Get what you want: Designing Approvals Management Engine (AME) rules for your iProcurement approvals

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IT CONVERGENCE

Introduction

Zero workflow customizations for your organization's complex document approvals? Can Approvals Management Engine (AME) really do it? What challenges follow an AME implementation? Are they functional or technical? If you've found yourself asking these questions, then this white paper is for you. This white paper attempts to provide answers to these questions and guides iProcurement users and business analysts on the necessary prerequisites for designing AME. Using practical business scenarios, it elaborates on the specific setup steps to be performed in each of the modules, and provides a step-by-step solution for configuration alternatives and rules in AME.

When an organization decides to implement an iProcurement solution for its employees' requisitions management one important consideration and driving factor for implementation is to simplify the way the requisition approvals are addressed as a part of the solution. With the increasing number of iProcurement implementations, AME is being used more widely to address these requirements.

What is AME?

AME is a separate module which can be leveraged for routing documents for approvals and can be integrated with other modules in Oracle E-Business Suite. In case of requisition approvals, AME is integrated with Purchasing and iProcurement modules to achieve the desired result for requisition approvals. From a business perspective, the goal is for the end user to be able to work with iProcurement screens without having to navigate or even know setups performed in AME. However, it is important for a business analyst to understand the process for implementing AME and how it integrates with the setup in core Purchasing, HR and iProcurement applications.

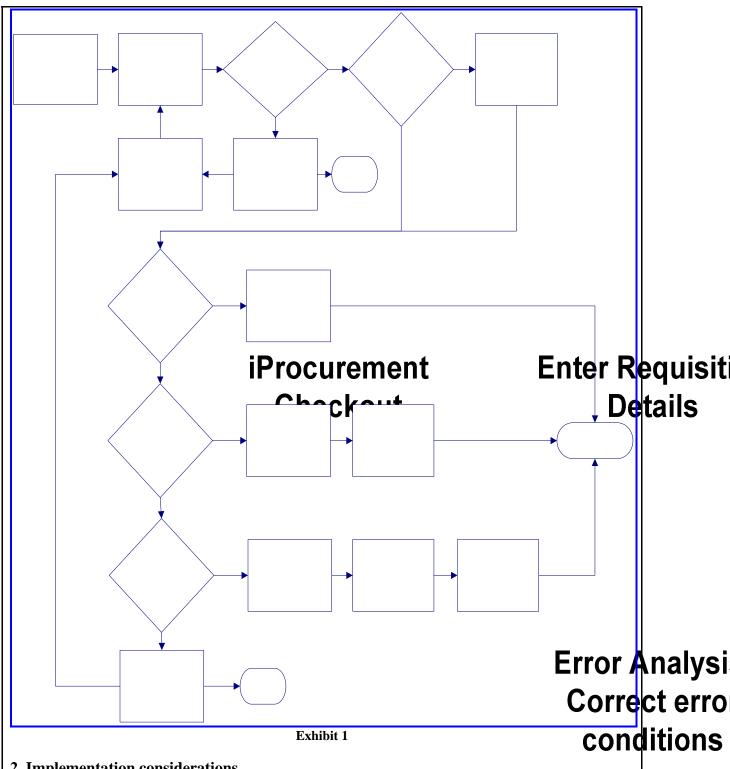
Factors which impact AME design

Before we get into the actual process of defining rules in AME, let us look at important prerequisites and factors which impact design of AME rules. The business end users of the application (requisition preparers, managers or approvers) using iProcurement have an important role to play in defining the business rules or document approval exception scenarios. This forms the basis of rules configuration in AME. Once the business rules are clearly defined, a business analyst can translate these rules into 'AME rules' which govern the behavior of transactions for requisition approvals, performed in iProcurement.

