



# High Level Design Document

## eFiling Multi-Vendor Processing, Release 1.0

Version 1.0 Draft

Prepared by Andy Czuppa

April 25, 2006

## Revision History

Name	Date	Reason For Changes	Version
Andy Czuppa	04/25/2006	initial draft	1.0 draft
Andy Czuppa	05/23/2006	Added GetFeesCalculation, NotifyReviewFiling	1.1 draft

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## 1. Introduction

This document provides a comprehensive architectural overview of the system, using a number of different architectural views to depict different aspects of the system. It is intended to capture and convey the significant architectural decisions which have been made on the system.

### 1.1 Scope

This document outlines:

- Detailed use case scenarios of key process flows of the application
- The class model and relationships
- The sequence diagrams which outline key use case scenarios
- The data/object model with relational table design
- User interface style and design

### 1.2 References

ECF Draft:

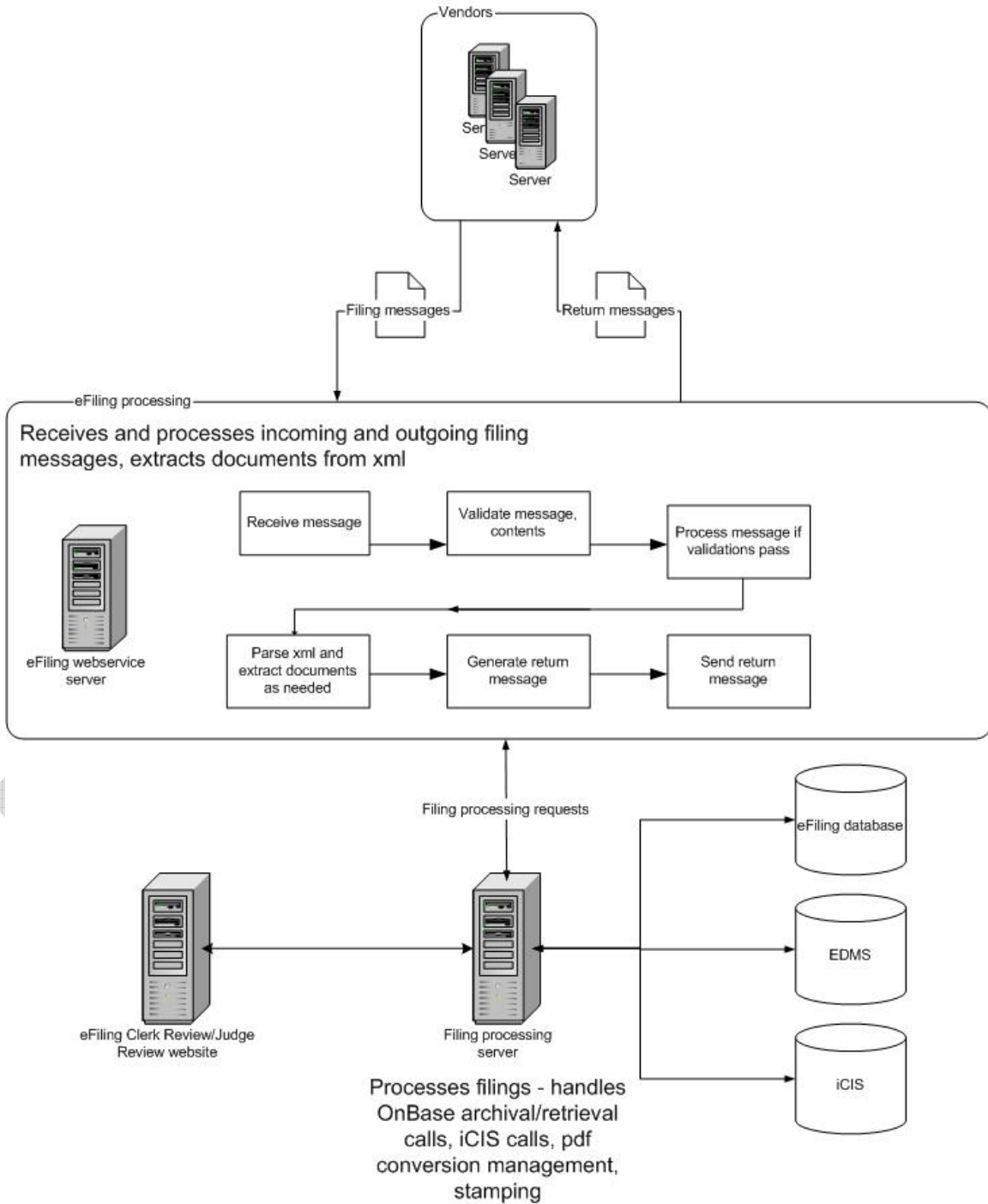
[http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=legalxml-courtfiling#technical](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=legalxml-courtfiling#technical)

# Maricopa County Clerk of the Superior Court ITG

## 2. Architectural Representation

This section describes the proposed software architecture for the system.

### Multivendor eFiling architecture



### **3. Architectural Goals and Constraints**

This section describes the software requirements and objectives that have some significant impact on the architecture.

The key design goals are:

