

Small Business Products: Surveillance



SBBU Product Management

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Topics

- Why Video Surveillance?
 - Product overview/specifications
 - PVC2300
 - WVC2300
 - WVC210
 - Use cases/solutions
 - Camera setup (Web Browser)
 - Viewing and Recording software
 - Adding a Camera
 - Configure Trigger Event
 - Motion Detection
 - Email Alert
- Key messages software
 - Features and Benefits
 - Concise Feature Comparison



Why Video Surveillance?

- **Security is increasingly a concern for all business**

- Theft/vandalism

- Disgruntled employees

- Accidents

- Terrorism

- Increased use and acceptance in court and for insurance**

- “Caught on Tape”

- Police videos

- **Why digital video surveillance?**

- Better function**

- Improved search, retrieval and management - non-linear

- Better storage, preservation, duplication, transmission

- Cost reduction**

- Compression

- Reduced complexity – single network type

Surveillance Solutions

PVC2300

Business Internet Video Camera
with 2-way Audio and PoE



WVC2300

Wireless-G Business Internet Video Camera
with 2-way Audio

WVC210

Wireless-G Business Internet Video Camera
with 2-way Audio and PTZ (Pan Tilt Zoom)



Common Features: PVC2300 and WVC2300



- High-quality progressive scan CCD sensor
 - Supports low light .4Lux @ F1.4
 - Supports dual CODECs
 - MPEG-4 - streaming
 - MJPEG - storage (NAS)
 - CODECs run simultaneously
 - Monitor using MPEG-4 for low bandwidth
 - Record using MJPEG for video integrity and quality
 - Supports 2-way audio
 - G.726 and G711 μ -law, A-law
 - Built-in mic
 - External mic/speaker input/output
 - Supports IP Multicast, RTSP, RTP, 3GPP (View from 3G phones)
- Compelling form factor
 - Can be used as-is
 - Used with 3rd party outdoor enclosures
 - PVC2300 only
 - Removable CS-mount lenses support other lens options
 - Zoom
 - Wide-angle
 - Vari-focal
 - Auto-Iris
 - Mount on PT base supporting Pelco_D protocol
 - RS-485 interface
 - Remote control
 - Pan/tilt

Features WVC210



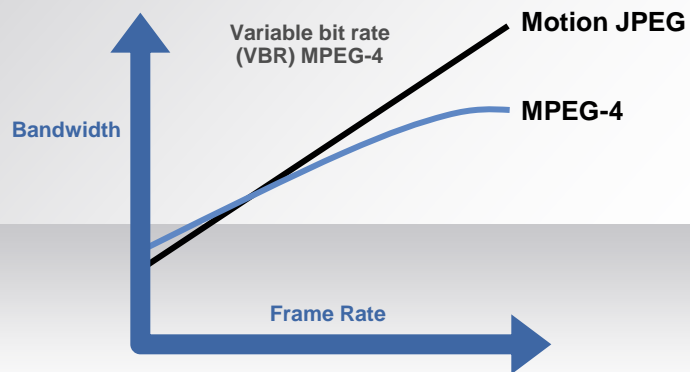
- Pan Tilt and 2x Digital Zoom
- Auto Patrol of 9 user-defined preset points
- 802.11g Wireless
- Supports UPnP for easy discovery on the network
- DynDNS support for available free DDNS services
- Motion-detection with event notification to email account or recording to NAS
- LCD screen displays IP address

- CMOS Sensor
- Supports dual CODECs
 - MPEG-4 - streaming
 - MJPEG - storage (NAS)
 - CODECs run simultaneously
 - Monitor using MPEG-4 for low bandwidth
 - Record using MJPEG for video integrity and quality
- Supports 2-way audio
 - G.726 and G711 U-law, A-law
 - Built-in mic
 - External speaker
- Supports IP Multicast, RTSP, 3GPP
 - View from 3G phones

Why Dual CODECs?

