

TITLE

# Thimphu-WAN Technical Overview

**Taku UEMURA**

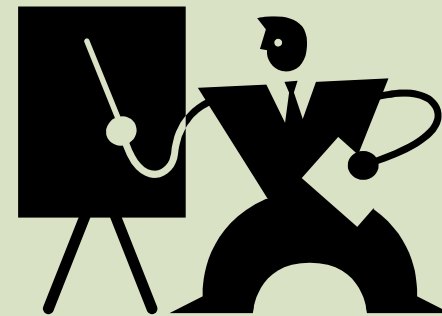
JOCV Network Engineer  
infrastructure Division / DIT / MoIC

9<sup>th</sup> August,2007

# Agenda

2

1. Brief overview of the WAN
2. Network overview
3. Provided services
4. Typical case of connection to the WAN
5. Q & A

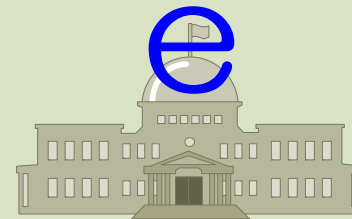


### ▶ What is Thimphu-WAN?

The Thimphu Wide Area Network (WAN) is a computer network that connects ministries and governmental corporations in Thimphu.

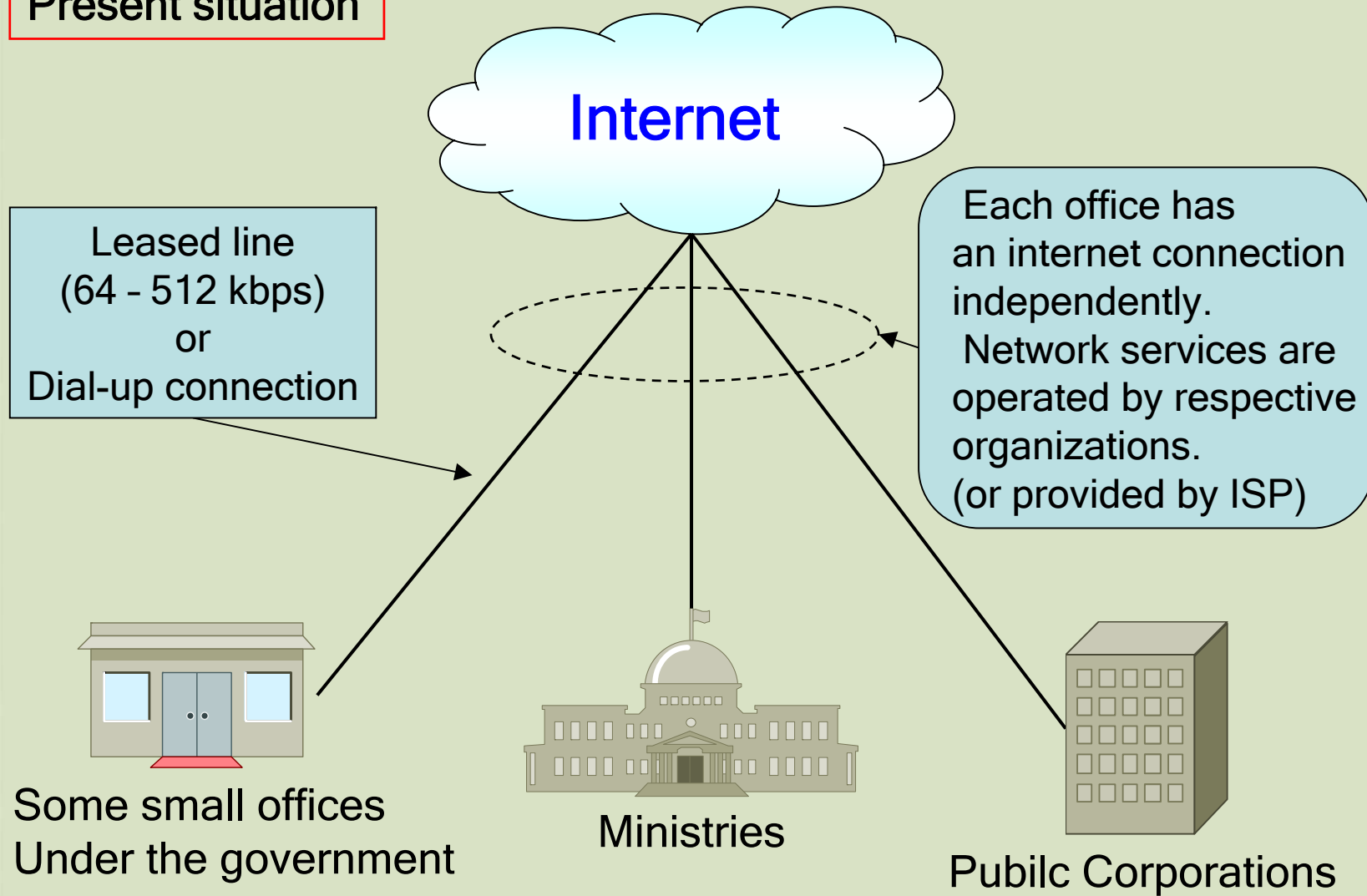
### ▶ What is the purpose?

