Vantage

Quality control integration partners

Telestream has ensured that fully automated QC is available for most any Vantage workflow process from both baseband ingest and file-based sources. Creating automated ingest and transcode workflows with QC driven decisions allows for quality problems to be identified and dealt with quickly thus saving time and money.

Vantage QC Integrations

Quality Control (QC) systems have become a vital part of making media processes more efficient by making certain that all media outputs meet the content owner and aggregators quality requirements before they are delivered and distributed.

In addition to providing our own Vidchecker and Vidchecker-post QC tools, Telestream has also partnered with several leading QC tool vendors:

- Digimetrics Aurora
- Interra Systems Baton
- Venera Pulsar

Each of the QC integrations is a bit different. On the following pages you will find a description of each third party product, what their specific installation and licensing requirements are, how to purchase the required components and make them a part of a Vantage system.

For information on our own Vidchecker and Vidchecker-post QC tools, please read the Vidchecker brochure, available on our website.

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Digimetrics Aurora

Digimetric's Aurora is a file-based QC tool that insures that media files from ingest, transcode, archive or capture meet your expectations.

- Metadata is correct (against your expectations and metadata/stream integrity is intact)
- Distribution/Broadcast constraints are met
- Video and Audio Quality are acceptable

Aurora provides QC testing for:
- Containers- Transport, Program Stream, GXF, MXF
- Codecs - MPEG-2, H.264/AVC, H.264/MVC, VC-1, Dolby AC-3, Dolby E
- Ancillary Data - CEA-608, CEA-708, SCTE20, ATSC53, SCTE35 and DVB Subtitles
- Broadcast and Distribution Constraints - NTSC, PAL, ATSC (A/53, A/85), DVB-T (TR 101 290), ISDB-T (ARIB B-10), CableLabs TV (SCTE54), Cable Labs VOD (SCTE-VOD-CEP2.0-I03), XDCAM (RDD-9), AS-02 (AMWA), DVD and Blu-ray
- User-defined limits - container metadata (including checking for specific codec and ancillary data); video stream metadata (including time, size and color information); audio stream metadata (including Dolby metadata).
- 3-level Macroblocking Analysis - specifically built to avoid false positives; allows you to set limits on the simple test of detecting macroblock edges.
- Tape Hit Detection - The ability to detect RF drop outs during tape ingest, including common issues of intermittent block-based line artifacts, shiny spots, mosaic patterns, partial line drop outs and field-based Chroma loss.
- Photo-sensitive epilepsy/Flashing test - designed specifically to be compliant to the published Harding guidelines required for use by OFCOM in Rule 2.12 and NAB Japan.
- Perceptual Visual Artifact Detection - Aurora can spot visual disruptions to the video picture by using the surrounding frames as a point of reference, allowing automated location of film artifacts, analog noise and other non-pattern-based disruptions.

Vantage Aurora action I/O

The Vantage Aurora action inputs/outputs:
- **Input**
  - □ Vantage Aurora action accepts one media file as an input
- **Output** – Variables and attachments
  - □ Vantage Aurora action variables
    - Integer variables representing test results for: Aurora Errors, Aurora Warnings and Aurora Info Messages
    - Text variable representing: The input media file's duration
  - □ Vantage Attachments: Vantage nickname associated to an Aurora Test Report PDF file
  - □ The current Aurora action does not support Test Report XML creation. This will be added in an update soon.

Licensing and Limitations

- **Hardware**
  - □ Vantage system
    - Compatible hardware and Windows OS is required. See Vantage documentation
  - □ Aurora QC system (single or multi-node)
    - See Digimetrics Aurora system requirements
- **Software**
  - □ Digimetrics Aurora V4.1.775.3 or later.
  - □ Vantage 4.0 R3 or later
    - Windows Server 2008 R2 is required
    - The Aurora action is installed by default when Vantage is installed
- **Licensing**
  - □ Both the Vantage Aurora Connector and Digimetric's Aurora's software are required to be licensed individually
    - Vantage – Vantage Aurora service is installed through the Vantage Array {Multi-Node} Installation process. The Vantage Aurora Connector license supports up to 4 processes each. Note: A Vantage Array license is NOT required for the Vantage Aurora service.
    - Digimetrics –Each copy of Aurora software must be licensed individually on each Aurora server
- **Limitations**
  - □ Aurora QC software must run in conjunction with a Vantage Aurora service on a separate Aurora QC node and added to a specific Vantage domain. No other Vantage service is permitted to be running on the Aurora QC server node.
  - □ Each Vantage Aurora Connector license supports up to 4 concurrent Aurora processes

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Vantage and Aurora part numbers

- **Vantage Aurora connector**
  - ☐ V-AURORA-CONN - Allows for up to 4 Aurora QC processes each

Note: A Vantage Array license is NOT required for the Vantage Aurora Service.

