



# **VHO SETUP GETTING STARTED GUIDE**

**VERSION 1.0**

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# INTRODUCTION

As a preparation for setting up your broadcasting environment VHO (Video Hub Office), using the RayV technology, this document will guide you through the relevant steps needed to setup, install, provision and launch your channels.

Utilize the RayV Broadcaster to connect your location with the RayV Grid, while provisioning your required channels within the RayV Grid (Proprietary VDN/CDN solution).

The RayV Broadcaster is a software application responsible for acquiring, encoding, and streaming video and audio content from a VHO into the RayV grid.

This guide specifies the recommended hardware and architecture for setting up a VHO.

This guide will cover:

- VHO general guidelines
- Bandwidth and network recommendation
- Hardware and software specifications
- RayV broadcaster installation instructions
- Setting a channel process

# VHO GENERAL GUIDELINES

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## VHO DEFINITION

The Video Hub Office (VHO) is where all live feeds or file based content are received and ingested into the RayV broadcaster for distribution to the RayV grid to millions of authenticated viewers.

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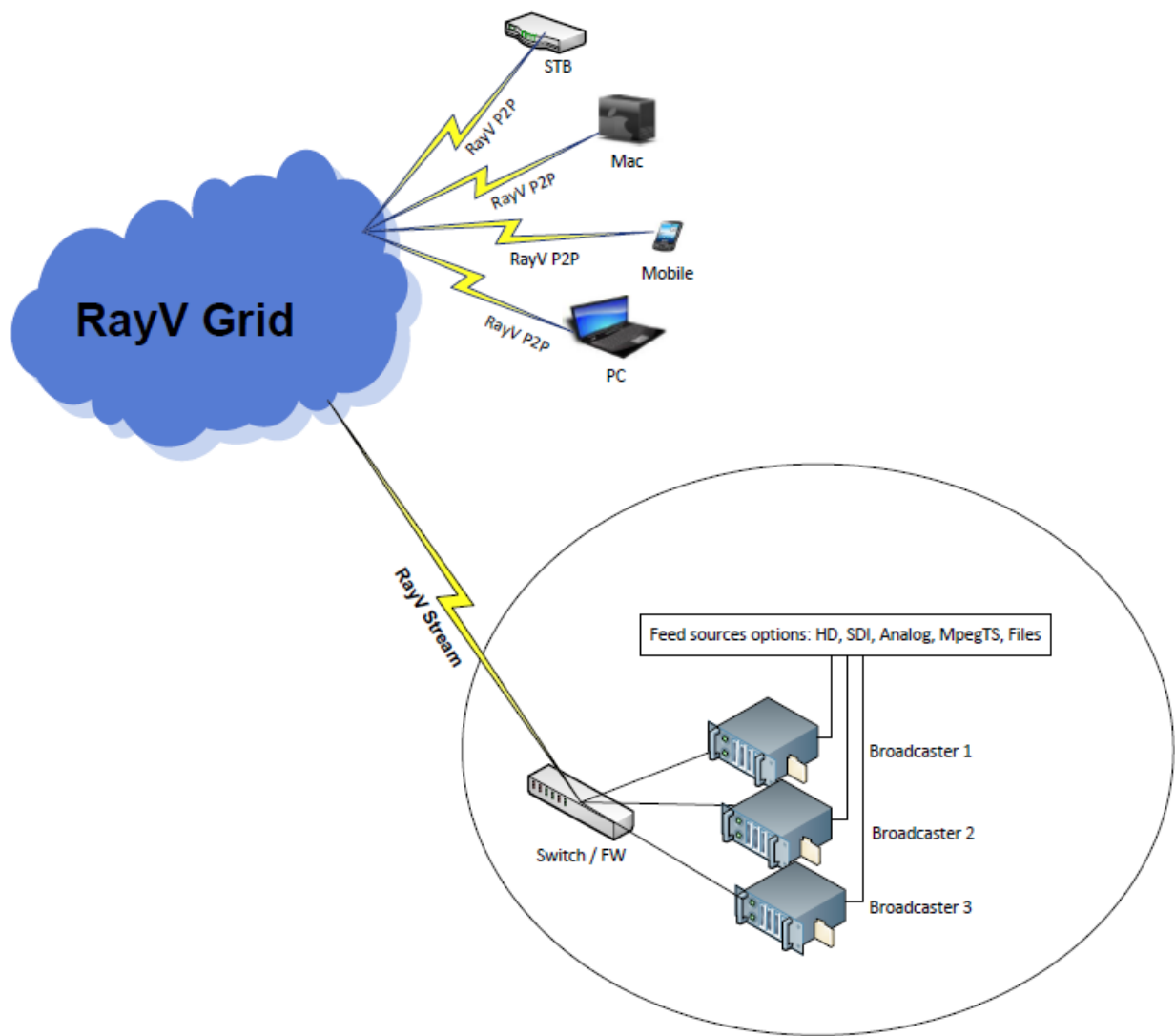
## GENERAL LIST OF COMPONENTS FOR A VHO