M-JPEG

- Lower compression due to Frame by Frame format
- More bandwidth and storage space
- Ideal for courtroom evidence
- At low bandwidth, priority is given to image resolution



MPEG4

- Higher compression due to using key frames and differential objects of motions
- Reduce the bandwidth and amount of storage needed
- May raise problem when used as evidence in court
- At low bandwidth, priority is given to frame rate

Interoperability and Pull Through

- Linksys Business Routers

RV082, RV042, WRV200*, WRVS4400N* and RVL200

*Including wireless options for WVC2300



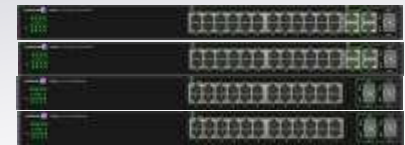
- Linksys Business Switches

All SRW switches

SLM switches (smart switches)

SFE's and SGE's (Layer 2+)

All PoE switches for PVC2300



Network Attached Storage

NSS4x00, NSS6x00, NSS2000

Store video and audio on the NAS



- Business Series Access Points

WAP200, WAP200E, WAP4400N, WAP2000

For use with WVC2300

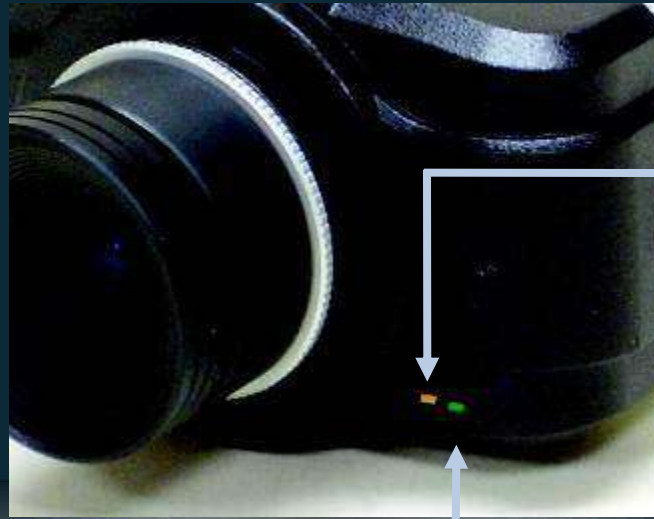


Camera Tour PVC2300 / WVC2300 —Front Panel

Lens:
Removable
CS-mount



Built-in
Microphone



Ready LED
(Amber)

Network LED
(Green)

Camera Tour —Back Panel

Back Panel—PVC2300



Back Panel—WVC2300



- Reset button
 - Factory defaults: 10+ seconds
 - Static IP: <10 seconds
 - 192.168.1.99
- 10/100 Ethernet ports
 - Network LED
 - PoE LED (PVC2300 only)
- Power connector
- GPIO port
 - General Purpose Input/Output
- MIC in
- SPKR out
- Antenna connectors
 - WVC2300 only

Camera Tour —Side Panel



Auto Iris
Port

Kensington
Security Slot

Input and Output (IO) ports

Inputs

Smoke Detector



PIR (Motion Detector)



Door/Window Contact



I/O Port Specifications



I/O PIN Specifications

PIN	Function	Description
1	12VDC Output	With a maximum load of 100mA, this output to be used with an external device.
2	GND	
3	Digital Input 1	Connect to high to activate (5V-12V)
4	Digital Output 1	With a maximum load of 100mA and maximum voltage of 12VDC, this output has an open-collector NPN transistor with the emitter connected to GND.
5	Digital Input 2	Connect to high to activate (5V-12V)
6	Digital Output 2	With a maximum load of 100mA and maximum voltage of 12VDC, this output has an open-collector NPN transistor with the emitter connected to GND.
7	GND	
8	12VDC Output	With a maximum load of 100mA, this output to be used with an external device.
9	RS485-B (Inverting)	A-half duplex RS485 interface for controlling auxiliary equipment
10	RS485-A (non-Inverting)	

Outputs



Alarm Panel



Siren



Open Door



Activate Lights

Typical Usage – Retail

- Benefits:

 - Physical security

 - Avoid Shrinkage (theft)

 - Operational improvements

 - Insurance evidence



- Installation:

 - Multiple cameras

 - One per aisle, one at cash register, at least one per entrance and at least one for back office, warehouse/storage room and delivery dock

 - Infrastructure

 - Wireless access point such as WAP4410N

 - LAN switch such as SLM/SRW/SFE/SGE series for infrastructure connectivity

 - VPN/security router such as RVS/RV0 Series for access to network from internet

 - Storage target such as NSS series Network Attached Storage or computer server



Typical Usage—Commercial

- Markets

Insurance companies, tax preparation, lawyers, architects, etc.

