



iVMS-5200 ANPR V1.0.2

Software Requirements & Hardware Performance

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1. Software Requirements

OS for ANPR Servers	Microsoft Windows 7 (64-bit) Microsoft Windows 8 (64-bit) Microsoft Windows 8.1 (64-bit) Microsoft Windows 10 (64-bit) Microsoft Windows Server 2008 R2 (64-bit) Microsoft Windows Server 2012 (64-bit)
OS for ANPR Control Client	Microsoft Windows 7 (32-bit & 64-bit) Microsoft Windows 8 (32-bit & 64-bit) Microsoft Windows 8.1 (32-bit & 64-bit) Microsoft Windows 10 (64-bit) Microsoft Windows Server 2008 R2 (32-bit & 64-bit) Microsoft Windows Server 2012 (32-bit & 64-bit)
Database	PostgreSQL V 9.3.9 (64-bit)
Browsers	Internet Explorer 9/10/11 or above (32-bit) Chrome 35/36/37/38/39/40/41/42/43/44 (32-bit)

	Firefox 32/33/34/35/36/37/38/39/40 (32-bit)
Virtualization (CMS)	VMware ESXI 6.x Microsoft Hype-V with Windows Server 2012 R2
Failover Cluster	Microsoft Windows Server 2008 R2 Enterprise (64-bit) Microsoft Windows Server 2012 Enterprise (64-bit) RoseReplicationPlus_5.1.0_175-x64

2. Client Performance

Low-end			
<p>CPU: Intel® Core™i3-1450 @3.50GHz 3.50GHZ RAM: 4G System: 32-bit Network: GbE network interface card The Graphics Card: Intel® HD Graphics 4400 Hard Disk Type: SATA II hard drive or better Hard Drive Capacity: 60GB for OS and iVMS-5200 ANPR Control Client</p>			
Decoding Performance	Live View	<ul style="list-style-type: none"> a. Resolution: 1920*1080P b. Frame Rate: 25fps c. Bitrate: 4096Kbps 	Up to 4 Cameras can be played simultaneously.
Mid-end			
<p>CPU: Intel® Core™ i5-4460 @3.20GHz 3.20GHZ RAM: 8G System: 64-bit Network: GbE network interface card The Graphics Card: NVIDIA® GeForce®GT 730 Hard Disk Type: SATA II hard drive or better Hard Drive Capacity: 120GB for OS and iVMS-5200 ANPR Control Client</p>			
Decoding Performance	Live View	<ul style="list-style-type: none"> a. Resolution: 1920*1080P b. Frame Rate: 25fps c. Bitrate: 4096Kbps 	Up to 9 Cameras can be played simultaneously.

High-end

CPU: Intel® Core™ i7-4790 @3.60GHz 3.60GHZ

RAM: 16G

System: 64-bit

Network: GbE network interface card

The Graphics Card: NVIDIA® GeForce®GT 960

Hard Disk Type: SATA II hard drive or better

Hard Drive Capacity: 240GB for OS and iVMS-5200 ANPR Control Client

Decoding Performance	Live View	a. Resolution: 1280*720P b. Frame Rate: 25fps c. Bitrate: 4096Kbps	Up to 16 cameras can be played simultaneously.
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3. Server Performance

3.1 Server Performance (Distributed)

1) iVMS-5200 ANPR **Central Management Server** Requirement

Low-end	
CPU: Intel® Xeon®E3-1230v2 @3.30GHz 3.30GHz RAM: 8G Network: GbE network interface card Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives Hard Drive Capacity: The disk space in which CMS installed should have 160G.	
Performance	200 devices; 200 cameras; 10 pairs of entrances and exits; Supports 100 clients concurrently; The data can be saved for one year.
Mid-end	
CPU: Intel® Xeon®E5-2609v2 @2.50GHz 2.50GHz RAM: 16G Network: GbE network interface card Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives Hard Drive Capacity: The disk space in which CMS installed should have 260G.	
Performance	500 devices; 500 cameras; 50 pairs of entrances and exits; Supports 100 clients concurrently; The data can be saved for one year.
High-end	

CPU: Intel® Xeon® E5-2650v2 @2.60GHz 2.60GHz RAM: 32G Network: GbE network interface card Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives Hard Drive Capacity: The disk space in which CMS installed should have 450G.	
Performance	1000 devices; 1000 cameras; 100 pairs of entrances and exits; Supports 100 clients concurrently; The data can be saved for one year. 5 million pieces of passing vehicle information can be saved each month.