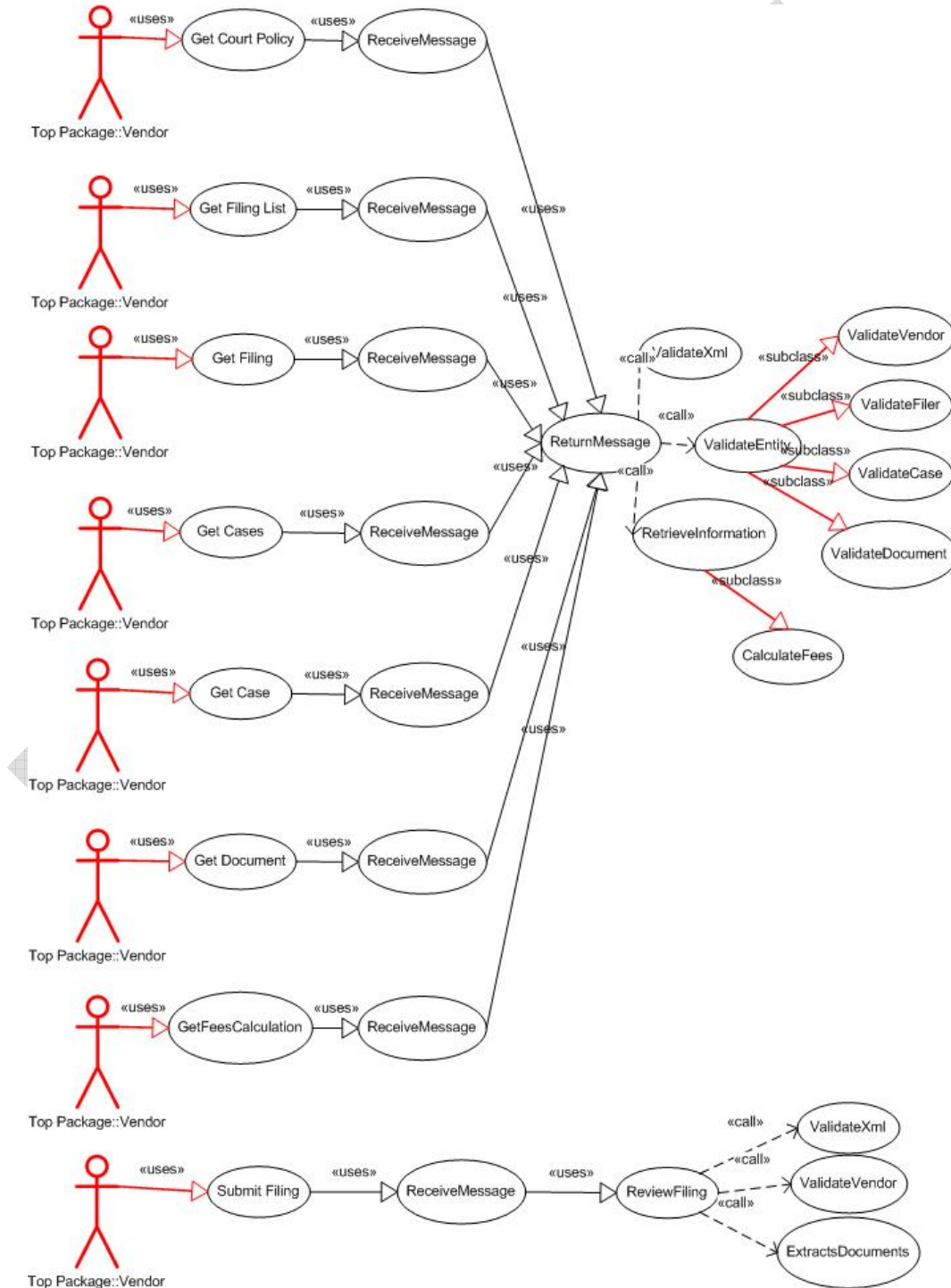
- Support for multiple vendors
- Compliance with standards
- Usability
- Stability
- Extensibility to support additional vendors, case types, and future standards and technologies

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### 4. Use-Case View

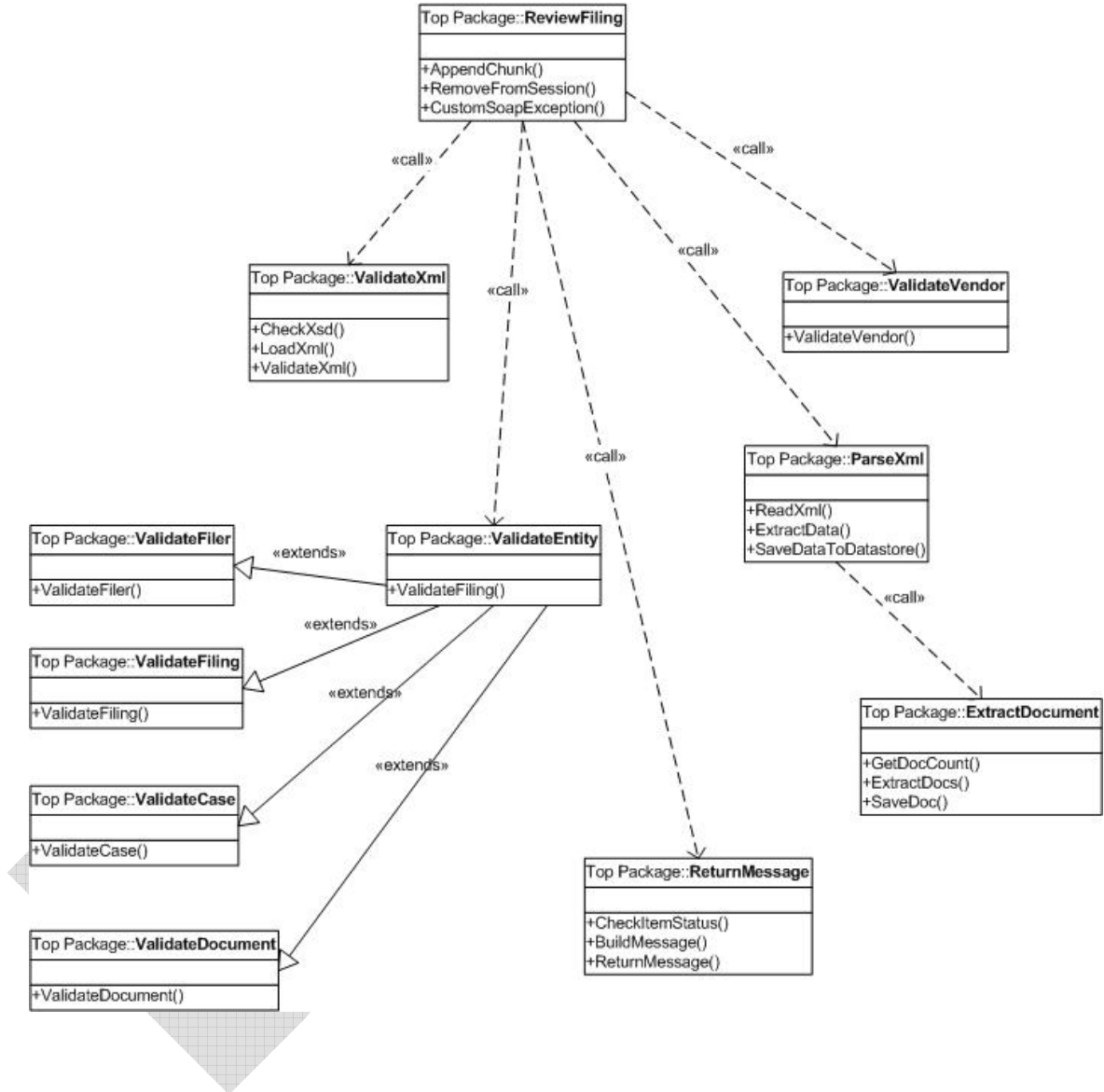
This section lists use cases or scenarios from the use-case model which depict significant, central functionality of the final system, or if they have a large architectural impact.

#### 4.1 Use-case Realizations



## 5. Logical View

This section describes the architecturally significant parts of the design model, such as its decomposition into subsystems and packages and for each significant package, its decomposition into classes and class utilities.

