HikCentral Master Lite

HikCentral Master Lite is an intelligent management platform under the architecture of AI Cloud, applicable for fields such as urban security management and traffic management. It focuses on data collection, supports integrating, accessing and analyzing devices based on Internet-of-Things (IoT). It supports video live view and recording, structured and semi-structured data search, track search, and target arming. Based on this architecture and current capability of the platform, it can quickly realizes different functions and demands.

Functions

Video Surveillance

- Supports video live view and video query based on technologies such as video patrol and E-map.
- Provides video surveillance on the map and video parsing.

Integration Search

- Supports quick search of persons and vehicles based on big data technologies such as integration search, face search, vehicle search, and human body search.
- Helps users quickly know the information of target persons and vehicles.
- Supports viewing history traffic data and real-time traffic data on a dashboard.

Violation Management

- Supports violation verification (including overspeed, red light running, wrong-way driving, parking violation, etc.).
- Supports generating violation tickets.
- Forms closed-loop service which combines violation management and violation verification

Mobile Enforcement Application

- Supports managing digital evidence collected via body cameras during enforcement.
- Supports features for enforcement event management, including event creation, event search, linking evidence to events, etc.
- Supports features for enforcement officer management, such as track search and SOS alarm search.
- Supports viewing the status of enforcement devices.
- Supports viewing statistics of enforcement data.
- Supports showing locations of the enforcement officers and the SOS alarm notifications in real time on a GIS map. In addition, supports features such as live view, playback, and two-way audio on the GIS map.

Traffic Event Monitoring

- Supports real-time analysis of the detected videos.
- Supports monitoring traffic status.
- Supports detecting multiple traffic events such as traffic accidents, parking violation, and wrong-way driving.
- Supports detecting and reporting traffic congestion.

Alarm Center

- It contains two applications including target arming and alarm search.
- Supports vehicle arming and face arming.
- Supports configuring alarm rules of corresponding devices and linkage rules.

Statistics Center

- Supports graphical display of multi-dimensional data based on data analysis technologies such as face data statistics, vehicle data statistics, and behavior statistics.

Video Maintenance

- Supports real-time intelligent management of camera running status based on technologies such as online detection, video quality diagnosis, and recording check.

Operation and Management Center

- Integrates multiple components including configuration, log search, and integration.
- Supports single sign-on services (SSO).

AR Application

- Supports adding images, videos, etc., to the AR view based on Augmented Reality (AR) technology.

- Provides functions such as adding camera tag, video plan, and linking cameras in high locations and low locations.
- Supports vivid and flexible command and management.

Intelligent Fusion via Fusion Server

- Supports searching persons by face picture and viewing track of the target person based on the search result.
- Supports searching persons by body picture and viewing track of the target person based on the search result.
- Supports searching for the identification of a target person and viewing track of the person.
- Supports setting frequently appeared person alarm and viewing related capture picture.
- Supports enabling or disabling the people cluster functionality.
- Supports searching capture records of the persons in the face list library; Support parsing offline videos via fusion server and viewing parsing results.
- Supports face capture statistics.
- (Fusion Server) Supports enabling or disabling Daylight Saving Time (DST).
- (Android App) Supports identification search.

Features

Intelligent Platform Management

- Supports on-stop installation, parameter configuration, server monitoring, and log analysis.
- Supports data backup, cluster management and license management.

Intelligent Applications

- With the integration of multiple functionality and application software, the platform extends its applications from video surveillance to the ones based on artificial intelligence algorithms, such as Automatic Number-Plate Recognition (ANPR) and facial recognition. This makes the platform applicable to the application scenarios such as city surveillance system and intelligent transportation system.

Comprehensive Security Mechanism

- Provides security mechanism for device, network, host computer, data, and applications, and supports multiple security control schemes.

