Ikasan Enterprise Integration Platform

Robust and adaptable Enterprise Integration

Ikasan Enterprise Integration Platform: Robust and adaptable Enterprise Integration

0.8

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Chapter 1. Introduction

Ikasan is an enterprise integration technology built on a J(2)EE stack

# Chapter 2. Getting Started

This is where we will talk about how to get up and running with Ikasan

Chapter 3. Integration Design Guide

Design Guide for integration pieces with Ikasan

Ikasan from 20,000 feet

Ikasan was originally born out of addressing integration issues within Financial Services where guaranteed once-only data delivery is paramount. The central premise for Ikasan can simply be defined as the provision of robust and adaptable integration solutions which expose the business artefacts, whilst isolating the application's specifics. The intention here is for Ikasan to take care of the issues that are peripheral to the business such as application and data integration to allow the presentation of business entities through common constructs and services. The business user should be able to focus on the core issue of business data orchestration.The diagram below demonstrates takes a view of Ikasan from 20,000 feet and shows how Ikasan modules relate to applications for integration of business data.
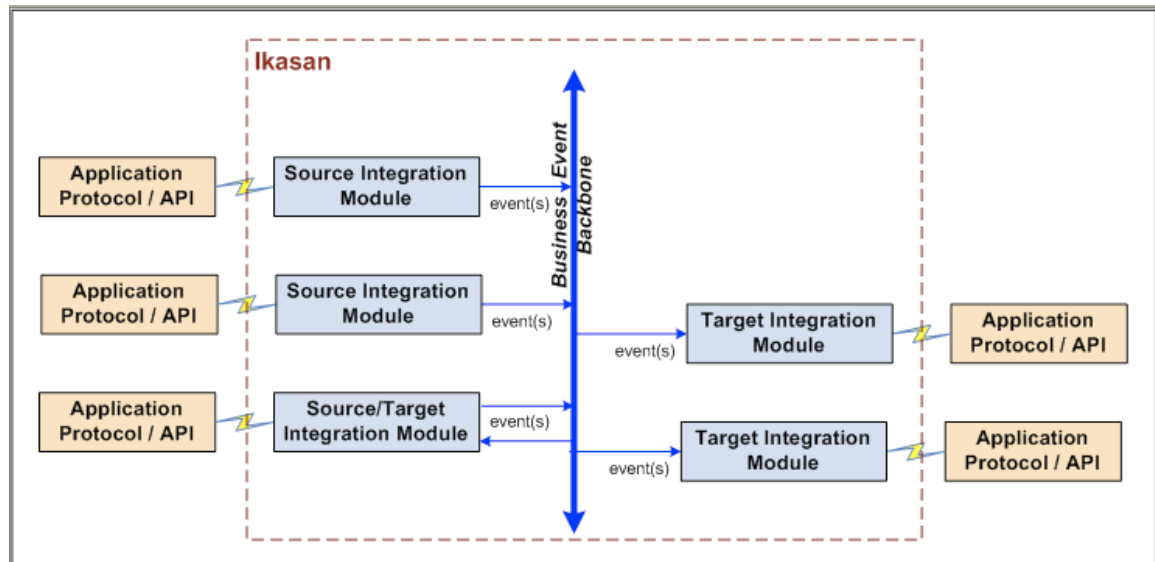

Ikasan from 10,000 feet

Ikasan integration modules provide a logical grouping of business flows specific to the integrated application. Each of these business flows is dedicated to sourcing data, distributing data or both within a synchronous operation. The diagrams below gives examples of how flows can be configured within integration modules.
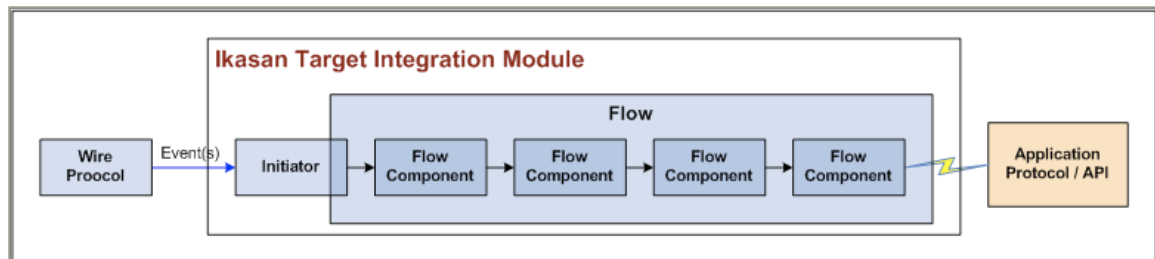
Source Flow Constructs

