

# CloudVM Database en wordpress met Microsoft Azure opzetten

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**SE Labs-Wordpress** Resource group

Search (Ctrl+/) << + Create Manage view Delete resource group Refresh Export to CSV Open query

**Overview**

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**Settings**

- Deployments
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- Policies
- Properties
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**Cost Management**

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**Monitoring**

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Subscription ID: b654513f-d17b-4ca6-bdd7-488d16b9f0e5 Location: West Europe

Tags ([edit](#))

SE Labs-Wordpress : SE Labs-Wordpress

**Resources** Recommendations

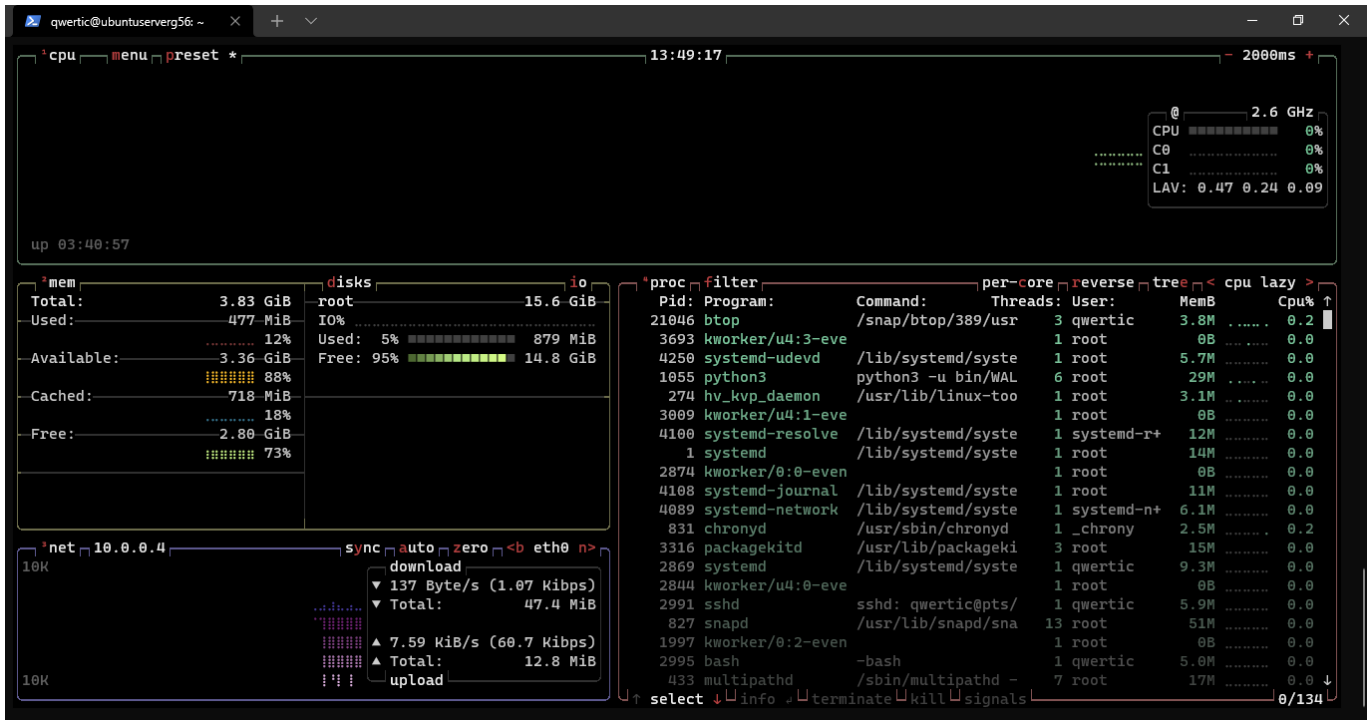
Filter for any field... Type == all Location == all Add filter

Showing 1 to 7 of 7 records. ☐ Show hidden types No grouping

List view

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓	
<input type="checkbox"/> <a href="#">databaseserverg56</a>	Azure Database for MySQL	Germany West Central	...
<input type="checkbox"/> <a href="#">SELabs-Wordpress-vnet</a>	Virtual network	Germany West Central	...
<input type="checkbox"/> <a href="#">ubuntuuserverg56</a>	Virtual machine	Germany West Central	...
<input type="checkbox"/> <a href="#">ubuntuuserverg56-ip</a>	Public IP address	Germany West Central	...

