**NIST Big Data Working Group (NBD-WD)**

**NBD-WD-2013/M0077**

**Source: Security and Privacy Subgroup**

**Status: Draft**

**Title: Security and Privacy Subgroup Meeting Minutes for July 31, 2013**

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**Deliverables by September 27, 2013**

1. Big Data Use Cases for Security and Privacy
2. Big Data Security and Privacy Reference Architecture

**Action Items**

Seeking contributions on use cases from all verticals. Format:

* Vertical
  + List of scenarios
  + For each scenario, current method to ensure security and privacy
  + Gaps, if any
  + Current research on the topic (Can be filled in later)

**Discussion of classification of Security and Privacy topics and their relation to Big Data Reference Architectures.**

* Motivation for Alignment of Terms and Intent in Big Data Security and Privacy, presented by Roy D’Souza, AlephCloud. Document was circulated to the bigdatasec mailing list.

“To standardize on a reference security architecture there is a need to leverage specialists in diverse application and technological domains.

* Application domains include Health Care, Drug Discovery, Finance, Corporate, and Government. Examples of scenarios within these application domains include Health Exchanges, Clinical Trials, Mergers and Acquisitions, Device Telemetry, and International anti-Piracy.
* Technology domains include identity, authorization, audit, network and device security, and federation across trust boundaries. When there is leverage of cloud service providers and federation across trust boundaries, there is a need to leverage technology domains such as cryptography to augment traditional security.

Just as it would be difficult to align schemas and protocols within implementations of a technical domain, it would be quite difficult to standardize, align, or even provide a mapping between terms that are used across these application and technology domains.

To effectively communicate across domains, there is a need to socialize the usage of terms related to security and compliance across these domains. But there is also a need to do this in a manner that minimizes the barrier to entry for any specialist to participate, while minimizing the dilution of the working group’s core focus.”

* Classification of Security and Privacy Topics along a Technical Axis, presentation by Arnab Roy. Presentation was circulated to the bigdatasec mailing list.

**Use cases presentation by Lisa Martinez, Chief Strategy and Innovation Officer, Wicked Design Solutions.**

* Discussion about Big Data actors, Retail sector use cases and other topics as contributed to the Security and Privacy live document.
* Discussion about Cell Phone Tracking scenarios. Documents were circulated to the bigdatasec mailing list.

**Web Minutes**

(8:03 AM) Wo Chang disconnected.

(8:04 AM) Bob Marcus (ET-Strateies0 joined.

(8:08 AM) Bob Marcus (ET-Strateies092 joined.

(8:08 AM) Bob Marcus (ET-Strateies092 disconnected.

(8:14 AM) Pw Carey (Compliance Partners, LLC) joined.

(8:16 AM) Pw Carey (Compliance Partners, LLC): Yes...ok we'll come up with a scenario that is pro-active rather than always reactive....ok, thanks...

(8:19 AM) Wo Chang joined.

(8:20 AM) Pw Carey (Compliance Partners, LLC): We believe we should address the areas of individual privacy, and confidentiality and who holds the keys to both.....

(8:22 AM) Pw Carey (Compliance Partners, LLC): Yes...this makes sense....Respectfully yours, Pw

(8:23 AM) Pw Carey (Compliance Partners, LLC): Is it possible to make privacy & confidentiality the automatic default requiring a manual over ride...authorized and signed before the changes go into effect.....

(8:26 AM) PavithraKenjige(PK Technologies) joined.

(8:26 AM) Pw Carey (Compliance Partners, LLC): In my opinion...Key Management...is an Achilles heel...within Security.....no?

(8:29 AM) Pw Carey (Compliance Partners, LLC): I would move 'Confidentiality'...'Integrity' & 'Availability' up to the same level as 'Privacy'....also, are there "Trusted Systems" out there than can be integrated into our efforts...?

(8:30 AM) Roy DSouza(AlephCloud): Do you mean like trusted platforms?

(8:30 AM) Pw Carey (Compliance Partners, LLC): Yes....Trusted Platforms....

(8:32 AM) Pw Carey (Compliance Partners, LLC): Could we demand stronger security development strategies during SW design and development.....?

