
CEDIA and the Digital Home

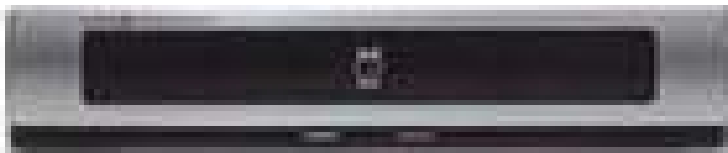
Gordon van Zuiden
Founder, cyberManor
IEEE Santa Clara Valley
Consumer Electronics Society
September 23, 2008



Seminar Overview

- Electronic Home Entertainment and Control Basics
- Infrastructure Requirements
- Control Devices
- Copyright/Digital Rights Management (DRM)
- Case Study

Real-Life Scenario



Home Irrigation Control

HomeLogic Java Tablet

System Mode: Off Run Program Manual

Zone Status: All Zones Off

Morning Period Schedule

Morning Period Start Time: 9:00 PM [Clock]

Zone	Base Time	Application Time
Patio Plants	7 Minutes	7 Minutes, 0 Sec
Street Plants	15 Minutes	15 Minutes, 0 Sec
Master Bedroom R...	10 Minutes	10 Minutes, 0 Sec
Azaleas	10 Minutes	10 Minutes, 0 Sec
Dog Run	6 Minutes	6 Minutes, 0 Sec
Michele's Roses	20 Minutes	20 Minutes, 0 Sec
Golf Course Plants	5 Minutes	5 Minutes, 0 Sec
Pool Plants	7 Minutes	7 Minutes, 0 Sec
Entry Plants	9 Minutes	9 Minutes, 0 Sec

Days to Water Plant: Days in Month Days of Week Every Day Skip Days

Mon Tue Wed Thu Fri Sat Sun

iControl Portal

Address <https://portal.icontrol.com/myhome/summary/summary.jsp>

VanZuiden Residence Welcome Gordon VanZuiden! | Thursday, Jun 8 | [Sign Out](#)

Summary Notifications Automations Schedules System

History QuikControl Mode ? My Account

Status

Away Mode

Current States

Motion Sensor	Empty
Front Door Sensor	Closed
Back Door Sensor	Closed
Lamp Light Level	100%

Pictures

Alarm History

Recent Alarms

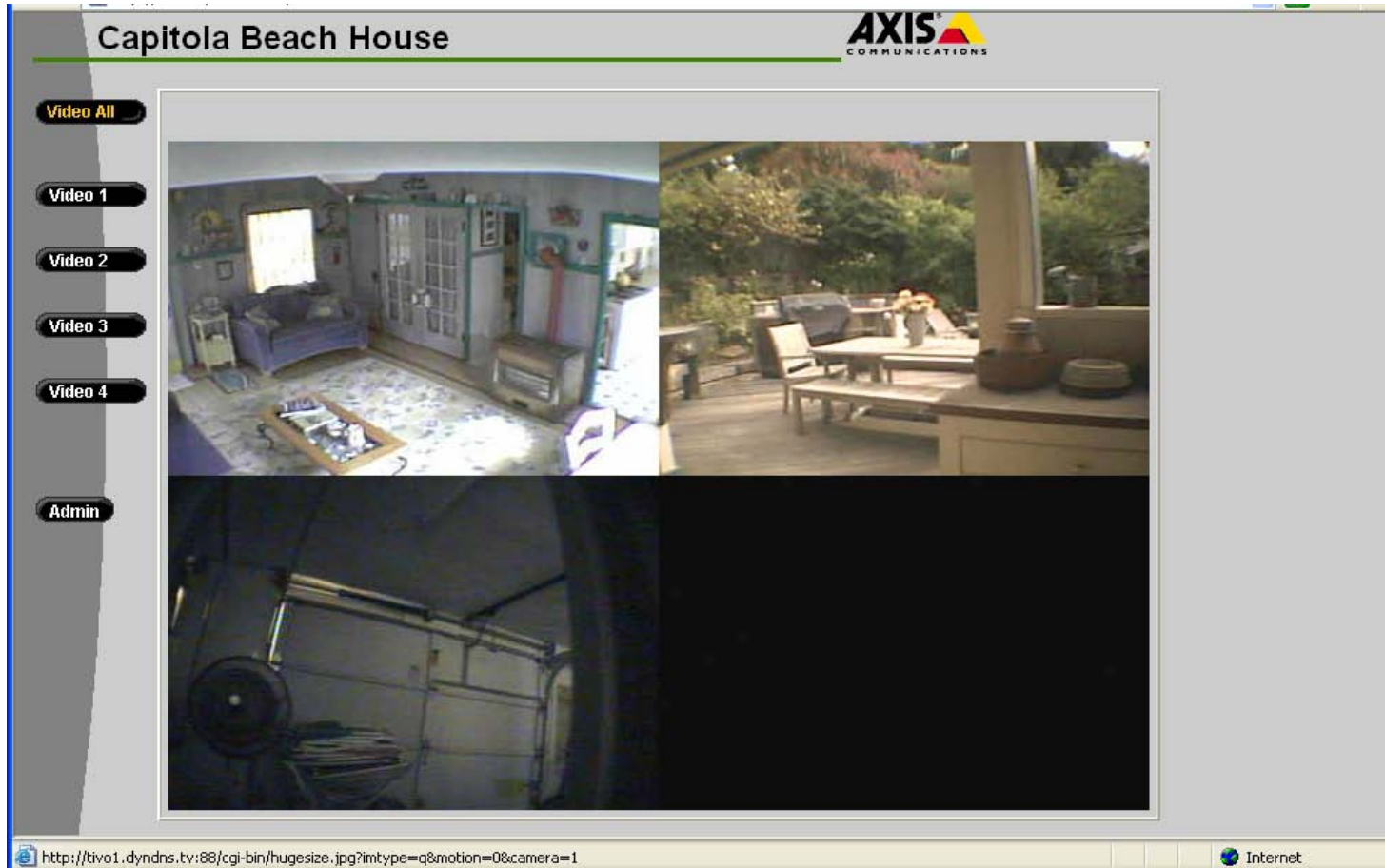
- Yesterday at 5:00 PM - Camera
- 6/6 5:00 PM - Camera