1. White boarding requirements for requisition approvals (Functional Flowchart)

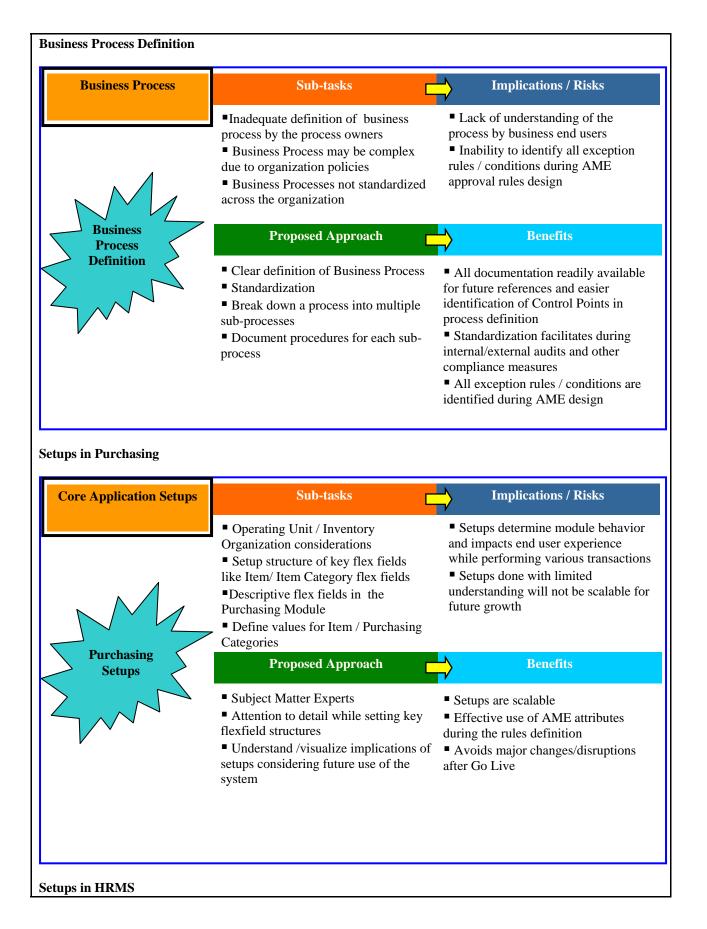
The business process owners and business analyst should develop a functional flow of the approval process. This helps clearly define business rules in AME and also uncovers any exception rules. You can have one process flow depicting all business scenarios or multiple process flows based on the transaction type. Valid transaction types in AME when integrating with iProcurement are 'Purchase Requisition Approval', 'Internal Requisition Approval', and 'Requester Change Order Approval'.

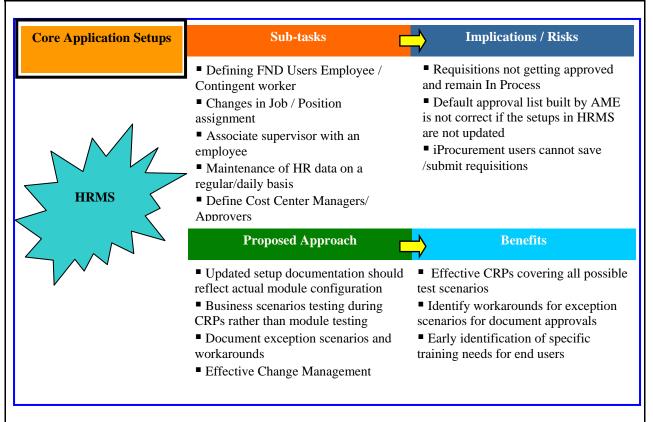
The advantage of creating this document is that less time is spent in actually translating it into AME rules.



2. Implementation considerations

While it is true that AME provides flexibility to the organization in the way rules can be configured within the AME module, the foundation exists in the core setups of the modules of Oracle Purchasing and Human Resources and the initial implementation considerations. The final approval process will largely depend on how this combination of setups work in tandem for meeting the complex requisition approval routing requirements.





3. Integration requirements with individual modules

There are many modules in Oracle Applications E Business Suite which can be implemented with AME and each module has specific integration requirements. The AME integrates with iProcurement by providing the value for Approval Transaction Type for the following type of documents:

- 1. Purchase Requisition (PURCHASE_REQ)
- 2. Internal Requisition (INTERNAL_REQ)
- 3. Change Order Request: Requisition (RCO)

The setup is performed in the Document Type screen in core Purchasing module and can be turned on or off for each of the Operating Units.

