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A LITERATURE SURVEY ON CLOUD COMPUTING PARAPHERNALIA AND THEIR OUTAGES

S. Kousalya¹, Dr S. Uma², R. Jeya shree³

¹PG scholar, kousy.selva@gmail.com

²Head of the department, PG - CSE, umakarunahind@gmail.com

³PG scholar, jeyshree1108@gmail.com

Abstract

Cloud computing is an espouse technology for many of the corporate associations with its dynamic acendability and usage of virtualized reserves as a service through the cyberspace. Cloud computing endows the tools and technologies from physique statistics to rigorous parallel computing applications. It is an inclusive one – after all, organizations all over the world are using cloud-based tools day by day. Cloud hawkers are consigning boatloads of recent tools to help enterprise IT build, buy, manage, monitor yank and track cloud services. These tools are modelled to help IT executives to free up their budgets and to optimize their cloud deployment. It has wide ranging insight and rheostat over their cloud cost and manipulation. To automate the process in which they design, organize and scale servers and applications. This paper encompasses about cloud computing tools and their norms, certain outages.

Keywords: Cloud computing, cloud computing tools, outages, and cloud hawkers

1. Introduction

New tools help IT officials to cut cloud costs, reduce resources, integrate and manage cloud instances [2]. With IT technology becoming increasing more obsession, administrators requisite all the help they can get. A growing number of IT kits are being distributed via Software as a Service (SaaS), which undertaking fast deployment and lets patrons pay only for the assistances they use. SaaS IT management tools that automate IT services, succor troubleshoot problems, and deliver luminosity into the eminence of network devices and applications [2][3]. Cloud services providers (CSPs) and patrons pre-emptively monitor and manage cloud applications by using the kits. Some organization developed virtual infrastructure kits to manage and monitor VMs in a pool of distributed resources (E.g., Enomaly[1] and OpenNebula[1]). Suppliers have some form of kits for managing cloud computing surroundings. There are tools to be used for monitor, provision, and cross the divide between both. Then there's just vapourware, and categorizing through that can be encounter [4]. Tools need to operate the large amount of actions within the cloud translucently without service interruptions [1]. Cloud Computing contracts lower costs, faster implementation and more flexibility using muddle of technologies, and the conjoined tools are critical for triumph[5]. Cloud computing has grasped considerable concentration from

inclusive ventures and government intervention finance. Maurice Gagnaire, Felipe Diaz mentioned that regarding the capability and impression of cloud computing in the world, providing reliable services to meet the requirements of mission critical systems develops more important. Meanwhile, the shortage of reliability of cloud services is not communally trust. When a cloud service such as Google's Gmail is unavailable for any brief period of time its impact is huge. All major cloud service providers offer services that are used globally and so the service span all time zones [9].

2. Cloud Computing Tools

Cloudyn

Cloudyn is the leading cost monitoring and optimization solution for your multi- cloud deployment. Cloudyn's set of power tools assists companies to optimize their cloud deployment. Organizations using cloudyn have widespread insight and control over their cloud cost and usage. They also obtain recommendations on how to perfect their cloud investments and improve utilization all while keeping operational performance. By actively managing millions of cloud materials, Cloudyn delivers an average of 40% cloud-related cost reductions to organizations [10].

Cloudyn AWS Cloud Analytics is redefining the emerging Cloud monitoring and optimization space. Packed with unique sizing, location, and pricing reduction capabilities, Cloudyn has become the Cloud management solution of choice for over 1000 customers, including fortune 500 enterprises. Cloudyn's toolkit provides thousands of clients with practical and refreshing view of their cloud usage and cost [10][11].

Topical Bulletin

- A.** Cloudyn provided cloud based monitoring and cost optimization software for cloud infrastructure as a service deployment. The organization's kits delivered insights into custom trends and cost apportion coupled with patron actionable recommendations to augment performance and shrink spending by emerging vendors 2014: Cloud Vendors rick Whiting on July22, 2014, 11:33 am EDT [12].
- B.** Cloudyn introduced enterprise chargeback edition in April 08,2014 written by preetem Ksushik. Cloudyn , the leading solution for cloud monitoring and optimization, today publicized the availability of cloudyn enterprise chargeback edition, a novel offering that discusses the increasing challenge facing enterprise companies and their growing need to regain control of and reduce their cloud deployment [14] [15].