Today's Schedule


5:00 PM	Take a picture daily
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Check out the new features in the My Account button and support for new devices such as Thermost.

IP Camera Interface



Google Portal



Web [Images](#) [Groups](#) [News](#) [Froogle](#) [Maps](#) [more »](#)



Google Search I'm Feeling Lucky

Bookmarks [edit](#) [x](#)

- [Allstate Insurance Policies](#)
- [Beach House Cameras](#)
- [Beach House Control](#)
- [Beach House Deck Camera](#)
- [Beach House Hot Tub](#)
- [Beach House Weather Forecast](#)
- [Birthdays and Anniversaries](#)
- [BofA Checking](#)
- [Capitola Beach House](#)
- [CEDIA 2005 Courseware](#)
- [Citibank Balance](#)
- [Courtside Reservations](#)
- [cyberManor FTP](#)
- [Directions](#)
- [eBay Capitola](#)
- [Friends and Family](#)
- [Gordon's Email](#)
- [GoToMyPC](#)
- [HealthTech Email](#)
- [Home Thermostat/Sprinkler](#)
- [House Call Virus Scanner](#)
- [IP Home Phone Portal](#)
- [Local Movies](#)
- [Local TV Guide](#)
- [Los Gatos High](#)
- [Michele's Email](#)
- [Passwords](#)

Weather [edit](#) [x](#)

[Los Gatos, CA](#)
55°F
Scattered Clouds
Wind: S at 5 mph
Humidity: 77%

Today	Fri
	
74° 51°	72° 50°

Stock Market [edit](#) [x](#)

AAPL	57.96	-0.60	(-1.03%)
CSCO	19.54	-0.37	(-1.86%)
EBAY	30.55	-1.36	(-4.26%)
GOOG	381.94	-4.57	(-1.18%)
MSFT	22.05	+0.01	(0.05%)
DJIA	10817.24	-113.66	(-1.04%)
NASDAQ	2110.62	-41.18	(-1.91%)

