



Hearty Welcome

EXPECT MORE.

PRESENTATION AGENDA



1 WHY MATRIX?

2 WHAT IS NVR?

3 MATRIX SATATYA NVR

4 APPLICATIONS OF SATATYA NVR

5 KEY BENEFITS OF SATATYA NVR

6 SATATYA NVR HARDWARE SOLUTION

7 KEY FEATURES OF SATATYA NVR

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9 FEATURE LIST

MATRIX SATATYA: THE 3 DIMENSIONAL SECURITY
PROFICIENT, PERSISTENT, PREVENTIVE

WHY MATRIX ?



3-Dimensional Benefits of Matrix Video Surveillance

Proficient



Reduction in solution cost of bandwidth, storage & manpower



Improved productivity, process compliance and employee discipline



Simplicity of management

Persistent



Better reliability against downtime & breakdowns



Greater visibility & control

Preventive



Enhanced security of physical assets from theft, snooping etc.



Improved safety of human assets from accidents, hazards and injuries



Proactive solution with early detection and instant notification

What is NVR ?



With a Network Video Recorder, the video input comes from the network as the video has already been encoded at the cameras.

The video is then streamed to the NVR for storage and it can be viewed remotely due to it being on a network

SOME BENEFITS OF IP SURVEILLANCE

- Superior Image Quality
- Scalability and Flexibility
- Remote Accessibility
- Eliminates Point-to-point Cabling
- Easy and Reliable Installation
- Protects against network failures

MATRIX SATATYA NVR



BENEFITS OF MATRIX SATATYA NVRs

The Software solution includes free Centralized Management Software (CMS), free web client and free mobile application for remote and centralized management as well as monitoring

CONNECTIVITY DIAGRAM



Application of SATATYA NVR



NVR APPLICATION FOR IP SOLUTION

- Video surveillance security is moving from analog to IP technology
- IP has several benefits like:
 - Progressive scan which helps providing clear images even during motion
 - Megapixel resolution which removes noise from the image giving detailed image and wider field of view
 - Remote viewing and storage
 - Intelligent Analytics
 - Security which secures against hacking of device
- Hence NVRs can be applicable in highly critical areas like Server room, manufacturing areas, lockers etc. providing security along with the above mentioned benefits

KEY BENEFITS

Key Benefits



1. EASE OF MONITORING & MANAGEMENT

CASCADING helps users to monitor multiple NVRs and HVRs from a single device without a server. This simplifies monitoring and management to a great extent

Other features
TCP based notifications
Health monitoring
Remote monitoring
E-map
Sequencing
Camera grouping

Key Benefits



2. REDUCED STORAGE

ADAPTIVE RECORDING helps save storage and increase storage up to a whopping 50%

Other features
Camera wise recording and backup retention
Scheduled and manual backup to FTP, NAS and USB
Camera wise manual and scheduled centralized recording

Key Benefits



3. BANDWIDTH OPTIMIZATION

TCP BASED NOTIFICATIONS sends push notifications about functioning status of all cameras & devices in less than 5Kbps bandwidth.

Other features
Camera wise constant & variable bit rate
Video compression techniques: H.264/MPEG-4/Motion JPEG
Higher Throughput: 144 Mbps Ethernet ports for distributing traffic network

Key Benefits



4. REAL TIME / PREVENTIVE SECURITY

CALLING FROM MOBILE APP to make calls to the person whose number has been linked to camera in the SATATYA NVRs. Each camera can be assigned a separate number. This simplifies the process of taking action in case of any unexpected event.

Other features

Event recognition like motion detection, view tamper and connection failure

Alerts for the above events in the form of notifications via SMS, email with snapshot, alarm, buzzer etc. help take quick decisions in order to prevent any mishap

Key Benefits



5. QUICK INVESTIGATION

TIMELINE AND EVENT BASED SEARCH WITH SYNCHRONOUS PLAYBACK helps search based on the time of the day , date, event via different color codes for different events enabling the user to investigate quickly

Other features
TCP based notifications
SMS & email notification with snapshot
Pre and post recording
Clip export

Key Benefits



6.CENTRALIZED SECURITY SOLUTION

INTEGRATION WITH ACCESS CONTROL helps in providing a centralized security solution by supporting database level integration with Matrix access control software

Other Integrations
Integration with fire alarm
Integration with other third party sensors

Key Benefits



7.DATA SECURITY

- Three authorization access levels for users: Administrator, Operator and Viewer
- IP & MAC based access & blocking of users
- RAID 0 and RAID 1 Support to prevent loss of data

Key Benefits



8.EASE OF CONNECTIVITY

Now you can connect from anywhere even in the absence of Wi-Fi connectivity through MOBILE BROADBAND (3G/LTE) AND FREE MATRIX DNS solutions.

