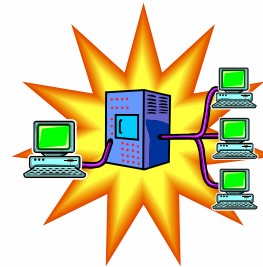# UMSATIC (Information and communication Technologies in the UMSA)

umsatic
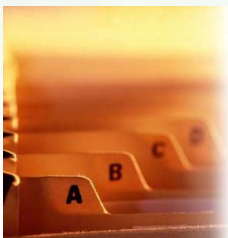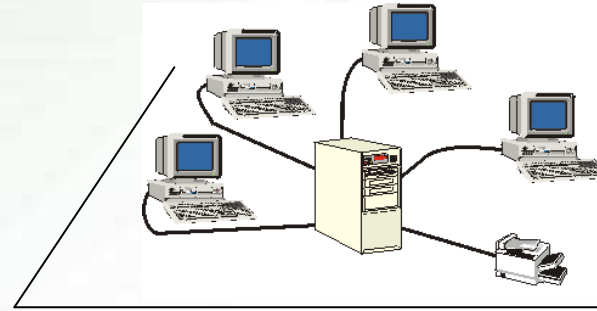
E-Learning

Network
Infraestructure

Information
Systems

Development of
Libraries

General

Provide to the UMSA the means and technical resources to support, optimize its main and internals process.

UMSATIC is now a Department of the UMSA called DTIC (ICT Department) that is in charge of the maintainance and implementation of the Network University.
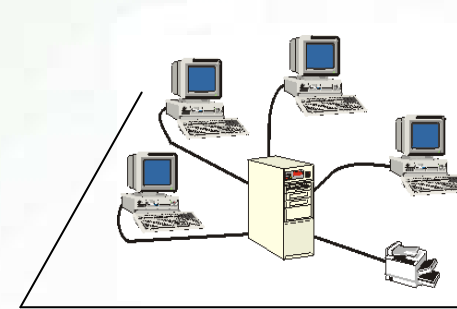
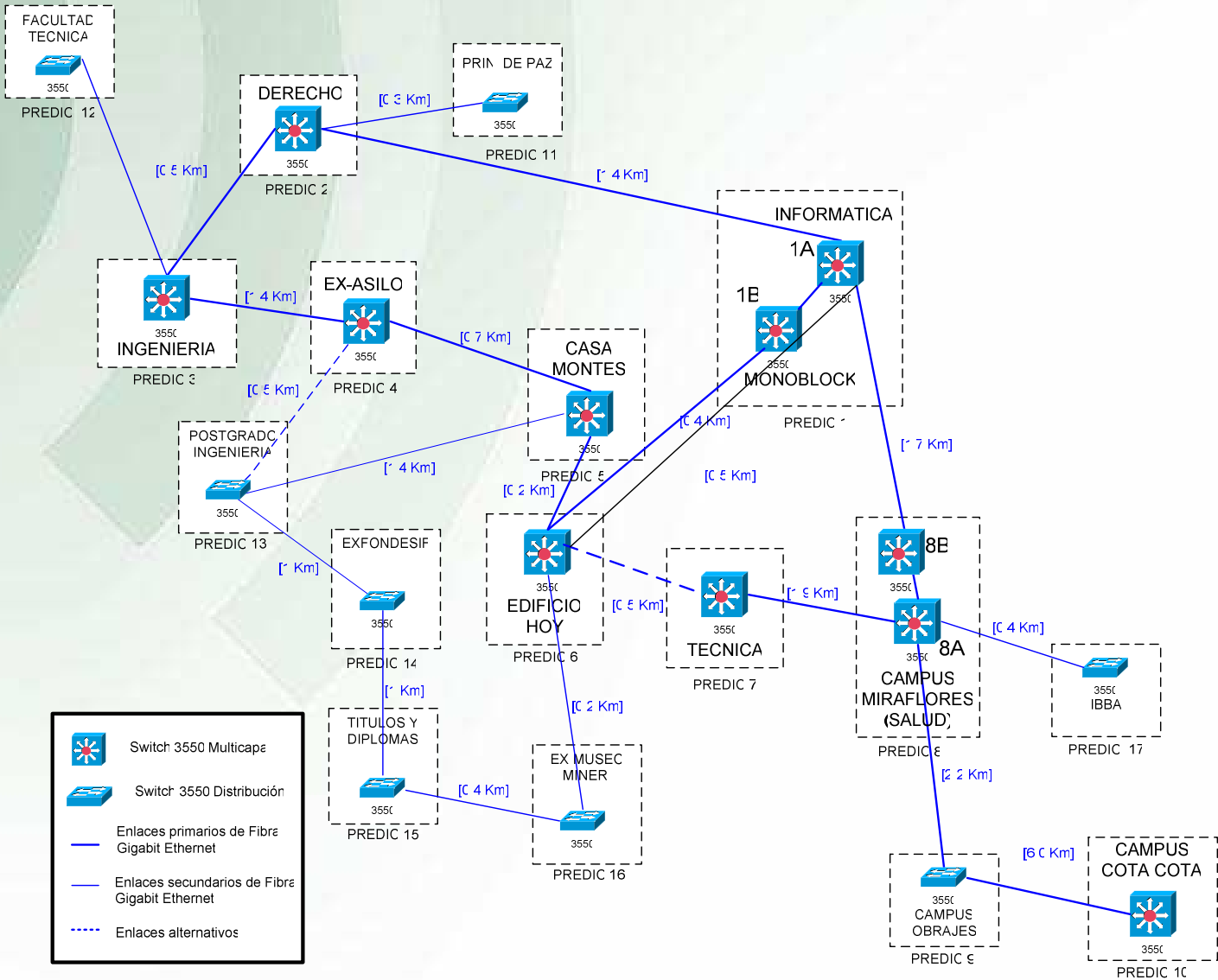# Network Infraestructure

