

WS-BPEL 2.0

Features and Status Overview

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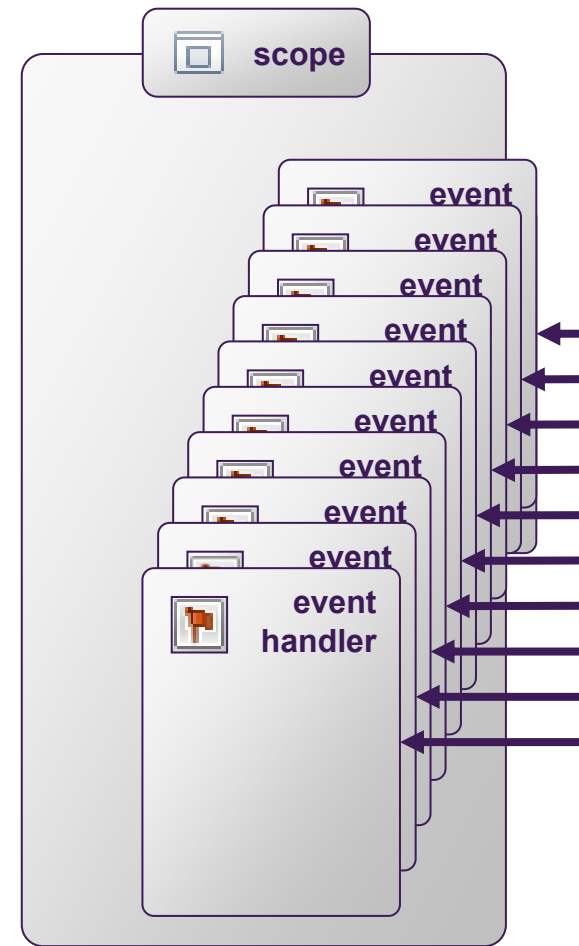
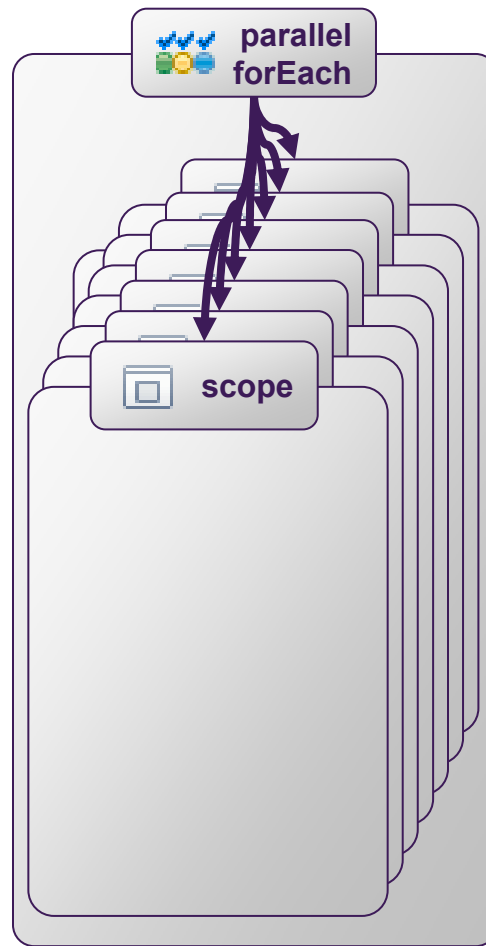
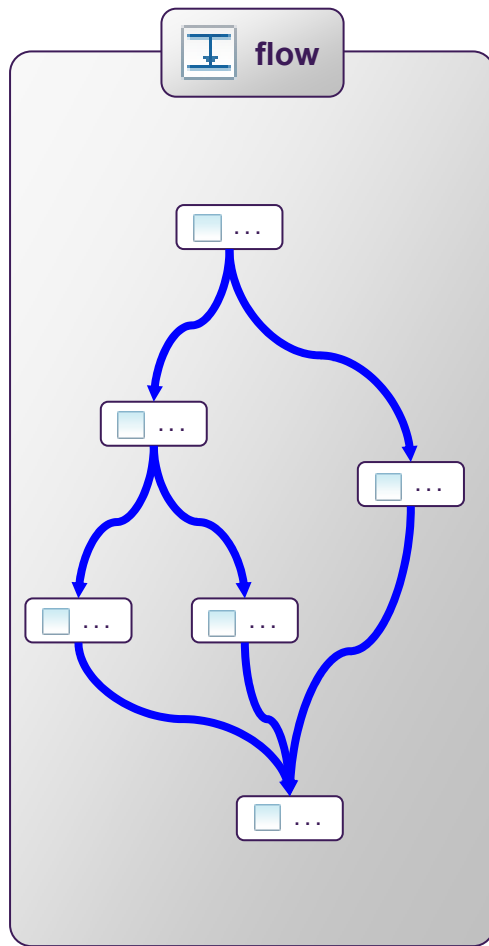
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WS-BPEL Features and Status

