MATRIX®

TELECOM | SECURITY

Researched, Designed &
Manufactured in
INDIA

50+ Countries | 1M+ Customers

Matrix SATATYA IP Video Surveillance

Video Management Software
Network Video Recorders

IP Cameras
Mobile Applications

Importance of Video Surveillance

Centralized Surveillance

Safety of People

Safety of Assets

Enhanced Productivity

Crime Prevention

Evidence Gathering

Ensure Compliance

Proactive Surveillance

Peace of Mind

Why Data Security Matters?

Malware Protection

Prevent Unauthorized Access

Protect Privacy

Legal Compliance

Hacking Proof

SATATYA Key Features

MATRIX TELECOM | SECURITY

Complete Product Portfolio

- IP Cameras - Bullet, Dome, Turret, Ruggedized, and PTZ Cameras
- Network Video Recorders
- Video Management Software

Centralized Video Surveillance

- Clustering Feature allows User to Connect up to 20 NVRs and Access any Camera in the Loop
- VMS Allows Monitoring Multiple Locations Centrally

SATATYA Key Features

MATRIX TELECOM | SECURITY

Scalability

- Expandable up to 65,535 Cameras
- 10,000 Users/ Recording Servers
- 1000 Concurrent Users

User-based Roles and Responsibilities

- Customized to the Organizational Hierarchy
- Defines Rights Based on User Profile
- Better Control over Viewing and Playback Rights

SATATYA Key Features

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Intelligent Video Analytics

- Analytics on the Edge
- Second Layer of Analytics with NVRs
- RSS (Recording and Streaming Server) Works with Matrix IVA Server or Third-party IVA Servers

