DWspectrum® IPVMS

Complete Scalable Video Management

Video Management Anywhere, Anytime.
Built for Users™.

Apps for every operating system. Cloud enabled.

DW Spectrum® IPVMS supports all major operating systems with the ability to link any system to DW Cloud™ for fast, reliable remote access.
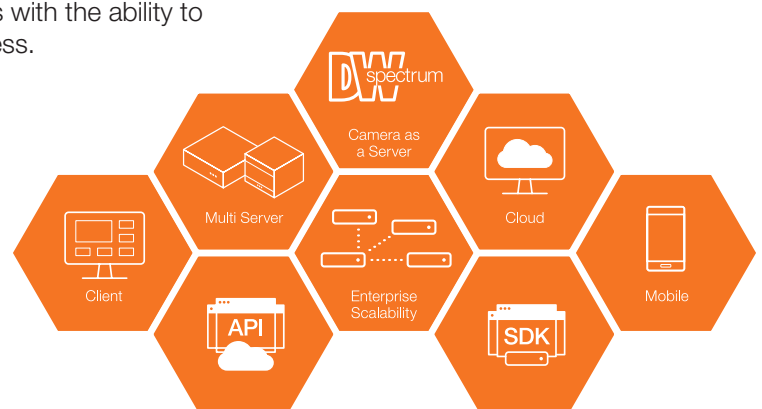
Automated. Intuitive. Built for Users.

Installs in seconds, configures in minutes. Instantly usable for novices, operators, integrators, or developers.

Auto-discover devices from hundreds of manufacturers.

Discover and manage thousands of compatible video, audio and I/O devices.Set up a new system or replace any existing VMS in minutes.

Open for developers. Integrate anything.

With an open Restful API, a suite of SDK's, and integrator-friendly tools like a built-in API generator DW Spectrum® IPVMS users can quickly integrate any 3rd party device or system.
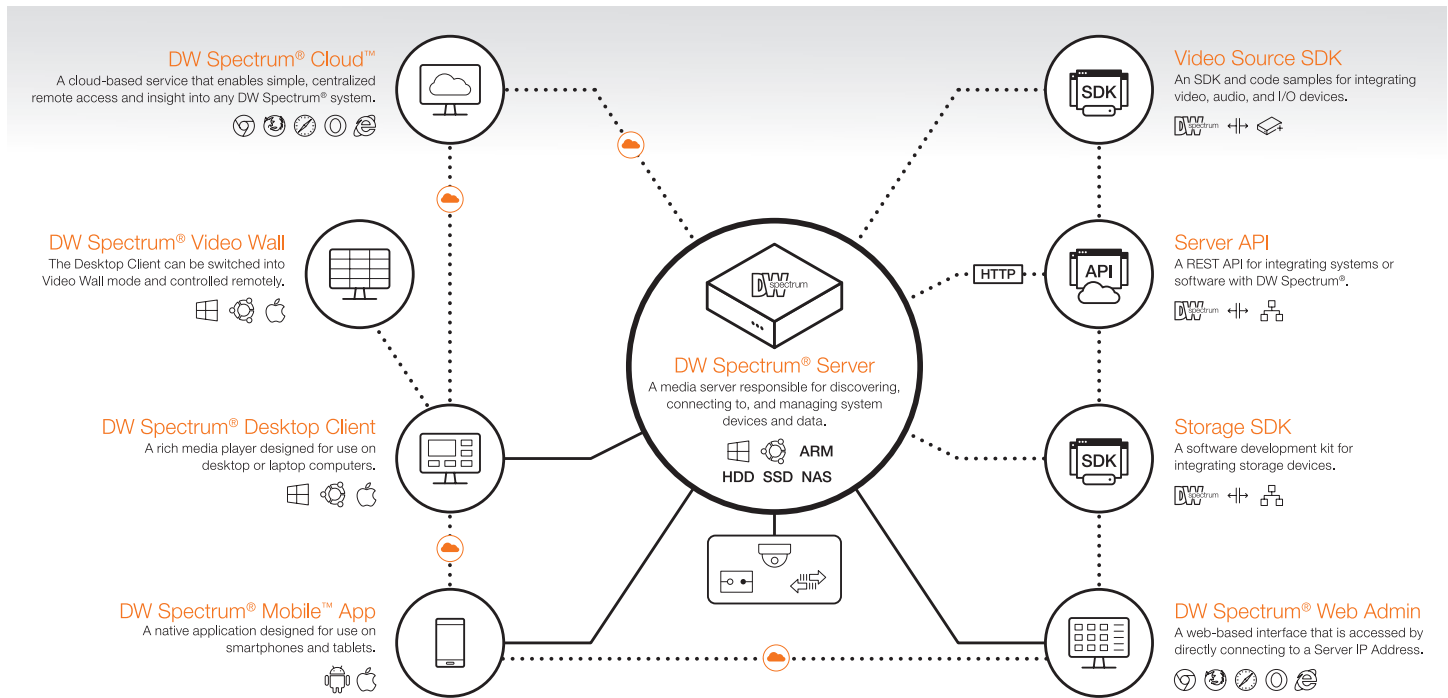
DW spectrum — Camera as a Server