				Operating Unit Vis	ion Opera	etions 👻	Go
Create							
Туре	Name		Document Type Layout	Contract Terms Layout	Update	Delete	
Auction Buyer Auction	Sourcing Buy	er Auction	Sourcing Style Sheet	Oracle Contract Terms Template	1	Û	
Change Order Request Requis	tion Change Orde	er Request: Requisition			1	1	
Purchase Agreement Blanket	Blanket Purc	hase Agreement	Blanket Agreement Stylesheet with Logo	Oracle Contract Terms Template	1	1	
Purchase Agreement Contract	Contract Pur	chase Agreement	Contract Agreement Stylesheet with Logo	Oracle Contract Terms Template	1	1	
Purchase Order Planned	Planned Pure	chase Order			1	8	
Purchase Order Standard	Standard Pu	rchase Order	Edstrom - Standard PO	Oracle Contract Terms Template	1	1	
Quotation Bid	Bid Quotation	n			1	1	
Quotation Catalog	Catalog Quo	tation			1	自	
Quotation Standard	Standard Qu	iotation			1	Û	
Release Blanket	Blanket Rele	ase	Blanket Release Stylesheet with Logo		1	Û	
Release Scheduled	Scheduled R	elease			1	1	
Requisition Internal	Internal Req	uisition			1	1	
Requisition Purchase	Purchase Re	quisition			1	12	
	uisition Purchase for Vision	Operations					
tridicates required held	* Document Na	me Purchase Requisitio	0		Cano	ceļ /	pply
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Indicates required field Approval Approval Workflow Workflow Start Process	Owner Can Approve Approver Can Modify Can Change Forward-To Can Change Approval Hie PO Requisition Approval	rarchy	Control Security L Access L Autocreate World	evel Full PO Create Docum cess Overall Document or Auto-Sourcing	ents		q
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4. AME Installation and enabling AME responsibilities for use

AME uses the Role Based Access Model to provide access to the AME functions to users of the application. Use the Sysadmin login and User Management responsibility to assign AME roles for specific users. Data access is provided to the users from Functional Administrator responsibility. The two seeded responsibilities which can be enabled after completion of step 4 are Approvals Management Business Analyst and Approvals Management Administrator.

Designing AME rules for requisition approval

Once the prerequisites described in the earlier section are validated and documented, a business analyst can start the actual process of rules definition in AME. The AME module has various components which are used for complete definition of rules.

The process starts with the selection of an appropriate transaction type on the Business Analyst Dashboard using the responsibility Approvals Management Business Analyst.

Transaction type

This refers to the type of business process transactions for which approval rules have to be implemented. For example, to implement 'Purchase Requisition Approval,' transaction type, it needs to be selected on the Business Analyst Dashboard. All other components which will be set up or defined and the rules created are referenced to the transaction type selected.

Each of the transaction types will have its own set of rules to govern the approval process of these transactions.

ORACLE A	pprovals Management				Diagnostics Home Logout Preferences	
Business Analyst Dashboard					Approval Process Setup	
This table displays the transaction type	es in the order you accessed them.				1. Select the transaction type	
Transaction Types					Purchase Requisition Approval	
	 ©	Previous 1-5	~	Next 5 📎	2. Define the components Approvals Management uses these components	
Name	Application	Rules	Test	Setup	within the approval rules.	
Purchase Requisition Approval	Purchasing		9		Attributes Define attributes to fetch business facts for a specific transaction.	
AMW Audit Procedure Approval	Internal Controls Manager		9		Conditions Define conditions to evaluate attributes within	
AMW Control Approval	Internal Controls Manager		9	E.	rules. If all conditions in a rule are true then the rule is active for the transaction.	
AMW Risk Approval	Internal Controls Manager	E	9		Action Types Enable action types to specify the action to ta	
BOM ERES Bill of Materials Creation	Bills of Material	Bills of Material			a rule is active for a transaction. Approver Groups	
Recently Updated Rules This table displays the rules whose d Since number of days 30	efinition and usages has changed.				Define approver groups to contain approvers wh are usually members of peer groups such as payroll or expenses department. 3. Define the approval rules Approval Rules determine the approvers or FYI	
Name Rule Ty	pe Transaction Type Action	Date Us	er	Update	notification recipients required for a business transaction.	
No results found.					Rules	
Future Active Rules Future Inactive Rules					 Test Workbench Define test cases or test real transactions to verify the approval setup, rules and associated approvers. <u>Test Workbench</u> 	
					Quick Links	
					Configuration Variables Setup Report	
	Diagnostics	Home Logout	Preferer	ices		
		Exhibit 4	1			

Action type

Action type, by definition, is a collection of actions having similar functionality. This is the next logical step after a specific transaction type is selected. In most cases, the existing or predefined action type provided by AME can be used when selecting the Action type. Action Type is associated with the Rule type. Depending on the complexity of document approvals scenarios, different Action types should be enabled for use. While the majority of the rules can be defined using few action types, some iterative testing is required for exception scenarios.