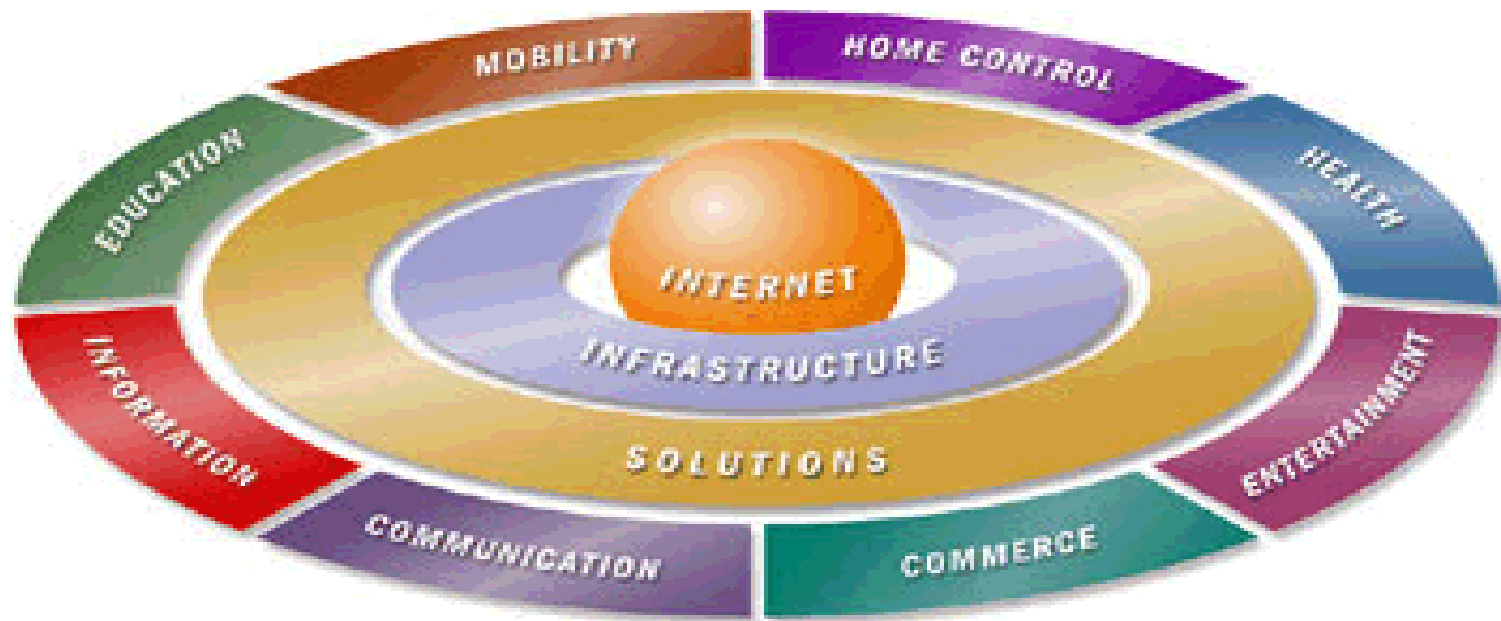
Delayed at least 15 minutes unless otherwise indicated. [Disclaimer](#)

Word of the Day [edit](#) [x](#)

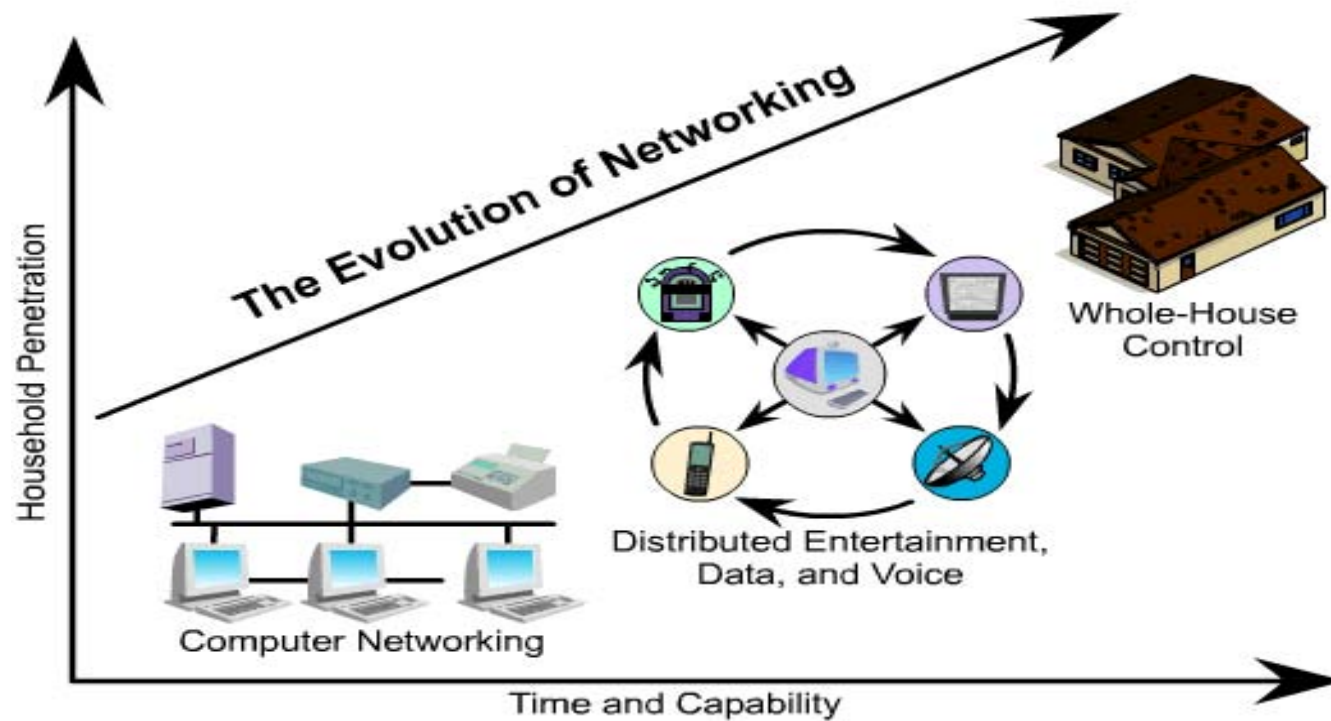
[arbitr](#): one having the power of judging and determining.