Storage and Bandwidth Optimization

- Adaptive Streaming
- Smart Streaming
- H.265 Compression

SATATYA KEY FEATURES

Redundancy

Inbuilt Redundancy and Failover Server for Seamless Capturing of Data

Integration

POS, Access Control, Fire, Weighbridge

Protocol

Open Protocols such as ONVIF, TCP-based APIs, and Database Integration

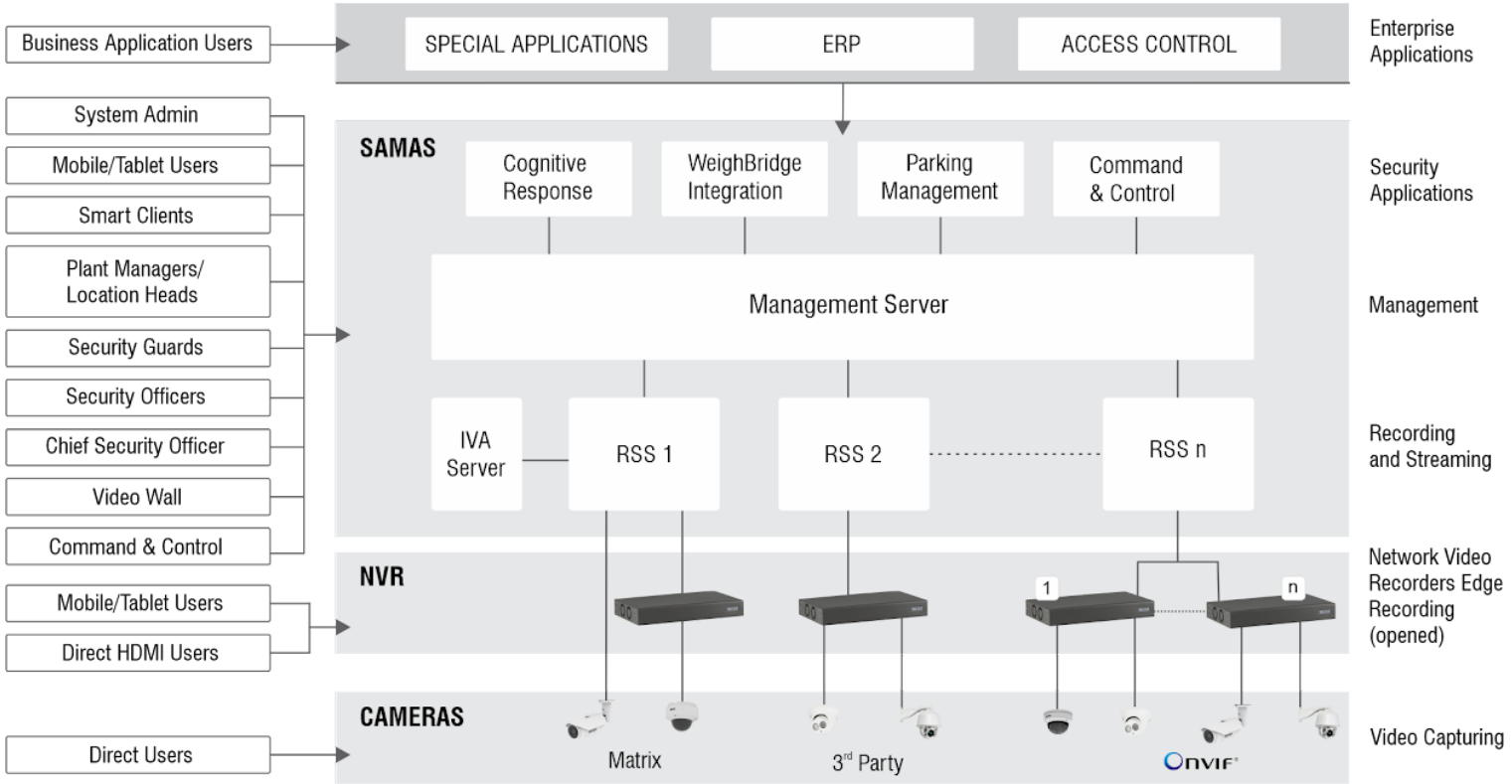
Supports Multiple Devices

Supports Video Walls, TV Screens, PC/Laptops, and Mobiles

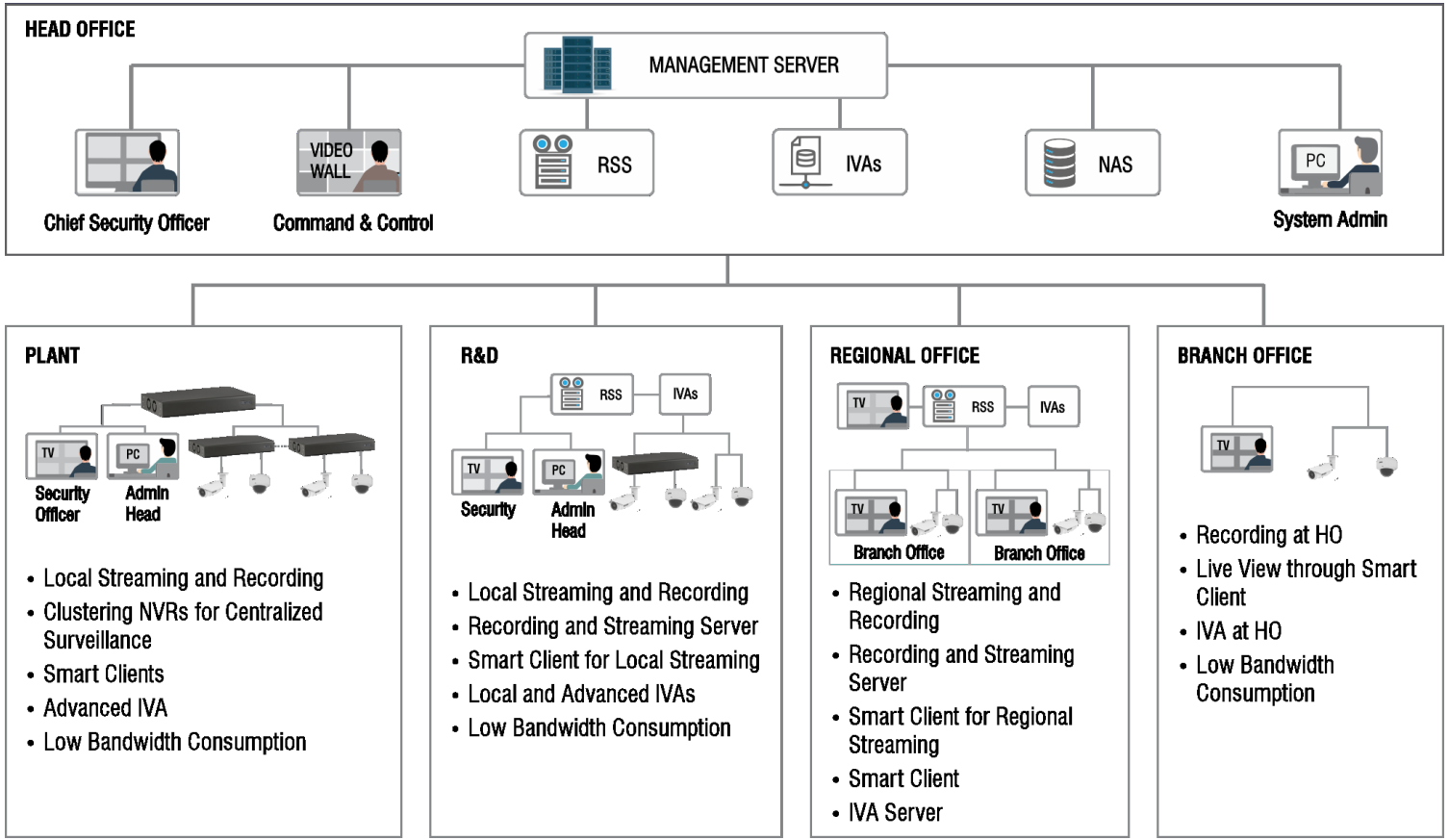
Multi-level Recording With Auto Sync

Ensures Video Data is Available when Required

SATATYA ARCHITECTURE



SATATYA DEPLOYMENT



SATATYA
BUILDING BLOCKS

SATATYA SAMAS Video Management System

Network Video Recorders – NVRXS, NVRX, NVRXCTS

IP Cameras – Bullet, Dome, Turret, Ruggedized, and PTZ

SATATYA Sight / Vision

MATRIX
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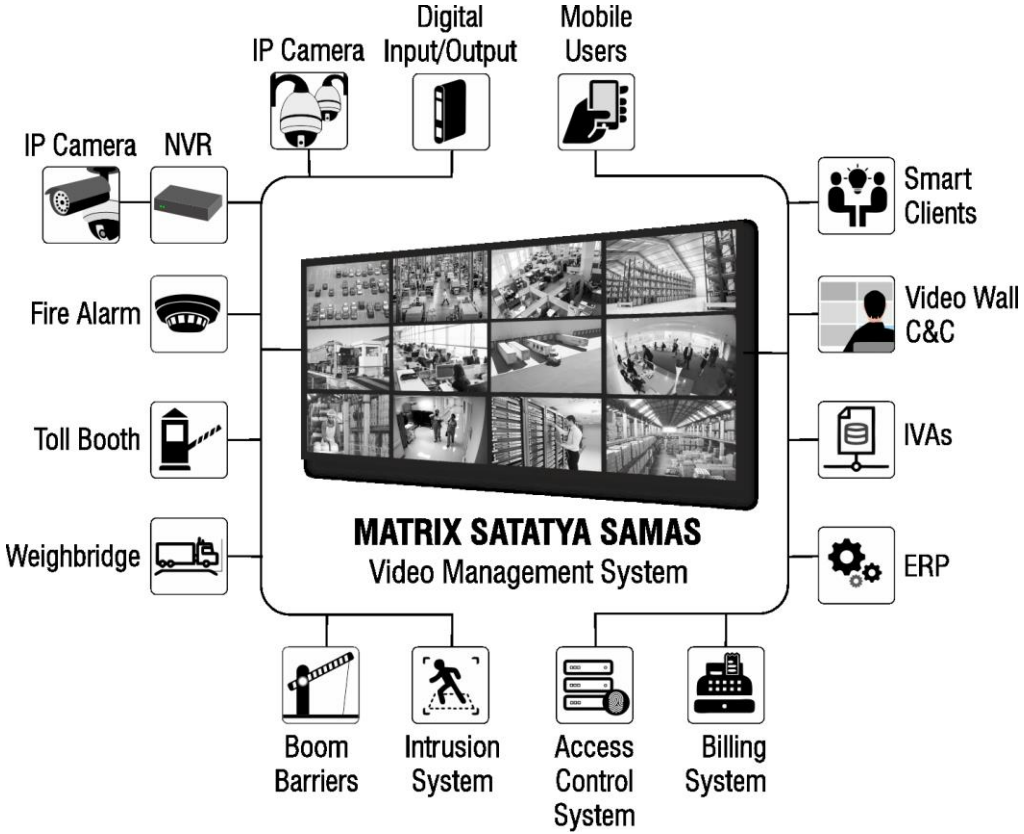
SATATYA SAMAS
VIDEO MANAGEMENT SYSTEM

