## Save Some Trees: Getting Rid of Paper Security Forms and Do Online Role Requests

Session #26395 March 23, 2009



Anaheim, California

#### Presenters

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## Agenda/Contents

- Configuration
- End User experience
- Live Demo
- Technical info
- Q&A

## PeopleSoft at FSU

- **HCM 9.0**
- FIN 8.9 upgrading to 9.0 next week
- Portal 9.0
- **EPM 9.0**
- Tools 8.49

## Purpose of Customization

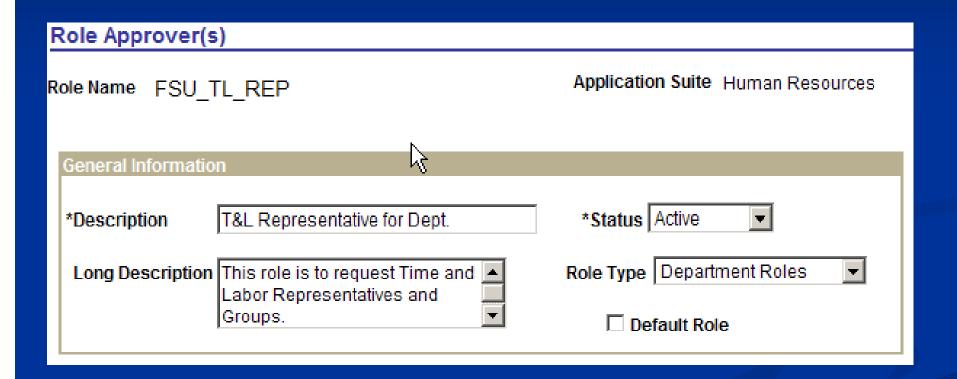
- Automate the existing paper process
- Speed up approval and granting/removal of roles
- Improve the Security request approval Audit trail

#### Additional Info

- Modification is in the HR Suite but manages roles in all environments
- Still a paper process for some Roles and User Preferences
- Mutually exclusive roles

## Configuration

- Add Role
- Add Role Approvers
- Set Mutually Exclusive Roles
- Add Messages





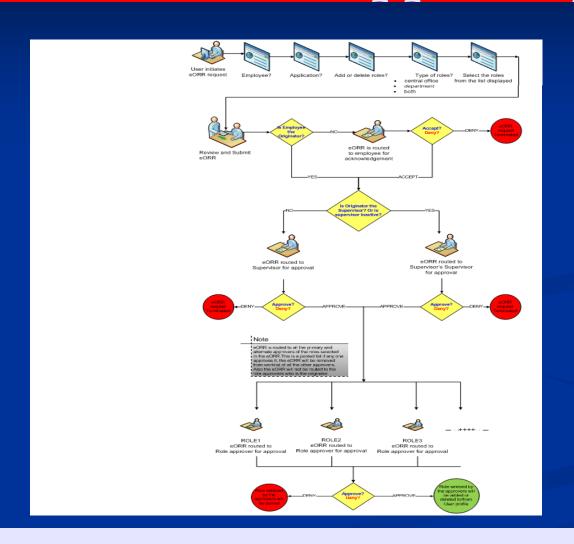


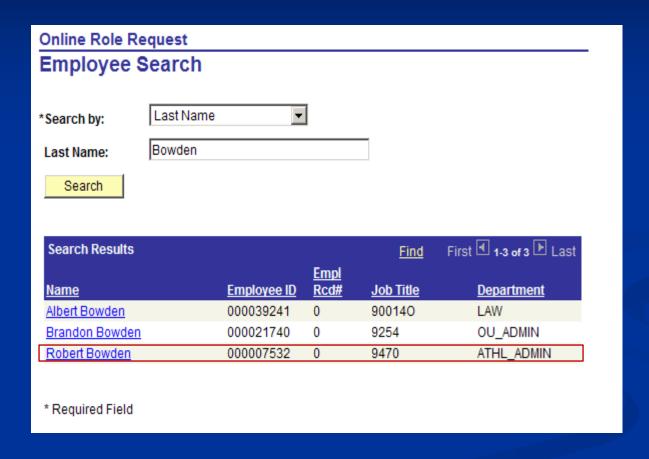
Messages	to Display	Customize   Find   <sup>™</sup> First <sup>1</sup> 1 of 1  Last						
L ΔT	Message Number	Severity	Message Text	Description	Update Msq Catalog			
20002 🔍	37 🔍	Message	Department IDs needed.	T&L Representative requests require DEPTIDs to be entered in the Justification field on the Submit page. Click Continue to enter DEPTID.	Update Msq Catalog	+		