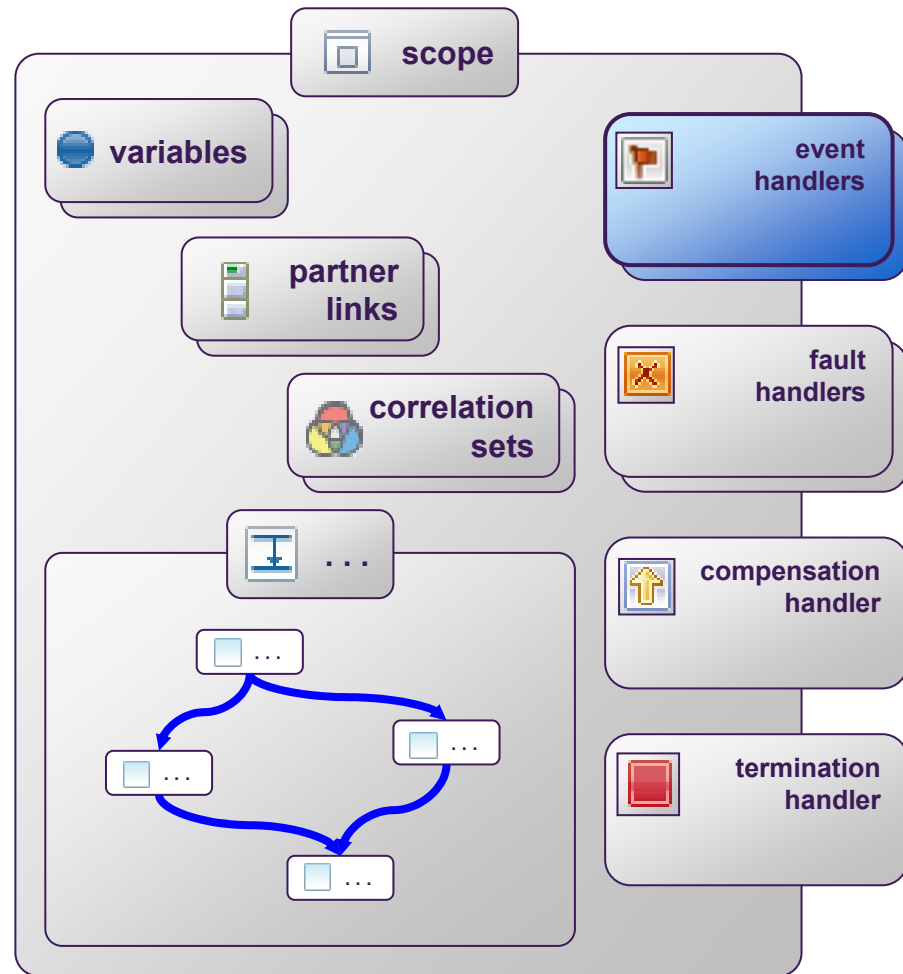
- Advanced features
- Abstract and executable processes
- Changes from BPEL 1.1
- Status of WS-BPEL