Dell Boomi

Dell Boomi, a business corps of Dell, is the first and only integration solution built in the cloud, to fully deed the assistance of the cloud. Organization of all sizes – from small businesses to the largest global enterprises- trust Dell Boomi to quickly relate any sequence of cloud and on – premise applications. Leading SaaS players and enterprise patrons such as salesforce, NetSuite, Taleo, oneworld and NASDAQ rely on Dell Boomi to speed up time to market, raises sales, and abolish the headaches associated with integration [16].

Topical bulletin

- A.** The key to governance in the cloud: Master data management in virtual stratey magazine by chris McNabb on June 04/2014. The only way to help ensure data quality and governance in hybrid IT environment is to employ a cloud – based Master Data Management (MDM) solution that works with any combination of cloud and on – premises applications. Doing so reduces the complexity and cost for IT to add new applications and data sources while scaling the solution to meet future needs [17].
- B.** Linked In tackles integration pain to create 'single pane of glass' for sales force on May 2, 2014 by Derek Du Preez[18].

Enstratius

Enstratius provides cross – platform cloud infrastructure management for public, private hybrid clouds that can be closely aligned with an enterprise’s governance and sanctuary requirements. Features include self – service provisioning/deprovisioning of cloud resources; multi – currency cost/chargeback tracking; customizable role-based access controls; single login to manage all cloud resources; and support for enterprise authentication systems including SAML 2.0 and openID[19].

Topical bulletin

- A.** Dell and Microsoft strengthen Alliance to help customers take full advantage of public cloud in 12/12/2013. Dell today announced it is building on its strategic alliance with Microsoft to deliver Windows Azure to Dell customers worldwide through the Dell Cloud Partner program. This expands upon the previously announce alliance providing Application Development services on Windows Azure [20].
- B.** Enstratius today announced support for Cloud Central’s Cloud Platform. Cloud Central’s Australian – based Infrastructure as a service(IaaS) cloud offers highly available, dependable computing solutions at a low monthly cost [20][21].

Informatica

Informatica a long – time data integration vendor – this month will roll out its next generation suite of cloud integration tools (which are delivered as a platform as a service) that include enhancements that address data security issues in the cloud and help enterprise IT manage data integration issues in hybrid cloud deployments[22].

Topical bulletin

- A.** Independent Research Firm Positions Informatica as a Leader in Data Governance Tools on June 25, 2014[21][22].
- B.** Dell and Informatica Team to offer customers increased data capabilities in healthcare and financial services industries on June 04, 2014[22].

Mulesoft

Delivered as a packaged integration experience, cloud hub and mule ESB are built on open source technology to impart quick, dependable application integration without vendor lock – in. The company proposed Cloud Hub, a cloud – based integration platform as a service(IPaaS) for connecting SaaS, cloud and on – premise applications and APIs; and an open source enterprise service bus for connecting enterprise applications on – premise and to the cloud [25].

Topical bulletin

- A.** SAN FRANCISCO – July 24, 2014 – Mulesoft, the company that sorts it easy to connect applications, records and devices, today publicized that it has appointed Steve Collins to its board of directors. Steve arrives to Mulesoft with over 20 years of economic business management and financial leadership experience, including his previous roles as CFO of Exact Target and NAVTEQ.
- B.** Mulesoft continues growth streak with most successful first quarter in company history, achieves 97 per cent noval subscription bookings growth.

Right Scale

Right Scale was one of the first companies to address cross platform cloud management. Its platform lets institutions easily deploy and manage business – critical applications across. Right Scale gives configuration, displaying, automation, and governance of cloud computing structure and applications [23].

Topical bulletin

- A. Network World names the new Right Scale Cloud Appliance for vSphere product of the week:”Right Scale Cloud Appliance for vSphere shows self-service IT and enables greater workload manageability on vSphere” which was happened May 5, 2014[23].
- B. A Price war Erupts in Cloud Services in wall street Journal on April 16, 2014. Steep price changes by several of the top cloud providers is changing the math for enterprise who may have once planned to own data centers, with 87 per cent of enterprise now using cloud according to the Right Scale 2014 State of the cloud survey [21].

Service Mesh

The agility platform provides a single, integrated control point for dominance, criticism and security across an enterprise’s cloud applications and cloud environments. The proposal comprises an extensible policy engine enabling the creation and enforcement of an impressive range of custom dominance, criticism and security policies.it presents an end-to-end security model spanning network, instance, data and access levels comprising federated identity management.

