**NBD-PWG V2 Kick-off Meeting Agenda and meeting minutes for January 15, 2014** prepared by: Sanjay Mishra

**Agenda:**

1. General
   1. Appreciation for V1.0 Co-Chairs and members:
      1. Definitions and Taxonomies: \*Nancy Grady (SAIC), Natasha Balac (SDSC), Eugene Luster (R2AD)
      2. Requirements: \*Geoffrey Fox (U. of Indiana), Joe  Paiva (VA), Tsegereda Beyene (Cisco)
      3. Security and Privacy: \*Arnab Roy (CSA, Fujitsu), Nancy Landreville (U. of MD), Akhil Manchanda (GE)
      4. Reference Architecture: \*Orit Levin (Microsoft), James Ketner (AT&T), Don Krapohl (Augmented Intelligence)
      5. Technology Roadmap: \*Carl Buffington (USDA), Dan McClary (Oracle), David Boyd (Data Tactic)
   2. Welcome V2.0 Co-Chairs
2. V1.0 Working Drafts Status and Plans
   1. NBD-PWG plans to publish the following drafts
      1. Big Data Definitions
      2. Big Data Taxonomies
      3. Big Data Use Cases and Requirements
      4. Big Data Security and Privacy Requirements
      5. Big Data Architectures White Papers Survey
      6. Big Data Reference Architectures with Security and Privacy Fabric
      7. Big Data Technology Roadmap
   2. Publication process and estimated schedules:
      1. One month technical editing for consistency in styles, terms, flow, etc. across all documents
      2. Two months for RFI
      3. Two months to incorporate comments
      4. One month NIST internal review
      5. Release NBD-PWG V10 publications
3. V2.0 Goals
   1. Identifying a few unique Big Data use cases or patterns for actual implementations
   2. Identifying general interfaces between Reference Architecture key components
   3. Produce V2.0 working drafts
4. V2.0 subgroups, Tasks and Deliverables
   1. **Use Cases & Requirements:** to work with use case submitters to identify unique Big Data scenarios and requirements for actual implementations.

Deliverable: expand V1.0 to include implementation use cases’ workflow and requirements

* 1. **Security & Privacy**: to work with use case submitters to identify security and privacy issues and requirements and how to address them during the actual implementations.

Deliverable: expand V1.0 to include implementation use cases’ security & privacy issues and requirements

* 1. **Taxonomy & Reference Architecture**: to work with the implementation team and develop high-level interface calls between RA key components by learning how the low-level implementation work.  Cross-check taxonomy actors, roles and activities with RA components and interfaces.

Deliverables:

* + 1. Taxonomy – expand V1.0 to include implementation use cases’ actors, roles and activities.
    2. RA – expand V1.0 to include interface abstraction between RA key components.
  1. **Technology Roadmap:** to gather information from other subgroups to assess the implementation needs, identify standards gaps, and propose standardization priorities for future standards development.

Deliverable: expand V1.0 to include new information from other subgroups plus standards gaps and propose standardization priorities.

1. V2.0 and RDA (BDI-WG) Goals and Tasks
   1. V2.0 goals: produce a set of preliminary high-level interface abstractions between RA key components, namely the (a) System Orchestration, (b) Data Provider, (c) Big Data Application Provider, (d) Big Data Framework Provider, and (e) Data Consumer
   2. BDI-WG goals: establish implementation guidelines for how to map best technologies and solutions to the identified Big Data use cases using NBD’s RA
   3. V2.0 tasks:
      1. Work with use case submitters to identify unique Big Data scenarios and requirements for actual implementations. This includes security and privacy concerns and requirements.
      2. Work with the BDI-WG to develop high-level interface calls between RA key components by learning how the low-level implementation work
      3. Establish preliminary high-level interface abstraction between RA key components
2. New Meeting Scheduled (bi-weekly telecom), starting Jan. 21 (next week)
   1. Every other Tuesday: Use Cases & Requirements + Security & Privacy
   2. Every other Thursday: Reference Architecture + Technology Roadmap
   3. Every last Wednesday of the month: Joint all subgroups for synchronization
   4. All meetings are from 1:00PM – 3:00PM EDT
   5. June 25: face-to-face meeting to present, discuss V2.0 working draft and next step
3. ISO/IEC JTC 1 Big Data Study Group with the following meetings:
   * 1. 1st meeting: March 18 - 21, 2014, San Diego Supercomputer Center, San Diego, US
     2. 2nd meeting: May 13 - 16, 2014, Universiteit van Amsterdam, Amsterdam, Netherlands
     3. 3rd meeting: June 16 - 19, 2014, Beihang University, Beijing, China

