Figure 11.2 displays the Amazon Management Console (AMC) window listing the Amazon Web Services

offered at the time of this writing. The services are grouped into several categories: computing

and networking, storage and content delivery, deployment and management, databases, and application

services.

In spite of the wealth of information available from the providers of cloud services, the learning

curve of an application developer is still relatively steep. The examples discussed in this chapter are

designed to help overcome some of the hurdles faced when someone first attempts to use the AWS. Due

to space limitations we have chosen to cover only a few of the very large number of combinations of

services, operating systems, and programming environments supported by AWS.

In Section 3.1 we mentioned that new services are continually added to AWS; the look and feel of

the Web pages changes over time. The screen shots we’ve selected reflect the state of the system at the

time of the writing of this book, the second half of 2012.

To accessAWS one must first create an account at http://aws.amazon.com/.Once the account

is created, the AMC allows the user to select one of the services, e.g., EC2, and then start an instance.

Recall that an AWS EC2 instance is a virtual server started in a region and the availability zone is

selected by the user. Instances are grouped into a few classes, and each class has available to it a specific

amount of resources, such as: CPU cycles, main memory, secondary storage, and communication and

I/O bandwidth. Several operating systems are supported by AWS, including Amazon Linux, Red Hat

Enterprise Linux, 6.3, SUSE Linux Enterprise Server 11, Ubuntu Server 12.04.1, and several versions

of Microsoft Windows (see Figure 11.3).

The next step is to create an (AMI)1 on one of the platforms supported by AWS and start an instance

using the RunInstance API. If the application needs more than 20 instances, a special form must be filled out. The local instance store persists only for the duration of an instance; the data will persist if an

instance is started using the Amazon Elastic Block Storage (EBS) and then the instance can be restarted

at a later time.

Once an instance is created, the user can perform several actions – for example, connect to the

instance, launch more instances identical to the current one, or create an EBS AMI. The user can also

terminate, reboot, or stop the instance (see Figure 11.4). The Network & Security panel allows the

creation of Security Groups, Elastic IP addresses, Placement Groups, Load Balancers, and Key Pairs

(see the discussion in Section 11.3), whereas the EBS panel allows the specification of volumes and the

creation of snapshots.