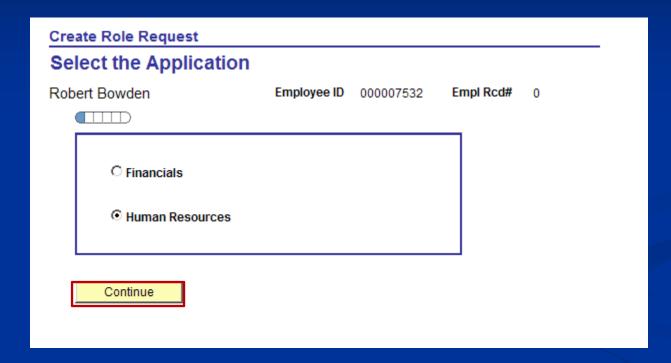
## Processes performed by users

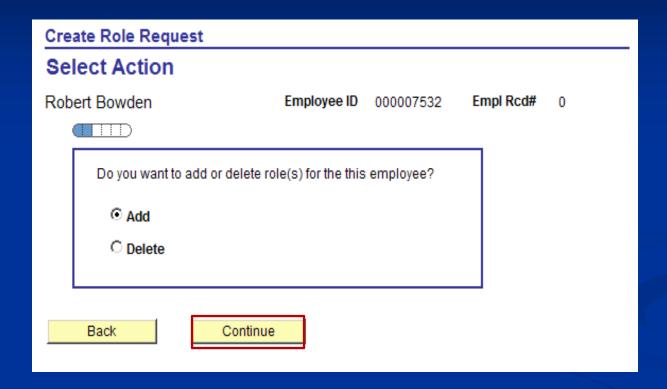
- Online Role Request
- Approve Online Role Request