Other Features

Auto-configure camera option: Mention IP range and device discovers the camera automatically from the range selected

UPNP: Permits networked devices to discover each other for data sharing and communication

Key Benefits



9.COMPATIBILITY

All ONVIF or RTSP compliant cameras can be connected to matrix devices & hence this helps in providing interoperability



SATATYA NVR HARDWARE SOLUTION

MATRIX SATATYA NVR



NOMENCLATURE

SATATYA NVR24P

Total IP Channels ● S:Standard
● P:Premium

NVR VARIANTS

NVR Standard

NVR8S
NVR64S

NVR8S
Rear



NVR8S
Front



NVR Premium

NVR24P
NVR64P

NVR64P
Rear



NVR64P
Front



NVR24P & NVR8S



	NVR24P	NVR8S
Channels	24 IP Channels	8 IP Channels
Output	1 VGA & 2 HDMI	1 HDMI & 1 VGA
Storage	2 SATA HDD Support(6TB)	1 SATA HDD Support(6TB)
Throughput	144 Mbps (48 Mbps Downlink / 96 Mbps Uplink)	48Mbps(16Mbps Downlink/32Mbps Uplink)

NVR64



	Premium	Standard
Channels	64 IP Channels	64 IP Channels
Output	1 VGA, 1 HDMI	1 HDMI & 1 VGA
Display Resolution	4 Ch. @ 1080P at 4Mbps	4 Ch. @ 720P at 2Mbps
Storage	4 SATA HDD Support(6TB each)	4 SATA HDD Support(6TB each)
Throughput	384Mbps (256 Mbps Downlink / 128 Mbps Uplink)	256Mbps(128Mbps Downlink/128Mbps Uplink)
Processor	i3	Core 2 Duo

Technical Specifications



MODELS		SATATYA NVR8S	SATATYA NVR24P	SATATYA NVR64S	SATATYA NVR64P
VIDEO	VGA Main	1	1	1	1
	HDMI Main	1	2	1	1
ALARM	Input	X	8	4	4
	Output	X	4	2	2
	Storage Calculator	✓	✓	✓	✓
INTERFACES	10/100Mbps Adaptive Ethernet Interface	1	X	X	X
	Gigabit Ethernet Interfaces	X	2	2	2
	USB Ports	2	2	2	2
STORAGE	SATA Interface(6TB Each)	1	2	4	4
THROUGHPUT	(In Mbps)	48	144	256	384

KEY FEATURES

Cascading

What ?

Locally monitor all the cameras with a single device from other devices connected in the network. Connect up to 480 cameras(20 devices)

How ?

Master device communicates to each device (slave) in the network for accessing their streams (analog + IP)

Benefit ?

Centralized control , ease of management, reduction in cost of server

Applications ?

