PCAOB Rulemaking Docket Matter No. 034, PCAOB Release No. 2013-005, August 13th, 2013\_Comments Due Back Dec. 11th, 2013

Dear Folks:

Good morning and hope all is well within your respective time zones...

Please Note: We appreciate this opportunity to submit our comments in this critical area of the American Way of Conducting Business...

Also, any stupid errors, omissions and mistakes are not my fault....it's our DNA.....therefore, it's not my fault....

Respectfully yours,

Pw Carey

Page: 43.....Define each of these terms...and what constitutes an example of same, serving as a baselne via a Best Practices Business Use Case....

Also, align this proposal with Docket No. 029...(aka: Auditors name and location of all those who actually conducted the audit (what percentage)...not just the name of the Final Report signing authority.....

Page: 45 - Provide baseline best practices examples of same and/or Business Use Cases of each....

Page: 46 - Identify which accounting methodology/standard was used by the entity and include a brief three sentece descriptive definition of same....

Page: 47 - Specifically address whether there were or were not flags, triggers, outliers that would indicate to a reasonable individual that a potential and/or real-time fraud exists based upon the entities; people, processes, and technology in-place at this point-in-time of the finding....

Page: A3-16 - AU sec. 341, The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern...... Since the expectation placed upon the Auditor to forecast the future is a bit much, let's just provide them with the following template: "...To whom it may concern, at this point in time there are three forecasts available to me, although we are not qualified what so ever, by knowledge, background nor experience to conduct such a forecast, we offer up the following.....at this point in time they may have a chance, they may not have a chance or we don't known if they have a chance, based upon current and real-time Big Data analytics...extrapolated over multiple time lines and strategies..." Page: 118 - Provide a Business Use Case to expand the interpretation and understanding of what a 'Critical Audit Matter' represents at this point in time....

Page:121 - Provide a Financial Statement checklist of outliers that indicate inconsistencies...or as Herbie the cockroach once said to his brother..."...You know Murphy, there's always more than one gestault in the kitchen...."

Page: 137 - Identify the entity being audited and their associated 3rd parties, the underlying systems and technology the Auditor is relying upon...including Cloud/Big Data Eco-systems and how their data is controlled for CIA (Confidentility, Integrity & Availability) and GRC (Governance, Risk & Compliance) issues and where their data is geo-located, identifying any and all 3rd parties involved with these controls by name, location and length of service....

Page: 149 - Define via Business Use Cases the tipping point(s) for either a 'pass' or a 'fail' grade...feel free to use percentages as you all see fit....

Page: 178 - Tenure can be used for good or not...however, the length of tenure often (actually quite often, as in always) drips down into the murky swamps of 'human nature'....where the longer the relationship...it becomes human nature to side with those you've worked with for a long period of time...and with and/or without conscious effort...make allowances for less than good behavior or even bad behavior..as in..."...they meant to do the right thing...they just didn't getter-done..." eg. the recent death of the oldest living animal ever discovered by scientists...as they opened it up to determine its age...a clam.....Also, who are the Auditors working for....; management, the company, the employees, or oh my guad....the real and/or perspective shareholders, pension funds for teachers, police, et al....and even hedge funds....? Editor comment provided by Pw Carey....Respectfully yours, Pw Carey

Page: 186 - Provide the auditors with the tools, guidelines and expected (baseline/minimum) best practices and follow along training via the Internet..that requires them to maintain their skills, improve their skills and thereby reduce the amount of time required to conduct an accurate, correct, independent and fair audit....Pw

Remove the most difficult, subjective, and/or complex open to interpretation topics...via Business Use Cases, guidelines, definitions and expected best practices and best strategies in the real world at this point in time.....Pw

Page: 197 - Do not delete...just reverse the order...emphasize the auditor's requirement to regularly (aka: monthly) communicate to the audit committee the on-going status of their audit and any speedbumps and/or roadblocks they've encountered in their daily efforts to conduct the audit...and identify the speedbumps by name, description and role/job title and functionality....