- Benefits

Physical security

Avoid Shrinkage (theft)

Insurance evidence

- Installation

Multiple cameras

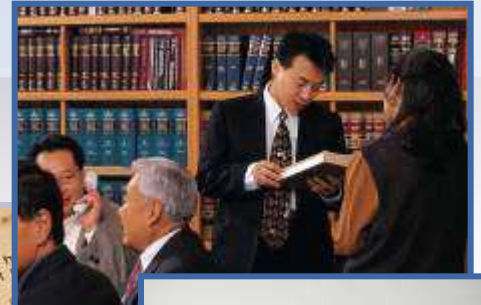
At least one per entrance, cameras to cover all customer-accessible areas (conference rooms, desks) and at least one for back office, warehouse/storage room and delivery dock

Infrastructure

Wireless Access Point such as WAP4410N and LAN switch such as SLM/SRW/SFE/SGE series for infrastructure connectivity

VPN/Security router such as RVS/RV0 series for access to network from Internet

Storage target such as NSS series Network Attached Storage or computer server



Other segments

- Banking

- Installation of IP surveillance systems to monitor ATM transactions

- Installation of IP surveillance systems to monitor critical and crime prone areas such as lockers, branch offices, cash counters and other sensitive locations

- Educational

- IP surveillance system is used to combat the threat of violence and crime

- Remote monitoring of school property and prevent vandalism

- Enable remote learning

- Entertainment venues

- Casinos, stadiums, theatres, concert halls, game arcades, banquet/party facilities.

- Other scenarios

- Monitoring hall ways, dining spots, and parking lots

- Preventing the entry of antisocial elements

- Security enhancement

- Prevention of theft and damage of property

- Monitoring of staff in mishandling cash and property

Setup for use with Web Browser (1)

- Insert the in-box CD
- Follow installation wizard to install software
- Wizard then detects your camera

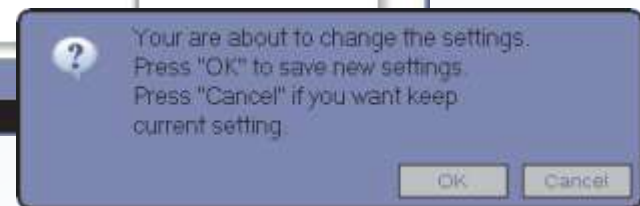
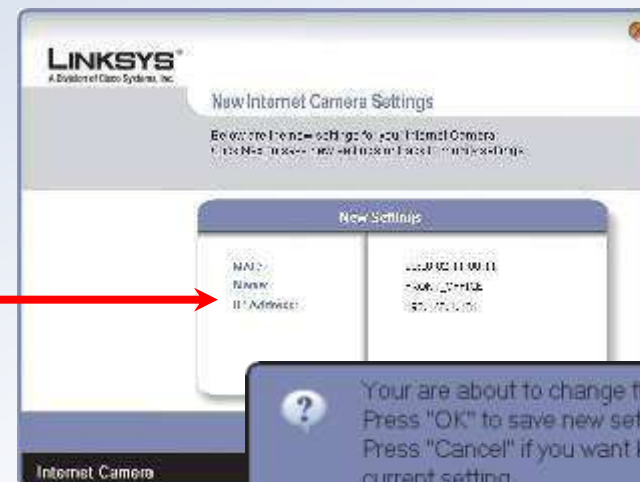
Presents options for changing