***Note****: at each 4-day meeting: first two days for workshop presentations and last two days for SGBD standards work*

**Notes from the Meeting, Wednesday, 1/15/14**

1. Agenda Item #1
   1. Wo acknowledged V1.0 chairs and members for leading and contributing for V1.0
   2. Six of the co-chairs from version 1.0 have agreed to lead V2.0 efforts and there are two new co-chairs. For V2.0, there are four sub-groups. Each of the four sub-groups shall have 2 co-chairs and are as follows:
      1. Use Cases & Requirements: \*Geoffrey Fox (Indiana University), Ilkay Altintas (SDSC)
      2. Security & Privacy: \*Arnab Roy (CSA-Fujitsu), Mark Underwood (Krypton Brothers, LLC)
      3. Reference Architecture & Taxonomy: \*Orit Levin (Microsoft), Nancy Grady (SAIC)
      4. Technology Roadmap: \*David Boyd (Data Tatic), Manoj Srivastava (CyberIQ Servies)

Responsibilities:

\* – lead subgroup Co-Chair: will help send meeting agenda and lead discussion

2nd Co-Chair: will help take meeting notes and facilitate chat Q/As; also acts as the backup for lead Co-Chair

* 1. The V2.0 effort requires a 6 months of commitment.

1. Agenda item #2
   1. Wrap up plans for V1.0? There are seven documents that shall be published *(refer to agenda item 2a above for information on V1.0 drafts)*
   2. The seven documents to be readied over a six months period *(refer to agenda 2b above for details on timelines for discrete activities leading up to publication plan)*
2. Agenda item #3
   1. V2.0 will be building on top of top drafts from V1.0.
   2. The V2.0 will focus on implementation
   3. Likewise, for yet TBA V3.0 effort, its basis shall be V2.0 drafts. The V3.0 shall focus on validation
3. Agenda item #4
   1. The focus for V2.0 is on implementation side using the best technology available today.
   2. There will be 4 deliverables that includes Use Cases & Requirements, Security & Privacy, Taxonomy & Reference Architecture and Technology Roadmap
   3. This will be worked over a six months period.
4. Agenda item #5
   1. The Research Data Alliance (RDA) BDI WG shall review the current stack of 60 use cases that were identified in V1.0.Of those, 51 are of general category and 9 related to S&P. In addition, RDA BDI WG has also created use cases based on geo-spatial and earth sciences. Together with all these use cases, priority shall be given to unique BD use cases and those that have synergy between NBD-PWG and RDI-BDI WG use cases
   2. RDA BDI WG shall use NBD-PWG RA as a basis and focus on implementation and shall provide recommendation for best implementation BD practices and guidelines (their output shall be: documenting the implementation process)
      1. Bob Marcus: We need to identify some key business, government, and consumer Use Cases
5. Agenda item #6
   1. Meetings will be bi-weekly starting on Tuesday, 1/21 *(refer to full schedule in Agenda item #6)*
   2. Face to Face meeting is suggested as for June 25.
   3. Participation to V2.0 is welcomed from academia
      1. ( Carey\_Compliance Partners, LLC: Ok....we bumped into an IT Manager for a Denver School District.....we'll go ahead and ask if he would like to join this Team of Volunteers....Pw
      2. (1:58 PM) Geoffrey Fox: I think all meetings are open and use same megameeting room. Membership of subgroup just gets you custom emails
      3. Send an email to Wo if anyone from the University is interested in joining.
   4. CIO interest in attending these meetings – Generally, CIO’s are interested in solution and not the gory details of working, so they generally shy away from these working meetings.
6. Agenda item #7
   1. The ISO/IEC’s first BD SG meeting will be held in San Diego in March. Submissions of Paper(s) are encouraged for the meeting. The last day for submission still need to be worked out.
   2. There is ~10 member steering committee including chairs from NBD-PWD V1.0 effort and others from academia. The program committee to review peer paper is also being formulated and those names will also be listed on the website
   3. Overall, three volume of papers shall be published (US, Europe and Asia), one for each region and the final papers shall likely be published at the conclusion of ISO/IEC JTC 1 BD SG meetings.
   4. The meeting flyer for San Diego is currently being finalized and shall be published after review from the ISO/IEC JTC BD SG steering committee

