

Robotics Service Bus - Bug #375

Fragmentation: Do not transmit full Event Meta-data in all Notifications

06/20/2011 01:47 AM - J. Moringen

Status:	Resolved	Start date:	06/20/2011
Priority:	High	Due date:	
Assignee:	J. Moringen	% Done:	100%
Category:	Protocol	Estimated time:	0.00 hour
Target version:	rsb-0.7		
Description			
Problem			
Currently, multiple identical notifications (except for Notification.data_part and Notification.data) are sent, each containing the full set of meta-data.			
Implementation			
<ul style="list-style-type: none">- Specify new behavior [[SpreadProtocol here]] <input type="checkbox"/>- Make fields of Notification descriptor optional <input type="checkbox"/>- Implement<ul style="list-style-type: none">- C++ <input type="checkbox"/>- Python <input type="checkbox"/>- Java <input type="checkbox"/>- Common Lisp <input type="checkbox"/>			
Related issues:			
Related to RSBag - Tasks # 509: Create a protocol buffer message for serializ...		Resolved	08/18/2011 08/22/2011
Related to RSBag - Tasks # 520: Serialize RSB events including meta-data		Resolved	08/23/2011
Related to RSBag - Tasks # 684: Adapt to new event serialization IDL		Resolved	10/27/2011

Associated revisions

Revision 41188f30 - 10/27/2011 09:46 PM - J. Moringen

Improved documentation comments in rsb/protocol/*.proto

refs #375

- rsb/protocol/FragmentedNotification.proto: added link to explanation of Spread-specific event <-> notification conversion
- rsb/protocol/Notification.proto.in: removed Spread-specific comments

Revision 3bed297a - 10/28/2011 03:07 AM - J. Moringen

Adapted event fragmentation in Spread transport to protocol changes

refs #375

- src/transport/spread/conditions.lisp (fragment-problem): adapted to changed names in rsb.protocol
 - (invalid-fragment-id): likewise
 - (duplicate-fragment): likewise
 - (fragmentation-problem): new condition; signaled when fragmentation-related problem are encountered
 - (insufficient-room): new condition; signaled when fragmentation fails due to insufficient room
- src/transport/spread/conversion.lisp (notification->event): adapted to changed names in rsb.protocol; simplified
 - (one-notification->event): likewise
 - (event->notifications): likewise; calculate individual fragment payload sizes by first determining the overhead; use

- `fragmented-notification' instances for fragments
 - (make-notification): optionally set some notification fields
- src/transport/spread/fragmentation.lisp
 - (assembly-concatenated-data): adapted to changes in rsb.protocol
 - (add-fragment! assembly fragmented-notification): likewise; changed
 - specializer notification -> fragmented-notification
 - (merge-fragment pool fragmented-notification): likewise; changed
 - specializer t -> fragmented-notification
 - (delete-partial-assemblies): simplified
 - (fragment-data): removed; no longer needed
 - (make-data-fragment): new function; simple `subseq' wrapper
- src/transport/spread/package.lisp (package rsb.transport.spread):
 - removed shadowing import for meta-data; added shadowing import for event-meta-data; added exported symbols fragmentation-problem, insufficient-room, fragmentation-problem-required and fragmentation-problem-available
- test/transport/spread/fragmentation.lisp
 - (test suite fragmentation-root): changed local function
 - make-notification > ~~make-fragment~~; added local function ~~make-event*~~
 - ~~(test fragmentation-root::assemble-smoke): adapted to fragmentation~~
 - ~~changes~~
 - ~~(test fragmentation-root::fragment-smoke): use~~
 - ~~event->notifications'~~ instead of `fragment-data'; check for
 - `insufficient-room' errors
 - (test fragmentation-root::roundtrip): use `event-notifications'
 - instead of `fragment-data'; added test cases
 - (test fragmentation-root::warnings): adapted to changed
 - fragmentation
 - (test::pruning-assembly-pool-root::prune): likewise
- test/transport/spread/package.lisp
 - (package rsb.transport.spread.test): qualified `defpackage' form
 - with cl package; removed additional `in-package' cl-user form;
 - removed imported symbol fragment-data; added imported symbol
 - event->notifications
- cl-rsb.asd (system cl-rsb-and-cl-spread): added dependency of
- src/transport/spread/conversion.lisp on
- src/transport/spread/conditions.lisp (system
- cl-rsb-and-cl-protobuf): changed class of protocol module to
- protocol-buffer-descriptor-directory; changed files of the module
- Protocol.proto -> EventId.proto, EventMetaData.proto,
- Notification.proto and FragmentedNotification.proto