- To improve the efficiency of communication between administrative bodies
- To be the basic ICT infrastructure to promote “e-Governance”



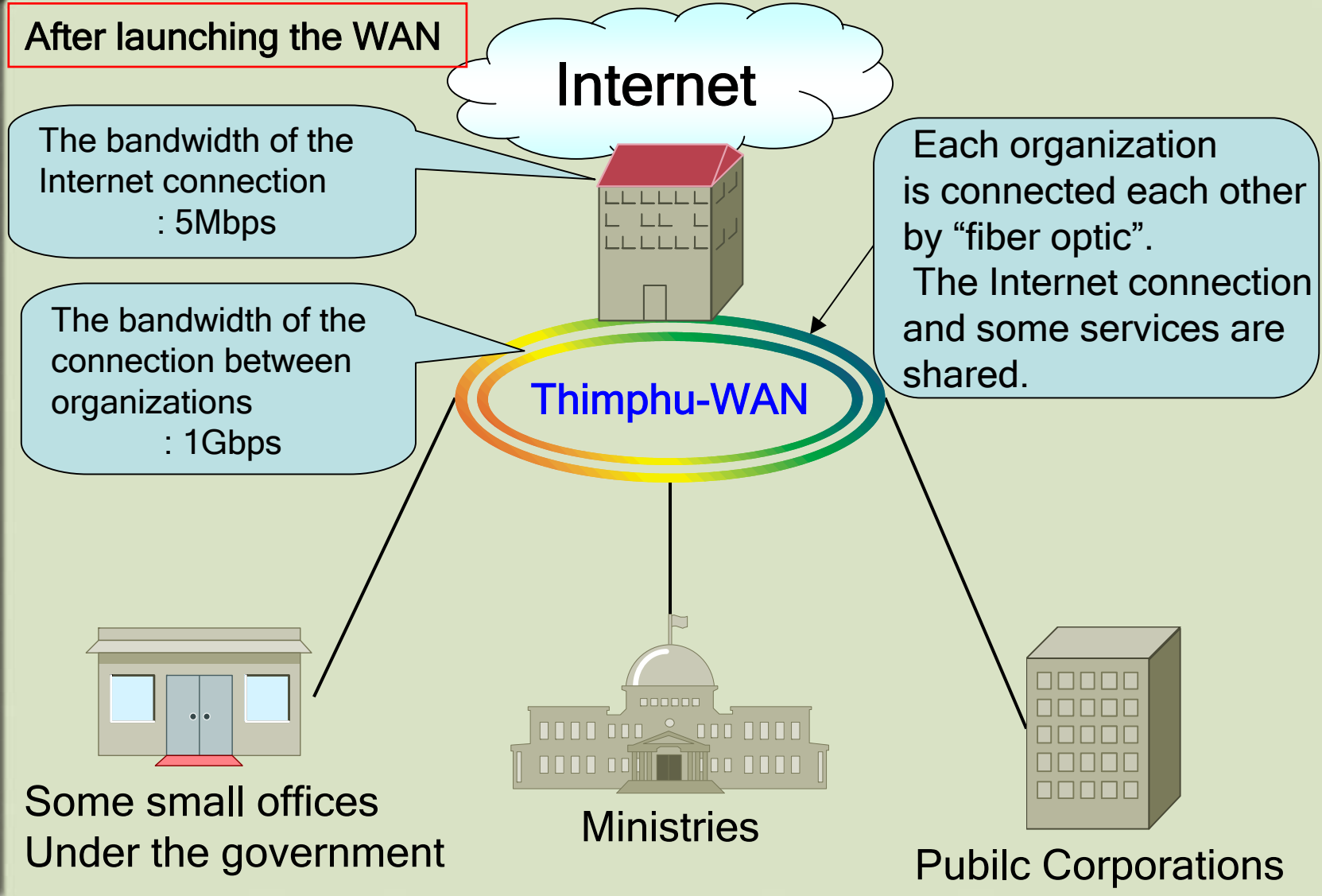
# 1. Brief overview of the WAN

## Present situation



# 1. Brief overview of the