CEO/HOD monitoring , Multi floor device monitoring



Manufacturing



Residential



Corporates



Hotels



Manager



IT Person

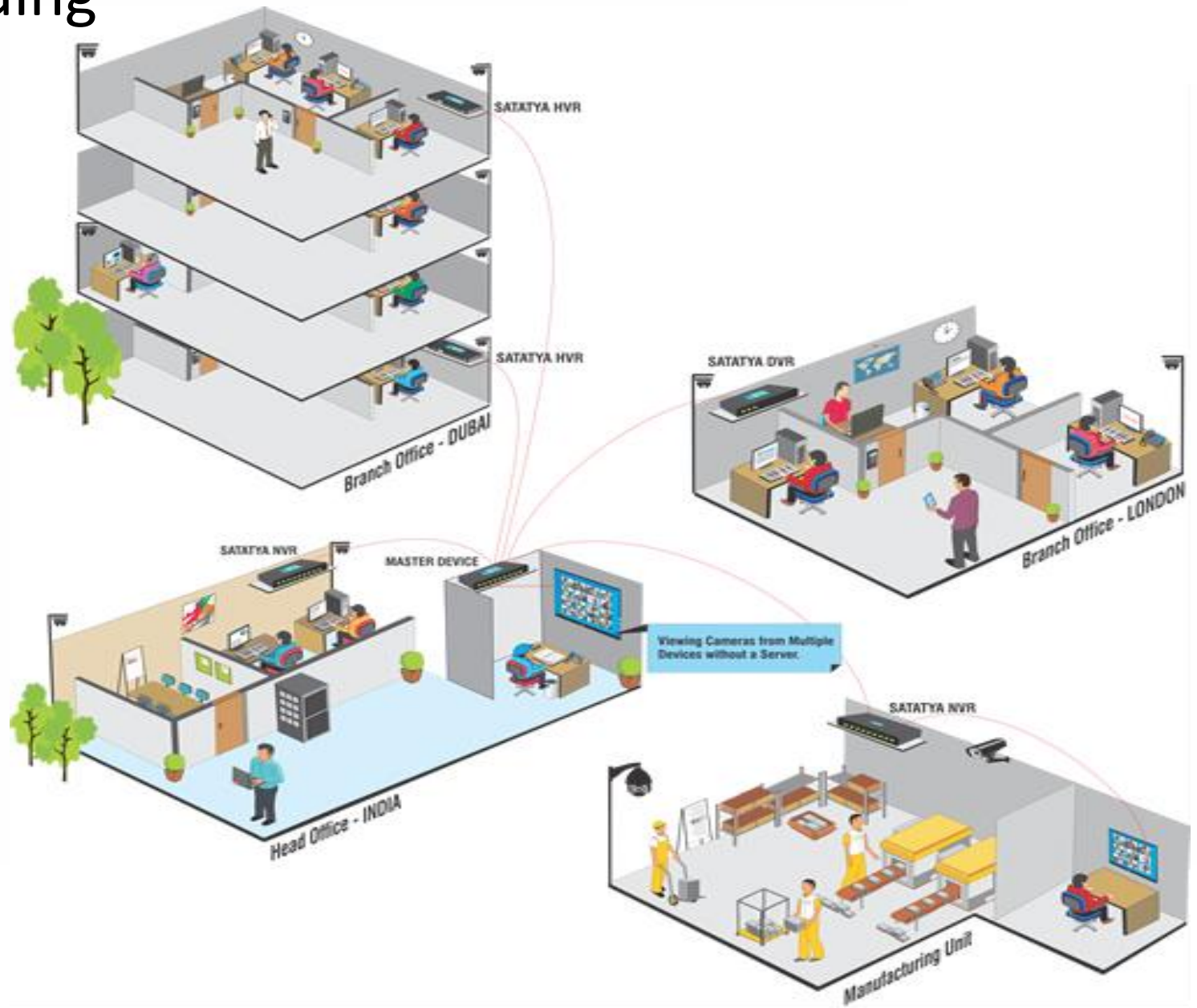


CEO



Watchman

Cascading



E-MAP

What ?

Monitor the actual cameras using the virtual cameras placed on the JPEG map of the location

How ?

On the layout plan of the area to monitor, place camera icons and link to actual cameras. on incidents, these icons start blinking

Benefit ?

Centralized control with simplified and effective monitoring

Applications ?

Alert monitoring for larger area on a single window mapping
Large manufacturing plants, Residential area plotting