Page: 206 - C. Employee Stock Purchase, Savngs, and Similar Plans....should be viewed through the lens of 'Back Dating' schemes, insider trading activity and strategies, major sales and/or purchases by C-Suites...et al...Pw

Page: 208 - IX. Considerations Related to Effective....offer a pilot program for both parties at the table..and after six months of active participation, evaluate and modify the findings into a new and improved proposal...based upon the results of this pilot program...What a Great Idea Pw....yeah, but it wasn't mine alone, as are most great ideas....Respectfully yours, Pw

Page: 209 - Please See attached example of a Business Use Case here.....

Page: 210 - Note 1: Accounting Policies....Revenue Recognition...what a wonderful opportunity for fraud..eg., packing the pipe line....where product is shipped in one quarter...warehoused by the customer..then returned to the Mfg., but it's all counted as revenue...leading to a great quarter in sales and revenue...just to make the numbers look good for perspective buyer or a lazy Auditor....neat, eh?....

Page: 237 - Provide a Business Use Case example of what is at a minimum demonstrates an Auditor's Responsibility to Evaluate..otherwise human nature kicks in and less than diligent/determined-to-understand and communicate this understanding in a reasoned and understandable format will not occur...ever, well maybe not ever, but pretty more often than not....so, the Auditor should know the players, know the industry, know their competitors, markets, and what's going on in all aspects within an organization...including the good, the bad and the indifferent.....Pw

Page: A7-21.....The answer to each of these questions are ..... Yes...to protect the shareholders.....interests, first, last and always.....How much does a business model and/or strategy of Fraud cost...?Respectfully yours, Pw Carey

## Pw's\_Current Draft, Ver. 0.1\_Aug. 25<sup>Th</sup>, 2013: NBD (NIST Big Data) Finance Industries (FI) Taxonomy/Requirements WG Use Case

	usines (FI) Taxonomy/Requirements we use case
Use Case Title	This use case represents one approach to implementing a BD (Big Data) strategy, within a Cloud Eco-System, for FI (Financial Industries) transacting business within the United States.
Vertical (erec)	
Vertical (area)	The following lines of business (LOB) include:
	Banking, including: Commercial, Retail, Credit Cards, Consumer Finance,
	Corporate Banking, Transaction Banking, Trade Finance, and Global
	Payments.
	Securities & Investments, such as; Retail Brokerage, Private
	Banking/Wealth Management, Institutional Brokerages, Investment
	Banking, Trust Banking, Asset Management, Custody & Clearing Services
	<b>Insurance</b> , including; Personal and Group Life, Personal and Group
	Property/Casualty, Fixed & Variable Annuities, and Other Investments
	Please Note: Any Public/Private entity, providing financial services within
	the regulatory and jurisdictional risk and compliance purview of the United
	States, are required to satisfy a complex multilayer number of regulatory
	GRC/CIA (Governance, Risk & Compliance/Confidentiality, Integrity &
	Availability) requirements, as overseen by various jurisdictions and
	agencies, including; Fed., State, Local and cross-border.
Author/Company/Email	Pw Carey, Compliance Partners, LLC, pwc.pwcarey@email.com
Actors/Stakeholders	Regulatory and advisory organizations and agencies including the; SEC
and their roles and	(Securities & Exchange Commission), FDIC (Federal Deposit Insurance
responsibilities	Corporation), CFTC (Commodity Futures Trading Commission), US
•	Treasury, PCAOB (Public Corporation Accounting & Oversight Board),
	COSO, CobiT, reporting supply chains & stakeholders, investment
	community, share holders, pension funds, executive management, data
	custodians, and employees.
	At each level of a financial services organization, an inter-related and inter- dependent mix of duties, obligations and responsibilities are in-place, which are directly responsible for the performance, preparation and transmittal of financial data, thereby satisfying both the regulatory GRC (Governance, Risk & Compliance) and CIA (Confidentiality, Integrity & Availability) of their organizations financial data. This same information is directly tied to the continuing reputation, trust and survivability of an organization's business.
Goals	The following represents one approach to developing a workable BD/FI
	strategy within the financial services industry. Prior to initiation and switch-
	over, an organization must perform the following baseline methodology for
	utilizing BD/FI within a Cloud Eco-system for both public and private
	financial entities offering financial services within the regulatory confines of
	the United States; Federal, State, Local and/or cross-border such as the
	UK, EU and China.
	Each financial services organization must approach the following disciplines
	supporting their BD/FI initiative, with an understanding and appreciation for
	the impact each of the following four overlaying and inter-dependent forces
	will play in a workable implementation.
	These four areas are:
	1. People (resources),
	2. Processes (time/cost/ROI),
	3. Technology (various operating systems, platforms and footprints)