**Action Items:**

1. See meeting notes above
2. Anyone interested in joining RDA BDI WG, they should reach out to Wo Chang (wchang@nist.gov)

**Next Steps**

1. Finalize Research Data Alliance (RDA), Big Data Infrastructure WG
   1. Identify unique use cases
   2. Technology needed
2. Have the RDA BDI WG charter be reviewed openly
3. Set up reflector for RDA BDI WG
4. Schedule NBD-PWG V2.0 related bi-weekly meetings starting Tuesday Jan 21 (3 separate meetings) plus one synch meeting on last Wed of each month
5. RDA BDI WG meeting schedule
6. Further JTC1 BD SG telecon meetings (as needed) can be discussed during the first meeting in San Diego

**Online Attendee List**

1. Wo Chang
2. Sanjay Mishra
3. Steven McGee
4. Thomas Huang
5. Lisa Martinez
6. David Boyd
7. Bob Marcus
8. George Redmond
9. Peter Bajcsy
10. Nancy Grady
11. Pavithra Kenjige
12. Anil Gopala
13. Dave Vennergrund
14. Ian Gorton
15. Geoffrey Fox
16. David Skinner
17. Jian Li
18. Alain Briancon
19. Keith Hare
20. William Vorhies
21. Marcia Mangold
22. John Dodd
23. Pw Carey
24. Spencer Smith
25. Akhil Manchanda
26. K. Eric Harper
27. Arnab Roy
28. Orest Swystun
29. John Rogers
30. Scott Steele
31. Gary Good
32. Orit Levin
33. Mark Underwood
34. Vivek Navale
35. Ovace A. Mamoon
36. Atul Mathur
37. Shevel Andrey
38. Phil Yang
39. John Klein
40. Bobby Saxon
41. K. Duvall
42. Robert Reyling
43. Bhaskar Gowda
44. Yuri Demchenk
45. Ray Wulff
46. Louis Chabot
47. Shahid Shah
48. Sandeep ?
49. Rod Azama
50. Brent Comstock
51. Dan Gunter
52. Felix Njeh
53. Tim Zimmerlin

**Online Chat log**

(12:46 PM) Thomas Huang joined.

(12:48 PM) Lisa Martinez joined.

(12:52 PM) David Boyd (Data Tactics) joined.

(12:55 PM) Louis Chabot joined.

(12:55 PM) Bob Marcus joined.

(12:55 PM) Nancy Grady (SAIC) - audio only joined.

(12:55 PM) George Redmond joined.

(12:56 PM) Nancy Grady (SAIC) - audio only disconnected.

(12:56 PM) Peter Bajcsy joined.

(12:57 PM) Nancy Grady (SAIC) - noaudio joined.

(12:58 PM) PavithraKenjige joined.

(12:58 PM) Anil Gopala joined.

(12:59 PM) Dave Vennergrund joined.

(12:59 PM) Ian Gorton, CMU SEI joined.

(12:59 PM) Geoffrey Fox joined.

(12:59 PM) David Skinner joined.

(12:59 PM) Jian Li joined.

(12:59 PM) Atul Mathur joined.

(1:00 PM) John Rogers, HP joined.

(1:00 PM) Anil Gopala: Anil Gopala (Deloitte) Joined

(1:01 PM) alain briancon joined.

(1:01 PM) Keith Hare, JCC Consulting, Inc. joined.

(1:01 PM) Sanjay Mishra(Verizon) joined.

(1:01 PM) William Vorhies joined.

(1:02 PM) Atul Mathur: Atul Mathur (IMC) joined

(1:02 PM) Marcia Mangold joined.

(1:02 PM) John Dodd joined.

(1:02 PM) shevel.andrey@gmail.com disconnected.

(1:02 PM) Pw Carey\_Compliance Partners, LLC joined.

(1:02 PM) Spencer Smith joined.

(1:03 PM) Akhil Manchanda joined.

(1:03 PM) K. Eric Harper joined.

(1:04 PM) Arnab Roy (Fujitsu) joined.

(1:05 PM) Orest Swystun of HP joined.

(1:05 PM) Ray Wulff joined.