Extensibility and Scalability

- Supports expanding the capacity of the services such as the maximum added device amount, stream distribution, stream storage, events, and data library.
- Increases capacity and stability by distributed deployment.
- Supports cluster deployment for some key services such as streaming gateway.
- Supports techniques such as clustered proxy, distributed cache, and load balancing to improve the response speed, and decrease performance losses caused by the interaction among different components and modules, therefore improving the fluency of the platform.

Multiple Application Scenarios

- Supports assembling different modules into different platforms based on different application scenarios. The platforms can be compatible with each other and cooperate with each other.

Key Components

1. Server Modules

Module ID	Module Name
HikCentral-M_iFar-VAS	Basic Module

HikCentral-M_iFar-METIS	E-Map Application
HikCentral-M_iFar-FAS	Persons Search
HikCentral-M_iFar-BMS	Vehicle Application
HikCentral-M_iFar-LANE	Lane
HikCentral-M_iFar-VIDEO	Video Channel
HikCentral-M_iFar-VIOLATION	Violation Management Application
HikCentral-M_iFar-Traffevent	Traffic Event Detection
HikCentral-M_iFar-Behavior	Behavior Analysis Application
HikCentral-M_iFar-Foottraff	People Counting Application
HikCentral-M_iFar-ARHIGHNUM	AR Scene Number
HikCentral-M_iFar-2D	2D Dashboard
HikCentral-M_iFar-Arming	Arming Control
HikCentral-M_iFar-VPS	Video Parsing
HikCentral-M_iFar-APP	Mobile Client
HikCentral-M_iFar-Videobase	Video System Management
HikCentral-M_iFar-3Ddashboard	3D Dashboard
HikCentral-M_iFar-Evidencemgt	Evidence Management Application
HikCentral-M_iFar-Realtimecommand	Enforcement Real-time Command Application
HikCentral-M_iFar-Enfdashboard	Enforcement Dashboard Application
HikCentral-M_iFar-EnfEventmgt	Enforcement Event Management Application

2. Clients
- Web Client
- Control Client
- AR Client
- Booth Client
- Self-Service Vehicle Tracking Client
- Manual Visitor Client

3. Mobile APPs
- Mobile APP (iOS/Android)
- Face Picture Collection APP (iOS/Android)
- iPad Video Wall Controller (iOS)

System Requirements

OS for Server	CentOS 7.2 (64-bit)
	CentOS 7.4 (64-bit)
	CentOS 7.6 (64-bit)
OS for Control Client	Microsoft® Windows 7 (32/64-bit)
	Microsoft® Windows 10 (64-bit)
OS for Mobile Client	iOS 10 and later
	Android 5.0 and later
Browser Version	Internet Explorer 11 and later
	Chrome 73 and later (recommended)

Hardware Requirements (Standard Version)

Processer	Intel® Xeon™ Silver 4110*2 (2.1G, 8C/16T, 9.6GT/s)
Operating System	CentOS Linux release 7.6.1810 (Core)
Memory	64G RDIMM, 2666MT/s RDIMMS

Storage	1T SATA × 4, 3.5" Enterprise SATA 7.2k HDDs Including: ● System Disk: 1T SATA × 2 with RAID ● Data Disk: 1T SATA × 2 with RAID
NIC	1GbE × 4

Hardware Requirements (Standalone Version)

Processer	Intel® Xeon™ Silver 4110 (2.1G, 8C/16T, 9.6GT/s)
Operating System	CentOS Linux release 7.6.1810 (Core)
Memory	16G*6，HMA82GR7CJR4N-VK,DDR,16GB,RDIMM
Storage	1T SATA × 4, 3.5" Enterprise SATA 7.2k HDDs Including: ● System Disk: 1T SATA × 2 with RAID ● Data Disk: 1T SATA × 2 with RAID
NIC	1GbE × 4

Software Specification (Based on Standard Version)

The following table shows the maximum performance of the HikCentral Master Lite (based on standard requirements).

