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ALERRT

African coalition for Epidemic Research, Response and Training

ADMINISTRATION OF MDC REDCAP SERVERS

Pa Modou Cham



EDCTP

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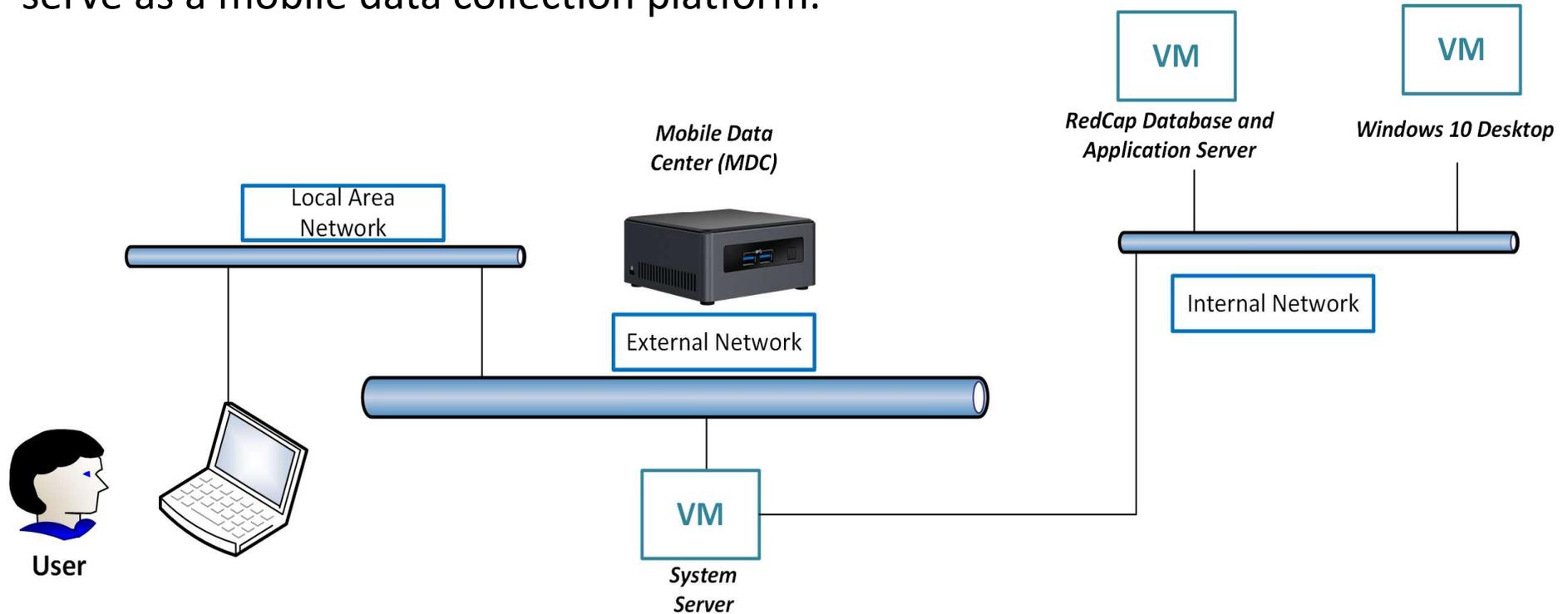
Learning Objectives

On successful completion of this module, you will:

- Learn what the Mobile Data Center (MDC) is composed of
- Find instructions on how to set up the MDC

Overview

The MDC is composed of various hardware and software components configured to serve as a mobile data collection platform.



Outline

The following is a breakdown of the key components of the MDC platform

- 1 Hardware devices
- 2 Internal network configuration (virtual machines)
- 3 Local area network configuration (wireless router)
- 4 Wide area network configuration (internet)

1 Hardware devices



Intel NUC



Wireless router



Laptop



RJ45 Connectors

2

Internal network configuration (virtual machines)

Preconfigured Static IP addresses

- **192.168.0.254 (Intel NUC (MDC))**
 - Hypervisor (ESXi Virtualisation)
- **192.168.0.1 (System server)**
 - AD, Fileserver, Firewall
- **192.168.0.4 (RedCap server)**
 - Database and Application Server
- **192.168.0.8 (Windows 10 Desktop)**
 - Client PC

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Local area network configuration (wireless router)