(1:05 PM) Pw Carey\_Compliance Partners, LLC: Good morning and nice to be back...we'll stay on mutea for a bit.....

(1:05 PM) John Rogers, HP disconnected.

(1:06 PM) John Rogers, HP joined.

(1:06 PM) Scott Steele (Rochester) joined.

(1:06 PM) Gary Good, US Army joined.

(1:07 PM) Ovace A. Mamnoon joined.

(1:07 PM) Orit Levin (Microsoft) joined.

(1:08 PM) Mark Underwood (Krypton Bros) joined.

(1:08 PM) Ovace A. Mamnoon disconnected.

(1:08 PM) Vivek Navale joined.

(1:08 PM) Ovace A. Mamnoon (HP) joined.

(1:10 PM) Atul Mathur disconnected.

(1:10 PM) Atul Mathur joined.

(1:11 PM) shevel.andrey@gmail.com joined.

(1:11 PM) Orest Swystun of HP: Thank you for this working group

(1:12 PM) Bob Marcus: I'm on the Web.

(1:12 PM) Pw Carey\_Compliance Partners, LLC: Dear Sir: Looks like a nice group...also we emailed our Section 7 to you, plus an EU Big Data White Paper...

(1:12 PM) Louis Chabot disconnected.

(1:12 PM) Bob Marcus: I want gto thank everyone for their work

(1:12 PM) Phil Yang/GMU joined.

(1:12 PM) Pw Carey\_Compliance Partners, LLC: You're welcome.....

(1:12 PM) Mark Underwood (Krypton Bros): Greetings all

(1:15 PM) John Klein (SEI) joined.

(1:17 PM) LTC Bobby Saxon, Army G-3/5/7 joined.

(1:18 PM) Ray Wulff disconnected.

(1:18 PM) K. Duvall (UVa) joined.

(1:18 PM) Robert Reyling joined.

(1:19 PM) Akhil Manchanda43 joined.

(1:20 PM) Akhil Manchanda disconnected.

(1:20 PM) K. Eric Harper: Research Data Alliance (RDA)

(1:20 PM) Bhaskar Gowda joined.

(1:21 PM) Yuri Demchenk (UvA) joined.

(1:21 PM) Scott Steele (Rochester) disconnected.

(1:22 PM) Pw Carey\_Compliance Partners, LLC: Without increasing the WGs workload and based upon recent vendor industry R&D....is there any (need, value in combining Big Data & The Cloud into something called Cloud/Big Data Eco-systems)...? Respectfully yours, Pw

(1:23 PM) Shahid Shah joined.

(1:23 PM) Orest Swystun of HP: Do we want to have some sort of committee for release management and QA of the work that each committee wll be producing?

(1:23 PM) Sandeep joined.

(1:23 PM) Pw Carey\_Compliance Partners, LLC: Perhaps.....Pw

(1:24 PM) Pw Carey\_Compliance Partners, LLC: This might already be in the hopper.....

(1:28 PM) Rod Azama joined.

(1:28 PM) Akhil Manchanda43 disconnected.

(1:28 PM) alain briancon disconnected.

(1:29 PM) Akhil Manchanda joined.

(1:29 PM) Pw Carey\_Compliance Partners, LLC: Audio bridge is \* 6....ok

(1:31 PM) George Redmond disconnected.

(1:31 PM) Orest Swystun of HP: thank you

(1:31 PM) Pw Carey\_Compliance Partners, LLC: Very thorough program....

(1:31 PM) Sandeep disconnected.

(1:32 PM) Dan Gunter joined.

(1:32 PM) John Dodd: Is there a need for a process or Governance approach or team

(1:32 PM) Sandeep joined.

(1:32 PM) Sandeep disconnected.

(1:32 PM) Bhaskar Gowda disconnected.

(1:32 PM) Pw Carey\_Compliance Partners, LLC: Dear John....we would think so.....Pw

(1:33 PM) Sandeep joined.

(1:33 PM) Bhaskar Gowda joined.

(1:33 PM) Pw Carey\_Compliance Partners, LLC: Or to put that another way.....we would support such an effort....Pw

(1:33 PM) Shahid Shah disconnected.

(1:33 PM) Akhil Manchanda disconnected.

(1:34 PM) John Dodd: Will there be workshops mid way through especially so you could get more Fed and State folks engaged.

