

Issue 53 and friends

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WS-BPEL face-to-face, 31 March-1 April 2004

Adopt Satish's proposal: no process compensation; no other change
All other process coordination issues deferred to round 2
(flagged as "revisitable")

Serious BPM needs BTM

Implies that intra- and inter-process activities must be capable of being coordinated

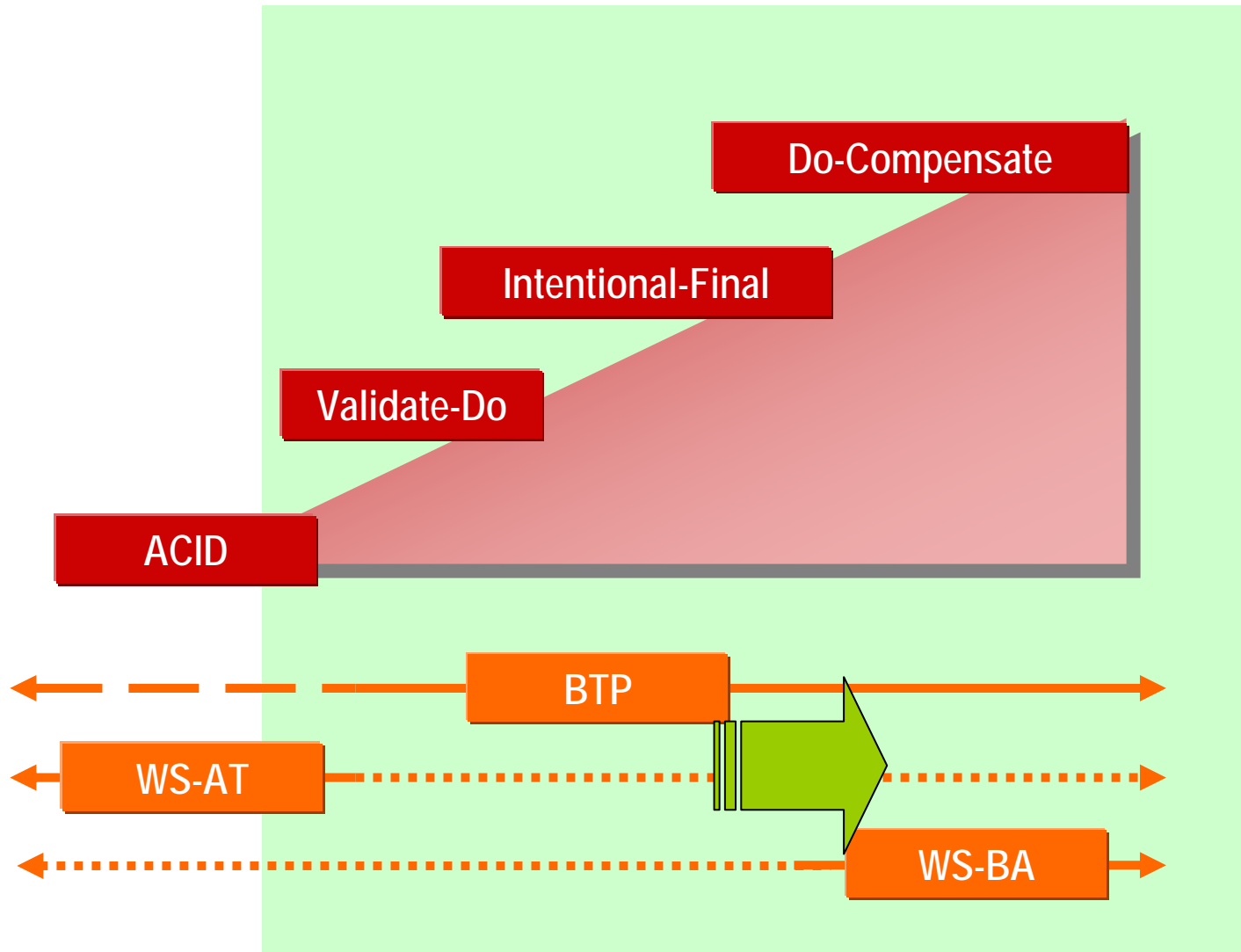
In our view 80-plus per cent of services or “processes as services” can utilize reactions to generic signals to standardize ability to be coordinated (it’s not all the application, contra Satish)

Early BPEL drafts showed how WS-BA could be used to implement intra-process compensation scheme

- it is a logical deduction that WS-BA can be used to extend coordinations to web services including processes-as-services

“Do-compensate” is a limited model (there is a wider BTM spectrum)

The full BTM spectrum



Two self-contradictory outcomes

WS-BPEL 1.0 equals BPEL 1.1 (for purposes of BTM / LRT)

- Nothing beyond existing scope compensation mechanisms and rules
- *Leaves in process compensation handling, but no standard BTM protocol*

