NO TRESPASSING

SMS

Rec

SATATYA DVR
Digital Video Recorders

The Persistent Vision

Video surveillance forms a major part of any organization's security strategy. In addition to the basic security needs, video surveillance dramatically improves productivity, efficiency and discipline in the organization. However, most imported video surveillance solutions are cheaply designed by cutting corners in many vital engineering aspects. Therefore, importance of selecting the right video surveillance solution cannot be overlooked.

Presenting Matrix SATATYA – a family of video surveillance solutions specifically engineered for organizations who demand industry-grade solutions. Matrix SATATYA family consists of DVRs, NVRs, analog cameras, central management software, mobile viewer, web client and accessories. These high-performance products are rich in features, flexible, easy to use and reliable.

Do not leave your video surveillance to cheap imported products. Trust Matrix SATATYA - video surveillance solutions specifically engineered for professional applications.

MATRIX
SECURITY SOLUTIONS

Matrix SATATYA
The Persistent Vision

What you get from a DVR is what you expect out of it. Most of the DVRs available have limited functions and are reduced to a mere video recording apparatus. Such narrow functional scope conditions the users not to think beyond standard utilities and hence, misses out on other value additions that a DVR can deliver. Matrix SATATYA is a range of carefully engineered Video Surveillance solutions that go beyond standard functions and deliver much more to enhance Security, Productivity and Discipline of an organization. **Expect more. Get more from Video Surveillance!**

Why Matrix SATATYA is a preferred Enterprise Solution over other cheap DVRs!

Key Features	Matrix SATATYA	Other DVRs
Centralized Management	• Manage Multiple DVRs and NVRs • E–map	☹
Viewing	• CMS and Web Client • Mobile Viewer	☹
Events and Alerts	• Alerts for Motion, Hard Disk Full, Camera Tamper, Network Disconnection • SMS/Email, Audio and Video Alerts	☹
Connectivity	• 3G • Matrix DNS Server	☹
Integration	• Access Control and Time Attendance • Fire Alarm Panel	☹
User Interface	• Wireless Mouse • IR Remote Control with IR Extender	☹
Flexibility	• Motion based Recording • Event based Recording	☹
Streaming	• Dual Streaming for Viewing and Recording	☹
Backup	• USB and FTP • Scheduled and Manual	☹
Search	• Event based • Time based	☹
Durability	• Rugged Design • Heavy-duty Components	☹
Support	• Lifelong Support to Protect the Investment	☹

RECORDING
Use Storage Space Efficiently

Optimal Use of Storage Device
Using H.264 compression along with channel-wise recording and frame rate selection ensures optimum usage of storage space.

Smart Recording for Faster Search
Various channel-wise recording options like Manual, Scheduled, Continuous, Alarm and Event based help in saving hard disk space and in quick data search.

Never Lose Recording
SATATYA DVR notifies the user if the free space on the hard disk decreases below a predefined level. Hence, no recording can be lost due to lack of storage space.

Privacy while Recording
Privacy Masking feature masks multiple areas in a single image which would not be displayed in the live view or recorded video. This helps in protecting privacy of organizations by concealing certain parts of the image.

PLAYBACK AND SEARCH
Quick and Easy Search of Videos

Quick Search of Evidences
Smart search option helps in quick retrieval of information from the recorded video using filters like Channel Name, Number, Date, Time, Event and Type of Recording.

Uninterrupted Tracking of Events
Simultaneous playback of all channels helps in reviewing an entire event through multiple cameras at the same time. This allows continuous viewing of the event across an entire organization.

Quick Navigation between Events
Playback of all channels with options like Fast Forward, Reverse, Previous-Next Video, etc. help in quick and smooth navigation between events.

Accurate Examination of Recorded Video
Video Freeze, Snapshot and Backup of recorded videos help in close examination of events and store them for reference.

MONITORING
Vigilant Monitoring so that nothing is missed out.

Effective Monitoring
Monitoring of videos in a single frame, Picture in Picture (PIP) as well as in different layout styles allows navigation of cameras in a sequential order for effective monitoring.

