



# Cisco Small Business

## Storage and Surveillance Solutions



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Channel SE



# Cisco Small Business SURVEILLANCE



# Why Video Surveillance?

- **Why video surveillance?**

- **Security 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

- **Why Linksys One digital video surveillance?**

- **Complete solution**

- **Reduced complexity**

- **Enhanced functionality**



# IP Video Surveillance Solution

SKU	Connectivity		PoE	Audio	PTZ	Sensor
	10/100	802.11g				
<b>WVC210</b>	Yes	Yes	No	1 way	Yes	CMOS
<b>WVC2300</b>	Yes	Yes	No	2 way	No	CCD
<b>PVC2300</b>	Yes	no	Yes	2 way	No	CCD
<b>PVC300</b>	Yes	No	Yes	2 way	Yes	CCD



**Bundled with a Management, Monitoring and Recording Software (up to 16 IP cams)**

**WVC210**



**WVC2300**



**PVC2300**



**PVC300**



# IP Surveillance Solution Components

- IP Video Surveillance Cameras



- PC-Based Monitoring/Recording Software



- Storage Solution – NAS (*Optional*)



# WVC210 Product Overview

## Key Features / Benefits

- Wireless Desktop/Wall-mount Pan Tilt Camera with LCD status display
- Key Features:
  - Improved features over the previous WVC200
  - Dual Codec support for optimization of live video streaming quality and recording storage requirements
  - Multicast, 3GPP, 2-way audio support
- Works best with NSS Series NAS, WAP Access Point, SRW switches



# Cisco Small Business Surveillance Solutions

- PVC2300

Business Internet Video Camera with Audio  
and PoE

Power over Ethernet

- WVC2300

Wireless-G Business Internet Video Camera  
with Audio



# PVC300 Product Overview

## Key Features / Benefits

- Pan Tilt Optical Zoom Video Surveillance Camera with POE
- Key Features
  - Pan Tilt Camera with 2.6x optical zoom, POE, and IO ports allow for flexible installation for multiple applications
  - High quality Sony CCD sensor with low light sensitivity provides optimal video image under a wide variety of lighting conditions
  - Simultaneous dual CODEC provides optimal combination of viewing and storage of video
  - Two-way Audio, IP Multicast, IPv6, 3GPP and Samba client provide advanced feature set.
- Works best with NSS Series NAS, and SRW, SFE, SGE switches



Datasheet

## Accessories for Small Business IP Surveillance Cameras

### Camera Accessories for 2300 Series

Including:

- VC030 Exterior Pan Tilt Enclosure w/Heater and Blower
- VC031 Exterior Pan Tilt Pendant Mounting Adapter
- VC032 Exterior Pan Tilt Corner Mounting Adapter
- VC033 Exterior Pan Tilt Pole Mounting Adapter
- CAMLWA CS-Mount Lens Wide Angle Manual Iris 1/3" 2.3mm
- CAMLMI CS-Mount Lens Manual Iris 1/3 3-8mm
- VC020 Exterior Box Enclosure w/Heater and Blower



**Cisco Lenses**



**VC020 Camera Exterior Box Enclosure  
with Heater and Blower**

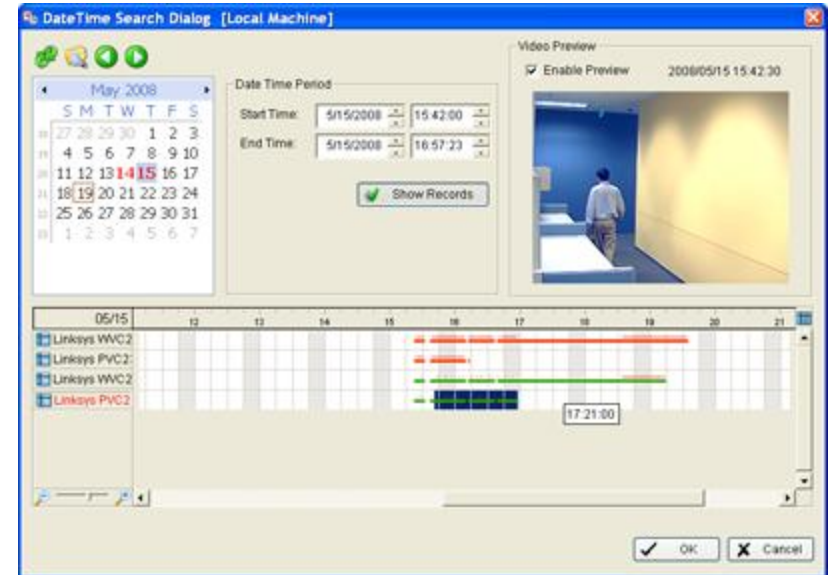
# SW-VMS16 – Main Console

- Up to 16 Cameras on one Screen
- Multiple viewing formats
- Rotating Camera Image (when viewing in a single window)
- PTZ Camera Ready (Controls)
- Free Storage Space Report
- 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



