

Integrated Cloud Sharing

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Abstract: -- Integrated cloud sharing is a double edged sword from the privacy and security stand points. Despite its potential to provide a low cost security, organizations may increase risks by storing sensitive data in the cloud. In this paper, we analyze how the cloud's characteristics such as newness, nature of the architecture, and attractiveness and vulnerability as a cyber crime target are tightly linked to privacy and security. We also investigate how the contexts provided by formal and informal institutions affect privacy and security issues in the cloud [1]

Keywords: Privacy and security, integrated cloud sharing, formal institutions, informal institutions, security costs.

I. INTRODUCTION

Definition

In the simplest terms, Integrated cloud sharing means storing and accessing data and programs over the Internet instead of your computer's hard drive. The cloud is just a metaphor for the Internet. It goes back to the days of flowcharts and presentations that would represent the gigantic server-farm infrastructure of the Internet as nothing but a puffy, white cumulus cloud, accepting connections and doling out information as it floats.[4]

Integrated cloud sharing is not a new concept. We have been using Integrated cloud sharing for ages, in one form or other .in simple words you can presume cloud to be a very large server on which different services and data are stored and you can access all those for your work. The software and data you access for your work does not exist on your computer instead it's on the server. This concept of using Integrated cloud sharing is not an object in itself, rather it comprises services and database that are accessed via web or any private network.

Key Integrated cloud sharing providers: IBM, HP, Google, Microsoft, Amazon web services, salesforce.com, Net suite, VMware etc.

Examples of Integrated cloud sharing: Examples of Integrated cloud sharing services includes Google docs, Office 365, Drop Box, Sky Drive etc.[5]

Integrated cloud sharing is a paradigm for large-scale distributed computing that makes use of

existing technologies such as virtualization, service-orientation, and grid computing. It offers a different way to acquire and manage IT resources on a large scale.

A simple example of Integrated cloud sharing is webmail provider maintains the server space and provide a web address into browser and submits user information to access account.[3]

II. SERVICE MODELS

A Cloud service provider offers mainly three types of services.

2.1 Infrastructure as a service: The service provider bears all the cost of servers, networking equipment, storage and backups. The users build their own application software. Amazon EC2 is a great example of this type of service.

2.2 Platform as a service: The service provider only provides the platform or a stack of solutions for the users. It helps users save on investment on hardware and software. Google Gc engine and Force.com provide this type of service.

2.3 Software as service: The service provider will give users the service of using their software, especially any type of application software, Examples are Google (GOOG), Slesforce.com (CRM), Net suite (N).

2.4 Mobile "backend" as a service (MBaaS): In the mobile "backend" as a service (mBaaS) model, also known as backend as a service (BaaS), web app and mobile app developers are provided with a way to link their applications to cloud storage and Integrated cloud sharing services with application programming interfaces (APIs) exposed to their applications and custom software development kits(SDKs). Services

include user management, push notifications, integration with social networking services and more. This is a relatively recent model in Integrated cloud sharing, with most BaaS startups dating from 2011 or later but trends indicate that these services are gaining significant mainstream traction with enterprise consumers.

2.5 Server less computing: Server less computing is a Integrated cloud sharing code execution model in which the cloud provider fully manages starting and stopping virtual machines as necessary to serve requests, and requests are billed by an abstract measure of the resources required to satisfy the request, rather than per virtual machine, per hour. Despite the name, it does not actually involve running code without servers. Serverless computing is so named because the business or person that owns the system does not have to purchase, rent or provision servers or virtual machines for the back-end code to run on.[2]

III. DEPLOYMENT MODELS

Considering the installation of network infrastructure, a cloud environment can be broadly categorized into three types.

1. Private Cloud: Private cloud is cloud infrastructure operated solely for a single organization, whether managed internally or by a third-party, and hosted either internally or externally. Undertaking a private cloud project requires a significant level and degree of engagement to virtualize the business environment, and requires the organization to reevaluate decisions about existing resources. When done right, it can improve business, but every step in the project raises security issues that must be addressed to prevent serious vulnerabilities. Self-run data centers are generally capital intensive. They have a significant physical footprint, requiring allocations of space, hardware, and environmental controls. These assets have to be refreshed periodically, resulting in additional capital expenditures. They have attracted criticism because users "still have to buy, build, and manage them" and thus do not benefit from less hands-on management, essentially the economic model that makes Integrated cloud sharing such an intriguing concept.