	and 4. Regulatory Governance (subject to various and multiple regulatory agencies).
	<ul> <li>In addition, these four areas must work through the process of being; identified, analyzed, evaluated, addressed, tested, and reviewed in preparation for attending to the following implementation phases: <ol> <li>Project Initiation and Management Buy-in</li> <li>Risk Evaluations &amp; Controls</li> <li>Business Impact Analysis</li> <li>Design, Development &amp; Testing of the Business Continuity Strategies</li> <li>Emergency Response &amp; Operations (aka; Disaster Recovery)</li> <li>Developing &amp; Implementing Business Continuity Plans</li> <li>Awareness &amp; Training Programs</li> <li>Maintaining &amp; Exercising Business Continuity, (aka: Maintaining Regulatory Currency)</li> </ol> </li> </ul>
	Please Note: Whenever appropriate, these eight areas should be tailored and modified to fit the requirements of each organizations unique and specific corporate culture and line of financial services.
Use Case Description	Big Data as developed by Google was intended to serve as an Internet Web site indexing tool to help them sort, shuffle, categorize and label the Internet. At the outset, it was not viewed as a replacement for legacy IT data infrastructures. With the spin-off development within OpenGroup and Hadoop, BigData has evolved into a robust data analysis and storage tool that is still undergoing development. However, in the end, BigData is still being developed as an adjunct to the current IT client/server/big iron data warehouse architectures which is better at somethings, than these same data warehouse environments, but not others.
	Currently within FI, BD/Hadoop is used for fraud detection, risk analysis and assessments as well as improving the organizations knowledge and understanding of the customers via a strategy known as'know your customer', pretty clever, eh?
	However, this strategy still must following a well thought out taxonomy, that satisfies the entities unique, and individual requirements. One such strategy is the following formal methodology which address two fundamental yet paramount questions; "What are we doing"? and "Why are we doing it"?:
	<ol> <li>Policy Statement/Project Charter (Goal of the Plan, Reasons and Resourcesdefine each),</li> <li>Business Impact Analysis (how does effort improve our business services),</li> <li>Identify System-wide Policies, Procedures and Requirements</li> <li>Identify Best Practices for Implementation (including Change Management/Configuration Management) and/or Future Enhancements,</li> <li>Plan B-Recovery Strategies (how and what will need to be recovered, if necessary),</li> </ol>
	<ul> <li>6). Plan Development (Write the Plan and Implement the Plan Elements),</li> <li>7). Plan buy-in and Testing (important everyone Knows the Plan, and Knows What to Do), and</li> <li>8). Implement the Plan (then identify and fix gaps during first 3 months, 6 months, and annually after initial implementation)</li> </ul>

	9) Maintena	nce (Continuous monitoring and updates to reflect the current
	enterprise er	
		system Retirement
Current Solutions	Compute(System)	Currently, Big Data/Hadoop within a Cloud Eco-system within the FI is operating as part of a hybrid system, with BD being utilized as a useful tool for conducting risk and fraud analysis, in addition to assisting in organizations in the process of ('know your customer'). These are three areas where BD has proven to be good at; 1. detecting fraud, 2. associated risks and a 3. 'know your customer' strategy.
		At the same time, the traditional client/server/data warehouse/RDBM (Relational Database Management ) systems are use for the handling, processing, storage and archival of the entities financial data. Recently the SEC has approved the initiative for requiring the FI to submit financial statements via the XBRL (extensible Business Related Markup Language), as of May 13 <sup>th</sup> , 2013.
	Storage	The same Federal, State, Local and cross-border legislative and regulatory requirements can impact any and all geographical locations, including; VMware, NetApps, Oracle, IBM, Brocade, et cetera.
		<b>Please Note:</b> Based upon legislative and regulatory concerns, these storage solutions for FI data must ensure this same data conforms to US regulatory compliance for GRC/CIA, at this point in time.
		For confirmation, please visit the following agencies web sites: SEC (Security and Exchange Commission), CFTC (Commodity Futures Trading Commission), FDIC (Federal Deposit Insurance Corporation), DOJ (Dept. of Justice), and my favorite the PCAOB (Public Company Accounting and Oversight Board).
	Networking	<b>Please Note:</b> The same Federal, State, Local and cross- border legislative and regulatory requirements can impact any and all geographical locations of HW/SW, including but not limited to; WANs, LANs, MANs WiFi, fiber optics, Internet Access, via Public, Private, Community and Hybrid Cloud environments, with or without VPNs. Based upon legislative and regulatory concerns, these
		networking solutions for FI data must ensure this same data conforms to US regulatory compliance for GRC/CIA, such as the US Treasury Dept., at this point in time. For confirmation, please visit the following agencies web sites: SEC (Security and Exchange Commission), CFTC (Commodity Futures Trading Commission), FDIC (Federal Deposit Insurance Corporation), US Treasury Dept., DOJ
		(Dept. of Justice), and my favorite the PCAOB (Public
	Software	Company Accounting and Oversight Board).
	Software	<b>Please Note:</b> The same legislative and regulatory obligations impacting the geographical location of HW/SW, also restricts the location for; Hadoop, MapReduce, Open-source, and/or Vendor Proprietary such as AWS (Amazon Web Services),

