

HotelTV

HotelTV Installation Prerequisites

REV A0.2

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1. Revision History

Date	Owner	Version	Reason & Change
15 October 2014	Eren ULUCAN	A0.2	Initial Creation

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4. Introduction

This document contains installation of HotelTV / HotelTV2's physical requirements and network configuration details. Bu belge, HotelTV / HotelTV2 kurulumlarının fiziksel ve ağ altyapısı ile ilgili sağlanması gereken şartlar ve bu şartların uygulanmasından önce yapılması gerekli ayarlamalar ile ilgili bilgiler içermektedir.

Abbreviations

- **IPTV** Internet Protocol Television
- **DVB** Digital Video Broadcasting
- **VOD** Video On Demand
- **VLAN** Virtual Local Area Network
- **CI** Conditional Interface

5. Structure

Vestel Hotel TV solution includes basic HotelTV system architecture, DVB-IP Gateway, VOD servers and control servers and encryption servers as seen on Figure 7-1.

All steps mentioned in chapter 6 and 7 should be made by customer.

6. Physical Requirements

Control servers, switches, firewall, and all the other servers should be installed on the cabinet. All devices must be turned on.

Physical conditions on system room should be met the necessary conditions to make sure system components work reliable.

1. All TVs physical installations, electricity and data cable installations is made.

If DVB-S and DVB-C is chosen for TV Channels, all the signal measurements should be done before TV installations. Field installation team only responsible for adding broadcasts to TV channel list.

7. Network Devices and Other Server Requirements

7.1. IP Pool

IP pool and static IPs for servers are written below:

- **General IP Pool**
10.0.0.0/16
- **TVs**
10.0.(floor number).(room number)/16
10.0.3.5/16 (IP address of room 305)
- **Core Switch**
10.0.0.201
- **Side Switches**
10.0.0.202-10.0.0.203-10.0.0.204 - ...
- **Güvenlik Duvarı**
10.0.0.254
- **Main and Backup Control Servers**
10.0.0.251-10.0.0.252
- **IP Streamer Servers**
10.0.0.231-10.0.0.232-10.0.0.233 - ...
- **VOD Server**
10.0.0.241
- **VMX Server**
10.0.0.250

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7.2. Switch

Core Switch : Devices which are necessary for Vestel HotelTV are plugged this device.

- Firewall
- Control Servers
- IP-Streamers
- VOD and VMX Servers
- Side Switches

Side Switch : TV's data cables are plugged this switches which are located in every floor.

1. Every side switch must be connected to Core switch with Gigabit Ethernet port (1000Mbps). (Under 75m CAT-5/6 cables can be used but for longer distances Fiber optic cables are necessary).
2. Depends to the topology if there is a necesseraty to connect to switches, this connection must be done with Gigabit Ethernet Ports.
3. All of the data cable installations must be done for making TVs are able to connect to control servers.
4. Seperation of IPTV and Hotel Data networks with VLAN and IP Pool seperation methods is improve network performance and blocks unnecessary network traffic.

7.3. Firewall

1. Port 0 on Firewall must be connected to hotel network. Firewall is connected through with this port and remote accesses(L2TP VPN) will be routed to IPTV network.

2. For L2TP VPN connection is making alive necessary port routing in hotel networj must be done. For this TCP & UDP 1701/500/4500 ports are must be routed firewalls 0. port.
3. 6. Port on the firewall should be connected to Core Switch for completing connection of IPTV system.

7.4. Control Server

1. First ethernet port on the control server connected directly to hotel network.
2. Second ethernet port on the control server connected to Core switch so server is included to IPTV network.

7.5. IP-Streamer Server

1. Two ethernet port on the device must be connected to IPTV network.
2. The Coaxial cables comes from multiswitch is connected to IP-Stramers inputs.

7.6. VOD ve VMX Server

1. Ethernet ports on the devices should be directly IPTV network.

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ADDITION-1 : SYSTEM ARCHITECTURE

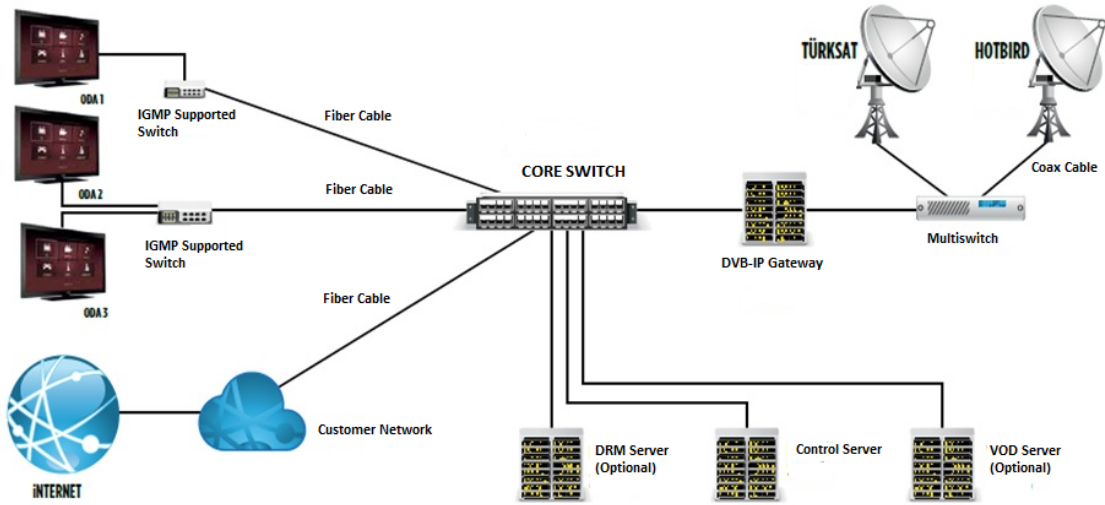


Figure 0-1: HotelTV System Architecture

- **HotelTV Control Server** : Control server holds HotelTV servers main programs, menus on databases, customer informations and room informations.
- **Switch** : It is a network device which makes the connection between TVs and control devices via Internet Protocol. IGMP supported switches make available IP Broadcasts.
- **Güvenlik Duvarı** : Makes VPN connection and provides secure internet connection for IPTV devices. In standard Juniper SSG5 series devices are used.
- **VOD Sunucusu** : Broadcasts video with RTSP protocol on demand. It contains MPEG2 and H264 encoded video with Transport Stream. They can be Standard Definition and High Definition.
- **DVB-IP Streamer** : It takes DVB-S TV signals and converts to Internet Protocols and broadcasts on network. Encrypted TV broadcasts can be decrypted with added CI modules.
- **Encryption Server** : This server encrypt video contents which on HotelTV system to make them can only be watched on Vestel IPTV. Every TV depends on encryption type have global key and use it for handshaking with encryption server.

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