[paucity](#): fewness; insufficiency.

Applications That Fuel Home Networking Demand

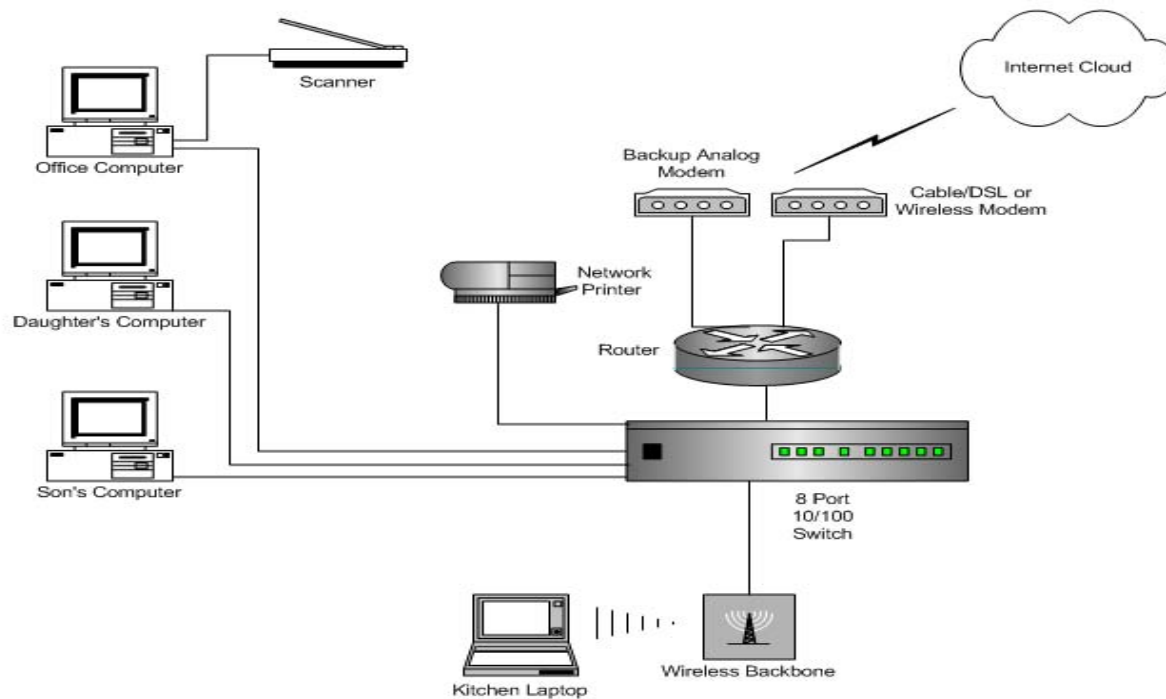


Evolution of A/V/Data Solutions



Yesterday's Basic Home Network

circa 2002



The Digital Media “Big Bang”



