Depending on the Location and Type of Inventory, we can define as many inventory org
Default Inventory Accounts	Accounts will be defaulted to Sub inventory from the main Inventory org definition which cannot be modified if you follow average costing if any transaction is created.	Each Inventory org can be defined with different Material, Resource & Overhead accounts
Other Control	Following are controlled at Inventory Org Level Serial or Lot Number Control Manufacturing Workday Calendar Item Sourcing Rule for Replenishment etc	If the Business needs multiple Serial or Lot control, Manufacturing workday Calendar or Item Sourcing Rule for Replenishment, then we have to define multiple inventory org
Enabled Organization	Can be enabled at Inventory Org level Manufacturing Partner Organization, Process Manufacturing Enabled, EAM Enabled, WMS Enabled WCS Enabled, LCM Enabled	Need to be enabled at every Inventory org level based on business need

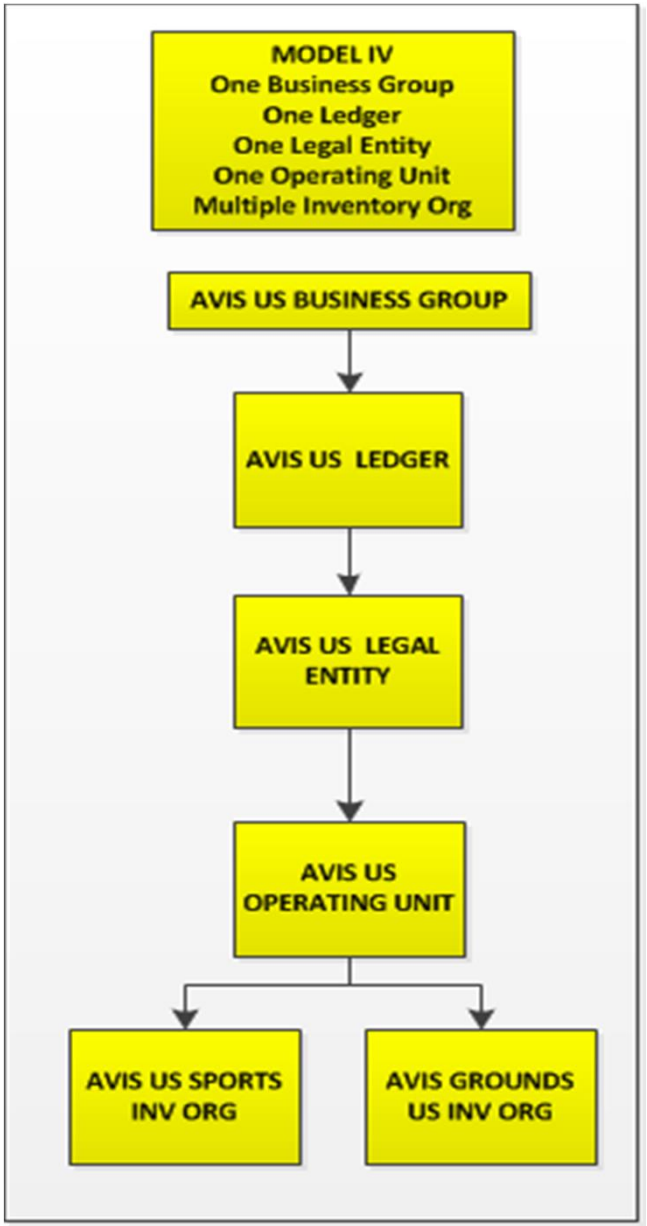
Single Inventory Organization



Single Inventory Org - Advantages & Disadvantages

Touch Points	Advantages	Disadvantages
Key Flex Field	Control is at Instance level	You cannot define Multiple Key Flex field like System Items, Item Catalog etc.,
Costing Method	You can have any one of the costing method (Standard, Average, FIFO,LIFO)	You cannot have each sub inventory different costing method
Default Inventory Accounts	Accounts will be defaulted to Sub inventory from the main Inventory org definition. You can change Material, Resource, Overhead etc., Account before any transaction is entered	You cannot modify account code combination for material, Resource, Overhead etc., at sub-inventory level after any transaction is created