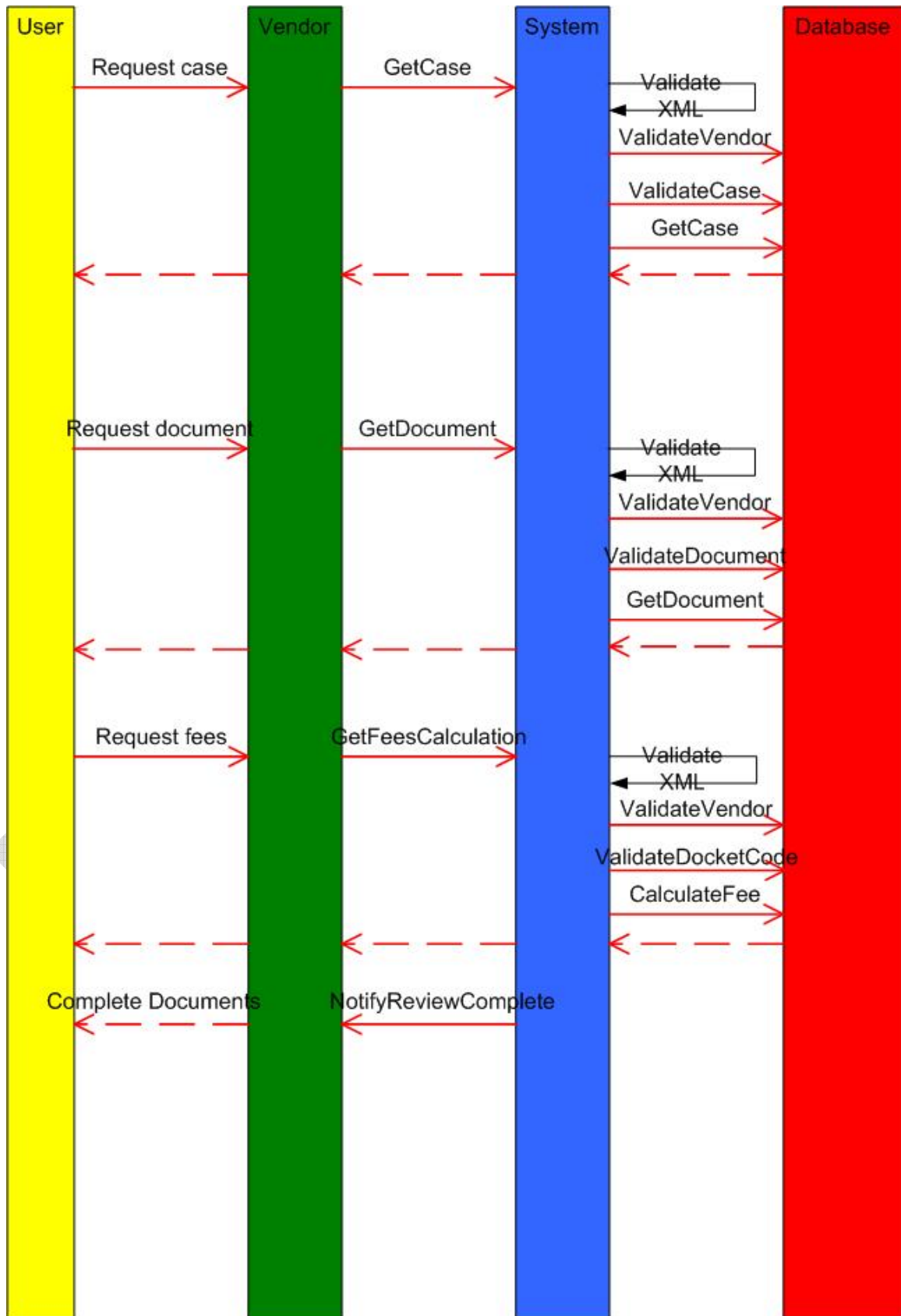


## 6. Process View

This section describes the system's decomposition into main sequences of flows.



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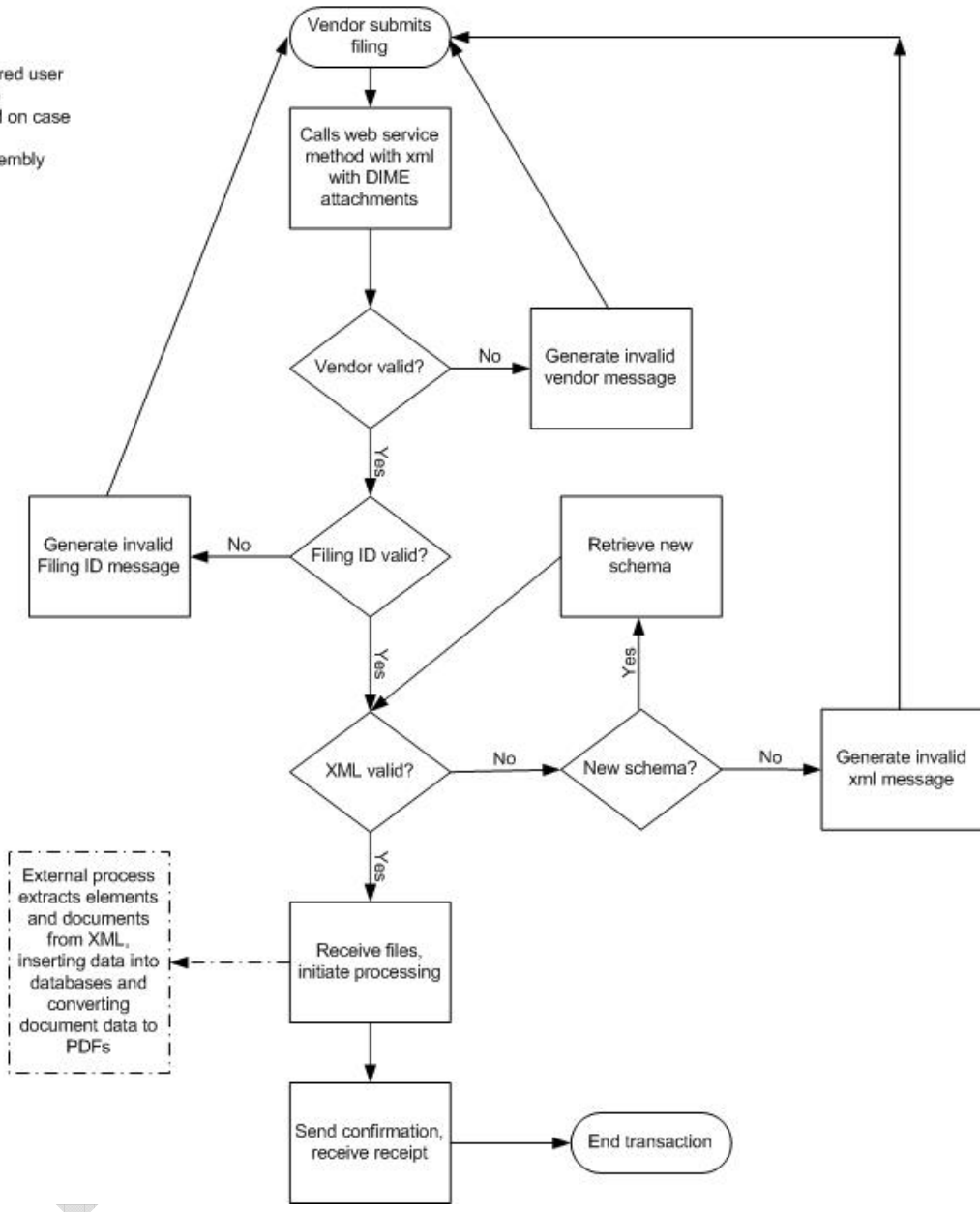
**7. User Interface**

Because the vast majority of this process takes place via web services or COM type objects there is really no user interface. The vendor websites have their own interfaces which are outside the control of this system. The clerk review process is conducted through the standard eFiling user interface which has been amply documented elsewhere.