SATATYA SAMAS INTERFACE



SAMAS BUILDING BLOCKS

Management Server

- System Admin Assigns Users Roles-Rights
- Devices Management (RSS, NVR, Camera)
- Data Management and Integration

System Admin Client

- Users and Device Management
- Storage and Backup
- System Alerts and Maintenance

Mobile Client

- Mobile Application
- Live View
- Playback

Recording and Streaming Server (RSS)

- Video Streams from Cameras and NVRs
- Storage, Backup, Archiving
- Live Streaming and IVA Integration

Smart Client

- Live View, Playback, and Investigation
- Events, Alerts, and Pop-ups
- Reports and Analytics

Media Client

- Transient Users without Log-in Rights
- Video Access

SATATYA
KEY FEATURES

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Centralized Monitoring and Control

- Monitoring Multiple Locations Centrally
- Mapped to Organization Structure and Hierarchy
- Quick Response Time
- Reduced Security Lapses

Scalable to Meet Future Requirements

- Scalable up to 65535 IPC over 255 RSS
- Can Connect up to 10,000 Locations
- Recording Servers
- Up to 1000 Concurrent Users

SATATYA
KEY FEATURES

User-Based Roles and Rights

- Monitoring Multiple Locations Centrally
- Mapped to Organization Structure and Hierarchy
- Quick Response Time
- Reduced Security Lapses

Integrated Video Surveillance

- Single Platform for all Security Devices
- Supports Matrix and Third-Party IPC and NVRs
- Single Platform for Peripheral Security Devices
- API Integration with Matrix Access Control System

SATATYA
KEY FEATURES

Command and Control

- Video Walls, Hierarchical E-map, Evidence Locks
- E-map to Navigate Buildings, Floors, and Camera
- Monitor Cameras and Sensors on The Premises
- Prompt Navigation, and Timely Notification

Redundancy

- Failover Server Deployment at Critical Locations
- Server Redundancy: Deploy Multiple RSS
- Network Redundancy: Configure Multiple ISPs
- Edge Recording: Local Recording in Case of Network Failure

SATATYA
KEY FEATURES

Optimize Bandwidth and Storage

- Configure Different Stream Profiles as per Usage
- Recording, Local, and Mobile View to Optimize Bandwidth
- Configure Different Profiles for Different Usage

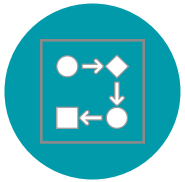
Enterprise Intelligent Video Analytics

- Moton and No-motion Detection
- Tripwire, Tampering, Intrusion, Tailgating
- Weighbridge, ANPR, and Parking Management
- Eliminates Human Lapses

Cognitive Response Engine with Automated Monitoring (CREAM)

Automates Routine Surveillance Workflow and Activities

Preventive Security with Consistent Response



Overcomes Human Constraints, Lapses, and Delays

Create Customized Scenarios with Input Triggers, Real-time Analysis, and Desired Responses

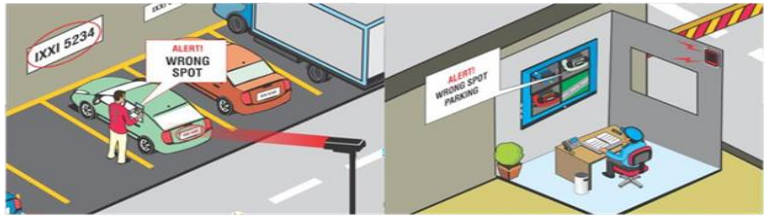
SAMAS SOLUTIONS

Vehicle Tracking and Parking Management

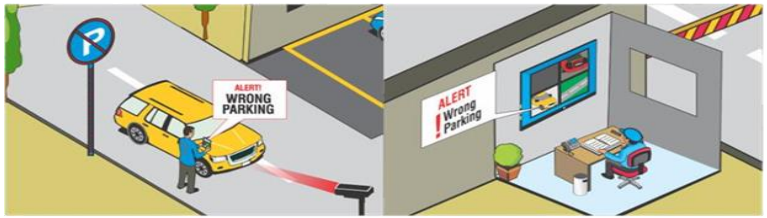
- Automates Routine Functioning of Parking lots
- End-to-end Centralized Parking Management Solution
- License Plate Recognition, Prohibited Parking, Wrong way Parking, Unauthorized Parking, and more

Entry or Exit of Vehicles

Unauthorized Parking



No Parking

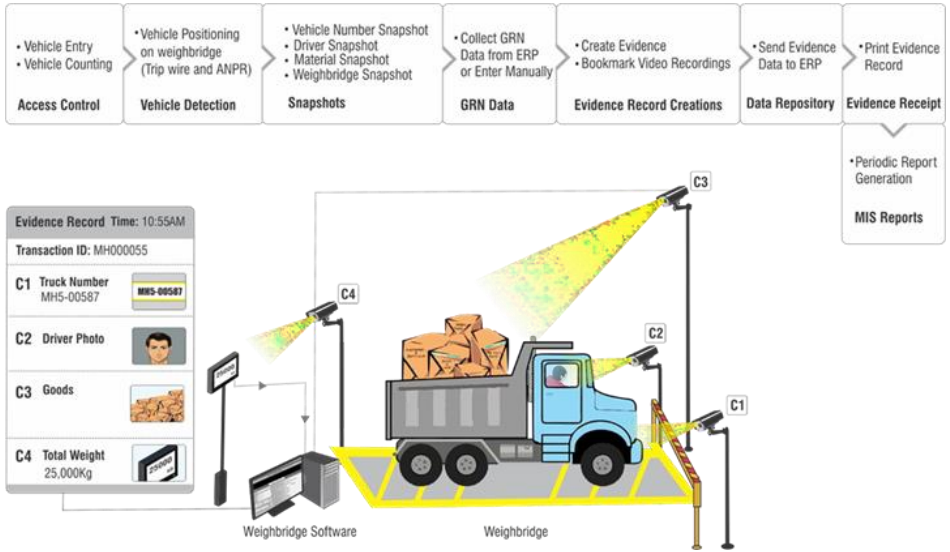


Improper Parking

SAMAS SOLUTIONS

Weighbridge Integration

- Pictorial Evidence of Inward and or Out-ward Vehicles
- Mapping License Plates, and Challan Numbers, for Verification
- Transparency in Weighment Solutions
- Seamless Integration with ERP through API



