DSS Express

Easy-to-Use and Reliable VMS

Introduction

DSS Express is easy-to-use and reliable VMS for single-server installation, which can meet the core requirements of video surveillance in small and mid-sized projects. It can extend the devices by license easily and provide the unified solution with access control, VDP, facial recognition and ANPR for some small and medium organizations. It is the ideal VMS for small and mid-sized projects, such as residences, shops, factories, casinos, etc.

Key Components

Service
· Central Management Service (CMS)
· Device Management Service(DMS)
· Storage Service (SS)
· Media Transmission Service (MTS)
· Alarm Dispatch Service(ADS)

Client
· PC Client
· Mobile Client

Running Environments

Operating System
• OS for Server:
·Windows Server 2008 Standard / Windows Server 2012 R2 Standard / Windows Server 2016 Standard / VMware ESXI 6.0(Windows Server 2008 Standard) / VMware ESXI 6.0 (Windows Server 2012 R2 Standard) / VMware ESXI 6.0 (Windows Server 2019 Standard) / Win7 (64bit) / Win10 (64bit)

• OS for Control Client:
· Windows Server 2008 Standard / Windows Server 2012 R2 Standard / Windows Server 2016 Standard / VMware ESXI 6.0(Windows Server 2008 Standard) / VMware ESXI 6.0(Windows Server 2012 R2 Standard) / VMware ESXI 6.0(Windows Server 2019 Standard) / Win7 (32/64bit) / Win8.1 (64bit) / Win10(64bit)

Hardware

• Hardware for Server

Recommended

CPU	Intel® Xeon® CPU E3-1220 v5 @3.00GHz
Memory	8GB
System Disk	500GB and higher for DSS Express
Ethernet port	4 Ports@1000Mbps

Minimum

CPU	I3-2120
Memory	8GB
System Disk	200GB and higher for DSS Express
Ethernet port	2 Ports@1000Mbps

• Hardware for Control Client

Recommended

CPU	I5-6500@3.20GHz
Memory	8GB
Graphics Card	Intel® HD Graphics 530
Hard Drive Capacity	100GB Free
Ethernet port	1000 Mbps

Minimum

CPU	I3-2120@3.20GHz
Memory	4GB
Graphics Card	Intel® HD Sandbridge Desktop Gra
Hard Drive Capacity	50GB Free
Ethernet port	1000 Mbps

DSS Express

Features

Easy to Use

· Integrates all the management operations in the client

· Auto search to add devices quickly in LAN

· Imports devices from SmartPSS, which is convenient to upgrade from SmartPSS to DSS Express

High Flexibility

· Benefits from vector icon for different resolution display

· GPU decoding to monitor more HD cameras

High Stability

· Backup automatically and restore manually in case data lose in abnormal situation

· Locks the record to keep evidence in case that it could be rewritten

Main Functions

•General Functions

Organization Management

· Through organization to achieve device group management

Device Management

· Device initialization: Initialize Dahua's device

· Add devices via auto search

· Support IP, P2P, Onvif

· Manage Dahua's devices such as network camera, network speed dome, thermal camera, NVR, DVR, Access Control, etc.

User Management

· Add, edit and delete the users

· Assign different users with different permissions

· User can be restricted by the MAC and expiry data

Storage

· Central storage: local disk storage and extend storage via iSCSI

· Add, edit, delete, enable and disable the record plan

· Supports edge storage and central storage for record plan

E-Map

· Raster map, main map and submaps

· Up to 8-level submap

· Add, edit and delete the hot spots (camera, alarm input) on the map

· View the live video and playback on the map

· Zoom in and zoom out the map

· Supports visible field

· Icon flash on map when alarm is occurring

Bind Resource

· Bind access control channels with the corresponding cameras

•Basic Video Functions

Live View

· Displays device tree. Show/hide offline device

· Displays the device IP address or device name on the device tree

· View real-time video

· Common layout and custom layout

· PTZ control

· Manual recording

· Snapshot

· Instant playback

· Digital zoom

· Fisheye dewraping

· Audio talk

· Set alarm window

· Decode the video to video wall quickly

· Turn on/off the audio in live view

· Region of Interest: Divide one window into 4 or 6 parts, one shows whole image, others show the detail

· Save the current live view as a view

· Supports 4 Live View tabs

· Supports adding channel to favorite

· Video tour according to device, organization, favorite or view

· Quickly switch to playback

· Supports NKB to control camera on Live View

· Switch to playback quickly

· View map via live view window

· Smart track for fisheye

· Set POS overlay style

· Basic device setting: camera properties, video, audio

Playback

· Playback the record from the edge devices or central storage

· Video filter: normal, motion, alarm

· Sync play

· Reverse playback

· Slow and fast forward (up to 64X and 1/64X)

· Playback frame-by-frame

· Lock or mark the important record for central storage

· Supports smart search

· Supports search record of POS data

Download Center

· Download record from central storage or device

· Download record by timeline, files or tags

· Supports multi-task download.