WAN

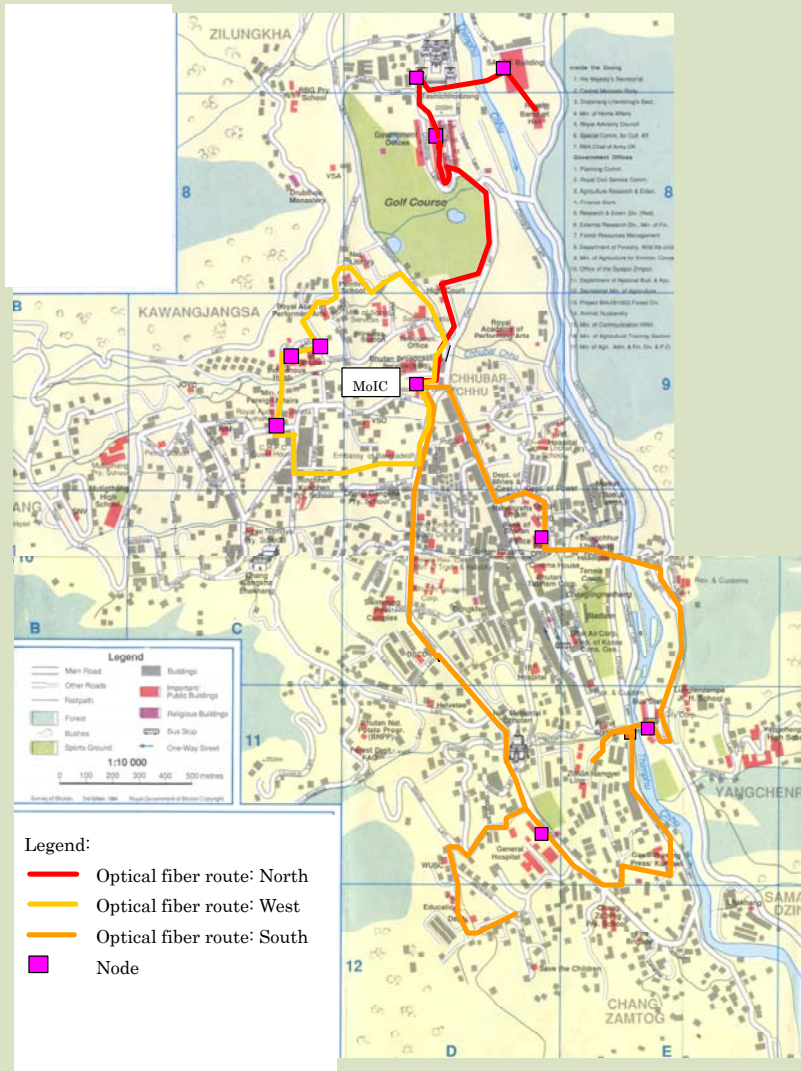
After launching the WAN



## 2. Network overview (Physical Diagram)

6

The Thimphu WAN Optical Fiber Cable Route MAP



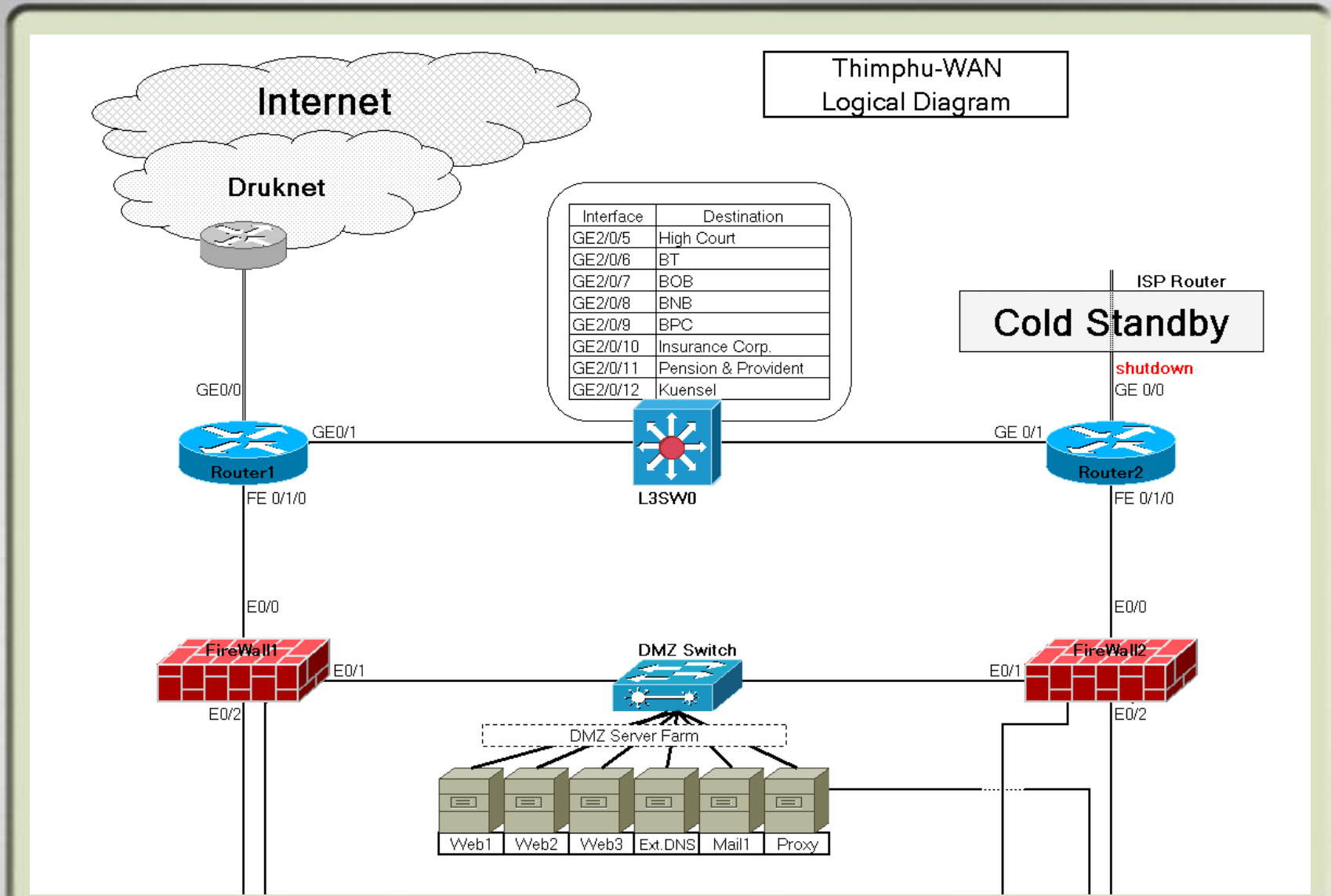
### Physical property

- North Route
  - Star topology
  - Node: **MoHCA, MoA, MoFA**
- West Route
  - Loop topology
  - Node: **MoE, MoH, MoLHR**
- South Route
  - Loop topology
  - Node: **MTI, JDWNR, RSTA, MoWHS**
- Remote Area
  - Connection with BPC fiber
  - Node: **BTF**(Taba Area)  
**RIM**(Semtokha Area)