Enabling certain Action Types also enables a set of required attributes. The value of these required attributes actually determine the first approver or sequence of approvers when AME builds the default approver list.

ORACLE [®] Approvals Management	
	Return to Dashboard Diagnostics
Setup: Action Types > Use Existing Action Type: Select Action	n Types >
Action Type: Absolute job level	
Name Description Handler Allowed Approver Types	Chain Of Authority Absolute job level Chains of authority based on absolute job level ame_absolute_job_level_handler HR People INCLUDE_ALL_JOB_LEVEL_APPROVERS JOB_LEVEL_NON_DEFAULT_STARTING_POINT_PERSON_ID TOP_SUPERVISOR_PERSON_ID TRANSACTION_REQUESTOR_PERSON_ID
Return to Use Existing Action Types	
	Return to Dashboard Diagnostics
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Attributes

Attributes represent business variables with a single value for a particular transaction. Attribute use can either be 'Static' or 'Dynamic'. Most of the flexibility which AME offers while defining the rules is based on its Attributes. A business analyst can define new Attributes for use in transaction type to meet certain business requirements. Depending on the selection of Transaction Type, the attributes seen on screen will be different. Some of the attributes are mandatory and can be seen across the various transaction types. The other attributes are related to the transaction type.

The key attributes which are used in the rules formulation for requisition approvals are provided in the table below. AME derives the value of these attributes at the run time (when a transaction is initiated) and applies AME rules to the transaction for routing it to appropriate approvers.

#	Attribute	Description	Usage Type	Item Class	Data Type
1.	REQUISITION_TOTAL	Requisition Total	Dynamic	Header	Currency
2.	PO_COST_CENTER	Cost Center	Dynamic	Line Item	String
3.	PO_NATURAL_ACCOUNT	Natural Account	Dynamic	Line Item	String
	SUPERVISORY_NON_DEFAULT_S TARTING_POINT_PERSON_ID	Person ID of non- default supervisor approver for the supervisory-level approval type	Static/Dynamic	Header	Number
	JOB_LEVEL_NON_DEFAULT_STA RTING_POINT_PERSON_ID	Person ID of non- default first approver for job- level authority approval types	Static/Dynamic	Header	Number

Transaction Type: Purchase Requisition Approval	jement				Return t	o Dashboard	Diagnostic
	prover Groups						
Attributes	proter dicops						
This page enables you to view attributes present in your such as total amount, a percent discount, and a person's		use existing att	ributes to specif	y the business	components of	f a transactior	1
Search							
Attribute Category Item Class Data Type Name Go Clear							
Create Use Existing Attribute					<u>Previous</u>	10 11-20	Vext 10
Attribute 🔺	Description	Category	Usage Type	Item Class	Data Type	Update	Delete
	Item Number	Others	Dynamic	Line Item	String		-
ITEM NUMBER	Item Number	Others	Dynamic	rue trem	Sung	1	Î
ITEM NUMBER JOB LEVEL NON DEFAULT STARTING POINT PERS		Required	Dynamic	Header	Number	2	Û
No. of the second s	ON IPerson ID of non-default first approver for job-level		a set a seconda		1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	1	ndP
JOB LEVEL NON DEFAULT STARTING POINT PERS	ON I Person ID of non-default first approver for job-level authority approval types Structure ID of the non default HR position hierarchy,	Required Required	Dynamic	Header	Number	1	Î
NON DEFAULT STARTING POINT PERS	ON I Person ID of non-default first approver for job-level authority approval types Structure ID of the non default HR position hierarchy, if any Position ID of non-default first approval types based on HR	Required Required	Dynamic Dynamic	Header Header	Number Number	1	
NON DEFAULT STARTING POINT PERS	ON I Person ID of non-default first approver for job-level authority approval types Structure ID of the non default HR position hierarchy, if any Position ID of non-default first approver for authority approval types based on HR positions	Required Required Required	Dynamic Dynamic Static	Header Header Header	Number Number Number	2	1
DOB LEVEL NON DEFAULT STARTING POINT PERS	SON I Person ID of non-default first approver for job-level authority approval types Structure ID of the non default HR position hierarchy, if any Position ID of non-default first approver for authority approval types based on HR positions Cost Center Cost Center	Required Required Required Others	Dynamic Dynamic Static Dynamic Dynamic	Header Header Header Line Item	Number Number Number String	2	1
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DOB LEVEL NON DEFAULT STARTING POINT PERS	SON I Person ID of non-default first approver for job-level authority approval types Structure ID of the non default HR position hierarchy, if any Position ID of non-default first approver for authority approval types based on HR positions Cost Center Natural Account How AME responds to a rejection Should AME apply Substitution	Required Required Required Others Others Mandatory	Dynamic Dynamic Static Dynamic Dynamic Static	Header Header Header Line Item Header	Number Number Number String String	1 1 1 1	