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### Btop op ubuntu server in MS Azure

Resource group ([move](#))  
[SELabs-Wordpress](#)

Location  
 Germany West Central

Subscription ([move](#))  
[Azure for Students](#)

Subscription ID  
 b654513f-d17b-4ca6-bdd7-488d16b9f0e5

Tags ([edit](#))  
[Click here to add tags](#)

SKU  
 Basic

Tier  
 Regional

IP address  
 20.██████████

DNS name  
 ubuntuerverg56.germanywestcentral.cloudapp.azure.com

Associated to  
[ubuntuerverg56437](#)

### DNS configuratie

```
qwertic@ubuntuerverg56:~$ speedtest-cli
Retrieving speedtest.net configuration...
Testing from Microsoft Corporation (20.██████████)...
Retrieving speedtest.net server list...
Selecting best server based on ping...
Hosted by CoreRoute (Dusseldorf) [181.93 km]: 10.559 ms
Testing download speed.....
Download: 2106.44 Mbit/s
Testing upload speed.....
Upload: 613.95 Mbit/s
```

### Internet speedtest vanuit Azure omgeving

## Installatie Databankserver

```
sudo apt install mysql-client -y
```

## Verbinden met database

```
qwertic@ubuntu56:~$ mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p
Enter password:
ERROR 9000 (HY000): Client with IP address '20.██████████' is not allowed to connect to this MySQL server.
qwertic@ubuntu56:~$
```

Command Prompt

```
Microsoft Windows [Version 10.0.19043.1645]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Qwert>mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p
Enter password: *****
ERROR 9000 (HY000): Client with IP address '78.██████████' is not allowed to connect to this MySQL server.

C:\Users\Qwert>
```

*Kan niet verbinden met database server via AzureUbuntu server en Windows MySQL.*

Firewall rule name	Start IP	End IP
Applicatieserver	20.██████████	20.██████████
RemoteConnection	78.██████████	78.██████████
Firewall rule name	Start IP	End IP

*Ip exceptions voor verbinding met database. (kan ook door Star IP: 0.0.0.0; End IP: 255.255.255.255)*

```
qwertic@ubuntu56:~$ mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 64627
Server version: 5.6.47.0 Source distribution

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

Command Prompt - mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p

```
C:\Users\Qwert>mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 64468
Server version: 5.6.47.0 Source distribution

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

*Succesvolle verbinding met de database server.*

## Installatie WordPress

```
sudo apt update
sudo apt install apache2 \
ghostscript \
libapache2-mod-php \
php \
php-bcmath \
```

```
        php-curl \  
        php-imagick \  
        php-intl \  
        php-json \  
        php-mbstring \  
        php-mysql \  
        php-xml \  
        php-zip  
sudo mkdir -p /srv/www  
sudo chown www-data: /srv/www  
curl https://wordpress.org/latest.tar.gz | sudo -u www-data tar zx -C /srv/www  
sudo nano /etc/apache2/sites-available/wordpress.conf
```

```
<VirtualHost *:80>  
    ServerName jorisduyse.com  
    DocumentRoot /srv/www/wordpress  
    <Directory /srv/www/wordpress>  
        Options FollowSymLinks  
        AllowOverride Limit Options FileInfo  
        DirectoryIndex index.php  
        Require all granted  
    </Directory>  
    <Directory /srv/www/wordpress/wp-content>  
        Options FollowSymLinks  
        Require all granted  
    </Directory>  
</VirtualHost>
```

```
sudo a2ensite wordpress  
sudo a2enmod rewrite  
sudo a2dissite 000-default  
sudo service apache2 reload
```

```
qwertic@ubuntu56: ~  
qwertic@ubuntu56:~$ mysql -h databaseserver56.mysql.database.azure.com -u wordpressdb@databaseserver56 -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 64494  
Server version: 5.6.47.0 Source distribution  
  
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owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> CREATE DATABASE wordpress;  
Query OK, 1 row affected (0.21 sec)  
  
mysql> CREATE USER qwertic@'%' IDENTIFIED BY 'DelendPw9256';  
Query OK, 0 rows affected (0.17 sec)  
  
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,DROP,ALTER ON wordpress.* TO qwertic@'%;  
Query OK, 0 rows affected (0.18 sec)  
  
mysql> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.17 sec)  
  
mysql> QUIT;
```