- Server(s), according to the required performance, feed type, number of inputs and outputs (see Hardware Performance on page 9).
- Capture cards per server according to the type of feed as recommended on Hardware Performance on page 9 (a capture card is not required in case of MPEG-TS feed or files).
- Video feed – HD/ SDI/ Analog (BNC termination) or MPEG-TS.
- Rack space, Power and cooling for servers and switches as required.
- 3 X network cables for each server.
- Keyboard, mouse and monitor (or KVM).
- 1 X Layer 3 with ACL support switches 24-48 ports (recommended brand Cisco) or Layer 2 switch + Firewall.
- Remotely manage Power Distribution Units (PDUs, recommended brand - APC).
- Upload bandwidth per channel as recommended on *Bandwidth Requirements* on page 7.

### **Backup Recommendations:**

- 2 different IP broadband providers via different infrastructure (separate switches per connection).
- In case the VHO has more than 10 servers, an additional server should be allocated as backup.

## VHO SCHEME





# MINIMUM SYSTEM REQUIREMENTS

The following are the minimum software, hardware, and bandwidth requirements for the RayV Broadcaster.

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## OPERATING SYSTEM

- Microsoft® Windows® Server 2003 R2, Standard Edition (32Bit/64bit)
- Microsoft® Windows® XP / 7 (32 Bit/64 Bit)
- Microsoft Windows® server 2008 R2, standard 64 Bit – recommended mainly for MPEG-TS inputs.

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## HARDWARE REQUIREMENTS

See *Hardware Requirements* on page 7.

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## BANDWIDTH REQUIREMENTS

The Broadcaster instance requires a dedicated upload bandwidth of 150% of the required broadcasting bitrate. For example, if broadcasting a channel of 1Mbps bitrate quality, 1.5 Mbps upload bandwidth is required. The extra bandwidth is required for retransmissions and to ensure that the stream is always smoothly received by the RayV grid.

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## NETWORK REQUIREMENTS

- A public IP address accessible from any Internet connection.
- If there is an active firewall, the system requires a static NAT.
- Allow TCP traffic to port 25793 or port 80.
- Static mapped UDP ports 22556 & 22557 to the Broadcaster on the firewall public IP Address (port forwarding inbound/outbound). Add a pair of port for any additional channel.
- Assigned IP address per machine (not DHCP).
- Allow Remote access to the machines (LogMeIn / RDP/ VNC or similar).



# HARDWARE REQUIREMENTS

RayV supports different types of hardware. Choosing a hardware type depends on the required number of channels and the channels required bitrate.

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## HARDWARE PLATFORMS

The following table lists the hardware platforms for the RayV Broadcaster.

Server type	Details
High-end Server	Option 1: HP DL360G7/ DL 380 G7 dual Quad Xeon processor Option 2: Dell R710 dual Quad Xeon processor
Mid-range Server	HP G7 or DL380 G7 Single Quad Xeon processor
Low-end Workstation	OptiPlex 980 Desktop



## HARDWARE PERFORMANCE

The following table provides guidelines for hardware performance and will assist in choosing the correct hardware according to the available feed, number of inputs, outputs and bitrates.

Please note that the guidelines below are based on normal resolution settings, in case different settings are required, the number of outputs may change.