Frequently asked questions

Does Telestream resell Digimetrics Aurora?
No. Aurora software must be purchased and licensed through Digimetrics or an authorized Digimetrics reseller/dealer.

Do you need Aurora Pro for the Vantage Aurora connector to work?
No. The Vantage Aurora integration works with existing Aurora Standard and Aurora Pro systems with v4.1.775.3 or later.

How should Vantage and Aurora be configured to work together?
The Aurora QC server node must be separate from other Vantage services on a separate server. Single and multiple node Aurora systems can be supported.

Steps for creating a Vantage system that utilizes Aurora QC:
1. Create a Vantage domain system with all appropriate Vantage services licensed and actively running.
2. If you have more than one Aurora QC server node you must first assure that identical test templates reside each Aurora node* by migrating them as described in the Vantage Aurora application note (http://www.telestream.net/pdfs/app-notes/app_Vantage_Aurora.pdf).
3. On each Aurora QC server(s) install the Vantage Aurora service on each individual Aurora server. Do so using the Array {Multi-Node} Installation mode within the Vantage installer. Ena-ble just the Aurora service.
4. Add the nodes running the Vantage Aurora service as members of the Vantage domain.
5. License each Aurora QC server for the Aurora service. Configure Vantage licensing and services as described in the Vantage Domain Management document: http://www.telestream.net/pdfs/user-guides/Vantage_Domain_Management_Guide_5.0.pdf

Note: If multiple nodes of Aurora QC are to be deployed Aurora's cluster management cannot be used within a Vantage domain to manage the QC job load balancing. Instead, each Aurora QC server node must be configured as a single QC node with the Vantage domain managing the load balancing and queuing of QC jobs. To integrate an existing Aurora QC cluster into Vantage domain you will need to 1) Export all Aurora test templates from each node, 2) Un-install and re-install Aurora in the single-node mode on each node. 3) Import an identical set of test templates onto each node.

See http://www.telestream.net/pdfs/app-notes/app_Vantage_Aurora.pdf for details.

How should media files be shared between the Vantage domain servers and the Aurora server(s)?
Since Vantage and Aurora software will run on separate system servers the Vantage default store and the location of files passed to an Aurora QC action must be shared to allow all servers in the domain (i.e. Aurora server) access to them. Connectivity to the shared locations within the Vantage domain can be 1Gb Ethernet, 10Gb Ethernet, Fibre or any other appropriate protocol. Be aware that connectivity to shared media files can become a bottleneck if throughput is limited. Design your Vantage/Aurora system with maximum shared access in mind.

Are all Aurora Pro options and features available through Vantage?
For the most part yes. Through the Vantage Aurora action controls, the user can select any Aurora QC template available. When a workflow is run Vantage passes the input file to Aurora which processes all tests associated with the selected test template. After Aurora finishes its tests, the Errors, Warnings and Info variables are passed from Aurora back to the Vantage workflow for downstream actions. In addition a full test report PDF file is generated and is assigned a Vantage attachment nickname, which can also be used in downstream actions.

Items outside of the scope of the Aurora / Vantage integrations are:
- The creation or modification of Aurora Test templates are done from within the Aurora user interface.
- Direct interaction with Digimetric's Hydra Player via links within the Test Report PDF
- In depth review of test results can be done through the Aurora user interface.

Can Aurora be installed with Vantage on Lightspeed or non-Lightspeed servers?
No. Aurora QC should be installed on servers running only the Vantage Aurora.

How can the Aurora / Vantage integration be demon-strated to a potential customer?
The Telestream Inside Sales team can issue temporary demo licenses and provide the installers for Aurora.

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What is our support model for the Aurora QC integration?