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**Appendix A:** System flow charts  
**Vendor filing process**

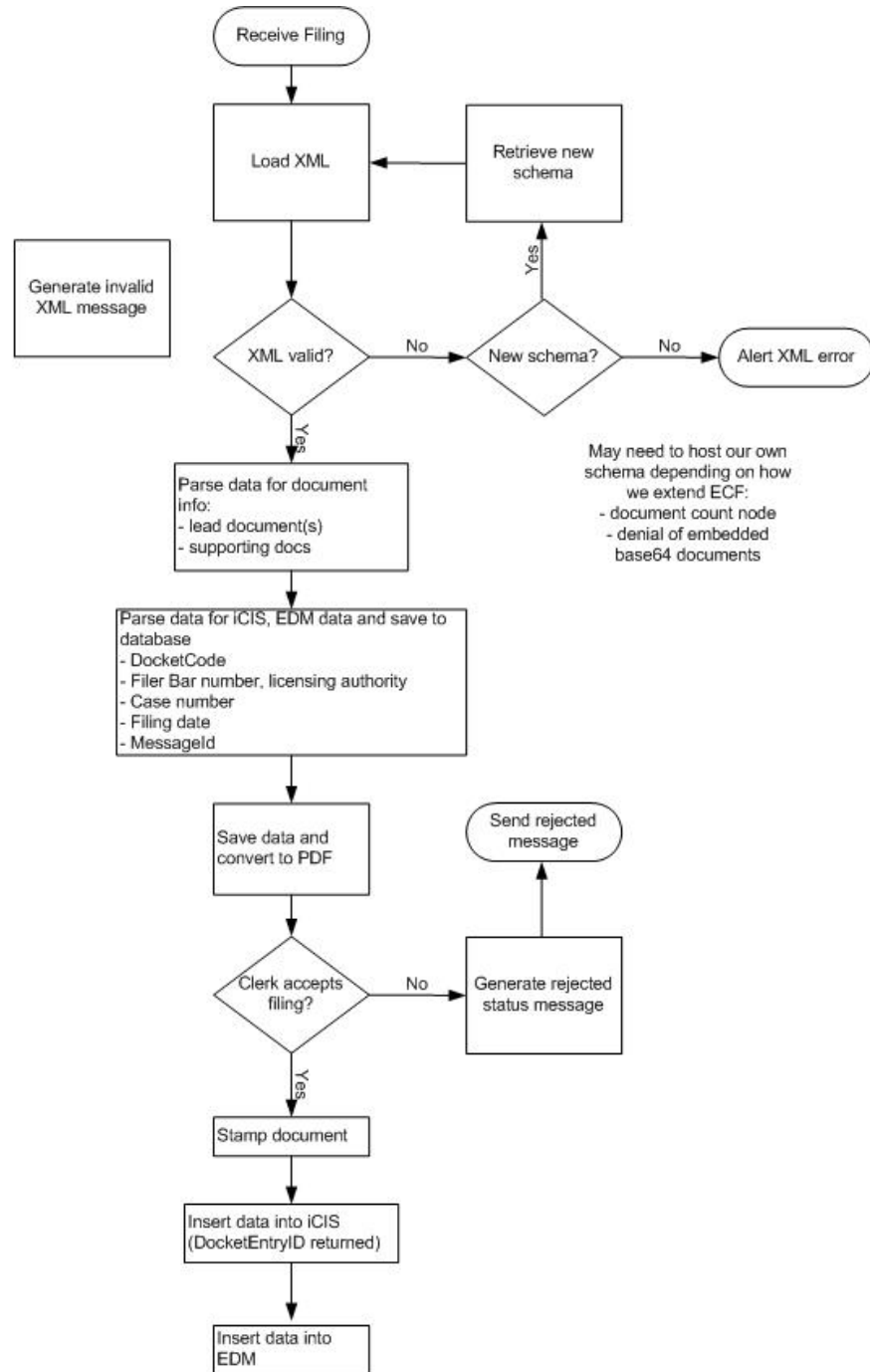
Assumptions:  
 1. Valid, registered user  
 2. Existing case  
 3. Attorney valid on case  
 MDE: Filing Assembly