Server type	Feed Type	Capture Card	Requires PCI slot	Number of max Inputs	Number of Outputs	Total Max bitrate output per server in Kbps
High-end Server	HD	Osprey 700e (Simulstream version)	No	1	4	4000
	SDI	Osprey 530 (Simulstream version)	Yes	1	4	4000
	Analog	Osprey 230	Yes	1	1	2500
	Analog	Osprey 450e (Simulstream version)	No	4	6	4000
	MPEG-TS (MPEG-2)	N/A	N/A	6	6	4500
Mid-range Server	HD	Osprey 700e (Simulstream version)	No	1	2	3000
	SDI	Osprey 530 (Simulstream version)	Yes	1	2	3000
	Analog	Osprey 230	Yes	1	1	2500
	Analog	Osprey 450e (Simulstream version)	No	4	4	3000
	MPEG-TS (MPEG-2)	N/A	N/A	3	3	3500
Low-end Workstation	HD	Osprey 700e (Simulstream version)	No	1	1	2000
	SDI	Osprey 530 (Simulstream version)	Yes	1	1	2000
	Analog	Osprey 230	Yes	1	1	2000
	Analog	Osprey 450e (Simulstream version)	No	4	4	2000
	MPEG-TS (MPEG-2)	N/A	N/A	2	2	2000

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## SERVERS SPECS

### HIGH-END BROADCASTER SERVER SPECIFICATIONS

HP DL360G7/ DL 380 G7 dual Quad Xeon processor or higher



Processor	
Processor family	Intel® Xeon® 5600 series Intel® Xeon® 5500 series
Number of processors	2
Processor core available	6 or 4 or 2
Memory	
Maximum memory	192 GB
Memory slots	18 DIMM slots
Memory type	DDR3 RDIMM or UDIMM
I/O	
Expansion slots	2
Network Controller	(2) 1GbE NC382i Multifunction 4 ports
Storage	
Maximum drive bays	(4) SFF SAS/SATA/SSD or (8) SFF SAS/SATA/SSD
Supported drives	Hot plug SFF SAS Hot plug SFF SATA
Storage Controller	(1) Smart Array P410i Integrated
Deployment	
Form Factor (fully configured)	1U
Infrastructure management	Insight Control with iLO Advanced (iLO 3)
Warranty - year(s) (parts/labor/onsite)	3/3/3

**Option 1: HP DL360 G7 - E5620 - 8 cores**

<b>Servers</b>	<b>Quantity</b>
HP DL360 G7 CTO Chassis Base EU Svr	1
<b>Memory</b>	
HP 2GB 2Rx8 PC3-10600R-9 Kit ECC	3
<b>CPUs</b>	
HP E5620 DL360 G7 Kit	2
<b>Hard Drive</b>	
HP 146GB 10K 6G 2.5 SAS DP HDD	2
<b>Options</b>	
HP 460W HE 12V Hotplg AC Pwr Supply Kit	1

**Option 2: HP DL360 G7- X5650 - 12 cores**

<b>Servers</b>	<b>Quantity</b>
HP DL360 G7 CTO Chassis Base EU Svr	1
<b>Memory</b>	
HP 4GB 2Rx8 PC3-10600R-9 Kit ECC	2
<b>CPUs</b>	
HP X5650 DL360 G7 Kit	2
<b>Hard Drive</b>	
HP 146GB 10K 6G 2.5 SAS DP HDD	2
<b>Options</b>	
HP 460W HE 12V Hotplg AC Pwr Supply Kit	1