Telestream support staff will be the first line for supporting for our Vantage Aurora connector's action controls and interaction with Aurora software. If our support staff determines that the customer's needs are directly associated with the Aurora software, Telestream will connect the customer to Digimetrics directly.
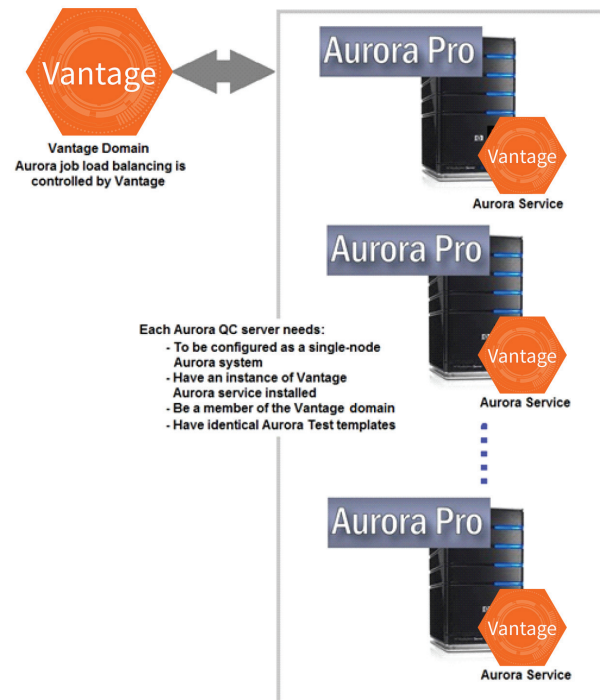
Sales and Support Contacts

Digimetrics Sales/Support Contact:
http://www.digi-metrics.com/sales-support/index.asp

Digimetrics Support phone number:
+1-918-383-0346

Digimetrics Online Support Contact:
http://www.digi-metrics.com/support/online/index.html

Aurora Pro features set:
http://www.digi-metrics.com/support/documentation/docs/Standard-v-Pro-Feature-Chart.pdf

Vantage Aurora Installation, licensing and user documentation:
http://www.telestream.net/pdfs/app-notes/app_Vantage_Aurora.pdf

Interra Baton

Interra's Baton is a file-based QC tool that includes Comprehensive Quality Checks to verify a wide variety of content transformations as well as Enterprise Scalability to handle content on many platforms without interruptions.

The combination of Vantage and Baton increases content owner and aggregator's monetization potential to a growing list of multi-screen target platforms and increases their operational efficiencies by assuring media readiness across every stage of the media content lifecycle.

Baton provides QC testing for:

- Container Checks - Content layout, CableLabs VoD compliance, Play time, File size, Packet size, Teletext, Ancillary data number of audio/video streams, ARIB specifications, AS02 compliance, Digital Cinema compliance, TR101 290, AS-11 Compliance
- Video Checks - Frame rate, Bit rate, Frame size, Aspect ratio, Duration, Resolution, Video format, Picture scan, Color format, Close captions, Blockiness, Blurriness, Freeze frames, Black frames, Black bars, Color gamut, Flashy video, Luma/Chroma levels, Brightness Contrast, Pixelation, Telecine analysis, White point, Drop frame, Field order, Block errors, Stripe errors, Upconversion, Combing errors, Video dropout, Image search, Film Grain noise, Motion Jerk, 3D Experience, Defective Pixels
- Media Containers - MXF, GXF, LXF, DVB/ATSC/MPEG-2 Transport, ASF, AVI, MPEG-2, Program/DVD VOB, 3GPP, 3GPP2, MP4, AVCFF, MOV, QuickTime, QuickTime Reference Movies, DPX, HLS, MKV, MPEG DASH, AAF, CPL, ISM
- Video Codecs - MPEG-2, IMX30/50, XDCAM, D10, D11, DV(25/50/100), MJPEG2000, DNxHD (VC-3), Uncompressed RGB (in QuickTime), H.264, MPEG-4, VC-1, Apple ProRES, PhotoJPEG, MPEG-A, MPEG-B, Uncompressed YUV, Cineform Video, MVC, Frame Sequential, Ultraviolet CFF, Canopus HQ and HQX, ISO 9660