Exhibit 6

When setting AME rules for requisition approvals in iProcurement, there are a number of predefined attributes which can be leveraged and effectively deployed in the rules definition based on the core application setups (i.e. how the purchasing/inventory modules are setup).

Sr #	Attribute	Description	Usage Type	Item Class	Data Type
1.	COMMODITY	Commodity	Dynamic	Line Item	String
2.	DELIVER_TO_LOCATION	Deliver To Location	Dynamic	Line Item	String
3.	ITEM_CATEGORY	Item Category	Dynamic	Line Item	String
4.	ITEM_NUMBER	Item Number	Dynamic	Line Item	String
5.	TRANSACTION_ORG_ID	Org Id in which transaction occurred	Dynamic	Header	Number

In addition to the above attributes, several new attributes can be defined which can map to 1) descriptive flexfields on the requisitions, 2) particular segment in the item category flexfield if you have multiple segment category structure or 3) a particular segment from your chart of accounts structure.

Exa	Examples of new attributes defined in AME are:						
Sr #	Attribute	Description	Usage Type	Item Class	Data Type		
1.	REQ_HDR_DFF_ATTRIBUTE_1	Descriptive Flexfield created at the Requisition header level	Dynamic	Header	Number		
2.	ITEM_CATEGORY_SEGMENT_1	Segment 1 from multiple level item category structure	Dynamic	Line Item	String		
3.	COMPANY	Company segment from chart of accounts	Dynamic	Line Item	String		

Transaction Type: Purchase Requisition Approval	Return to Dashboard Diagnostics
Rules Test Workbench Setup	
Attributes Conditions Action Types Approver Groups	
Setup: Attributes >	
Create New Attribute	
You can select an approver type for Number data type and a value set that contains business-specific data for Number,	Cance! Create Another (1) Apply
String, and Currency data types. * Indicates required field	
* Name	
Item Class Header 🗸	
* Description	
S	
Data Type Number 🗸	
Approver Type	
Value Set	
Usage Type Dynamic V	
* Value <enter defined="" here="" query="" sql="" user=""></enter>	
	×
Enter SQL query for dynamic attributes.	
	Validate
Exhibit 7	

Conditions

Condition is one of the components within the approval rules ('If' part), which can either be true or false for a given transaction. For the rule to be active, all conditions specified in the rule definition have to be true. The conditions defined in AME use the predefined attributes provided by AME or new attributes defined by the business analyst.

Transaction Type: Purchase Requisition Approval		Return to Dashboard Diagnostics
Rules Test Workbench Setup		
Attributes Conditions Action Types Approver Groups		
Setup: Conditions >		
Create New Condition		
* Indicates required field		Cancel Create Another (1) Apply
Condition Type	Ordinary 💌	
* Attribute	ITEM_CATEGORY	
String Values		
String Value	Delete	
SUPPLIES.FACILITIES		
Add Another Row		
		Cancel Create Another (1) Apply
	orkbench Setup Return to Dashboard Diagnostic	
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	Exhibit 8	

Action

Action is the component within approval rules which forms the 'Then' part. Each predefined Action Type has a set of Actions associated with it which are responsible for modifying the approvers based on the conditions ('If' part) which the transaction satisfy.

Approver groups

From a business perspective, approver groups contain functional approvers outside a transaction's chain of authority. Typically, approver groups are used either for 'pre-approvals' or for 'post-approvals'. AME also allows the use of 'chain of authority' approval groups. Approver groups can be dynamic or static and can be nested.