Revision 2fcc43ce - 10/28/2011 01:55 PM - J. Moringen

Adapted event to use RSB's serialization protocol

refs #375

- src/transform/rsb-event.lisp (rsb-event::holder): adapted to changes
- in rsb.protocol
- (encode rsb-event event): likewise
- (decode rsb-event simple-array): likewise
- cl-rsb.asd (system cl-rsb): changed class of protocol module to
- protocol-buffer-descriptor-directory; changed files of the module
- Protocol.proto -> EventId.proto, EventMetaData.proto,

Revision bea5e593 - 10/28/2011 03:02 PM - J. Moringen

Fixed conversion bugs in src/transport/spread/conversion.lisp

refs #375

- src/transport/spread/in-connector.lisp
(message->event in-connector simple-array t): unpack as
`fragmented-notification' instead of `notification'
- src/transport/spread/conversion.lisp (notification->event): retrieve
notification from fragment for event conversion
(event->notifications): cosmetic change

Revision dc8eb96e - 10/28/2011 03:02 PM - J. Moringen

Fixed conversion in src/transform/rsb-event.lisp

refs #375

- src/transform/rsb-event.lisp (encode rsb-event event): new data
definition uses an `event-id' instance instead of sequence-number
and sender-id fields

Revision 14c281a2 - 10/28/2011 03:08 PM - J. Moringen

Transcoded file test/data/single-event.tide

refs #375

- test/data/single-event.tide: transcoded for new event serialization
format

Revision 1a20e52d - 10/28/2011 05:08 PM - J. Wienke

- adapted to new protocol files refs #375
- removed unused introspection stuff refs #682

Revision 8e8bf0be - 10/28/2011 05:39 PM - J. Moringen

Adapted to changes in rsb-protocol

refs #375

- setup.py: place file generated by protoc in rsb/protocol directory;
added an *init.py* file there
- rsb/rsbspread/__init__.py: removed event <-> notification
conversion; adapted fragmentation to new protocol
- rsb/rsbspread/conversion.py: new file; extracted and adapted event
<-> notification conversion

Revision 954c1b72 - 10/31/2011 02:53 PM - J. Moringen

(Hopefully) fixed off-by-one error in src/rsb/transport/spread/OutConnector.cpp

refs #375

- src/rsb/transport/spread/OutConnector.cpp: the loop which constructs
notification fragments for sending could go beyond the bounds of the
input string by one

Revision b21c8a08 - 10/31/2011 03:01 PM - J. Moringen

Added comments in rsb/rsbspread/conversion.py

refs #375

- rsb/rsbspread/conversion.py: added some comments regarding the fragmentation of notifications

Revision 17bbaad5 - 10/31/2011 04:11 PM - J. Moringen

Fixed corner case in src/rsb/transport/spread/OutConnector.cpp

refs #375

- src/rsb/transport/spread/OutConnector.cpp: produce at least one notification fragment, even if the payload is empty; for example, the void wire-schema uses empty payloads

History

#1 - 07/19/2011 09:25 AM - J. Moringen

- Status changed from New to In Progress
- Assignee changed from J. Wienke to J. Moringen
- Priority changed from Normal to High

#2 - 07/20/2011 01:45 PM - J. Moringen

- Description updated

#3 - 07/21/2011 09:04 PM - J. Moringen

- Description updated
- % Done changed from 0 to 20

#4 - 09/12/2011 04:30 PM - J. Wienke

Now this even includes the cause vector.

#5 - 10/21/2011 04:48 PM - S. Wrede

- Target version changed from rsb-0.10 to rsb-0.7

#6 - 10/27/2011 02:05 PM - J. Wienke

I will do this now as otherwise there is no chance for me to implement the full transmission of RSB meta data in a convenient way for project:rsbtimesync

#7 - 10/27/2011 02:05 PM - J. Wienke

Or better said, I would like to do this now ;)

#8 - 10/28/2011 03:23 AM - J. Moringen

- Assignee changed from J. Moringen to J. Wienke
- % Done changed from 20 to 30

#9 - 10/28/2011 03:23 AM - J. Moringen

- Description updated

#10 - 10/28/2011 05:08 PM - J. Wienke

- *Description updated*
- *% Done changed from 30 to 40*

#11 - 10/29/2011 03:56 PM - J. Moringen

- *Description updated*
- *Assignee changed from J. Wienke to J. Moringen*
- *% Done changed from 40 to 90*

#12 - 10/29/2011 03:57 PM - J. Moringen

More Java changes in r3009

#13 - 10/31/2011 04:11 PM - J. Moringen

- *Description updated*

#14 - 10/31/2011 04:36 PM - J. Moringen

- *Description updated*
- *Status changed from In Progress to Resolved*
- *% Done changed from 90 to 100*