



**STABILIX®**  
**UNDERWRITING FRAMEWORK**  
**&**  
**FELIX PLATFORM**



## Introduction

Stabilix® Underwriting Framework is a highly adaptable XML based J2EE compliant software platform built on the Stabilix's business process automation (BPA) suite, code named FELIX (Flexible Extensible Logical Infrastructure with XML). FELIX is designed to carryout a wide variety of business processes specific to the insurance domain.

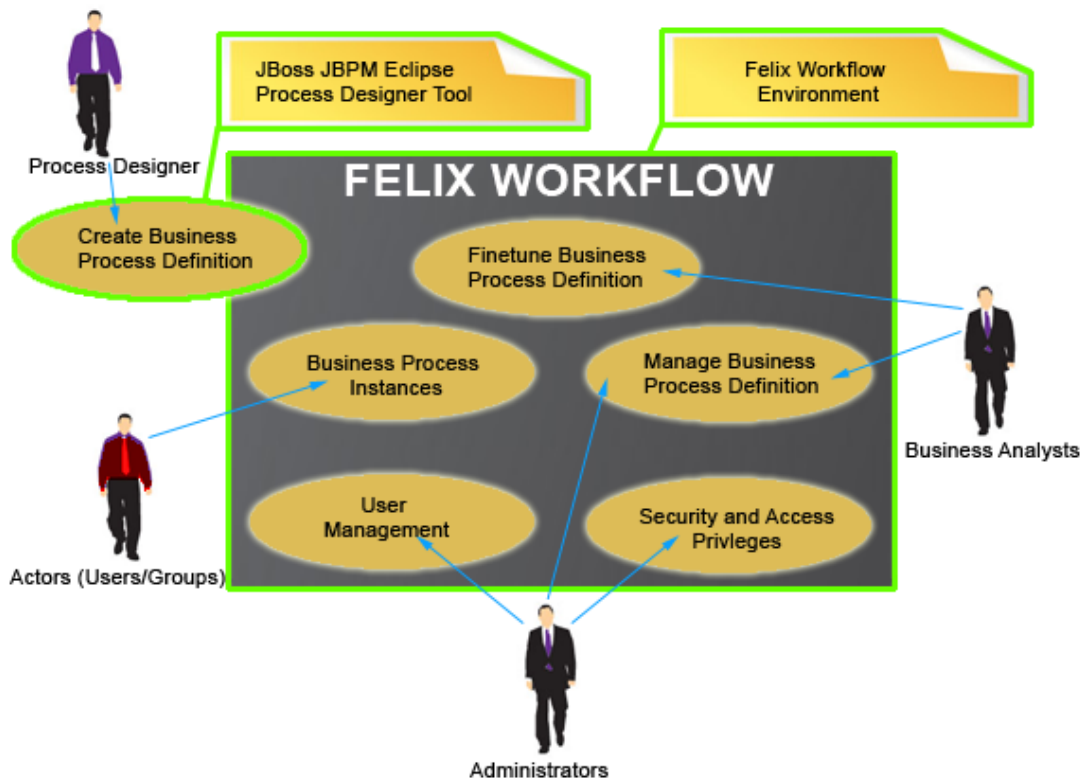
The Underwriting Framework provides a scalable and configurable solution for defining, capturing and deploying insurance applications over the web. The Framework will also automate the underwriting business process of insurance applications. The tool is designed in Service Oriented Architecture (SOA) that allows seamless integration with external applications.

The Underwriting Framework has an intuitive process language to express business processes graphically for tasks, asynchronous wait states for communication, timers, automated actions, etc. The Underwriting Framework has minimal dependencies, and is designed to be used in large enterprises where extreme throughput and high availability are crucial.

The Underwriting Framework can be configured with any database and it can be deployed on any application server.

### Key Features and Benefits

- Includes XML based Orbeon presentation framework. Supports multiple products, version and state specific changes
- Includes full support for J2EE Web Services and the Service Oriented Architecture (SOA) based on XMLRPC
- Contains workflow solution based on open source workflow solution JBPM. Supports integration with organizational user information systems like LDAP and Active directory.
- Provides a workflow client interface and administrative panel to manage workflow incidents
- Provides a loosely coupled design - Workflow, Rules Engine and other Framework components are designed so that all are independent of each other
- Provides a Rules Engine to manage business rules within the Underwriting Framework.