(8:35 AM) Roy DSouza(AlephCloud): Would there be aspects specific to Big Data Security that we could focus on, and would there be possible to leverage broader work to adopt?

(8:36 AM) Pw Carey (Compliance Partners, LLC): Yes...that's a good thought....too....

(8:37 AM) Roy DSouza(AlephCloud): yes

(8:37 AM) Pw Carey (Compliance Partners, LLC): Regarding Big Data....in the area of MapReduce....via Hadoop...

(8:38 AM) Pw Carey (Compliance Partners, LLC): I'm sorry we missed your thought...please repeat....

(8:38 AM) PavithraKenjige(PK Technologies) disconnected.

(8:38 AM) PavithraKenjige(PK Technologies) joined.

(8:40 AM) Pw Carey (Compliance Partners, LLC): Good thoughts Mr. Wo Chang....good thoughts....Respectfully yours, Pw

(8:44 AM) Pw Carey (Compliance Partners, LLC): And possibly the securing and archiving of such data (privacy data & security data and confidentiality data)....perhaps....?

(8:44 AM) Pw Carey (Compliance Partners, LLC): And destruction of such data....too

(8:45 AM) Pw Carey (Compliance Partners, LLC): Such data should not last forever....

(8:46 AM) Pw Carey (Compliance Partners, LLC): We need to do more research on data compiler security...we'll look into this....

(8:47 AM) Pw Carey (Compliance Partners, LLC): Yes, eduction is necessary too...for these questions....

(8:48 AM) Pw Carey (Compliance Partners, LLC): How to ensure privacy for data sources....

(8:49 AM) Pw Carey (Compliance Partners, LLC): There is no bullet proof solution....yet....

(8:50 AM) Pw Carey (Compliance Partners, LLC): Which then times out...no?

(8:52 AM) William Miller (MaCT uSA) joined.

(8:52 AM) William Miller (MaCT uSA) disconnected.

(8:56 AM) Pw Carey (Compliance Partners, LLC): Is it possible to post some R&D material dealing with aspects of Compiler Security...data boundaries...via a VPN, Public Cloud, Private Cloud, Hybrid Cloud...?

(8:56 AM) Pw Carey (Compliance Partners, LLC): Each cloud environment would present different challenges....no?

(9:00 AM) Wo Chang: good idea PW about compiler security, thanks.

(9:02 AM) Pw Carey (Compliance Partners, LLC): Would this be possible by capturing patterns of OS Server thresholds...no?

(9:02 AM) Wo Chang disconnected.

(9:03 AM) Wo Chang joined.

(9:04 AM) Pw Carey (Compliance Partners, LLC): Understood...but within a cloud environment when certain thresdholds are approached we should be able to swap over to other machines....no?

(9:05 AM) Pw Carey (Compliance Partners, LLC): So we're still where we started...that's good to know....Thanks...Pw

(9:06 AM) Pw Carey (Compliance Partners, LLC): We need Good Protocols....

(9:07 AM) Pw Carey (Compliance Partners, LLC): Please Note: We do not want to hog the phone....Respectfully yours, Pw

(9:07 AM) Arnab Roy (Fujitsu, Guest): First do everything you can to construct good proactive algorithms

(9:07 AM) William Miller (MaCT USA) joined.

(9:07 AM) Arnab Roy (Fujitsu, Guest): Then have defense in depth

(9:08 AM) Arnab Roy (Fujitsu, Guest): good reactive security

(9:08 AM) Arnab Roy (Fujitsu, Guest): based on analytics and domain knowledge

(9:08 AM) Pw Carey (Compliance Partners, LLC): But that hasn't seemed to work all that well.....no?

(9:09 AM) Wo Chang: Need to go back for my another meeting...

(9:09 AM) Wo Chang disconnected.

(9:09 AM) Pw Carey (Compliance Partners, LLC): Ok, appreciate your efforts....

(9:11 AM) Pw Carey (Compliance Partners, LLC): It looks like our meeting is over...yes?

(9:11 AM) William Miller (MaCT USA) disconnected.