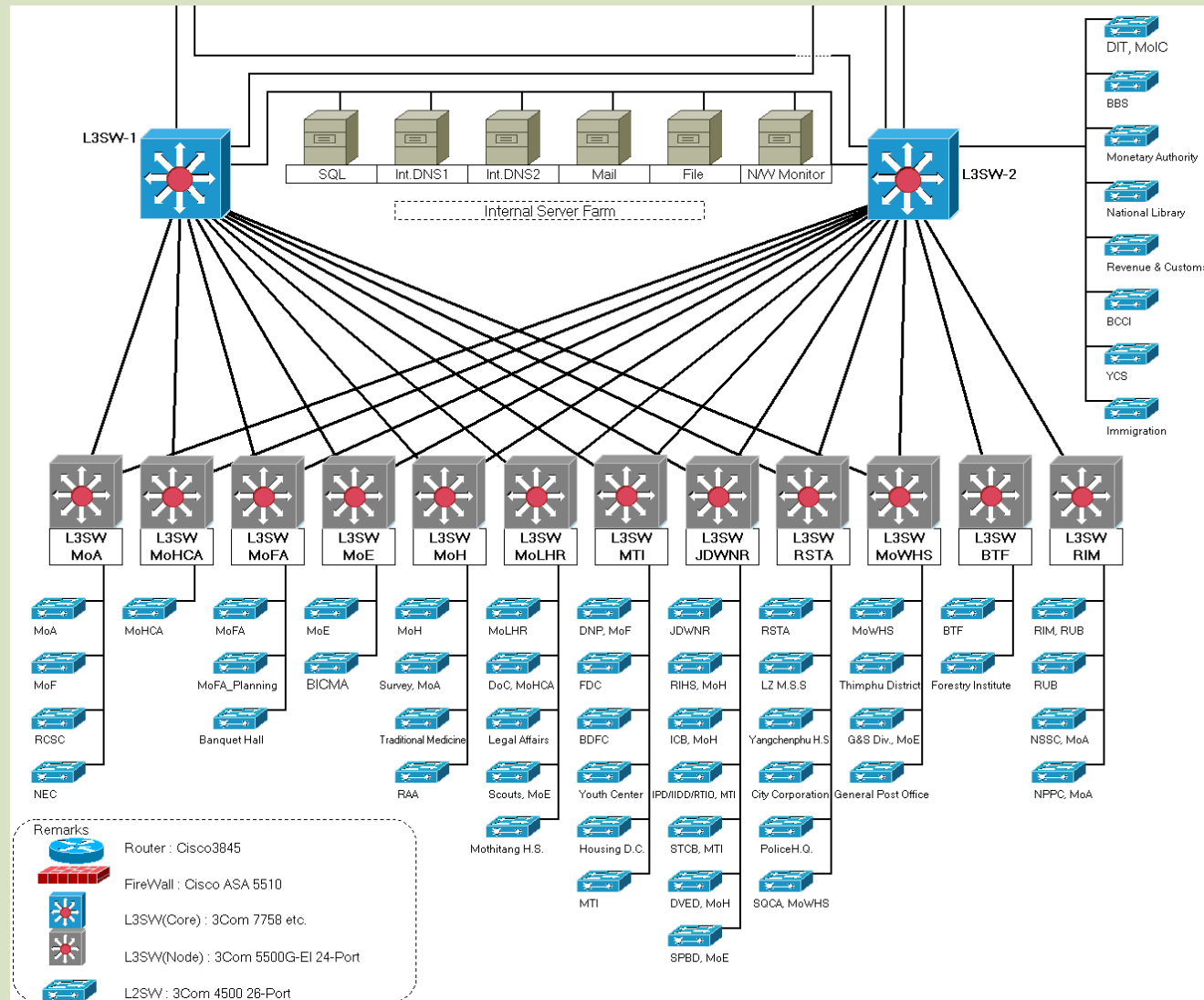
## 2. Network overview (Logical Diagram)