Multi Server

Cloud

Client

API

Enterprise Scalability

SDK

Mobile

Made in U.S.A.

Simple. Reliable. Customizable.

DW Spectrum® IPVMS is an endlessly customizable IP Video Management platform that gives users the ability to create tailored networked video solutions for any type of project, for use by anyone, on any device.

① Open architecture / cross platform.

DW Spectrum® Cloud™
A cloud-based service that enables simple, centralized remote access and insight into any DW Spectrum® system.

Video Source SDK
An SDK and code samples for integrating video, audio, and I/O devices.

DW Spectrum® Video Wall
The Desktop Client can be switched into Video Wall mode and controlled remotely.

Server API
A REST API for integrating systems or software with DW Spectrum®.

HTTP · API

DW Spectrum® Server
A media server responsible for discovering, connecting to, and managing system devices and data.
ARM
HDD SSD NAS

DW Spectrum® Desktop Client
A rich media player designed for use on desktop or laptop computers.

Storage SDK
A software development kit for integrating storage devices.

DW Spectrum® Mobile™ App
A native application designed for use on smartphones and tablets.

DW Spectrum® Web Admin
A web-based interface that is accessed by directly connecting to a Server IP Address.

Open Architecture

- Now with DW Cloud™, connect from anywhere to share access instantly.
- Now with even more device support.
- Support of thousands of devices including cameras, encoders and I/O modules from leading manufacturers.
- Support cameras at every resolution.
- Built-in API allowing managed video to be accessed and reviewed by any willing 3rd party device.

Cross Platform

- DW Spectrum's recording engine runs on Windows® and Linux® Operating Systems.
- Client software is Windows®, Linux® or Mac® compatible.
- Mobile apps are iOS® and Android® compatible.
- Web client is compatible with Google Chrome®, Firefox®, Safari® and Internet Explorer®.

② Interface is dramatically easier to use.

Easy System Setup

Easy Recording

Easy Configuration

Easy Monitoring
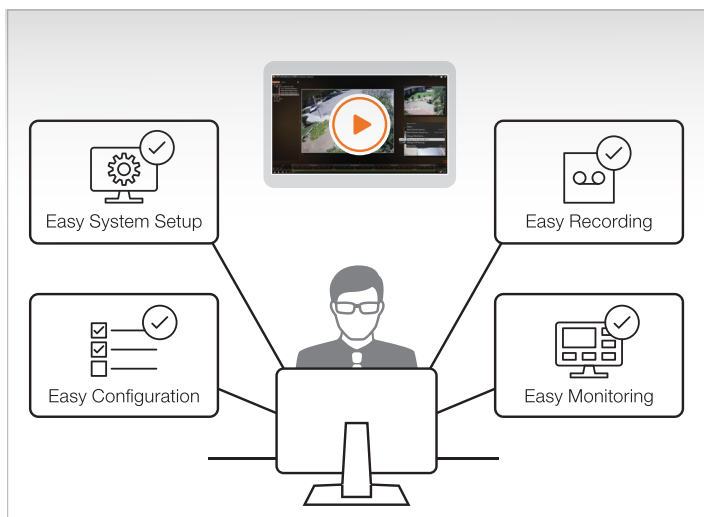
Highly refined GUI

Viewing Video

- Seamless transitions
- Customizable camera layouts
- Zoom, create regions of interest and enhance images

Searching Video

- Fastest video search in the industry
- Users can bookmark specific video segments

Downloading Video

- Multiple Download options
- Storage Backup

DW
Complete Surveillance Solutions™

❸ Enterprise features are standard.