Original Choreology proposal

- Supports BTM spectrum = provides cancel + confirm handlers
- *But does so only at process level*
- Allows manipulation of intra-process scopes, and extra-process services, as prepared BTM participants, to give selective confirm
- Allows selective confirm from any activity (permits flexible transaction closure)
- Can incorporate ACID services

Two self-consistent outcomes

BPEL specification simply supports intra-process compensations

- Nothing beyond existing scope compensation mechanisms and rules
- *Remove process compensation handling*
- Satish's proposal

BPEL specification fully supports BTM features

- Supports BTM spectrum = provides cancel + confirm handlers
- *Does so at process and scope level (or only at scope level)*
- Allows manipulation of intra-process scopes, and extra-process services, as prepared BTM participants, to give selective confirm
- Allows selective confirm from any activity (permits flexible transaction closure)
- Could incorporate ACID services

WS-BPEL TC 1.0: BTM choices

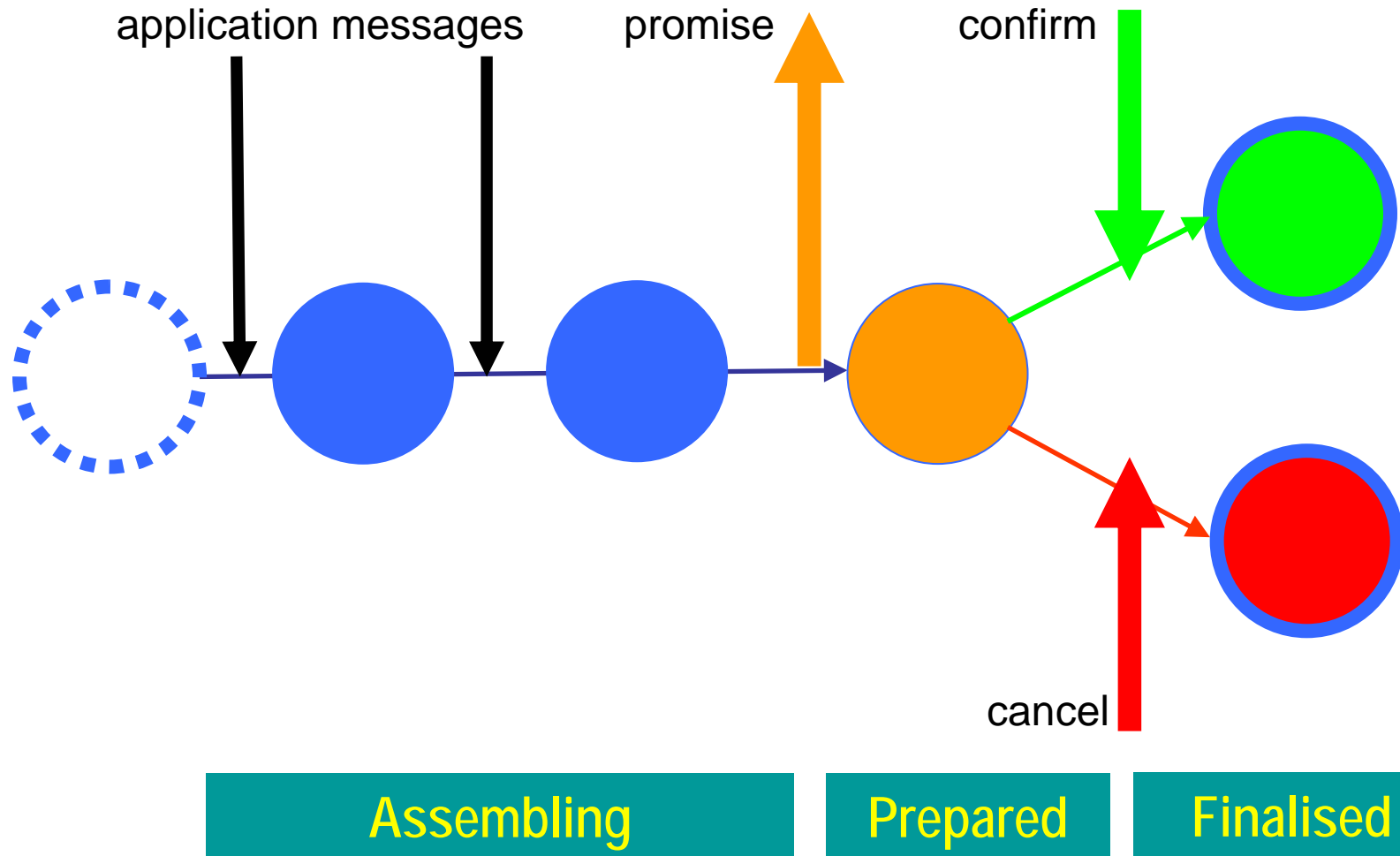
	Compensations	BTM
Consistent	Satish's Proposal	WS-BPEL TC round 2
Inconsistent	BPEL 1.1	Choreology submission