# SW-VMS16 - Playback

- 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



# Video Storage Space needs

- Influenced by:

Resolution – 640x480, 320x240, 160x120

Image Quality – Very High to Very Low selectable

Bit Rate – CBR – 64 kbps to 1.2 Mbps

Frame Rate – 1 to 30 frames per second

Compression – MPEG-4 versus MJPEG

Complexity of the scene and amount of change in scene

192.168.1.115  
www.linksysone.com

Home

- Setup
- Administration
  - Users
  - Maintenance
  - Firmware
- Audio/Video
  - Video
  - Audio

### Image Settings

MPEG-4 Settings

Resolution: 640\*480

Video Quality Control:

- Constant Bit Rate: 64 Kbps
- Fixed Quality: Very High

Max Frame Rate: 30 fps

MJPEG Settings

Resolution: 640\*480

Fixed Video Quality: Very High

Frame Rate Control: Auto fps

# Storage Space (contd.)

- Motion detection

  - MPEG Video Clip:

    - Detect events up to 5 seconds before and 5 seconds after event

    - File in ASF, MP4 or 3GPP format

    - File stored on Flash in Camera

    - Can be saved to NAS via FTP

    - Can be sent via Email

  - JPEG Image:

    - Saved at 1 to 10 images per second

    - Detect events up to 5 seconds before and 5 seconds after event

- Instant or scheduled recording with Utility

  - Limited by Disk Space restrictions defined in Utility

  - Map a drive to NAS and store scheduled/instant video

  - Motion events can be up to 30 seconds before and 30 seconds after event

# Sample Storage Space

- 3 Cameras Continuous Recording
  - 15 fps
  - 640x480 resolution
  - “Normal” Quality
  - MPEG-4
  - 10 GB per day
- 1 Cameras Continuous Recording for 1 Hour
  - 15 fps
  - 640x480 resolution
  - “Normal” Quality
  - MPEG-4
  - 150MB per hour
- 120 Motion events
  - 30 Sec before and 30 sec after event
  - 15 fps – 64 MB
  - 30 fps – 90 MB

## Estimate:

Fixed Quality and Fixed Bit Rates

Resolution	Quality Level	Bit Rate
640 x 480	Very High	4000kbps
640 x 480	High	3200kbps
640 x 480	Normal	1200kbps
640 x 480	Low	480kbps
640 x 480	Very Low	160kbps
320 x 240	Very High	1000kbps
320 x 240	High	800kbps
320 x 240	Normal	300kbps
320 x 240	Low	120kbps
320 x 240	Very Low	40kbps
160 x 120	Very High	800kbps
160 x 120	High	400kbps
160 x 120	Normal	200kbps
160 x 120	Low	100kbps
160 x 120	Very Low	40kbps



# Cisco Small Business SURVEILLANCE



# Cisco NSS Family Of Storage Products

## Rack Mount (4-Bay)

NSS6000 /  
NSS6100



NSS4000 /  
NSS4100



## Desktop



NSS3000 /  
NSS3100  
(4 Bay System)



NSS2000 /  
NSS2050  
(2 Bay System)



## Common Features:

- Disk-Less Chassis-Based Design NSSx000
- NSSx100 with 4 x 250GB
- NSSx050 with 2 x 250GB
- RAID Set Migration Between Chassis
- Compatible File Encryption
- Virtualization Compatible
- Microsoft Distributed File System Support
- Microsoft Vista Support

## Use Cases

- **Backup & Disaster Recovery**  
Storage for backup images from multiple client PCs or other servers
- **Collaboration**  
Replace general purpose servers e.g. Windows Server PC
- **Security**  
IP Video Surveillance
- **Compliance**  
New medical and financial requirements



# NSS Product Comparison

	NSS2000	NSS3000	NSS4000	NSS6000	Benefits
Ethernet LAN Interfaces	(1) GigE	(1) GigE	(2) GigE	(2) GigE	Redundancy
Hot Swap Back-Plane	Yes	Yes	Yes	Yes	Higher Availability
RPSU Support	No	No	Yes	Yes	Higher Availability
RAID Types Supported	0/1	0/1/5/10	0/1/5/10	0/1/5/10	Flexibility
Max CIFS users	15	15	15	132	# of simultaneous users
Max FTP users	15	15	15	50	# of simultaneous users
Microsoft Distributed File System	Yes	Yes	Yes	Yes	Simple expansion without user impacts
256bit AES File Encryption	Yes	Yes	Yes	Yes	Data Security
Virtualization Master	No	No	No	Yes	Greater Expansion
Snapshot	No	No	No	Yes	Data Availability
Form Factor	Desktop	Desktop	Rack Mount	Rack Mount	Flexible form factor selection