Basic settings

Static IP or DHCP

- Review and confirm settings

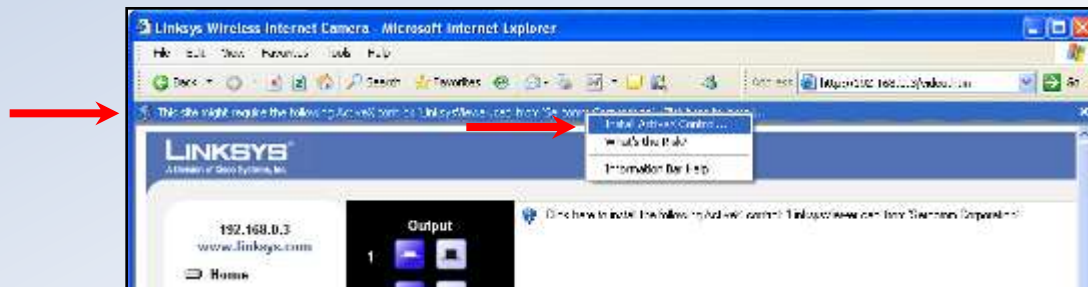
Make a note of the IP address



16

Setup for use with Web Browser (2)

- Click **Exit** when configuration is complete
 - Wizard closes
 - Default web browser launches
- Login to camera web portal
 - User name/password: *admin*
- Follow prompt to install **ActiveX Control**



View from Web Browser with WVC210

Wireless-G PTZ Internet Camera with Audio

Home | [View Video](#) | Setup | [Linksys Web](#) | Exit

Image Resolution
640*480

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Preset Camera View
None

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Connected User: 1

CISCO SYSTEMS

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Introducing LBAVMS16 Video Monitoring System 16 Camera



Monitoring Console

- Up to 16 Cameras on one Screen
- Multiple viewing formats
- Rotating Camera Image (when viewing in a single window)
- PTZ Camera Ready (Controls)
- Report of Free Storage Space
- Save/Load Configuration Allows for Multiple Camera Sets to be Viewed on the Same PC
- Recording can be Scheduled by Dragging the Bar across Different Time Periods
- Schedules/settings can be Copied to Other Cameras
- Link to Playback Recorded Files from Console Screen
- Motion detection can be defined using 10 windows



Playback Console

- Full Screen Display
- Each Camera's Recording can be Searched by Date and Time
- Each View can be Digitally Enhanced in real time when playing back
- Log File
- Forward and Backward Speeds Variable in 1x, 2x, 4x, 8x and 16x
- 4x Digital Zoom on Playback
- Export video to standard .AVI format



Adding a Camera

The screenshot displays the Cisco Linksys Video Monitoring System interface. On the left, there is a sidebar with buttons for 'Start', 'Playback', 'Schedule', and 'Setup', along with a grid of camera icons. The main window shows the 'Setting' dialog for a camera named 'CAM01 PVC2300 (192.168.1.17)'. The 'Camera' tab is selected, and the 'Search' button is highlighted. A live video feed of a room is visible in the top right of the dialog. Below the video feed, there are sections for 'Camera Parameter' (PVC2300 (192.168.1.17)) and 'OSD Setting' (Enable, Show Date, Show Time, Show Camera Number, Show Camera Name, Translucent). The 'OSD Setting' section has a date of 10/29/2008 and a time of 06:39:00 PM. At the bottom of the dialog are 'OK' and 'Cancel' buttons. The system tray at the bottom of the main window shows the date and time as 10/29/2008 18:40:59 and free space as 4.6GB. The text 'Linksys by Cisco Video Monitoring System' is visible in the bottom right corner of the interface.

- Click Start button
- Click Tab Camera
- Click Search

Configure Trigger Event (example: Motion Detection) and Email Alert

The screenshot shows a web-based configuration interface for a Network Camera. On the left is a navigation tree with categories like Administration, Audio/Video, Applications, and Status. The 'Motion Detection' option is selected. The main area is titled 'Event' and contains the following sections:

- Event Schedule:** A text box containing 'Every day 12:00 - 14:00'.
- Delete:** A green button to remove the current event.
- New Schedule:** Fields for 'Effective Time Frame' (set to 'Every day'), 'Start Time' (00:00), and 'End Time' (00:00). Includes 'Clear' and 'Add' buttons.
- Trigger Event:** A section with a checked 'Enable' checkbox and an 'Interval' of '1 min'. Below are two columns: 'Triggered by' (Input 1, Input 2, Motion Detection) and 'Action(s)' (E-mail, FTP, Output 1, Output 2, Instant Messaging). The 'Motion Detection' and 'E-mail' options are checked.

