

Siemens Smart Infrastructure applications for security – Advisory and Performance Services

■ Manage System Operation & Compliance

Facility Assessment and Planning

- Maintenance Planning & Scheduling Support
- Physical Security Assessment
- Security Compliance and Policy Planning

Test & Inspection

- Test & Inspection
- Test & Inspection – Security

Preventive Services

- Calibration Services
- Data Backup and Restore Services
- Network Maintenance
- Preventive Maintenance – Security
- Preventive Maintenance – System / Other

Documentation Management

- Performance Reporting
- System Documentation Management and Update

Corrective Services

- Online/Phone Responsive Services
- Onsite Responsive Services
- Repair & Replacement Services – Labor & Materials
- Spare Parts Inventory Management

■ Optimize Performance and Productivity

Optimization Planning

- System Performance Assessment & Strategy

Predictive Services



System Improvements & Integration

- Integration Services
- System Optimization Services

Training & Operational Support

- Customer Directed Support
- Education Services
- Operator Coaching

Managed Services

- Access Control Management
- Alarm Management Services – Security
- Hosting Services
- Onsite System Operator / Staffing Support Services
- Video Monitoring and Management

■ Protect Lifecycle Investment

Technology Planning

- Lifecycle Planning

System Updates / Upgrades

- Firmware Updates
- Software Upgrades

System Migration / Modernization

- Server and Client Workstation Upgrades
- Technology Migration

Retrofits & Extensions

- System Retrofit and Extension Services

New Installation Services

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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SIEMENS
Ingenuity for life

Line Card

Security solutions for oil & gas downstream

Identifying and addressing risks through technological, digital innovation

During the 2011-2015 timeframe, 900 security vulnerabilities within U.S. energy companies were identified, with many of those incidents targeted at the control systems¹

For energy companies in the downstream sector of oil & gas, targeted, malicious attempts to infiltrate their business data and systems is nothing new. However, with operations across such downstream areas as petrochemical sites, refineries, tank farms, distribution and retail—such oil & gas providers can no longer overlook the increasing complexity of risks their operations face. Consider that a loss of a single day of operations for a 100,000 barrel-per-day refinery could reduce revenue by over \$5.5 million and profit by \$1.4 million.²

As such, they must transition from a 'run the equipment until it breaks' mantra to proactively scheduling proper security upgrades during downtime and utilizing a digital, predictive services approach to maintain the integrity of their critical infrastructures.

The hazardous environments found in downstream oil and gas sector often result in unique fire and life safety requirements. Our fire and gas detection, suppression, extinguishing, evacuation, and mass notification systems are equipped to address those needs.

At Siemens, we also address the security needs of your downstream applications through integrated digital technologies and security platforms that enable infrastructure-wide transparency and integrity through centralized monitoring and control, local and remote diagnostics, intersystem connectivity, and advanced analytics. Our consultative approach to tailor life safety and security solutions to downstream applications means your employees remain safe and secure—no matter the location.

This document provides you the detail you need on Siemens Smart Infrastructure's security portfolio that is ready to serve you today and for decades into the future. From perimeter security, to access control, real-time people and asset tracking, incident and danger management, and more, here are the solutions that will help you to create your perfect place to source and deliver energy.

¹ "HACKED: Part 1: As cyberattacks become more sophisticated, energy industry's controls provide an alluring target," Houston Chronicle <https://www.houstonchronicle.com/news/houston-texas/houston/article/As-cyberattacks-become-more-sophisticated-energy-10973429.php>
² "Refining at risk: Securing downstream assets from cybersecurity threats," Deloitte Insights, Nov 27, 2017: <https://www2.deloitte.com/insights/us/en/industry/oil-and-gas/securing-downstream-oil-and-gas-assets-cybersecurity-threats.html#endnote-sup-9>

usa.siemens.com/bt-oilandgas

Solutions/Products for Tank farms, refineries, and petrochemical/gas processing plants

Perimeter Security	Intrusion – partnerships	Fence line detection (Physical, Laser, IR, MW) Video Analytics and Video Detection (Video Line Detection) Laser based detection – for highly secured locations/areas Ground based sensing (RF's) Drone detection
	Video surveillance	Siveillance VMS <ul style="list-style-type: none"> Single Server <ul style="list-style-type: none"> Siveillance VMS50 - supports up to 50 cameras Siveillance VMS100 - supports over 100 cameras, single location Siveillance VMS200 - supports over 50 cameras, monitoring wall with multiple locations, redundancy Siveillance VMS300 – supports over 50 cameras, dual verification, retention times evidence log, specific use case features Federated Servers <ul style="list-style-type: none"> Siveillance VMS 300 system: supports over 50 cameras, dual verification, retention times evidence log, specific use case features
	IP cameras	AXIS (IP, Edge-based analytics, thermal) BOSCH (IP, Edge based analytics) FLIR (Thermal)
Access Control	SiPass Integrated:	Starter package – 16 doors (locked), 1,000 cards, mustering Standard package – 24 doors baseline (open), 1,000 cards, mustering Facility package – 32 doors baseline (open), 5,000 cards, Feature sets: graphics, photo IDs, mustering Optima package – 64 doors baseline (open), 10,000 cards –mustering Corporate – 128 doors baseline (open), 25,000 cards, feature sets, visitor management, guard tours
	Card readers – cards and biometric	
	Voice communication/intercom	
	License plate recognition (using video surveillance as part of SiPass)	
	Wireless Locks	
	Mobile Credentials	
Incident and Danger Management	Siveillance Viewpoint - (not applicable for people tracking) 5 dedicated clients, 50,000 data points, limited to 2,500 cams and 5,000 doors	
	Siveillance Vantage - supports over 5 dedicated clients	
	MNS (including Audio and Visual annunciation)	
	Shooter Detection	
EHS	Body cameras (EDESIX)	