# Workflow Approval path

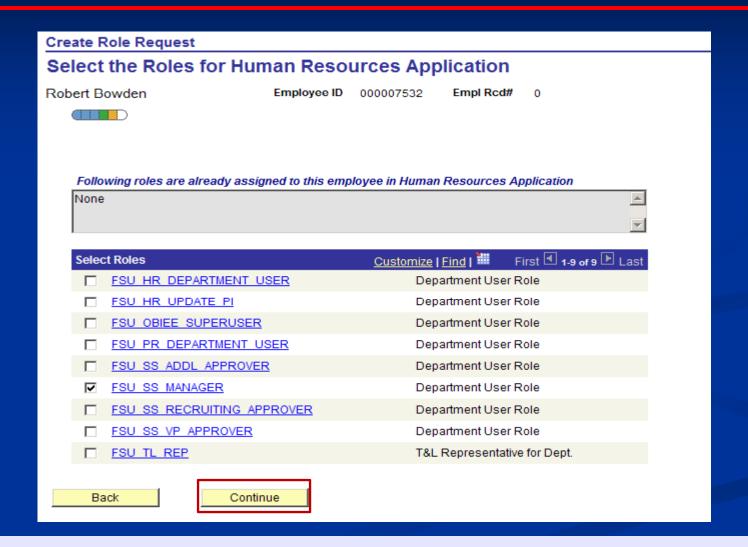


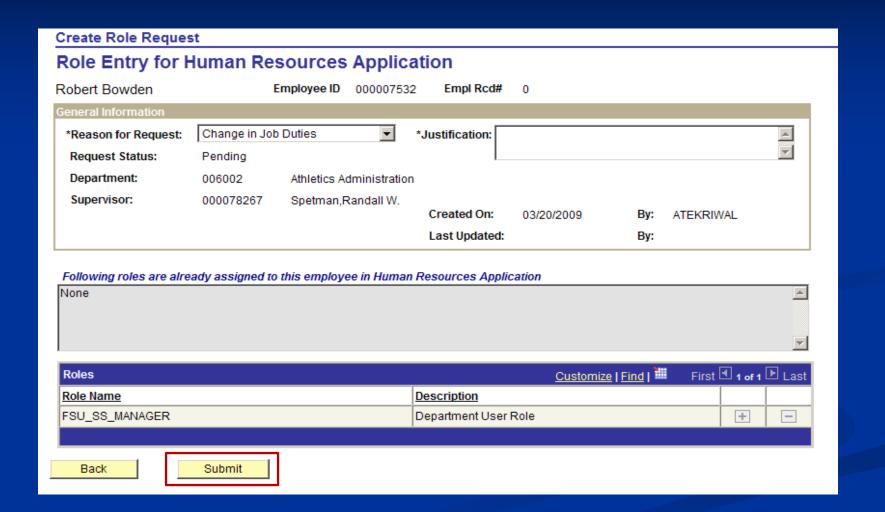


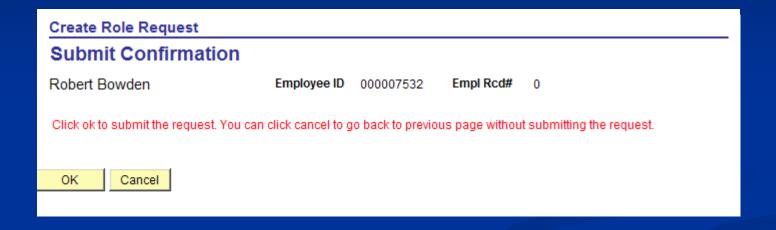












# Approve Request Process

Approve Role Request  Enter any information you have and click Search. Leave fields blank for a list of all values.						
Find an Existing Value						
Search by: Request ID   ■ begins with						
Search Advanced Search						

# Approve Request Process

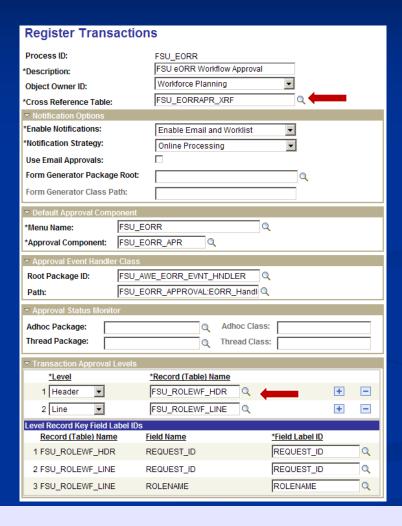
Approve Role Request									
Role Request Summary for Human Resources Application									
Robert Bowden		Employee ID	000007532	Empl Rcd#	0	Request ID	000000	01219	
General Information									
Reason for Request:	Other - Enter	comments>		Comments: D	epartr	ment user role			_
Request Status:	Submitted for	Approvals							~
Department:	006002	Athletics Adm	ninistration						
Supervisor:	000078267	Spetman,Rai	ndall W.						
				Created On:	03	/20/2009	By:	ATEKRIWAL	
				Last Updated.	03/.	20/09 9.48.29A	W By:	ATEKRIWAL	
Following roles are alreading	ady assigned to	o this employee	in Human Res	sources Applica	tion				_
									~
You can either accept or Roles Requested	decline this role	request.				Q.,	tion of a Maga-	Fi [4]	. 🕞
Role Name			Desi	cription		Customize   F	<u>-ina</u>   ===	First 1 of Approve	1 🖾 Last
FSU_SS_MANAGER				cription		Add		✓	
Commonte									
Comments									<b>-</b>
H									
I									~
Approval Monitor									
Employee Acknow	vledgement								
♥ REQUEST	ID=00000012	219:Pendina			+ St	art New Path			
Employee Acknow									
Pending Bowden,Rot	pert C	_							
FSU_EORR_E	MPL_ACKNLG								
Supervisor Appro									
Supervisor Appro		219:Awaiting	Further App	rovals	+ St	art New Path			
Not Route	d								
→ SPETM FSU EO	AN.RANDALL -[	+							
Role Approval									
▽ REQUEST	_ID=00000012	219, ROLENA	ME=FSU_SS	_MANAGER:	Initia	Start ted + New Path			
Role Approval									
Not Route	Approvers r	<b>=</b>							
FSU_EO	RR_ROLE_APR	+							
In requesting these roles, necessary for me to conduc	nore specifically de	efined as a right to	perform certain t	usiness functions	within	the OMNI ERP sy	stem, I he	reby affirm that each	th role is
me into contact with informa	ation or information	n resources that a	re of value to the \$	State University Sys	tem ar	nd that require pro	tection. If	urther acknowledg	e that I
am required to uphold Unive	ersity policies and	procedures adopt	ieu io sarequard t	ne information and	45500	aated resources t	nat may be	e entrustea to me (	or writin
which I have contact. I agree	to report violation	is of such policies	or procedures to	my supervisor, the	Inform	ation Security Ma	nager, or o	other person desig	nated
the responsibility for handling that activity logged to my Us OR CRIMINAL ACTION AGA	ng security violatio er ID is my sole re	is of such policies ns. I further agree	or procedures to to protect my Use	my supervisor, the r ID and related pa	Inform	iation Security Ma d from unauthoriz	nager, or o	other person desig all times and unde	nated rstand