2 Public Cloud: A cloud is called a "public cloud" when the services are rendered over a network that is open for public use. Public cloud services may be free. Technically there may be little or no difference between public and private cloud architecture, however, security consideration may be substantially different for services (applications, storage, and other resources) that are made available by a service provider for a public audience and when communication is effected over a non-trusted network. Generally, public cloud service providers like Amazon Web Services (AWS), Microsoft and Google own and operate the infrastructure at their data center and access is generally via the Internet. AWS and Microsoft also offer direct connect services called "AWS Direct Connect" and "Azure Express Route" respectively, such connections require customers to purchase or lease a private connection to a peering point offered by the cloud provider.

3. Hybrid cloud: Hybrid cloud is a composition of two or more clouds (private, community or public) that remain distinct entities but are bound together, offering the benefits of multiple deployment models. Hybrid cloud can also mean the ability to connect collocation, managed and/or dedicated services with cloud resources. Gartner, Inc. defines a hybrid cloud service as a Integrated cloud sharing service that is composed of some combination of private, public and community cloud services, from different service providers. A hybrid cloud service crosses isolation and provider boundaries so that it can't be simply put in one category of private, public, or community cloud service. It allows one to extend either the capacity or the capability of a cloud service, by aggregation, integration or customization with another cloud service.

Varied use cases for hybrid cloud composition exist. For example, an organization may store sensitive client data in house on a private cloud application, but interconnect that application to a business intelligence application provided on a public cloud as a software service.[93] This example of hybrid cloud extends the capabilities of the enterprise to deliver a specific business service through the addition of externally available public cloud services. Hybrid cloud adoption depends on a number of factors such as data security and compliance requirements, level of control needed over data, and the applications an organization uses.

Cloud Clients

Users access Integrated cloud sharing using networked client devices, such as desktop computers, laptops, tablets and smart phones and any Ethernet enabled device such as Home Automation Gadgets. Some of these devices rely on Integrated cloud sharing for all or a majority of their applications so as to be essentially useless without it. Examples are thin clients and the browser-based Chrome book. Many cloud applications do not require specific software on the client and instead use a web browser to interact with the cloud application. With Ajax and HTML5 these Web user interfaces can achieve a similar, or even better, look and feel to native applications. Some cloud applications, however, support specific client software dedicated to these applications (e.g., virtual desktop clients and most email clients). Some legacy applications (line of business applications that until now have been prevalent in thin client computing) are delivered via a screen-sharing technology.[5]

IV. BENEFITS OF INTEGRATED CLOUD SHARING**1. Flexibility:**

Cloud-based services are ideal for businesses with growing or fluctuating bandwidth demands. If your needs increase it's easy to scale up your cloud capacity, drawing on the service's remote servers. Likewise, if you need to scale down again, the flexibility is baked into the service. This level of agility can give businesses using Integrated cloud sharing a real advantage over competitors – it's not surprising that CIOs and IT Directors rank 'operational agility' as a top driver for cloud adoption.

2. Disaster recovery

Businesses of all sizes should be investing in robust disaster recovery, but for smaller businesses that lack the required cash and expertise; this is often more an ideal than the reality. Cloud is now helping more organisations buck that trend. According to Aberdeen Group, small businesses are twice as likely as larger companies to have implemented cloud-based backup and recovery solutions that save time, avoid large up-front investment and roll up third-party expertise as part of the deal.

3. Automatic software updates

The beauty of Integrated cloud sharing is that the servers are off-premise, out of sight and out of your hair. Suppliers take care of them for you and roll out regular software updates – including security updates – so you don't have to worry about wasting time maintaining the system yourself. Leaving you free to focus on the things that matter, like growing your business.