(1:34 PM) Akhil Manchanda joined.

(1:34 PM) Brent Comstock joined.

(1:35 PM) Pw Carey\_Compliance Partners, LLC: A good question ask Mr. Chang....Pw

(1:35 PM) R Wulff joined.

(1:36 PM) Robert Reyling: Per your request Rob Reyling's e-mail address is: Robert.Reyling.ctr@hanscom.af.mil (I am logging in from my home computer since the Hanscom AFB firewall did not allow me to connect with your megameeting site)>

(1:36 PM) Felix Njeh (COMINT) joined.

(1:37 PM) Bob Marcus: We need to identify some key business, government, and consumer Use Cases

(1:37 PM) John Rogers, HP disconnected.

(1:37 PM) John Rogers, HP83 joined.

(1:37 PM) Dave Vennergrund: Pardon the interuption - but can you share a link or POC for the BGA IG?

(1:37 PM) Dave Vennergrund: BDA IG?

(1:37 PM) Geoffrey Fox: we can add new use cases to 51

(1:38 PM) John Dodd: I have been developing some new use cases for healthcare I will share.

(1:39 PM) Lisa Martinez: Wo, can you clarify the process for use case and requirements - now combined with the security and privacy sub-group?

(1:39 PM) Pw Carey\_Compliance Partners, LLC: Dear John:Thanks, look forward to reviewing your efforts....Respectfully yours, Pw

(1:40 PM) Spencer Smith disconnected.

(1:40 PM) Pw Carey\_Compliance Partners, LLC: Will the ISO/IEC JTC Big Data Study Group Meetings will these be accessible via the Internet.....?

(1:43 PM) Bob Marcus: Both dates sound OK

(1:43 PM) Phil Yang/GMU: what is the location for a potential June 9th?

(1:43 PM) Akhil Manchanda disconnected.

(1:43 PM) Pw Carey\_Compliance Partners, LLC: Sorry, we meant 'accessable '.....Pw

(1:44 PM) Thomas Huang: Thomas Huang (JPL/NASA), what is the location of June 9 meeing?

(1:44 PM) K. Duvall (UVa): Will the Face to Face meering be at the NIST campus is Giathersburg?

(1:44 PM) CRT joined.

(1:44 PM) CRT disconnected.

(1:44 PM) Rod Azama disconnected.

(1:45 PM) Pw Carey\_Compliance Partners, LLC: Ok...the NIST Face to face will be June 25th, in Gaithersburg, MD...ok....

(1:45 PM) Geoffrey Fox: What time Tuesday 1-3 again?

(1:45 PM) John Rogers, HP83: For new people on the call, how do they connect with the chair person of each sub-groups?

(1:46 PM) CRT joined.

(1:46 PM) Geoffrey Fox: I am gcf@indiana.edu

(1:46 PM) John Rogers, HP83: Can you please post the contact information for the co-chairs. Thank you!

(1:46 PM) R Wulff disconnected.

(1:46 PM) Lisa Martinez: Understood, however new cases or scenarios would be submitted where

(1:47 PM) CRT disconnected.

(1:47 PM) Orest Swystun of HP: can you email us the document that you were sharing

(1:47 PM) David Boyd (Data Tactics): Best way to contact the chair would be through the reflector.

(1:47 PM) Geoffrey Fox: You can spam me!

(1:48 PM) John Rogers, HP83: The reflector doesn't always draw a response from the members

(1:48 PM) Felix Njeh (COMINT) disconnected.

(1:48 PM) David Boyd (Data Tactics): David Boyd - dboyd@data-tactics.com

(1:48 PM) Sanjay Mishra(Verizon): Sanjay Mishra - sanjay.mishra@verizon.com

(1:48 PM) Pw Carey\_Compliance Partners, LLC: Wouldn't your original email broadcast email contain their emails....?

(1:49 PM) Arnab Roy (Fujitsu): aroy@us.fujitsu.com - for Security and Privacy

(1:49 PM) Orit Levin (Microsoft): Orit Levin - oritl@microsoft.com

(1:49 PM) Geoffrey Fox: For new use cases, please use template in M0245 and send to me

(1:49 PM) Arnab Roy (Fujitsu): Wo, what are the immediate action items for Tuesday's meeting?