**Digital
Cameras**

Music

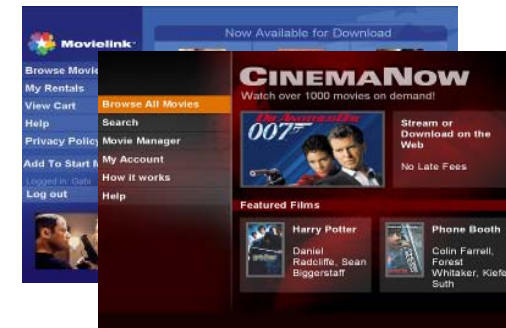


Digital Satellite/Cable TV

Personal Computers



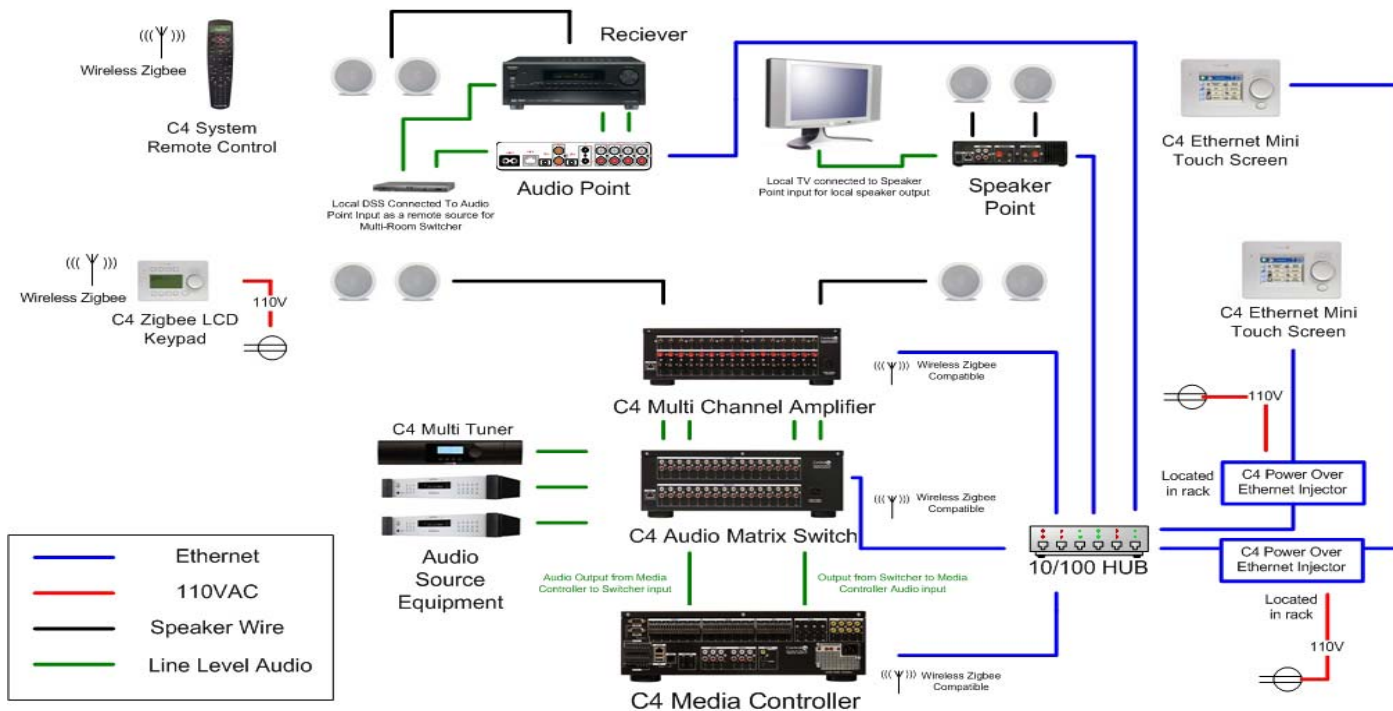
Physical Media



Internet Movie Services

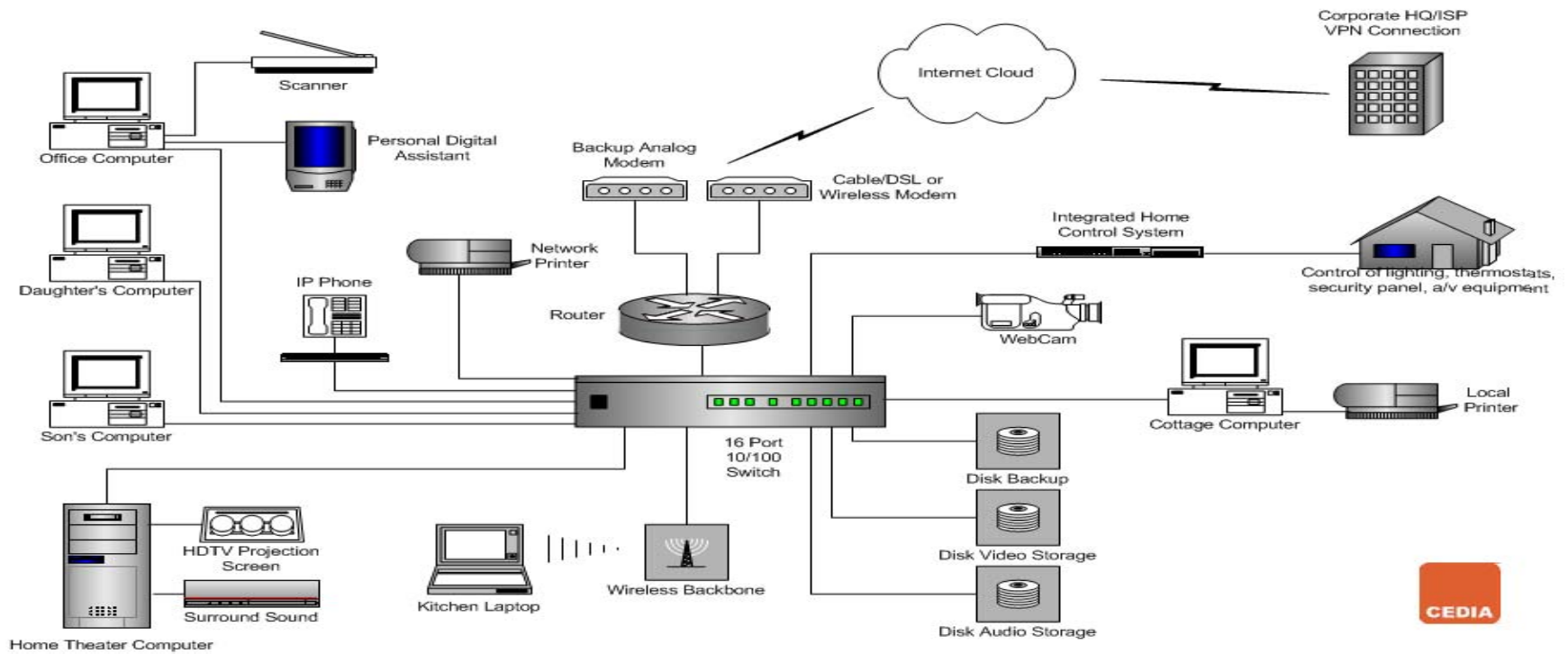
IP-Wired Audio Network

Wired Distributed Audio



Today's Integrated IP-Based Home Network

circa 2008



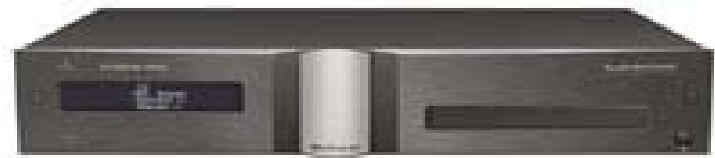
Entry Level A/V Receivers (<\$350)



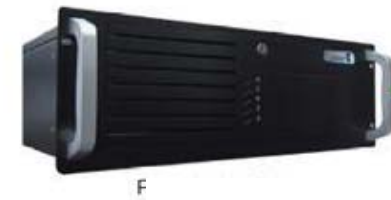
Digital Music Player for home networks
Play your digital music collection from anywhere in your home.



Mid-level Network Media Servers (\$1K - \$5K)



High-End Media Servers (> \$5K)