SAMAS SPECIFICATIONS

Built-in Cameras	5
Maximum Cameras	65,535
Built-in Users	1
Maximum Users	65,535
Maximum Locations	10,000

SATATYA
NETWORK VIDEO RECORDER

SATATYA NETWORK VIDEO RECORDERS

Enterprise
Network Video Recorders
32/64/128/256 Channel Variants

Extreme Series
Network Video Recorders
8/16/32/64 Channel Variants

Extreme Series
Network Video Recorders XS
4/8/16 Channel Variants

ENVR KEY FEATURES

- Enterprise-Grade Server-based Turnkey Video Surveillance Solution
- Highly Scalable and Flexible to Integrate with Various Open Platforms
- No Need to Invest Separately in VMS, Servers, and NVRs
- Redundancy Support – Power, Network, Storage, Recording and Streaming

ENVR KEY FEATURES

- H.265 Video Compression Technology to Optimize Storage
- 3 Level Video Grooming - Primary and Two Levels of Backup and Archive
- Hot Swappable Hard Disk Drives for Easy Maintenance with Zero Down Time
- Data Secure Surveillance Compliant with OWASP

KEY FEATURES ENVR

256 Channel

144TB Storage

12MP Camera Recording

Interoperability

Decoding Capacity

1GBPS Throughput

Streaming Support up to 3GBPS

Integration

Peace of Mind

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CERTIFICATIONS AND COMPLIANCES

OWASP®

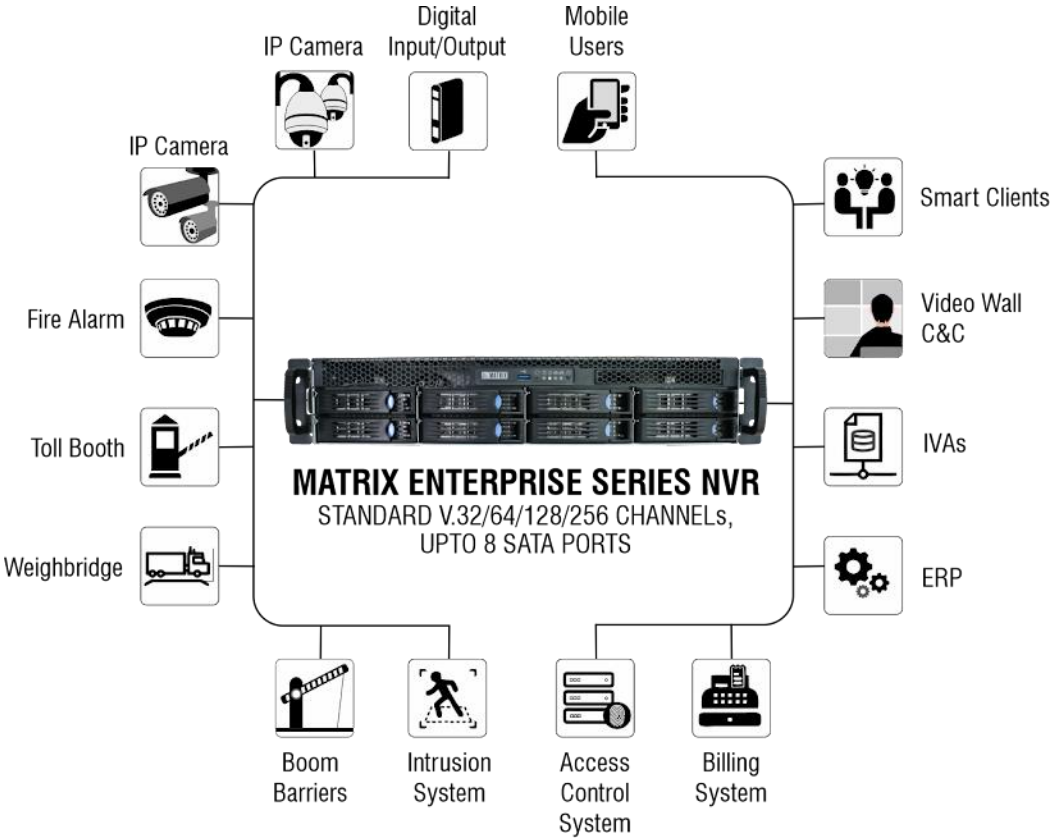
INDIAN RAILWAYS
RDSO
Research Design & Standards Organisatio