A Source Integration Module provides data from an application (via the API or given protocol) by an Initiator. The Initiator then pushes this data to the Flow within which discreet flow components operate and manipulate the data to create and present a business event to downstream target consumers.
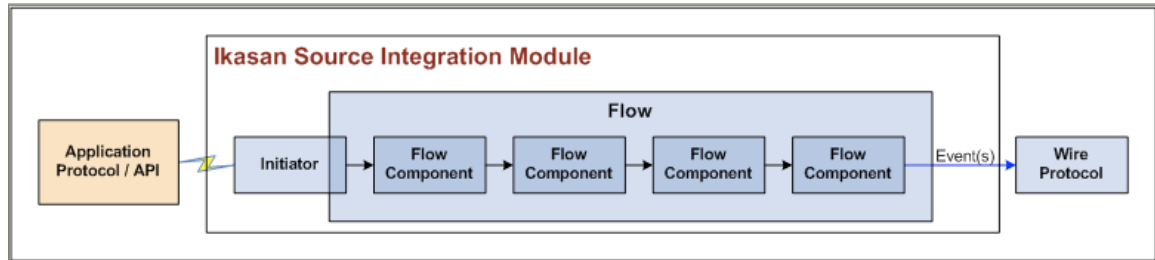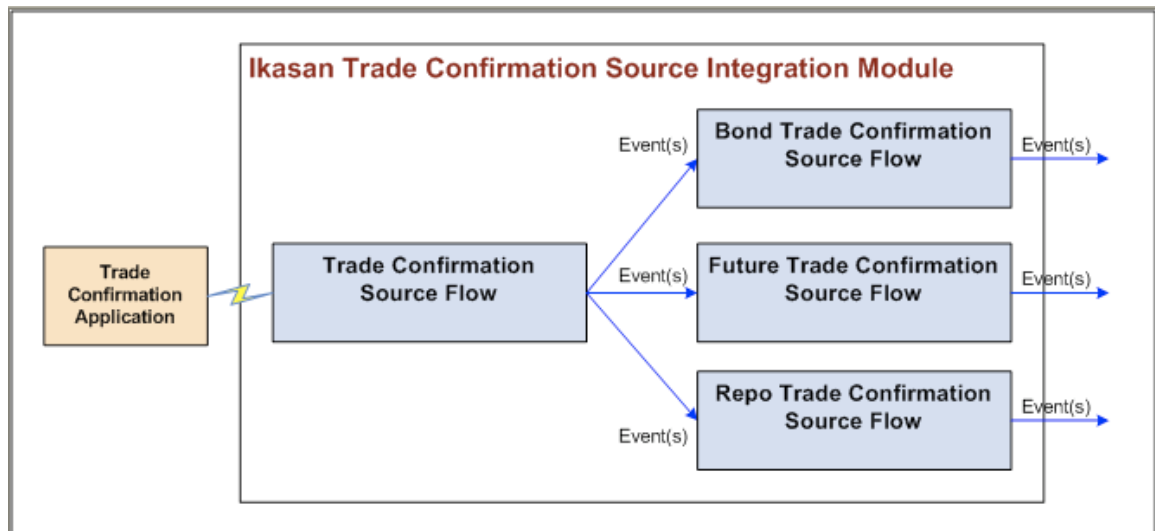
Target Flow Constructs