Mobile Enforcement Application	Body Cameras	1,000
	Dock Stations	150

Software Specification (Based on Standalone Version)

Parameter/Module	Maximum Performance	Remark
Camera	1,000 cameras	If no cascading cameras are added , up to 1000 Cameras/Channels can be added by Hikvision SDK
Device	500 devices	Video capability set connectable via Hikvision SDK
Checkpoint	20 devices	50 lanes
User	100 users	N/A
Department	100 departments	
Role	100 roles	
Area	100 areas	5 cascading levels (each level 20 sub-areas)
Passing Vehicles	250,000 per day	Static data: 240, 000
	Dynamic Data	Peak without Image: 50 Items/s Peak Passing Vehicles: 30 Items/s
Vehicle List Library	10,000	10,000 items of data

Parameter/Module	Maximum Performance	Remark
Vehicle List Library Alarm	1,000,000	Static Data: 1,000,000 items
Live View	32 concurrent channels (Bandwidth: 2M)	N/A
Playback	20 concurrent channels (Bandwidth 2M)	N/A
Alarm Sending	\	Frequency of sending arming alarm: 10msg/s Frequency of sending device alarm: 5msg/s
iac	\	Peak without image: 50/s Peak passing vehicle: 30/S
Mixed Businesses	50 online 20 concurrent login	50 users log in to the platform, 10 expand the e-map tree (10 cameras in the tree), 3 redirect to the e-map for track analysis, 7 drag map, 10 view alarm details.
		40 users log in to the client, 5 view real-time alarms, 10 search videos, 10 expand organization tree in Video Patrol (10 cameras in the tree), 15 expand organization tree in Video Playback (10 cameras in the tree).
		3 users search vehicles, 3 search cameras via e-map, 4 expand organization tree in Live View (10 cameras in the tree).

HIKVISION

Distributed by

HIKVISION

Hikvision USA
T +1-909-895-0400
sales.usa@hikvision.com

Hikvision Europe
T +31-23-5542770
sales.eu@hikvision.com

Hikvision UK & Ireland
T +01628-902140
sales.uk@hikvision.com

Hikvision UAE
T +971-4-4432090
salesme@hikvision.com

Hikvision Russia
T +7-495-669-67-99
saleru@hikvision.com

Hikvision Australia
T +61-2-8599-4233
salesau@hikvision.com

Hikvision Italy
T +39-0438-6902
info.it@hikvision.com

Hikvision South Africa
Tel: +27 (10) 0351172
sale.africa@hikvision.com

Hikvision Singapore
T +65-6684-4718
sg@hikvision.com

Hikvision Korea
T +82-(0)31-731-8817
sales.korea@hikvision.com

Hikvision India
T +91-22-28469900
sales@pramahikvision.com

Hikvision Brazil
T +55 11 3318-0050
Latam.support@hikvision.com

Hikvision France
T +33(0)1-85-330-450
info.fr@hikvision.com

Hikvision Spain
T +34-91-737-16-55
info.es@hikvision.com

Hikvision Poland
T +48-22-460-01-50
info.pl@hikvision.com

Hikvision Canada
T +1-866-200-6690
sales.canada@hikvision.com

Hikvision Turkey
T +90 (216)521 7070- 7074
sales.tr@hikvision.com

Hikvision Kazakhstan
T +7-727-9730667
nikia.panfilov@hikvision.ru

Hikvision Tashkent
T +99-87-1238-9438
uzb@hikvision.ru

Hikvision Indonesia
T +62-21-2933759
Sales.indonesia@hikvision.com

Hikvision Thailand
T +662-275-9949
sales.thailand@hikvision.com

Hikvision Malaysia
T +601-7652-2413
sales.my@hikvision.com

Hikvision Vietnam
T +84-974270888
sales.vt@hikvision.com

Hikvision Hong Kong
T +852-2151-1761
info.hk@hikvision.com

Hikvision Colombia
sales.colombia@hikvision.com