Manufacturing



Residential



Corporates

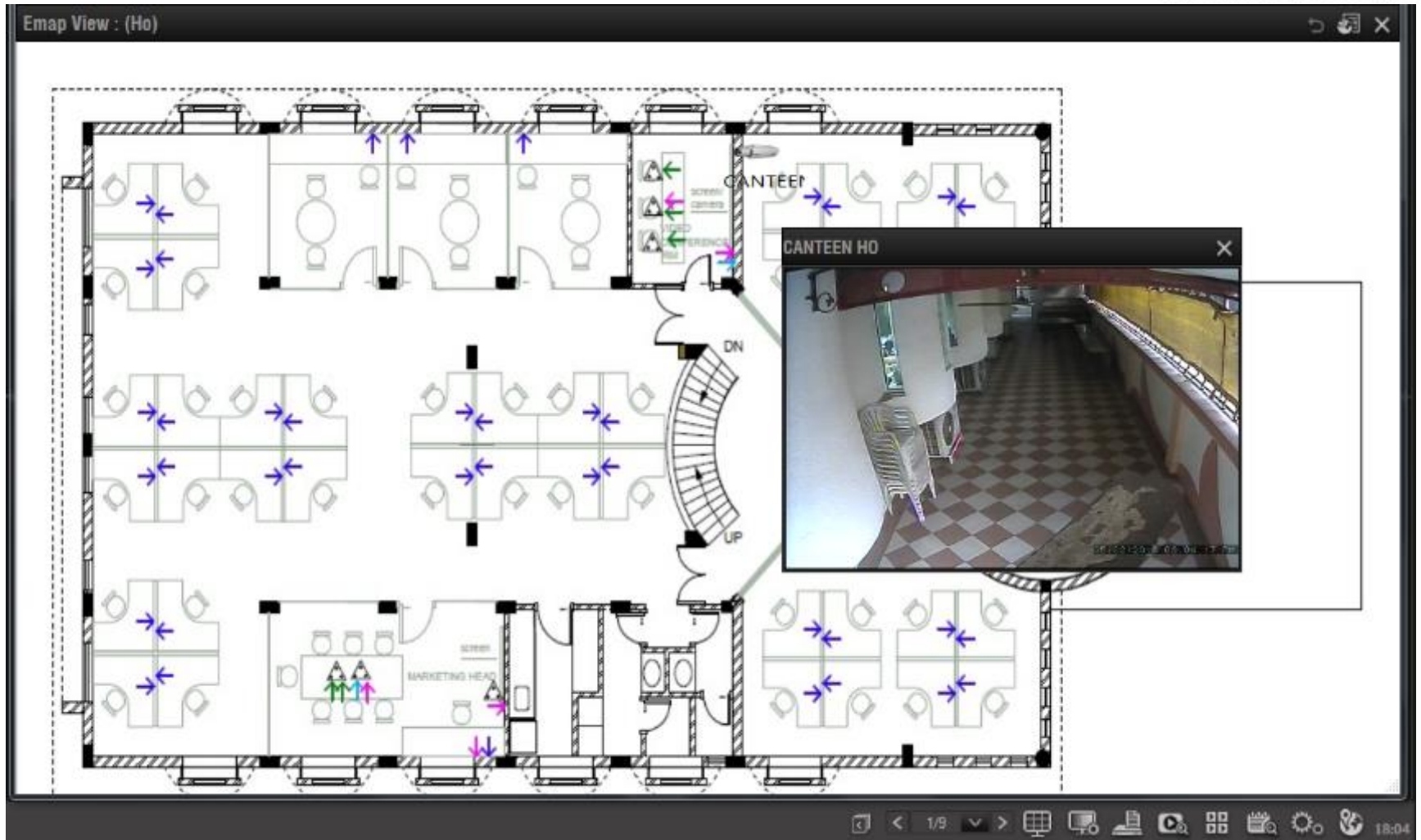


Hotels



Banks

E-MAP



Adaptive Recording

What ?

Adaptive recording is a method of recording which helps achieve optimized storage on HDD

How ?

Automatically changes frame parameters during recording for configured time, thereby saving storage

Benefit ?

Helps save lots on storage & bandwidth costs and increases storage days up to 60%

Applications ?

Suitable for places like Malls, Corporates, Banks, retail stores where too much activity does not take place 24*7



Manufacturing



Residential



Corporates



Malls



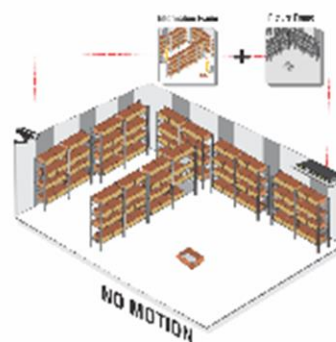
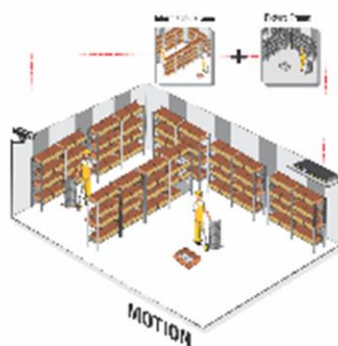
Banks

Adaptive Recording



SAVE UP TO 50% ON STORAGE SPACE WITH MATRIX VIDEO SURVEILLANCE

OTHER SOLUTION



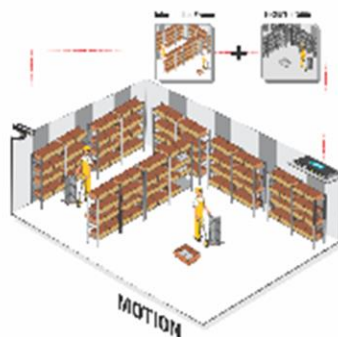
NO SAVINGS



500 GB
DATA STORAGE

Per Camera

MATRIX SOLUTION



50% SAVINGS



500 GB
DATA STORAGE

Per Camera

Camera-Wise Recording Retention

What ?

Camera-wise flexibility to assign number of retention days as per the importance of camera

How ?

User can select number of recording retention days per camera. Flexibility to choose between 1-999 days for each camera

Benefit ?

Save unnecessary wastage of recording all cameras for same number of days. Flexibility of assigning different storage days to different cameras save storage by 30%

Applications ?

Suitable for places like Banks, Corporates etc. Here cameras of high importance like server room can be stored for more number of days whereas Cameras with low importance like canteen can be stored for lower number of days



Manufacturing



Residential



Corporates



Banks

Camera-Wise Recording Retention



CAMERA-WISE RECORDING FLEXIBILITY

Save up to 30% on Storage Costs



Other Video Surveillance - Same Storage for Every Camera



Matrix Video Surveillance - Configurable Storage for Each Camera



TCP Based Notifications

What ?

Provides functioning status of cameras and devices in less than 5Kbps

How ?

Each bit carries information like recording, motion, camera tamper etc.

Benefit ?

Centralized control with low bandwidth

Applications ?