A Target Integration Module Initiator receives the business event data from a technology protocol (such as JMS or service invocation) and pushes this data to the flow. Discreet data operations are invoked via flow components to change the data for distribution to the target application.
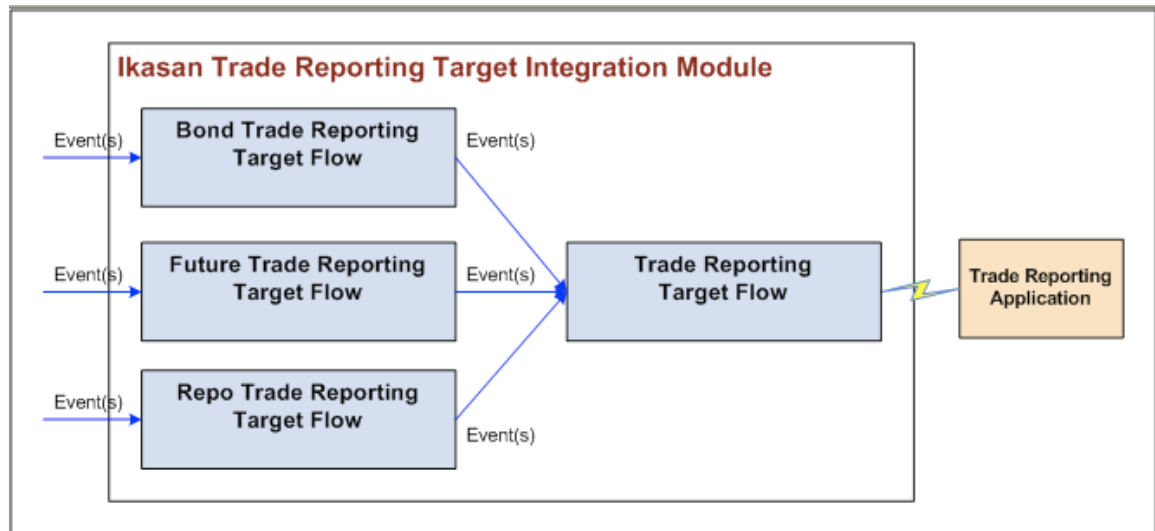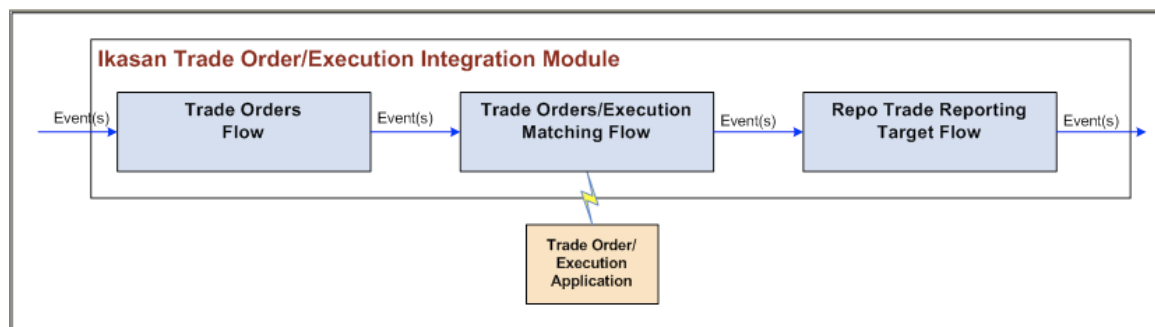