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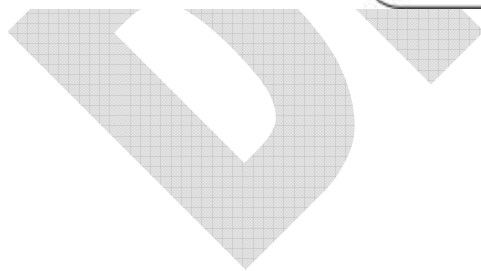
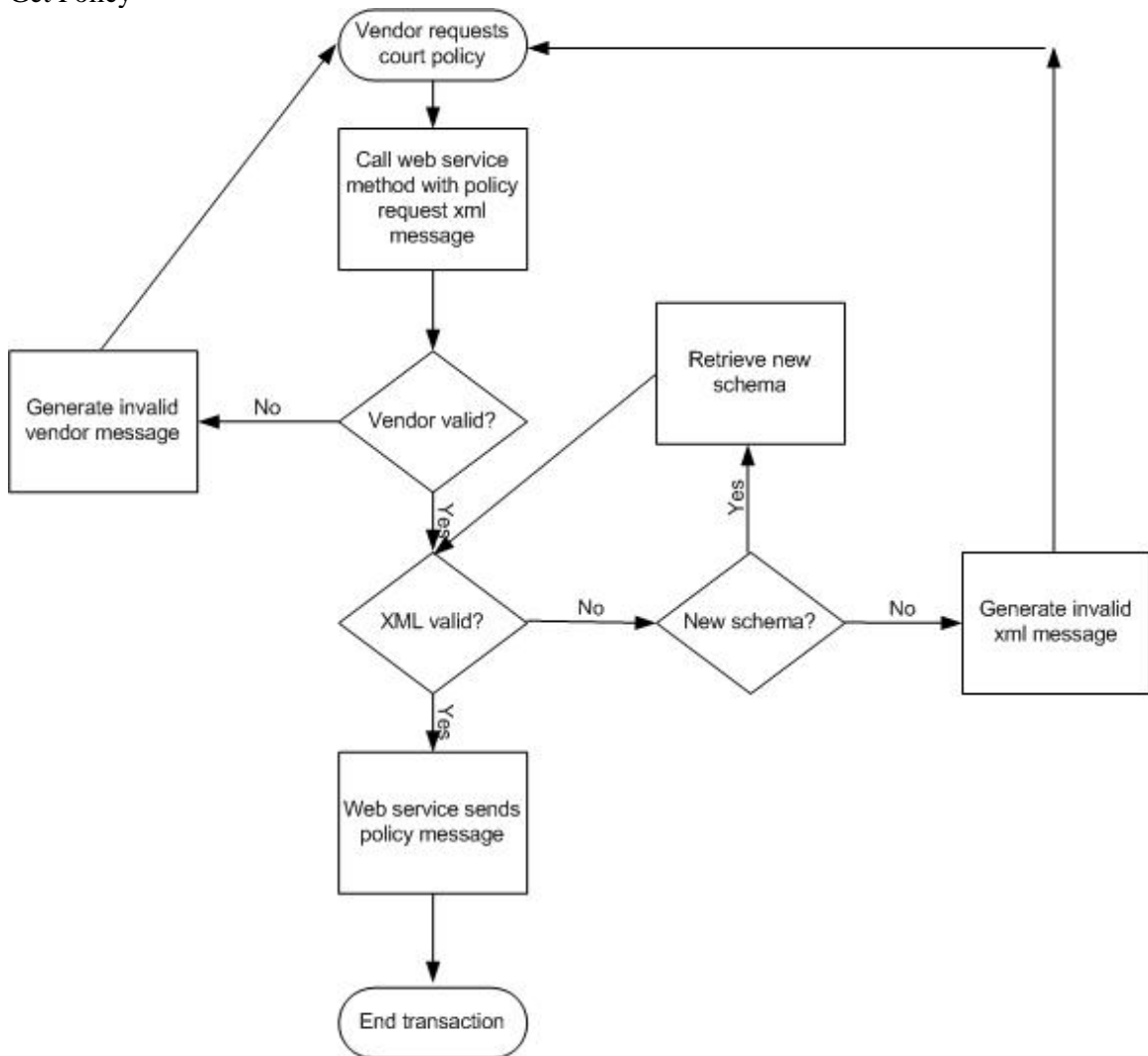
## Process Filing

External process extracts elements and documents from XML, inserting data into databases and converting document data to PDFs



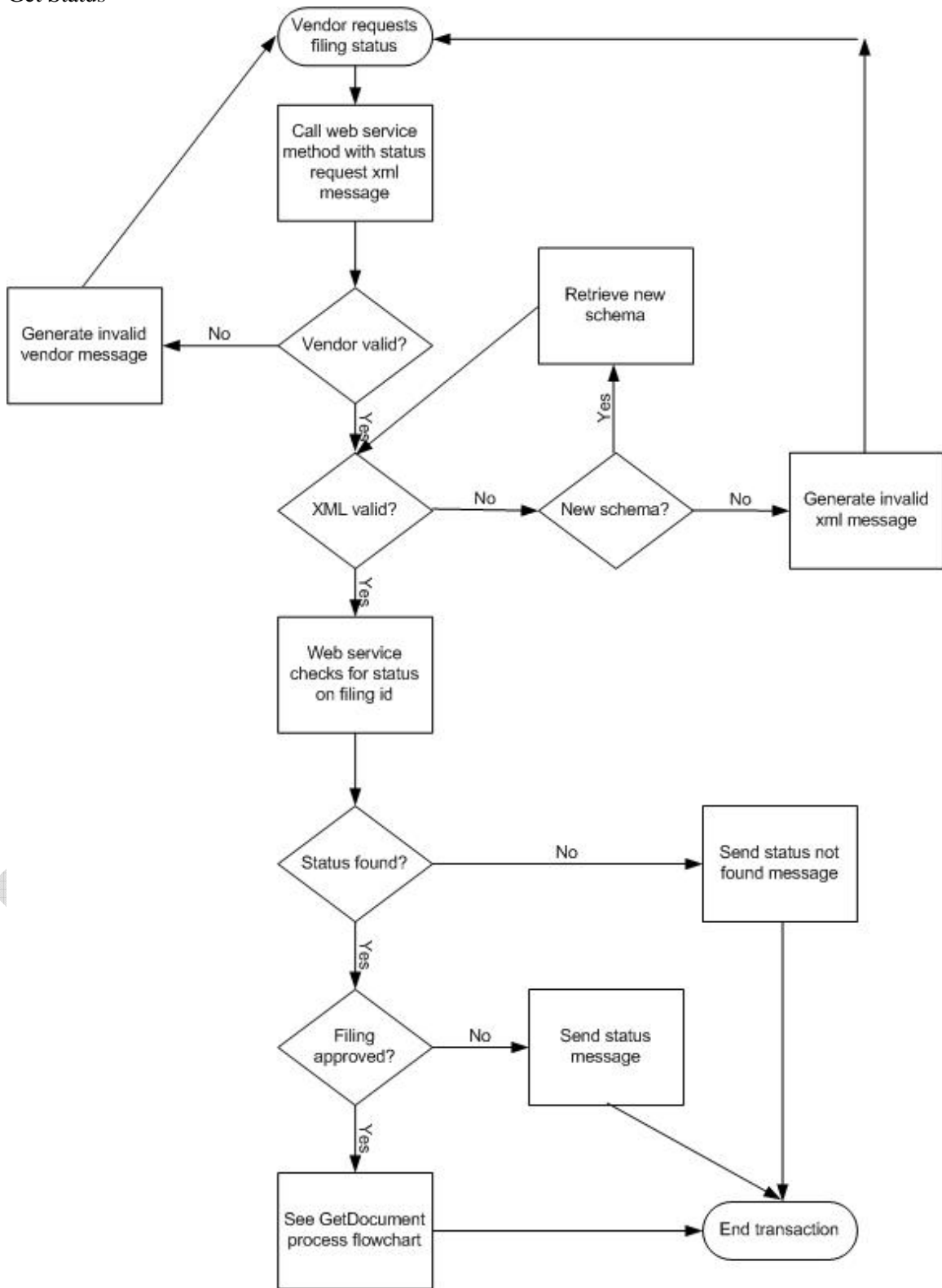
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Get Policy



