January 27, 2018

Dear Readers,

Happy New Year! Please find below the latest edition of the Cloud Computing Committee’s SciTech Cloud News. Do not hesitate to contact me with any questions, comments, or contributions (including suggested articles for the next newsletter) to make this most valuable for your practice.

Sincerely,
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**Data Security**

**2018: A Cybersecurity Preview**

*The National Law Review (Polsinelli), January 8, 2018*

This article examines four areas of information security, including cloud computing, predicted to make headlines in 2018. First, the “internet of things” will go mainstream. Businesses must be proactive and work with security experts to secure IoT devices. Second, cloud insecurity will grow. Businesses should work with counsel to discuss threats to and responsibilities for protecting the cloud. Third, high profile hacking groups will continue attacks. Businesses can work to prevent hacks by updating software regularly, using an anti-virus agent, being savvy with pop-ups and suspicious emails, and regularly backing-up data. Fourth, artificial intelligence adoption will continue. Businesses should understand security threats posed by AI and should have plans if prototyping new AI.
Research Suggests Cybersecurity Skills Shortage is Getting Worse
CSO, January 11, 2018
Multiple recent studies reveal that the majority of IT and cybersecurity professionals feel that cybersecurity is their company’s biggest area of skills deficit and concern. CISOs can help alleviate the problem by consolidating and integrating security technologies, moving toward technologies with advanced analytics, automating and orchestrating processes, taking a portfolio management approach to security, and investing in their people.

Information Security In Government and Defense Contracting: New and Upcoming Requirements
JDSupra (Locke Lord), December 29, 2017
Recent changes in government and defense contracting were made to provide for greater protection of government contract information and defense-related information. The first change is a regulation with requirements for basic safeguarding of contractor information systems. The second major change involves changes in compliance with NIST Special Publication (SP) 800-171, now a requirement of the Defense Federal Acquisition Regulation Supplement. Companies that contract with the government and Department of Defense should carefully review and integrate these major changes.

Data Privacy

Apple's iCloud in China Set to Move to State-Controlled Data Center
Data Center Knowledge, January 12, 2018
Apple will soon begin migrating China-based iCloud data to their new China-based data center that is managed by a state-owned data management company. This is in compliance with a new law requiring data belonging to Chinese citizens and organizations be stored within the country in data centers operated by Chinese companies. There are concerns that this facility will be overseen by a committee chaired by Communist Party members, giving Chinese authorities greater ability to monitor citizens on Apple devices. However, Apple promises that this move will not compromise data privacy and will, in fact, improve speed and reliability of iCloud services in China.

GDPR as Transforming Data Privacy Requirements for Companies
Bloomberg Law, January 12, 2018
This article suggests how attorneys can adjust their (and their clients’) data privacy to better comply with new regulations such as the EU General Data Protection Regulation (GDPR). First, attorneys need to understand the technology language regarding types of data, where it is stored, and the risks involved. Second, attorneys should collaborate with compliance and business personnel to create effective data privacy and protection plans.

Market News & Developments

83% Of Enterprise Workloads Will Be In The Cloud By 2020
Forbes, January 7, 2018
In addition to the title statistic, a recent survey revealed that digitally transforming enterprises is the leading factor driving greater public cloud engagement or adoption, followed by the pursuit
of IT agility. Additionally, 66% of IT professionals say security is their greatest concern in adopting an enterprise cloud computing strategy. Other takeaways include just 27% of respondents predict that by 2022 95% of all workloads will run in the cloud, and Microsoft Azure and Google Cloud Platform are predicted to gain market share versus Amazon AWS in the next three years, yet AWS will stay the clear market leader.

**How Cloud Heavyweights Microsoft, Amazon and IBM Will Transform Cloud Computing In 2018**
*Forbes, January 3, 2018*
This article predicts that these three leaders in cloud computing will reshape the cloud business this year by: (1) Replacing customer lock-in with open approaches triggered by new technologies such as containers and Machine Learning; (2) End-to-end management within the cloud; (3) Recognizing multi-cloud environments as the norm, which bring powerful and easy-to-use solutions into the market; (4) Making available a range of cloud-based solutions to meet diverse business needs; (5) Adjusting the language of cloud vendors to better relate with their business customers; and (6) Organizing around customers’ needs rather than technology terminology.