		Occurs to Oten 1 Occurs and Million fr
		Google Cloud Services, and Microsoft
		Based upon legislative and regulatory concerns, these software solutions incorporating both SOAP (Simple Object Access Protocol), for Web development and OLAP (Online Analytical Processing) software language for databases, specifically in this case for FI data, both must ensure this same data conforms to US regulatory compliance for GRC/CIA, at this point in time.
		For confirmation, please visit the following agencies web sites: SEC (Security and Exchange Commission), CFTC (Commodity Futures Trading Commission), US Treasury, FDIC (Federal Deposit Insurance Corporation), DOJ (Dept. of Justice), and my favorite the PCAOB (Public Company Accounting and Oversight Board).
Big Data Characteristics	Data Source (distributed/centr alized)	Please Note: The same legislative and regulatory obligations impacting the geographical location of HW/SW, also impacts the location for; both distributed/centralized data sources flowing into HA/DR Environment and HVSs (Hosted Virtual Servers), such as the following constructs: DC1> VMWare/KVM (Clusters, w/Virtual Firewalls), Data link- Vmware Link-Vmotion Link-Network Link, Multiple PB of NAS (Network as A Service), DC2>, VMWare/KVM (Clusters w/Virtual Firewalls), DataLink (Vmware Link, Vmotion Link, Network Link), Multiple PB of NAS (Network as A Service), (Requires Fail-Over Virtualization), among other considerations.
		Based upon legislative and regulatory concerns, these data source solutions, either distributed and/or centralized for FI data, must ensure this same data conforms to US regulatory compliance for GRC/CIA, at this point in time.
		For confirmation, please visit the following agencies web sites: SEC (Security and Exchange Commission), CFTC (Commodity Futures Trading Commission), US Treasury, FDIC (Federal Deposit Insurance Corporation), DOJ (Dept. of Justice), and my favorite the PCAOB (Public Company Accounting and Oversight Board).
	Volume (size)	Tera-bytes up to Peta-bytes. Please Note: This is a 'Floppy Free Zone'.
	Velocity (e.g. real time)	Velocity is more important for fraud detection, risk assessments and the 'know your customer' initiative within the BD FI.
		<b>Please Note:</b> However, based upon legislative and regulatory concerns, <b>velocity</b> is not at issue regarding BD solutions for FI data, except for fraud detection, risk analysis and customer analysis.
		Based upon legislative and regulatory restrictions, <b>velocity</b> is not at issue, rather the primary concern for FI data, is that it must satisfy all US regulatory compliance obligations for GRC/CIA, at this point in time.

