Building Cloud Networks Using MSP Model Form Single Purpose Architecture To Multi Purpose Architecture

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ABSTRACT:

We build a cloud networks highly automated private cloud networks providing resources that can be managed from a single point. Services in today's networks offer typically much more capacity than needed on average. The dimensioning is determined by the expected peak load, which means that most of the deployed hardware is underutilized most of the time. By deploying services in Clouds inside the networks operators could make better use of the underlying hardware. This would increase utilization, flexibility and reduce the costs of their own operations. Another advantage would be the possibility to exploit new business opportunities. By increasing the flexibility of internal resources, cloud computing allows operators to use excess capacity for additional services and applications. The flexible cloud computing networks such as those modeled after public providers such as Google and Amazon are built, and how they interconnect with corporate IT private clouds designed as service-oriented architectures (SOAs).

In this paper, we will model this architecture as a Managed service providers (MSPs) model offer one of the oldest forms of cloud computing. Basically, a managed service is an application that is accessible to an organization's IT infrastructure rather than to end users. Earlier MSPs, the providers would actually go onto customer sites and perform their services on customer-owned premises. Now these MSPs specialized in implementation of infrastructure and quickly figured out ways to build out data centers and sell those capabilities off in small chunks

*KEYWORDS:*Cloud Network, MSP Model,SOA,SaaS

1.INTRODUCTION

Cloud computing really evolved, it won't take long to realize that the first iteration of cloud computing can probably be traced back to the days of frame relay networks. Organizations with frame relay were essentially singular clouds that were interconnected to other frame relay-connected organizations using a carrier/provider to transport data communications between the two entities. Everyone within the frame network sharing a common Private Virtual Connection (PVC) could share their data with everyone else on the same PVC.A managed service provider (MSP) is a third-party contractor that delivers network-based services, applications and equipment to enterprises, residences or other service providers.

Managed service providers can be hosting companies or access providers that offer IT services such as fully outsourced network management arrangements, including IP telephony, messaging and call center management, virtual private networks (VPNs), managed firewalls and monitoring/reporting of network servers. Most of these services can be performed from outside a company's internal network with a special emphasis placed on integration and certification of

Internet security for applications and content. MSPs serve as outsourcing agents for companies, especially other service providers like ISPs, that don't have the resources to constantly upgrade or maintain faster and faster computer networks.MSP can manage and integrate a range of activities associated with enterprise networks, including cloud storage.

Managed service providers sometimes are referred to as management service providers. In the past, management service providers was used to describe infrastructure services delivered on a subscription basis, but with the advent of cloud computing, managed IT services and management services have become synonyms.

The Evolution from the MSP Model to Cloud Computing:

The first iteration of cloud computing can probably be traced back to the days of frame relay networks. Organizations with frame relay were essentially singular clouds that were interconnected to other frame relay-connected organizations using a carrier/provider to transport data communications between the two entities. Everyone within the frame network sharing a common Private Virtual Connection (PVC) could share their data with everyone else on the same PVC. To go outside their cloud and connect to another cloud, users had to rely on the infrastructure's routers and switches along the way to connect the dots between the clouds. The endpoint for this route between the clouds and the pathway was a demarcation point between the cloud and the provider's customer. Where the dots ended between the clouds (i.e., the endpoints) was where access was controlled by devices such as gateways, proxies, and firewalls on the customer's premises.