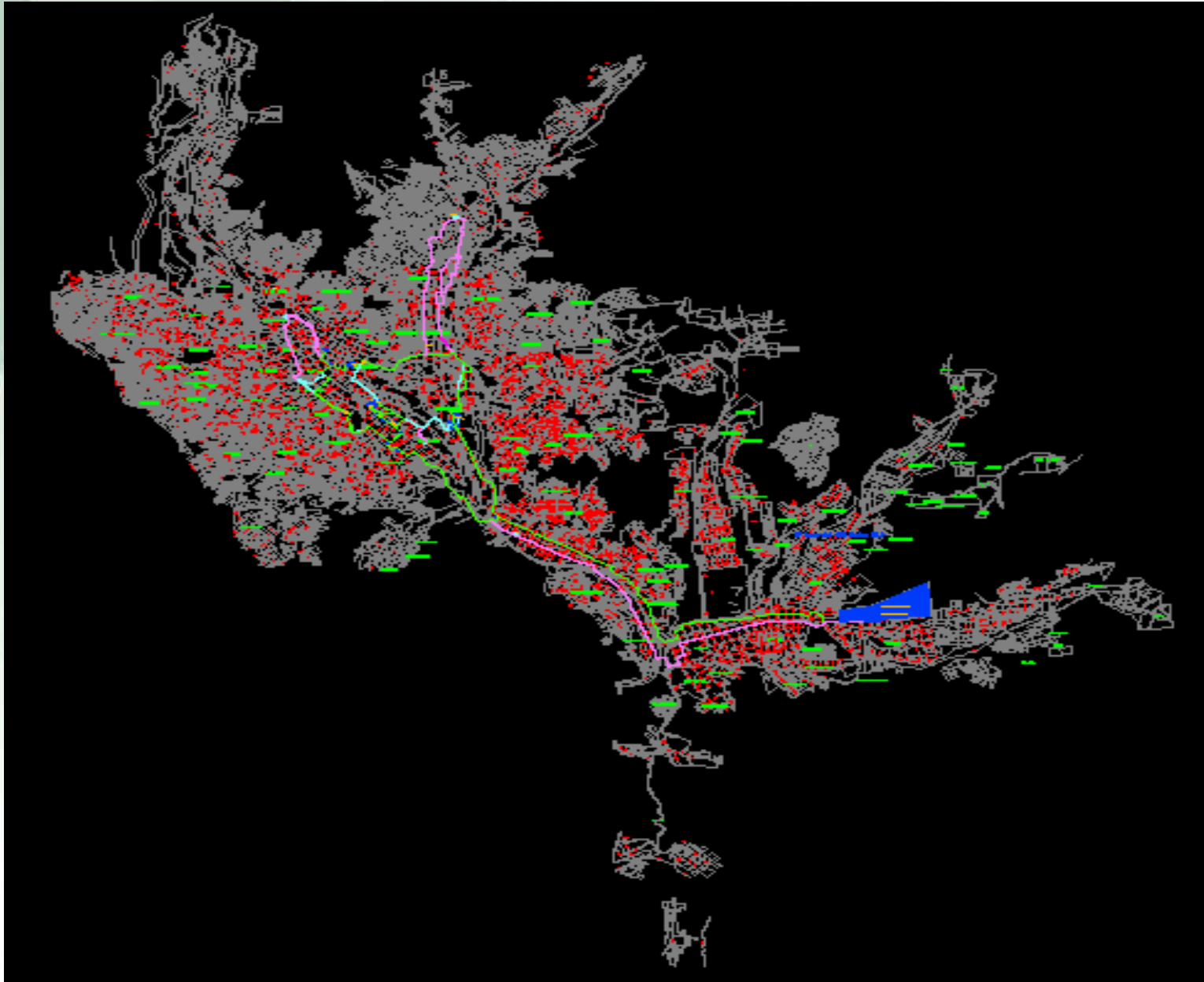# LAN and Backbone

La Paz - Bolivia

Network

- His purpose is to integrate the severals university campus of the UMSA through its ICT UNITS. Each LAN network is connected by the Optic Fiber backbone, allowing the acces to the required information. The University has 23 campus separated geographically.
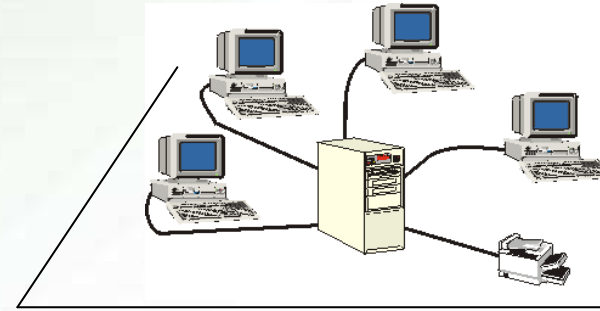
EQUIPMENT AND DISTRIBUTION

UMSA BACKBONE

Next Steps

- Growing of the backbone including new campus.
- Connection to wireless equipment to expand the reach of the university connectivity to some careers.