8



## 2. Network overview (Logical Diagram)

9



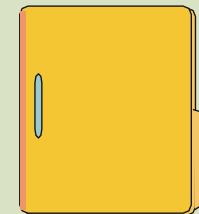
### ▶ Services for the Internet

- DNS for Internet
- Web browsing
- WWW hosting
- Mail transfer



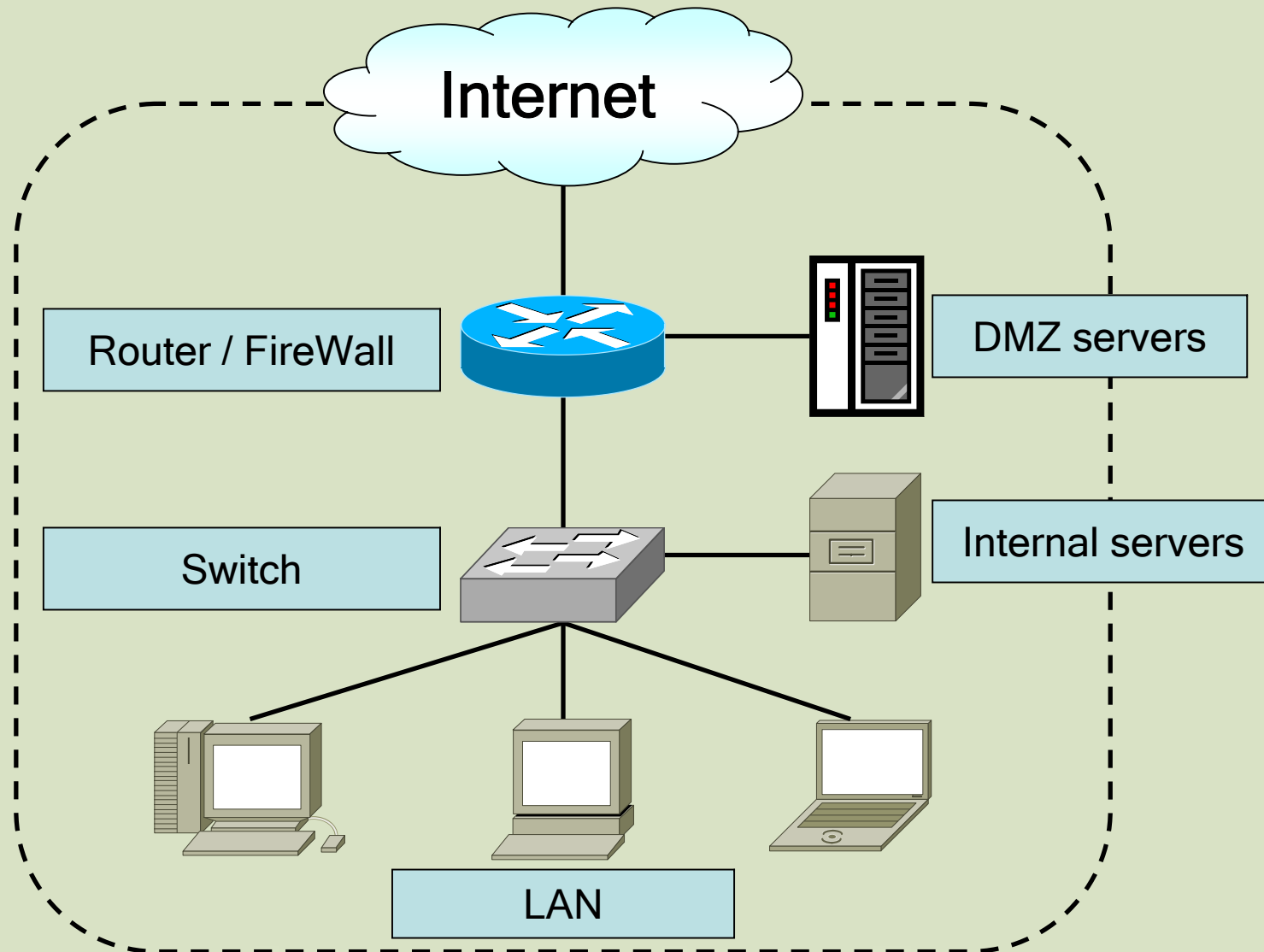
### ▶ Services for the Intranet

- DNS for Intranet
- File sharing
- Time synchronization
- Windows update (in preparation)