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Vantage Baton action I/O

The Vantage Baton action inputs/outputs:

- **Input**
  - ☐ The Vantage Baton action accepts one media file as an input
- **Output**
  - ☐ The Vantage Baton action outputs
    - True/False variable 'Test has Passed'
    - Text variable: Containing Baton test results in an unformatted XML string
    - Attachments: A detailed Test Report PDF and fully formatted XML are associated with attachment nicknames

Vantage/Baton Requirements

- **Hardware**
  - ☐ Vantage system
    - Compatible hardware and Windows OS is required. See Vantage documentation
  - ☐ Baton QC system
    - See Interra Baton system requirements
- **Software**
  - ☐ Interra Baton Enterprise Edition Version 4.3 or later
  - ☐ Vantage 5.0 or later
    - The Baton service is installed from the Vantage Array {Multi-Node} Installation option mode.
    - Windows Server 2008 R2 is required
- **Licensing**
  - ☐ Both the Vantage Baton Connector and Interra's Baton software require licensing
    - Vantage – Vantage Baton service is installed through the Vantage Array {Multi-Node} Installation process and requires a Vantage Baton Connector license. **Note**: A Vantage Array license is NOT required for the Vantage Baton service.
    - Interra –Each copy of Baton QC software must be licensed individually
  - ☐ Baton is purchased and licensed through Interra or authorized Interra Baton reseller
- **Limitations**
  - ☐ Media folder locations must be added and pre-registered within the Baton software prior to running a Baton QC job
  - ☐ FTP Server and AMP Server media locations are not supported by the Vantage/Baton integration
  - ☐ Each Vantage Baton connector license supports up to 4 concurrent Baton processes

Licensing and purchasing Baton

The Baton QC software installer and Baton license(s) must be purchased and licensed through Interra or authorized Interra Baton reseller. The Vantage Baton connector license can be pur-chased from Telestream or an authorized reseller, and licensed through Te-lestream directly.

Vantage Baton connector: V-BATON-CONN – Allows for up to 4 QC sessions

Note: A Vantage Array license is NOT required for the Vantage Baton service.

Frequently asked questions

Does Telestream resell Interra Baton?
No. Baton software must be purchased and licensed through Interra or an authorized Interra Baton reseller.
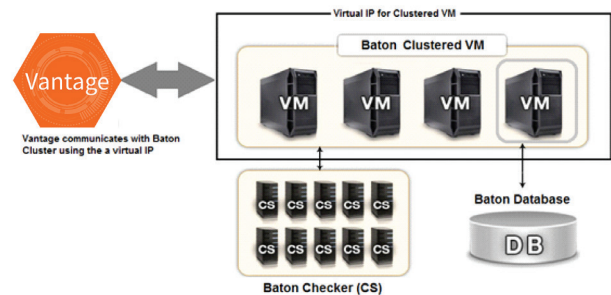
Does the Vantage Baton integration work with both Baton Standard and Baton Enterprise?
No. The Vantage Baton integration requires Baton Enterprise. Baton Standard is not supported through the Vantage Baton integration.

How should Vantage and Baton be configured to work together?
Answer – Baton Clustered VMs with Virtual IP Address or Single Baton VM

- Install the Vantage Baton service on the Vantage domain alongside other Vantage services
- Modify the Baton config file to reflect the Baton system's primary IP address (virtual IP address or single node IP address). This should only be done by an authorized Telestream representative. Contact Telestream customer support for assistance.

Modifying the Vantage Baton configuration file
1. Open the Baton_1.XML configuration file located at: <Install Drive>:\Program Files (x86)\Telestream\ Vantage\Baton\Agent\Agents using an XML edit program such as XML Notepad.
2. Modify the text associated with the Server IP Address parameter to the IP Address of a Single node Baton Enterprise system or the virtual IP of a Baton Enterprise Cluster.
3. Save the XML file.
4. Restart the Vantage Baton service.

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How should media files be shared between the Vantage domain servers and the Baton server(s)?

Since Vantage and Baton software will run on separate system servers the Vantage default store and the location of files passed to a Baton QC action must be shared to allow all servers in the domain (i.e. Baton server) access to them. Connectivity to the shared locations within the Vantage domain can be 1Gb Ethernet, 10Gb Ethernet, Fibre or any other appropriate protocol. Be aware that connectivity to shared media files can become a bottleneck if throughput is limited. Design your Vantage/Baton system with maximum shared access in mind.