# Maricopa County Clerk of the Superior Court ITG

## Get Status



# Maricopa County Clerk of the Superior Court ITG

## Vendor get document

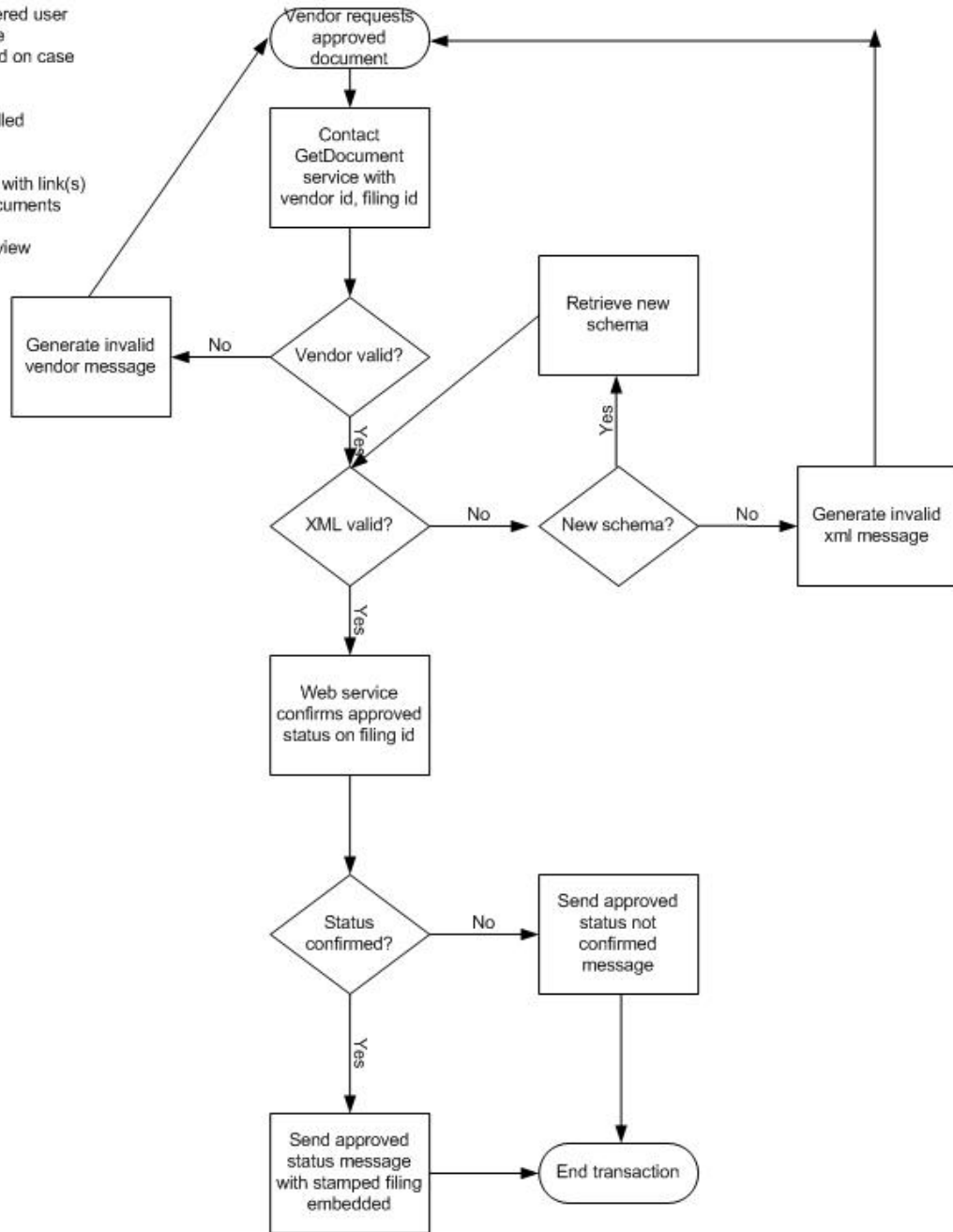
Assumptions:

1. Valid, registered user
2. Existing case
3. Attorney valid on case

GetFilingList or  
GetCaseList called  
previously

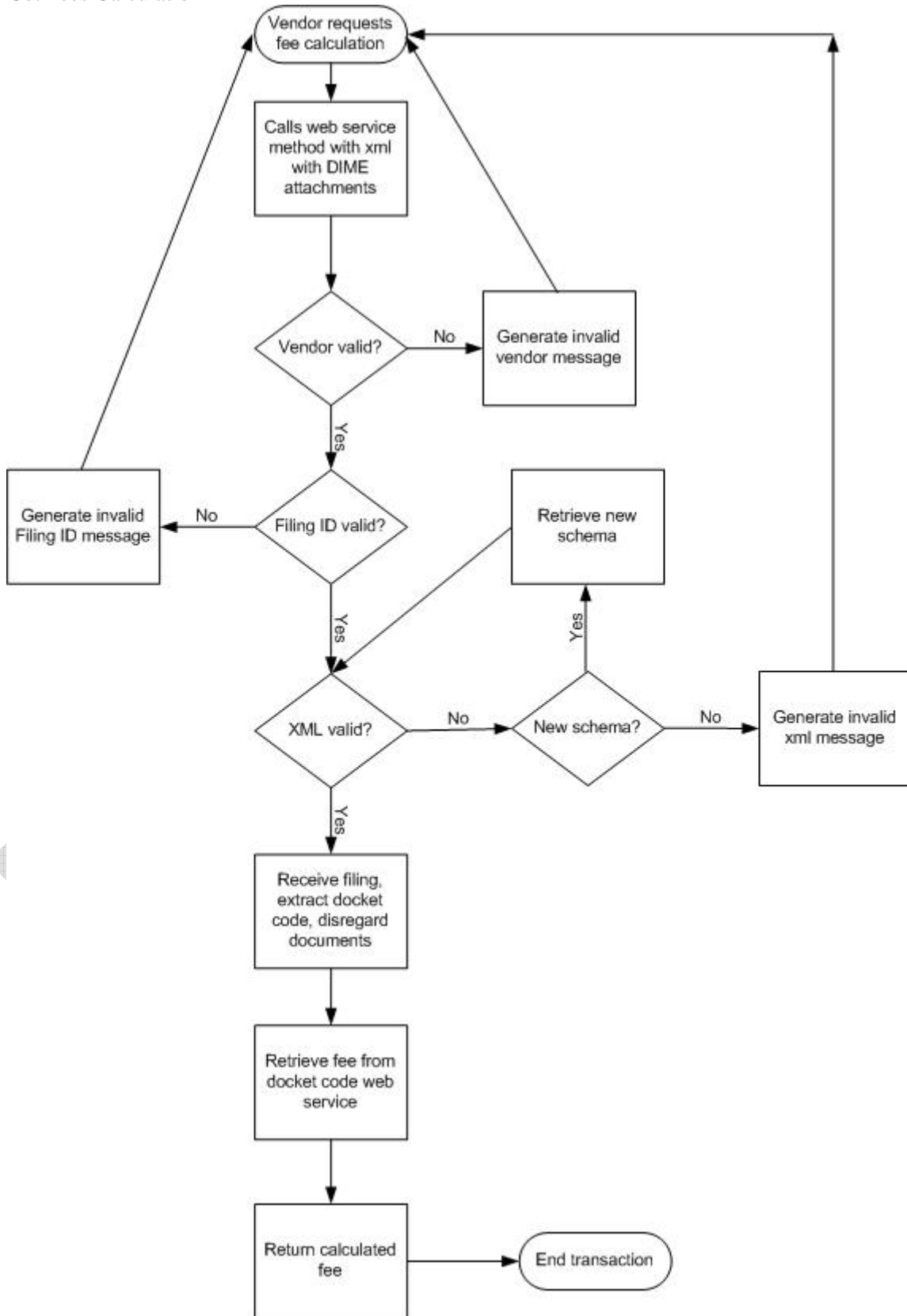
User presented with link(s)  
to approved documents