## HIGH-END BROADCASTER SERVER SPECIFICATIONS

Dell R710 dual Quad Xeon processor or higher



Feature	Technical Specification	
Form Factor	2U rack	
Processors	Latest quad-core or six-core Intel® Xeon® processor 5500 and 5600 series	
Processor Sockets	2	
Front Side Bus or HyperTransport	Intel® QuickPath Interconnect (QPI) @ maximum 6.GT/s	
Cache	Up to 12MB	
Chipset	Intel® 5520	
Memory <sup>1</sup>	Up to 192GB (18 DIMM slots*): 1GB/2GB/4GB/8GB/16GB DDR3, 800MHz, 1066MHz or 1333MHz	
I/O Slots	2 PCIe x8 + 2 PCIe x4 G2 Or 1 x16 + 2 x4 G2	
RAID Controller	<b>Internal:</b> PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache SAS 6/iR PERC 6/i with 256MB battery-backed cache	<b>External:</b> PERC H800 (6Gb/s) with 512MB of battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache PERC 6/E with 256MB or 512MB of battery-backed cache <b>External HBAs (non-RAID):</b> 6Gbps SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA
Drive Bays	8 x 2.5" Hard Drive Option or 6 x 3.5" Hard Drive Option; Optional flex bay expansion to support half-height TBU Up to four 3.5" drives with optional flex bay, up to six 3.5" drives without optional flex bay, or up to eight 2.5" SAS or SATA drives with optional flex bay <b>Peripheral bay options:</b> Slim optical drive bay with choice of DVD-ROM, Combo CD-RW/DVD-ROM, or DVD + RW	
Maximum Internal Storage	12TB with 2TB 3.5" near-line SAS or SATA drives	
Hard Drives <sup>1</sup>	2.5" SAS (10K rpm): 146GB, 300GB, 600GB 2.5" SAS (15K RPM): 73GB, 146GB 2.5" SATA II (7.2K RPM): 80GB, 160GB, 250GB, 500GB 2.5" Near-Line SAS (7.2K) 500GB 2.5" (7.2K) Nearline SAS: 1TB 3.5" SATA (7.2K): 160GB, 250GB, 500GB, 1TB, 2TB 3.5" SATA (54K) 2TB 3.5" 6Gps SAS (7.2K): 2TB 3.5" SAS (10K): 600GB	3.5" SAS (15K): 146GB, 300GB, 450GB, 600GB 3.5" Near-Line SAS (7.2K): 500GB, 1TB, 2TB 2.5" SSD: 50GB, 100GB <b>Solid State Storage Cards:</b> Fusion-io® 160IDSS—160GB ioDrive PCIe solid state storage card Fusion-io® 640IDSS—640GB ioDrive Duo PCIe solid state storage card
Communications	Four embedded Broadcom® NetXtreme II™ 5709c Gigabit Ethernet NIC with failover and load balancing; TOE (TCP/IP Offload Engine) supported on Microsoft® Windows Server® 2003 SP1 or higher with Scalable Networking Pack; Optional 1GBe and 10GBe add-in NICs Broadcom® NetXtreme II® 57711 Dual Port Direct Attach 10Gb Ethernet PCI-Express Network Interface Card with TOE and iSCSI Offload	Intel® Gigabit ET Dual Port Server Adapter and Intel® Gigabit ET Quad Port Server Adapter Dual Port 10Gb Enhanced Intel Ethernet Server Adapter X520-DA2 (FcoE Ready for Future Enablement) <b>Optional add-in NICs:</b> Brocade® CNA (1020) Dual Port Server Adapter <b>Optional add in HBAs:</b> Brocade® 8 GB HBAs Emulex® OCE10102-IX-DCNA iSCSI HBA stand-up adapter
Power Supply	Energy Smart – Two hot-plug high-efficient 570W PSU OR High Output Two hot-plug 870W PSUs	<b>Uninterruptible Power Supplies:</b> 1000W–5600W 2700W–5600W High-Efficiency Online Extended Battery Module (EBM) Network Management Card
Availability	DDR3; hot-plug hard drives; optional hot-plug redundant power supplies; dual embedded NICs with failover and load balancing support; PERC 6/i; hot-plug redundant cooling; toolless chassis; fibre and SAS cluster support; validated for Dell/EMC SAN	
Video	Matrox® G200 with 8MB of cache	
Remote Management	iDRAC6 Enterprise (optional)	
Systems Management	Dell™ OpenManage™ Microsoft® System Center Essential (SCE) 2010 v2	
Rack Support	ReadyRails™ sliding rails with optional cable management arm for 4-post racks (optional adapter brackets required for threaded hole racks); ReadyRails™ static rails for 2-post and 4-post racks	

