

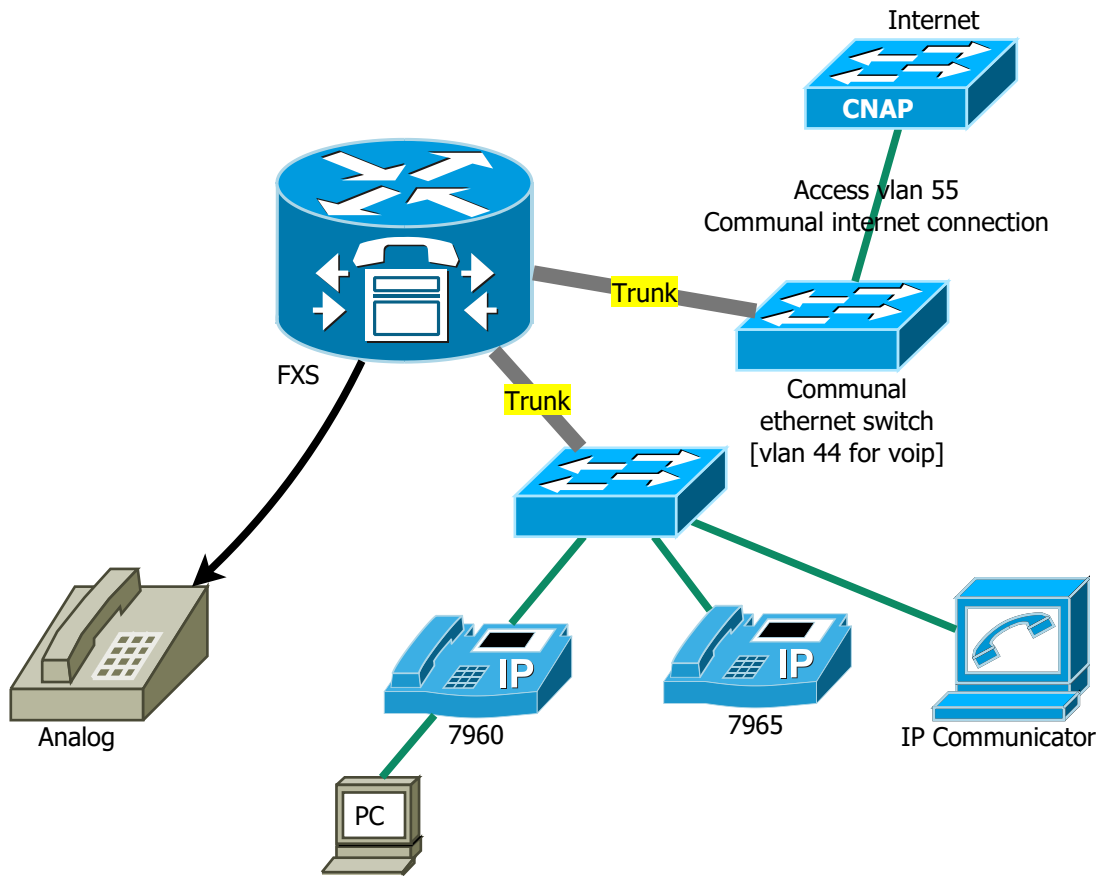
