**NIST Big Data Public Working Group (NBD-PWG)**

**NBD-PWD-2016/M0545**

**Source: NBD-PWG**

**Status: Draft**

**Title: Web chat from Meeting of July 19, 2016**

**Chat Log D:\\_wo\1DMG\2015\\_BigDataWG\Docs\ChatLog 2016\_07\_19 14\_28.rtf**

**Russell Reinsch (to Organizer(s) Only)**: 1:01 PM: Meeting notes: attendance: Cavan, Geoffrey, Eric Harper, Pitush, Russell,

**Russell Reinsch (to Organizer(s) Only)**: 1:03 PM: Meeting on RA. Next JTC1 WG9 will be at GMU Nov 29 - Dec 2. Nov 28 public workshop.

**Russell Reinsch (to Organizer(s) Only)**: 1:05 PM: Attend: Bob Marcus, Ann,

**Russell Reinsch (to Organizer(s) Only)**: 1:05 PM: Merk, Tim,

**Russell Reinsch (to Organizer(s) Only)**: 1:13 PM: Sure would like to see that ppt you have open on your screen

**Russell Reinsch (to Organizer(s) Only)**: 1:25 PM: Ann asking about use case template. Mark: visit google form.

**Russell Reinsch (to Organizer(s) Only)**: 1:26 PM: WG9 likes the NIST vol 4 very much.

**Mark Underwood (to Everyone)**: 1:26 PM: The V2 use case form is explained here, with a link out to the Google form: http://bit.ly/1SXZnBR

**Geoffrey Fox (to Everyone)**: 1:27 PM: I think we should not spend time changing use case form uness there is a serious problem. We need to explore this one first.

**Russell Reinsch (to Organizer(s) Only)**: 1:28 PM: Dave can help getting aquainted with the next WG9 meeting.

**Mark Underwood (to Everyone)**: 1:29 PM: Geoffrey - agreed. SnP writing duties are under load, tho not as much as the PakemonGo cluster

**Mark Underwood (to Everyone)**: 1:29 PM: \*PokemonGo

**Geoffrey Fox (to Everyone)**: 1:30 PM: Use cases can be submitted to Vol 3 and Vol4 but volume 3 will NOT discuss security/privacy issues leaving that in highly expert hands of volume 4.

**Russell Reinsch (to Organizer(s) Only)**: 1:35 PM: Dave: ISO making some progress on interfaces. Dave Interested in working on a maturity model for NIST.

**Ann Racuya-Robbins (Private)**: 1:35 PM: Hi Wo. Just a friendly reminder that I need edit permissions to the google docs?

**Russell Reinsch (to Everyone)**: 1:35 PM: Im kind of looking at developing some maturity dialog for Vol 7.

**Russell Reinsch (to Organizer(s) Only)**: 1:38 PM: Ann wants to know about editing vol 6 diagrams in ppt. Dave suggesting making a copy so there will be a before and after diagram.

**Russell Reinsch (to Organizer(s) Only)**: 1:41 PM: FF: maturity model: applies to ent, orgs, this field of study... could have value because it would be not covered in other groups... caveat: look at what has been done already Carnegie Mellon, also other professions, and re-apply to our situation.

**Russell Reinsch (to Organizer(s) Only)**: 1:43 PM: Dave: China has a maturity standard in progress. Also some work coming out of India and other places. We need to get going on it in other words. Will dig up early version of vol 7 that has a potential starting point.

**Russell Reinsch (to Organizer(s) Only)**: 1:45 PM: Wo removed maturity from 7 when it transitioned from Tech Road to Standard Road. 7 for enablers. RR: show emerging enablers in the maturity. Wo: content could be separate doc; how an org get into big data, utilizing the RA, etc.

**Russell Reinsch (to Organizer(s) Only)**: 1:45 PM: How to engage. New volume perhaps. Not a perfect fit for 7.

**Russell Reinsch (to Organizer(s) Only)**: 1:52 PM: Ann: OASC is doing something. FF: what they do: good for cert., stick to industry perspective but other countries have diff levels of development in diff areas. Some are against mgmt standards. Success based on how deliver to customers, profitability,.. potentially less applicable.

**Russell Reinsch (to Organizer(s) Only)**: 1:53 PM: Dave: CMMI efforts mostly waist money. Is your org mature enough to even implement a maturtity model.

**Russell Reinsch (to Organizer(s) Only)**: 1:55 PM: Let orgs come in and say are you organizationally ready. TRL = tech readiness level. Is a s/w progressing.