	Variety (multiple data sets, mash-up)	<ul> <li>Multiple virtual environments either operating within a batch processing architecture or a hot-swappable parallel architecture supporting fraud detection, risk assessments and customer service solutions.</li> <li>Please Note: Based upon legislative and regulatory concerns, variety is not at issue regarding BD solutions for FI data within a Cloud Eco-system, except for fraud detection, risk analysis and customer analysis.</li> <li>Based upon legislative and regulatory restrictions, variety is not at issue, rather the primary concern for FI data, is that it must satisfy all US regulatory compliance obligations for GRC/CIA, at this point in time.</li> </ul>
	Variability (rate of change)	<ul> <li>Please Note: Based upon legislative and regulatory concerns, variability is not at issue regarding BD solutions for FI data within a Cloud Eco-system, except for fraud detection, risk analysis and customer analysis.</li> <li>Based upon legislative and regulatory restrictions, variability is not at issue, rather the primary concern for FI data, is that it must satisfy all US regulatory compliance obligations for GRC/CIA, at this point in time.</li> <li>Variability with BD FI within a Cloud Eco-System will depending upon the strength and completeness of the SLA</li> </ul>
		agreements, the costs associated with (CapEx), and depending upon the requirements of the business.
Big Data Science (collection, curation, analysis, action)	Veracity (Robustness Issues)	<ul> <li>Please Note: Based upon legislative and regulatory concerns, veracity is not at issue regarding BD solutions for FI data within a Cloud Eco-system, except for fraud detection, risk analysis and customer analysis.</li> <li>Based upon legislative and regulatory restrictions, veracity is not at issue, rather the primary concern for FI data, is that it must satisfy all US regulatory compliance obligations for GRC/CIA, at this point in time.</li> <li>Within a Big Data Cloud Eco-System, data integrity is</li> </ul>
		important over the entire life-cycle of the organization due to regulatory and compliance issues related to individual data privacy and security, in the areas of CIA (Confidentiality, Integrity & Availability) and GRC (Governance, Risk & Compliance) requirements.
	Visualization	<b>Please Note:</b> Based upon legislative and regulatory concerns, <b>visualization</b> is not at issue regarding BD solutions for FI data, except for fraud detection, risk analysis and customer analysis, FI data is handled by traditional client/server/data warehouse big iron servers.
		Based upon legislative and regulatory restrictions, <b>visualization</b> is not at issue, rather the primary concern for FI data, is that it must satisfy all US regulatory compliance

obligations for GRC/CIA, at this point in time.Data integrity within BD is critical and essential over the life-cycle of the organization due to regulatory and compliance issues related to CIA (Confidentiality, Integrit Availability) and GRC (Governance, Risk & Compliance) requirements.Data QualityPlease Note: Based upon legislative and regulatory concerns, data quality will always be an issue, regardles the industry or platform.Based upon legislative and regulatory restrictions, data quality is at the core of data integrity, and is the primary concern for FI data, in that it must satisfy all US regulatory	y & ss of ry r the
Iife-cycle of the organization due to regulatory and compliance issues related to CIA (Confidentiality, Integrit Availability) and GRC (Governance, Risk & Compliance) requirements.Data QualityPlease Note: Based upon legislative and regulatory concerns, data quality will always be an issue, regardles the industry or platform.Based upon legislative and regulatory restrictions, data quality is at the core of data integrity, and is the primary concern for FI data, in that it must satisfy all US regulatory	y & ss of ry r the
<ul> <li>concerns, data quality will always be an issue, regardles the industry or platform.</li> <li>Based upon legislative and regulatory restrictions, data quality is at the core of data integrity, and is the primary concern for FI data, in that it must satisfy all US regulatory</li> </ul>	ry r the
<b>quality</b> is at the core of data integrity, and is the primary concern for FI data, in that it must satisfy all US regulato	r the
compliance obligations for GRC/CIA, at this point in time	
For BD/FI data, data integrity is critical and essential over entire life-cycle of the organization due to regulatory and compliance issues related to CIA (Confidentiality, Integrit Availability) and GRC (Governance, Risk & Compliance) requirements.	2
Data TypesPlease Note: Based upon legislative and regulatory concerns, data types is important in that it must have a	
degree of consistency and especially survivability during	
audits and digital forensic investigations where the data	
format deterioration can negatively impact both an audit forensic investigation when passed through multiple cycl	
For BD/FI data, multiple data types and formats, include not limited to; flat files, .txt, .pdf, android application files, .wav, .jpg and VOIP (Voice over IP)	
Data Analytic sPlease Note: Based upon legislative and regulatory concerns, data analytics is an issue regarding BD soluti for FI data, especially in regards to fraud detection, risk analysis and customer analysis.	ons
However, data analytics for FI data is currently handled to traditional client/server/data warehouse big iron servers must ensure they comply with and satisfy all United State GRC/CIA requirements, at this point in time.	which
For BD/FI data analytics must be maintained in a format is non-destructive during search and analysis processing procedures.	
Big Data Specific Challenges (Gaps)Currently, the areas of concern associated with BD/FI with a Cloud Ecc system, include the aggregating and storing of data (sensitive, toxic an otherwise) from multiple sources which can and does create administra and management problems related to the following:	d
Access control	
Management/Administration     Data antitlement and	
<ul> <li>Data entitlement and</li> <li>Data ownership</li> </ul>	
However, based upon current analysis, these concerns and issues are widely known and are being addressed at this point in time, via the R&	D