Are there additional options, software or configurations required for an integrated Vantage/Baton system?

Yes. The following additional items are required:
If your Baton system will be reading media files that are located via a UNC path they will need to be registered with the Baton system. All UNC path locations from which Baton will be reading media files must be pre-registered with the Baton software. To add and register UNC path locations with the Baton software follow these steps:
a) Open and log in to the Baton main setup page.
b) On the left hand side, select the Content Locations link within the Setup section
c) From the Content Locations frame, click on the Register Local Folder or Register Shared Folder buttons
d) Add the UNC path Location where the media file will be sourced from and optionally add a Task Limit value (Task Limit is the maximum number of concurrent processes allowed from media contained in this location).

For more details see your IT administrator responsible for managing the Baton installation.

Are all Baton options and features available through Vantage?

For the most part yes. Baton Test Plans are created or modified directly within the Baton user interface. Through the Vantage Baton action controls, the user can select any Baton QC Test Plan available.

When a workflow is run Vantage passes the input file to Baton which processes all tests associated with the selected test plan. After the Baton test finishes all varia-bles and attachments created by the Baton action are available so they can be consumed by downstream Vantage workflow actions for making decisions or as part of a Deploy or Delivery.

Some additional processing may be required to extract specific information out of the XML based variable and attachment. Contact Telestream for information regarding Professional Services).

Items outside of the scope of the Baton / Vantage integrations are:

- General Baton setup and the creation or modification of Baton Test Plans is done from within the Baton user interface.
- Direct interaction with Baton MediaPlayer via links within the Test Report PDF
- In depth review of test results is done directly through the Baton user interface.

Can Baton be installed with Vantage on Lightspeed or non-Lightspeed servers?

No. Baton QC should run on independent server(s) and should not be installed on systems running other Vantage services.

I would like to evaluate Vantage with the Baton test software. How can I get Vantage and Baton software installers and their respective eval licenses?

Telestream does not sell Baton software directly. Baton software and an associated demo license will need to be obtained through an authorized Baton dealer or reseller. Telestream can provide an evaluation installer for Vantage that includes the Baton connection service and the associated Vantage eval licenses.

What is our support model for the Baton QC integration?

Telestream support staff will be the first line for supporting for our Vantage Baton connector's action controls and interaction with Baton software. If our support staff determines that the customer's needs are directly associated with the Baton software, Telestream will connect the customer to Interra directly.

Sales and Support Contacts

Baton Sales Contact:
sales@interrasystems.com

Baton Support Contact:
support@interrasystems.com

Installation, licensing and user documentation:
http://www.telestream.net/pdfs/app-notes/app_Vantage_Baton.pdf

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Venera Pulsar

Vantage Pulsar action I/O
The Vantage Pulsar action inputs/outputs:

- **Input**
  - Select the Test Plan to be used
  - The Vantage Pulsar action accepts one media file as an input
- **Output***
  - The Vantage Pulsar action outputs
    - Total Number of Errors integer variable. Returns the number of errors generated by the test run.
    - Total Number of Warnings integer variable. Returns the number of warnings generated by the test run.
    - Job Status text variable. Returns a text string containing the Job Status.
    - XML Report Path text variable. Returns the path to the XML Report generated by the test run. This path is determined by the Report Path parameter set selected within each template's General parameter section (see the Venera Pulsar documentation).
    - PDF Report Path text variable. Returns the path to the PDF Report generated by the test run. This path is determined by the Report Path parameter set selected within each template's General parameter section (see the Venera Pulsar documentation).
    - PDF Report File Attachments: A detailed Test Report PDF is associated with the attachment nickname and delivered to the output location specified within the plug-in.

Vantage/Pulsar Requirements
- **Software**
  - Pulsar QC server
    - Pulsar QC v4.0.0 software* with valid license
    - Vantage Pulsar service installed and running
- **Licensing**
  - Both the Vantage Pulsar service and Pulsar QC software require licensing
    - Vantage – Vantage Pulsar service is installed through the Custom Installation options. The Vantage Pulsar connector license supports up to 4 processes each.