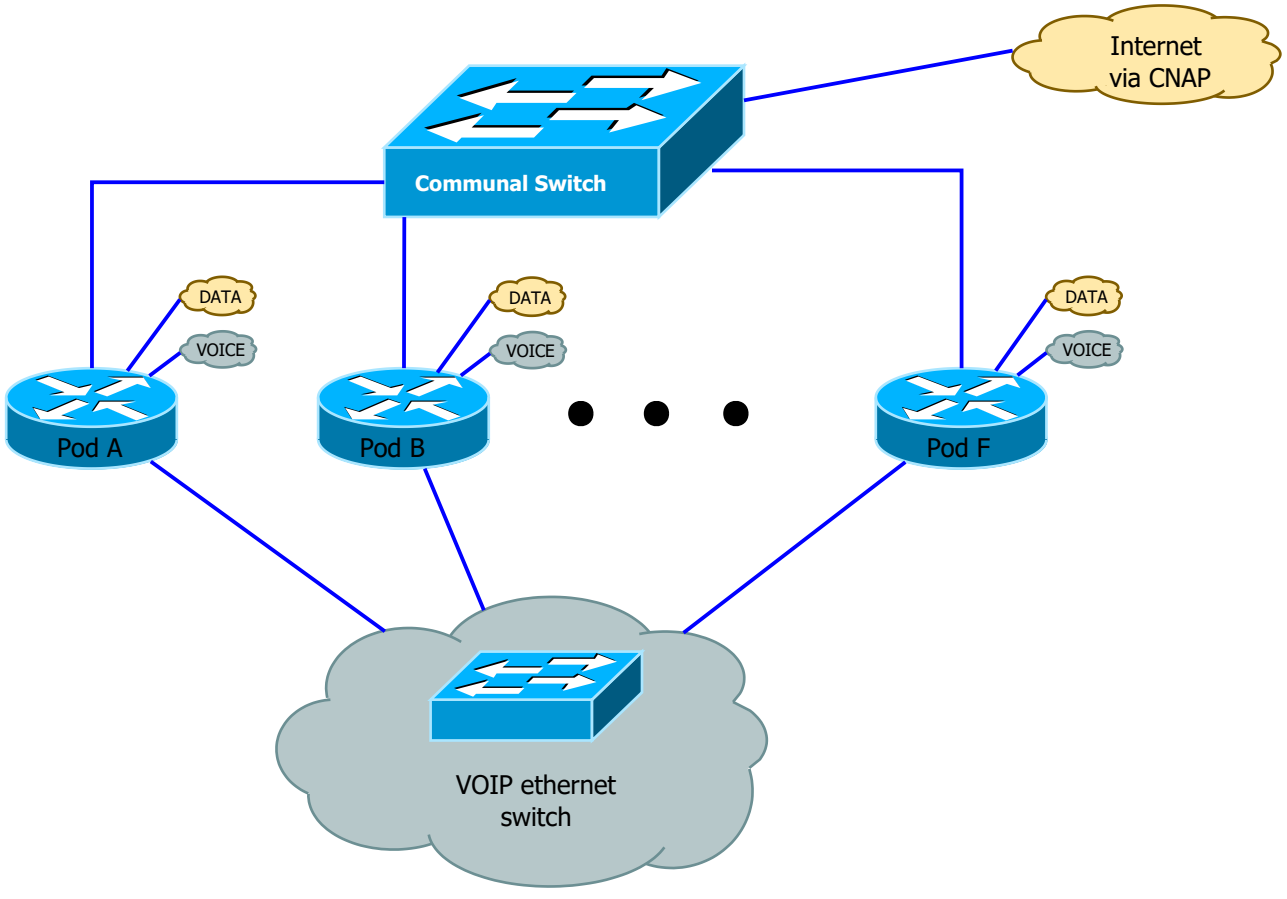