Multiple Inventory Organization



Multiple Inv Org – Advantages & Disadvantages

Touch Points	Advantages	Disadvantages
Key Flex Field	Same as Single Inventory Org	Control is at Instance Level
Costing Method	Each inventory Org can have different costing method. Either Average, FIFO or Standard Costing	Convincing auditor for multiple Inventory valuation method will be an issue.
Default Inventory Accounts	Each Inventory org can be defined with different Material, Resource & Overhead accounts	

Deciding factors for Inventory Organization (Inv Org)

Determining factors for Single Inventory Organization or Multiple Inventory Organization

- No of Inventory Locations
- How the client needs Inventory Organization classification for Raw Materials, WIP and Finished Goods
- EAM, LCM, WCM, WMS and Process Manufacturing in scope of Implementation or not
- Costing Method
- Locator, Lot, Serial Control
- Accounts for Material, Resource and Overheads etc.,

Critical Points

Following critical points need to be clearly explained to customer

- Purpose of Business Group, Ledger, Legal Entity, OU & Inv Org
- Difference between Balancing Segment and Operating Unit
- Difference between HR Organization and Operating unit
- Pros and Cons of Single & Multiple BG, Ledger, Legal Entity, OU, Inv Org
- Data Partition and Data Access set, Ledger Set
- Purpose and usage of Security & Cross Validation Rules
- Security Profile and Multi Org Access Control
- Financial Consolidation Difference between Single & Multiple Ledgers

Critical Points - contd

Following critical points need to be clearly explained to customer

- Entering Receipts across Operating Unit and applying to invoice - Not possible
- Payments by Cheque across Operating Unit - Not possible
- Two Balancing Segments – Not Possible (Possible in Fusion Financials)
- Fixed Assets and General Ledger are not OU Specific
- Budgeting will not work for Global Blanket Purchases and VMI Org
- Profile control at Site, Application, Responsibility and User Level
- Key Flex field Control at BG Level, Instance Level, Application Level etc.,
- One BG is sufficient if client is not planning to use HRMS in future as well

Deciding Factors for an Appropriate Oracle Application Architecture

Key Points to consider

- Nature of Client Business / Industry
- Geographical Spread of Client Business
- Clearly defined Organization Structure
- Policy, Procedures and Business Processes
- Business Functions (FIN, PO &HR) – Centralized or Decentralized
- Single or Multiple Line of Business
- Approval Hierarchy (Position and Supervisory)
- Receipts and Payments – Centralized or Decentralized
- Business Control and Reporting Requirements (IFRS or GAAP)
- Roles and Responsibility Matrix (SOD & SOX Compliance)
- Mergers, Acquisitions and Divestitures
- Number of Secondary Ledgers & Reporting Ledgers required
- Global Single Instance or Multiple Instances
- Connection to Server and Instances if it is geographically spread

Changing the Organization Structure

- At some point, your company may need to make organization changes. Companies usually make organization changes to better adapt themselves to the new business needs and challenges of the market.

- One type of organization change you can make is to discontinue one organization. You can use the Define Organizations window to discontinue one organization by putting an end date in its definition.

- You can perform other organization changes by enabling or disabling organization classifications, or changing the classification attributes. When you do that, you must consider the following:

- The Define Organizations window does not re-validate the relationships among legal entities, operating units, and inventory organizations.

Changing the Operating Unit

- You should not try to move one ledger or legal entity to another because your data may not be valid for the new ledger or legal entity. Instead, you should disable the old organization and create a new one for the appropriate ledger or legal entity. The new organization will contain your new data, and the disabled organization will act as an old or history entity that stores past transactions.

- If you create a new organization, you can still access your historical transactions by logging to the responsibility tied to the disabled organization. To enter new transactions, you must log into the responsibility tied to the new organization. The data for each of the two organizations are kept separate from one another, and must be accessed separately.

Other Organizations in Oracle EBS

HR Organization

HR organizations represent the basic work structure of any enterprise. They usually represent the functional management, or reporting groups that exist within a business group. In addition to these internal organizations, you can define other organizations for tax and government reporting purposes, or for third party payments.

Organizations in Oracle Projects

Oracle Projects allows you to define organization hierarchies to reflect your company's organizations structure. You can add Oracle Projects-specific organization types to the organization hierarchy (for example, projects organizations or Expenditure organizations) to help you manage your project control requirements. You assign project and expenditure hierarchies to operating units.