Topical bulletin

- A. The partnership will be standardizing the delivery of modernized applications and enable them to be brokered onto any cloud environment, using platforms such as CSC’s ServiceMesh on 16 jan 2014

CLOUD COMPUTING OUTAGES

Cloud computing imparts heaps of gratuities for both venture and users, but while cloud servers may live in foamy white silhouette in the sky, they aren’t insusceptible to earthly errors. As any cloud tenant knows, network based services can wallop and burn just like any other type of technology. If the organisations behind them are smart, you shouldn’t miss any data in the long run but you’ll likely lose a bit of sanity during the time the services is offline [28].

SERVICE DOWNTIME

Table 1shows all cloud services downtime we have grabbed from press releases. Below are stories of each cloud service failure, their causes and consequences [6][7][8].

A. Year 2007

- 165,000 website hosted by navSite suddenly went offline and were offline during 1 full week
- Hostway migrated several thousand servers from Miami to Tampa. This relocation resulted thousands of sites offline during 3 days.
- Server Beach data centers were affected by a power outage. The downtime lasted 4 hours [6][8].

B. Year 2008

Twitter had often been down on and off for hours [6].

C. Year 2009

- OVH was down for full week because of ZFS failure [6].
- Amazon and Microsoft data centers downed by lightning in Dublin. Some sites that rely on one of its storage services took between 24 to 48 hours to recover
- The Gmail service wasn't available during 4 hours [6][7].
- PayPal was down for 5 hours. Performance problem was detected and the outage affects ebay transactions.

D. Year 2010

- Amadeus got two failures in 3 months. This outage forced some airlines to check in manually in 1 hour[6][7].

E. Year 2011

- A 3 days blackout periodic email and Internet services for tens of millions of use of BlackBerry [8].
- Microsoft Azure was offline for 7 hours [6][8].
- Yahoo! mail went down for 6 hours. More than 1 million users were affected[7].
- Users are unable to access Google Docs List in 1 hour [6][8].

F. Year 2012

- Routers failed during 2hours in OVH [8].
- Facebook disrupted users worldwide during 3 hours [6].

G. Year 2013

- Amazon Suffer failure during 1 hour.
- In August, Instagram, Vine, Airbnb and Netflix are affected.

H. Year 2014

- Google Services were affected for three hours.
- Google talk, Google hangout, Google voice are the services.

	2007(Hour)	2008(Hour)	2009(Hour)	2010(Hour)	2011(Hour)	2012(Hour)	2013(Hour)	2014(Hour)	Total(Hour)
Amadeus				1					1
Facebook						3			3
Server Beach	4								4
Paypal			5						5
Google			4					3	7
Yahoo				1					1
Twitter		7							7
Amazon			24				1		25
Microsoft			24		7				31
Host way	72								72
Black berry					72				72
Navisite	168								168
OVH			168			2			170

Table I

A summary of downtime statistics of each cloud service provider from 2007 to 2014

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BIOGRAPHY

Kousalya S received Bachelor of Engineering degree in Computer Science and Engineering from Easa College of Engineering and Technology, Coimbatore, India affiliated to Anna University Chennai. Now she is pursuing Masters of Engineering in Computer Science & Engineering from Hindusthan Institute of Technology, Coimbatore, Tamilnadu, India affiliated to Anna University.

Dr S.Uma is Professor and Head of PG Department of Computer Science and Engineering at Hindusthan Institute of Technology, Coimbatore, and Tamilnadu, India. She received her B.E., degree in Computer Science and Engineering in First Class with Distinction from PSG College of technology in 1991 and the M.S., degree from Anna University, Chennai, and Tamilnadu, India. She received her Ph.D., in Computer Science and

Engineering Anna University, Chennai, Tamilnadu, India with High Commendation. She has nearly 24 years of academic experience. She has organized many National Level events like seminars, workshops and conferences. She has published many research papers in National and International Conferences and Journals. She is a potential reviewer of International Journals and life member of ISTE professional body. Her research interests are pattern recognition and analysis of non-linear time series data.

Jeya shree R received Bachelor of Engineering degree in Computer Science and Engineering from Maharaja Prithvi Engineering College, Avinashi, Coimbatore, and TamilNadu, India affiliated to Anna University Chennai. Now she is pursuing Masters of Engineering in Computer Science & Engineering from Hindusthan Institute of Technology, Coimbatore, Tamilnadu, India affiliated to Anna University.