From customers' perspective, this endpoint was known as the main point of entry (MPOE) and marked their authorized pathway into their internal networking infrastructure. By having applications use specific protocols to transport data (e.g., Simple Mail Transfer Protocol [SMTP] for sending mail or File Transfer Protocol [FTP] for moving files from one location to another), applications behind the MPOE could accept or reject traffic passing over the network and allow email and file transfer to occur with little to no impedance from the network infrastructure or their administrators. Specialized applications (developed out of necessity to satisfy specific business needs) often required a client/server implementation using specific portals created through the firewall to allow their traffic protocols to proceed unhindered and often required special administrative setup before they could work properly. While some of this may still hold, that was, for the most part, how it was done "old school." Things have changed considerably since that model was considered state of the art. However state of the art it was, it was difficult to manage and expensive. Because organizations did not want to deal with the complexities of managing I-1.0 infrastructure, a cottage industry was born to do just that.
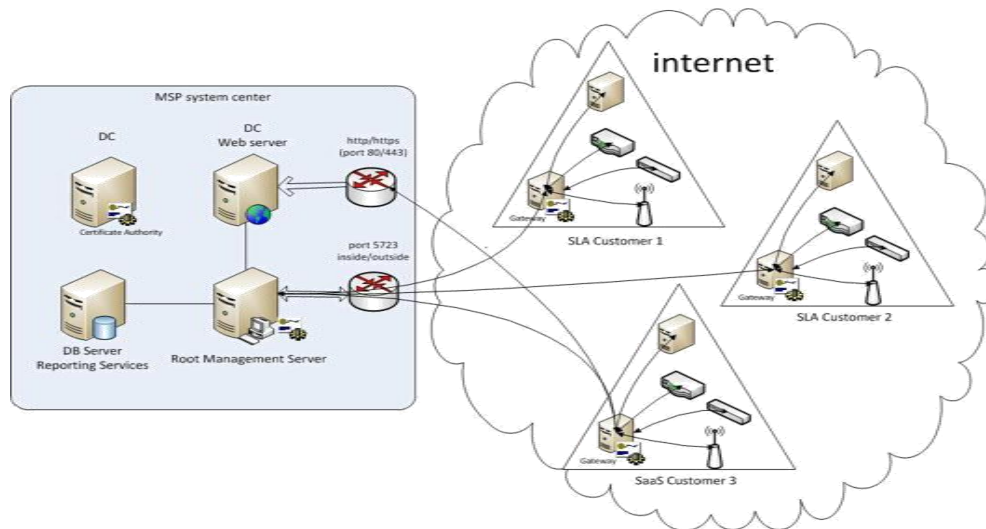
The Single-Purpose Architectures to Multipurpose Architectures:

In the early days of MSPs, the providers would actually go onto customer sites and perform their services on customer-owned premises. Over time, these MSPs specialized in implementation of infrastructure and quickly figured out ways to build out data centers and sell those capabilities off in small chunks commonly known as monthly recurring services, in addition to the basic fees charged for ping, power, and pipe (PPP). *Ping* refers to the ability to have a live Internet connection, *power* is obvious enough, and *pipe* refers to the amount of data throughput that a customer is willing to pay for. Generally, the PPP part of the charge was built into the provider's monthly service fee in addition to their service offerings.

Conclusion:

Managed service providers (MSPs) model offer one of the oldest forms of cloud computing. Basically, a managed service is an application that is accessible to an organization's IT infrastructure rather than to end users. Earlier MSPs, the providers would actually go onto customer sites and perform their services on customer-owned premises. Now the managed service providers are providing service to the customer needs in monthly recurring services.

References:

[1].Minqi Zhou, Rong Zhang, Dadan Zeng, and Weining Qian, "Services in the cloud computing era: a survey," Software Engineering Institute. Universal Communication. Symposium (IUCS), 4th International. IEEE Shanghai, pp. 40-46. China. 978-1-4244-7821-7 (2010).

[2]. T. Dillon, Chen Wu, and E. Chang, "Cloud Computing: Issues and Challenges," 24th IEEE International Conference on Advanced Information Networking and Applications (AINA), pp. 27-33. Australia, 2010.

[3] Xiao-Yong Li, Li-Tao Zhou, Yong Shi, and Yu Guo, "A Trusted Computing Environment Model in Cloud Architecture," Proceedings of the Ninth International Conference on Machine Learning and Cybernetics, 978-1-4244-6526-2. Qingdao, pp. 11-14. China. July 2010.

[4].Rajkumar Buyya, James Broberg, Andrzej Goscinski. "Cloud computing: principles and paradigms". Hoboken, N.J. Wiley, 2011.

[5].Kathleen Jungck1 and Syed (Shawon) M. Rahman. CLOUD COMPUTING AVOIDS DOWNFALL OF APPLICATION SERVICE PROVIDERS. International Journal of Information Technology Convergence and Services (IJITCS) Vol.1, No.3, June 2011. Minneapolis, USA. 2011.