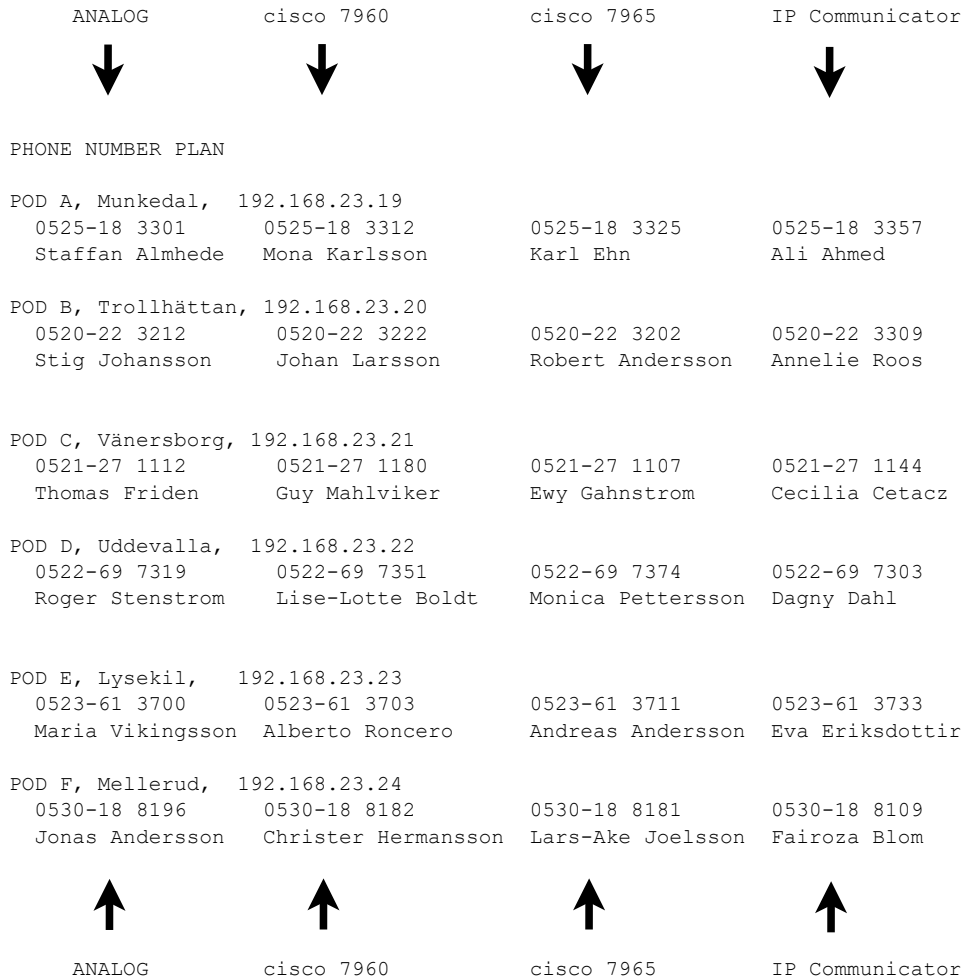
IP Telephony

SKILLS EXAM

Version 1, 2016
(c) Robert Andersson

Max time: 90 Minutes





IP NUMBER PLAN

Pod	Town	External VOIP IP	Internal IP NETWORKS
====	====	=====	=====
A	Munkedal	192.168.23.19/24	10.1.x.0/24
B	Trollhättan	192.168.23.20/24	10.2.x.0/24
C	Vänersborg	192.168.23.21/24	10.3.x.0/24
D	Uddevalla	192.168.23.22/24	10.4.x.0/24
E	Lysekil	192.168.23.23/24	10.5.x.0/24
F	Mellerud	192.168.23.24/24	10.6.x.0/24

REQUIREMENTS

- Proper phone boot process (DHCP server, TFTP etc)
- Use "ip address dhcp" (dhcp client) for router internet-connection on vlan 55
- Start the NTP-client on the router
- Using SIP: Follow the numberplan (other page) and 4 digit number to button 1 on the phones
 - Configure description on all IP phones (must use "Fornamn Efternamn")
 - Configure label on all personal 'buttons' (must use "Fornamn x1234")
 - Internally, you should use four digits for dialing extensions
- Externally you should use ten digit dialing
 - Always send 10 digit called-number to the other PBX's (num-exp)
 - [optional] Always send 10 digit calling-number to the other PBX's (translation-rule)
- Configure the analogue phone
- Configuration Professional (CCP) configuration shall work
- Configure "Directory" feature on all IP-phones
- Give 7965 and IPC the number 4444 "IT-Support" on button 2 (line 2)
It is OK if "IT-Support" can only be reachable within each town/switchboard
- Quality of Service
 - Configure trust on one of the IP-phones (one example) or
 - Configure QoS in 'voice register global' (one example)