Asset Organizations

An asset organization is an organization that allows you to perform asset-related activities for a specific Oracle Assets corporate book. Oracle Assets uses only organizations designated as asset organizations

Conclusion

Designing the structure for an Oracle EBS implementation is like Architecting for a Building. If it is wrongly designed, the only way to rectify is to demolish and re-implement the solution. Hence please take adequate care to understand the client Business requirements while designing the Oracle Application Architecture.

VALUE + QUALITY + ROADMAP=SUCCESS

Caution: The main reason for many troubled or failure implementation is due to poor design of Oracle application Architecture.

Lessons Learned - 1

I was talking to my colleague in the office cafeteria today...

My colleague is a veterinary surgeon and works in the inventory department in the company where I work.

It is always a pleasure to talk to Doctor. He is always positive, ebullient and has an impish sense of humour. I am always amused by the way he follows up his one liners with a loud laughter, as if providing a cue for others that it is time to laugh....

Doctor was talking to me about an exam that he took during his graduation days.

"There was a question in the exam about the medicine that you give to a horse which is suffering from an acute infection. I wrote the answer quickly and moved on to answer other questions. After about an hour, I realized that the answer that I had written to that question was wrong. So, like any student would do, I crossed out the original answer and wrote the new, correct answer."

"As you can imagine, I was pleased as a punch, for having realized my mistake just in time"

Lessons Learned – 1 - contd

"Imagine my surprise, when the marks came, my Professor had given me Zero marks for that answer. I was livid. I barged into Prof's room, with all the text books to back my claim and demanded that he give me full marks for my correct answer."

"My Professor pacified me. He asked me to sit down. I sat down"

"Then he went on to give me an advise which I will never forget for the rest of my life"

We (other friends had joined us by now) looked at Doctor in expectantly.

"Assume that you have become a doctor", said my Professor, "and a farmer brings a horse to you with an acute infection as mentioned in the question paper. You immediately diagnose the case and give a medicine. The grateful farmer and the horse leave you. After about an hour suddenly you realize that the medicine you gave was wrong. Do you think you will get a chance to rectify to your mistake in real life?"

"In real life, by the time you realize your mistake, the horse would be probably dead because of your wrong prescription. That is the reason I gave you zero marks for your correct answer, said my Professor"

Lessons Learned – 1 - contd

"That was an eye opener" Doctor continued. "I suddenly realized that many a time in your life, you will get situations which calls for the 'correct answer'. You do not have any scope for mistakes. Since talking to Professor, I have become very careful about how I respond to my challenges. "

Doctor completed his anecdote.

When Doctor was talking to us, I remembered an incident that happened when I was working as an engineer in a Steel Manufacturing Company.

We were attending a training on Quality.

"Do you feel that we can achieve 100% quality in what we do? " asked the trainer.

General consensus was 'No'. 'How can we achieve 100% Quality? Aren't we human beings and are prone to make mistakes? Possibly we could achieve 90% quality at best, you need to factor in human errors'.

We were all very happy that we had given a well thought out answer.

Lessons Learned – 1 - contd

Our trainer continued, "Yesterday, I went to a doctor to talk to him about an impending surgery. Being a quality person, I asked him the same question. He also gave me the same answer that you gave. He told me that while the chances of success was about 90%,he had to factor in 10% for human error. Do you think I will go to that doctor again?"

"Why is it that when it comes to our work and our output, we compromise on quality by factoring in 'Human Errors', but when we expect things from others, we expect 100% quality? Why can't we deliver the same level of quality that we always expect from others?"

A food for thought, perhaps?