4. Capital-expenditure Free

Integrated cloud sharing cuts out the high cost of hardware. You simply pay as you go and enjoy a subscription-based model that's kind to your cash flow. Add to that the ease of setup and management and suddenly your scary, hairy IT project looks a lot friendlier. It's never been easier to take the first step to cloud adoption.

5. Increased collaboration

When your teams can access, edit and share documents anytime, from anywhere, they're able to do more together, and do it better. Cloud-based workflow and file sharing apps help them make updates in real time and gives them full visibility of their collaborations.

6. Work from anywhere

With Integrated cloud sharing, if you've got an internet connection you can be at work. And with most serious cloud services offering mobile apps, you're not restricted by which device you've got to hand. Businesses can offer more flexible working perks to employees so they can enjoy the work-life balance that suits them without productivity taking a hit. One study reported that 42% of workers would swap a portion of their pay for the ability to telecommute. On average they'd be willing to take a 6% pay cut.

7. Document control

The more employees and partners collaborate on documents, the greater the need for watertight document control. Before the cloud, workers had to send files back and forth as email attachments to be worked on by one user at a time. Sooner or later – usually sooner – you end up with a mess of conflicting file content, formats and titles. And as even the smallest companies become more global, the scope for complication rises. According to one study, "73% of knowledge workers

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collaborate with people in different time zones and regions at least monthly".

When you make the move to Integrated cloud sharing, all files are stored centrally and everyone sees one version of the truth. Greater visibility means improved collaboration, which ultimately means better work and a healthier bottom line. If you're still relying on the old way, it could be time to try something a little more streamlined.

8. Security

Lost laptops are a billion dollar business problem. And potentially greater than the loss of an expensive piece of kit is the loss of the sensitive data inside it. Integrated cloud sharing gives you greater security when this happens. Because your data is stored in the cloud, you can access it no matter what happens to your machine. And you can even remotely wipe data from lost laptops so it doesn't get into the wrong hands.]

9. Competitiveness

Wish there was a simple step you could take to become more competitive? Moving to the cloud gives access to enterprise-class technology, for everyone. It also allows smaller businesses to act faster than big, established competitors. Pay-as-you-go service and cloud business applications mean small outfits can run with the big boys, and disrupt the market, while remaining lean and nimble. David now packs a Goliath-sized punch.

10. Environmentally friendly

While the above points spell out the benefits of Integrated cloud sharing for your business, moving to the cloud isn't an entirely selfish act. The environment gets a little love too. When your cloud needs fluctuate, your server capacity scales up and down to fit. So you only use the energy you need and you don't leave oversized carbon footprints. This is something close to our hearts at Salesforce, where we try our best to create sustainable solutions with minimal environmental impact.[1]

Drawbacks of Integrated cloud sharing As every coin has two sides, so does Integrated cloud

sharing. There are certain disadvantages of using Integrated cloud sharing.

1. Security: Many people think Integrated cloud sharing has security issues. Although, the service providers give the best security standards and industry certifications, Integrated cloud sharing is always open to risk. When you use Integrated cloud sharing, you feed the service provider with sensitive and critical data related to your business and organization. As it is a public service, any nefarious user can scan and exploit any loopholes within any secure system. As multiple users using a same server can be vulnerable to a hacker who might break into the data hosted. However, chances of such exploits are very less and may never occur.

2. Vendor Lock-In: Cloud service providers provide flexible use and integration of different services, at times, it may prove difficult to migrate from one vendor to the other. For example, users of Microsoft Development Framework (.Net) might not be able to function on a Linux platform. Thus, leading to vendor lock-in and support issues.

3. Outage and Downtime: The entire Integrated cloud sharing system is dependent on the Internet access. Thus, any downtime or outage or connectivity problems can lead to accessibility issues.[1]

V. CONCLUSION

There are certain disadvantages with Integrated cloud sharing like security issues and accessibility problems. However, one cannot overlook the benefits of Integrated cloud sharing. It helps one grow continuously and offers any services and solutions. Thus, Integrated cloud sharing makes IT look more easy to handle. Weigh the pros and cons related to your organization and dive into the world of Integrated cloud sharing.[3]

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