### Option 1: Dell R710 E5620 - 8 cores

<b>Processor</b>
Intel Xeon E5630 Processor (2.53GHz, 4C, 12M Cache, 5.86 GT/s QPI, 80W TDP, Turbo, HT), 1066MHz Max Memory
<b>Memory</b>
8GB Memory for 2 CPUs, DDR3, 1333MHz (4x2GB Dual Ranked RDIMMs)
<b>Hard Drive</b>
2* 146GB 2"5 in 3.5" SAS 10,000 RPM Hot Plug (Raid 1)

### Option 2: Dell R710 L5640 - 12 cores

<b>Processor</b>
Intel Xeon X5650 Processor (2.66Ghz, 6C, 12M Cache, 6.40 GT/s QPI, 95W TDP, Turbo, HT), 1333MHz Max Memory
<b>Memory</b>
8GB Memory for 2 CPUs, DDR3, 1333MHz (4x2GB Dual Ranked RDIMMs)
<b>Hard Drive</b>
2* 146GB 2"5 in 3.5" SAS 10,000 RPM Hot Plug (Raid 1)

## MID-RANGE BROADCASTER SERVER

HP DL360 G7 or DL380 G7 Single Quad Xeon processor or higher



Processor	
Processor family	Intel® Xeon® 5600 series Intel® Xeon® 5500 series
Number of processors	2
Processor core available	6 or 4 or 2
Memory	
Maximum memory	192 GB
Memory slots	18 DIMM slots
Memory type	DDR3 RDIMM or UDIMM
I/O	
Expansion slots	2
Network Controller	(2) 1GbE NC382i Multifunction 4 ports
Storage	
Maximum drive bays	(4) SFF SAS/SATA/SSD or (8) SFF SAS/SATA/SSD
Supported drives	Hot plug SFF SAS Hot plug SFF SATA
Storage Controller	(1) Smart Array P410i Integrated
Deployment	
Form Factor (fully configured)	1U
Infrastructure management	Insight Control with iLO Advanced (iLO 3)
Warranty - year(s) (parts/labor/onsite)	3/3/3

**Option 1: HP DL360 G7 - E5620 - 4 cores**

<b>Servers</b>	<b>Quantity</b>
HP DL360 G7 CTO Chassis Base EU Svr	1
<b>Memory</b>	
HP 2GB 2Rx8 PC3-10600R-9 Kit ECC	3
<b>CPUs</b>	
HP E5620 DL360 G7 Kit	1
<b>Hard Drive</b>	
HP 146GB 10K 6G 2.5 SAS DP HDD	2
<b>Options</b>	
HP 460W HE 12V Hotplg AC Pwr Supply Kit	1

**Option 2: HP DL360 G7- X5650 - 6cores**

<b>Servers</b>	<b>Quantity</b>
HP DL360 G7 CTO Chassis Base EU Svr	1
<b>Memory</b>	
HP 4GB 2Rx8 PC3-10600R-9 Kit ECC	2
<b>CPUs</b>	
HP X5650 DL360 G7 Kit	1
<b>Hard Drive</b>	
HP 146GB 10K 6G 2.5 SAS DP HDD	2
<b>Options</b>	
HP 460W HE 12V Hotplg AC Pwr Supply Kit	1

## LOW-END WORKSTATION

Low end Workstation should be used only for testing and lower requirement location