## → Workflow Graphical Process Designer

Underwriting workflow business processes can be designed using the graphical designer tool. The graphical designer tool includes support for both the tasks of business analyst and the technical developer, thus enabling a smooth transition from business process modeling to practical implementation.

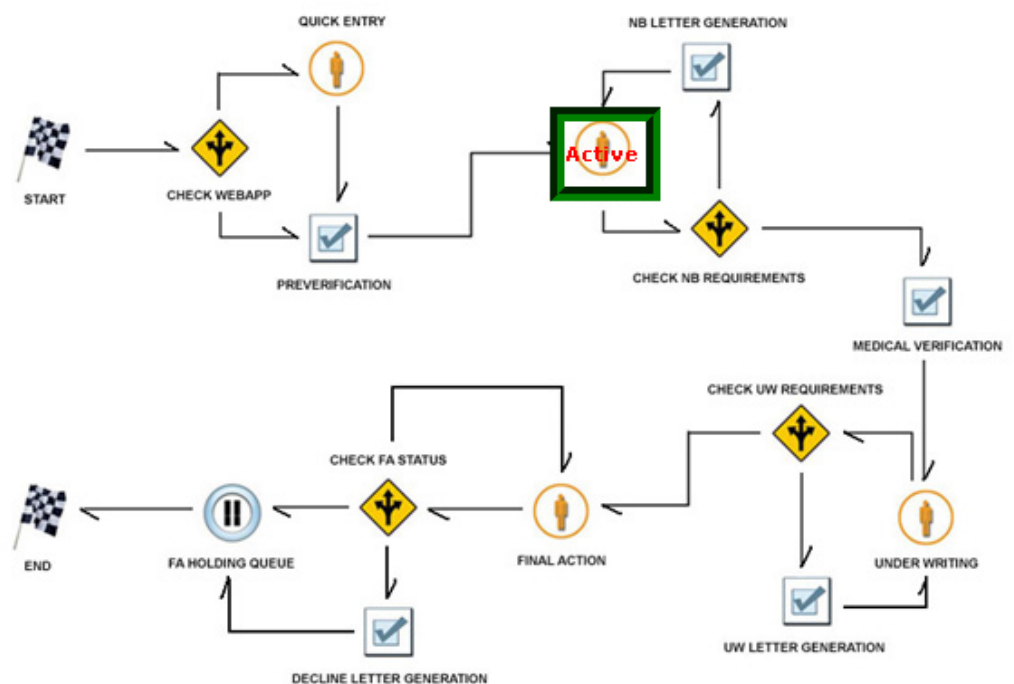
## → User Integration

The workflow integrates with any company directory that contains users and other organizational information. The organization information can be imported to JBPM identity component from LDAP or Active Directory. The identity component model can be stored, either as an XML document or within relational data model.

## → Workflow Client

Underwriting Framework serves the following purposes:

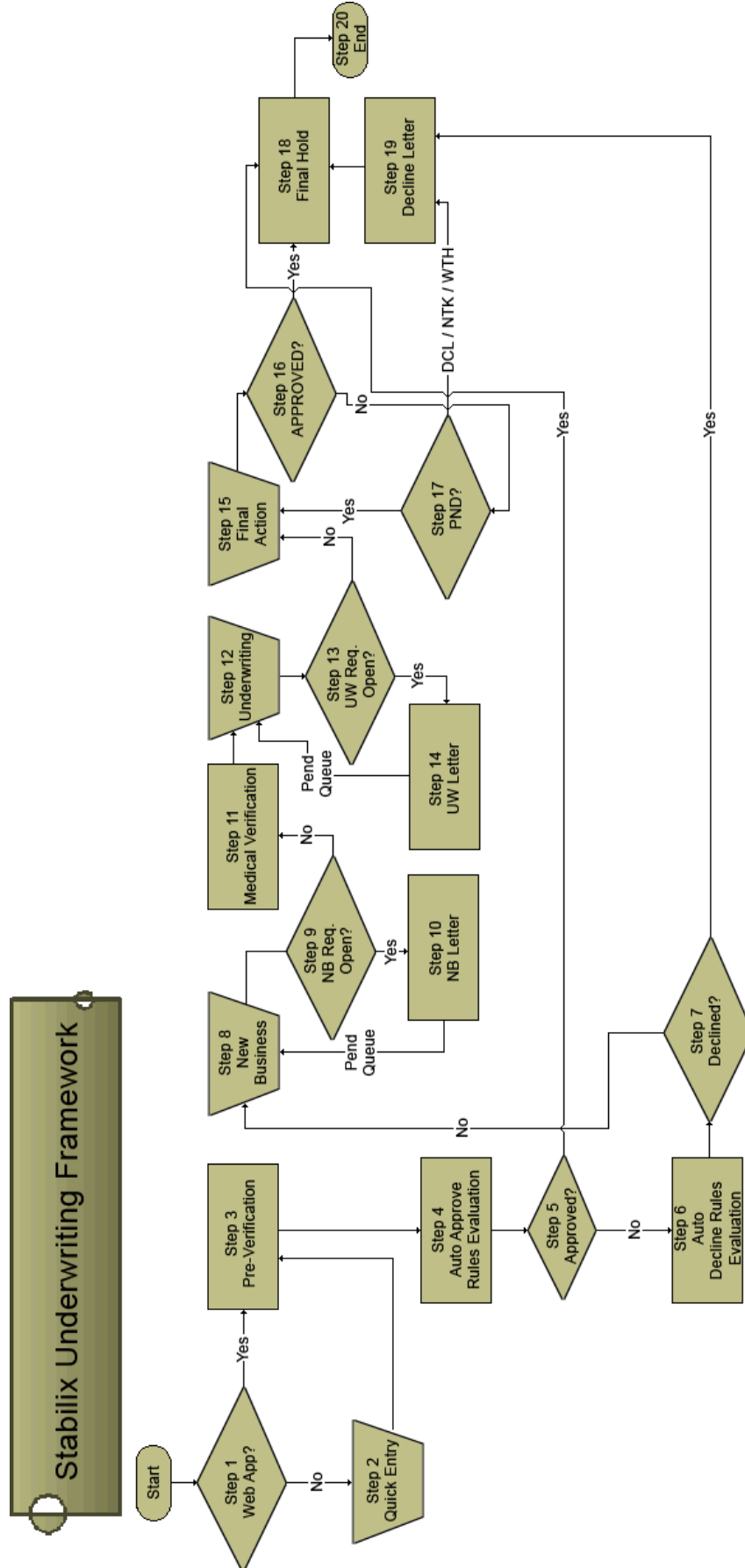
- **As central user interface for interacting with runtime tasks generated by process executions**
- **As administration and monitoring console that allows to inspect and manipulate runtime instances**
- **The client provides a way to integrate with external applications**



Sample implementation of a workflow based on Stabilix® Underwriting Framework



# Workflow Process Definition





Stabilix® Underwriting Framework uses JBPM as the core workflow engine. The process definition is written in JBPM process definition language (JPDL). The process definition represents a typical Underwriting business process scenario. The definition is composed of business steps (nodes) and transitions. Every node seen in the graph, is of a specific type. The users have the option of defining different types of process definitions. For example, the process definition could be an interactive step such as new business, an automated step like letter generation, or a rule engine process like auto decline or auto approve. A process definition has exactly one start and end state.

## About Felix

Stabilix® Underwriting Framework is built on our business process automation (BPA) suite, code named FELIX (Flexible Extensible Logical Infrastructure with XML). FELIX is a software development and integration platform based on Open System computing standards. Whatever you need incremental automation, major overhaul, or enterprise-wide integration, FELIX can help by making it easy to connect people, information and applications in just the right combination for your business.

### Key Features and Benefits

**FELIX brings 4 primary advantages to a business enterprise:**

- Promotes process driven enterprise
- Provides rapid application development
- Provides ease of integration
- Provides open standards based platform

FELIX provides the tools to rapidly integrate sophisticated process management into business operations and applications. It models, extends, configures, and automates business processes. The software platform is a portfolio of integrated yet highly modular solutions for service automation, analytics and enterprise information integration.