FC

CE
CERTIFIED

BIS

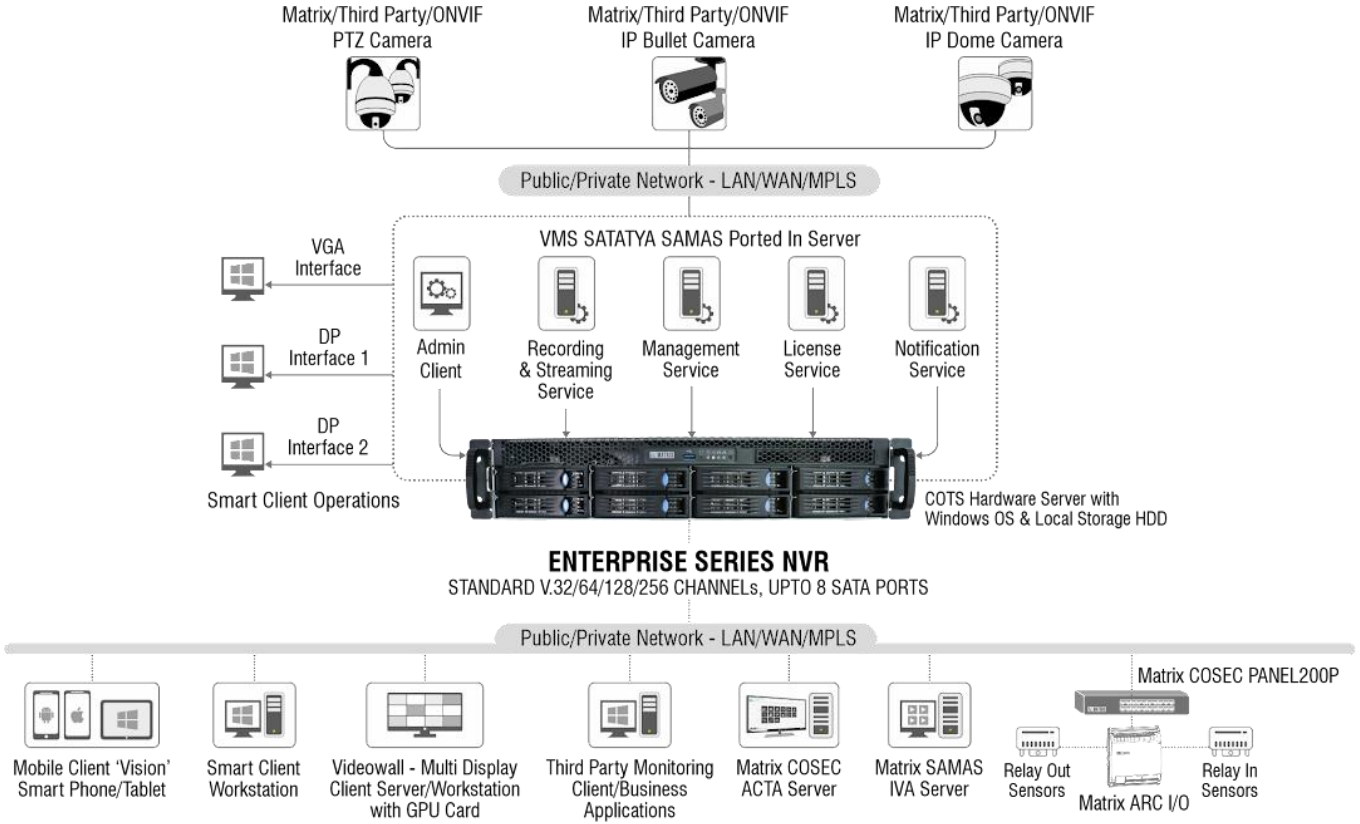
ENVR INTEGRATION



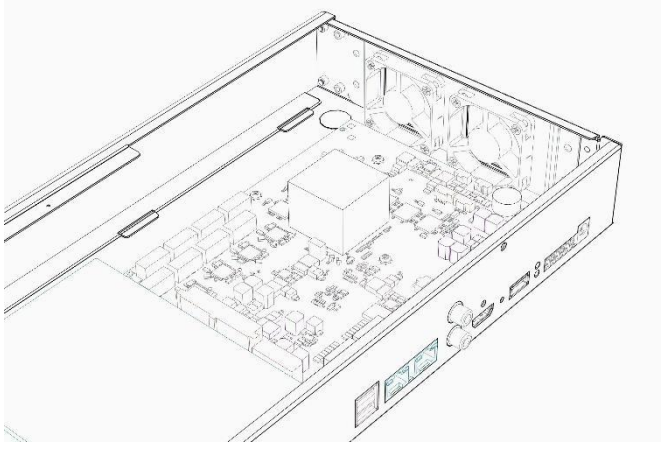
ENVR SELECTION GUIDE

VARIANTS		NVR03208XCTS	NVR06408XCTS	NVR12808XCTS	NVR25608XCTS
Video	IP Channels	32	64	128	256
	HDMI Main	-	-	-	-
Audio	Input	1	1	1	1
	Output	1	1	1	1
Alarm	Input	Connect via. COSEC PANEL200P + ARC I/O 800 Controller			
	Output				
Storage	SATA Ports	8 (18TB each)	8 (18TB each)	8 (18TB each)	8 (18TB each)
	RAID Support	RAID 0,1,5,10	RAID 0,1,5,10	RAID 0,1,5,10	RAID 0,1,5,10
Interfaces	10/100/1000 Mbps Adaptive Interface	5 (4 - LED Indication, 1 - Server Management)			
	USB Ports	5	5	5	5
Throughput		512Mbps Uplink/ 512Mbps Downlink			

INTERFACE DIAGRAM



SATATYA NETWORK VIDEO RECORDERS



Matrix Network Video Recorders Extreme

- Up to 64 Channel Support with a Storage Capacity of 80 TB (10TB per SATA port)
- 360 Mbps Throughput Capacity and 4K Decoding on HDMI 2.0
- Camera-wise Recording Retention and H.265 Compression to Optimize Storage
- RAID Support 0,1,5,10

NVR KEY FEATURES

Clustering

- Links up to 20 NVRs Using a Master and Slave Configuration
- Monitors 1000+ Cameras from a Central Location
- View Real-time Footage of any Camera Attached to any NVR in the Loop
- Saves Software and Server Cost
- Ideal Solution for SMEs, Railways, Airports, and many more

NVR KEY FEATURES

Camera Initiation

Initiate configuration from Matrix camera, no NVR access required.