### OptiPlex 980 Desktop



Chipset			
Intel® Q57 Express Chipset			
Memory			
Four DIMM slots; Non-ECC dual-channel 1333MHz DDR3 SDRAM, up to 16GB*			
Graphics Options			
Integrated Intel® Graphics Media Accelerator HD <sup>7</sup> 256MB ATI® RADEON® HD 3450 (dual DVI or dual VGA options)* 512MB NVIDIA NVS420 (SFF only, quad DP or quad DVI options)* 256MB NVIDIA GeForce 9300 (dual DVI or dual VGA options), 512MB ATI RADEON HD 4550* (DP/ DVI) 1GB NVIDIA GeForce GT330* (MT only, DP/DVI)			
Hard Drives/Storage Options			
3.5" Hard Drives: up to 500GB <sup>8</sup> 7200 RPM SATA 3.0GB/s, up to 160GB <sup>8</sup> 10K RPM SATA 3.0GB/s 2.5" Hard Drives: up to 320GB <sup>8</sup> 7200 RPM SATA 3.0GB/s, up to 250GB <sup>8</sup> SATA Full Disk Encryption, up to 128GB <sup>8</sup> SATA Solid State Drive Supports Dell's Flexible Computing Solution diskless option RAID 0 & 1 support on select configurations			
Networking			
Integrated Intel® 82578DM GbE Ethernet LAN 10/100/1000 Optional Broadcom® 1520 PCIe WLAN card (802.11 N)			
Standard I/O Ports			
<b>MT</b> 10 USB 2.0 ports, 4 front, 6 rear (+ 2 internal flex bay); 1 Parallel; 1 Serial; 1 RJ-45; 1 VGA; 1 Display Port; 1 eSATA; 2 Line-in (stereo/microphone); 2 Line-out (headphone/speaker)			
<b>DT/SFF</b> 8 USB 2.0 ports, 2 front, 6 rear (+ 2 internal flex bay); 1 Parallel; 1 Serial; 1 RJ-45; 1 VGA; 1 Display Port; 1 eSATA; 2 Line-in (stereo/microphone); 2 Line-out (headphone/speaker)			
Chassis Options			
	MINITOWER	DESKTOP	SMALL FORM FACTOR
<b>Dimensions</b> (H x W x D) Inches/(cm)	15.79 x 7.38 x 17.24 / (40.10 x 18.70 x 43.79)	15.35 x 4.41 x 13.66 / (38.99 x 11.20 x 34.70)	11.81 x 3.48 x 12.87 / (29.99 x 8.78 x 32.69)
<b>Weight (lbs/kg)</b>	23.5 / 11.4	16.5 / 7.5	13.0 / 5.9
<b>Number of Bays</b>	2 internal 3.5" 1 external 3.5" 2 external 5.25"	1 internal 3.5" 1 external 3.5" 1 external 5.25"	2 internal 3.5" 1 external 3.5" (slimline) 1 external 5.25" (slimline)
<b>Expansion Slots</b>	2 full height PCIe x16 (1 slot routed as x4) 2 full height PCI	2 low-profile PCIe x16 (1 slot routed as x4) 2 low-profile PCI (Dual riser adds 2 PCI full height (FH) slots, Combo Riser adds 1 PCI FH slot and 1 PCIe x16 FH slot)	1 low-profile PCIe x16 1 low-profile PCI
<b>DIMM Slots</b>	4	4	4
<b>Power Supply Unit (PSU)</b>	305W Standard PSU or optional 255W 90% Efficient PSU; Active PFC	255W Standard PSU or optional 255W 90% Efficient PSU; Active PFC	235W Standard PSU or optional 235W 90% Efficient PSU; Active PFC



<b>Chipset</b>
Intel® Q57 Express Chipset
Integrated Intel® 82578DM GbE Ethernet LAN 10/100/1000
<b>CPU</b>
Intel Core i7-860 with VT (2.80GHz, 8M)
<b>Memory</b>
4GB(1X4GB) Non-ECC, 1333MHz DDR3
<b>Hard Drive</b>
320GB (7200RPM) 3.5inch Serial ATA II 3Gb/s
<b>DVD</b>
DVD Multi Burner 16X DVD+/-RW Drive
<b>Graphic Options</b>
512 MB ATI Radeon HD 4550, 1 DP & 1 DVI, full height
<b>Operating System</b>
English Genuine Windows 7 Professional (32 BIT/64 BIT)
<b>Power Supply Unit</b>
305W
<b>Warranty and service options</b>
Dell 3Yr On Site Warranty

## VIDEO CAPTURE CARDS

The following sections describe the supported video capture cards.