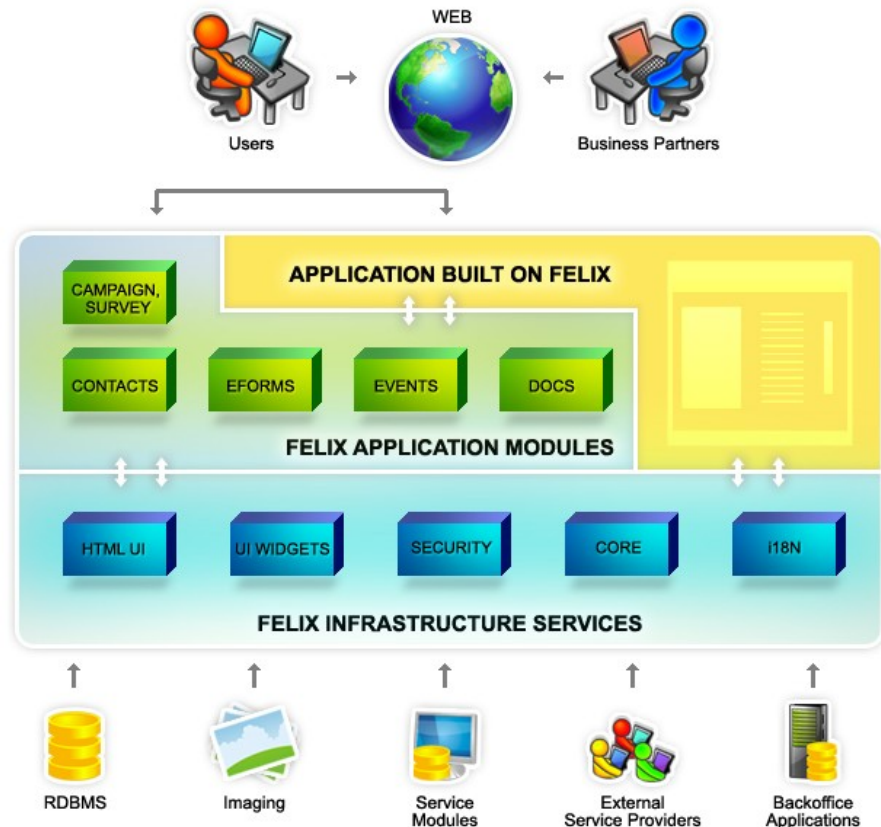
FELIX enables all constituents of an organization to use personalized applications based on roles, contexts, actions, locations, preferences and workflow collaboration needs. The software platform provides a composite infrastructure & application framework with advanced tooling for flexible, SOA-based solutions, as well as scalability required by any size organization. FELIX derives its power from the highly integrated yet modular set of components and can be used to jumpstart enterprise web application development.

The promise of open systems is faster and more economical development of high-quality systems that are technologically current. FELIX is built on several open source platforms while using the open system leverage of a sound baseline application, standards-based framework of functionality and interfaces.



## FELIX Platform Components

FELIX architecture includes two major sets of components (i) enterprise infrastructure services and, (ii) integrated set of enterprise application modules. Customer specific application modules can be built on top of this component stack. The component structure of FELIX is illustrated below.



FELIX Infrastructure components provide all the necessary plumbing required to quickly build and rollout a J2EE web application.

The core components include:

- Core Web application components for data persistence and caching
- Internationalization and localization API
- Highly flexible and advanced security API
- MVC based presentation framework built on top of Struts2
- Ajax based UI components with built-in security and internationalization support
- An workflow engine on which event management application module is built
- An administration console for all Infrastructure features
- Hibernate for data persistence



FELIX application modules provide prebuilt common application modules required in large enterprise projects. These application modules are built on top of FELIX infrastructure components. All these application modules are highly integrated and can also be easily integrated to the application being built.

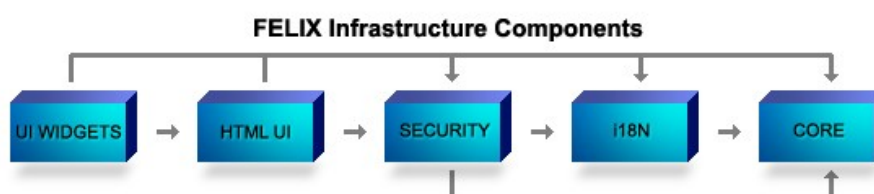
FELIX application modules include,

- **An integrated e-Forms module which enables quick Web deployment of manual business processes (paper forms to electronic forms conversion)**
- **An integrated event management module built on top of workflow system**
- **Document management module which can be integrated with an enterprise file storage system**
- **A module for campaign creation, execution and result analysis**
- **A module for survey creation, execution and result analysis**
- **Contact management system**

Enterprise Web applications can be quickly built using the above set of prebuilt application components.

## FELIX Infrastructure Services

FELIX Infrastructure services are a set of components built to provide common J2EE enterprise application needs. This is a highly integrated yet modular set of components built on a layered architecture as shown below.