Parallel Processing

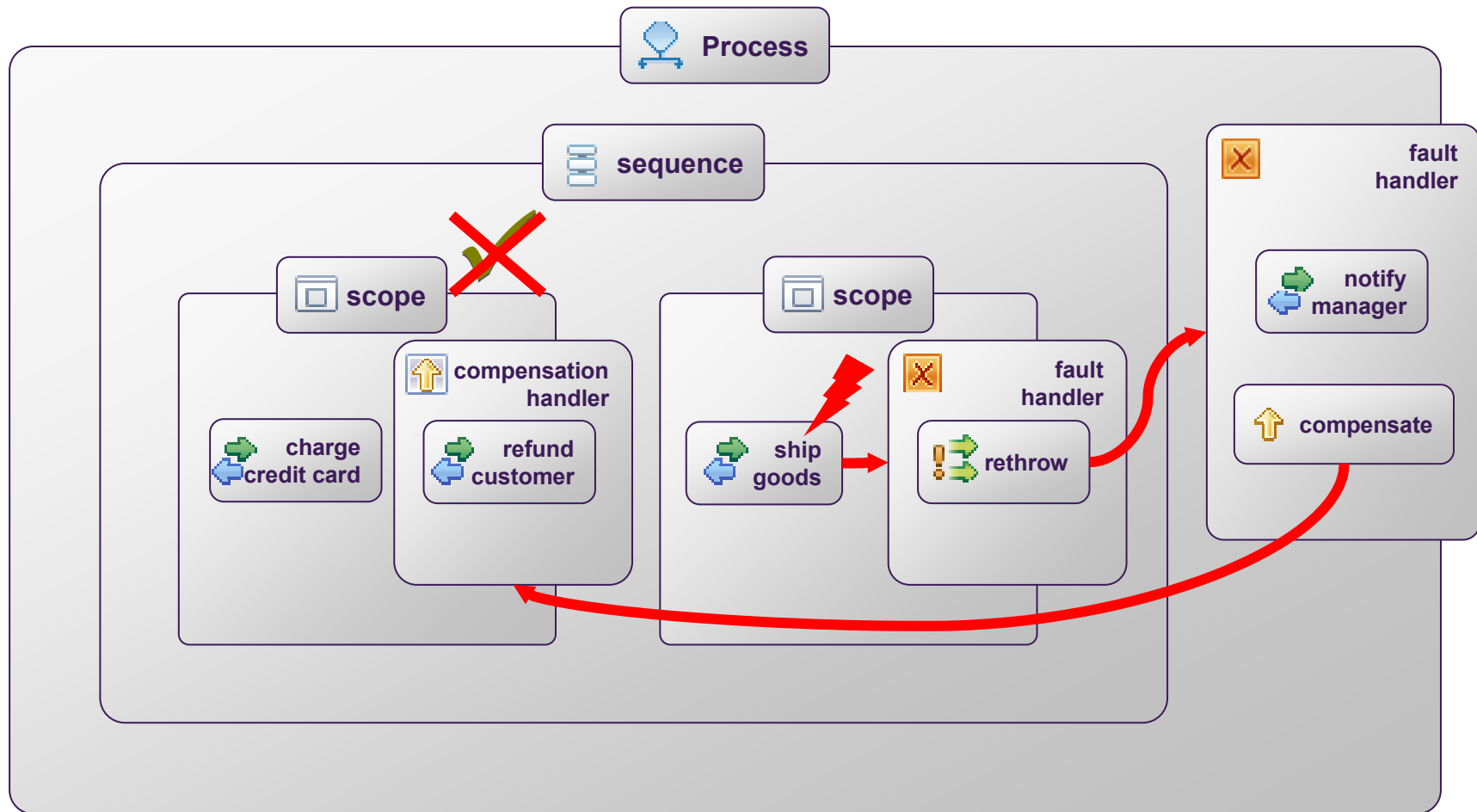


Event Handling

- Managed within a Scope
- <pick> activity
 - Specifies that the process awaits the occurrence of one or a set of events
- Event Handlers
 - Invoked concurrently to the process
- Message Events
 - Triggered by incoming messages
- Timer Events
 - Deadline
 - A specific time at which the event is triggered
 - Duration
 - A specific interval after which the event is triggered



Compensation & Fault Handling



Abstract & Executable Processes

- Executable Processes
 - Contain the partner's business logic behind an external protocol
 - Model actual behavior of a participant in a business interaction
 - Encompass enough detail to fully specify execution

