



Guideline on the Management of Virtual Server Environment in IIUM Data Center

IIUM ICT GUIDELINE DOCUMENT

PREPARED FOR:

International Islamic University Malaysia

PREPARED BY:

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Document Change Log

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Responsibility and Activity Log

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IIUM ICT Guideline

1. OBJECTIVE

- 1.1 This ICT guideline shall apply to all staff members of the University who are using the virtual server facility in IIUM. This is to ensure that the virtual server environment is managed through good governance and practices for the benefit of the University.
- 1.2 This guideline is not applicable to those who are using the virtual server facility in SASMEC@IIUM.

2. TERMS AND DEFINITIONS

Term	Definition
IIUM	The International Islamic University Malaysia, otherwise known as the "University".
ITD	Information Technology Division.
ITD Management	Director, Deputy Directors and Head of Units of ITD.
CIO	Chief Information Officer
ITD Director	Information Technology Division Director
HOU	Head of Unit
DDCM Unit	Data Center and Cloud Management Unit
SASMEC@IIUM	Sultan Ahmad Shah Medical Centre @ IIUM
System Administrators	System administrator is a person who responsible for management of the virtual server or physical server

3. GUIDELINE STATEMENTS

3.1. Virtual Server Environment

- 3.1.1 The management of the infrastructure for the virtual server environment is under DCCM Unit's responsibility.
- 3.1.2 The virtual machine provision is for hosting the University's official applications and services only. Research based system development is not allowed to be hosted in the virtual server environment.
- 3.1.3 The request for creating, deleting or modifying the virtual servers specifications must be submitted through the Virtual Server Service Request Form.
- 3.1.4 A specific system administrator must be specified by the requester for every virtual servers requested. It is the responsibility of the system administrator to ensure the virtual server is patched or updated accordingly.
- 3.1.5 The approval of the request is subject to the availability of the resources of the virtual server environment and on the specification requested.
- 3.1.6 The supported operating system of the virtual servers to be provisioned is based on the operating system listed in Section 3.2.
- 3.1.7 ITD reserves the right to modify the given virtual server specification based on current virtual server environment either in an individual case or in general.
- 3.1.8 ITD reserves the right to suspend the virtual server provisioned without notice in the event that the virtual server is in any way affecting the operation, performance and security of the virtual server environment and infrastructure.

3.2 Virtual Servers Operating Systems

3.2.1 The operating systems installation that are currently supported by DCCM are as follows:

No	Types of OS	Remarks	Services Provided
1	Windows environment	<ul style="list-style-type: none">• Windows Server 2016 and above only• Must provide the valid license and documentation	<ol style="list-style-type: none">1) Windows installation2) IP address assignment3) Enable auto update4) Antivirus software installation (based on license availability)
2	Open source	<ul style="list-style-type: none">• Centos 7• Almalinux 8.0 and above	<ol style="list-style-type: none">1) OS installation2) IP address assignment3) Basic Php, Apache and Mysql/MariaDB installation

Note:

- a) All other special configuration of the virtual server must be performed by the specific system administrator
- b) A copy of the overall architecture of the service delivered by the provisioned virtual server must be provided for DCCM reference

3.3 Backup of Virtual Server

- 3.3.1 The backup for the servers listed in the Critical ICT Services are as follows:
- a) The daily backup will store copies of the incremental changes of the servers for 14 days consecutively.
 - b) In addition, the backup will also be done monthly and once every 6 months
- 3.3.2 The system administrator of the virtual servers is responsible for testing the backup of the virtual servers.
- 3.3.3 For servers that are not listed under the Critical ICT Services, DCCM Unit will back up the state of the provisioned virtual servers once a month with two retention point. The system administrator of the virtual servers is responsible to for testing the backup of the virtual servers.
- 3.3.4 Virtual server backup is not available for the virtual servers provisions for the purpose of proof of concept or testing environment purposes.

4. IMPLEMENTATION AND NON-COMPLIANCE

The Director of Information Technology Division holds the responsibility for the implementation of this guideline and shall take necessary actions in the event of violation of this guideline.

5. ENFORCEMENT

This guideline is applicable to DCCM Unit and system administrators that are involved in the virtual server's environments management and usage, and any infringement of the guideline may subject to disciplinary actions.

6. MAINTENANCE OF GUIDELINE

The Information Technology Division is responsible for the formulation and maintenance of this guideline.

7. RELATED POLICIES/STANDARDS/PROCEDURES/GUIDELINES

This policy shall be read together with the following documents or any documents which recently approved:

- 7.1 ICT Regulation
- 7.2 IIUM ICT Policy
- 7.3 Policy on Responsible use of ICT Resources
- 7.4 List ICT Critical Services