(1:50 PM) Geoffrey Fox: Agreed. We can expand security&privacy

(1:50 PM) Lisa Martinez: no, others have asked and what you are saying input the use case on the upload site

(1:50 PM) Pw Carey\_Compliance Partners, LLC: http://bigdatawg.nist.gov/show\_InputDoc.php

(1:50 PM) Lisa Martinez: Thank you PW

(1:50 PM) Orest Swystun of HP: thank you

(1:50 PM) Pw Carey\_Compliance Partners, LLC: New Listings: Document No. M0280

(1:51 PM) Geoffrey Fox: Wo is correct, all use cases are uploaded on "input link" but good to email me action so I don't overlook

(1:51 PM) Lisa Martinez: Thank you, Wo.

(1:51 PM) Pw Carey\_Compliance Partners, LLC: Thanks....Sir....Pw

(1:52 PM) Sandeep disconnected.

(1:53 PM) Felix Njeh (COMINT) joined.

(1:53 PM) Pw Carey\_Compliance Partners, LLC: Is it too late to sign up for Team Orit....?

(1:53 PM) Keith Hare, JCC Consulting, Inc. disconnected.

(1:54 PM) Anil Gopala disconnected.

(1:54 PM) Pw Carey\_Compliance Partners, LLC: Do we need greater input from Education....?

(1:56 PM) John Dodd: Would be nice to connect to some of the new university programs that are focused on BIG Data: NYU, Northwestern, Md, etc..

(1:56 PM) Arnab Roy (Fujitsu): Tanks Wo. I'll follow up for further questions.

(1:56 PM) John Dodd: Would be nice to have a connection to the Fed CIO and NASCIO

(1:56 PM) Pw Carey\_Compliance Partners, LLC: Dear John: Do you have some points of contact....?

(1:56 PM) John Rogers, HP83: Do you send conference room links out for each Sub-working Group meetings? Do we need to be a member of the sub-working group in order to participate in a meeting?

(1:56 PM) PavithraKenjige disconnected.

(1:57 PM) John Dodd: I have to check out.

(1:57 PM) John Dodd disconnected.

(1:57 PM) Pw Carey\_Compliance Partners, LLC: Ok....we bumped into an IT Manager for a Denver School District.....we'll go ahead and ask if he would like to join this Team of Volunteers....Pw

(1:58 PM) Geoffrey Fox: I think all meetings are open and use same megameeting room. Membership of subgroup just gets you custom emails

(1:58 PM) Marcia Mangold disconnected.

(1:59 PM) Pw Carey\_Compliance Partners, LLC: Dear Sir: Please take care of yourself....Pw

(2:00 PM) Pw Carey\_Compliance Partners, LLC: Privacy is a big deal within the Education Big Data arena.....yes?

(2:00 PM) K. Duvall (UVa): HIPAA Concerns are...

(2:00 PM) K. Duvall (UVa): \*FERPA, my mistake

(2:01 PM) Lisa Martinez: Yes, in my area of concern. :)

(2:02 PM) David Skinner disconnected.

(2:02 PM) David Skinner joined.

(2:03 PM) Pw Carey\_Compliance Partners, LLC: We agree....most CIO's aren't concerned with nuts-n-bolts, just solutons....is our opinion....the exception is rare....Pw

(2:04 PM) Pw Carey\_Compliance Partners, LLC: We logged into today

(2:04 PM) Pw Carey\_Compliance Partners, LLC: We logged into todays meeting using last years info...

(2:04 PM) Dan Gunter disconnected.

(2:04 PM) shevel.andrey@gmail.com: I scanned docs on the page http://bigdatawg.nist.gov/show\_InputDoc.php i do not see any docs on data moving. It is not intersting ?

(2:05 PM) K. Duvall (UVa): Family Educational Rights and Privacy Act

(2:05 PM) tim zimmerlin joined.

(2:05 PM) Lisa Martinez: We should talk more about the Fed CIO or ICT - As federal has all industry as output and input

(2:05 PM) Pw Carey\_Compliance Partners, LLC: are the consequences of violating FERPA?FERPA FAQs: Office of the Registrar - Northwestern University

(2:06 PM) Geoffrey Fox: there are several use cases with data movement

(2:06 PM) K. Duvall (UVa): In certain applications of using big data for student analytics, there are concerns about violating student privacy.

(2:06 PM) K. Duvall (UVa): \* and that act.

(2:06 PM) Pw Carey\_Compliance Partners, LLC: Lisa...do you have any topics ?