### Key Features and Benefits

#### FELIX Presentation Framework :

- Integrated security and internationalization support
- Support for high level UI widgets (FELIX UI widgets)
- Model-View-Controller (MVC) architecture
- Support for multiple view components (JSP, FreeMarker, Velocity, etc.)
- Interceptor component which promotes SOA design

### → FELIX Presentation Framework

FELIX Presentation Framework is built on top of the Struts2 open source Web application framework. Application screens can be quickly built using FELIX Presentation Framework and FELIX UI widgets.

FELIX Presentation Framework is fully integrated with core platform features and supports multiple view technologies. It also enforces a clean separation of Model, View and Controller (MVC) elements. Application UI built using FELIX Presentation Framework can be easily customized (using CSS style sheets).



## FELIX Internationalization Support

Felix provides internationalization support “out of the box”. All UI components in Felix has built-in i18n support and includes labels, messages, dates, currency format, page layout and images.



## FELIX Security Framework

FELIX provides an advanced security framework which is used across all the FELIX modules. FELIX security framework is a very flexible identity and access management system. The security infrastructure is designed to minimize administrative effort in security configuration.

FELIX security can also integrate with enterprise authentication systems such as LDAP. It can also easily be customized to model an existing enterprise organization hierarchy.



## FELIX UI Components

FELIX UI components are integrated with core infrastructure services and hence have built-in security and internationalization features. FELIX also provides a set of high level UI widgets to speed up application development.

FELIX UI widgets have a uniform API structure and are easy to learn and implement. Appearance of UI components can be easily customized using predefined CSS style sheets. They can also be configured for optimum usage of memory and performance.

Following diagram shows a UI widget (WebTable) used in FELIX user administration,

### Key Features and Benefits

#### FELIX Security Framework:

- Provides single sign-on support
- Provides user and group management including access rights
- Minimum administrative effort for security configuration
- Data level security access mechanism
- Integration of organizational hierarchy with security hierarchy
- Provides auditing and logging facilities

### Key Features and Benefits

#### FELIX Security UI:

- Built-in security and i18n features
- Built on AJAX paradigm for highly responsive UI
- Minimal download footprint to maximize application performance
- Uniform widget API makes it easy to learn
- Designed for scalability and better application performance

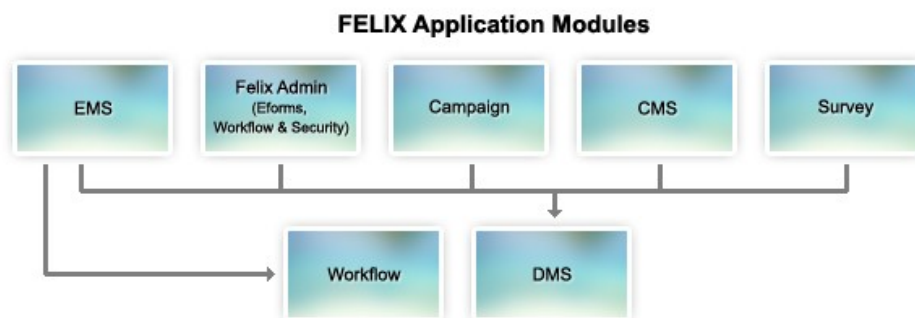
User Listing					
	Name	User Name	Created By	Created On	Status
☰	subadmin1	subadmin1	corporate-profile-user	14/08/2008	Blocked
☰	adminuser	adminuser	felixuser	31/05/2008	Active
☰	subadmin1	subadmin1	corporate-profile-user	14/08/2008	Active
☰	sub admin2	sub admin2	corporate-profile-user	14/08/2008	Active

View Details  
 Edit  
 Block



## FELIX Application Modules

Following diagram shows various application modules available as part of the FELIX product.



### Key Features and Benefits

#### FELIX e-Forms:

- Drag & drop screen design using IBM Forms Designer
- Integrated with Document management system and Event management system
- Can be extended using custom UI components



### FELIX e-Forms Support

Felix enables quick migration of existing paper based processes to web based workflow based processes using e-Forms and Event management system. Using e-Forms designer, existing paper forms can be quickly converted to electronic forms. Felix can deploy these e-Forms as Web based data capture screens and can start a workflow based on the captured data.

Felix e-Forms are based on the XForms specification and are powered by open source Orbeon XForms engine.