Close Inspection
Digital Zoom and Video Freeze feature allows detailed scrutiny of any defined area on the screen. It also allows taking a snapshot of any frame from the live stream for further analysis.

Larger Range with 360° View
DVR allows connection of 16 PTZ cameras, which can be controlled using CMS, Web Client, Mobile Viewer and local GUI. Each PTZ tour is programmable with up to 64 camera positions per channel, This ensures that a larger area is covered under surveillance and important areas stay in focus.

Uninterrupted Video during Remote View
Dual Stream feature allows to record with higher resolution on mainstream and transmit the same video with lower bit rate on substream. This leads to optimum utilization of bandwidth and a better remote viewing experience.

Complete System Status at a Glance
DVR provides channel-wise live status of various parameters like Motion Detection, Manual or Motion based Recording, PTZ Tour, Disk Status, Alarm Status, Backup Status, Tampering etc. This helps in checking the real time functioning status of the DVR at a glance.

ALERTS AND EVENTS

Instant notification on occurrence of any event. Prevents major loss or damages.

Irregularities Detection
Detection of various events like Motion, Alarm, Manual Trigger, Disk Error, Network Disconnection, etc. at the point of occurrence helps in preventing any major loss.

Quick Notification on Irregularities
On detection of events, immediate notification via SMS, Email, Buzzer, upload of images to FTP server, recording initiation on defined cameras; is triggered. It helps in initiating rapid action for damage control.

Never Miss Recording Important Events
On the occurrence of events like camera tampering and video loss of the specific channel, DVR initiates recording from another pre-defined video channel. This multiple channel linking feature creates a very reliable second line of defense.

Matrix SATATYA
The Persistent Vision

For better Security, Productivity and Discipline in your Organisation.

REMOTE VIEWING

Your office stays productive, even in your absence.

Cost Savings on Static IP Purchase
Matrix DNS server helps in viewing any device even if it does not have a static IP. This reduces costs as well as offer the convenience of remote viewing.

Remote Viewing at Any Location
With 3G option, connectivity is possible at any location where wiring is not feasible. This helps in remote surveillance of sites at anytime from anywhere.

BACKUP
Never Lose Any Valuable Video
Scheduling and manual backup of recorded video on USB based storage devices as well as network prevents any loss of data due to hard disk failure or hard disk full.

RELIABILITY
Reliable Hardware
Matrix SATATYA DVRs are built using industrial-grade, heavy-duty components to perform under all operating conditions. They comply with international standards like CE, FCC, RoHS and others.

INTEGRATION
Access Control
Ethernet based integration ability of DVR with Matrix Access Control, allows linking of door controller with cameras for taking snapshot and start recording on occurence of event at the door. This integration acts as a second line of defense by sufficing pictorial evidence of any unauthorized access of doors. Search can be done using parameters like User Names, Door Controllers, Access Denied Events, Door Tampering, etc.

Fire Alarm Panel
Ease of integration with the Fire Alarm Panel helps in initiating recording on occurrence of any trigger sent by a sensor. This helps in knowing the source and cause of fire, real time status of property damages, trapped lives, guiding the rescue operations, etc.
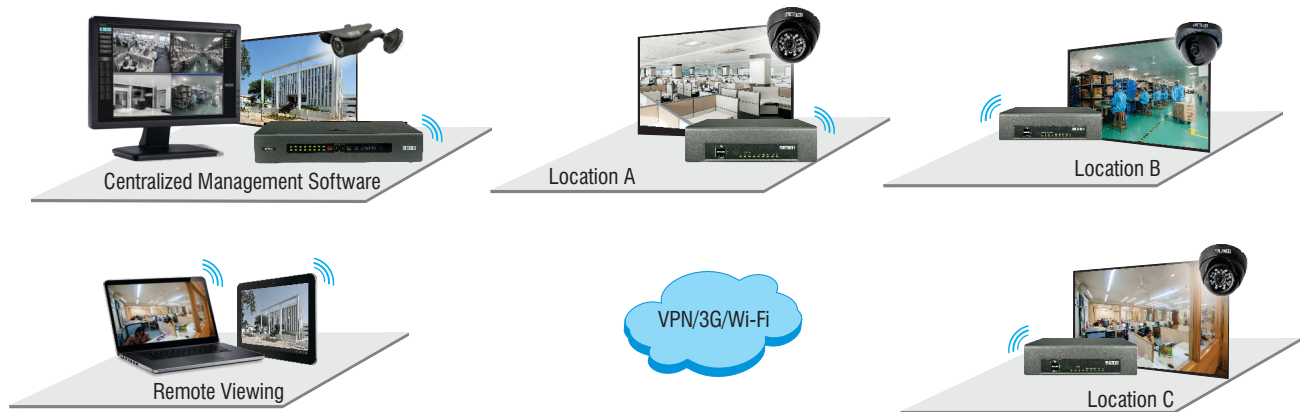
APPLICATION SOFTWARES