MDE: Filing Review



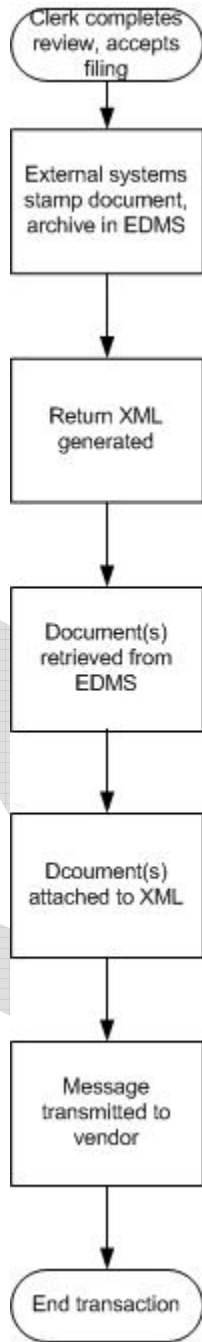
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## Get Fees Calculation



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Notify Review Filing complete



# Maricopa County Clerk of the Superior Court ITG

## Appendix B: System use cases

Use Case ID:	1		
Use Case Name:	Electronic filing process file document		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System, FilingProcessing subsystem, Clerk		
Description:	After a Filer generates a filing with a Vendor, the Vendor accesses the eFiling Application webservice, attaches the files required by the Filer, and submits the filing.		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system has submitted document(s) for filing</li> </ol>		
Postconditions:	<ol style="list-style-type: none"> <li>1. Filing and Documents are stored with a status of <b>RECEIVED?</b></li> <li>2. Confirmation of receipt of the filing is generated to the Vendor</li> </ol>		
Normal Flow:	<p><b>1.0 Submit filing package</b></p> <ol style="list-style-type: none"> <li>1. Vendor validates the filing package</li> <li>2. Vendor submits filing to System Filing web service File Receiver method</li> <li>3. System validates vendor, filing package</li> <li>4. System confirms acceptance of the filing package</li> <li>5. System parses filing, extracts documents</li> <li>6. System passes control to FilingProcessing subsystem</li> <li>7. FilingProcessing stores filing in database</li> <li>8. FilingProcessing generates pre-docket entry Id</li> <li>9. Clerk reviews and accepts filing</li> <li>10. FilingProcessing moves, stamps and archives document</li> <li>11. FilingProcessing updates status of filing to accepted</li> <li>12. System exits use case.</li> </ol>		
Alternative Flows:	<p><b>4.1 System does not confirm package due to invalid filing id</b> 4.1a. Vendor returns to step 1 to revalidate filing package</p> <p><b>4.2 System does not confirm package due to invalid XML</b> 4.1a. Vendor returns to step 1 to revalidate filing package</p> <p><b>9.1 Clerk rejects filing</b> 9.1a. Filing rejected status set 9.1b. Vendor notified of rejection</p>		
Exceptions:	EDMS failure; CMS failure; AdLib failure		
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 100 users, average of four usages per day		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:	<ol style="list-style-type: none"> <li>1. The default date is the current date if the filing is received by the system during normal business hours. Otherwise, the default date is the next business day</li> <li>2. Fees for filings will need to be tracked and payments matched to appropriate filings upon payment</li> </ol>		

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	3. Peak usage load for this use case is between 8:00am and 10:00am local time
ECF 3.0:	Corresponds to Filing Assembly MDE <ul style="list-style-type: none"><li>- Review Filing interaction</li><li>- Core Filing Message XSD<ul style="list-style-type: none"><li>- have all data except for confidentiality flag</li></ul></li><li>- Record Docketing Callback Message XSD</li><li>- Record Docketing Message XSD</li><li>- Review Filing Callback Message XSD</li></ul>