(2:07 PM) Mark Underwood (Krypton Bros): We do have some Big Ed use cases

(2:07 PM) Geoffrey Fox: i am not certain reference architecture discussed

(2:07 PM) Geoffrey Fox: data movement

(2:07 PM) William Vorhies disconnected.

(2:08 PM) Pw Carey\_Compliance Partners, LLC: When is the 'all you can eat buffet'.....?

(2:10 PM) John Klein (SEI) disconnected.

(2:13 PM) Geoffrey Fox: Data movement example: use cases 36-40, 43 involve major movement of data from where data taken to analysis

(2:14 PM) Geoffrey Fox: There is a different issued -- namely "streaming" data is of course very important

(2:16 PM) Brent Comstock disconnected.

(2:18 PM) David Boyd (Data Tactics): In at least one of the use cases I submitted I know I discussed the movement of data to the tactical edge and the problems associated with it.

(2:18 PM) Pw Carey\_Compliance Partners, LLC: Very good meeting.....also, do we want to reach out to the PCAOB, COSO, ISACA, isc2 professional organizations.....?

(2:19 PM) Pw Carey\_Compliance Partners, LLC: Public Corporation Accounting and Oversight Board.....out of Enron and SEC

(2:19 PM) K. Duvall (UVa) disconnected.

(2:20 PM) Pw Carey\_Compliance Partners, LLC: We're in a six month time frame.....nice to know....but there is a lot of work to accomplish....no?

(2:20 PM) Thomas Huang: i can provide some NASA earth scinece use cases

(2:21 PM) Geoffrey Fox: NASA is 44-47

(2:21 PM) Thomas Huang: thanks

(2:21 PM) Pw Carey\_Compliance Partners, LLC: In closing, our best wishes....Respectfully yours, Pw Carey

(2:21 PM) Geoffrey Fox: and 43 is NSF+NASA

(2:22 PM) Peter Bajcsy: Wo, I wouild like to talk to you about the future meetings later

(2:22 PM) shevel.andrey@gmail.com: thanks.

(2:22 PM) Felix Njeh (COMINT) disconnected.

(2:22 PM) John Rogers, HP83: Thank you!

(2:23 PM) Pw Carey\_Compliance Partners, LLC: Thank you....

(2:23 PM) shevel.andrey@gmail.com disconnected.

(2:23 PM) John Rogers, HP83 disconnected.

(2:23 PM) K. Eric Harper disconnected.

(2:23 PM) Ian Gorton, CMU SEI disconnected.

(2:23 PM) Orit Levin (Microsoft): Thanks and looking forward to working with everyone on Ref Arch!

(2:23 PM) Thomas Huang disconnected.

(2:23 PM) David Boyd (Data Tactics) disconnected.

(2:23 PM) Arnab Roy (Fujitsu) disconnected.

(2:23 PM) tim zimmerlin disconnected.

(2:23 PM) Ovace A. Mamnoon (HP) disconnected.

(2:23 PM) Bhaskar Gowda disconnected.

(2:23 PM) Atul Mathur disconnected.

(2:23 PM) Mark Underwood (Krypton Bros) disconnected.

(2:23 PM) Yuri Demchenk (UvA) disconnected.

(2:23 PM) Peter Bajcsy disconnected.

(2:23 PM) Orit Levin (Microsoft) disconnected.

(2:23 PM) Geoffrey Fox: Thank you Goodbye

(2:23 PM) Lisa Martinez disconnected.

(2:23 PM) Geoffrey Fox disconnected.

(2:23 PM) Bob Marcus disconnected.

(2:24 PM) Gary Good, US Army disconnected.

(2:24 PM) Wo Chang (Host, NIST): Thank you and looking forward to work with you all!!

(2:24 PM) Phil Yang/GMU disconnected.

(2:27 PM) Brett Berlin joined.

(2:28 PM) Dave Vennergrund disconnected.

(2:30 PM) Jian Li disconnected.

(2:31 PM) Pw Carey\_Compliance Partners, LLC disconnected.

(2:32 PM) Nancy Grady (SAIC) - noaudio disconnected.

(2:34 PM) Brett Berlin disconnected.

(2:35 PM) Brett Berlin joined.

(2:36 PM) Brett Berlin disconnected.

(2:40 PM) Robert Reyling disconnected.