(9:11 AM) Pw Carey (Compliance Partners, LLC): Scratch that....

(9:12 AM) Pw Carey (Compliance Partners, LLC): We'll hang in.....thanks....

(9:12 AM) Erin\_NIH disconnected.

(9:13 AM) Arnab Roy (Fujitsu, Guest): Lisa is trying to dial in

(9:13 AM) Arnab Roy (Fujitsu, Guest): Thanks for your patience

(9:18 AM) PavithraKenjige(PK Technologies) disconnected.

(9:18 AM) Pw Carey (Compliance Partners, LLC): Good effort, quick question, where does the Carrier fit into this description....?

(9:19 AM) PavithraKenjige joined.

(9:23 AM) Roy DSouza(AlephCloud): How about foreign customers and their perception on this subject?

(9:23 AM) Pw Carey (Compliance Partners, LLC): Regarding Section vi. Subsection a. this is a true statement at the time of it's occurrence, however, this still will find itself in a court of law, either Civil, Administrative or Criminal....the enforcement comes after the fact and after the damage has occurred...and that's why there is restitution....

(9:23 AM) Bob Marcus (ET-Strateies0: An interesting techical presentation related to managing and search extremely large data sets. <http://www.theguardian.com/world/interactive/2013/jul/31/nsa-xkeyscore-program-full-presentation>

(9:24 AM) Pw Carey (Compliance Partners, LLC): Thank you Bob....we'll look at it....

(9:27 AM) Pw Carey (Compliance Partners, LLC): Section vi is a work in progress....

(9:30 AM) Bob Marcus (ET-Strateies0: Ignoring the NSA, how can agencies, companies, individuals protect their Internet data from commercial, criminal, and foreign access using XKeyscore-like technology?

(9:31 AM) Pw Carey (Compliance Partners, LLC): Regarding Section vii, Subsection b.....according to recent events the sentence could be shortened to read: "...People do not believe the government...."

(9:32 AM) Pw Carey (Compliance Partners, LLC): Her efforts are still good and appreciated....

(9:35 AM) Pw Carey (Compliance Partners, LLC): Appreciate the update regarding 'XKeyscore' technology....thanks again...Respectfully yours, Pw

(9:37 AM) Pw Carey (Compliance Partners, LLC): So whoever 'they' are can remotely access any digital device....no?

(9:38 AM) PavithraKenjige disconnected.

(9:38 AM) Pw Carey (Compliance Partners, LLC): Do we need to address the issue of 'backdoors' within vendor products....no?

(9:38 AM) PavithraKenjige joined.

(9:40 AM) Pw Carey (Compliance Partners, LLC): We're viewing an XKeyscore presentation via YouTube....neat-oh...eh?

(9:42 AM) Pw Carey (Compliance Partners, LLC): Include backdoor access within the signed SLA...perhaps...

(9:56 AM) Pw Carey (Compliance Partners, LLC): Will these documents be available on the Security\_Privacy Subgroup site?

(9:57 AM) Arnab Roy (Fujitsu, Guest): Yes Pw, I also mailed to the mailing list

(9:57 AM) Eddie Garcia (Gazzang) joined.

(9:58 AM) Tom Woteki (Acentia) joined.

(9:59 AM) Pw Carey (Compliance Partners, LLC): Dear Arnab & Subgroup Team: Please thank Lisa...&...Thank you, this was a good meeting....thank you....Pw

(10:00 AM) Pw Carey (Compliance Partners, LLC): Our next meeting is Aug. 7th...no?

(10:00 AM) Chris Hawkinson joined.

(10:01 AM) Pw Carey (Compliance Partners, LLC): Appreciate your efforts...

(10:01 AM) Eddie Garcia (Gazzang) disconnected.

(10:01 AM) Tom Woteki (Acentia) disconnected.

(10:02 AM) PavithraKenjige disconnected.

(10:02 AM) Yale Li (Microsoft/CSA) joined.

(10:02 AM) Pw Carey (Compliance Partners, LLC) disconnected.

(10:02 AM) Marcia Mangold joined.

(10:02 AM) Roy DSouza(AlephCloud) disconnected.