	(Research & Development) SDLC/HDLC (Software Development Life
	Cycle/Hardware Development Life Cycle) sausage makers of technology. Please stay tuned for future developments in this regard
Big Data Specific	Mobility is a continuously growing layer of technical complexity, however,
Challenges in Mobility	not all Big Data mobility solutions are technical in nature. There are to interrelated and co-dependent parties who required to work together to find a workable and maintainable solution, the FI business side and IT. When both are in agreement sharing a, common lexicon, taxonomy and appreciation and understand for the requirements each is obligated to satisfy, these technical issues can be addressed.
	Both sides in this collaborative effort will encounter the following current and on-going FI data considerations:
	<ul> <li>Inconsistent category assignments</li> </ul>
	<ul> <li>Changes to classification systems over time</li> </ul>
	<ul> <li>Use of multiple overlapping or</li> </ul>
	Different categorization schemes
Security & Privacy Requirements	<ul> <li>In addition, each of these changing and evolving inconsistencies, are required to satisfy the following data characteristics associated with ACID:</li> <li>Atomic- All of the work in a transaction completes (commit) or none of it completes</li> <li>Consistent- A transmittal transforms the database from one consistent state to another consistent state. Consistency is defined in terms of constraints.</li> <li>Isolated- The results of any changes made during a transaction are not visible until the transaction has committed.</li> <li>Durable- The results of a committed transaction survive failures.</li> <li>When each of these data categories are satisfied, well, it's a glorious thing. Unfortunately, sometimes glory is not in the room, however, that does not mean we give up the effort to resolve these issues.</li> <li>No amount of security and privacy due diligence will make up for the innate deficiencies associated with human nature that creep into any program and/or strategy. Currently, the BD/FI must contend with a growing number of risk buckets, such as: <ul> <li>AML-Anti-money Laundering</li> <li>CDD- Client Due Diligence</li> <li>Watch-lists</li> <li>FCPA – Foreign Corrupt Practices Act</li> </ul> </li> </ul>
	to name a few.
	For a reality check, please consider Mr. Harry M. Markopolos's nine year effort to get the SEC among other agencies to do their job and shut down Mr. Bernard Madoff's billion dollar ponzi scheme.
	<ul> <li>However, that aside, identifying and addressing the privacy/security requirements of the FI, providing services within a BD/Cloud Eco-system, via continuous improvements in:</li> <li>technology,</li> </ul>
	<ul> <li>processes,</li> </ul>
	• procedures,
	people and
	<ul> <li>regulatory jurisdictions</li> </ul>