2) iVMS-5200 ANPR **Recording Server** Requirement

Low-end	
CPU: Intel® Xeon® E3-1230v2 @3.30GHz 3.30GHz RAM: 8G Network: GbE network interface card Hard Disk Type: Enterprise Class Hard Drive for Monitoring ; Supports 8MB/S Write & 8MB/S Read Hard Drive Capacity: 10G for Recording Server log files	
Record Performance	32 Camera*2Mbps/s Write and 32 Camera*2Mbps/s Read OR 32 Picture*256KB/s Write and 32 Picture*256KB/s Read
Mid-end	
CPU: Intel® Xeon® E5-2609v2 @2.50GHz 2.50GHz RAM: 16G Network: GbE network interface card Hard Disk Type: Enterprise Class Hard Drive for Monitoring; Supports 16MB/S Write and 16MB/S Read Hard Drive Capacity: 10G for Recording Server log files	

Record Performance	64 Camera*2Mbps/s Write and 64 Camera*2Mbps/s Read OR 64 Picture*256KB/s Write and 64 Picture*256KB/s Read
High-end	
CPU: Intel® Xeon® E5-2650v2 @2.60GHz 2.60GHz Hard Disk Type: IP SAN +SATA-II 7200 RPM Enterprise Class Hard Drives; Supports 32MB/S Write and 32MB/S Read Hard Drive Capacity: 10G for Recording Server log files	
Record Performance	128 Camera*2Mbps/s Write and 128 Camera*2Mbps/s Read OR 128 Picture*256KB/s Write and 128 Picture*256KB/s Read

3) iVMS-5200 ANPR **Stream Media Server** Requirement

SMS	
CPU: Intel® Xeon® E3-1230v2 @3.30GHz 3.30GHz RAM: 8G Network: GbE network interface card Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives Hard Drive Capacity: 10G for Recording Server log files	
Performance	300 Camera*2Mbps/s input and 300 Camera*2Mbps/s output

4) iVMS-5200 ANPR **Parking Terminal Server** Requirement

PTS	
CPU: Intel® Xeon®E3-1230v2 @3.30GHz 3.30GHz	
RAM: 4G	
Network: GbE network interface card	
Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives	
Hard Drive Capacity: 3G for PTS log files	
Performance	10 pairs of entrances and exits

3.2 Server Performance (Centralized)

ANPR+VSM	
CPU: Intel® Xeon®E3-1220 V5 @3.0GHz 3.0GHz	
RAM: 16G	
Network: GbE network interface card	
Hard Disk Type: SATA-II 7200 RPM Enterprise Class Hard Drives	
Hard Drive Capacity: 1T (Picture Storage & Video Storage)	
Low	ANPR: 500 devices; 500 cameras; 1 PTS; 1 parking lot with 10 pairs of entrances and exits; 2 pieces of alarm information with pictures/s; 4 pieces of passing vehicles' information/s; Supports 100 clients concurrently;
	VSM: 1000 devices; 1000 cameras; 10 pieces of alarm information with pictures/s;

Low	<p>CPU Usage: 14%-16%</p> <p>RAM Usage: 41% (4.6 GB)</p>
Medium	<p>500 devices; 500 cameras; 5 PTSs; 5 parking lots with 50 pairs of entrances and exits;</p> <p>2 pieces of passing vehicles' information/s;</p> <p>2 pieces of alarm information with pictures/s;</p> <p>Supports 100 clients concurrently;</p>
	<p>CPU Usage: 21%-24%</p> <p>NIC Usage: 19%</p> <p>RAM Usage: 29% (4.6 GB)</p>
High	<p>1000 devices; 1000 cameras; 10 PTSs; 10 parking lots with 100 pairs of entrances and exits;</p> <p>2 pieces of passing vehicles' information/s;</p> <p>2 pieces of alarm information with pictures/s;</p> <p>Supports 100 clients concurrently;</p>
	<p>CPU Usage: 32%-37%</p> <p>NIC Usage: 43%</p> <p>RAM Usage: 44% (7.0 GB)</p>