SATATYA CMS Centralized Video Surveillance Application Server

SATATYA CMS allows management of multiple DVRs and NVRs connected at different locations from one place. It allows monitoring, controlling and configuring them remotely. This becomes essential especially for enterprises having multiple locations but requiring to manage the locations from a centralized location.

Centralized Management Software

Location A

Location B

Remote Viewing

VPN/3G/Wi-Fi

Location C

Centralized Management of Multiple Devices
The CMS allows simultaneous viewing and controlling of up to 36 cameras from multiple DVRs and NVRs in a single window. It also allows sequencing and selecting different layout styles for efficient monitoring.

Centralized Alert Management
The CMS allows channel-wise and sensor-wise alerts. Users can define an audio and video alert for quick notification on events like motion detection, view tamper, video loss, storage and system. This keeps the user updated about events across all the systems.

Enhanced Viewing Experience
The CMS allows creating a channel-wise and pagewise monitoring plan for live viewing of streams. This helps in viewing all the channels but having more focus on important areas.

Smarter Search for Quick Retrieval
The CMS allows playback search on any device, locally stored data and backup. It offers easy retrieval of data with filtering options like device, camera, type of recording along with start and end time.

E-map for Managing all Cameras and Sensors
The E-map feature in CMS allows the user to add cameras and sensors on any image of the organization. The user can link each camera on the image with the original device. This allows him to view any camera by clicking on that particular camera. The E-map also shows a notification on detection of any event by showing a blinking of the respective camera.

SATATYA Web Client

The SATATYA Web Client allows access of live and stored video from remote locations through the web. It allows complete management of the DVR remotely like configuring DVR and camera settings along with search, browse, display and transfer of stored video to a remotely connected workstation.

SATATYA MV Mobile Viewer Application

SATATYA MV allow users to view their businesses and homes remotely using smart phones. It allows users to view live video from the camera anywhere anytime.

• Add up to 10 different DVRs
• Control PTZ Cameras
• Favorite Channel
• Take a Snapshot
• View Mainstream or Substream