Module Flows Example

Source Integration Module Flows Example

Target Integration Module Flows Example

Target/Source Integration Module Flows Example


Ikasan Constructs

The diagram below shows the concepts as the real-world Ikasan generic constructs. As previously demonstrated Ikasan Integration Modules group business related flows of which themselves contain constructs for sourcing, operating pon, and distributing data events. The diagram below shows te internals of a conceptual flow within the scope of an Integration Module.
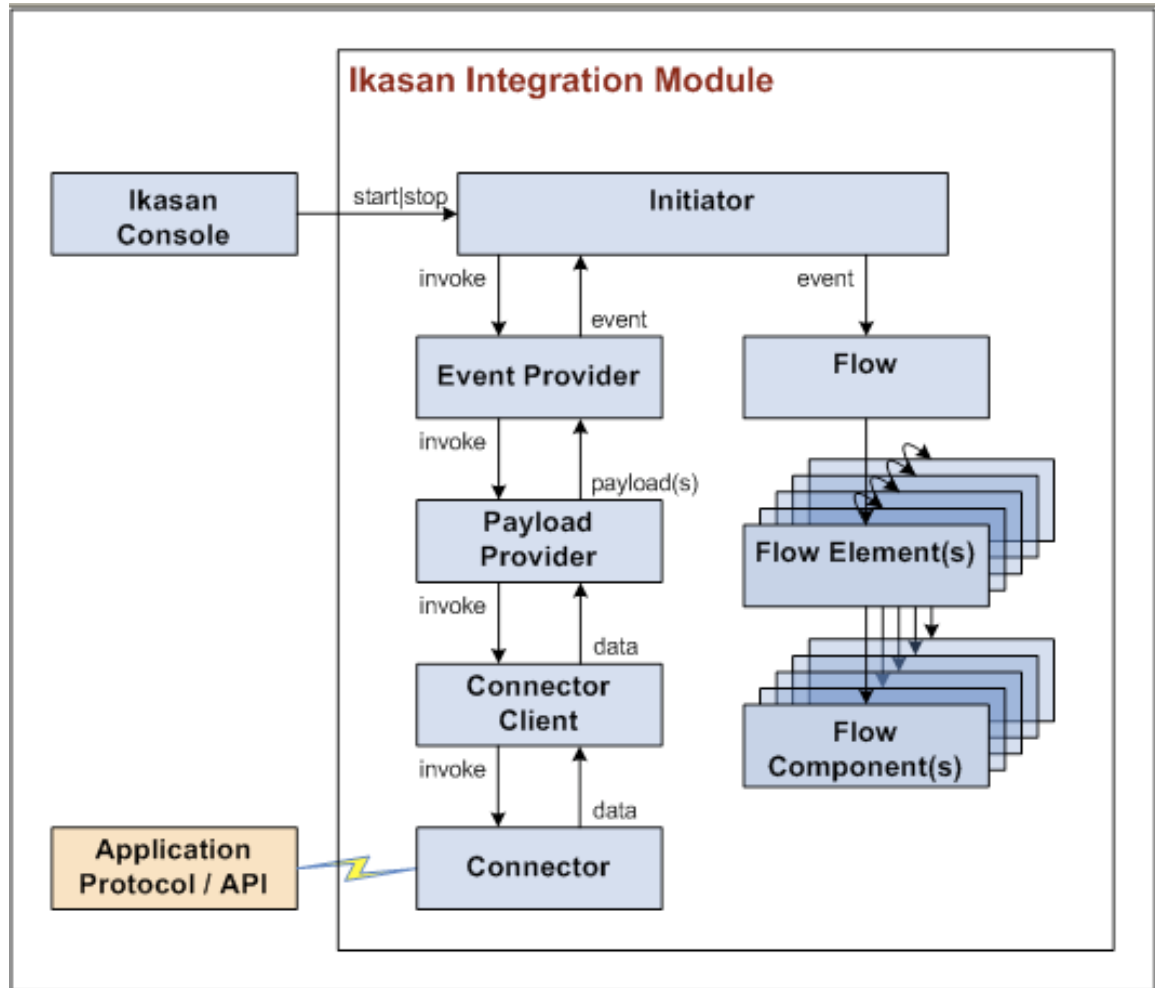
Component Constructs

