

## A.1 What is IBM Secure Service Container?

An appliance is an application (software) that provides a specified function or set of functions (service). It is packaged and deployed with a specific (trimmed) operating system in a virtual machine or a dedicated commodity of the shelf (COTS) hardware (physical server). It requires little to no intervention from a system administrator (software update, OS update, and maintenance).

An appliance must satisfy various requirements, such as certified functionality and security (the function it provides must be tamper-resistant, even from system administrators or other privileged users) and simple deployment and maintenance.

In the current IT deployments, various components that serve the business processes (databases, middleware, applications, and so on) require specialized management functions (such as access management, enterprise directories, secure key management, backup and restore). The development requirements of the management functions do not follow the dynamic of the actual business functions.

Because of the diversity of the platforms on which the business applications run, the management function must be maintained (updated, tested, or even certified) if the management functions are deployed alongside the mainstream business applications when the platform must be maintained or upgraded. However, the complexity and associated IT spending is increased.

As such, these management functions can be deployed by using an appliance model in which the functions that are provided are available and accessible through standardized methods.

Many appliances are available from various suppliers. Each appliance includes the following features:

- ▶ Separate administration and deployment process
- ▶ Different hardware configuration requirements
- ▶ Different performance profile and management requirements
- ▶ Different security characteristics that require alignment with enterprise requirements

### A.1.1 SSC framework

IBM developed the SSC framework. This framework provides the base infrastructure to create and deploy an appliance, including operating system, middleware, Software Development Kit (SDK), and firmware support. A special feature of the IBM SSC framework is that it protects the deployed workload from being accessed by a system administrator or an external attacker.

## A.2 SSC LPAR

For IBM Z, the SSC Partition is an LPAR type that runs an appliance based on Secure Service Container framework.

Multiple virtual appliances that are integrated into IBM Secure Service Container can be deployed on IBM z14 (z13 and z13s also). These virtual appliances include the following common features:

- ▶ Administration (deployment)
- ▶ Hardware configuration