TECHNICAL SPECIFICATIONS

		SATATYA DVR4S	SATATYA DVR8S	SATATYA DVR16S	SATATYA DVR8P	SATATYA DVR16P
Video	Input	4 Channels, BNC	8 Channels, BNC	16 Channels, BNC	8 Channels, BNC	16 Channels, BNC
	Standard	PAL (704x576) and NTSC(704x480)				
	Compression	H.264				
	Output	1Main Video (BNC), 1 VGA	1Main Video (BNC), 1 Spot Video (BNC), 1 VGA		1 HDMI, 1 Main Video (BNC), 1 Spot Video (BNC), 1 VGA, 8/16 Extended	
Audio	Compression	G.711				
	Input	2 Channels, RCA Ports				
	Output	1 Channel, RCA Port				
	Input (Extended)	0			8	
Alarm	Input	4	8			
	Output	1	3			
Display	Split	PIP1, PIP2, 2x2	PIP1, PIP2, 2x2, 5+1, 7+1	PIP1, PIP2, 2x2, 3x3, 4x4, 5+1, 7+1, 4+3, 8+2 and 12+1	PIP1, PIP2, 2x2, 5+1, 7+1	PIP1, PIP2, 2x2, 3x3, 4x4, 5+1, 7+1, 4+3, 8+2 and 12+1
	Resolution	800x600, 1024x768, 1280x1024, 1280x960				
	Privacy Masking	Yes				
	Digital Zoom on Live	Yes				
	Freeze View	Yes				
	Snapshot	Yes				
	OSD	Channel Number and Name, Status, Video Loss, Motion Detection, Recording, View Tamper, Blocked View and Disabled Channel				
Recording	Image Resolution	D1, 2CIF and CIF				
	Pre-Record	Up to 30Sec				
	Post-Record	10-300Sec				
	Snapshot Format	JPEG				
	Recording Modes	Manual, Continuous, Scheduled, Motion, Alarm				
Playback & Backup	Synchronous Playback	4	8	16	8	16
	Search Mode	Date and Time, Channel, Recording Type				
	Playback Modes	Fast Reverse, Fast Forward, Slow Forward, Previous Video, Next Video, Different Speed Control				
	Backup	Manual and Scheduled Backup over USB/FTP				
	Network Functions	3G, TCP/IP, DHCP, PPPOE DNS, DDNS, Matrix DNS Server, FTP, SMTP, NTP				
	Remote Operation	Monitor, PTZ Control, Playback, System Setting, File Download, Log Information, Upgrade				
Events & Alerts	Trigger Events	Motion Detection, System Alarm Detection, Storage Alert, Disk Error, Network Disconnected				
	Actions	Recording on Selected Channel, Upload Images on FTP server, Email Notification, TCP Notification, Recall PTZ Preset Position, Turn On/Off Alarm Outputs, Buzzer Notification, SMS Notification				
	Motion Detection	Yes				
	Video Loss	Yes				
	View Tamper	Yes				
Storage	SATA Interface	1 SATA Port (2 TB per Port)	2 SATA Ports (2 TB per Port)			
Interfaces	Communication Interface	1 RJ45 10/100 Mbps Adaptive Ethernet Interface				
	USB	2 Ports				
	RS-485	1 Port (PTZ Control)				
System	Processor	High performance Embedded Microprocessor				
	OS	Linux				
	Control Mode	Mouse, IR Remote CMS & Web Client	Front Panel, Mouse, Remote Control, CMS & Web Client			
Electrical	Power Input	12VDC@2A	12VDC@5A			
	Power Consmption	Less than 24W (with 1 HDD)	Less than 60W(with 1 HDD)			
Environmental	Operating Temperature	-10℃ to+50℃ (14℉ to122℉)				
	Humidity Range	5% to 95% RH Non-Condensing				

SOFTWARE RESOURCES	
Events Log	10,000
Role based Access Control Level	Administrator, Operator and Viewer
Programmable Users	18
Simultaneous Login Users	9+1
IP Access Control List	Yes
Day Light Saving	Yes

SOFTWARE REQUIREMENTS	
Operating System	CMS → XP SP3, Vista, Windows 7 (32/64 bit) Web Client → Windows XP and above
Web Browser	Internet Explorer 6 & above (for DVR Web Client)
Processor	Intel Pentium 4 Processor (Minimum) Intel i5 or above (Recommend)
RAM Memory	1 GB (Minimum), 2 GB (Recommend)
Free Disk Space	200 MB (Minimum)
Connection	10/100 Base-T Network Interface