Max CIFS/FTP users cannot be achieved at the same time,  
There is a trade-off between the two to hit the max # listed



## Cisco Approved Vendor List for Network Storage Systems

Recommended Drives (High reliability Enterprise drives)		
Manufacturer	Capacity	Model Number
Seagate Barracuda ES.2	250GB 500GB	ST3250310NS ST3500320NS
Western Digital RE3	250GB 500GB 1 TB	WD2502ABYS WD5002ABYS WD1002FBYS
Western Digital RE2 Green	500GB 750GB 1 TB	WD5000ABPS WD7500AYPS WD1000FYPS
Hitachi Ultrastar A7K1000	1 TB	HUA721010KLA330

Compatible Drives (Mainstream drives for consumer products)		
Manufacturer	Capacity	Model Number
Seagate Barracuda 7200.11	750GB	ST3750630AS
Hitachi Deskstar T7K500	250GB	HDT725025VLA380
Western Digital Caviar Blue	250GB 500GB	WD2500AA JS WD500AAKS

Compatible Drives (Mainstream drives for consumer products)		
Manufacturer	Capacity	Model Number
Western Digital Caviar Green	1TB	WD10EADS

Legacy Recommended Drives (Enterprise drives no longer in mass production)		
Manufacturer	Capacity	Model Number
Seagate Barracuda ES	250GB 250GB 500GB 750GB	ST3250820NS (8MB Cache) ST3250620NS (16MB Cache) ST3500630NS ST3750640NS
Seagate Barracuda ES.2	250GB	ST3250310NS
Western Digital RE2	500GB 750GB	WD5001ABYS WD7500AYYS
Western Digital Raptor	150GB	WD1500ADFD (10,000 RPM)

Legacy Compatible Drives (Mainstream drives no longer in mass production)		
Manufacturer	Capacity	Model Number
Seagate Barracuda 7200.10	250GB 500GB 500GB 750GB	ST3250820AS ST3500630AS ST3500320AS ST3750640AS
Seagate Barracuda 7200.11	500GB	ST3500620AS
Western Digital RE16	250GB	WS250YS

# Accessories for the NSS Series

- Simplify expansion and have spare drives ready when hard drive failure occurs with the HDT Series Hard Drive Trays



## **HDT0000**

Spare NAS Drive Tray (No Hard Drive) for Business Series Network Storage Products

## **HDT0004**

Spare NAS Drive Tray - 4 Pack (No Hard Drive) for Business Series Network Storage Products

## **HDT0250**

Spare NAS Drive Tray (with 250GB 7200RPM Hard Disk) for NSS Series of NAS Products

## **HDT0500**

Spare NAS Drive Tray (with 500GB 7200RPM Hard Disk) for NSS Series of NAS Products

- Ensure your data is accessible even through a power supply failure with a redundant power supply unit (RPSU)