## Live Demo

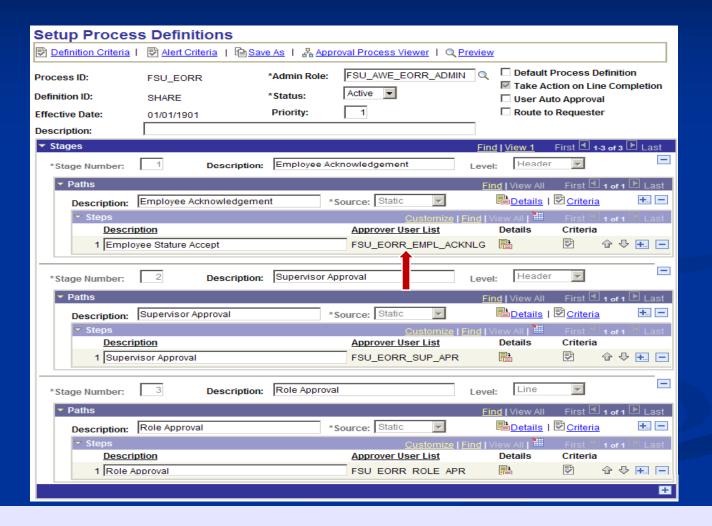
## PS Objects/Technology

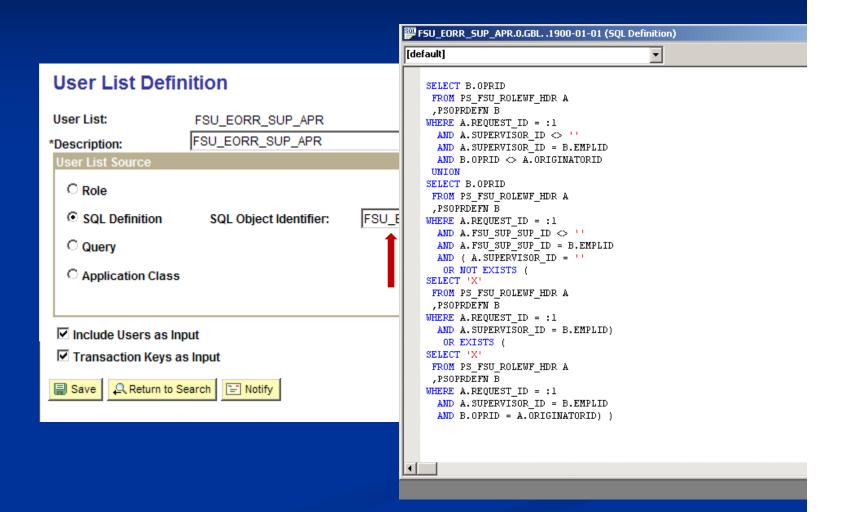
- AWE (Approval Workflow Engine)
- Sync and Async service operations (Application Message)
- Component Interface
- Application Package
- Record/Page/Component/PeopleCode