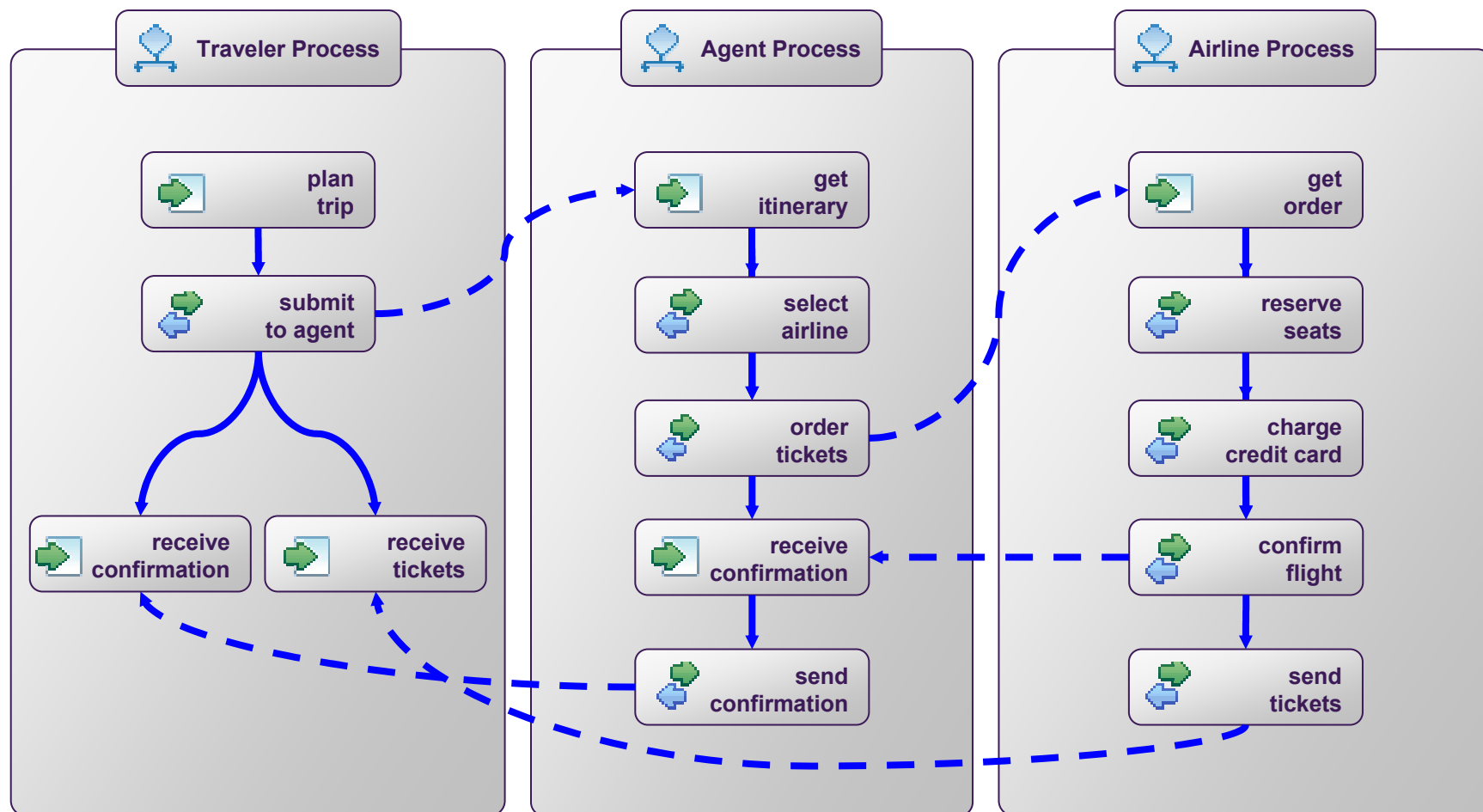
Abstract & Executable Processes

- Executable Processes
 - Model actual behavior of a participant in a business interaction
 - Encompass enough detail to fully specify execution

Abstract & Executable Processes

- Abstract Processes
 - Partially specified processes that are not intended to be executed
 - May hide some of the required concrete operational details.
 - Serve a descriptive role
 - Used to guide executable processes
 - More than one possible use case

Executable Processes View



Abstract Profiles

- Profiles address varying requirements among Abstract Processes
- Two profiles provided in WS-BPEL
 - Observable Behavior
 - Process Template

Abstract Profiles & Use Cases

- Use cases
 - Constraints on message exchange
 - Specify order in which messages are consumed or produced
 - View on internal processes
 - Only projection of internal (executable) process is visible
 - Bridge model to executable
 - Provide hooks to executable for model definition to enable abstraction
 - Template as “best practice”
 - Specification of common activities, major data structures, and main control flow

What's New since BPEL 1.1

- Data Access
 - XSD complex-type variable
 - Simplified XPath expressions
 - Simplified message access on WSDL
 - Elaborated <copy> operation behavior in <assign>
 - *keepSrcElement* option in <copy>
 - Extension <assign> operations
 - Standardized XSLT 1.0 function for use within XPath expressions
 - XML data validation model
 - New <validate> activity
 - “inline” variable initialization at the point of variable declaration

What's New since BPEL 1.1

- Scope Model
 - Elaboration of Compensation & Fault Models
 - Scope Isolation and Control Links interaction in <flow>
 - New <rethrow> activity
 - <terminationHandler>
 - *exitOnStandardFault*
- Message Operations
 - Join-style Correlation Set
 - Scope-local PartnerLink declaration
 - *initializePartnerRole*
 - *messageExchange* construct

What's New since BPEL 1.1

- Other New Activities
 - <forEach>
 - <repeatUntil>
 - <extensionActivity>
- Syntactic makeover
 - <switch> -> <if>-<elseif>-<else>
 - <terminate> -> <exit>
 - <compensate> and <compensateScope>

What's New since BPEL 1.1

- Other additions
 - Improved event handling
 - <repeatEvery> alarm feature
 - Formal <documentation> support
 - <extension> directive
 - <import>

WS-BPEL Schedule

- Status (March 2007)
 - First and second public reviews completed
 - Approved Committee Specification submitted for standardization
 - Five organizations have certified use of WS-BPEL in product
 - ActiveEndpoints, IBM, Intalio, SEEBURGER, Sun

WS-BPEL Schedule

- Next steps
 - OASIS standard - April 2007
 - Voting opens March 19 and closes March 30
 - OASIS Symposium - April 15-20, 2007
San Diego, California, USA
 - WS-BPEL Lightning Round - April 16
 - Business Process Sessions - April 16
 - WS-BPEL Workshop - April 18