Note: A Vantage Array license is <u>NOT</u> required for the Vantage Pulsar

- Pulsar – Each copy of Pulsar QC software must be licensed individually
  - Pulsar is purchased and licensed through Venera or an authorized Venera Pulsar reseller

- **Limitations**
  - Pulsar QC software must be running in conjunction with just the Vantage Pulsar service on a separate node within a Vantage domain. No other Vantage service is permitted to be running on the Pulsar QC server node.
  - Number of concurrent Vantage Pulsar sessions is 4 per Vantage Pulsar license

Licensing and purchasing Pulsar
The Pulsar QC software installer and Pulsar license(s) must be purchased and licensed through Venera or an authorized Venera Pulsar reseller. The Vantage Pulsar connector license can be purchased from Telestream or an authorized Telestream reseller, and licensed through Telestream directly.

- **Vantage Pulsar connector**
  - V-PULSAR-CONN – Allows for up to 4 Pulsar QC sessions each.

Note: A Vantage Array license is <u>NOT</u> required for the Vantage Pulsar
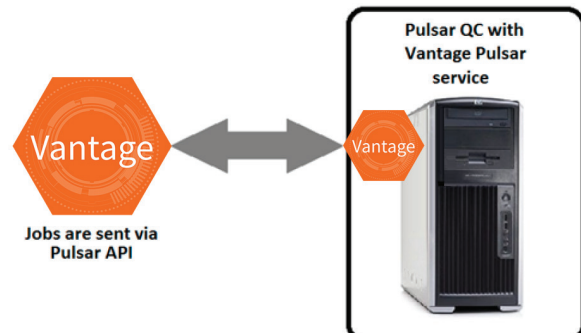
Frequently asked questions
Does Telestream resell Pulsar?
No. Pulsar software must be purchased and licensed through Venera or an authorized Venera Pulsar reseller.

How should Vantage and Pulsar be configured to work together?
The Vantage Pulsar service should be installed on the Pulsar QC server. The service can then be added to an existing Vantage domain through the Vantage Management Console.

- Pulsar QC server
  - On a standalone Pulsar QC server install just the Vantage Pulsar service from the Vantage Custom Installation option
  - Add this server's Vantage Pulsar service to a Vantage domain through the Vantage Management Console.

Pulsar QC with Vantage Pulsar service

Vantage

Jobs are sent via Pulsar API

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How should media files be shared between the Vantage domain servers and the Pulsar QC server(s)?
Since Vantage and the Pulsar software will run on separate system servers the Vantage default store and the location of files passed to a Pulsar QC action must me shared to allow all servers in the domain (i.e. Pulsar QC server) access to them. Connectivity to the shared locations within the Vantage domain can be 1Gb Ethernet, 10Gb Ethernet, Fibre or any other appropriate protocol. Be aware that connectivity to shared media files can become a bottleneck if throughput is limited. Design your Vantage/ Pulsar system with maximum shared access in mind. (See the Vantage Domain Management Guide's "Specifying Authorization Credentials for Remote Folder Access" section for more details)

Can Pulsar be installed directly on a Vantage server with other Vantage services?
No. Pulsar QC should always run on a separate independent server in conjunction with just the Vantage Pulsar service.

I would like to evaluate Vantage with the Pulsar QC software. How can I get Vantage and Pulsar software installers and their respective eval licenses?
Telestream does not resell Pulsar software directly. Pulsar software and an associated demo license will have to be obtained through an authorized Venera dealer or reseller. Telestream can provide an evaluation installer for Vantage which includes the Vantage Pulsar connection service and the associated Vantage eval licenses.

What is our support model for the Pulsar QC integration?
Telestream support staff will be the first line of support for the Vantage Pulsar connector's action controls/ service and interaction with Pulsar software. If our support staff determines that the customer's needs are directly associated with the Pulsar QC software, Telestream will connect the customer to Pulsar directly.

Sales and Support Contacts
Venera Pulsar Sales Contact:
www.veneratech.com
sales@veneratech.com
+1 831-293-3333 ask for Sales

Venera Pulsar Support contact:
www.veneratech.com
sales@veneratech.com
+1 831-293-3333 ask for Support

Installation, licensing and user documentation:
www.telestream.net/pdfs/app-notes/app_Vantage_Pulsar.pdf