SATATYA CA - Video Surveillance Cameras

MODEL NAME / SPECIFICATIONS	SATATYA CAD600FL36C	SATATYA CADR600FL36C	SATATYA CAD480FL36/ SATATYA CAD600FL36	SATATYA CADR480FL36/ SATATYA CADR600FL36	SATATYA CABR600FL36/ SATATYA CABR600FL60	SATATYA CABR600VL12	SATATYA CABX600RL
TVL	600TVL	600TVL	480/600TVL	480/600TVL	600TVL	600TVL	600TVL
Type	Dome	IR Dome	Dome	IR Dome	IR Bullet	IR Bullet	Box
Signal System	PAL/NTSC						
CCD/CMOS	Progressive Scan CMOS		Color 1/3 SONY				
Minimum Illumination	0.1Lux	0Lux with LED on	0.1Lux	0Lux with LED on			0.1Lux
AWB (Auto White Balance)	Yes						
WDR (Wide Dynamic Range)	Yes						
BLC (Back Light Compensation)	Yes						
Automatic Gain Control	Yes						
Certifications	CE, FCC, RoHS				IP66, CE, FCC, ROHS		CE, FCC, RoHS

INTERFACES

FEATURES LIST

Channels and Resolution
- 4, 8 and 16 Channels
- H.264 Video Compression
- D1, 2CIF, CIF and QCIF

Recording
- Manual and Scheduled
- Pre-alarm and Post-alarm
- Channel-wise Frame Rates and Resolution
- Trigger based

Monitoring
- 1x1, 2x2, 3x3, 4x4, 5+1, 7+1, 4+3, 8+2, 12+1
- Single, Sequential, PIP1 and PIP2
- Digital Zoom on Live
- User Defined Layout Styles
- User Selectable Display Sequence

Storage and Backup
- Up to 2 SATA HDD Support
- Up to 4 TB Storage Capacity
- Export in Native File Format
- Export Video to FTP and USB
- Manual and Scheduled Backup
- Storage on FIFO Basis

Playback
- Live and Remote Playback
- Different Speed Control
- Fast Forward
- Slow Forward
- Single Step Forward
- Next and Previous Video
- Synchronous Playback for All Channels

Search
- Channels
- Date and Time
- Recording Type

Intelligent Features
- Pentaplex Function
- Motion Detection
- Dual Streams
- Privacy Masking
- Pelco P and D Protocol Support
- Day Light Saving Time (DST)
- Integration with Access Control System
- DynDNS and Matrix DNS Server
- 3G Connectivity

Alarm Security
- 2, 8 and 16 Alarm Input
- 3 Alarm Output
- Motion Detection
- Video Loss
- Video Tamper

Events
- Disk Error
- Disk Volume Full
- Manual Trigger
- Motion Detection
- Network Disconnection
- Power On
- Storage Alert

Action on Events
- Buzzer Notifications
- Email Notifications
- Recall Preset
- Recording on Selected Channels
- SMS Notifications
- TCP Notifications
- Turn on Alarm Outputs
- Upload Images on FTP Server

Remote Function
- Live Camera Monitoring with PTZ Control
- Menu Configuration
- Record Video
- Live View and Playback
- Firmware Upgrade

Control
- IR Remote Control
- IR Extension for Remote Control
- Front Panel Touch Sense Keypad
- Mouse

Audio
- 2 Audio Inputs
- G.711 Audio Compression
- 1 Audio Output
- 8 Extended Audio Inputs

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

System
- 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 10)
- Multiple Programmable Users (Up to 18)
- Web-based Interface
- System Health Check
- Camera Grouping

Centralized Monitoring Software (CMS)
- 36 Channels Simultaneous Display
- Audio, Video and Visual Alerts
- Intelligent E-map
- Native to AVI File Conversation
- Grouping of Multiple Cameras
- Local Storage and Playback
- Local Schedule Recording

Mobile Viewer (MV)
- Single Channel Live Display
- Remote Control for PTZ Cameras
- Support up to 10 SATATYA DVR
- DVR and Camera Configuration
- Favorite Channel
- Snapshots

ABOUT MATRIX

Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; the company is committed to keep pace with the revolutions in the telecom and security industries. With around 30% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems, Video Surveillance System and Fire Alarm Systems. These solutions are feature-rich, reliable and conform to the international standards. Having global foot-prints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.

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For further information, please contact:

Due to continuous technology upgradations, product specifications are subject to change without notice.