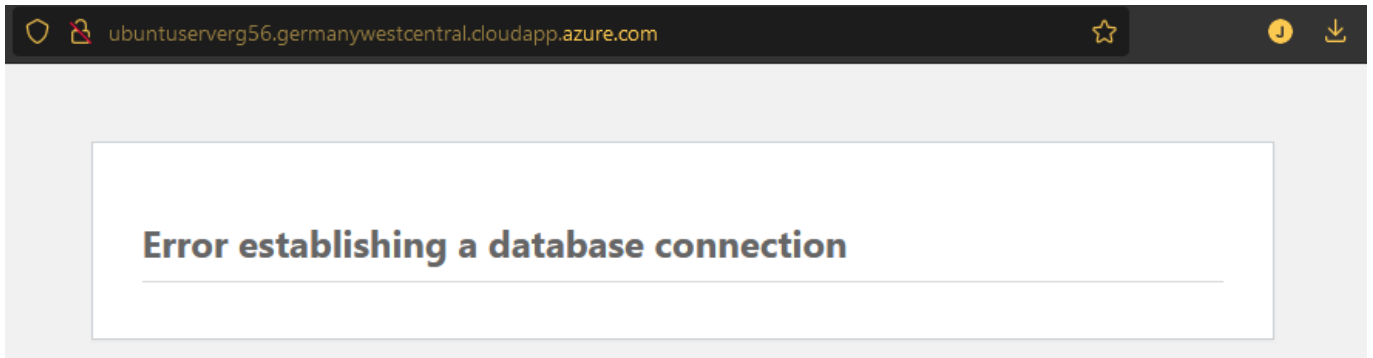
### *Aanmaken van de wordpress database*

```
sudo service mysql start  
sudo -u www-data cp /srv/www/wordpress/wp-config-sample.php /srv/www/wordpress/wp-  
config.php
```

Belangrijk is dat de hostname van de database wordt aangepast, en dat de KEY worden ingevuld. Bij de instructie pagina van ubuntu kon dit makkelijk met automatisch gegenereerde keys van de wordpress api.

```
/** Database username */  
define( 'DB_USER', 'qwertic' );  
  
/** Database password */  
define( 'DB_PASSWORD', '*****' );  
  
/** Database hostname */  
define( 'DB_HOST', 'databaseserver56.mysql.database.azure.com' );  
  
/** Database charset to use in creating database tables. */  
define( 'DB_CHARSET', 'utf8' );  
  
/** The database collate type. Don't change this if in doubt. */  
define( 'DB_COLLATE', '' );
```

## Verbinding met wordpress via SSL



```
/* Add any custom values between this line and the "stop editing" line. */  
define('MYSQL_CLIENT_FLAGS', MYSQLI_CLIENT_SSL);
```

