

Advantages of moving to Windows Azure Cloud

The Windows Azure Platform allows ISV's (Independent Software Vendors) to run their applications and store their data in Microsoft Datacenters rather than in their customer's premises, their own datacenter or in a hosted facility. This brings with it many benefits:

An application running in the Windows Azure Platform will get by default:

- High availability(99.9%) of the application and the data – minimal effort to ISV, big benefit to customer
- Rapid provisioning of the application to new customers – ISV can allow customers to trial their application easily and can sell additional services quickly
- Flexibility to support small to the very largest of customers – Azure can scale an application from running on one machine to hundreds
- Avoids upfront costs of purchasing hardware and software licenses. Microsoft charges monthly based on “how much an ISV used”
- Vastly reduced administration burden on the ISV and customer – Microsoft worry about security patches, Denial of Service attacks etc
- Simplified version updates for the ISV – ISV can always “get to” their application running in the Windows Azure Platform and update it, with all customers getting the benefits immediately
- It may simply be cheaper for the customer

Along with the advantages of moving any application to cloud, Azure has additional benefits for .Net based applications, specifically web applications. The existing .Net web applications can be easily ported to Azure, whose development is done primarily using .Net. This allows usage of existing development skills.

The few benefits of using Azure:

- With Windows Azure, the infrastructure has been planned for minimum usage, and peaks are taken care by dynamically increasing the Azure virtual machines.
- Total cost of ownership will be less compared to on-premise deployment
- There has been significant improvement in user experience due to non-degradation in performance during peak usage
- Faster time to market due to usage of existing .NET skills.
- As the entire server management is done by Microsoft, such as upgrade, patch management, anti-virus, etc, there was significant reduction in application/server management efforts

The cloud platform provides you with access to capacity on demand, fault tolerance, distributed computing, data centers located around the globe, and the capability to integrate with other platforms. Someone else is responsible for managing and maintaining the entire infrastructure, and you only pay

for the resources that you use in each billing period. You can focus on using your core domain expertise to build and then deploy your application to the data center or data centers closest to the people who use it. You can then monitor your applications, and scale up or scale back as and when the capacity is required. By moving applications to the cloud, you're giving up some control and autonomy, but you're also going to benefit from reduced costs, increased flexibility, and scalable computation and storage.

The Windows Azure Platform provides an API built on REST, HTTP and XML that allows a developer to interact with the services provided by Windows Azure. Microsoft also provides a client-side managed class library which encapsulates the functions of interacting with the services. It also integrates with Microsoft Visual Studio so that it can be used as the IDE to develop and publish Azure-hosted applications

The Windows Azure platform includes five services — Live Services, SQL Azure (formerly SQL Services), AppFabric (formerly .NET Services), SharePoint Services and Dynamics CRM Services — which the developers can use to build the applications that will run in the cloud. A client library, in managed code, and associated tools are also provided for developing cloud applications in Visual Studio. Scaling and reliability are controlled by the Windows Azure Fabric Controller so the services and environment do not crash if one of the servers crashes within the Microsoft datacenter and provides the management of the user's web application like memory resources and load balancing.

The Azure Services Platform can currently run .NET Framework applications compiled for the CLR, while supporting the ASP.NET application framework and associated deployment methods to deploy the applications onto the cloud platform. It can also support PHP websites. Two SDKs have been made available for interoperability with the Azure Services Platform: The Java SDK for AppFabric and the Ruby SDK for AppFabric. These enable Java and Ruby developers to integrate with AppFabric Internet services.