ATM monitoring, Branch connection monitoring



ATM



Manufacturing



Residential



Corporates



Hotels



Manager



IT Person

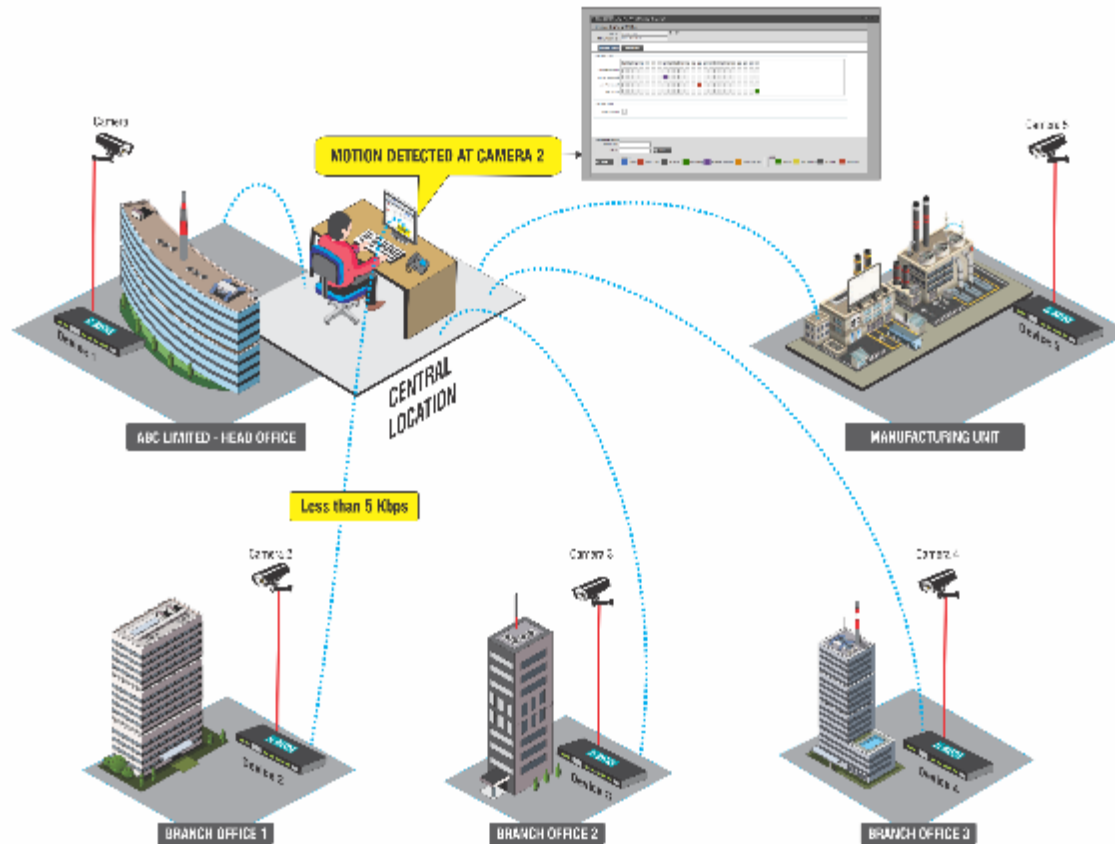


CEO



Watchman

TCP Based Notifications



SMS & Email With Snapshot

What ?

Notification to any person irrespective of his location in real-time

How ?

On detection of security threat or fault in functioning of cameras or recorders, system will send SMS (without sim card) or email with snapshot

Benefit ?

Preventive security

Centralized control irrespective of location

Applications ?

E-mail with Snapshot, SMS on IVA alerts , E-mail for Reports



ATM



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Watchman



Police

Health Monitoring

What ?

Centralized functioning status of the solution

How ?

Real-time information about cameras, devices, network, server and storage performance

Benefit ?

Improved security and safety

Applications ?