Control Devices

- Universal handheld button-based or touch-screen remote controls
- In-wall button or touch-screen controls
- On-screen displays controllable by a handheld remote
- Personal Digital Assistants/Web-enabled phones

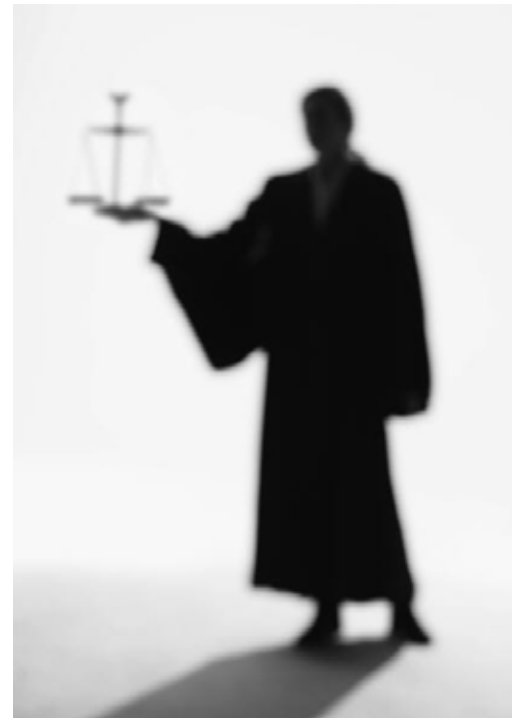
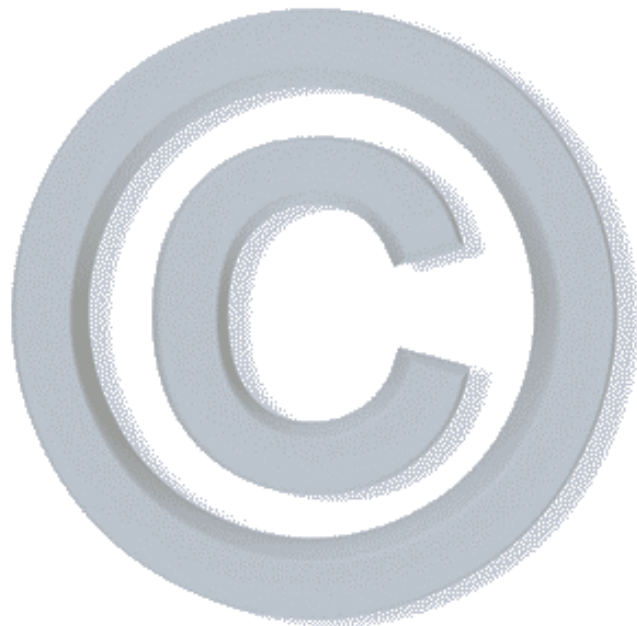
Computer or PDA/iPhone User Interface



In-Wall Touch-screen User Interface



Copyright



Key Concepts

- There are multiple audio and video formats being used today. Devices must be capable of decoding the ones being used.
- Digital Rights Management and Copyright issues will become major issues as more and more people are using digital content.