• **Custom User Role Management:** create custom roles and share groups of hardware and layouts

• **Multi-Server and Centralized Management**

• **Health Monitor:** provides real-time insight of camera and server status.

• **Video Storage Analytic:** insight into storage requirements each camera is using in real-time and forecasts the impact of additional storage.

• **Minimize Video Recording Loss** with included **Failover** to protect video recordings from hardware failures and network interruptions.

• **LDAP / Active Directory** integration for enterprise wide user management is standard.

• **Video Wall** users can create and remotely manage remote monitors with just a few clicks.

Enterprise Scalability

Easy Configuration

Video Wall Control
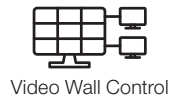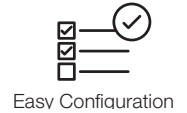
❹ Part of a complete end-to-end IP solution.

Although DW Spectrum® IPVMS is open to be deployed on a vast number of solutions. It is also part of DW's compete end-to-end IP solution, With

Blackjack® servers or VMAX® IP Plus™ NVRs and MEGApix® IP Cameras.

End-to-End Solution
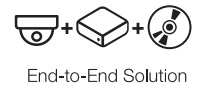
❺ Lifetime upgrades included / no annual agreements.

While other companies require annual maintence agreements, DW Spectrum® IPVMS system up-

grades are always available free of charge.

No Annual Maintenance Fees

❻ Scalable from one to thousands of devices.

The unified user experience for applications requiring one or thousands of cameras, it is deployed at thousands of locations worldwide, making DW

Spectrum® the industry's fastest growing VMS on the market today.

Enterprise Scalability

You choose your devices.

DW Spectrum® has applications for all major operating systems so our users are not limited by what device or operating system they choose to use on their desktops, mobile devices, rack mount servers, or even low-powered embedded devices.

Server	Client	Cloud	Mobile
A media server responsible for discovering, connecting to, and managing system devices and data.	A rich media player designed to view and manage a single DW Spectrum® system from a desktop or laptop PC.	A cloud-based service that enables simple, centralized remote access and insight into any DW Spectrum® system.	A mobile app designed for viewing DW Spectrum® system video and events while on-the-go.
SERVER OS SUPPORT:	**DESKTOP OS SUPPORT:**	**SUPPORTED BROWSERS:**	**MOBILE OS SUPPORT:**
⊞ ⏻	⊞ ⏻	chrome Firefox® Microsoft Edge Safari Opera	Download on the App Store GET IT ON Google Play

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DWspectrum IPVMS
Complete Scalable Video Management

Discover. Manage. View. Integrate.

The DW Spectrum® IPVMS media server application is a lightweight, powerful media server responsible for discovering, connecting to, and managing DW Spectrum® IPVMS system devices and data. The application is pre-loaded on all Blackjack® servers.

Blackjack®
Servers Powered by DW Spectrum® IPVMS

Designed and Commissioned in the U.S.A.

Pre-loaded Blackjack® servers

SUPPORTED OPERATING SYSTEM: Windows®   Linux®

DISCOVER	MANAGE	VIEW	INTEGRATE
IP Cameras (ONVIF, Custom)	IP Cameras / NVRs / DVRs	Live Video (adaptive)	HTTP Generic Events
RTSP / HTTP Streams	Advanced Routing	Recorded Video (adaptive)	HTTP Request-as-an-Action
I/O Devices	Storage (HDD/NAS/DAS)	Server Health	Server API
	Events & Rules Engine	Log Files	Storage SDK
	Failover	Audit Trail	Video Source SDK
	Transcoding	Storage Status	Any Device or System

SCALABILITY

 # OF CLIENTS PER SERVER: THOUSANDS

 # OF CLIENTS PER SYSTEM: UNLIMITED

 # OF STREAMS PER SERVER: 128

 # OF SERVERS IN A SERVER SYSTEM: 50 *

* 50 is a recommended maximum. Depends on server configuration and network environment.

Contact support for more info.