	is a far better choice for both the individual and the organization, especially when considering the alternative.
	<ul> <li>Utilizing a layered approach, this strategy can be broken down into the following sub categories:</li> <li>1. Maintaining operational resilience</li> <li>2. Protecting valuable assets</li> <li>3. Controlling system accounts</li> <li>4. Managing security services effectively, and</li> <li>5. Maintaining operational resilience</li> </ul>
	<ul> <li>For additional background security and privacy solutions addressing both security and privacy, we'll refer you to the two following organization's:</li> <li>ISACA (Information Systems Audit and Control Association)</li> <li>isc2 (International Information Systems Security Certification Consortium, Inc.)</li> </ul>
Highlight issues for generalizing this use case (e.g. for ref. architecture)	<ul> <li>Areas of concern include the aggregating and storing data from multiple sources can create problems related to the following:</li> <li>Access control</li> <li>Management/Administration</li> <li>Data entitlement and</li> <li>Data ownership</li> </ul>
	Each of these areas are being improved upon, yet they still must be considered and addressed , via access control solutions, and SIEM (Security Incident/Event Management) tools.
	I don't believe we're there yet, based upon current security concerns mentioned whenever Big Data/Hadoop within a Cloud Eco-system is brought up in polite conversation.
	Current and on-going challenges to implementing BD Finance within a Cloud Eco, as well as traditional client/server data warehouse architectures, include the following areas of Financial Accounting under both US GAAP (Generally Accepted Accounting Practices) or IFRS (): XBRL (extensible Business Related Markup Language) Consistency (terminology, formatting, technologies, regulatory gaps)
	SEC mandated use of XBRL (extensible Business Related Markup Language) for regulatory financial reporting.
	SEC, GAAP/IFRS and the yet to be fully resolved new financial legislation impacting reporting requirements are changing and point to trying to improve the implementation, testing, training, reporting and communication best practices required of an independent auditor, regarding: Auditing, Auditor's reports, Control self-assessments, Financial audits, GAAS / ISAs, Internal audits, and the Sarbanes–Oxley Act of 2002 (SOX).
re Information (URLs)	1. <u>http://www.ey.com/US/en/Industries/Financial-</u>
	<ol> <li><u>Services/Insurance</u></li> <li><u>http://www.treasury.gov/resource-center/fin-mkts/Pages/default.aspx</u></li> </ol>
	3. Cloud Security Alliance Big Data Working Group, "Top 10

4.	Challenges in Big Data Security and Privacy", 2012. The IFRS, Securities and Markets Working Group, www.xbrl-eu.org
5.	http://www.ischool.drexel.edu/bigdata/bigdata2013/topics.htm
6.	MapReduce <u>http://www.mapreduce.org</u> .
7.	PCAOB <u>http://www.pcaob.org</u>
8.	http://www.ey.com/GL/en/Industries/Financial-Services/Insurance
9.	
10	. CFTC <u>http://www.cftc.org</u>
11	. SEC <u>http://www.sec.gov</u>
12	. FDIC <u>http://www.fdic.gov</u>
13	. COSO <u>http://www.coso.org</u>
14	<ul> <li>isc2 International Information Systems Security Certification Consortium, Inc.: <u>http://www.isc2.org</u></li> </ul>
15	. ISACA Information Systems Audit and Control Association: http://www.isca.org
16	. IFARS <u>http://www.ifars.org</u>
17	. Apache <u>http://www.opengroup.org</u>
18	. http://www.computerworld.com/s/article/print/9221652/IT_must_pre pare_for_Hadoop_security_issues?tax
19	"No One Would Listen: A True Financial Thriller" (hard-cover book). Hoboken, NJ: John Wiley & Sons. March 2010. Retrieved April 30, 2010. ISBN 978-0-470-55373-2
20	. Assessing the Madoff Ponzi Scheme and Regulatory Failures (Archive of: Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises Hearing) (http://financialserv. edgeboss. net/ wmedia/financialserv/ hearing020409. wvx) (Windows Media). U.S. House Financial Services Committee. February 4, 2009. Retrieved June 29, 2009.
21	. COSO, The Committee of Sponsoring Organizations of the
22	Treadway Commission (COSO), Copyright© 2013, www.coso.org. ITIL Information Technology Infrastructure Library, Copyright© 2007-13 APM Group Ltd. All rights reserved, Registered in England
	No. 2861902, www.itil-officialsite.com.
23	. CobiT, Ver. 5.0, 2013, ISACA, Information Systems Audit and Control Association, (a framework for IT Governance and Controls),
24	www.isaca.org. . TOGAF, Ver. 9.1, The Open Group Architecture Framework (a
	framework for IT architecture), www.opengroup.org.
25	. ISO/IEC 27000:2012 Info. Security Mgt., International Organization for Standardization and the International Electrotechnical Commission, www.standards.iso.org/

Note: <additional comments> Please feel free to improve our INITIAL DRAFT, Ver. 0.1, August 25<sup>th</sup>, 2013....as we do not consider our efforts to be pearls, at this point in time......Respectfully yours, Pw Carey, Compliance Partners, LLC\_pwc.pwcarey@gmail.com

Note: No proprietary or confidential information should be included