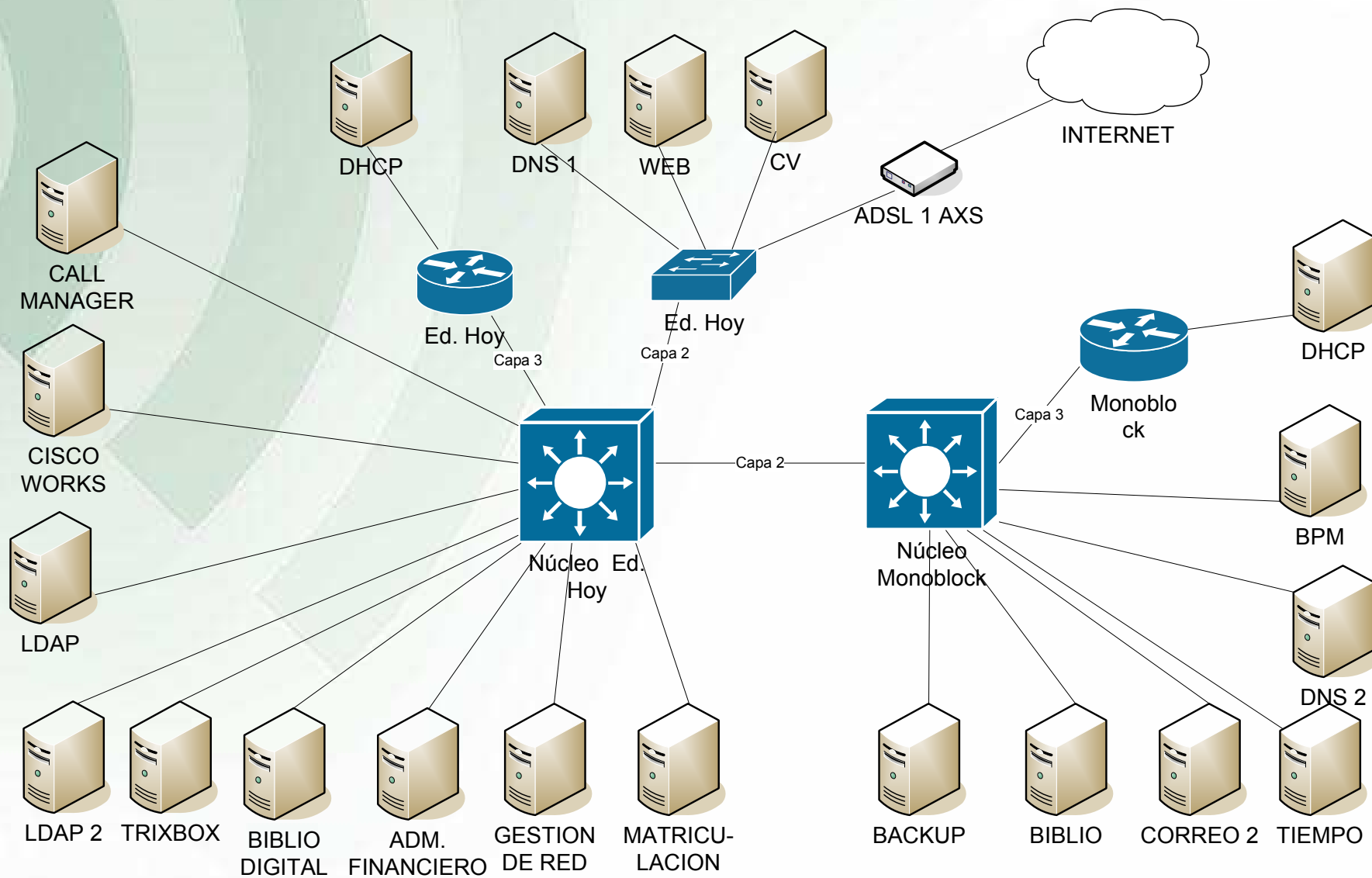# Network Infraestructure

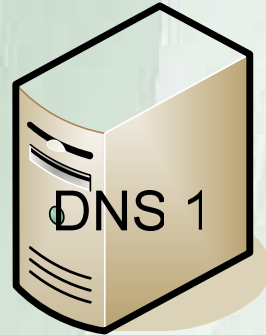# Networkd Services

La Paz - Bolivia

Network Services

- DNS
- Institutional WEB and internal WEB Hosting
- E-Mail
- NTP
- E-learning Systems
- Free Software Mirror
- AAA System
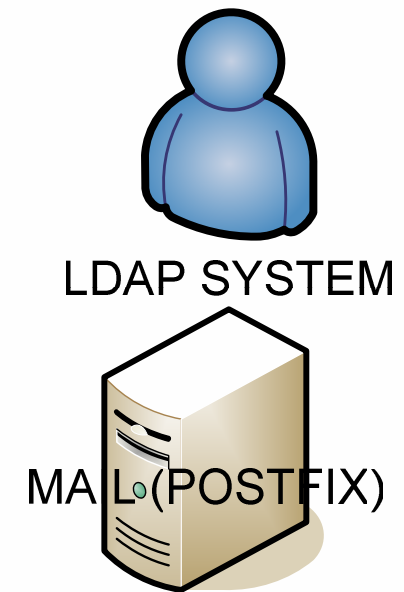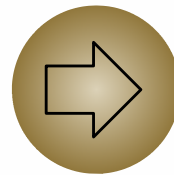- Network Management
- Voip Service
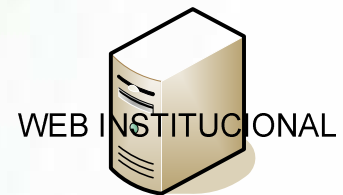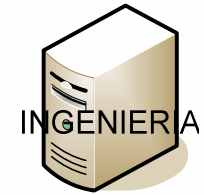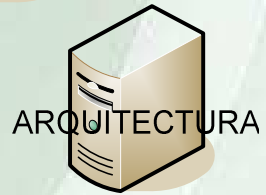
Servers

DNS

DNS 1

DNS 2

- Considering its importance the DNS servers are separated geographically, DNS 1 is acting like primary and DNS 2 is working like a secondary server. The UMSA's domain is umsa.bo

Mail System

LDAP SYSTEM

MAIL (SENDMAIL)

MAIL (POSTFIX)

WEB

HUMANIDADES

ODONTOLOGIA

CIENCIAS PURAS

MEDICINA

ARQUITECTURA

SOCIALES

INGENIERIA

WEB INSTITUCIONAL

WEB II

ODONTOLOGIA

CIENCIAS PURAS

FARMACIA Y BIOQUIMICA

ARQUITECTURA

TECNICA

DERECHO

HUMANIDADES

SOCIALES

INGENIERIA

MEDICINA

AGRONOMIA

GEOLOGICAS

ECONOMIA

WEB INSTITUCIONAL

PAGINAS WEB PERSONAL

SERVICIO LDAP

WEB SERVICES

STORAGE SYSTEM

Actualizaciones y Mirror

REPOSITORIO DE ACTUALIZACIONES Y MIRROR

SERVIDOR 1   SERVIDOR 2   SERVIDOR 3   ……………...   SERVIDOR N

Sistema AAA

Network Management

SISTEMA LINUX

- OpenNMS Monitoreo y control de servidores SNMP.
- Ticketing systems
- Generador de Alarmas.
- IDS

WINDOWS

- Activación de Cisco Works.

Next Steps

- Implementation of virtual servers for Investigation institutes and careers.