## **RPS1000 380W Redundant Power Supply Unit**

# Cisco Continuous Data Protection for File (CDP-F) Backup Solutions

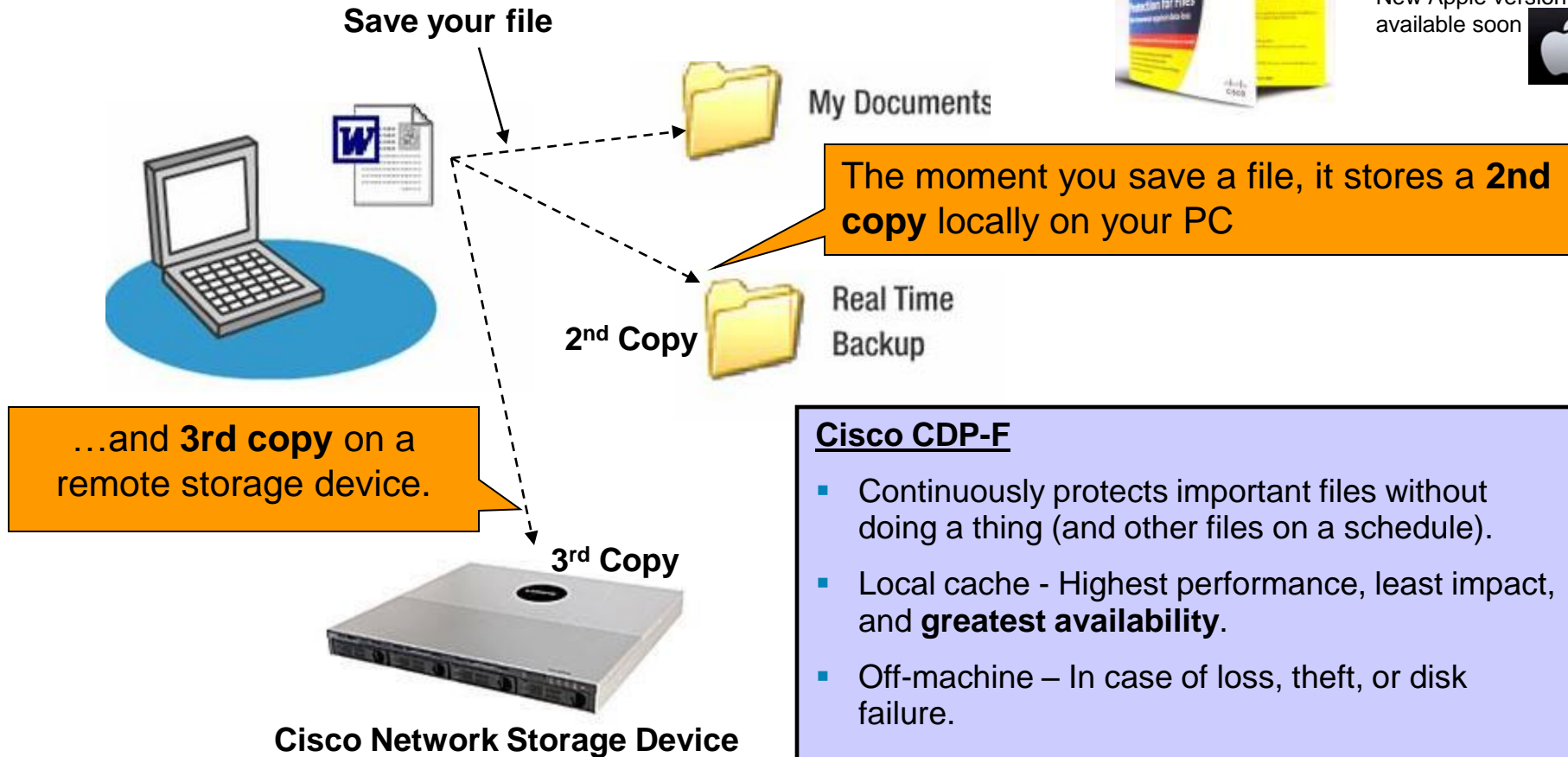
- Partnered with IBM to provide customers with client based software to automate all backup activities
- CDP-F is a continuous back-up solution
  - Backs-up every time you “save” the file
  - Only does incremental back-up
  - Backs-up files that are open
- Works on and off the network
  - Caches data when not connected to the internal network
  - Will automatically syncs when it finds the storage target



# Continuous Data Protection for Files CDP-F Software



- 32-bit Win 2000 Server / WinXP / Win2003 / Vista;
- New Apple version available soon



**Transparent, always-on, airbag-like protection. Whether 'connected' or not!**

# How is CDP-F Different from Traditional Backup Software's

Cisco Continuous Data Protection...

- ..is “**real-time**” and always protecting you.
- ..is a **client-only** solution, *focusing* on laptops.
- ..stores data **on-machine** and off-machine; 2 copies!
- ..is **tolerant** of network issues; waits/retries, never fails!
- ..has special **email** support; changed-blocks only.
- ..is easy to **manage!**
  - Central administration, Locked configurations, etc
- ..is **Scalable** – Easily configurable from 1 user that can be individually configured to 100+ users with a “mass configuration” option

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DOWNLOAD



Details	
Release	3.1.4.0
Filename	Cisco_CDP_30Day_Trial.zip
Release Date	15/Dec/2008
Description	Cisco Continuous Data Protection for Files software suite - Trybuy version 3.1.4.0.
Size	16272.60 KB (16663142 bytes)

# Feature Summary

Features	Advantages	Benefits
Continuous Data Protection	Real-time data protection	Simplified storage management may save IT and end user labor
Restore to point-in-time	Multiple versions of the files retained	Continuous data protection provides data integrity when viruses and corruption attack systems
Backups up on periodic basis to a remote file server	Faster backup	Reduces or eliminates backup windows and optimizes integration to network and enterprise data protection solutions
Backs up only changed files	Less data is transferred	Optimizes bandwidth and network transfer of data
Backs up your files the moment they are saved	Real-time data protection	Continuously protects versions of the files to allow customers choice of recovery points
Backs up files to local cache	Stand-alone protection	Ability to write protect data locally even when not connected in case of virus, corruptions, logical error or user error.
Remote and local disk support	Choice of backup devices	Ability to send data to mixture of backup devices – Disk, NAS, USB, local partition, LUN from SAN

# Licensing

Users	SKU
3	Cisco Business Application Continuous Data Protection 3-user license: <b>LBACDP03</b>
15	Cisco Business Application Continuous Data Protection 15-user license: <b>LBACDP15</b>
25	Cisco Business Application Continuous Data Protection 25-user license: <b>LBACDP25</b>



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