



Office 365 – SharePoint Online White Paper



Introduction

Overview

Cloud computing is slowly changing the way IT companies are offering their software solutions and services. Through cloud computing, IT companies can today leverage numerous advantages to enhance their business operations such as minimizing excess processes, training and technology overheads, and maximizing IT and business agility.

Simultaneously, Microsoft Office 365 (O365) has brought together cloud versions of Microsoft Office solutions to help in increasing productivity along with huge savings in deployment and maintenance costs.

This whitepaper offers a brief insight into the various benefits companies can gain by leveraging the power of cloud computing, O365, and SharePoint Online.

Purpose

The aim of this paper is to get a brief understanding on the various advantages of cloud computing, O365, and SharePoint Online.

Scope

The paper's scope is limited to the basic concepts of Cloud computing, Office 365, and few Out-of-the-Box (OOB) features and custom development techniques on SharePoint Online.

Intended Audience

This paper is targeted for decision makers, business analysts and SharePoint developers who are interested in gaining insights into Cloud Computing, O365, and SharePoint Online.



Benefits of Cloud Computing

- ✓ Cloud computing services are pay-as-you-use, hence capital expenditure is significantly reduced. In addition, cloud computing services offer predictable ongoing operating expenses.
- ✓ Since cloud computing providers take care most of the disaster recovery issues, the end user does not need to have any disaster recovery plans.
- ✓ All hardware/software maintenance and updates are done by cloud computing providers.
- ✓ Cloud computing offers high degree of flexibility of working from anywhere. All a user requires is an internet access.
- ✓ It help in keeping files in a centralized location, thereby allowing everyone to access and work on the latest version.
- ✓ Earlier, scalability was one important aspect that had to be taken into consideration while planning infrastructure, especially for peak business season. With cloud computing, organizations are now able to cope with these changes easily and reduce over-provisioning of infrastructure.

Cloud Computing

In earlier days, if an organization had to provide IT infrastructure to its employees, it had to ensure the following things:

- Adequate space for hardware installations (servers, network storage devices, etc.)
- Dedicated team for hardware maintenance
- Regular hardware up-gradation to meet system requirements in order to install software applications

However, with the advent of Cloud Computing, end users can now access an application directly through the internet using the web browser with no software installation process required. Thus, it reduces the investment on hardware and other resources of an organization. The cloud environment provides flexibility, stability, support, backup, and restoration services. As a result, it is cheaper for small and mid-size business to now pay per use as large cloud providers are able to benefit from huge economies from scale and thus are able to offer more computing power at a lower cost.

Types of Cloud Computing Services

Infrastructure-as-a-Service

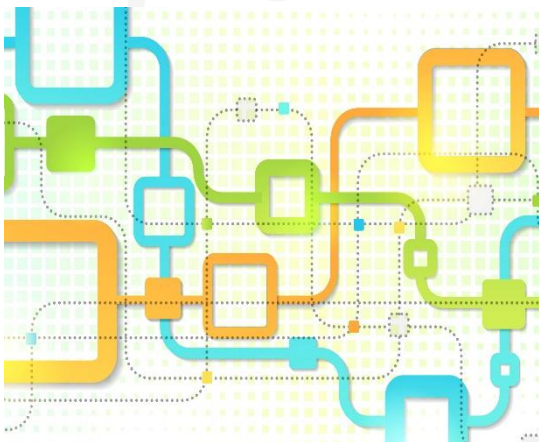
Cloud providers offer physical and virtual machines, firewalls, load balancers, networks, IP addresses, etc. Cloud users need to install operating system images and applications on their machines. The service is billed based on the resources allocated and consumed by the user.

Platform-as-a-Service

In this type of service, cloud providers offer a computing and solution platform that includes an operating system, database, web server and a programming language execution environment. Since the service automatically computes and scales the resources, the user does not need to allocate the resources manually.

Software-as-a-Service

SaaS is a software delivery method that provides remote access to the software. Since the software is hosted remotely, users do not need to invest in additional hardware. The pricing is based on a monthly/annual fee. In this service, cloud providers perform all the tasks for users such as installation of operating systems and applications, maintenance of infrastructure and cloud platform, load balancing, cloning, etc. As a result, there is now no need to install and run the application for the cloud user's system. This also means that maintenance and support is now more simplified.



OFFICE 365

Office 365 (O365) is a cloud-based service hosted by Microsoft that brings together familiar desktop applications like business-class email, shared calendars, instant messaging (IM), video conferencing, and file sharing. O365 gives the benefits of private and secure cloud computing.

O365 delivers collaboration tools to business users through the cloud. When a business signs up for a subscription to O365, the service's hosted environment is automatically provisioned at an appropriate data center based on geographical location. As result, O365 administration is easier because the management overhead are offloaded to a service provider instead of being handled in-house.

