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

**NBD-WD-2013/M0021**

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| **Source:** | Reference Architecture Subgroup |
| **Status:** | Draft |
| **Title:** | Reference Architecture Subgroup Charter |
| **Date:** | August 21, 2013 |
| **Author(s):** | Orit Levin (Microsoft), James Ketner (AT&T), Don Krapohl (Augmented Intelligence) |

**CHARTER for**

**Reference Architecture Subgroup of**

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

**Background**

NIST is leading the development of a **Big Data Technology Roadmap.** This roadmap will define and prioritize requirements for *interoperability*, *portability*, *reusability*, and *extensibility* for big data usage, analytic techniques, and technology infrastructure in order to support secure and effective adoption of Big Data. To help develop the ideas in the **Big Data Technology Roadmap**, NIST is creating the Public Working Group for Big Data.

The focus of the NIST Big Data Public Working Group (NBD-PWG) is to form a community of interest from industry, academia, and government, with the goal of developing a consensus definitions, taxonomies, reference architectures, and technology roadmaps. The aim is to create vendor-neutral, technology and infrastructure agnostic deliverables to enable Big Data stakeholders to pick-and-choose best analytics tools for their processing and visualization requirements on the most suitable computing platform(s) and cluster(s) while allowing value-added from Big Data service providers and flow of the data between the stakeholders in a cohesive and secure manner.

**Scope**

The focus of the NBD-PWG Reference Architecture Subgroup is to form a community of interest from industry, academia, and government, with the goal of developing a consensus-based approach to orchestrate vendor-neutral, technology and infrastructure agnostic for analytics tools and computing environments. The goal is to enable Big Data stakeholders to pick-and-choose technology-agnostic analytics tools for processing and visualization in any computing platform and cluster while allowing value-added from Big Data service providers and the flow of the data between the stakeholders in a cohesive and secure manner.

**Tasks**

* Gather and study available Big Data architectures representing various stakeholders, different data types,’ use cases, and document the architectures using the Big Data taxonomies model based upon the identified actors with their roles and responsibilities.
* Ensure that the developed Big Data reference architecture and the Security and Privacy Reference Architecture correspond and complement each other.

**Deliverables**

1. Produce a white paper to capture current landscape of Big Data architectures
2. Produce working draft for Big Data Reference Architecture document

**Target Date**

The goal for completion of INITIAL DRAFTs is Friday, September 27, 2013. Further milestones will be developed once the WG has initiated its regular meetings.

**Co-Chairs**

Orit Levin (Lead), Microsoft

James Ketner, AT&T

Don Krapohl, Augmented Intelligence

**Meeting Frequency**

It is anticipated that there will be weekly 2-hour meetings by telecon on Thursdays from 11:00AM -1:00PM ET.

**Membership**

Participation in the WG and Subgroups are open to all interested parties. There are no membership fees.

**Coordination/Interaction**

This Subgroup will work closely with NBD-WG and with other big data related standards and best practices from industry, academia, and government.

**Standing Rules**

All information exchanged within the WG/Subgroup will be non-proprietary.

All information exchanged within the WG/Subgroup will contain non-PII materials.

WG/Subgroup members should assume that all materials exchanged will be made public.

Documents will be publicly accessible on the NIST Big Data Portal.

**Outreach**

WG results will be available to all stakeholders in the commercial, academic, and government sectors.