**Public Sector News**

**Hey, You, Get Off Of My Cloud - New DOJ Approach To Remote Data Storage**
*Lexology (Bracewell), January 9, 2018*
In December, the Department of Justice’s Computer Crime and Intellectual Property Section, Criminal Division (CCIPS) issued new guidance advising prosecutors seeking enterprise customer data stored in the cloud to attempt to collect responsive information from the enterprise first, rather than serving information requests directly on the enterprise’s cloud data service provider. Before going to the enterprise, prosecutors should consider whether the enterprise or the cloud data service provider is the best source, whether there is an appropriate contact at the enterprise who can secure the data (i.e. general counsel), and whether approaching the enterprise increases risk that an employee of the enterprise will intentionally destroy the data.

**DoD Reshuffles Panel Tasked With Speedy Adoption of Cloud Computing**
*Federal News Radio, January 8, 2018*
The Cloud Executive Steering Group (CESG) increased its participants from five to seven and changed its chairman. The goal of the committee is a two-phase plan to hasten the DoD’s transition to commercial cloud services, beginning with obtaining an enterprise cloud services solution. The CESG has publically released very little about its activities, except that it hopes to secure a cloud system that includes infrastructure-as-a-service and platform-as-a-service offerings that can operate both in and out of the continental United States, and be able to handle information at all security levels, including top secret.

**IT Modernization and the Benefits of Cloud Collaboration Systems**
*Nextgov, December 29, 2017*
The Trump administration is encouraging agencies to move to commercial cloud services as much as possible. As such, agencies need to identify the upgrades that will provide them the most modern, quick, efficient, and cost-effective networks. Migrating agency email and collaboration systems to the cloud is the most effective way to jump-start this initiative.
Defense Department to Move to Cloud Computing
U.S. Department of Defense, December 21, 2017
An accelerated adoption of cloud computing services is a top priority for the DoD. Cloud services will allow the military to pull more data, save money, and better secure their data. The Defense Information Systems Agency (DISA) is helping DoD mission partners, such as the services, combatant commands, DoD directorates and agencies, to accelerate adoption of cloud capabilities and making sure these mission partners are well-educated and prepared to make smart decisions and smart choices about how they adopt the use of cloud. The DISA is currently weighing the pros and cons of having a cloud contractor on premises versus off premises, and how to make the cloud a reality.

Governance & Agreements

Blockchain and Smart Contracts, Cloud Computing and Agile Development
Lexology (Osler Hoskin & Harcourt), December 18, 2017
This article describes Blockchain—a new type of database that can only be shared and amended over peer-to-peer networks. Blockchain are supported by cryptography and thus it is virtually impossible for the data to be overwritten. Financially, Blockchain increases the safety of money transfers between borders. This article describes standards associated with Blockchain, the privacy and security of using Blockchain, licensing issues during implementation, and its relationship to cloud computing and software development. It also describes the benefits of Blockchain in establishing “smart contracts,” or direct disbursements of value or to store and execute computer code that forms part of an agreement between parties.

A Closer Look At The Multi-Cloud Trend
Forbes, December 21, 2017
More and more companies are utilizing more than one cloud service provider. This is in part because, with the growing competitiveness of Amazon, Microsoft, and Google, different teams within a business feel comfortable using different service providers, which each have different strengths. Companies also like to feel they have options in case a particular service provider is no longer liked. However, the author urges companies to consider the ability and skill sets required to manage tools and technologies, financial cost of multiple cloud service providers, expertise requirements for each cloud service, and governance requirements before committing to the multi-cloud approach.

Big Data
Big Data: Amazon, Google, Microsoft, The Cloud And Other 2018 Trends
Forbes, January 8, 2018
This article opines that in 2018 Big Data will be more about management practices and processes rather than technology. As such, the article encourages companies to look at the features of all cloud service providers, rather than getting “locked-in” to just one. Additionally, companies should focus on organization and analytics of the cloud and data, rather than on the coding of the technology itself. Technology cannot replace people when it comes to laying out data infrastructure, building datamarts, and delivering appropriate reports.