Setup: Approver Groups > Use Existing Approver Group > Create New Approver Group * Indicates required field Cancel Create Another (1) Apply * Name Collaboarte08 * Description Panel of members for OAUG participation Usage Type Static Usage Type Static Usage Type Static Usage Type Concel Create Another (1) Apply Usage Type Static Concel Create Another (1) Apply Concel Create Another (1) Apply Usage Type Static Concel Create Another (1) Apply Usage Type Static Concel Create Another (1) Apply Concel Create Another (1) Concel Creat	ORACLE [®] Approvals Manage	ment		Return to Dashboard Di	agnostics
* Name Collaboarte08 * Description Panel of members for OAUG participation Usage Type Static V Query Usage Type Order Number Solu. Dynamic Approver Group requires a SQL. Enter members for the static approver group. Approver Type Approver group. Approver Type Approver group. Approver Type Order Number Delete HR People V Limaye, Harshavardhan Q 1 2000		up >			
* Description Panel of members for OAUG participation Usage Type Static Query Dynamic Approver Group requires a SQL. Dynamic Approver Group requires a SQL. Talidate Static Dynamic Approver Group requires a SQL. Talidate Add Another Row	* Indicates required field		С	ancel Create Anot	ther (1) Apply
Usage Type Query Dynamic Approver Group requires a SQL. Dynamic Approver Group requires a SQL. Validate Enter members for the static approver group. Approver Type Approver HR People Uimaye, Harshavardhan 1 Delete Add Another Row	* Nar	ne Collaboarte08			
Query Query <td>* Descripti</td> <td>on Panel of members fo</td> <td>r OAUG participation 🛆</td> <td></td> <td></td>	* Descripti	on Panel of members fo	r OAUG participation 🛆		
Query Query <th></th> <th></th> <th>~</th> <th></th> <th></th>			~		
Dynamic Approver Group requires a SQL. Validate Group Members Enter members for the static approver group. Approver Type Approver Type Approver Type Image, Harshavardhan Image, Harshavardhan Image, Harshavardhan Image, Harshavardhan					
Validate Group Members Enter members for the static approver group. Approver Type Approver Order Number Delete HR People Limaye, Harshavardhan 1 Image: Add Another Row				8	
Group Members Enter members for the static approver group. Approver Type Approver Order Number Delete HR People Image, Harshavardhan 1 Image Add Another Row 1 Image Image		Dynamic Approver Group		ite	
Enter members for the static approver group. Approver Type Approver Order Number Delete HR People Limaye, Harshavardhan 1 Image: Comparison of the static approver of the stati	Course March and		Valida		
Approver Type Approver Order Number Delete HR People Limaye, Harshavardhan 1 Image: Add Another Row	Group Members				
HR People Limaye, Harshavardhan 1 Add Another Row					
Add Another Row			Order Number		
	HR People 💌 Limaye, Harshavardhan	_	1		
	Add Another Row				

Requisition approvals in iProcurement: Configuration options available in AME

Formulating Rules

AME rules decide the default approver list for a transaction, based on the conditions and is in the form of 'If- Then' statement. All previous steps elaborated earlier and implementation considerations are put to use when defining rules in AME. This is the last step in the AME configuration. A business analyst has to understand that defining and testing AME rules is an iterative process. However, following the methodology and visualizing any exception scenarios for approvals, should provide a good foundation of rules in the first pass of testing.

Following are the key points to remember while formulating rules in the AME module.

1. Is business policy documented for dollar limits for each level of approver?

In almost all organizations, there is a dollar amount approval limit for each level of approver. If the policy is well documented, this can be used as the first guideline in rule formulation. A specific business case is discussed in the white paper delivered at Collaborate $07.^{1}$

Some dollar limits for approval may be reviewed considering automation of requisition approvals with AME.

2. Supervisory level vs. Job level approvers:

The manner in which the setups are maintained in HR and change management practices are carried out in an organization are key factors while creating AME rules. The action type associated with each option is different and enables required attributes based on the action type.

