ST2612 Tutorial 1 (Week 2)

Recap of Practical 1, Lecture 1 and Lecture 2

Learning objective of Practical 1:

* Maintain and personalize your own Windows Server 2016 and Windows 10 VMWare Images in the Lab setup.
* Use Server Manager to perform “add Features” and “add Roles” functions.
* Set up a simple Domain Controller Server with one client workstation.
* Set up the DNS Service and DHCP Service in the Primary Domain Controller. Lecture 1 is focus on the following:
* Module Overview and Lesson Plan.
* Introduction to Windows Server 2016 and Trustworthy Computing.

Lecture 2 is focus on the following:

* Overview of Windows Registry Database and its roles and importance.
* Introduction to the Active Directory Self-evaluation Check list
* Do you know the weightages of the Mid Semester Test and the CA1?

20% and 30%

* What are the components comprised in CA1?

Group Practical Project and Group Journal Entries

* How many online quizzes you need to take in this module?

2

* Would you list a few common sources of computer security issues?

Bad software design, bad implementation

Malware

* Would you list three common practices to reduce computer security threats?

Update, patch, auditing

Training

Change in the behavior of management, programmers and users

Make secure computing a priority

* What are the four main areas Microsoft invested to improve the Windows Security?

Isolation and resiliency

Updating

Quality

Access control and authentication

Access Control (Security Groups)

Authentication uses PKI (Public Key Infrastructure)

* What are the goals of Trusty Worthy Computing?

Security, Privacy, Business Integrity

* What are the means of achieving Trusty Worthy Computing?

Security by design

Privacy/fair information principles

Availability, manageability, and accuracy

Usability, responsiveness, and transparency

* What are the foundational principles of Trusty Cloud Initiatives?

Security, Privacy, Compliance/Transparency

* Name two differences between the Windows Server 2016 Standard Edition and Data Centre Edition.

**Windows Server 2016 Standard Edition**

Standard Edition provides:

* + File and print services
  + Secure Internet connectivity
  + Centralized management of users
  + Centralized management of applications and network resources

**Windows Server 2016 Data Centre Edition**

Designed for environments with:

* + Mission-critical applications
  + Very large databases
  + Very large virtualization requirements
  + Cloud computing needs
  + Information access requiring high availability

Offers support for clustering up to 64 computers

* Differences between Standard Edition and Datacenter Edition focus on Datacenter Edition’s industrial strength capabilities in the areas of:
  + Virtualization
  + Cloud computing
  + Database handling
* Datacenter Edition does not come with database software
  + But it is designed to provide the OS resources to accommodate large database applications
* Name two differences between Windows Server Core and Windows Nano Server.

Windows Server Core

* + A minimum server configuration
  + Designed to function in a fashion similar to traditional UNIX and Linux servers

Windows Nano Server

* + Provides a basic foundation for server computing
  + Intended to be faster and need less maintenance
* What is the main advantage of implementing Active Directory in a Windows System?

Active Directory

* + Database of computers, users, groups of users, shared printers, shared folders, and other network resources

Active Directory is easier to set up and has improved file security

* What is the primary prerequisite to implement Active Directory in a Windows System?

Requires Windows Server 2016 Standard edition

* What is the relationship between the Windows Registry Database and the Active Directory Database?
* List all the hierarchical containers in the Active Directory Structure. Challenging questions:
* Identify the relationship and/or difference between the requirement and the goals of Trustworthy computing.

Requirement

* Change in the behaviour of management programmers and users
* Prioritize secure computing
* Write secure operating systems and applications
* Train users to always keep security in mind

Goals

* + - Security
    - Privacy
    - Business Integrity

(Hint: Ask yourself: Does it imply you have met the goals of Trustworthy Computing if you have fulfilled the Trustworthy computing requirement.)

* List the minimum server roles for a Primary Domain Controller.

ADDS ( Active directory domain service )

DNS ( Domain name system )

DHCP ( OPTIONAL )

* List the minimum requirement for a windows client to join to a Domain within the same LAN.

Nano Test Questions (Will be given by your tutor).

Q1.

Q2.

Q3.

Q4.

Submit your answers to the Nano Test Journal before the end of the class.

~ That's All ~