Camera wise Recording Retention

Camera wise Recording Retention

Smart Recording

Configure streams with adaptable bitrates, allotting varying rates for importance, conserving storage

Motion-based keyframes for smooth streaming, 30% less storage, extended retention

Adaptive Recording

Alerts and Notifications

Alerts via SMS, email, snapshots, and TCP notifications (<5Kbps)

NVR KEY FEATURES

12MP Camera Recording Capacity

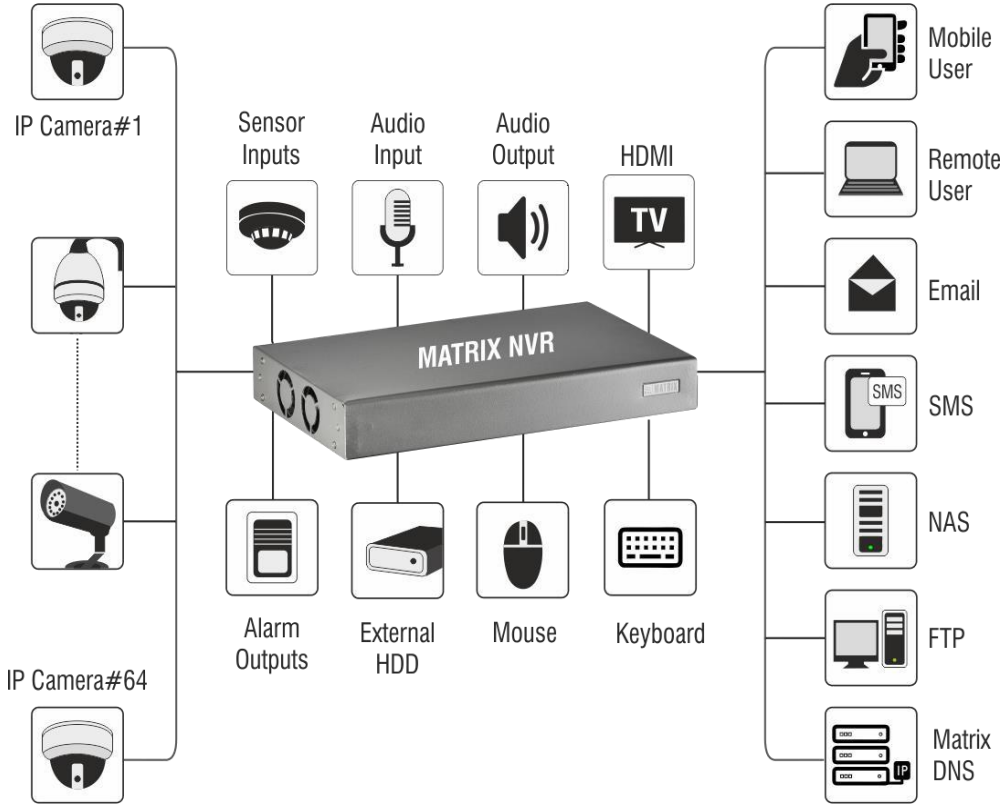
0/1/5/10 RAID Support

4K Decoding Capacity

Database-level integration with Matrix Access Control

Interoperability

NVRX INTERFACE DIAGRAM



NVRX SELECTION GUIDE

		NVR0801X	NVR1601X	NVR1602X	NVR3202X	NVR3204X	NVR6404X	NVR6408X
Video	IP Channels	8	16	16	32	32	64	64
	HDMI Main	1	1	1	1	1	1	1
Audio	Input	1	1	1	1	1	1	1
	Output	1	1	1	1	1	1	1
Alarm	Input	2	2	2	2	2	2	2
	Output	1	1	1	1	1	1	1
Storage	SATA Ports	1 (10TB each)	1 (10TB each)	2 (10TB each)	2 (10TB each)	4 (10TB each)	4 (10B each)	8 (10TB each)
	RAID Support	Single Disk	Single Disk	RAID-0, RAID-1	RAID-0, RAID-1	RAID-0,1,5,10	RAID-0,1,5,10	RAID-0,1,5,10
Interfaces	10/100/1000 Mbps Adaptive Interface	1	1	2	2	2	2	2
	USB Ports	3	3	3	3	3	3	3
Throughput	360 MBPS							

NVRXS KEY FEATURES

- 4/8/16 Channel Support, 1 SATA Port HDD Support (10TB), Fan less and Ventless Design for Silent Operations
- 360 Mbps Throughput Capacity
- Single Disk RAID Support
- Compact NVRs for Retail Outlets and Small Offices

NVRXS SELECTION GUIDE

		NVR0401XS P2	NVR0801XS P2	NVR1601XS P2
Video & Audio	IP Channels	4	4	4
	Video Compression	H.265/H.264/ Motion JPEG		
	Audio Compression	G.711μ		
	Video Output	10/100/1000Mbps RJ 45 connector with LED indication		
Storage	SATA Port	1 (10TB)	1 (10TB)	1 (10TB)
Interfaces	Network	10/100/1000Mbps RJ 45 connector with LED indication		
Power Supply		External 12VDC, 2A		
Throughput	Uplink	Up to 180		
	Downlink	Up to 213		