Transaction Type: Purchase Requisition	vals Management _{Approval}	Return to Dashboard Close Window	Preferences Help Diagnostics
Rules Test Workbench Setup	A CONTRACTOR OF THE OWNER		
0	•	0	0
Enter Rule Details	Add Conditions	Add Actions	Review
Create New Rule: Review			
		Cancel	Back Step 4 of 4 Finish
Rule Type Item Class	Approval Rule for REQ TOTAL>100K List Creation Header 13-Feb-2008	End Date 31-Dec-4712	
Conditions			
Condition		Condition Type	Item Class
REQUISITION_TOTAL is greater than 10	00000,USD	Ordinary	Header
Actions			
Action Type	Action		
absolute job level	Require approvals up to at least level !	5.	
		Cancel	Back Step 4 of 4 Finish
Rules	Test Workbench Setup Return to Dashboard C	lose Window Preferences Help Diagnostics	
About this Page Privacy Statement		Co	pyright (c) 2006, Oracle. All rights reserved.
	Exhibit 1	0	

3. Identification of special approval requirements (Capital Purchases, IT purchases):

All the special approval requirements are usually met by defining a new approval group and then using pre or post approval group action types in the rule definition. Approval group members can be HR employees or FND users. The dynamic approval groups created can be nested in a static approval group.

¹ Improving Productivity in the Procurement and Expense Reimbursement Process-Collaborate 07

Transaction Type: Purchase Requisition	als Management Approval	Return to Dashboa	rd Close Window	Preferences Help Diagnostics
Rules Test Workbench Setup				
Enter Rule Details	Add C	onditions Ad	dd Actions	- Review
Create New Rule: Review			Cancel	Back Step 4 of 4 Finish
Rule Type Item Class	Approval rule for Capital Purchases Post List Approver Group Header 13-Feb-2008	End Date	31-Dec-4712	
Conditions				
Condition		Condition Type	e	Item Class
ITEM_CATEGORY in (SUPPLIES.FACILIT	ES)	Ordinary		Line Item
Actions				
Action Type	Acti	on		
post-chain-of-authority approvals	Requ	ire post-approval from Capital Purchases		
			Cancel	Back Step 4 of 4 Finish
Rules About this Page Privacy Statement	Test Workbench Setup Return to	Dashboard Close Window Preferences		yright (c) 2006, Oracle. All rights reserved
		Exhibit 11		

4. Define the need for parallel approvals:

Parallel approval process is documented in releases prior to R12 release of AME, but is implemented only in R12. The business requirement for parallel approval process can be met by implementing the 'Order Number' and 'Ordering Mode' feature when selecting the Action Type.

6. Determine starting point for the approval chain:

Once a decision is made to implement a specific type of approval authority, either based on the supervisory level or job level, the next step is to define the required Attribute usage. Using a dynamic usage of attribute provides much flexibility for the approval list which is built. The first approver in the approval chain of authority is determined by the SQL query you use in the definition of these attributes. This attribute use, combined with rules based on dollar approval, should account for the majority of business scenarios for requisitions management.

7. Custom approval hierarchy (not maintained in HR application):

For any custom approval hierarchy requirements AME provides an option for defining an Action type as an 'Approval-group chain of authority', and then one can define the rules for this action type. As elaborated in previous sections, the approval group can be static, dynamic or static approval group with nested dynamic approval group.

8. Identification of exception scenarios for Sr. Management approvals:

During the rules definition process, it may be identified that certain employees (usually Sr. Management) do not have access to the iProcurement, but their approval is required for business purposes. In such scenarios, it is beneficial to document the business process for approvals.

9. Changes/additions required to the data or setup in HR/Purchasing applications:

As a part of the overall process of AME implementation, changes or modifications to the Job/Position screen will need an approval from the organization's HR. During the course of implementation, it is good to have a dialogue with HR, being proactive and letting them know about some of these changes. AME Rules can be based on the attributes like commodity, Item categories or descriptive flexfields in purchasing module. For complete approval scenarios testing, new values will have to be defined.

10. Providing access to iProcurement to organization employees (and contract labor)

The approvers of the AME rules need to be defined as employees with access to iProcurement or have an FND user id for Oracle applications. If the organization uses temporary workforce, this is an important consideration for iProcurement/AME implementation.

AME Implementation: Go Live Challenges:

Once the AME business rules are implemented, it is equally important to monitor the AME application and review exception logs. It may take a few weeks to stabilize the system and tighten the business processes. While most of the issues can be addressed by a business analyst, some fine-tuning may be required for the dynamic SQL queries used in the attributes or approver groups.

Some of the common issues which cause a disruption in the default approval list built by AME while performing transactions are provided below.

1. Maintain valid FND user for approvers: AME will raise exception while performing transactions for end users whose approver does not have active Oracle userid.