SUPPORTED OPERATING SYSTEMS

WINDOWS

Windows
Windows 7
Windows 8
Windows 8.1
Windows 10
Windows Server 2008
Windows Server 2008 R2
Windows Server 2012
Windows Server 2012 R2
Windows 10 Enterprise

LINUX

Ubuntu Linux 14.04 LTS
Ubuntu Linux 16.04 LTS

BLACKJACK™ SERVER WEB ADMIN

SUPPORTED MEDIA STREAMING

LIVE STREAMS (Viewed in DW Spectrum® Desktop)

VIDEO: H.265 H.264 MJPEG

AUDIO: AAC PCM (Mu-Law, A-law) g726 MP3

LIVE STREAMS (Available to pull from DW Spectrum® IPVMS media server to 3rd Party)

VIDEO: H.265 H.264 MJPEG WebM

AUDIO: AAC PCM (Mu-Law, A-law) g726 MP3

PROTOCOLS: RTSP MJPEG WebM HLS

OTHER

AUTOMATIC CAMERA FAILOVER: ~1 min. configurable

TRANSCODING: Supported (for web, client, mobile, API)

DATABASE: SQLITE + proprietary archive index

SINGLE SIGN ON: LDAP / active directory

SECURITY: OPEN SSL, SALTED MD5 HASH, TLS/SSL, HTTPS

DEV TOOLS: Server API (HTTP), video source SDK, storage SDK STORAGE SDK

NAS: ISCSI

DW Spectrum ®
IPVMS
Complete Scalable Video Management

Dramatically easier to use with almost immediate video load.

A rich media player with a flexible grid interface, unmatched speed and responsiveness, instant event notifications, an embedded browser, and a user experience unlike any other video management software.

Video Wall users can create and remotely manage remote monitors with just a few clicks.

One App. Many Features.

DW Spectrum® IPVMS client combines performance, ease-of-use, and a 'let the user decide how best to use the software' approach into a single cross-platform lightweight app capable of running any server.

SUPPORTED OPERATING SYSTEM: ⊞ Windows® ⬤ Linux® 🍎 MacOS

USABILITY	MEDIA	CONFIGURATION	SEARCH
Drag & Drop	IP Cameras / Encoders / DVRs	Events & Rules Engine	Smart Motion Search
Consolidated Notifications	RTSP / HTTP Streams	User Management	Keyword Search
Flex Timeline	I/O Devices	IP Cameras / Encoders	Calendar Search
Customizable Layouts	Web Pages	Server Management	Time-Slice Search
Digital Maps	Videos	I/O Device Management	Bookmarks
Adaptive Scaling	Images	Storage Management	Audit Trail

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MAXIMUM # OF GRID ITEMS

64 BIT OS: 64 Items (e.g. 64 live streams)

32 BIT OS: 24 Items (e.g. 24 live streams)

SUPPORTED OPERATING SYSTEMS

WINDOWS

Windows 7
Windows 8
Windows 8.1
Windows 10
Windows Server 2008
Windows Server 2008 R2
Windows Server 2012
Windows Server 2012 R2
Windows 10 Enterprise

LINUX

Ubuntu Linux 14.04 LTS
Ubuntu Linux 16.04 LTS

MAC

OSX 10.11
OSX 10.12

HARDWARE REQUIREMENTS

CLOUD CONNECT

HARD DRIVE: HDD
RAM: 2GB
CPU: Quad Core Intel 7 CPU or higher
GRAPHICS: Intel HD Graphics 3000
w/ Open GL2.1 support
NETWORKING: 1GB NIC

PERFORMANCE SPECS

HARD DRIVE: Performance SSD
RAM: 16 GB RAM
CPU: Intel Core i5
GRAPHICS: NVIDIA GeForce GTX 1050
(Open GL2.1 support is required)
NETWORKING: 1GB NIC

DW SPECTRUM® CLIENT APPLICATION

SUPPORTED MEDIA PLAYBACK ON GRID

LIVE STREAMS
CODECS: H.265 H.264 MJPEG

OFFLINE MEDIA
VIDEOS: AVI MKV MP4 MOV TS M2TS MPEG MPG FLV WMV 3GP
IMAGES: JPG PNG GIF BMP TIFF

CONNECTED DEVICES
I/O DEVICES: Status and triggers
SERVERS: Server health monitoring

BROWSER
WEB PAGES: Responsive websites / Progressive web apps

VIEWING MODES

MEDIA PLAYER: View, edit, and export offline videos and images

CONNECTED: View, configure, and manage any DW Spectrum® IPVMS System

VIDEOWALL: Put DW Spectrum® Desktop into VideoWall mode to control remotely

SHOWREEL: Fully customizable timed viewing tour of any GRID media

Cloud

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Complete Scalable Video Management

DW Cloud™ Simplifies Everything.