Microsoft Ultimate Installation Winner



Windows Media Center
ULTIMATE INSTALL
contest

Microsoft

cyber**Manor**

life|ware.
DIGITAL ENTERTAINMENT
AND AUTOMATION™

cyber**Manor**

Family Room TV



Touchscreen Computer in the Kitchen



TV in the Master Bathroom



Thermostat Farm and Wall Keypads

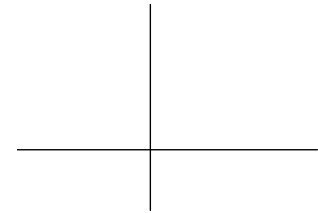
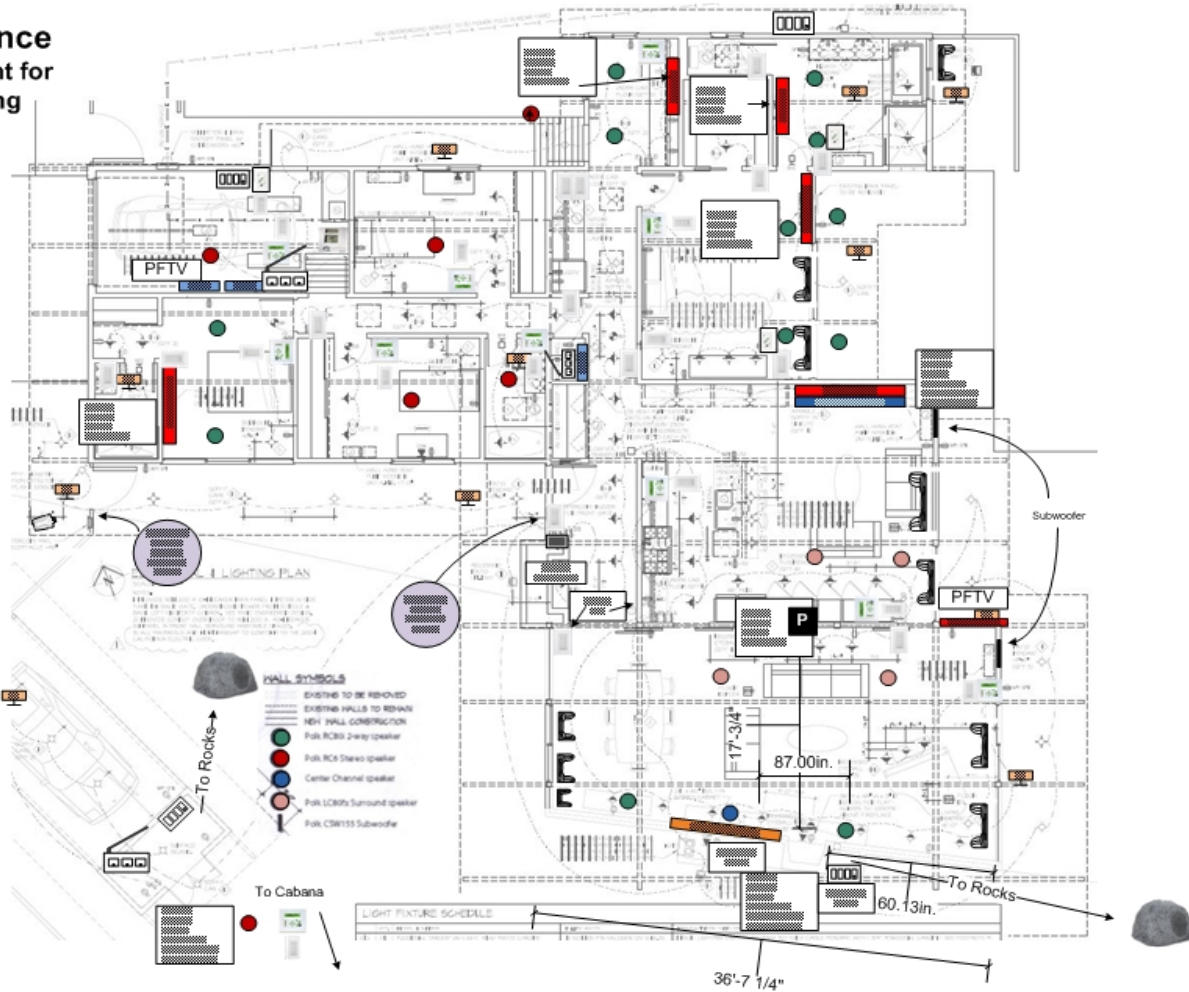