- Initiators

- Flow

- Flow Element Invoker

- Flow Elements

- Flow Components

Data Constructs

- Payload

- Event

Modules Constructs

Source Integration Module Constructs

Below details the constructs of a single business flow within a Source Integration Module.
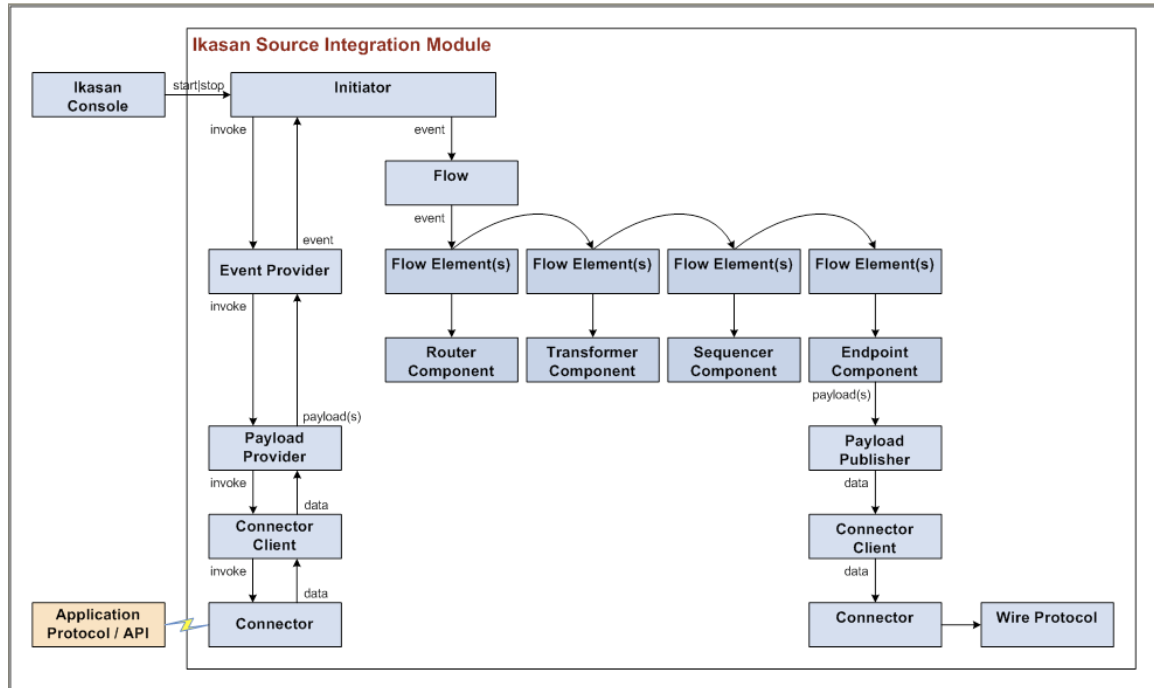
Target Integration Module Constructs
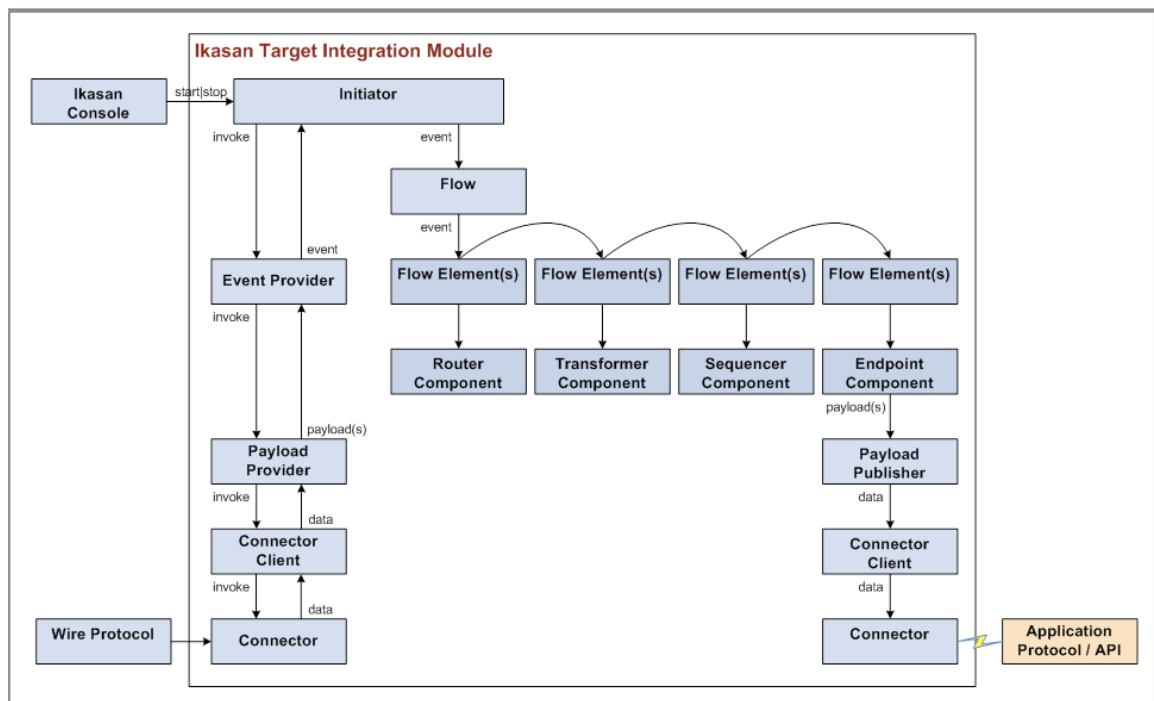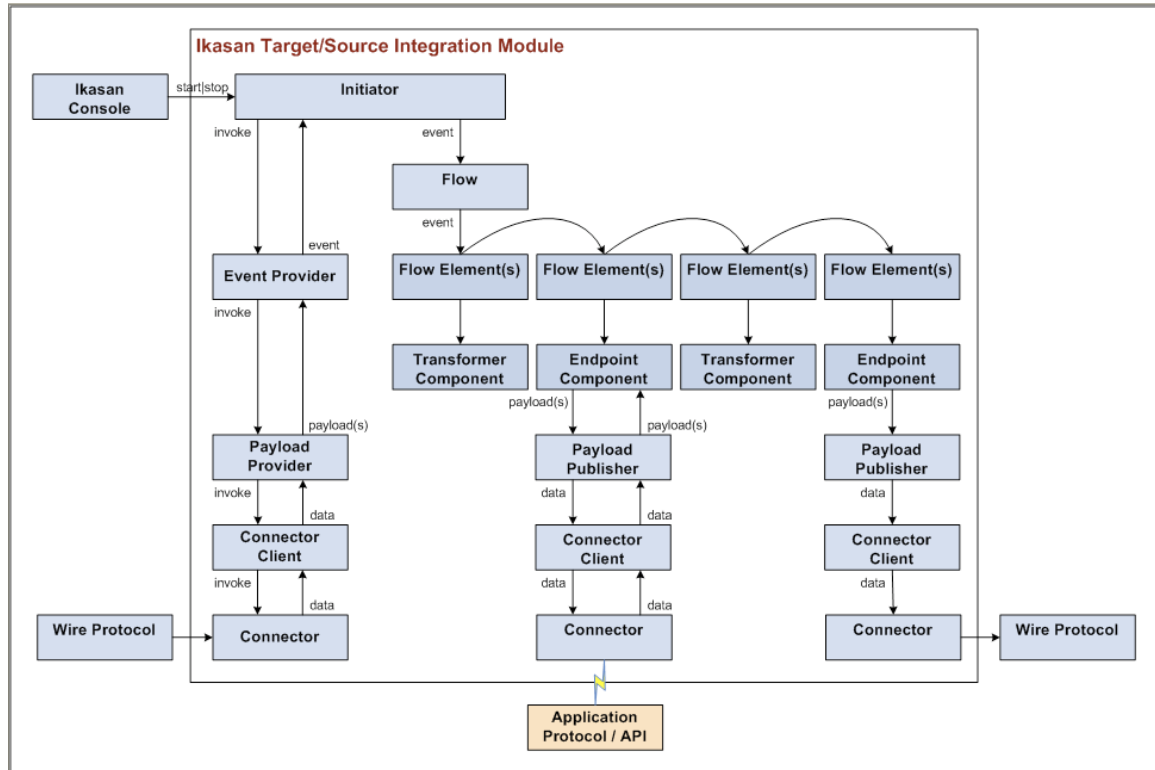
Below details the constructs of a single business flow within a Target Integration Module.