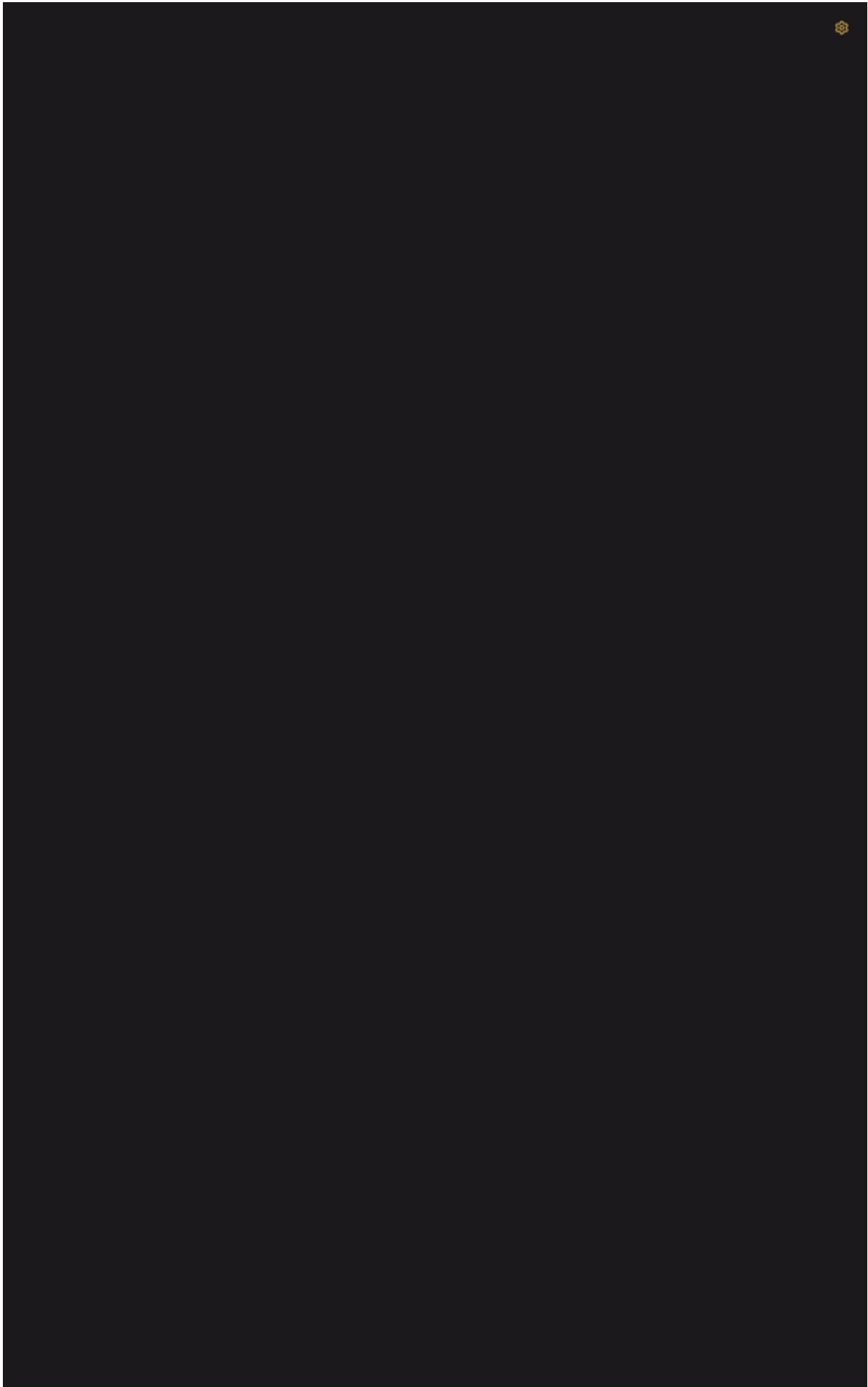
```
sudo snap install core; sudo snap refresh core  
sudo snap install --classic certbot  
sudo ln -s /snap/bin/certbot /usr/bin/certbot
```

Ik ondervond dat het belangrijk is dat deze lijnen in het wordpress-le-ssl.conf bestand stonden. Hierdoor wordt het http verkeer over poort 80 automatisch naar poort 443 (HTTPS) doorgestuurd.

```
RewriteEngine on  
RewriteCond %{SERVER_NAME} =ubuntuserverg56.germanywestcentral.cloudapp.azure.com  
RewriteRule ^ https://%{SERVER_NAME}%{REQUEST_URI} [END,NE,R=permanent]
```

## Resultaat

Een wordpress site met https encryptie, SSL certificaat via Let's Encrypt en DNS via azure.com.



*Gif niet zichtbaar in pdf*