Specific capabilities for oil refineries, petrochemical plants and gas processing plants

Specific capabilities for retail

Real-time people/assets tracking
Vantage

Perimeter security
Intrusion

- Video analytics and video detection

Video surveillance

- Siveillance VMS
 - Single server
 - Siveillance VMS50 - supports up to 50 cameras
 - Siveillance VMS100 - supports over 100 cameras, single location
 - Siveillance VMS200 - supports over 50 cameras, monitoring wall with multiple locations, redundancy
 - Federated servers
 - Siveillance VMS300 – supports over 50 cameras, dual verification, retention times evidence log, specific use case features

IP Cameras
AXIS (IP, Edge-based analytics, thermal)
BOSCH (IP, Edge based analytics)
FLIR (Thermal)

Access Control
SiPass Integrated

- Starter package – 16 doors (locked), 1,000 cards, mustering
- Corporate – 128 doors baseline (open), 25,000 cards, feature sets, visitor management, guard tours

Card readers/cards
Duress button
License plate recognition
Mobile credentials

Real-time people/assets tracking
Siveillance Vantage - supports over 5 dedicated clients

Incident management (based on the customer application and requirements policies and procedures)
Siveillance Viewpoint – supports over 5 dedicated clients, 50,000 data points, 2,500 cams, and 5,000 doors
Siveillance Vantage - supports over 5 dedicated clients
MNS (including audio and visual annunciation)
Shooter detection

EHS
Body cameras (EDESIX)

Siemens Smart Infrastructure applications for security – Data Centers

■ Perimeter security

- Intrusion**
- Fence line detection
 - Video Analytics and Video Detection
 - Laser based detection - for highly secured locations/areas
 - Ground based sensing (RF's)



Video surveillance

- Siveillance VMS
 - Single Server
 - Siveillance VMS50 - supports up to 50 cameras
 - Siveillance VMS100 - supports over 100 cameras, single location
 - Siveillance VMS200 - supports over 50 cameras, monitoring wall with multiple locations, redundancy
 - Siveillance VMS300 – supports over 50 cameras, dual verification, retention times evidence log, specific use case features
 - Federated Servers
 - Siveillance VMS300 – supports over 50 cameras, dual verification, retention times evidence log, specific use case features

- 1,000 cards, mustering
- **Standard package** – 24 doors baseline (open), 1,000 cards, mustering
- **Facility package** – 32 doors baseline (open), 5,000 cards, Feature sets: graphics, photo IDs, mustering
- **Optima package** – 64 doors baseline (open), 10,000 cards –mustering
- **Corporate** – 128 doors baseline (open), 25,000 cards, feature sets, visitor management, guard tours

License Plate Recognition
Card readers – cards and biometric
Voice Communication/Intercom
Wireless Locks
Mobile Credentials

■ Real Time People/Assets tracking

Siveillance Vantage - supports over 5 dedicated clients

■ Incident and danger management (based on the customer application and requirements (policies and procedures))

Siveillance Viewpoint - 5 dedicated clients, 50,000 data points, 2,500 cams and 5,000 doors
Siveillance Vantage – supports over 5 dedicated clients
MNS (including Audio and Visual annunciation)

IP cameras

- AXIS (IP, Edge based analytics, thermal)
- BOSCH (IP, Edge based analytics)
- FLIR (Thermal cameras)

■ Access Control

- SiPass Integrated**
- Starter package – 16 doors (locked),

Siemens Smart Infrastructure applications for security – Labs

■ Perimeter security

- Intrusion**
- Video Analytics and Video Detection

Video surveillance

- Siveillance VMS
 - Single Server
 - Siveillance VMS50 - supports up to 50 cameras
 - Siveillance VMS100 - supports over 100 cameras, single location
 - Siveillance VMS200 - supports over 50 cameras, monitoring wall with multiple locations, redundancy
 - Siveillance VMS300 – supports over 50 cameras, dual verification, retention times evidence log, specific use case features
 - Federated Servers
 - Siveillance VMS 300 system – supports over 50 cameras, dual verification, retention times evidence log, specific use case features

■ Access Control

- SiPass Integrated**
- Starter package – 16 doors (locked), 1,000 cards, mustering
 - Standard package – 24 doors baseline (open), 1,000 cards, mustering
 - Facility package – 32 doors baseline (open), 5,000 cards, Feature sets: graphics, photo IDs, mustering
 - Optima package – 64 doors baseline (open), 10,000 cards –mustering
 - Corporate – 128 doors baseline (open), 25,000 cards, feature sets, visitor management, guard tours

Card readers – cards and bio-metric
Voice Communication/Intercom
Wireless Locks
Mobile Credentials

■ Real Time People/Assets tracking

Siveillance Vantage – supports over 5 dedicated clients

■ Incident and danger management (based on the customer application and requirements (policies and procedures))

Siveillance Viewpoint- 5 dedicated clients, 50,000 data points, 2,500 cams, and 5,000 doors
MNS (including Audio and Visual annunciation)

- AXIS (IP, Edge based analytics, thermal)
- BOSCH (IP, Edge based analytics)
- FLIR (Thermal cameras)