

M/DB

User Guide

Version 1.0 Beta

About MDB

M/DB is a “plug-compatible” alternative to Amazon’s SimpleDB (<http://aws.amazon.com/simpledb/>). Outwardly, it behaves identically to SimpleDB, being accessed through the same REST APIs and returning identical responses. The only difference in use is that REST requests are directed at a different domain name or IP address.

M/DB version 1.0 Beta is compatible with Amazon Simple DB version 2007-11-07.

Installing M/DB

M/DB is provided as a free VMWare Virtual Appliance. This is a pre-built, pre-configured Linux-based virtual machine which can be run within the free VMWare Player or VMWare Server.

Download the M/DB Virtual Appliance from <http://www.mgateway.com>

VMWare Player and Server are available from <http://www.vmware.com>

Installation instructions are provided as a ReadMe file within the M/DB Virtual Appliance zip file.

When the M/DB Virtual Appliance finishes booting, it will notify you of the IP address that is has been assigned. The first time you start the Virtual Appliance, you must point a browser at this IP address. You will receive instructions on how to initialise it and make it ready for general use. This simply involves defining an administrator user Id and secret key and invoking a simple REST URL from a browser.

Once initialised, the M/DB Virtual Appliance is ready for use.

Using M/DB

M/DB uses all the same REST APIs and security mechanisms as SimpleDB. The only difference between using M/DB and SimpleDB is the URL to which the REST requests are directed. Instead of sending requests to <https://sdb.amazonaws.com/>, when you use M/DB, you’ll send the REST requests to:

<http://xxx.xxx.xxx.xxx/mdb/request.mgws>

where xxx.xxx.xxx.xxx is the IP address or domain name assigned to the M/DB Virtual Appliance.

For example:

Assume the M/DB Virtual Appliance has an IP address of *192.168.1.200*
Assume M/DB includes a user with an id of *Abc123xyz*

If user *Abc123xy* wants to create a domain named *myDomain*, he would issue the REST request:

```
http://192.168/1/200/mdb/request.mgws  
?Action=CreateDomain  
&AWSAccessKeyId=Abc123xyz  
&DomainName=MyDomain  
&SignatureVersion=1  
&Timestamp=2007-06-25T15%3A01%3A28-07%3A00  
&Version=2007-11-07  
&Signature=hvH87q32QzGbDb6bm9YUEVpiGQ%3D
```

Note that the only differences between this request and an equivalent that you'd use for SimpleDB are the domain name and location on the first line, and your local M/DB user's Id.

Note that the M/DB administrator's user ID is specified as the AWSAccessKeyId. For security reasons, it is recommended that you do not use an Amazon Access Key Id and Secret Key as your M/DB user key and secret key.

You should receive a response that looks almost identical to the equivalent that you'd expect from SimpleDB:

```
<CreateDomainResponse xmlns="http://sdb.amazonaws.com/doc/2007-11-07">  
<ResponseMetadata>  
<RequestId>4ee0fda2-8463-43e3-1834-e6966b5e2727</RequestId>  
<BoxUsage>0</BoxUsage>  
</ResponseMetadata>  
</CreateDomainResponse>
```

See <http://developer.amazonwebservices.com/connect/kbcategory.jspa?categoryID=146> for full details on the REST APIs that are also used by M/DB.

Securing M/DB

Although the digitally signed REST APIs afford a high degree of security, in order to fully secure an M/DB Virtual Appliance, you will need to install a digital certificate in its Apache Web Server and access it via SSL. The security of the M/DB Virtual Appliance is your responsibility.

M/Gateway Developments Ltd is not responsible for any problems arising from unauthorised access to or modification of data or other information held within the M/DB database or the M/DB Virtual Appliance.

Creating and editing M/DB User Ids

M/DB users can only be added by the administrator, using an M/DB-specific REST API that must be signed by the administrator using his User Id and Secret Key:

```
http://192.168/1/200/mdb/request.mgws  
?Action=AddUser  
&AWSAccessKeyId=[Administrator Id goes here]  
&UserAccessKeyId=[New user Id goes here]  
&UserSecretKey=[New user secret key goes here]  
&SignatureVersion=1  
&Timestamp=2007-06-25T15%3A01%3A28-07%3A00  
&Version=2007-11-07  
&Signature=hvH87q32QzGbDbA6bm9YUEVpiGQ%3D
```

Note that it is strongly recommended that this API is not issued over an insecure public network connection.

To modify a user's secret key, simply re-issue the REST API above using the existing user Id and the new user secret key.

Support, Training and Consultancy

M/DB is provided free of charge, but it excludes any support. For support and consultancy services related to M/DB, contact Rob Tweed at rtweed@mgateway.com.