The next few slides discuss full support for BTM, going beyond original Choreology submission

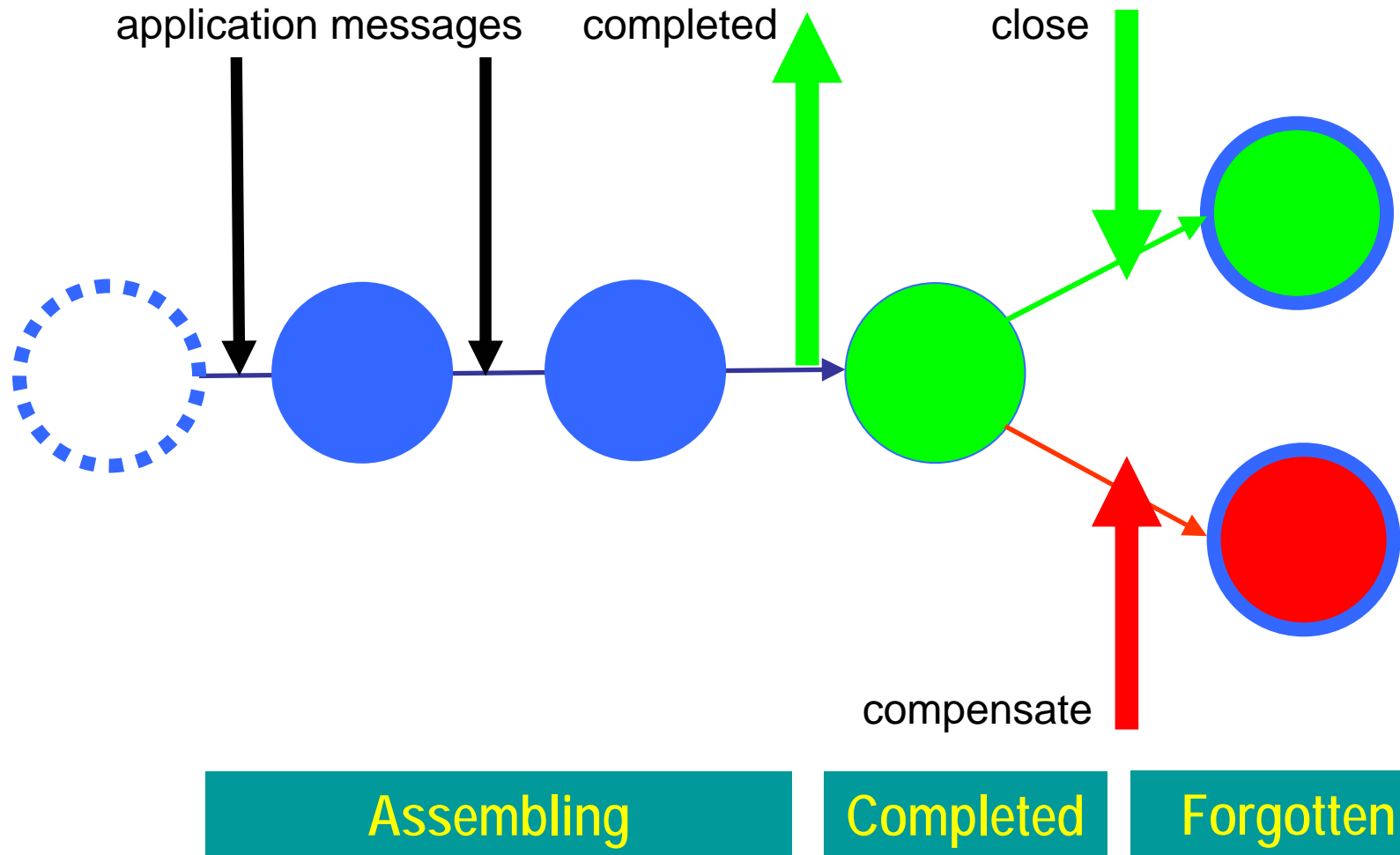
The work of a “reversible” scope that could be compensated is not really “completed”

- it is contingent, provisional, tentative (unfinished, mutable)

Contingent operation states



"Reversible" operation states



From “reversible” to contingent

A model that assumes contingent state \equiv final state is treating one case as universally true (mutation equals deletion)

A scope known to be contingent could do better

- contingent \equiv initial (“validate-do”), avoiding escaping real effects
- explicitly contingent (e.g. “reserved”), gives business intelligence

A contingent scope needs opportunity to do more work when finalised

Add contingent scope attribute (or enlarge meaning of “reversible”)

For “contingent” scopes

- implementation same as compensation handlers
- Identical visibility, access considerations

