



ITU Centres of Excellence Network for Arab Region Sudatel Telecommunications Academy (SUDACAD)

FACE-TO-FACE Training on
“Cloud Computing”
Khartoum-Sudan, 17–19 September 2019

COURSE OUTLINE

COURSE DESCRIPTION

Title	Cloud Computing
Method of delivery	Face-to-Face
Objectives	<ul style="list-style-type: none">• To understand Cloud Computing technologies and their effect on business, IT and data management.• To be aware of the current and new trends and challenges in cloud computing.• To have up to date hands-on experience on cloud technologies.
Dates	17-19 September 2019
Duration	3 Days
Registration deadline	10 September 2019
Training fees	USD 150
Course code	19WS24260ARB-A

LEARNING OUTCOMES

It is expected that upon completion of the training session, participants will be able to:

- Understand concepts and technologies of cloud computing.
- Understand how does cloud computing change the ICT landscape.
- Have an understanding of technologies used in cloud computing, such as micro-services and configuration management.
- Have a general understanding of architectures and the lifecycle of a cloud computing deployment.
- Have hands-on experience with a cloud platform.

TARGET POPULATION

This training targets ICT infrastructure professionals in the Ministries of Communications and Information Technology (ICT), ICT regulators, ICT centers, operators and providers of ICT services.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Mohammed Sedig Alameen Adam	mohammed.sideg1@gmail.com

EVALUATION

Participants will be evaluated according to:

- Pre and Post-test ;
- Active interaction in the group exercises and discussions;
- Planned Q and A periods;
- Dedication in attending the sessions.

TRAINING SCHEDULE AND CONTENTS / AGENDA

Day 1. Overview		
Date for 1 st day	Time; Start time	Topics/Activities
17/9/2019	09:00-9:30	Registration. Round the table. Ground rules.
	09:30-11:00	<ul style="list-style-type: none">• Introduction to Cloud Computing<ul style="list-style-type: none">○ What is a cloud and what is cloud computing?○ A historical Perspective○ Why is it a disruptive technology?○ What does it mean from a telecommunications perspective?• International Frameworks and Methodologies
	11:15-13:00	<ul style="list-style-type: none">• Cloud Computing from a Telecommunications Perspective

		<ul style="list-style-type: none"> ○ Cloud Computing from the Perspective of Sustainable Development Goal ○ ICT Apps and Services deliverable over the cloud ○ Co-existence and Migration
	14:00-15:30	<ul style="list-style-type: none"> • Hands-on Introduction - I <ul style="list-style-type: none"> ○ How to create a VM? ○ What are the virtualized resources that can be supplied by a cloud? ○ Keep an eye on pricing
	15:45-17:00	<ul style="list-style-type: none"> • Hands-on Introduction – II <ul style="list-style-type: none"> ○ Creating and configuring cloud resources

Day 2: Scaling		
Date for 2 nd day	Time; Start time	Topics/Activities
18/9/2019	09:00-9:30	
	09:30-11:00	<ul style="list-style-type: none"> • Developing Software for the Cloud <ul style="list-style-type: none"> ○ Separating code from data for scalability ○ What does this practically mean? <ul style="list-style-type: none"> ▪ Stateless servers ▪ Robust storage management
	11:15-13:00	<ul style="list-style-type: none"> ○ Scalable Design Patterns <ul style="list-style-type: none"> ○ Microservices ○ Docker ○ Load Balancing
	14:00-15:30	<ul style="list-style-type: none"> ○ Deployment for Scaling <ul style="list-style-type: none"> ○ Deployment Tools ○ Deployment Processes
	15:45-17:00	<ul style="list-style-type: none"> ○ Large Scale operations and management of cloud resources

Day 3: Security and other Technological Aspects		
Date for 3 rd day	Time; Start time	Topics/Activities
19/9/2019	09:00-9:30	
	09:30-11:00	<ul style="list-style-type: none"> ○ Security Risks <ul style="list-style-type: none"> ○ Security Vector Attacks in the Cloud ○ Preventive Actions ○ Recovery from a Security Incident
	11:15-13:00	<ul style="list-style-type: none"> ○ Governance <ul style="list-style-type: none"> ○ Processes and Procedures ○ ...
	14:00-15:30	<ul style="list-style-type: none"> ○ Technologies on the Cloud <ul style="list-style-type: none"> ○ Big Data ○ IoT ○ M2M
	15:45-17:00	Overall Recap

METHODOLOGY

- Pre-test.
- Instructor-Led Class Lectures and power point presentations.
- Reviews and Revisions.
- Case Studies.
- Group exercises & assignments.

TRAINING COORDINATION

Training Coordinator: Eng. Mustafa Agab Seido Maragan Senior Manager Planning & Development, SUDACAD Tel: +249 183 49 09 99 Mobile: +249 120 120 070 Email: agab@sudatel.sd	ITU Coordinator: Eng. Mustafa Al Mahdi Programme Administrator Arab Regional Office-ITU Tel: +202 3537 1777 Mobile: +20114 117 75 73 Fax: +202 3537 1888 Email: mustafa-ahmed.al-mahdi@itu.int
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REGISTRATION AND PAYMENT

ITU Academy portal account

Registration and payment should be made online at the ITU Academy portal.

To be able to register for the course you MUST first create an account in the ITU Academy portal at the following address:

<https://academy.itu.int/index.php/user/register>

Training registration

When you have an existing account or created a new account, you can register for the course online at the following link: <https://academy.itu.int/training-courses/full-catalogue/cloud-computing-0>

You can also register by finding your desired course in our training catalogue <https://academy.itu.int/index.php/training-courses/full-catalogue>

Payment

1. On-line payment

A training fee of USD 150 per participant is applied for this training. Payments should be made via the online system using the link mentioned above for training registration at <https://academy.itu.int/training-courses/full-catalogue/cloud-computing-0>

2. Payment by bank transfer

Where it is not possible to make payment via the online system, select the option for offline payment to generate an invoice using the same link as above. Download the invoice to make a bank transfer to the ITU bank account shown below. Then send the proof of payment/copy of bank transfer slip and the invoice copy to Hcbmail@itu.int and copy the course coordinator. All bank transaction fees must be borne by the payer.

Failure to submit the above documents may result in the applicant not being registered for the training.

3. Group payment

Institutional Contacts are users that represent an organization. Any student can request to be an institutional contact or to belong to any existing organization.

To do this, head to your profile page by clicking on the **“My account”** button in the user menu. At the bottom of this page you should see two buttons:

- a. If you want to **become an institutional contact**, click on the **“Apply to be an Institutional Contact”** button. This will redirect you to a small form that will ask for the organization name. After you fill the name of the organization you want to represent, click on **“continue”** and a request will be created. An ITU Academy manager will manually review this request and accept or deny it accordingly.

- b. If you want to **belong to an existing organization**, click on the **“Request to belong to an Institutional Contact”** button. This will redirect you to a small form that will ask you to select the organization you want to join from an organization list. After you select the correct organization, click on **“continue”**, a request will then be created. The Institutional Contact that represents that organization will manually accept or deny your request to join the organization.

ITU BANK ACCOUNT DETAILS:

Name and Address of Bank:	UBS Switzerland AG Case postale 2600 CH 1211 Geneva 2 Switzerland
Beneficiary:	Union Internationale des Télécommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 150
Payment Reference:	CoE-ARB [24260]-[WBS No. P.40592.1.06]

4. Other method of payment

If due to national regulations, there are restrictions that do not allow the payment to be made using options 1 & 2 above, please contact the ITU Coordinator for further assistance.