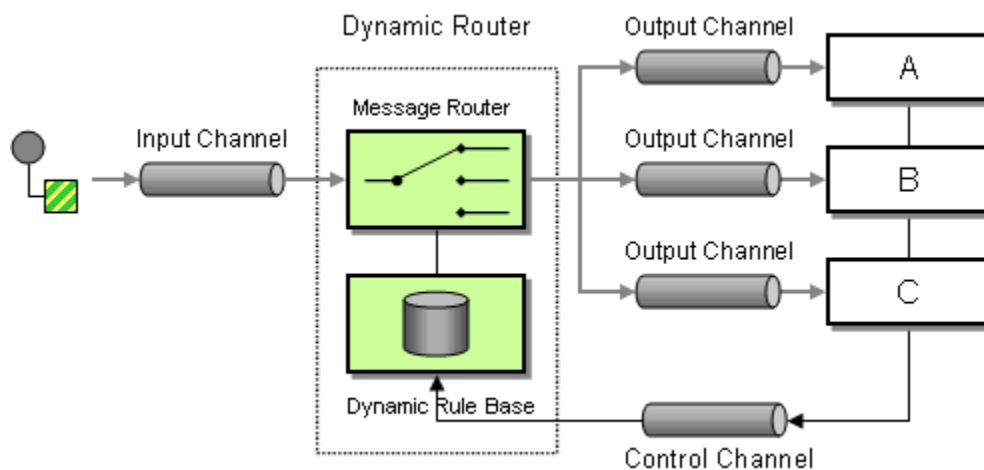


DYNAMIC ROUTER AND SPLITTER

Dynamic Router

You are using a *Message Router* to route messages between multiple destinations.

How can you avoid the dependency of the router on all possible destinations while maintaining its efficiency?



Use a *Dynamic Router*, a Router that can self-configure based on special configuration messages from participating destinations.

Besides the usual input and output channels the *Dynamic Router* uses an additional *control channel*. During system start-up, each potential recipient sends a special message to the *Dynamic Router* on this control channel, announcing its

presence and listing the conditions under which it can handle a message.

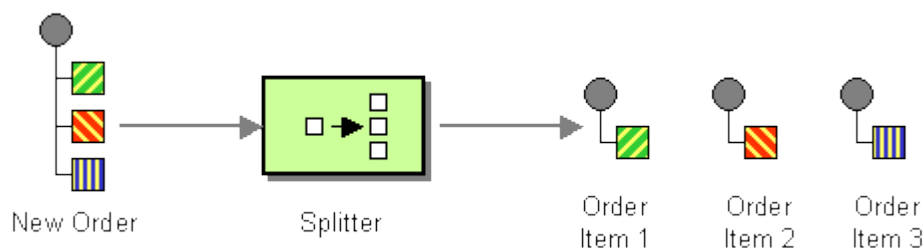
The *Dynamic Router* stores the 'preferences' for each participant in a rule base.

When a message arrives, the *Dynamic Router* evaluates all rules and routes the message to the recipient whose rules are fulfilled. This allows for efficient, predictive routing without the maintenance dependency of the *Dynamic Router* on each potential recipient.

Splitter

Many messages passing through an integration solution consist of multiple elements. For example, an order placed by a customer consists of more than just a single line item. As outlined in the description of the *Content-Based Router*, each line item may need to be handled by a different inventory system. Thus, we need to find an approach to process a complete order, but treat each order item contained in the order individually.

How can we process a message if it contains multiple elements, each of which may have to be processed in a different way?



Use a *Splitter* to break out the composite message into a series of individual messages, each containing data related to one item.

use a *Splitter* that consumes one message containing a list of repeating elements, each of which can be processed individually. The *Splitter* publishes a one message for each single element (or a subset of elements) from the original message.

Source:

<http://www.enterpriseintegrationpatterns.com/patterns/messaging/DynamicRouter.html>