MATRIX
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SATATYA
IP CAMERAS

SATATYA IP CAMERAS

PROJECT SERIES
BULLET
2MP/5MP/8MP

TURRET SERIES
2MP/5MP

PROJECT SERIES
DOME
2MP/5MP/8MP

PTZ CAMERA
5MP
42x

PTZ CAMERA
2MP
33x

PTZ CAMERA
2MP 25x

PROFESSIONAL SERIES DOME
2MP/5MP/8MP

PROFESSIONAL SERIES BULLET
2MP/5MP/8MP

Ruggedized Camera
2MP/5MP

SUPERIOR IMAGE QUALITY

LOW LIGHT PERFORMANCE

SONY STARVIS Series Sensor

High Quality Images in 0.01 Lux

SUPERIOR IMAGE QUALITY

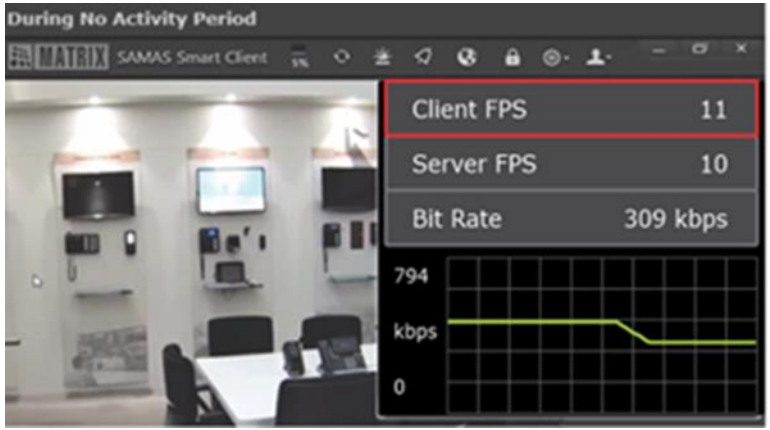
VARYING LIGHT CONDITIONS

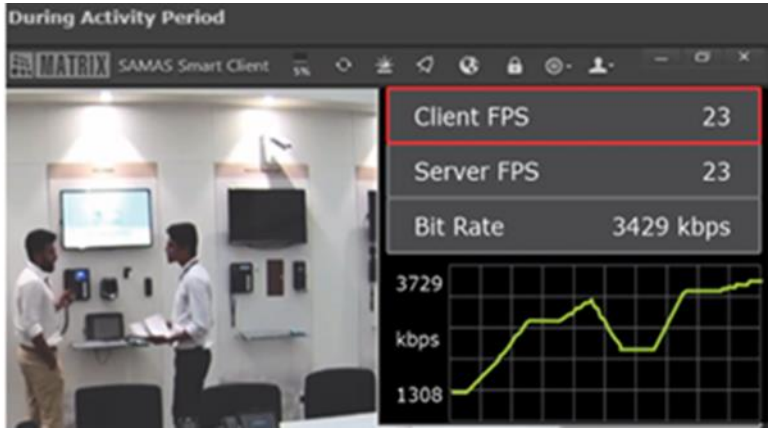
120dB WDR for Proper Reproduction of Bright and Dark Areas

Smartly Varies Exposure Time to Rectify Overexposed and Underexposed Areas

OPTIMIZED BANDWIDTH AND STORAGE

ADAPTIVE STREAMING





Reduces Frame Rate During No Activity Period

Saves up to 50% on Storage and Bandwidth

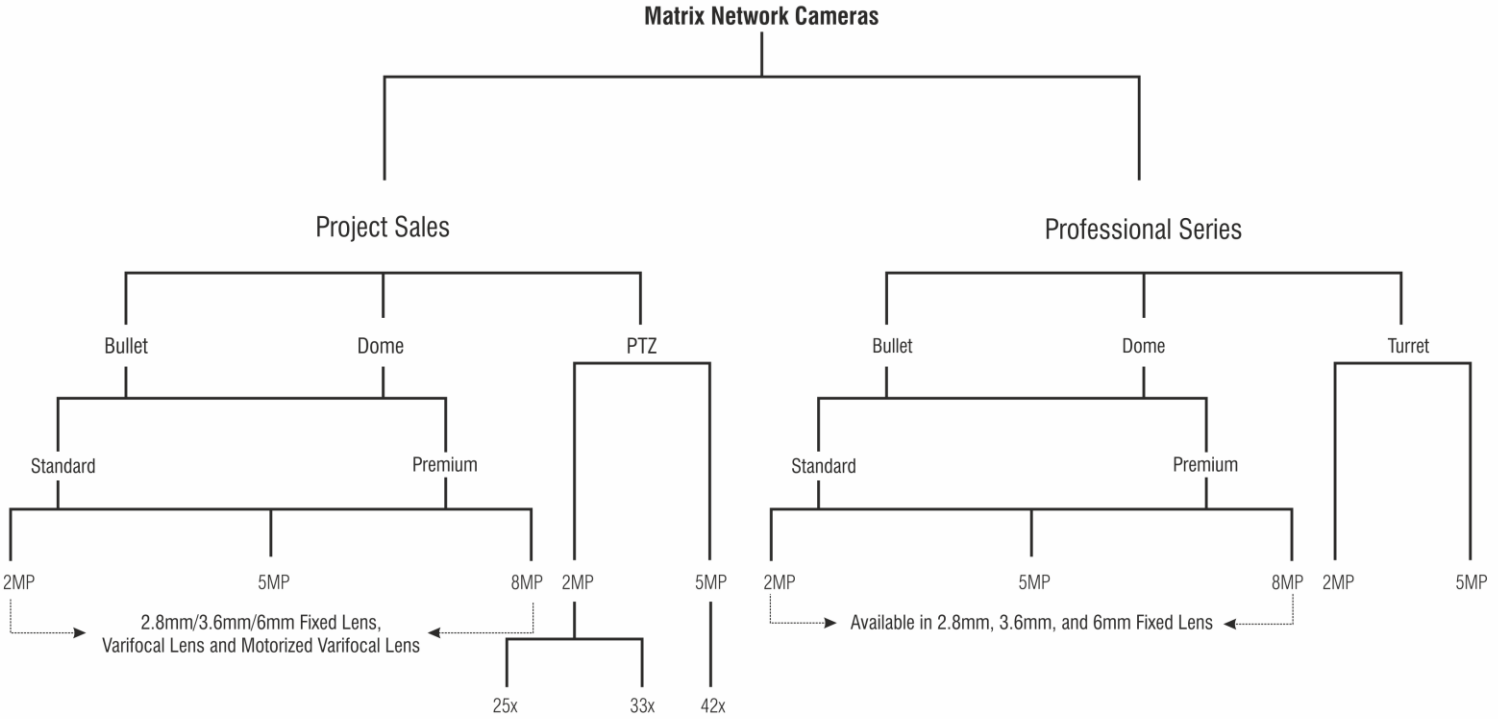
CAMERA KEY FEATURES

Preventive Surveillance and Timely Detection of Motion, Intrusion, Tripwire, Loitering, and Missing Object