Monitoring storage and connection status
Check remaining resources for server



ATM



Manufacturing



Residential



Corporates



Hotels

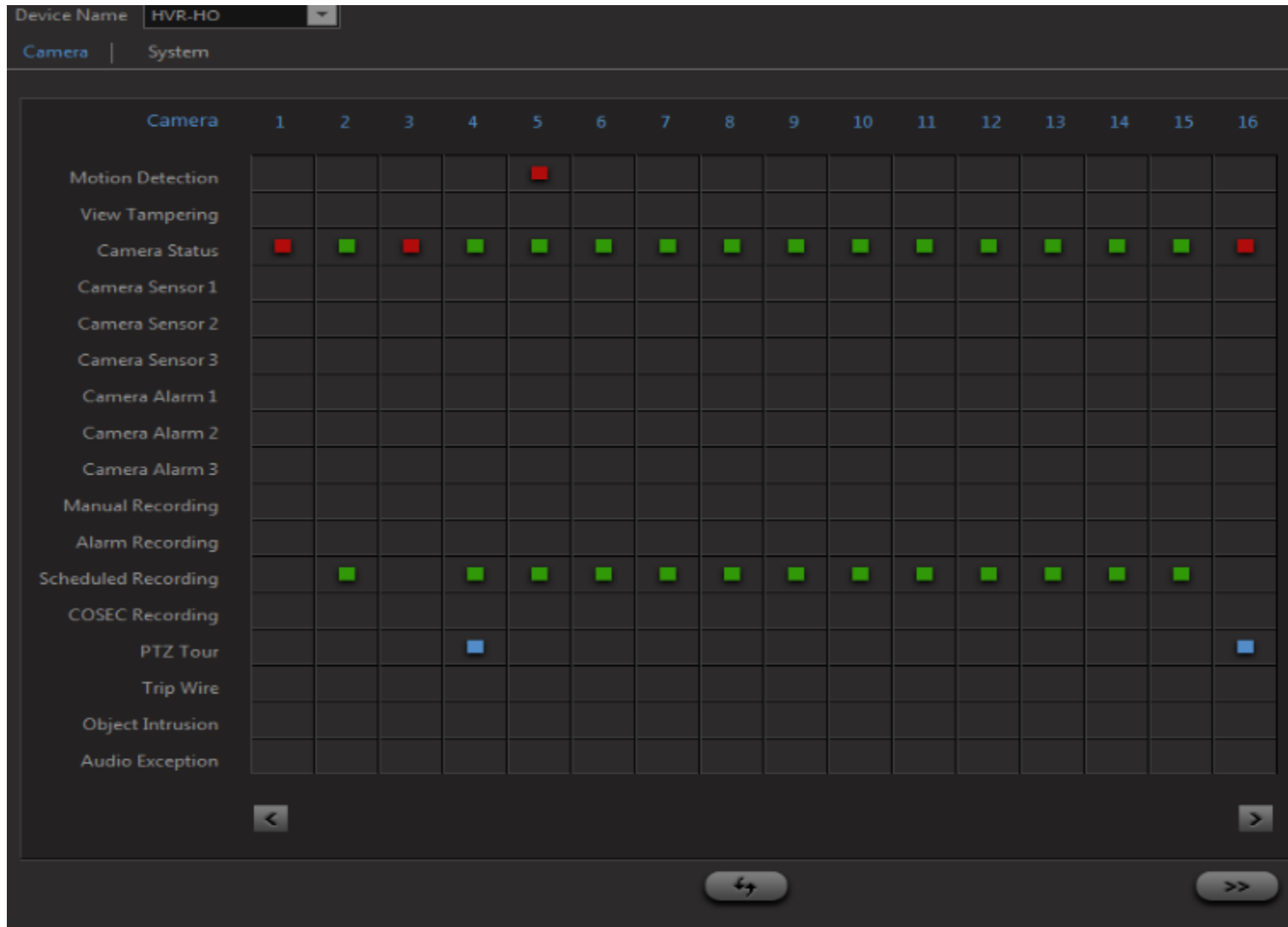


Manager



IT Person

Health Monitoring



Scheduled & Manual Backup on FTP,NAS

What ?

Enables user to take backup of recordings of various cameras manually or as scheduled on NAS or FTP

How ?

Backup can be done camera-wise depending on the importance of the recorded video, data could be then deleted from device and retrieved from NAS,FTP

Benefit ?

Prevents from data loss
Helps save on storage

Applications ?

In case of theft when the culprit damages the devices, the backup is still present as evidence on USB,FTP or NAS



ATM



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Watchman



Police

Auto-Configure of Cameras

What ?

Automatically configure cameras with their stream parameters directly from the recording device. No need to set from the respective camera page

How ?

Adds cameras automatically to the video recorders in the defined IP range

Benefit ?

Saves Configuration time
Improves Productivity

Applications ?