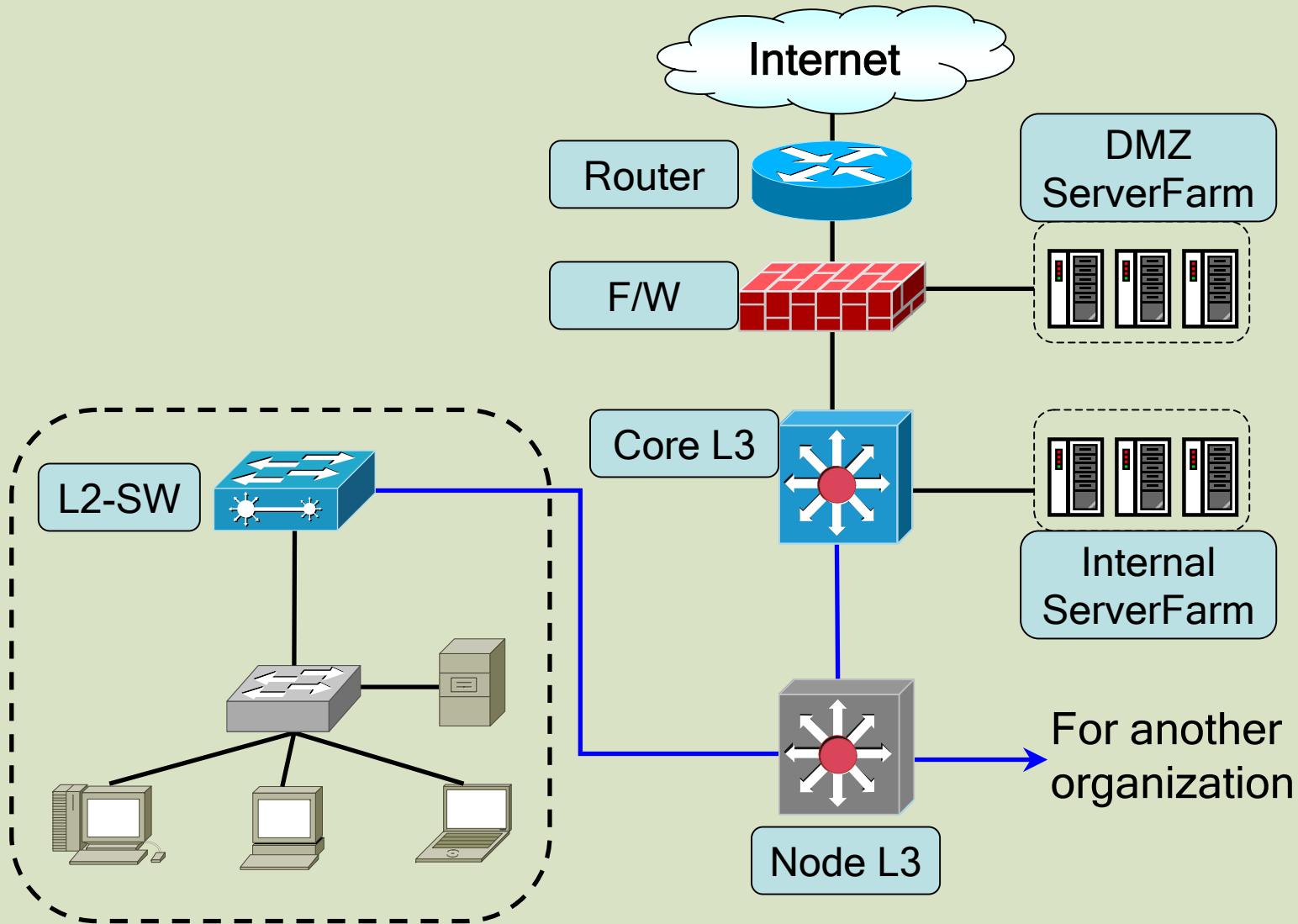
## 4. Typical case of connection to the WAN