2. AME rules are not set for Transaction Type: iProcurement classifies all transactions in three distinct transaction types. If you integrate all transaction types with AME but only implemented rules for Purchase requisition approval, users will receive an error for transactions relating to Internal requisitions or change orders.

3. Supervisor related changes: An employee/approver may leave the organization and the HR system may not be updated to reflect this change. If the end users are submitting transactions in iProcurement during this time, some users will receive an exception, as AME will be unable to build a default approver list based on AME rules.

4. TOP_SUPERVISOR_PERSON_ID attribute is blank: If a requisition is submitted in iProcurement which is a high dollar value requisition and there are no rules created, AME will raise an exception.

5. Changes or modifications to purchasing commodities/categories: It is quite common that certain commodities in Purchasing or categories may no longer be used or new values will be added. If you have AME rules using these values, these rules should be updated or deleted accordingly. Any delay in maintenance of these rules in AME will cause issues for the iProcurement users.

Since the error messages displayed to the iProcurement users are generic, business analysts should have a good understanding of the integration aspects of AME with iProcurement before these challenges are resolved. Responsibility 'Approvals Management Administrator' is a good starting point for analyzing or troubleshooting issues related to AME rules or attributes.

dministrator Dashboard his page displays the transaction types and Indicates required field	their association with specific O	racle applications.			Quick Links Configure Variable
Transaction Types					Exception
Filter Application V Purchas	sing Go	Go			Setup Re Approver
Create Transaction Type		S Previous 1-10	of 11 💌	Next 1 ③	Types
ame	Transaction Type Key	Application	Upda	te Delete	
ternal Requisition Approval	INTERNAL_REQ	Purchasing	0		
D ERES ASL Creation	oracle.apps.po.asl.create	Purchasing	0	1	
O ERES ASL Update	oracle.apps.po.asl.update	Purchasing	1	1	
0 ERES Receiving Delivery	oracle.apps.po.rcv.deliver	Purchasing	0	1	
D ERES Receiving Inspection	oracle.apps.po.rcv.inspect	Purchasing	1	<u> </u>	
D ERES Receiving Transfer	oracle.apps.po.rcv.transfer	Purchasing	1	1	
O RCV ERES Receipt Group Transaction	oracle.apps.po.group.receiv	ve Purchasing	1		
O RCV ERES Receipt Line Transaction	oracle.apps.po.line.receive	Purchasing	1		
urchase Requisition Approval	PURCHASE_REQ	Purchasing	0	1	
equester Change Order Approval	RCO	Purchasing	0	8	
Create Transaction Type		S Previous 1-10	of 11 💌	Next 1 ③	
		kara sa			
		Exhibit 12			

	RACLE	E ° Appro	ovals Managemen	t	Return To Dashb	oard Home Logout Preferences Help Diagnostics
query. To	-	eption log, click		transactions in the specifi	c transaction type or th	e exception details for a specific transaction based on your
Search	h			* Transaction Type Transaction ID	Purchase Requisition	Api
Clear	AME	Transaction ID	Package Name	Routine Name	Exception Number	③ Previous 10 21-30 ♥ Next 10 ⊗ Exception String
92640	-275	-434	ame_position_handler	handler	-20001	This transaction's requestor lacks a position ID, so AME cannot begin the chain of authority.
92639	-275	134800	ame_api2	getAllApprovers7	-20001	ORA-20001: The approver identified by the following parameters is invalid: originating system PER originating- system ID PER_ID. Please delete or replace this approver wherever they occur in AME data, including approval groups, list-modification conditions, and substitution actions. This approver does not have an entry in wf_roles. (ORIG_SYSTEM_ID=28311)

Conclusion:

AME is capable of providing multiple alternatives for defining business rules for an organization. The flexibility in rule definition offered by AME also depends on the core application setups of purchasing and HR. Most of the customization in AME is related to the use of dynamic attributes and its usage in the rules. Technical expertise is required to the extent of constructing SQL queries for the new dynamic attributes defined. Once this component is finalized, a business analyst can perform the other tasks in AME with a user intuitive 'Business Analyst Dashboard' and a 'Administrator Dashboard'. A structured approach for designing of AME rules and key implementation factors discussed in this white paper will help the business analysts and procurement managers to address unique requirements for managing requisition approvals.

Exhibit 13