On the right side, there is explanatory text: 'This tool is used to set up the Internet Camera applications functions... An triggered event is a set of parameters... The most common kind of event type will upload video or snapshot files... More...'

Set Motion Detection

Motion Detection

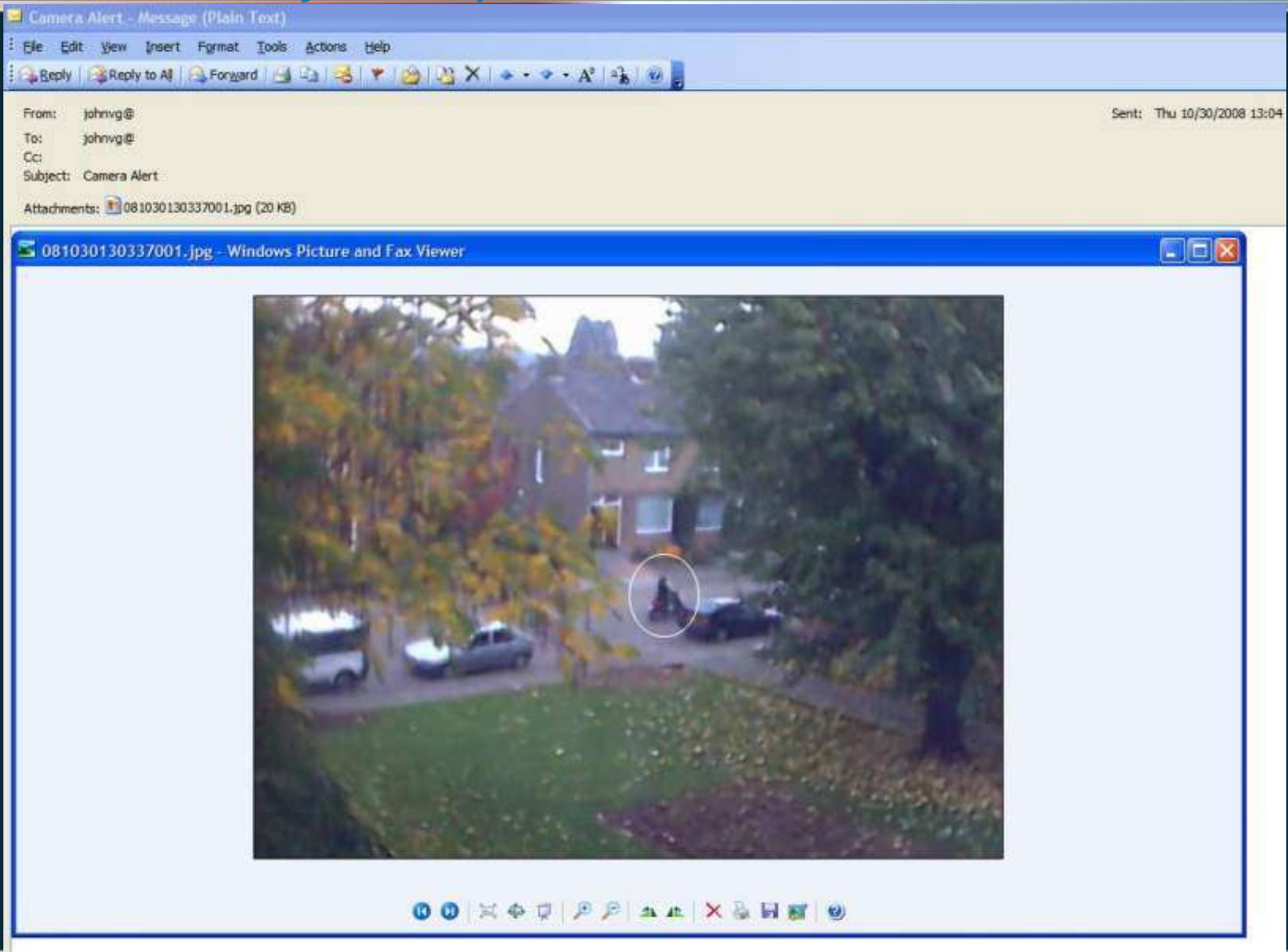
- Full screen
- Indicator
- Sensitivity+
- Setting custom area
- Window 2
- Indicator
- Sensitivity+
- Window 3
- Indicator
- Sensitivity+
- Window 4
- Indicator
- Sensitivity+

Apply

This tab is used to set up the Internet Camera applications functions. Operating Mode allows you to configure motion detection settings as you desired.