11



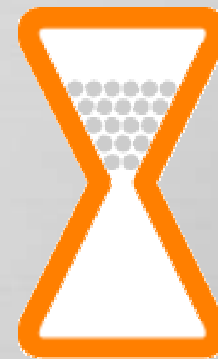
## 4. Typical case of connection to the WAN

12



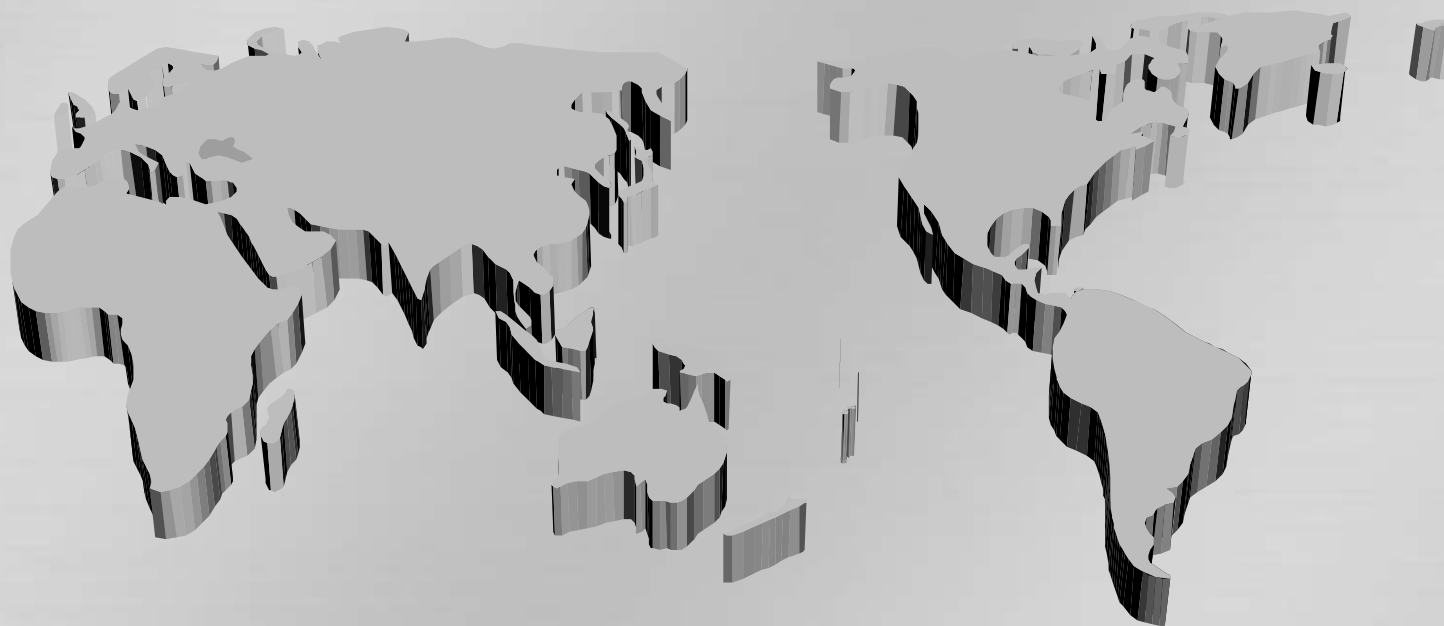
Do you have any questions?

13



Thank you for your attention

14



Presented by *Taku UEMURA*  
[tuemura@dit.gov.bt](mailto:tuemura@dit.gov.bt)

Thimphu-WAN Technical Overview