Chapter IX
System Administration and System Administrator’s Role in Business Continuity

CHAPTER OVERVIEW

Chapter IX focuses on the role of system administration as an IT-profession and system administrator as a person who does the administrative (managerial) activities on servers and server operating systems. If server goes down for any reason or server operating system crashes, in most cases it is up to this person to “recover” the server from the bad situation and make sure that business – critical applications continue to run and provide services to end users. HP-UX as a server operating system platform is selected in order to demonstrate most commonly used techniques and features that may lead to higher levels of system availability.

INTRODUCTION

A short introduction on why system administration and system administrator as an IT profession are important in the light of business continuity.

As already mentioned in the first chapter, a super-user or sys-admin account represents one of the most exploited vulnerabilities on IT platforms because of the unlimited power of system administrator’s “super-user” commands. This so-called
“root” account or “super-user” (su) on UNIX/Linux servers and System Administrator on Windows server machines possess all permissions and unrestricted access to all the files. Should the root account fall into the wrong hands, the security of the whole server configuration becomes compromised. Some businesses apply an approach, which redefines the role of a superuser into a number of specific superusers with specific roles assigned to different people.

A business can employ several “administrators” for several fields such as: database administrator, network administrator, security administrator, and so forth, with all of them having “all-powerful” capabilities on their specific domain-tasks. However, system administrator on the operating system level has all kinds of file ownerships and privileges, he/she is a kind of “top-level” system administrator, who in most cases supervises all other administrators. Horror story No.3 from the first chapter provides an excellent example of what could happen if such a person applies a wrong command or perform a sys admin – powerful action on user files. That story revealed that British ISP PlusNet lost 700GB of customer e-mails forever because an engineer accidentally deleted the e-mails and then tried an old admin trick to retrieve them. The trick backfired, and instead made the mails irretrievable.

Therefore, system administrator (sysadmin) is a very important person in every information system.

These IT professionals use system administration commands in order to:

- make/change system settings,
- install/upgrade operating systems,
- install/reinstall applications,
- open/close user accounts,
- make fair use of the system, and so forth.

Depending on the operating system platform, they use different commands or OS tools in order to manage not only operating system but the whole IT platform as well.

**SYSTEM ADMINISTRATION ON UNIX (HP-UX)**

As an example, a short description of main system administration tasks and activities on HP’s HP-UX operating system is presented. The most widely used techniques as well as more advanced system administration utilities are explained. In addition, some business continuity-oriented integrated tools on HP-UX such as Ignite-UX, Bastille, HP Serviceguard, are presented.
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