More...

Motion Detection Email Alert with attached jpeg (circle added by author)



Key Messages Software

What makes your product different from the competition?

- Supports monitoring, recording, and management of 16 cameras simultaneously.
- LBAVMS16/SW-VMS16 is a **free application** that works with any of the compatible SBBU Business IP Cameras.
- Provides advanced features such as save/load configuration files, real time video playback enhancement, variable playback/rewind speeds, & copying setting from one camera to another
- Easy to use graphical interface
- Video is stored in a proprietary format that cannot be altered



Features and Benefits

PVC2300 & WVC2300

Feature	Customer Benefit
CCD Sensor with Low Light capability (0.4 LUX)	Enables camera operations on low light environments, e.g. monitoring premise during the night
Dual CODEC (MPEG-4 and MJPEG)	Customer can choose between multiple Codec's, e.g. Optimized for quality (MJPEG) or for bandwidth (MPEG4)
Removable lenses	Removable lenses: Customer can change lens by using any industry standard CS-mount lenses, e.g. To a auto-focus lens or a wide angle lens, allows to monitor / view maximum space
IO ports	Allows to connect and control external devices, e.g. An electrical door opener or a barrier to the parking lot
Mounts in outdoor enclosure, mount on PT Base	Industry-standard Outdoor enclosure allows the camera usage in outdoor environments, e.g. Parking areas. (Outdoor closure not included)
2-way Audio	Send and receive audio, e.g. For a door opener application

Features and Benefits

PVC2300 & WVC2300

Feature	Customer Benefit
3GPP support	Video stream can be seen on mobile phone devices
RTP/RTSP	Real Time Streaming Protocol, allows the view of the video stream in real time
Motion Detection	Allows to set areas with sensitivity in which motion will be detected. The camera will detect motion automatically in these areas and perform the pre-configured action (email, store video,...) – feature to monitor and safeguard premise
Strong security (WPA2) and QoS (WMM and 802.1p)	WVC2300 only: Latest Wireless security for safe and secure operations, QoS to ensure Quality of Service for the wireless network
JPEG Snapshots at multiple resolutions	Create pictures in multiple resolutions, set resolution according to surveillance needs or surrounding
Event Notifications via SMTP – send RTSP URL or embedded video	Get notified via email if motion is detected (SMTP is a standard email protocol) – it can send you the URL (e.g. To your mobile phone or your laptop computer) or it can include a video of a pre-set time

Features and Benefits

PVC2300 & WVC2300

Feature	Customer Benefit
Overlay Watermarks/graphics	Add a copyright information or other unique watermarks into the image
Recorded file with timestamps	Important to know when the event exactly happened. This will help to secure evidence in a timely and accurate matter
Up to 10 Unicast users and unlimited multicast users	10 users can access the camera and everyone is treated as if he/she would be the only user. Multicast is great if you want to stream the video file to a larger audience, e.g. To your web site
Secure control over HTTPS	Allows you to access the camera in a secure way using https (same as you also use for banking applications)

Consize Feature Comparison Business Cameras

Features	WVC210	PVC230 0	WVC230 0
PT (Pan Tilt)	Yes	No	No
10/100 Ethernet LAN Port	Yes	Yes	Yes
802.11g Wireless Ethernet	Yes	No	Yes
2-way Audio	Yes	Yes	Yes
LCD Status	Yes	No	No
Motion Detection, Manual Recording	Yes	Yes	Yes
Event Triggered Recording (IO)	No	Yes	Yes
Interchangeable CS lenses	No	Yes	Yes
Digital Zoom	Yes	Yes	Yes
VGA Resolution @ 30 frames per sec	Yes	Yes	Yes
Simultaneous MJPEG/MPEG-4	Yes	Yes	Yes
Night Vision (IR Cut Filter)	No	Yes	Yes
Image Sensor	1/4" CMOS	1/4" CCD	1/4" CCD

Q & A





CISCO