- Register Transaction
- Configure Transaction
- Setup Process Definition
- Email templates
- User list (Approvers/Reviewers)



Con	figure Transactions							
Generic Template Definition Blackberry Email Responses								
Template:	FSU eORR Approved							
*Description:	FSU eORR Approved							
Instructional Text:								
Priority:	1-High							
*Sender:	*Sender: System Email ID:							
Subject:	Approval of Online Role Red	quest for %5, Employee ID %3						
Message Text:								
	Request ID: %9 Employee: %3 Employee Record: %4 Name: %5 Department: %8							
	Below is the list of available variables for this template.							
		es within your subject or message text.						
	The following variables can a	ilso be used:						
	%Date, %DateTime, %Time,	%ServerTimeZone, %EmailAddress, %Notificatio	nPriority,					
	%NotificationToList, %Notific	ationCCList						
	Template Variables	*Department						
	*Value %1	*Description URL	+ -					
	%2	Role Request ID	+ -					
	%3	Employee ID	+ -					
	%4	Employee Record	+ -					
	%5	Name	+ -					
	%6	Application	+ -					
	%7	Action						





#### Code for Workflow

 Created Application Package that contained all the method to initialize, submit, clean-up transaction



```
FSU_SUBMIT_EORR_WF (application_class)
                                                             ▼ OnExecute
 import HRS AWE:INTERFACES:ILaunchManager;
 import HRS_AWE:INTERFACES:IApprovalManager;
 import HRS AWE: ApprovalsFactory;
 import FSU_EORR_WORKFLOW:COMMON:Exception;
    Class FSU SUBMIT cORR WF
  Module: eORR Workflow */
 class FSU SUBMIT EORR WF
    method FSU Submit eORR Approval(@recEORR As Record);
    method FSU_Init_eORR_Approval(&recEORR As Record) Returns HRS_AWE:INTERFACES:ILaunchManager;
    method FSU_saveAdhocSteps();
    method FSU do submit cleanup();
    /* private
    instance HRS_AWE:ApprovalsFactory &AprvFactory;
    instance HRS AWE: INTERFACES: ILaunchManager & LaunchMgr; */
 end-class;
 Component string &streORRAprvInd;
 Component HRS_AWE:ApprovalsFactory &AprvFactory;
 Component HRS AWE: INTERFACES: ILaunchManager &LaunchMgr;
 Component HRS_AWE:INTERFACES:IApprovalManager &AprvMgr;
 /* This Method is what submits the eORR for Approvals */
 method FSU Submit eORR Approval
    /+ &recEORR as Record +/
    &LaunchMgr = %This.FSU_Init_eORR_Approval(&recEORR);
    If &LaunchMgr.submitEnabled Then
       /* &LaunchMgr.requester = &HR.getOprID(&recJ0.MANAGER ID.Value); */
       &LaunchMgr.requester = %OperatorId;
       &LaunchMgr.DoSubmit();
    End-If:
 end-method:
 /* This Method is what initiates the eORR Approval Process to the Approvals Workflow Engine. */
 method FSU_Init_eORR_Approval
    /+ &recEORR as Record +/
    /+ Returns HRS_AWE:INTERFACES:ILaunchManager +/
```