Target/Source Integration Module Constructs

Below details the constructs of a single business flow within a Target/Source Integration Module.

Chapter 4. Archetectural Concepts

Ikasan high level concepts are shown as follows:

Modules

- Source Integration Module

- Target Integration Module

- Target/Source Integration Module

Flows

- Source Flow

- Target Flow

Initiators

- Quartz Scheduled Driven Initiator

- Message Driven Initiator

Flow Elements

Here we will talk about flow elements.

Flow Elements Invokers

- VisitingElementInvoker

Flow Components

- Router Components

- Transformer Components

- Sequencer Components

- Endpoint Components

Chapter 5. Ikasan Components

This is where we go through all the existing components that come prepackaged with Ikasan

Transformers

The following transformers are provided by Ikasan. Additional custom transformers can be created by implementing the Transformer interface

- XSLT - applies an XML stylesheet to any incoming XML document

- XML Validator - validates any incoming XML document against the given DTD or XSD

- XML Reader - transforms any incoming data to an XML document

Endpoints

The following endpoints are provided by Ikasan. Additional custom endpoints can be created by implementing the Endpoint interface

- Event logging - event log writer

- Event wiretap - event wiretap implementation

- Payload publisher - generic payload publisher the implementation of which is injected at startup

Routers

The following routers are provided by Ikasan. Additional custom routers can be created by implementing the Router interface

- Recipient list - routes an event to one or more recipients

- Contains payload - boolean router based on whether the event contains payload(s)

- Xpath - xpath expression boolean and node value selector router

- XML validation - XML Validator router (to be re-classified)

- Event name - event name based router

- Event source system - event source system based router

Sequencers

The following sequencers are provided by Ikasan. Additional custom sequencer can be created by implementing the Sequencer interface

Splitters

- Tokenizing splitter - splits event payloads based on a given tokeniz

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- Single payload per event - splits multiple payloads contained within a single event into one payload per event

- Unzip splitter - TBC

Aggregators

- Event aggregation - aggregates events until a given criteria has been met

Chapter 6. Ikasan Connectors

This is where we go through all the existing connectors that come prepackaged with Ikasan

File Based Connectors

Here we will talk about the file based connectors

FTP Connector

Here we will talk about the FTP Connector

SFTP Connector

Here we will talk about the SFTP Connector

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