Logging-in

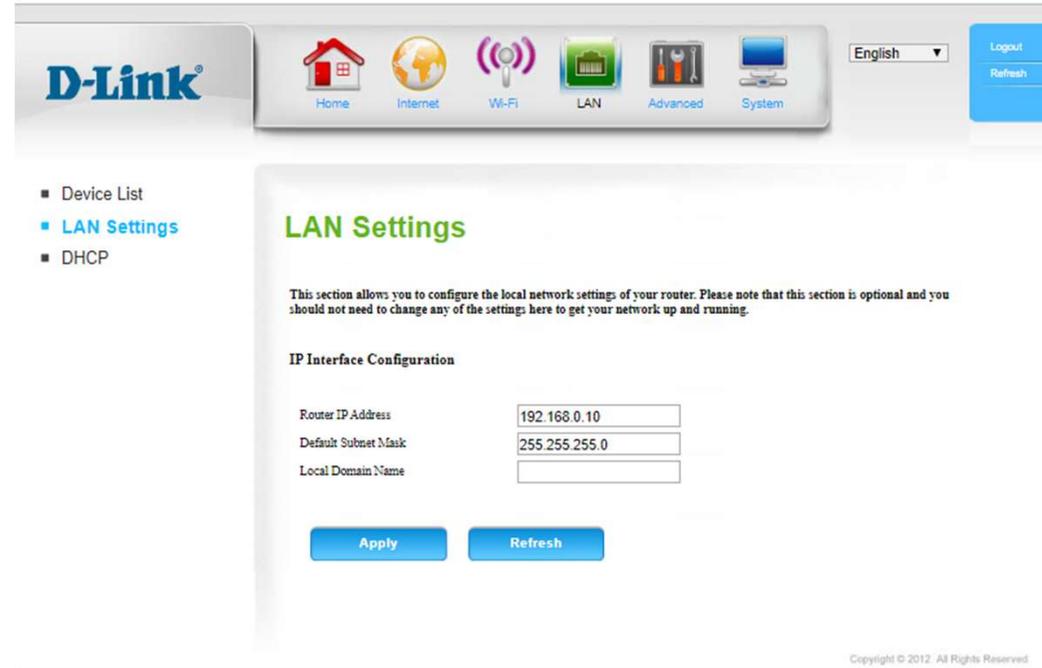
- Open the router configuration page by opening a browser and typing <http://192.168.0.10>
- Enter the correct credentials under the Username and Password fields and click the Login button

Local Area Network (LAN) Configuration

➤ Click the LAN tab on top of the page followed by clicking the LAN Settings on the left

➤ Set the Router IP Address to 192.168.0.10 and Default Subnet Mask to 255.255.255.0

➤ Click the Apply button to save



The screenshot shows the D-Link router's web interface. At the top, there is a navigation bar with icons for Home, Internet, Wi-Fi, LAN, Advanced, and System. The LAN tab is selected. Below the navigation bar, there is a sidebar menu with options: Device List, LAN Settings (highlighted), and DHCP. The main content area is titled "LAN Settings" and contains a warning message: "This section allows you to configure the local network settings of your router. Please note that this section is optional and you should not need to change any of the settings here to get your network up and running." Below the warning, there is a section for "IP Interface Configuration" with three input fields: "Router IP Address" (192.168.0.10), "Default Subnet Mask" (255.255.255.0), and "Local Domain Name" (empty). At the bottom of the configuration section, there are two buttons: "Apply" and "Refresh".

DHCP setup

- Navigate to the DHCP configuration page by clicking DHCP on the left of the page
- Click the Enable DHCP Server checkbox. Enter 100 and 150 into the DHCP IP Address Range fields. Set the DHCP Lease Time to 86400 (default)
- Click the Apply button to save
- Set the Primary DNS IP Address to 8.8.8.8
- Click the Apply button to save

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Wide area network configuration (internet)

The router must be configured to provide internet connectivity to the MDC device. To configure the router, you can either use the sim card that is provided to each site, or connect using an existing LAN connection

D-Link Home Internet Wi-Fi LAN Advanced System English Logout Refresh

- WAN Service
 - Wizard
 - Failover
 - IPv6

WAN Service Configuration

Internet Connection Type

My Internet Connection is

4G LTE /3G Internet Connection Type

Dial-Up Profile Auto-Detection Manual

Prefer Service Type

Country

Telecom

Username (optional)

Password (optional)

Verify Password (optional)

Dialed Number

Authentication

APN (optional)

Pin Code

Reconnect Mode Auto Connect-on-demand Manual

Maximum Idle Time seconds

Primary DNS Server

Secondary DNS Server

Roaming Enable

Bridge ethernet ports Enable

NAT disable Enable

Transparent Bridge Enable

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Connecting to the internet

- Go to this link and login <http://192.168.0.10>
- Click the internet tab on the top of the page to access the WAN Service Configuration page
- Configure depending on the type of internet connection available on site
- Click Apply for the settings to take effect