#### code for Workflow

Created another Application Package(event handler) that contained all the method to add/delete roles in User profile, create app message to integrate with other PeopleSoft applications, set transaction status to Approve/denied/in progress, error handling etc



```
EORR_Handler (application_class)
                                                            ▼ OnExecute
import HMAF AWE: WRAPPERS: *;
import HRS_COMMON:OBJ_STATUS_EFFECTS:BUS:*;
import HRS APPLICANT TRACKING: HRS OFFER: BUS: *;
/* Begin FSU Spec#0418, MBILLA, 05/06/2008 - 9.0 Retrofit */
import PTAF CORE: *;
import PTAF_CORE:ENGINE: *;
/* End FSU Spec#0418, MBILLA, 05/06/2008 - 9.0 Retrofit */
import HMAF AWE: WRAPPERS: *;
 import HRS_AWE: INTERFACES: *;
/* Begin FSU Spec#0418, MBILLA, 05/06/2008 - 9.0 Retrofit */
rem 8.9 version class EORR_Handler extends SAC_AW:ApprovalEventHandler;
class EORR_Handler extends PTAF_CORE:ApprovalEventHandler
   /* End FSU Spec#0418, MBILLA, 05/06/2008 - 9.0 Retrofit */
   property Record recEORRAprv;
   property Record recEORRLineAprv;
   method EORR Handler();
   method OnProcessLaunch(&appInst As PTAF CORE:ENGINE:AppInst);
   method OnStepActivate (&stepinst As PTAF_CORE:ENGINE:StepInst);
   method OnStepComplete(&stepinst As PTAF CORE:ENGINE:StepInst);
   method OnStepPushback(suserinst As PTAF CORE:ENGINE:UserStepInst):
   method OnStepReactivate(&stepinst As PTAF_CORE:ENGINE:StepInst);
   method OnHeaderDeny(&userinst As PTAF_CORE:ENGINE:UserStepInst);
   method OnHeaderApprove(&appinst As PTAF_CORE:ENGINE:AppInst);
   method OnTerminate(&appinst As PTAF_CORE:ENGINE:AppInst);
   method Set_Hdr_Keys_And_Field_Info(&thread As PTAF_CORE:ENGINE:Thread);
   method OnAdHocInsert(&stepinst As PTAF_CORE:ENGINE:AdHocStepInst, &approver As array of string);
   method OnAdHocDelete(&stepinst As PTAF CORE:ENGINE:AdHocStepInst);
   method OnLineDeny(&userstep As PTAF_CORE:ENGINE:UserStepInst);
   method OnLineApprove(&appinst As PTAF_CORE:ENGINE:AppInst, &thread As PTAF_CORE:ENGINE:Thread);
   method OnAllLinesProcessed(&appinst As PTAF CORE: ENGINE: AppInst, &approved As array of PTAF CORE: ENGINE: Thread, &denied
   /* End FSU Spec#0418, MBILLA, 05/06/2008 - 9.0 Retrofit */
   method setStatus():
   method GetUserId(&emplid As string) Returns string;
   method ProcessAddAction():
   method ProcessDeleteAction();
   method errorHandler(@oSession As ApiObject);
end-class:
```

### Code used to fire Wokflow (Submit)

Peoplecode to submit transaction should be written in SavePostChange event

```
FSU_EORR_SUBMIT.GBL (component)
                                                             import PTAF MONITOR:MONITOR:awStatusMonitor;
  import HRS_AWE:WRAPPERS:AdhocAccessLogicBase;
 Declare Function UpdateStatus PeopleCode FSU_EORR_WRK.HMAF_STATUS FieldFormula;
  Component string &strEORRAprvInd;
  Global string &FSU Resubmit;
  Component HRS_AWE:INTERFACES:ILaunchManager &LaunchMgr;
  Component HRS_AWE:INTERFACES:IApprovalManager &AprvMgr;
  rem Component HRS AWE:INTERFACES:IStatusMonitor &StatusMonitor;
  Component PTAF MONITOR: MONITOR: awStatusMonitor &StatusMonitor;
  Component PTAF MONITOR: MONITOR: awStatusMonitor & monitor;
  rem Local string &strSetID = GetSetId(Field.BUSINESS_UNIT, FSU_ROLEWF_HDR.BUSINESS_UNIT, "SAC_AW PRCS", "");
  Local string &strSetID = FSU_ROLEWF_HDR.SETID;
  &eORR WF = create FSU EORR WORKFLOW:FSU SUBMIT EORR WF();
  &eORR_WF_UI = create FSU_EORR_WORKFLOW:FSU_EORR_UI();
  Local Record &recEORRCopy = CreateRecord(Record.FSU ROLEWF HDR);
  GetRecord(Record.FSU_ROLEWF_HDR).CopyFieldsTo(&recEORRCopy);
  &AprvFactory = create HRS AWE:ApprovalsFactory();
  &AprvMgr = &AprvFactory.getApprovalManager("FSU EORR", &recEORRCopy, %OperatorId);
  &LaunchMgr = &eORR_WF.FSU_Init_eORR_Approval(&recEORRCopy);
  If &strEORRAprvInd = "S" And
        &FSU Resubmit <> "Y" Then
     /* This is the submit to the FSU approvals app package. */
     &eORR_WF.FSU_Submit_eORR_Approval(&recEORRCopy);
     /* Below is what does the UI formatting and displays things to the user. */
     &eORR_WF_UI.FSU_EORR_displayAprvMonitor();
     &eORR_WF.FSU_saveAdhocSteps();
     &eORR WF.FSU do submit cleanup();
  End-If:
```