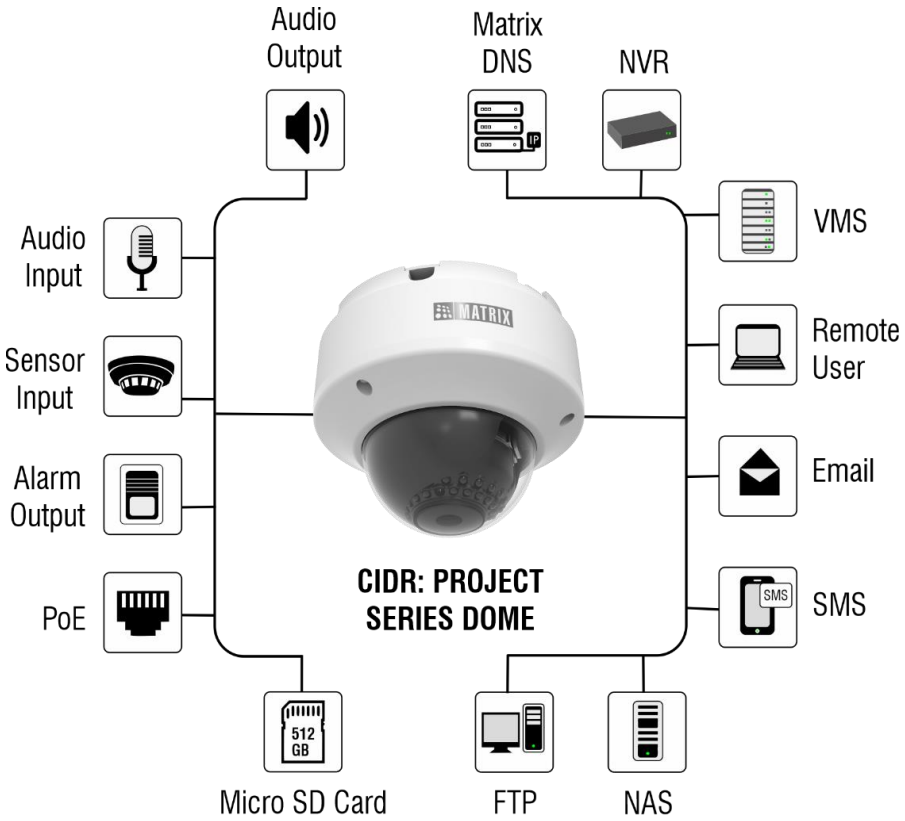
512GB Edge Recording in Case of Brownouts

Wide Range : Dome, Bullet, Turret, and PTZ Cameras

MATRIX NETWORK CAMERAS



NETWORK CAMERA CONNECTIVITY DIAGRAM



TURRET SERIES IP CAMERA

- Ball and Socket Design: Manual Rotation to Capture Images from Different Angles
- External Reset Switch for Ease of Use and Maintenance
- Sturdy ADI Casing Makes them Impact Resistant and Vandal Proof
- Unique Chambered Design Cuts IR Glare

PTZ SERIES IP CAMERAS

- 2MP Camera – 25x, 33x Optical Zoom;
  5MP Camera – 42x Optical Zoom
- Auto Patrolling – Up to 500 Presets, 8 Auto Scan
- Revolutionary Night Performance with IR Range of 300m
- Privacy Masking of up to 24 regions from Camera View

RUGGEDIZED
IP CAMERAS

- Available in 2MP and 5MP Variants
- Rugged Design Minimizes Impacts, Shocks, and Vibrations, Best Suited for Transport Industry
- Electronic Image Stabilization Combats Motion-induced Blurring and Give Sharp Images even When in Motion
- Reliable Functioning in Extreme Conditions – Dust, Humidity, Snow, Heat, Power Fluctuations

MATRIX®
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SUPERIOR QUALITY IMAGES

In Motion - Ideal for Transport

MATRIX®
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COMPREHENSIVE DESIGN

SPACE CONSTRAINED APPLICATIONS

MATRIX
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Suitable for Extreme Conditions

MATRIX
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Weather Resistant

MATRIX
TELECOM | SECURITY

IK10

Vandal Proof

Tamper Proof

RUGGEDIZED IP CAMERA

MATRIX®
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CUSTOMER STORIES

SUCCESS STORIES: IDP EDUCATION LTD

Challenge:

- Real-time Images
- Validation of Candidates
- Image Capturing
- Centralized Monitoring

Solution Offered:

- Video Management System (SAMAS)
- PTZ Cameras

Benefits:

- Clear Visibility and
- Address Alerts Quickly
- Evidence Guarantee
- Ease of Management

Matrix Offering:

- SAMAS with 70 User License
- 66 Cameras

SUCCESS STORIES: LENSKART PVT LTD

Challenge:

- Centralized Monitoring and Control
- Storage for More No. of Days
- High Storage Costs

Solution Offered:

- IP Cameras
- Network Video Recorders (NVR)

Benefits:

- Prevention of Retail Crime: Shoplifting, Vandalism
- Enhanced Security and Compliance
- Centralized Control

Matrix Offering:

- IP Cameras: 200+
- Recording Devices: 50+

SUCCESS STORIES: JAMMU AND KASHMIR POLICE

Challenge:

- Need for Centralized Monitoring
- Local Recording of Footage
- Surveillance on the Go

Solution Offered:

- 5MP Cameras FL and MVL,
- 2MP PTZ Camera with 33x Optical Zoom
- NVR
- VMS

Benefits:

- Centralized Access from Commissioner's Office
- Local Recording of Footage
- Access and Notifications on Mobile

Matrix Offering:

- 8 Channel NVRs – 13 Nos
- 5MP Fixed Lens Cameras – 27 Nos
- 5MP MVL Cameras – 6 Nos
- 2MP PTZ Cameras with 33x Optical Zoom
- VMS

SATATYA CUSTOMERS

BFSI
- Vaijapur Merchant Bank
- Commercial Bank of Congo
- National Health Insurance Fund – Tanzania

Construction
- Rustomjee Crown Project
- Panchsil Group
- Prestige Jindal City
- Infocare Tower
- Bhartiyar City
- Branded Residences Project
- RRVP Banglore
- L&T Construction – Commnet

Education
- IDP Education India Pvt. Ltd
- Global Academy
- CHH. Shahu College of Engineering
- TATA Institute of Fundamental Research (TIFR)
- Chikkaballapur Medical College

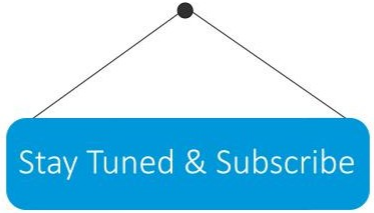
Government
- The Gujarat Cancer and Research Institute
- Western Central Railways
- Genova Piazza Principe Railway Station - Italy

Hospitals and Healthcare
- Thika Greens Golf Resort - Kenya
- Hotel EPIC – Rawanda
- TATA Memorial Centre Advanced Centre for Treatment, Research, and Education

IT/ITES, Retail
- BioSense Institute - Serbia
- AL Adrek
- DGI Care Info
- L&T Metro
- Chikkaballapur Medical College

Who We Are

1 Million+	5000+	60+	40+	30+
Customers	Partners	Products	Countries	Awards



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