- Source: Ramaswamy V Krishnamurti ï Linkedin Posts

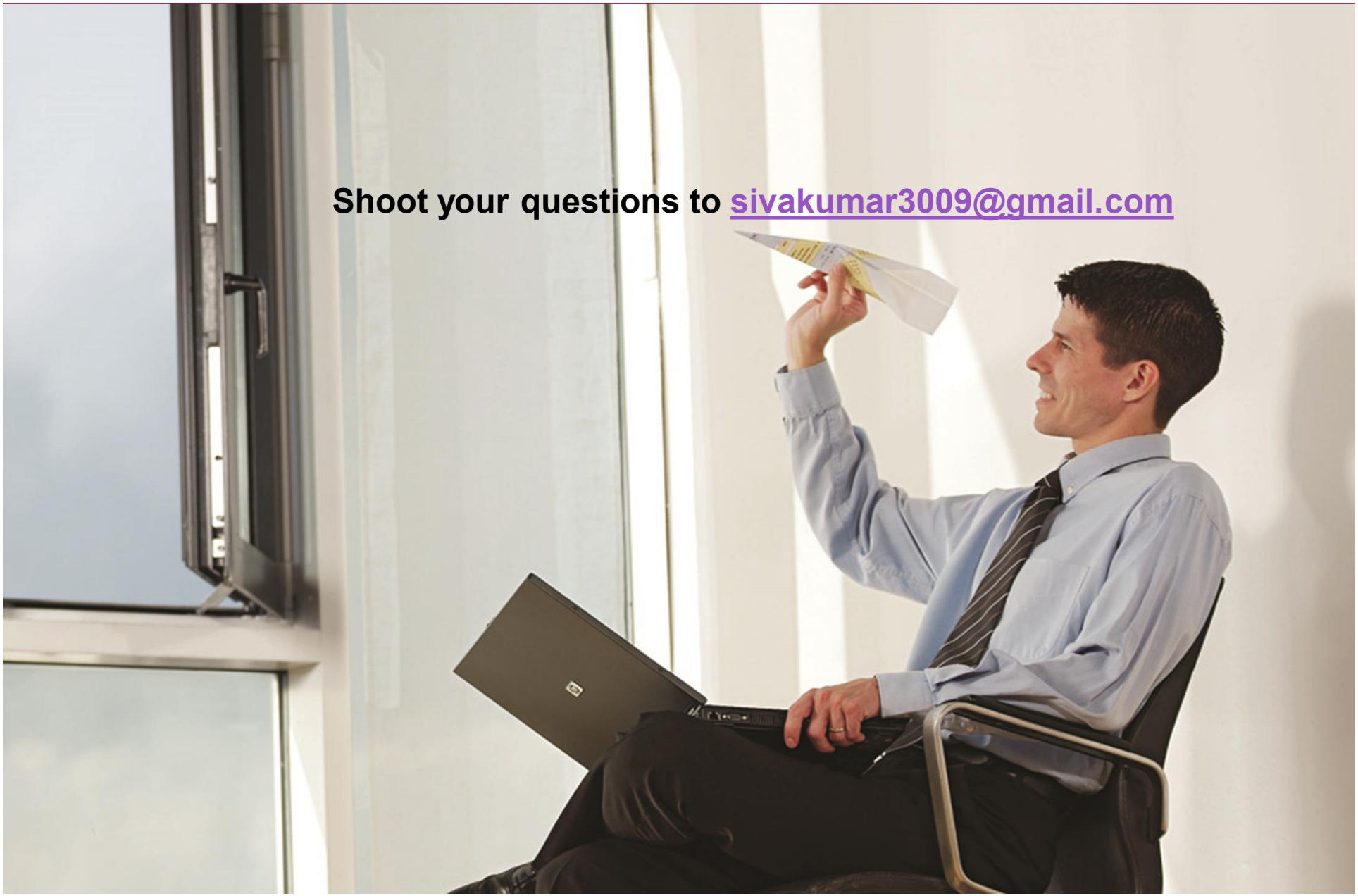
Lesson Learned - 2

A German once visited a temple under construction where he saw a sculptor making an idol of God. Suddenly he noticed a similar idol lying nearby. Surprised, he asked the sculptor, "Do you need two statues of the same idol?" "No," said the sculptor without looking up, "We need only one, but the first one got damaged at the last stage." The gentleman examined the idol and found no apparent damage. "...Where is the damage?" he asked. "There is a scratch on the nose of the idol." said the sculptor, still busy with his work. "Where are you going to install the idol?"

The sculptor replied that it would be installed on a pillar twenty feet high. "If the idol is that far, who is going to know that there is a scratch on the nose?" the gentleman asked. The sculptor stopped work, looked up at the gentleman, smiled and said, "I will know it."

The desire to excel is exclusive of the fact whether someone else appreciates it or not. "Excellence" is a drive from inside, not outside. Excellence is not for someone else to notice but for your own satisfaction and efficiency... **Source: Anonymous**

Questions & Answers



Conclusion & Thanks