#### Code used to Submit transaction

Use delivered method DoSubmit method to Submit transaction for Workflow

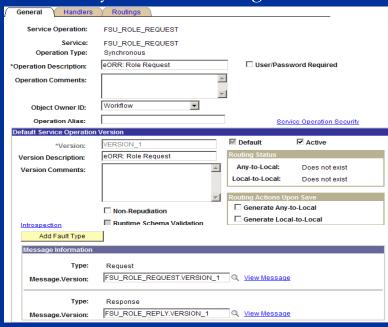
```
import HRS AWE: INTERFACES: ILaunchManager;
import HRS AWE: INTERFACES: IApprovalManager;
import HRS AWE: Approvals Factory;
import FSU EORR WORKFLOW: COMMON: Exception;
/* Class FSU SUBMIT eORR WF
  Module: eORR Workflow */
class FSU SUBMIT EORR WF
   method FSU Submit eORR Approval(&recEORR As Record);
   method FSU Init eORR Approval(@recEORR As Record) Returns HRS AWE:INTERFACES:ILaunchManager;
   method FSU saveAdhocSteps();
   method FSU_do_submit_cleanup();
   instance HRS AWE: Approvals Factory & Aprv Factory;
   instance HRS AWE: INTERFACES: ILaunchManager & LaunchMgr; */
end-class:
Component string &streORRAprvInd;
Component HRS_AWE: ApprovalsFactory & AprvFactory;
Component HRS_AWE:INTERFACES:ILaunchManager &LaunchMgr;
Component HRS_AWE:INTERFACES:IApprovalManager &AprvMgr;
/* This Method is what submits the eORR for Approvals */
method FSU_Submit_eORR_Approval
   /+ &recEORR as Record +/
   &LaunchMgr = %This.FSU_Init_eORR_Approval(&recEORR);
   If &LaunchMgr.submitEnabled Then
      /* &LaunchMgr.requester = &HR.getOprID(&recJO.MANAGER_ID.Value); */
      &LaunchMgr.requester = %OperatorId;
      &LaunchMgr.DoSubmit();
   End-If:
end-method:
```

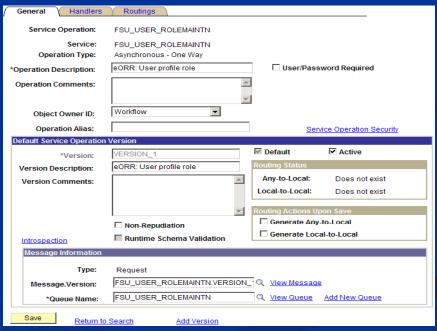
### Code to Approve/Deny transaction

- When Users Approve or Deny a Transaction
  - Use DoApproveRowSet or DoDenyRowSet methods to approve or deny line level transactions
  - Use DoApprove or DoDeny methods to approve or deny header level transactions

### Application Message

- Created two Application messages (Services)
  - Synchronous message to fetch the existing roles for employee from other PeopleSoft apps
  - Asynchronous message to add/delete roles





