

# Nimbus: A Cloud Project

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# Involvement

- >> Created the project timeline.
- >> Created and launched the WordPress site on Microsoft Azure.
- >> Customized business website's pages and graphics;
- >> Created a working online store
- >> Created Risk Assessment Table;
- >> Created Business Need Assessment
- >> Implemented WordFence firewall and malware scan
- >> Created VM on Azure, installed LAMP stack, installed WordPress

# IaaS Server Online

Using Microsoft Azure:

- Installed VM with CentOS 7 (Linux)
- Used terminal to install Apache, MySQL, and PHP
- Installed WordPress software
- Fixed memory issue that affected database and connectivity

An Operational Expenditure (OPEX) model is better suited for our business due to:

- Save on capital expense costs (not building and maintaining our own servers)
- Ability to access/maintain server anywhere/anytime
- More reliable security

# Testing 123..

This page is used to test the proper operation of the [Apache HTTP server](#) after it has been installed. If you can read this page it means that this site is working properly. This server is powered by [CentOS](#).

## Just visiting?

The website you just visited is either experiencing problems or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting [www.example.com](http://www.example.com), you should send e-mail to "[webmaster@example.com](mailto:webmaster@example.com)".

## Are you the Administrator?

You should add your website content to the directory `/var/www/html/`.

To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

## Promoting Apache and CentOS

You are free to use the images below on Apache and CentOS Linux powered HTTP servers. Thanks for using Apache and CentOS!



- Create a resource
- Home
- Dashboard
- All services
- FAVORITES
- All resources
- Resource groups
- App Services
- Function App
- SQL databases
- Azure Cosmos DB
- Virtual machines
- Load balancers
- Storage accounts
- Virtual networks
- Azure Active Directory
- Monitor
- Advisor
- Security Center
- Cost Management + Billing
- Help + support

Home > New > WordPress > WordPress > Database Server

### WordPress

Create

\* App name  
nimbusstoreexample ✓  
.azurewebsites.net

\* Subscription  
Free Trial

\* Resource Group ⓘ  
 Create new  Use existing  
nimbusstoreexample ✓

\* Database Provider ⓘ  
Azure Database for MySQL

\* App Service plan/Location  
ServicePlan133331f2-8ff8(Centra... >

\* Database >  
*Database Settings Required*

Application Insights  
nimbusstoreexample >

**Create** Automation options

### Database Server

\* Server name  
nimbusstoreexample-mysqldbserver

\* Server admin login name  
nimbusadmin ✓

\* Password  
..... ✓

\* Confirm password  
..... ✓

\* Version  
5.7

Pricing tier  
Basic, 2 vCore(s), 50 GB >

\* Database name  
mysqldb47390

**OK**

# PaaS

Used WordPress because it was easier to launch and set-up.

- Traded some security for ease-of-use
- Easier to customize but not as customizable.
- Initially hosted the website on Microsoft Azure using their database (SQL server), but later exported it and then imported it onto our own server.

# Website Online

[-Landing Page](#)

[-About](#)

[-Shop](#)

# *Nimbus*



like wearing a cloud

# Security

## Risk Assessment

Data Types	What data is being stored?	What would be the impact if it became unavailable or became public?	What would be the likelihood that it would become unavailable or became public?	What organizational value does the data have?
<b>Customer Data</b>	Information collected on customer preferences, customer data kept anonymous	High	Moderate	Assists with knowing what products are the best selling and which ones are the worst
<b>Employee Data</b>	Employee performance, income statements, employee SS numbers	High	Low	Shows performance by employees on how well they perform
<b>Research Data</b>	Work Towards targeted demographics; Info for best marketing strategies	Moderate	Moderate	Allows company to target demographic; information for ideal product ideas
<b>Credit Card Information</b>	Credit Card Numbers collected during transactions on many customers	Very High	Moderate	Shows proof of mutual transactions; assigns payments to which company/bank; Using an SSL is advised but not applicable in this case

# Security

## Why we chose Wordfence

- It is a firewall and malware scan designed for Wordpress.
- The wordfence plugin protects our website from the endpoint. “Unlike cloud alternatives does not break encryption, cannot be bypassed and cannot leak data.”
- Wordfence also provides login security through limiting login attempts and enforcing strong passwords, among others.

Allows for:

- Whitelisting and Blacklisting IPs
- Rate limiting
- Two Factor Authentication
- Etc..

Rules ⓘ

	Category	Description
<input checked="" type="checkbox"/>	whitelist	Whitelisted URL
<input checked="" type="checkbox"/>	lfi	Slider Revolution: Local File Inclusion
<input checked="" type="checkbox"/>	sqli	SQL Injection
<input checked="" type="checkbox"/>	xss	XSS: Cross Site Scripting
<input checked="" type="checkbox"/>	file_upload	Malicious File Upload
<input checked="" type="checkbox"/>	lfi	Directory Traversal
<input checked="" type="checkbox"/>	lfi	LFI: Local File Inclusion
<input checked="" type="checkbox"/>	xxe	XXE: External Entity Expansion
<input checked="" type="checkbox"/>	xss	dzs-videogallery 8.80 XSS HTML injection in inline JavaScript
<input checked="" type="checkbox"/>	sqli	Simple Ads Manager <= 2.9.4.116 - SQL Injection
<input checked="" type="checkbox"/>	rfi	Gwolle Guestbook <= 1.5.3 - Remote File Inclusion

### Brute Force Protection

#### Enable brute force protection ⓘ

This option enables all "Brute Force Protection" options, including two-factor authentication, strong password enforcement, and invalid login throttling. You can modify individual options below.

OFF ON

Lock out after how many login failures ⓘ

7

Lock out after how many forgot password attempts ⓘ

7

Count failures over what time period ⓘ

2 hours

Amount of time a user is locked out ⓘ

12 hours

# Business Need

- Everyone needs clothing, why not specialize in a particular type?
- We decided to design a good website to show our products for potential customers who want to utilize lightweight clothing.
- Lightweight clothing is a great form of attire to wear when:
  - Traveling
  - Hiking
  - Comfort
  - Exercise
  - Locations with hot and humid climates.