Equipment Rack – Front and Rear



Kreaden Residence Component Placement for Infrastructure Wiring

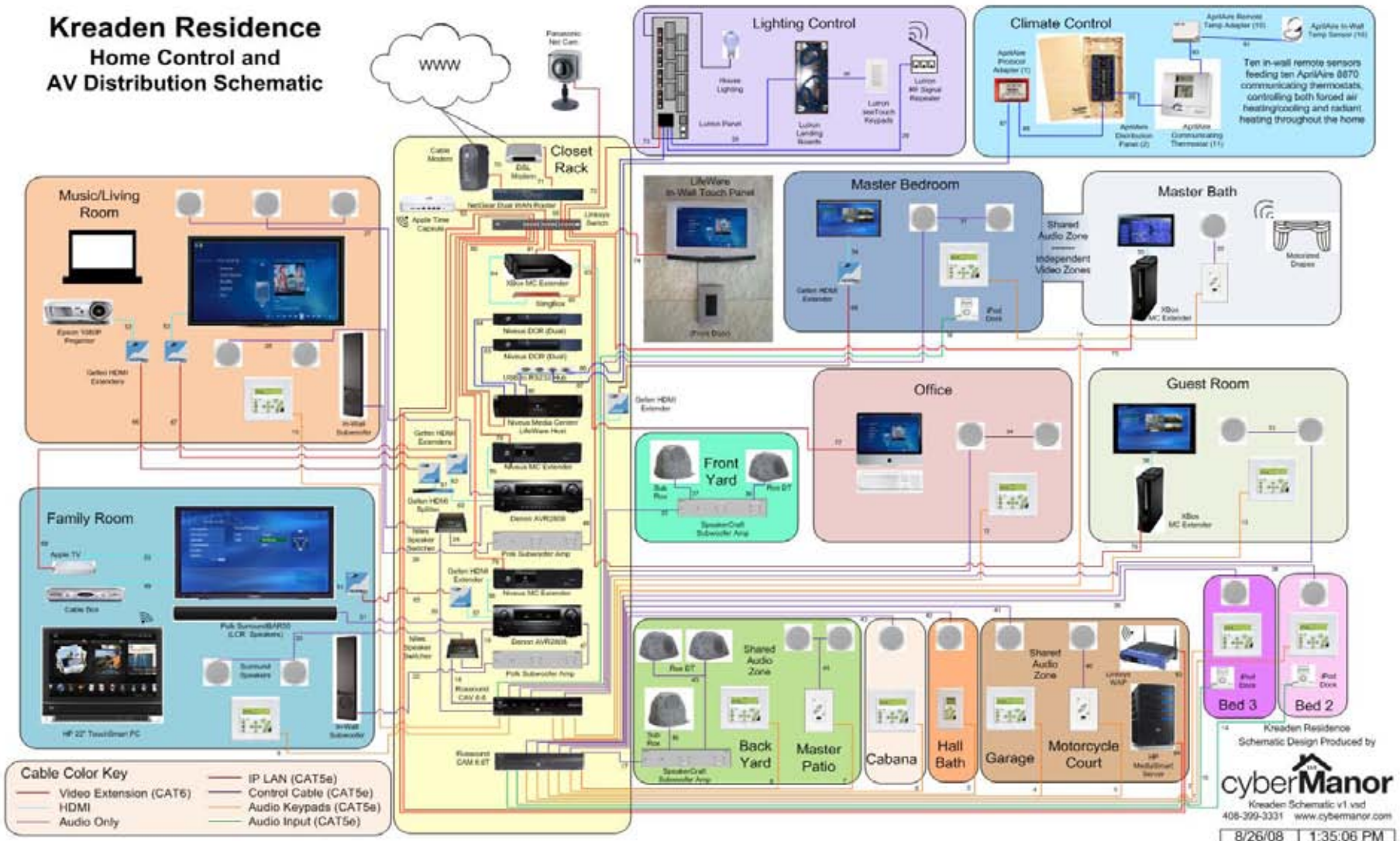
Symbols Key	
	Static Mount TV
	Articulating Mount TV
	Audio Keypad
	Shared Audio Keypad
	Single Channel Speaker
	Single Stereo Speaker
	Center Channel Speaker
	Surround Speaker
	In-Wall Subwoofer
	LCR Sound Bar
	Projector
	Lighting Keypad
	Occupancy Sensor
	Lutron Panel
	Lutron Wall Box Module
	Lutron Wireless
	Motorized Drapery
	Planned Future TV
	Camera
	Touch Panel
	Thermostat
	Rock Speaker(s)



Kreaden Low Voltage Floorplan

cyberManor
Schematic design produced
by cyberManor
Kreaden FloorPlan v1J1.vsd
408-399-3331
www.cybermanor.com
9/21/08 9:03:51 AM

Kreden Residence Home Control and AV Distribution Schematic



Cable Color Key

— Video Extension (CAT6)	— IP LAN (CAT5e)
— HDMI	— Control Cable (CAT5e)
— Audio Only	— Audio Keypads (CAT5e)
	— Audio Input (CAT5e)

Key Concepts

- A true electronic home will allow all electronic devices in the user's environment to communicate seamlessly.
- Digital audio/video solutions allow one device to serve content to many zones in the home.
- Home electronic entertainment is a growing market.
- The switch is the central concept in any electronic home.

Questions and Answers



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