The DW Cloud™ service makes connecting to and managing DW Spectrum® IPVMS system(s) simple. Set up in seconds. Connect from anywhere. Share with an unlimited number of users.

Quick setup

1. Create a DW Cloud™ account
2. Link your system to DW Cloud™
3. Connect, view and manage video anywhere, anytime.

powered by **amazon** web services

Browser based user interface

Manage users

View live or recorded video

Quickly connect to any system
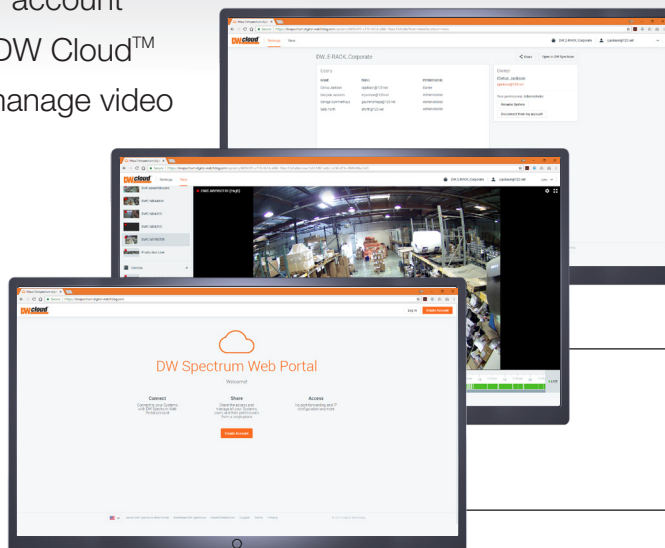
Connect. View. Manage. Scale.

DW Cloud™ is a public cloud application hosted on Amazon AWS that enables simple remote connectivity, streaming, and management of one or an unlimited number of DW Spectrum® IPVMS Systems.

SUPPORTED BROWSERS: chrome | Microsoft Edge | Opera | Firefox® | Safari

CONNECT		VIEW		MANAGE		SCALABILITY / INTEGRATION	
	NAT Traversal		Live Video (adaptive)		System Settings		Unlimited # of Systems
	Data Proxy via AWS		Recorded Video (adaptive)		User Permissions		Unlimited # of Users
	Simple Credentials		Camera Details		Cloud Connections		Unlimited # of Devices
	Encrypted Communications		Keyword Search		Email Notifications		Cloud API
	Wifi / LAN / WAN		Calendar Search				
	4G / LTE / Data		Flex Timeline				

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SCALABILITY

 # OF CONNECTED SYSTEMS: UNLIMITED

 # OF USERS: UNLIMITED

DW CLOUD™ SERVICES

CLOUD CONNECT

Connect any DW Spectrum® IPVMS System to DW Cloud™ for simple remote connectivity from anywhere using NAT Traversal and Cloud Data Proxy technology.

USER MANAGEMENT

Add an unlimited number of users to a single DW Cloud™ system.

Share access to your DW Cloud™ system in seconds using only email addresses.

Create Custom Roles to simply and quickly assign access to multiple DW Cloud™ connected systems.

DEVELOPER TOOLS

CLOUD API: AVAILABLE UPON REQUEST

DW CLOUD™ BROWSER & DEVICES INTERFACE

DW CLOUD™ FEATURES

CONNECTIVITY

NAT TRAVERSAL: Connect directly to proxied Blackjack® servers

CLOUD DATA PROXY: Connect via AWS cloud proxy service

INTERFACE TABS

SYSTEMS: View connected system tiles

SETTINGS: View users, rename systems, disconnect systems

VIEW: USE DW Cloud™ to view live or recorded video

SECURITY

SECURE PASSWORD RECOVERY: Via e-mail

HTTPS: Open SSL, encrypted server/client/cloud connections

EMAIL: (transport layer security)

PASSWORDS: Complex, multi-level hash

HOW IT WORKS

DW *cloud* ™

3 Blackjack® server establishes persistent connection with DW Cloud™.
DW Cloud™ gets IP address from the Blackjack® server.

4 DW Cloud™ gives IP addresses to client device to allow direct connection between Blackjack® server and DW Spectrum® Remote Client.