**Mark Underwood (to Everyone)**: 1:56 PM: As a scoping concern, I note that the Cloud Security Alliance didn't have a marutiy level in their Controls Matrix, but did produce a forensics capability maturity model with five levels. These are significant efforts, and I question whether we have the resources to give this a good walk-through -- at least on the SnP side. The "levels" are what people will seek out, but it can be a wrenching, protracted discussion to decide on, e.g., the five five levels in this CSA document. In other words, perhaps a good idea, but challenging.

**Mark Underwood (to Everyone)**: 1:56 PM: \*sorry for the typos

**Pw Carey (to Everyone)**: 1:58 PM: An ISIS web site was tracked back to an internal UK Gov. server....still waiting for our people to provide the wrap-up to this one example of the UK's history of working at cross-purposes to what's good for the United States of America....just a thought.....

**Russell Reinsch (to Organizer(s) Only)**: 1:59 PM: Wo: people dont know how to go about it. What are the steps, approach and tools. Assess where they are where they may want to go into. [product dev].

**Pw Carey (to Everyone)**: 1:59 PM: Dear Mark: Good points.....but from what we know....the 7-layer cake OSI or the 4-layer version preferred by some DoD types.....would be a nice outline template to hang our initial step...introductory knowledge upon.....Just another thought.....

**William Miller (to Everyone)**: 1:59 PM: domain expertise is need in many areas especially healthcare which has alot of data but medical person not a IT person need to look at the data. Allot of things are lost today since domain expertise does not exist or is limited.

**Mark Underwood (to Everyone)**: 2:01 PM: William- +1 - so true, especially canonical domain knowledge useful for interop or "related" domains

**Pw Carey (to Everyone)**: 2:02 PM: Dear William: Sounds like a Profits Construct....that unless costs of maintaining a pig slop system become to high....The C-Suite's will live with it...(aka: pig slop that is....)....

**Pw Carey (to Everyone)**: 2:03 PM: Dear Sir: Good afternoon......

**Pw Carey (to Everyone)**: 2:04 PM: Is Volume Six Competed....or can we still add our thoughts.... to the following:Requires CONTENT\_July 19th, 2016 NIST BIG DATA INTEROPERABILITY FRAMEWORK VOLUME 6, REFERENCE ARCHITECTURE

4.3 BIG DATA APPLICATION

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4.3.42 ACCESS

The access activity within the Big Data Application Provider is focused on the communication/interaction with the Data Consumer.

Similar to the collection activity, the access activity may be a generic service such as a web server or application server that is configured by the System Orchestrator to handle specific requests from the Data Consumer.

This activity would interface with the visualization and analytic activities to respond to requests from the Data Consumer (who may be a person) and uses the processing and platform frameworks to retrieve data to respond to Data Consumer requests.

In addition, the access activity confirms that descriptive and administrative metadata and metadata schemes are captured and maintained for access by the Data Consumer and as data is transferred to the Data Consumer.

The interface with the Data Consumer may be synchronous or asynchronous in nature and may use a pull or push paradigm for data transfer.

4.4 BIG DATA FRAMEWORK PROVIDER

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4.4.1 INFRASTRUCTURE ACTIVITIES

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4.4.2 PLATFORM ACTIVITIES

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4.4.3 PROCESSING ACTIVITIES

<< Text Needed>>

4.4.4 MANAGEMENT FABRIC ACTIVITIES

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4.4.5 SECURITY AND PRIVACY FABRIC ACTIVITIES

<<Text needed>>

4.4.6 CROSS-CUTTING ACTIVITIES

Messaging, and Resource management discussions

4.5 FUNCTIONAL COMPONENT VIEW

The functional component view of the reference architecture should define and describe the functional components (software, hardware, people, organizations) that perform the various activities outlined in the activities view.

Activities and functional components need not map one-to-one and in fact many functional components may be required to execute a single activity and multiple activities may be performed by a single functional component.

The user of this model is recommended to maintain a mapping of activities to functional components to support verification that all activities can be performed by some component and that only components that are necessary are included within the architecture. Figure X below shows classes of functional components common to the various roles, sub-roles, and fabrics of the BDRA.

These classes are described in the following paragraphs.

4.5.1 SYSTEM ORCHESTRATOR

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4.5.2 BIG DATA APPLICATION

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4.5.3 BIG DATA FRAMEWORK PROVIDER

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4.5.4 MANAGEMENT FABRIC

<<Need text and to align with figure>>

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**Pw Carey (to Everyone)**: 2:07 PM: We'd like to provide a Block Chain template from the Financial Community, (aka: Banks.....on or off Wall Street.....)...if this helps....?