Helps IT personnel of any corporate or manufacturing industry



Manufacturing



Corporates



Hotels



Manager



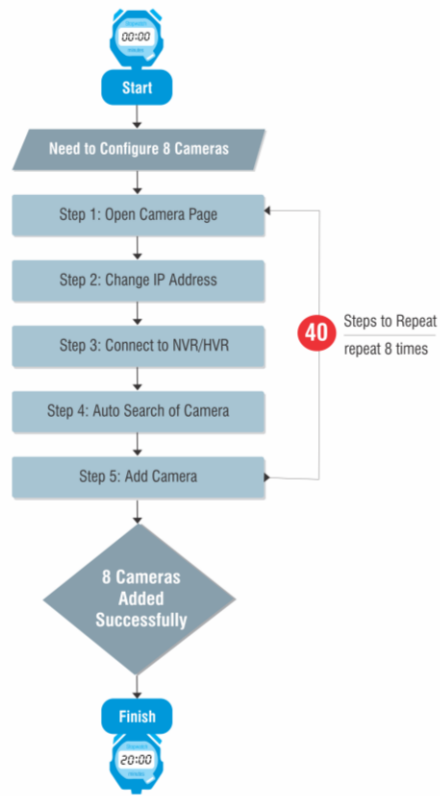
IT Person

Auto-Configure of Cameras

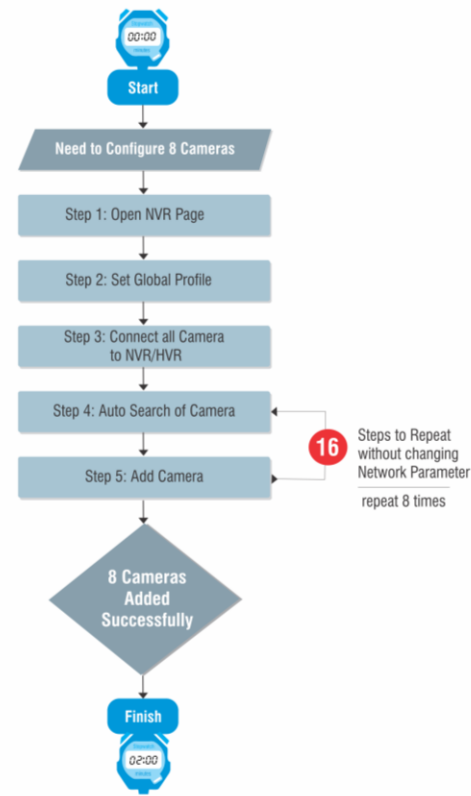


AUTO CONFIGURATION OF CAMERA WITH MATRIX DEVICE

Normal Scenario: Total Process Time = 20 minutes



Matrix Scenario: Total Process Time = 2 minutes



Event Recognition-Trip Wire

What ?

Virtual line on the image to separate dangerous or high security area

How ?

It identifies any motion over a virtual line and sends notification of a risk in the form of video pop up, SMS, email, audio or alarm

Benefit ?

Enhance safety of human assets, increased real-time security, quick investigation, improved discipline

Applications ?

Prevention of intrusion , alert on crossing danger zone, time track between two trip events



ATM



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Watchman



Police

Event Recognition- Motion Detection

What ?

Mark dangerous area where motion could mean a tragedy

How ?

Identifies difference between two frames. If difference is found for a defined time, it sends notifications like SMS, email, audio, video pop up, alarm etc.

Benefit ?

Safety of human asset
Improve productivity and efficiency

Applications ?

Secure still object, investigation of critical object theft, unauthorized object picked at retail outlet or mall



ATM



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Watchman



Police

Calling From SATATYA Sight

What ?

Calling a predefined number associated with a camera

How ?

Mobile application uses the sim card of the mobile device to call the assigned number. Each camera can be assigned a separate number

Benefit ?

Real-time security
Remote monitoring and control

Applications ?

Factory premises, ATM security, productivity monitoring on production line



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Watchman



Police

Calling From SATATYA Sight



Calling from Mobile Sight
Act Prompt, Prevent Mishaps - Call the Right Person at the Right Time

Other Video Surveillance Solution



Matrix Video Surveillance Solution



Playback & Search

What ?

Timeline based search enables to search a particular event at a particular time of the day for any camera. Pre and post recording can also be done

How ?

User can scroll and set the camera number, timeline, event etc. From the GUI. The color codes used to indicate the recording type make it simpler for the user to search for the required video

Benefit ?

Saves a huge amount of time on investigation

Applications ?

Factory premises, quick investigation on theft, murder etc.



ATM



Manufacturing



Malls



Corporates



Hotels



Manager



IT Person



CEO



Police

Playback & Search



Date Selection

Camera Selection

Event Legends

Channel Selection

Cursor

Timeline Selection

Multi OS Client Support

What ?

Viewing and Playback of cameras can be done on Windows and Mac OS with Multi OS Client Support of Matrix Recording Devices

How ?

Entering IP address of the NVR on any OS will open the device client for viewing and playback of cameras of that NVR

Benefit ?

Eliminates limitation of monitoring cameras from PC's with different OS, thereby providing greater visibility

Applications ?

Can be used to view cameras from work as well as from home



Manufacturing



Corporates



Manager



IT Person



CEO

Integration

What ?

Database level Integration with Matrix access control, other integration with fire alarm system, sensors etc.

How ?

Based on trigger by integrated application, cameras take a snapshot or start recording. Search based on such events can be done

Benefit ?

Detailed and quick investigation
Improved productivity and discipline
Complete automation of process

Applications ?