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## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	2		
Use Case Name:	Check electronic filing status		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	After a Vendor has submitted filings, the Vendor accesses the eFiling Application webservice, and submits a request to retrieve the status of the filings.		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system has submitted document(s) for filing</li> </ol>		
Postconditions:	<ol style="list-style-type: none"> <li>1. Filing and Documents are stored with a status of &lt;?&gt;</li> <li>2. Case Information is updated to reflect the filed documents</li> </ol>		
Normal Flow:	<b>1.0 Check electronic filing status</b> <ol style="list-style-type: none"> <li>1. Vendor submits GetStatus request to System</li> <li>2. System validates vendor, filing id, status request</li> <li>3. System checks CMS for status of filing</li> <li>4. System returns status to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 100 users, average of four usages per day?		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:			
ECF 3.0:	<p>Corresponds to Filing Review MDE</p> <ul style="list-style-type: none"> <li>- Get Filing Status</li> <li>- Filing Status Query Message XSD <ul style="list-style-type: none"> <li>- seems to be free form for the most part, matching file id required</li> </ul> </li> <li>- Filing Status Response Message XSD <ul style="list-style-type: none"> <li>- believe all fields covered: filing id, status code, status reason, filing case, filing type</li> </ul> </li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	3		
Use Case Name:	Get list of electronic filings by user		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	After a Vendor has submitted filings, the Vendor accesses the eFiling Application webservice, and submits a request to retrieve a list of filings for a particular user.		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system has submitted document(s) for filing</li> </ol>		
Postconditions:	<ol style="list-style-type: none"> <li>1. Filing and Documents are stored with a status of &lt;?&gt;</li> <li>2. Case Information is updated to reflect the filed documents</li> </ol>		
Normal Flow:	<p><b>1.0 Get list of filings by user</b></p> <ol style="list-style-type: none"> <li>1. Vendor submits GetFilings request to System</li> <li>2. System validates vendor, filing id, xml request</li> <li>3. System checks CMS for filings matching request</li> <li>4. System returns list of filings to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 100 users, average of four usages per day?		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:			
ECF 3.0:	<p>Corresponds to Filing Review MDE</p> <ul style="list-style-type: none"> <li>- Get Filings List</li> <li>- Filing List Query Message XSD <ul style="list-style-type: none"> <li>- seems to be free form for the most part, matching file id required</li> </ul> </li> <li>- Filing List Response Message XSD <ul style="list-style-type: none"> <li>- believe all fields covered: filing id, status code, status reason, filing case, filing type</li> </ul> </li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	4		
Use Case Name:	Get court policy for electronic filing		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	Vendor retrieves court eFiling policy from webservice.		
Preconditions:	1. Vendor must be a valid, pre-certified participant in eFiling		
Postconditions:	1. Court policy message is returned		
Normal Flow:	<b>1.0 Get Court Policy</b> 1. Vendor submits GetPolicy request to System 2. System validates vendor 3. System returns court policy		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 4 vendors, average of one usages per day?		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:			
ECF 3.0:	Corresponds to Filing Review MDE - Get Policy - Court Policy Query Message XSD - Court Policy Response Message XSD		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	5		
Use Case Name:	Get approved documents previously filed		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	Vendor requests filed documents that have been approved		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system has submitted document(s) for filing</li> <li>3. User has requested (through Vendor) list of document(s) that have been approved.</li> <li>4. User has selected a particular approved filing for retrieval</li> </ol>		
Postconditions:	None		
Normal Flow:	<b>0.0 Review a document</b> <ol style="list-style-type: none"> <li>1. Vendor submits GetDocument request to System</li> <li>2. System validates vendor, filing id, filing status, xml request</li> <li>3. System checks EDMS for documents matching request</li> <li>4. System returns approved documents (embedded in xml) to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	?		
Business Rules:			
Special Requirements:	1. Vendor must be able to extract document(s) from xml.		
Assumptions:			
Notes and Issues:			
ECF 3.0:	Corresponds to Court Record MDE <ul style="list-style-type: none"> <li>- Get Document</li> <li>- Document Query Message XSD</li> <li>- Document Response Message XSD</li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	6		
Use Case Name:	Get list of cases user has access to		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	Vendor requests cases associated with a particular user		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system is assigned to eFiling cases</li> </ol>		
Postconditions:	None		
Normal Flow:	<p><b>0.0 Retrieve a list of cases</b></p> <ol style="list-style-type: none"> <li>1. Vendor submits GetCases request to System</li> <li>2. System validates vendor, user id, xml request</li> <li>3. System checks CMS for cases associated with user id (bar number, state)</li> <li>4. System returns case list to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	?		
Business Rules:			
Special Requirements:	1. Vendor must be able to extract document(s) from xml.		
Assumptions:			
Notes and Issues:			
ECF 3.0:	<p>Corresponds to Court Record MDE</p> <ul style="list-style-type: none"> <li>- Get Cases</li> <li>- Case List Query Message XSD</li> <li>- Case List Response Message XSD</li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	7		
Use Case Name:	Get all filings on a particular case user has access to		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	March 9, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	Vendor requests filings on case associated with a particular user		
Preconditions:	<ol style="list-style-type: none"> <li>1. Vendor must be a valid, pre-certified participant in eFiling</li> <li>2. User on Vendor system is assigned to eFiling cases</li> </ol>		
Postconditions:	None		
Normal Flow:	<p><b>0.0 Retrieve a list of filings on a case</b></p> <ol style="list-style-type: none"> <li>1. Vendor submits GetCase request to System</li> <li>2. System validates vendor, user id, xml request</li> <li>3. System checks EDMS for documents filed on case associated with user id (bar number, state)</li> <li>4. System returns case filings list to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:			
Includes:	None		
Priority:	High		
Frequency of Use:	?		
Business Rules:			
Special Requirements:	1. Vendor must be able to extract document(s) from xml.		
Assumptions:			
Notes and Issues:			
ECF 3.0:	<p>Corresponds to Court Record MDE</p> <ul style="list-style-type: none"> <li>- Get Case</li> <li>- Case Query Message XSD</li> <li>- Case Response Message XSD</li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	8		
Use Case Name:	Get Fees Calculation		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	June 16, 2006	Date Last Updated:	June 16, 2006
Actors:	Vendor, System		
Description:	Vendor sends "trial" filing message so that System can determine for XML data and document(s) what fee will be charged for the filing		
Preconditions:	<ul style="list-style-type: none"> <li>0. Vendor must be a valid, pre-certified participant in eFiling</li> <li>0. XML must be valid and ECF compliant</li> <li>0. Document(s) must conform to court policy</li> </ul>		
Postconditions:			
Normal Flow:	<b>1.0 Submit "trial" filing package</b> <ul style="list-style-type: none"> <li>1. System receives filing</li> <li>2. System parses XML for docket code</li> <li>3. System submits docket code to fee calculation component and receives fee</li> <li>4. System returns fee to Vendor</li> </ul>		
Alternative Flows:			
Exceptions:	Fee calculation failure		
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 100 users, average of four usages per day		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:			
ECF 3.0:	Corresponds to Filing Assembly MDE <ul style="list-style-type: none"> <li>- Get Fees Calculation interaction</li> <li>- Notify Review Filing Complete Message XSD</li> </ul>		

## Maricopa County Clerk of the Superior Court ITG

Use Case ID:	9		
Use Case Name:	Notify Vendor of Review Filing Complete		
Created By:	Andy Czuppa	Last Updated By:	Andy Czuppa
Date Created:	June 16, 2006	Date Last Updated:	June 16, 2006
Actors:	Clerk, System, FilingProcessing subsystem, Vendor		
Description:	After Clerk accepts the filing, the document(s) are stamped, archived in EDMS and CMS is updated with accepted status. The official documents are then sent to the Vendor		
Preconditions:	1. Vendor must be a valid, pre-certified participant in eFiling		
Postconditions:			
Normal Flow:	<b>1.0 Submit filing package</b> <ol style="list-style-type: none"> <li>1. Clerk accepts filing</li> <li>2. CMS is updated with accepted status of filing</li> <li>3. Document(s) are stamped and archived in EDMS</li> <li>4. XML describing documents is generated</li> <li>5. Document(s) are attached to XML</li> <li>6. Notification XML and document(s) are sent to Vendor</li> </ol>		
Alternative Flows:			
Exceptions:	EDMS failure; CMS failure; AdLib failure		
Includes:	None		
Priority:	High		
Frequency of Use:	Approximately 100 users, average of four usages per day		
Business Rules:			
Special Requirements:			
Assumptions:			
Notes and Issues:			
ECF 3.0:	Corresponds to Court Record MDE <ul style="list-style-type: none"> <li>- Notify Review Filing Complete interaction</li> <li>- Notify Review Filing Complete Message XSD</li> </ul>		