### Application Message

■ Code to fetch existing roles for an employee in other PeopleSoft suites (Financials) using a Synchronous application message

```
Function PopulateExistingRoles()
   Local Message &request, &response;
   Local Rowset &req_rowset, &rep_rowset;
  Local Record &req_rec, &rep_rec;
   Local Row areq_row;
  Local string & LabelStr, & RemPrefix, & ProdRequested;
   Local any &PS_GL;
  Local SQL agetRoles;
  Local string auserid;
   &DisplayRolename = "";
   /*get userid of the employee*/
   &userid = getUserid();
  If FSU ROLEWF HDR.FSU APP SUITE = "FIN" Then
     If IsMessageActive (Message.FSU ROLE REQUEST) Then
         &request = CreateMessage(Message.FSU ROLE REQUEST);
         areq_rowset = CreateRowset(Record.FSU_ROLE MSG H);
         areq rowset(1).GetRecord(Record.FSU ROLE MSG H).GetField(Field.ROLEUSER).Value = auserid;
         arequest.CopyRowset(areq rowset);
         %response = %request.SyncRequest();
         If (@response.ResponseStatus = 0) Then
            arep rowset = aresponse.GetRowset();
            For &i = 1 To &rep_rowset.ActiveRowCount
              &rolename = &rep_rowset(&i).GetRecord(Record.FSU_ROLE_MSG_H).GetField(Field.ROLENAME).Value;
               /*Display only those roles that exists in Role Configuration tables*/
               SQLExec("Select 'X' from PS_FSU_ROLEAPR_HDR A Where A.Rolename = :1 AND A.FSU_APP_SUITE = :2 AND A.ROLESTATUS = 'A'
               If All(Gexists) Then
                  &DisplayRolename = &DisplayRolename | Char(10) | &rolename;
           End-For:
        End-If:
     End-If:
  Else
     If FSU ROLEWF HDR.FSU APP SUITE = "HRMS" Then
         agetRoles = CreateSQL("SELECT ROLENAME FROM PSROLEUSER WHERE ROLEUSER = : 1", auserid);
         While agetRoles.Fetch(arolename)
```

### Application Message

■ Code to Publish application messages on Final Approval to add roles in other PeopleSoft suites (Financials) using Asynchronous app message

```
▼ OnExecute
EORR Handler (application class)
      end-try:
      Break:
   When = "FIN"
      /* This part of the code sends a Async message to Fin to add the approved roles to the User profile*/
      /* If IsMessageActive(Message.FSU_USER_ROLEMAINTN) Then*/
      If %IntBroker.IsOperationActive(Message.FSU_USER_ROLEMAINTN) Then
         &EORR_ROLEMAINT_MSG = CreateMessage(Message.FSU_USER_ROLEMAINTN);
         &ROLEMAINT RS = &EORR ROLEMAINT MSG.GetRowset();
         For &arrayIndex = 1 To &ApprovedRolesArray.Len
            If &m > 1 Then
               &ROLEMAINT RS.InsertRow(&m - 1);
            End-If:
            &ROLEMAINT RS.GetRow(&m).GetRecord(Record.FSU RL MANT MSG).GetField(Field.ROLEUSER).Value = &oprid;
            &ROLEMAINT_RS.GetRow(&m).GetRecord(Record.FSU_RL_MANT_MSG).GetField(Field.ROLENAME).Value = LTrim(RTrim(&ApprovedRolesA
            &ROLEMAINT_RS.GetRow(&m).GetRecord(Record.FSU_RL_MANT_MSG).GetField(Field.FSU_ACTION_TYPE).Value = "ADD";
            \&\mathbf{m} = \&\mathbf{m} + \mathbf{1};
         End-For:
         If None(&ROLEMAINT RS.GetRow(1).GetRecord(Record.FSU RL MANT MSG).GetField(Field.ROLENAME).Value) Then
            rem do nothing;
            %IntBroker.Publish(&EORR_ROLEMAINT_MSG);
         End-If
         WinMessage ("Message FSU USER ROLEMAINTN is NOT active", 0);
      End-If:
      Break:
   End-Evaluate:
```

## Questions?

### Contacts

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