2 Connect to DW Cloud™.

5 NAT Traversal bypasses port forwarding to provide a direct peer-to-peer connection.

Blackjack® server

Firewall

DW Spectrum® Remote Client

1 Recorders store information and provide search capabilities as before.

6 If a firewall prevents peer-to-peer connection, a recorder-client connection is relayed via DW Cloud™.

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Smart phone or tablet. Smart video.

DW Spectrum® Mobile for iOS and Android smartphones and tablets provides fast, dependable mobile access to any DW Spectrum® IPVMS system.

View, playback and capture still images from a surveillance system on your smart phone and tablet.

Connect. View. Search. Control.

DW Spectrum® Mobile - with a custom developed media player - is a low-latency, user-friendly mobile application for iOS and Android devices that allows users to connect to, view, search, and control IP cameras over Wifi or data networks.

SUPPORTED OPERATING SYSTEM: Download on the App Store   GET IT ON Google Play

CONNECT	VIEW	SEARCH	CONTROL
Wifi	Live Video (adaptive)	Keyword Search	Fisheye Dewarping
Data 4G/LTE	Recorded Video (adaptive)	Calendar Search	Advanced PTZ / Standard PTZ
	Layouts	Flex Timeline	2-Way Audio
	Available Systems		Soft Trigger

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DW spectrum ®
IPVMS
Complete Scalable Video Management

COMPATIBLE DEVICES

SMART PHONES:

64 Items (e.g. 64 live streams)

iOS 24 Items (e.g. 24 live streams)

SUPPORTED OPERATING SYSTEMS

ANDROID

Jelly Bean	4.1 - 4.3.1
Kit-Kat	4.4 - 4.4.4
Lollipop	5.0 - 5.1.1
Marshmallow	6.0 - 6.0.1
Nougat	7.0 - 7.1.2
Oreo	8.0

iOS

iOS 5	5-0 - 5.1.1
iOS 6	6.0 - 6.1.6
iOS 7	7.0 - 7.1.2
iOS 8	8.0 - 8.4.2
iOS 9	9.0 - 9.3.5
iOS 10	10.0 - 10.3.3
iOS 11	11.0

Download on the **App Store**

GET IT ON **Google Play**

DW SPECTRUM MOBILE™

SUPPORTED MEDIA PLAYBACK

STREAMS

CODECS: H.265 H.264 HLS

FEATURES

REMOTE CONNECT: Login using local or DW Cloud™ credentials

LIVE THUMBNAILS: Thumbnails refresh in real time

KEYWORD SEARCH: Search for cameras or layouts by name

CALENDAR SEARCH: Search by date and time

ADVANCED PTZ: Point pan, zoom, tilt controls, move to presets

FISHEYE DEWARPING: Dewarp fisheye images

ADAPTIVE SCALING: Hi / low resolution switching transcoding

LAYOUTS: View thumbnails of system layouts

QUICK SYSTEM SWITCH: Quickly switch between multiple DW Spectrum® IPVMS systems

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DW PIP
Partner Integrator Program ™

Support and Resources to Ensure Our Success.

Exceptional Pricing and Service for Our Best Customers.

The Digital Watchdog® Partner Integrator Program is dedicated to those who sell the complete line of DW® video surveillance solutions.

What's in it for me?

With your annual purchase commitment, you receive:

- Partner Pricing Program
- Project Registration Program
- Training and Certification
- Demo Equipment

- Product Roadmap Meetings
- Co-Marketing Collateral (MDF)
- Extended Warranty
- Enhanced Tech Support Experience

See Program details for qualifications and inclusions at:
portal digital-watchdog.com.

Contact Us:

California Office
16220 Bloomfield Avenue
Cerritos, California USA 90703
Hours: 8:00am – 5:00pm PST.

Florida Office
5436 West Crenshaw Street
Tampa, Florida USA 33634
Hours: 8:30am – 5:30pm EST.

Phone (Toll-Free) 1.866.446.3595

Fax 1.813.888.9262

Customer Service (U.S) 1.866.446.3595

Customer Service (International) 1.813.888.9555

Customer Service (French)............................ 1.514.360.1309

Sales Email .... Sales@dwcc.tv

Tech Support Email .... DW-Tech@dwcc.tv

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DW PIP
Partner Integrator Program ™

Dedicated to those who sell the complete line of DW® video surveillance solutions.

: 866.446.3595   : sales@dwcc.tv   : www.digital-watchdog.com

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