Triggered when (otherwise) compensation handlers would be removed

- process completes (status quo)
- “top-level” scope exits (potential resolution of issue 83)
- explicit invocation (another potential resolution of issue 83)

Why can't a scope:

- run several child scopes as alternatives
- choose which are selected, on some criterion
- trigger cancellation (compensation) of the undesired

Spec change:

- allow `<compensate scope="childname">` in regular activities

April 2004 with 60 issues to go

Desire to move to CD by September 2004

WS-C, -AT, -BA now in workshop

BTM standardization now on the horizon

BPEL 1.1 “do-compensate” model is only one model

- WS-BA right place to discuss full BTM model spectrum

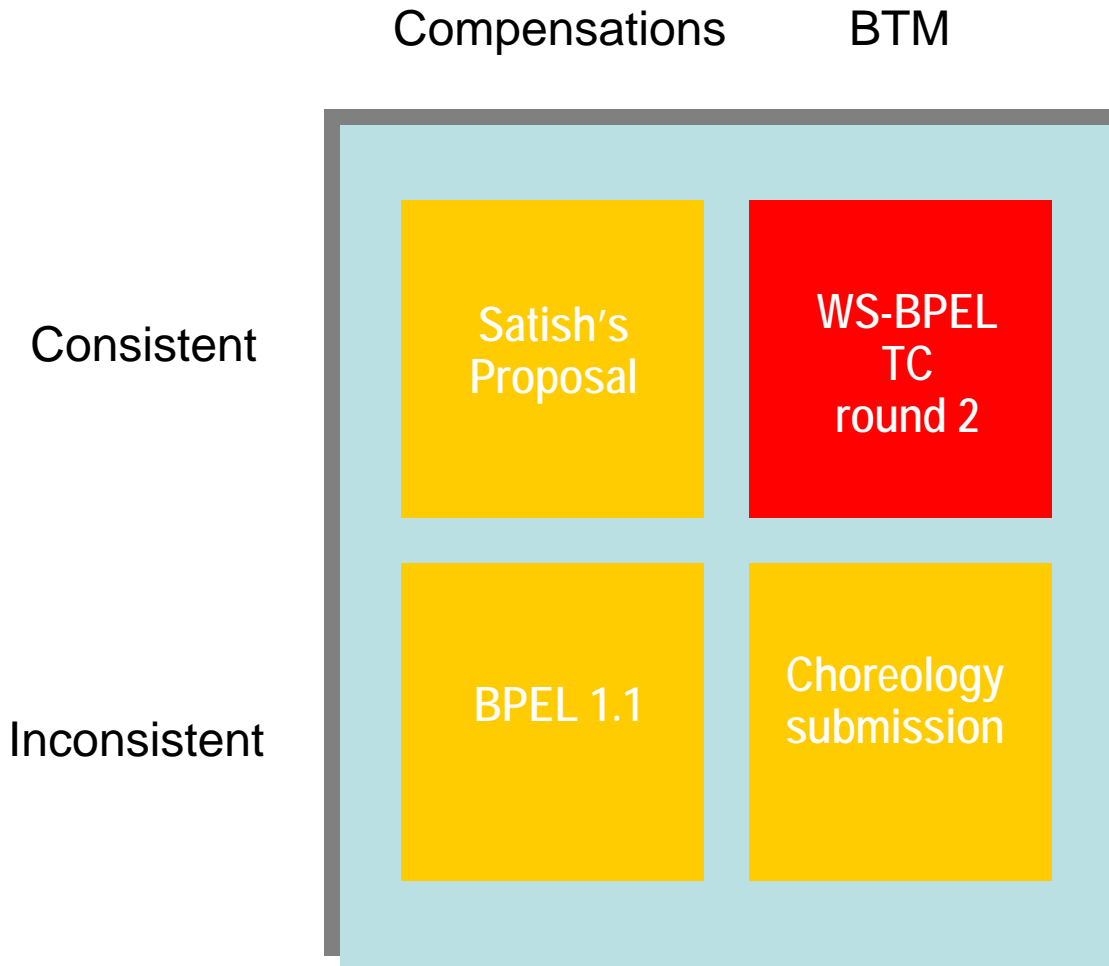
Intra-process compensation is immanent in WS-BPEL TC 1.0

- given standardized interoperable BTM protocol, could add inter-process

BPEL should revisit these issues in sync with BTM standardization progress

We advocate WS-BPEL TC 1.0 ...

	Compensations	BTM
Consistent	Satish's Proposal	WS-BPEL TC round 2
Inconsistent	BPEL 1.1	Choreology submission



BTM / coordination protocol issues: 30, 53-59

- closed with no change to spec – marked “revisitable”

Process-level compensation issue: 25

- Resolve by removing process-level compensation

Issue 83 and other compensation issues concerning intra-process (scope) compensations

- progress normally

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