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### SUPPORTED CARDS

The following table displays the supported cards and the supported feeds

Card	Feed
Viewcast Osprey 700e HD with Simulsteam	Support SD and HD streams
Viewcast Osprey 530 with Simulsteam	Support SD feed
Viewcast Osprey 230	Analog video capture card Requires PCI or PCI-X slot
Viewcast Osprey 450e with Simulsteam	Support up to 4 simultaneous Analog inputs. Requires PCI or PCI-X slot

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## CAPTURE CARDS SPECS

### OSPREY 700E HD CAPTURE CARD



#### Specifications:

##### Driver Support:

Microsoft® DirectShow® API

##### Inputs:

Video: SDI (BNC x 1)

Audio: Embedded SDI (16 channel)

##### Outputs:

Video: SDI pass through

Audio: Embedded SDI

##### Connectivity:

PCI Express (X1) :Slots: X1, X4, X8, or X16

##### Pre-Processing:

Closed-caption extraction/rendering

Logo/bitmap overlay

Scaling, cropping, de-interlacing and inverse telecine

Loss of video automatic test pattern generation with text overlay option

##### Dimensions:

Half-height/half-length board

6.60" L x 2.71" H (16.77cm L x 6.89cm H) includes low-profile bracket

## OSPREY 530 CAPTURE CARD



### Specifications:

#### Driver Support:

Microsoft® DirectShow® API

#### Inputs:

Video: One channel switchable input

Video: SDI (BNC x 1)

Video: S-Video (mini-DIN)

Audio: Unbalanced stereo (RCA x 2 via included breakout cable)

Audio: Balanced stereo (XLR x 2)

Audio: AES/EBU (XLR x 1)

Audio: Embedded SDI (4 channel selectable between 4 stereo channel pairs)

#### Video Format:

NTSC/PAL.

#### Outputs:

Video: (Breakout cable)

Video: Composite (BNC x 1)

Video: S-Video (mini-DIN)

Audio: (Breakout cable)

Audio: Unbalanced stereo (RCA)

#### Connectivity:

PCI-X

64-bit/66 Mhz

32-bit/33 Mhz (PCITM compatible)

Closed-caption extraction/rendering

Logo/bitmap overlay

Loss of video automatic test pattern generation with text overlay option

Scaling, cropping, de-interlacing and inverse telecine

#### Dimensions:

Full-height / half-length board

6.60" L x 4.38" H (16.7 cm L x 11.12 cm H)

## OSPREY 230 CAPTURE CARD



### Specifications:

#### Driver Support

Microsoft® DirectShow® API

#### Inputs:

Video: One channel switchable input

Video: Composite (BNC x 1)

Video: S-Video (mini-DIN)

Audio: Balanced stereo (XLR x 2)

Audio: Unbalanced stereo (RCA x 2)

#### Outputs:

Audio: Unbalanced stereo line (3.5 mm)

#### Video Format:

NTSC/PAL

#### Pre-Processing:

Closed-caption extraction/rendering

Software-adjustable hardware audio gain control

Logo/bitmap overlay

Scaling, cropping, de-interlacing and inverse telecine

Loss of video automatic test pattern generation with text overlay option

#### Dimensions:

Half-height/half-length board (6.60" L x 2.71" H) (16.77 cm L x 6.87 cm H)

64-bit PCITM interface

32-bit/33-MHz PCI compatible

3.3 V PCI 2.3 compliant

Includes low-profile bracket

## OSPREY 450E CAPTURE CARD



### Specifications:

#### Driver Support:

Microsoft® DirectShow® API

#### Inputs:

Video: Input: 4 Composite (BNC x 1) (additional BNC x 3 optional)

Video: 4 Y/C (BNC x 2) (Optional)

Video: 4 Component (BNC x 3) (Optional)

Audio: 4 Unbalanced stereo (RCA x 2)

Video: 4 Balanced stereo (XLR x 2) (Optional)

#### Video Format:

NTSC/PAL

#### Connectivity:

PCIe (x 1): Slots: X1, X4, X8, or X16

#### Pre-Processing:

Logo/bitmap overlay

Closed-caption extraction/rendering

Scaling, cropping, de-interlacing and inverse telecine

Loss of video automatic test pattern generation with text overlay option

#### Dimensions:

Full-height/half-length board (6.60" L x 4.38" H) (16.77 cm L x 11.12 cm H)

## INSTALLATION INSTRUCTIONS

The RayV Broadcaster program is installed using a standard installation wizard.