### Key Features and Benefits

#### FELIX Event Management Module:

- Case management including incident/complaint management
- Activities/Task management
- Reporting and analysis
- Integration with Knowledge base of Document management system
- Integration with Contact management system



### FELIX Event Management Module

Event management system is a workflow based module which allocates events/tasks to appropriate individuals or groups. Event management sub system includes case management which can be used for tracking various requests from customers. EMS module is powered by a workflow engine and provides support for a wide range of workflow patterns (sequence, parallel, split, synchronization and exclusive choice).

The workflow engine is a flexible, extensible workflow tool, based on an intuitive process definition language to express business processes graphically in terms of tasks, wait states for asynchronous communication, timers, automated actions, etc. Optional processes can be defined in Business Process Modeling Language (BPML) and translated during design time.



## Key Features and Benefits

### FELIX DMS:

- Provides file management and Knowledge base management
- Document version management and categorization
- Advanced keyword based document search
- Integration with document repository systems such as FileNet
- Provides easy integration with other application modules

## Key Features and Benefits

### FELIX CMS:

- Provides customer/contact management
- Provides sophisticated contact search
- Provides a mechanism to maintain and quickly retrieve contact relationships
- Integration with other application modules such as Event management system, Campaign management system and Document management system

## Key Features and Benefits

### FELIX Campaign Management:

- Ability to conduct multi-channel campaigns
- Precise control over campaign execution – timing, participation and method of communication
- Integrated online campaigns with banner ads
- Integrated with document management system
- Integrated with survey management system
- Detailed campaign result analysis (cross selling, up selling etc.)

## Key Features and Benefits

### FELIX Survey Management:

- Sophisticated survey design interface
- Integration with one or more campaigns
- Integration with document management system
- Integrated security and internationalization features
- Survey result analysis – reports and export to excel features

## → FELIX Document Management Module

FELIX DMS module provides ability to access, share and track electronic documents. All application modules access documents/attachments through DMS module. DMS can be easily integrated to new application modules.

DMS is integrated with core FELIX modules such as Event management system, e-Forms and Campaign management system. If an existing file repository system is used in an enterprise, it can be easily integrated with DMS.

## → FELIX Contact Management Module

Contact management module can be used to manage contacts, prospective clients and customers of an enterprise. FELIX product by default provides a wide variety of information including contact names, addresses etc. Integration with document management, event management and campaigns provide powerful features for the enterprise.

FELIX also provides a facility to easily extend contact information during specific application deployments.

## → FELIX Campaign Management Module

FELIX campaign management module can be used to conduct marketing campaigns, collect campaign results and to perform analysis of the campaign results. It also provides strong integration with other application modules such as document management system and survey management system.

FELIX campaigns are highly configurable and can be targeted to precise set of audience. It also provides online campaign components which can be integrated in the application. Campaign module also provides ROI analysis.

## → FELIX Survey Management Module

FELIX survey management module can be used to design and conduct online surveys. This module can be used to create, publish, collect and track questionnaires and answers.

Survey module offers integration with other modules such as campaign and document management systems. It is also possible to analysis and reporting across multiple surveys using generic questions.



# FELIX System Requirements

Recommended Server Configuration for Windows 2003 Server and above

- **2.6 GHz Intel Pentium IV or equivalent**
- **1GB RAM**
- **1GB Free Disk Space**

Recommended Server Configuration for Solaris OS version 10—SPARC

- **UltraSPARC IIIi 1 GHz**
- **1GB RAM**
- **1GB Free Disk Space**

Recommended Server Configuration for Linux (Ubuntu 7.x+, Red Hat EL 4 etc.)

- **2.6 GHz Intel Pentium IV or equivalent**
- **1GB RAM**
- **1GB Free Disk Space**

Supported Application Servers

- **Apache Tomcat 5.5.4+**
- **JBoss AS 4.2.1+**
- **Bea WebLogic 9.0+**
- **IBM WebSphere 6.1+**

Database Requirements

- **Oracle 9i+ and above**
- **MySQL and above**
- **Microsoft SQL server 2000 and above**

## About

The Stabilix® Insurance Platform was designed from the ground up around an extremely flexible, adaptive Service-Oriented Architecture (SOA). It leverages leading lightweight, reliable open source core engines such as Orbeon, jBPM and Hibernate, as well as proven enterprise design patterns and mature J2EE technologies for demanding production environments. The unique integration, synchronization and centralized management provide unmatched functionality, flexibility and performance at the lowest possible cost for the client.

For more information please contact:

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