



# Cisco Small Business

## Storage and Surveillance Solutions



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# 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**

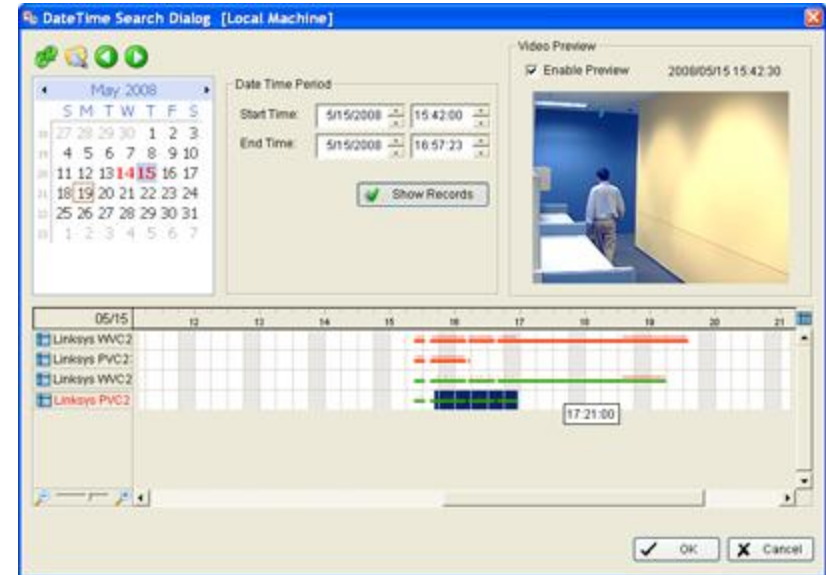
# SW-VMS16 – Main Console

- 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<br>500GB         | ST3250310NS<br>ST3500320NS             |
| Western Digital RE3                                     | 250GB<br>500GB<br>1 TB | WD2502ABYS<br>WD5002ABYS<br>WD1002FBYS |
| Western Digital RE2 Green                               | 500GB<br>750GB<br>1 TB | WD5000ABPS<br>WD7500AYPS<br>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<br>500GB | WD2500AA JS<br>WD500AAKS |

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

| Legacy Recommended Drives<br>(Enterprise drives no longer in mass production) |                                  |   |
|---|----------------------------------|---|
| Manufacturer  | Capacity                         | Model Number  |
| Seagate Barracuda ES  | 250GB<br>250GB<br>500GB<br>750GB | ST3250820NS (8MB Cache)<br>ST3250620NS (16MB Cache)<br>ST3500630NS<br>ST3750640NS |
| Seagate Barracuda ES.2  | 250GB                            | ST3250310NS   |
| Western Digital RE2   | 500GB<br>750GB                   | WD5001ABYS<br>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<br>500GB<br>500GB<br>750GB | ST3250820AS<br>ST3500630AS<br>ST3500320AS<br>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

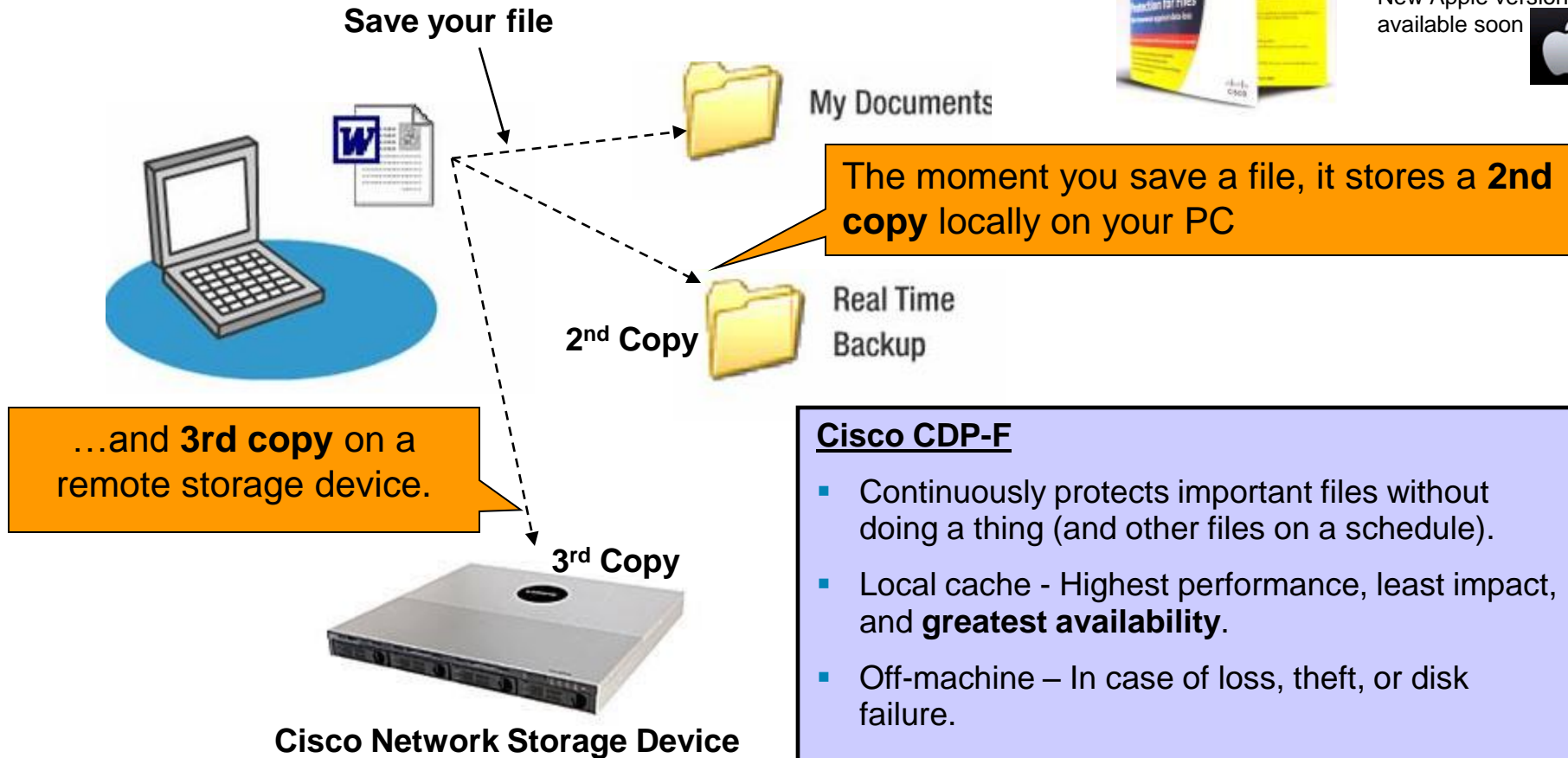
- Partnered with IBM to provide customers with client based software to automate all backup activities
- CDP-F is a continuous back-up solution
  - Backs-up every time you “save” the file
  - Only does incremental back-up
  - Backs-up files that are open
- Works on and off the network
  - Caches data 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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