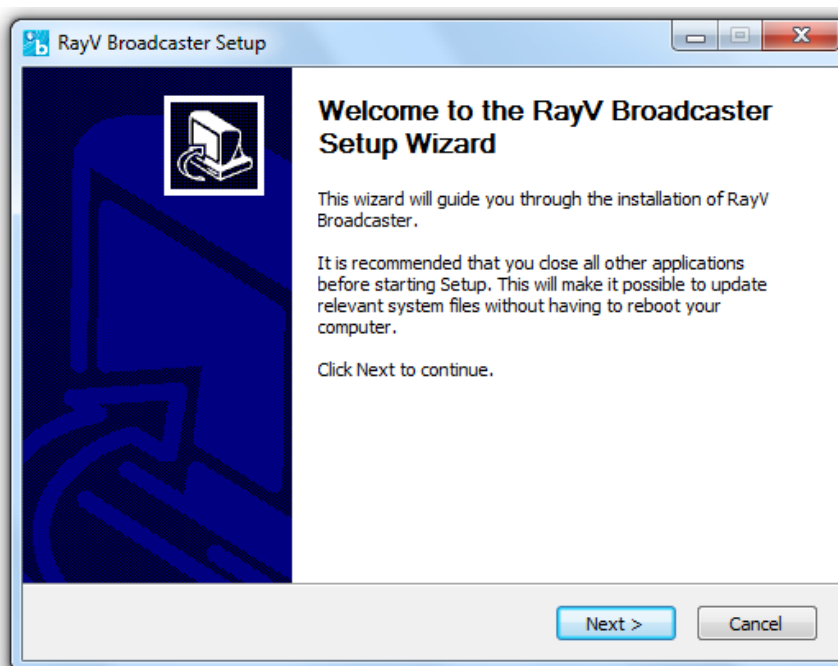
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### INSTALLING THE BROADCASTER

Usually the initial installation will be done by RayV using the remote access details you provided. If the installation will be done by you, make sure you have received the Broadcaster setup program from RayV.

**To install the Broadcaster:**

1. Double-click  **Setup.exe**.
2. Follow the Setup Wizard instructions.



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**Note:** By default, the setup program installs the Broadcaster under `C:\Program Files\RayV\Broadcaster\`.

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3. At the end of the setup process, run the Broadcaster to start broadcasting.



## PROVISIONING AND PREPPING FOR CHANNEL/S LAUNCH

A channel setting is done by RayV according to the parameters defined by the partner.

Required Parameters for each channel:

- Publisher name- Publisher is an organization or individual who owns one or more channels.
- Channel ID – channel unique ID, this ID is defined together with RayV and usually represent the name and bitrate of a channel. E.g. MyChannel\_1200, MyChannel\_500.
- Channel name – the channel name will be displayed to the user on the upper left corner of the RayV player.
- Channel bitrate – please specify the required bitrate of a channel.
- Channel description - A text description of the channel. Please use up to 1,000 characters. Full, free-form Unicode text is supported.
- Channel logo - The channel logo will be displayed on the upper left side of the RayV Player. Required format: PNG, Size: 75x50.
- Channel genre – Please choose from news, comedy, sport, religion or other.
- Channel type – Please specify if the channel will be a RayV P2P channel or a Flash channel. This will determine the way the viewers will watch the stream.
- Feed type – please specify if the feed will be HD, SD, Analog, MPEG-TS or will the channel be based on files.
- Channel rating – Please specify the rating of the channel: TVG, TV-PG, TV-14, TV-MA.
- Platforms – Please indicate on which platforms your channels will be presented: PC/MAC, mobile, setop box.



Once the channel is set and the broadcaster is installed and configured, you will receive your broadcaster credentials from RayV.

Those credentials will allow you to start broadcasting your channel.

Please refer to the “Broadcaster getting started user’s guide” for additional information on how to operate the RayV broadcaster and how to launch your channel.

For explanations related to embedding your channel on your website, please refer to “channel setup getting started” document.