The O365 web admin console allows a business to manage all aspects of subscription service and environment, such as:

- Creating new users and adding custom domain names
- Setting up new team sites
- Managing permissions and templates
- Designing and editing public-facing websites
- Viewing the health of Microsoft Online services
- Monitoring scheduled maintenance
- Assigning licenses and storage
- Configuring general settings for Exchange Online and Lync Online

O365 Subscriptions

O365 subscribers can manage their licenses from a web-based management console. The console lets the enterprise assign and revoke licenses as needed. There are different O365 plans available as listed below:

- Small Business/Small Business premium: This plan targets small businesses that have from one to 25 users and is best suited for small organizations with no on-premises IT staff.
- Mid-Size Business: This plan fits midsize businesses having up to 300 users.
- Enterprise Plan E1, E3 and E4: The pricing of all three plans varies depending upon the features included but there is no limit on number of users.
- Education Plans: To qualify for Office 365 for education, you must be an accredited educational institution. This plan includes various feature packages and pricing levels.
- Government Plans: In order to qualify for this plan, an institution needs to be verified based on the terms and conditions mentioned on Microsoft site. The plan includes various feature packages and pricing levels. There are also O365 plans for non-profit organizations as well.

SharePoint On OFFICE 365

SharePoint O365 enhances collaboration capabilities by easily creating sites to share documents and information. There is no cost and overhead in terms of physically deployment of any software on site. In addition, it also helps to simplify the implementation process and accelerate time to value.

Rich Features

- Pre-loaded UI themes and master pages offer visually appealing look-and-feel for SharePoint Online.
- Rich collection of web parts are available to display, format and show complex data.
- Interactive functionalities such as blogs, wikis, discussion forums, and calendar.
- Integration with office products suites and other MS cloud products like Yammer, Power BI, etc.
- Enterprise Search for content and people across the portal.
- MS Lync online integration for communication and meetings.
- Exchange Online to manage users and their e-mails.
- Granular permission management even to control print rights of a document with Information Management Right feature.
- External data source connectivity with business continuity service.
- Desktop version of Office application (based on subscription license).
- Sync content in SharePoint to desktop with SkyDrive Pro so that documents are just a click away and can be accessible offline.

Ease of Development

SharePoint Online provides significant ease in development for a developer as data can be accessed and manipulated without worrying about data complexities. Some key highlights include:

- SharePoint designer support for branding like UI look-and-feel and other customizations.
- Out-of-the-Box workflow actions to cater complex business requirements.
- Rapid forms development using out-of-the-box InfoPath forms feature.
- Pre-existing site templates and SharePoint artifacts giving flexibility for customization. For e.g., in public sites, user can select a publishing site template and for team collaboration, a team site template can be used.
- No extra software license or developer tools required except SharePoint Designer (which is free and downloadable from Microsoft website).

SharePoint Online Development Building Blocks

SharePoint online customization can be done in different ways according to the business needs and requirements. The basic development building blocks are:

SharePoint Designer

SharePoint gives full access to customize pages and other SharePoint artifacts like workflow, content types, lists and libraries. It is a UI-based tool like HTML FrontPage where any page can be opened and customized directly.

JavaScript Object Model

To achieve the complex data-driven functionality, SharePoint Online can be extended to custom HTML forms. The forms data handler can be handled by the Client Object Model JavaScript API provided by Microsoft.

REST API

REST API is another development platform to develop SharePoint Online customized components. Programming model supports REST API with OData protocol to get data stored on SharePoint Online. In addition, JavaScript's framework like jQuery, Angular, Knockout etc. can also be used to make robust applications.

Connected to External Database

In real-life business scenarios, users often need to connect to different Line of Business (LOB) data. A third-party tool, Layer2 Cloud Connector, helps in seamlessly integrate with LOB Data. The tool can connect SharePoint to multiple business-critical applications to reach a new level of cross-team collaboration, decision making and process efficiencies.

Cloud-Hosted Apps

Developer can also choose to build Autohosted Apps. Autohosted apps for SharePoint are cloud-hosted. An autohosted app for SharePoint can interact with a SharePoint website, but also uses resources and services that are located on a remote site.

Custom Navigation Implementation in Office 365

There is an out-of-the-box app that can be used to create links/tiles namely 'Promotion Links'. This app helps in creating navigation link, background color, and description fields.

In order to have more fields and related business data like count of some entity / user images / general info in tiles, it is mandatory to create custom tiles. One custom list can be created with different fields / attributes to be displayed on tiles. By using client object model / ECMA scripts / Restful APIs, the given list is traversed and fields are populated using HTML, JavaScript and jQuery.

Whenever the custom tile list data is modified, it gets reflected in the WebPart zone where custom tiles are being populated. These custom tiles can be extended in future as per the requirements by adding attributes / fields in the custom list and placing those fields in the HTML of tiles WebPart where custom tile list data is traversed and populated. By doing this, user can achieve two things. One, navigation is obtained and second, a summary on top of the tile about a particular business process / flow on which user wants to navigate.



Summary

0365 SharePoint Online provides a rich platform for companies to respond to their business needs with minimal cost and IT resources. Companies can now stop worrying about on-premises SharePoint deployments being replaced in short run and reap the benefits offered through rich functionalities. Some of the key advantages companies can gain by adopting 0365 SharePoint Online are:

- No need to worry about the hassle of installing and managing software systems
- Upgrades and patches are done by Microsoft
- Minimal or no dependency on IT system admin staff
- Predictable cost
- Can be used anywhere - simply sign up and ready to go
- It also provides 5 desktop versions of Office application that used by a single user based on subscription license
- No initial investment, only based on per user license

References

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