· Supports dav, MP4, flv, asf, and avi format

Event Management

· Detect the device exception, video events, alarm input, access control Events, etc.

· Alarm Scheme: All day template, Weekday template, Weekend template and custom template

· Alarm Priority: Low, Medium, High

· Linkage: record, snapshot, live video, alarm output, PTZ, video wall, E-mail, etc.

· Add, edit, delete, enable and disable alarm scheme

· Display event alarm info including alarm time, alarm name, alarm status, etc.

· View the live video or pictures from related camera

· Acknowledge the event alarm

· Arming control for event alarm

· Forward the alarm to relevant user

· Send alarm e-mail

· Process the alarm events

· Search alarm events

Video Wall

· Add and manage the video wall

· Supports On/Off the screen ID

· Supports combine screens to one screen

· Bind the decode channel with the corresponding screen

· Decode the real-time video to wall

· Decode the playback video to the video wall

· Manually/automatically decode to video wall

· Control the video wall split

· Change the stream type of video channel

· Adding box, on/off screen and back display

· Tour the video channel

· Schedule plan: Set the running task on timeline

· Tour plan: Loop different task, can set loop time

· Supports NKB to control video wall

•*Intelligent Building Functions*

 Personnel Management

· Add, edit and delete the person and department

· Issue the card, fingerprint via USB reader or devices

· Authorize by door or door group

· Private password and face authentications

· Imports person from SmartPSS

Access Control

· Door status and door events monitor

· Door group and door level

· Access right management

· One-key to lock/unlock the doors

· Fire linkage

· Advanced door rules, such as anti-passback, first card unlock, inter-door lock, multiple card unlock, remote verification

· Extract record from device

Video Intercom

· Video intercom between VDP devices based on SIP protocol

· Video intercom between VDP devices with command center

· Releases the text information to VTH

· Address book releases to VTO

Attendance

· Set access control devices as attendance stations

· Attendance time period management

· Attendance shift management and arrangement

· Attendance report management

Visitor Management

· Visit Registration, Appointment Registration

· Searching Visit Record and Export

Vehicle Entrance

· Edit parking-lot, includes total and available spaces, parking name etc.

· Manage owners, vehicles and cards

· Bind LED screen with ITC or spot detector device

· Open the barriers via VTO with cards or remotely

· Force existing vehicles to leave

· Search and export the historical pass records

· Supports daily, weekly, monthly, and annual statistics of vehicle entrance

Alarm Controller

· Display all Alarm controller devices and subsystems under device

· Arm/Disarm Alarm controller.

· Arm, Disarm, Cancel Alarm, Normal, Bypass, Isolate In zone or subsystems

•*Artificial Intelligence*

Facial Recognition

· Live face

· Similar face search

· Feature search

· Recognition records

· Structured report of gender and age

· Face library management

· Face trace

· Face alarm and event linkage

ANPR

· Real-time license plate recognition

· Search history license plate recognition result

DSS Express

Flow Analysis

· Search and export people counting & heatmap report

•*System Maintenance*

Log

· Client Operate log
· Door device log
· Search and export log

Backup and Restore

· Backup system data automatically (daily, weekly, monthly)
· Backup system data manually
· Restore system data from server or local file

Other Functions

· Device time calibration, server time calibration

Event	Number of event reception without Pic	80 per Second
	Number of event reception with Pic	5 per Second
Emap	Hierarchy of Raster Map	8 Hierarchies
	Photos of Raster Map	Up to 64 Photos
	Map size of Raster Map	Up to 14.7M
	Channel Number	Up to 200
Personnel Management	Persons	10,000
	Cards	10,000
	Fingerprints	10,000

Performance Specification

Items		DSS Express
Org. and User	Organization	10 hierarchies, 999 organizations per hierarchy
	User Group	3 Levels
	User	100 online users and unlimited users
Devices (Single Point Performance)	Video	512 Channels
	Access Control	200 IP，800 Doors
	VDP Devices	1024 Devices (Unit VTO no more than 64)
	Facial Recognition Channels	32
	ANPR Camera	32
	Alarm Host	100
	POS Channels	50
Media Transmission Server	Video Input per Server	350 Mbps
	Video Output per Server	350 Mbps
Record	Playback Bandwidth per Server（With Recording）	150 Mbps
	Video Storage Bandwidth per Server	150 Mbps
	Maximum Capacity per Storage Server	200TB
	Download Task	UP to 5 per Client

Typical Application