Identify unauthorized people in corporates, offices or hotels



Manufacturing



Corporates



Hotels



Manager



IT Person

Integration



SOFTWARE SOLUTION

Centralized Management Software



- Centralized control of multiple NVRs and HVRs
- 36 channels/ up to 10 pages
- E-map monitoring
- Different layout styles
- Audio/visual, video alerts
- Recording plan, monitoring plan
- Device/camera group
- Playback search from device, CMS or backup
- Event log search



Web Client



- Remotely access live or stored videos of SATATYA devices over the internet
- Configure the device monitor
- Asynchronous/synchronous playback
- Event log
- Camera wise record, search, storage, backup
- Health status of device
- PTZ settings
- User account management



SATATYA SIGHT



- Live access of SATATYA devices using mobile phones
- 2x2 layout in live view
- Digital zoom
- Up to 50 different NVR support
- Calling appointed personnel from SATATYA SIGHT
- PTZ camera control
- Favorite channel allocation for quick view
- Snapshot in live view
- Main stream and sub stream for live view



FEATURE LIST

Feature List



Channels and Resolution

8/24/64 Channels
Mega-pixel Resolution*
D1, 720P, 1080P
48/144/256/354Mbps Throughput

Ease of adding cameras

Auto configure of cameras
UPnP

Recording Types

Manual and Scheduled
Pre-alarm and Post-alarm
Trigger based
Two-way audio
Privacy masking
Motion detection

Bandwidth Optimization

H.264, MPEG-4 and Motion JPEG
Video Compression
Dual Streaming
Configurable Bit rate

Monitoring

1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 8x8, 5+1, 7+1, 4+3, 8+2, 12+1
Single, Sequential, PIP1 and PIP2
Digital Zoom on Live and Playback
User Selectable Display Sequence
Cascading
TCP Based Notifications
System Health Status
PTZ Control
Video Snapshot

Storage and Backup

Up to 24TB Storage Capacity
Adaptive Recording
Camera-wise recording retention
RAID0 and RAID1
Crop and backup
Advanced storage management
Storage on NAS, FTP and External HDD
Export in AVI and Native File Format
Upload Image in JPEG Format
Manual and Scheduled Backup
Storage on FIFO

*As per camera properties

Feature List



Search and Playback

- Timeline Based Search
- Log/Event Search
- Synchronous
- Asynchronous
- Live and Remote Playback
- Different Speed Control
- Fast Reverse
- Slow Reverse
- Fast Forward
- Slow Forward
- Next and Previous Frames

Intelligent Features

- Pentaplex Function
- Motion Detection*
- Trip Wire*
- Intrusion detection*
- Direct Streaming from Camera
- Privacy Masking*
- View Tampering*
- Day Light Saving Time (DST)
- Integration with Access Control System (ACS)

Events

- Disk Error
- Disk Volume Full
- System Alarm Detection
- Manual Trigger
- Motion Detection
- Trip Wire*
- Intrusion Detection*
- View Tamper
- Camera Disconnect
- Power On
- Storage Alert

Action on Events

- Buzzer Notifications
- Email Notifications with Snapshots
- Recall PTZ Pre-set Position
- Recording on Selected Channels
- SMS Notifications
- Turn on/off Alarm Outputs
- Upload Images on FTP/Email/Network Drive

*As per camera properties

Feature List



Remote Function

Live Camera Monitoring with PTZ Control
Menu Configuration
Record Video
Live View and Playback

Control

IR Remote Control
Front Panel Backup Button
Wireless Mouse

Alarm*

Motion Detection*
Video Loss
Video Tamper*
Trip Wire*
Intrusion Detection*

Security

IP Access Control List
Block Online Users
Secure Remote Access
Video Access Rights

System

Firmware Upgrade
10,000 Events Log
3 User Access Levels (Default)
Embedded Web Server
Intuitive GUI
Linux Embedded OS
Online Users List
Multiple Concurrent Login Sessions (Up to 120)
Multiple Programmable Users
Web based Interface
Check System Health Status

Centralized Monitoring System (CMS)

36 Channels Simultaneous
Display/up to 10 Pages
Connect Multiple NVRs, HVRs and DVRs
Create Monitoring Plans
Grouping of Multiple Cameras
Local Storage and Playback
Local Scheduled Recording
Centralized Recording and Backup

*As per camera properties

Feature List



Device Client

- Different Layout Styles
- Asynchronous/ Synchronous Playback
- Camera wise Recording, Backup and Storage
- Main Stream and Sub Stream Options
- Camera and Event wise Actions
- Broadband and Static Routing Options
- IP and MAC Address Filtering
- User Account Management

Mobile Client

- Support up to 50 SATATYA Devices
- 2*2 Layout in Live View
- Remote Control for PTZ Cameras
- Device and Camera Configuration
- Playback of Recorded Files
- Favorite Channel Snapshots
- Calling a Concerned Personnel in case of any Event

*As per camera properties

We put
more
in the box

so your
business
can think
more
out of
the box.



Thank You.