**Geoffrey Fox (to Everyone)**: 2:08 PM: i'm here

**Pw Carey (to Everyone)**: 2:09 PM: A Block Chain White Paper and/or Use Case would be nice......No?

**Russell Reinsch (to Organizer(s) Only)**: 2:10 PM: Wo: looking to progress the whitepaper template.

**Mark Underwood (to Everyone)**: 2:10 PM: These folks are ripping off our V4 concept, and it's not the only example "Fortinet Unveils its Security Fabric to Arm Global Enterprises with Pervasive, Adaptive Cybersecurity from IoT to Cloud Networks"

**Pw Carey (to Everyone)**: 2:12 PM: Dear Mark: Give me some names and we'll ask our friends in Chicago.....to Whack Um.....They promise to wear gloves and tell nobody....Anything to help a friend.....Mark.

**Pw Carey (to Everyone)**: 2:13 PM: Fiat is on your side....Tim.

**Mark Underwood (to Everyone)**: 2:14 PM: PW :)

**David W. Boyd (to Everyone)**: 2:15 PM: Folks I have to run. Thanks for the good discussion.

**Pw Carey (to Everyone)**: 2:16 PM: Dear Tim: Your word is good enough for me.....forget the references....we

**Pw Carey (to Everyone)**: 2:16 PM: Tim: We'd just like to read your thoughts (slash) insight (slash) knowledge.....pwc.pwcarey@gmail.com........if you can....Thanks.....

**Russell Reinsch (to Organizer(s) Only)**: 2:18 PM: Tim: Azure is oversold.

**Cavan (to Everyone)**: 2:19 PM: PW: The block chain approach is kinda expensive for a lot of processing isn't it?

**Cavan (to Everyone)**: 2:21 PM: Thought of using for e-Consent, but was warned against it (also need a number of player computing it at the same time - right)?

**Russell Reinsch (to Organizer(s) Only)**: 2:22 PM: Mark: crosswalk to other standards? No. Issue of premature APIs. Tim: tensorflow is strickly lim to supervised learning. not bootstrap learning or unsuper. Tensorflow is multi dim, Google thinks more than 5 levels is deep learning. Claim to be at 1k dims. semantic distance. Can measure distance between good and bad. Principle dims solve problems.

**Pw Carey (to Everyone)**: 2:22 PM: Dear Cavan: The Banks have already looked at Block Chain for a couple of years now, and are funding and buying up Block Chain start-ups in the UK, too......so yes, our answer is yes in the fact that there is not a full bucket of technical knowledge supporting how best to create hybrid block chains to fit multiple uses......(aka: complexity does add costs....and Block Chain is an elegant construct....coming out of BitCoin and a vision for replacing traditional banks and exchanges.....Just some thoughts.....

**Tim Zimmerlin (to Everyone)**: 2:23 PM: Pw, I will yield to NITRD and Nat Academies for the next several months.

**Pw Carey (to Everyone)**: 2:24 PM: Dear Tim: Understood.....we still like your ideas....

**Russell Reinsch (to Organizer(s) Only)**: 2:25 PM: Mark: issue is whats on job descriptions. The NIST cybr framework is the defacto. NIST is redoing it and can we get some hints on what is going on there.

**Cavan (to Everyone)**: 2:25 PM: would be an elegant solution for e-Consent Provenance conceptually, but the compute costs and participation costs had folks recommend against it - love a way to break those road blocks

**Tim Zimmerlin (to Everyone)**: 2:26 PM: Pw, the Obama Administration has released a raft of offficial reports and new programs supporting big data, IoT, CPS, Smart X.

**Pw Carey (to Everyone)**: 2:26 PM: Tim: Do you have copies you can send us....? without too much heavy lifting....?

**Russell Reinsch (to Organizer(s) Only)**: 2:27 PM: Wo: take some time during next week session to cover. Mark: maybe Fri better.

**Tim Zimmerlin (to Everyone)**: 2:27 PM: Pw, have been reading my emails to the NBD-PWG reflector?

**Pw Carey (to Everyone)**: 2:27 PM: Tim: How do we access the NBD-PWG Reflector....?

**Pw Carey (to Everyone)**: 2:28 PM: We've never gone there...

**Tim Zimmerlin (to Everyone)**: 2:28 PM: Pw, you join the SnP subgroup.

**Pw Carey (to Everyone)**: 2:28 PM: Ok thanks.....

**Pw Carey (to Everyone)**: 2:28 PM: Nice meeting....Sir