SlipStream.

How Can IaaS Providers Improve Services & Margins?

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Essentials

SlipStream
is a multi-cloud application management platform. Built on open source software, SlipStream is a real multi-cloud solution. It isolates you from the details of the cloud, giving you freedom of choice and leaving you to focus on your business.

Enterprise App Store built-in:
Self-service IT delivered for the enterprise, simplifying application provisioning dramatically.

Recipe/template/blueprint:
Define and execute deployments, based on high-level recipes (script, Puppet, Chef, Ansible, etc.)

Cloud Broker Enablement:
Supports most public and private IaaS.

Multi-cloud Management:
Supports hybrid and multi-cloud deployment scenarios.

Increasing competition between Infrastructure-as-a-Service (IaaS) Providers has turned computing resources into a commodity, significantly reducing margins and eroding client loyalty. To survive, IaaS providers must shift to higher-margin services and differentiate themselves from competitors.

Cloud Service Differentiation Strategies

IaaS providers have explored many avenues in the attempt to stand out from competitors, retain clients, and increase margins. Some common tactics are:

- Providing better user interfaces and richer APIs to broaden the appeal of a provider and help retain existing customers. However, high upfront costs for design studies and development may not be recovered from higher margins in the future.
- Increasing time spent with customers through support or professional services. This is a laudable yet cost-intensive and uncertain strategy, with the added difficulty of recruiting the right people.

- Addressing legal uncertainties and concerns regarding data privacy and confidentiality by operating a "sovereign" cloud that guarantees that all computing hardware resides within a particular jurisdiction. However attractive, this strategy doesn't protect the providers from other competitors in the same geographic region.
- Expanding beyond the usual CPU, RAM, and disk resources to include, for example IP addresses, DNS configuration, and key-value databases. Although very effective in the short term, competitors soon duplicate these features minimizing the benefits. Look at how quickly new features of Amazon Web Services appear in other cloud infrastructures.

Providing unique features, however, is a strategy which has more economic long-term potential. How do IaaS providers go about this?
Due to the difficulty of differentiating their services, many IaaS providers are now evolving into Managed Service Providers (MSPs), shifting their focus from raw computing resources to the coordinated deployment and management of rich applications within cloud infrastructures.

Moving into Managed Services

For IaaS providers, the shift to providing managed applications offers many opportunities for differentiating services, increasing margins, and improving customer loyalty.
Key to being a successful Managed Service Provider (MSP) is the creation of a service catalog of reusable application components or full-fledged specialized applications that can easily be started by the MSP's customers. This catalog represents the unique business value of the MSP.
Full applications provided by the MSP can be generic applications of varying complexity and/or complete, vertical solutions for a particular market. MSPs can therefore attract a broad range of clients whilst also providing advanced applications that appeal to particular sectors.
MSPs can also venture into providing "Platform as a Service" features, providing reusable application components, like authentication systems, security monitoring services, high-availability failover, or other high-level features. By easing the development of robust, sophisticated applications, these components can be used internally to expand the MSP's catalog rapidly. Additionally, these features could be exposed to customers, attracting developers in addition to the MSP's usual clients.

**Automation
at your fingertips**

A simple path to automation

How to make the change?

While the evolution from a IaaS provider to MSP is appealing, it isn't without challenges. The provider must be able to manage the full application lifecycle with a minimum of personnel and cost. Similarly, the provider must acquire the knowledge for particular applications (installation, configuration, and management) and maintain that knowledge as the underlying components evolve.
Robust, high-value applications tend to have complex lifecycles. An MSP must be able to manage the application lifecycle efficiently, for numerous customer-specific instances. Efficient lifecycle management

requires that an MSP:

- Automates the deployment/termination of the full application,
- Coordinates the configuration of individual services, and
- Monitors applications for load and faults.

Manual interventions for each deployed application are not economically feasible, so automated tooling is critical for success. The MSP may also want to provide geographic redundancy as a feature, enabling more robust deployments optionally for its customers. For this, the MSP must be able to handle multi-cloud deployments. Knowledge about the provided applications is the key business value for a IaaS provider turned MSP. To turn this knowledge into offerings, all of the knowledge around the applications must be captured in a form that can be consumed by their automated tooling and shared within the service provider's development team. Application software is not static and will evolve over time. MSPs must manage that change, ideally tracking of all versions of the application. Neither the automated tooling nor the application knowledge can be fully exploited unless its customers can easily access a full service catalog of the applications. The catalog must allow users to search for appropriate applications, understand their characteristics, and run the selected applications quickly.

Why SlipStream?

SlipStream from SixSq helps IaaS Providers meet the challenges they face in becoming an MSP. They can take advantage of SlipStream to:

- Capture and manage their application knowledge, the core value of the MSP.
- Share that knowledge between employees to allow efficient support and to promote reuse for new applications.
- Create a rich application catalog via the App Store, allowing customers to easily browse, start and run a selected application.
- Scale an application dynamically, responding, for example, to peaks in demand.
- Deploy multi-cloud applications across regions and clouds for application redundancy and scale out.

The provider can expose the App Store directly to its customers with a standard or customized skin, allowing its customer to build on the MSP's applications. Alternatively, MSPs can use SlipStream internally and provide a more limited portal to its customers, keeping more control over the application definitions and deployments.

One of SixSq's MSP clients has deployed SlipStream internally following the second deployment scenario. This customer benefits from reduced costs compared to the manual deployment of the application by avoiding human installation and configuration errors. Its customers in turn receive better service because the automated deployment drastically reduces delivery time.

What's next?

To learn more about SlipStream and the rest of the SixSq product suite, visit our website **http://sixsq.com**. Or get in touch with our business development team to discuss how SixSq cloud solutions can help your business to transform and grow.

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