



Provation[®] Apex

Technical Specification

Provation® Apex Technical Specification

This specification is intended to provide customers with recommended minimum technical requirements for typical use of their Provation licensed software. This specification is subject to change as new features, functionality, and licensed products are made available to our customers. This specification will be updated to reflect changes in information technology that impact the underlying components that Provation® Apex Documentation Platform operates on.

Provation Apex Desktop Application - Image Capture

Operating Systems Supported:

- Microsoft® Windows® 10 (Pro/Enterprise editions)

Supported Browsers:

- Google® Chrome® (Recommended)
- Microsoft® Edge® (Updated to Chromium based version)
- Firefox™

PC Requirements:

- 4 GB RAM
- Quad Core Processor (within last 2 generations)
- USB 3.0
- Integrated serial port OR a supported USB to serial adapter (see below)
- 1024 X 768 Display Resolution
- Updated with latest Microsoft® Windows® Updates
- Administrator level user rights are required to install using the Provation Apex Desktop App machine wide installer

Supported Image Capture Devices: (see below)

Only one of the following devices is required for each procedure room

- INOGENI® USB 3.0 to SDI-HD image capture device (part # SDI2USB3)
- Magewell™ USB 3.0 Capture SDI Plus (part # 32050)
- Magewell™ USB 3.0 All-In-One (part # 32110)

NOTE: The Provation Apex Desktop App is an application that is installed locally on a workstation which interfaces with the local hardware to capture images and manage loss of network and internet connection in a more resilient and intelligent way. This application is automatically updated.

Sourcing Required Accessories for Image Capture

The devices can be purchased through your trusted hardware vendor or directly from us. If you would like a quote from us, please let us know and we can quote you the proper equipment, with the exact amounts requested.

- INOGENI® (part # SDI2USB3) – available directly from inogeni.com or many other online retailers
 - Used to capture from SDI signals
 - Supports Olympus CV-180 and 190 scope processors

-OR-

- Magewell™ (part # 32050) – USB capture SDI plus

- Used to capture from SDI signals
- Supports Olympus CV-180 and 190 scope processors
- OR-
- Magewell™ (part # 32110) – USB capture All-In-One
 - Used to capture from nearly every video signal
- Coax cable with BNC connectors (RG-59 or RG-62) – available from many online retailers
 - Provation has tested the following model:
 - Blackbox® – ETN59-0006-BNC
 - Available in multiple lengths at Blackbox.com
- USB to Serial Adapter – available from many online retailers
 - Provation has tested the following model:
 - Blackbox® - USB Solo (USB to Serial) – Part: IC199A-R3
 - Available at Blackbox.com

Provation Apex Procedure Documentation and Patient Charting Requirements:

- 4 GB RAM
- Quad Core Processor (within last 2 generations)
- 1024 X 768 Display Resolution

Supported Browsers:

- Google® Chrome® (Recommended)
- Microsoft® Edge® (Updated to Chromium based version)
- Firefox™

Note on Supported Browsers: the most current available versions of the supported browsers are tested with Provation Apex. If your operating system does not allow you to run the latest version of the browser, it should not be utilized with Provation Apex.

Identity Access Management

Provation Apex does not manage identities. Instead, Provation Apex will look to authenticate users by utilizing your identity access management (IAM) system. Provation has several options shown below to ensure your users are identified and authenticated in a secure manner for your tenant. If you do not already have a cloud presence, we will provide you with instruction on getting started with Microsoft® Azure® Active Directory.

- Microsoft® Azure® Active Directory
- Microsoft® Azure® AD Connect

Secure Cloud Connector (SCC)

The Provation Apex SCC is utilized to securely and reliably transmit/receive HL7 data, pathology PDF results, and vitals data. The SCC is an application that is installed on a device within the customer's secure network where it can communicate with the customer's on-premise devices and applications, such as electronic health record (EHR) or vitals monitors. It securely transmits data between the Provation Integration API and the customer's systems. This technical specs covers the Provation Apex portion of the integration. You may want to consult with the other vendors to ensure no additional services or licenses are required for their integration.

- Windows Server 2016 or 2019 Standard or Datacenter edition
- Dedicated server (virtual or physical)
- Quad Core processor (or 4 vCPU's)
- 8GB memory
- 60 GB Disk space
- Server must be set with a static IP address

3rd Party Software and Hardware

NextGen® Connect Integration Engine - Mirth

- Version 3.x
- Requires Java 8
- Open source
- Required for advanced HL7 message integration
- May be installed on the Secure Cloud Connector server

Capsule Medical Device Information Platform (MDIP)™

The below are the basic specifications for the Capsule software, but a more comprehensive spec sheet is available from Capsule Technologies.

- Windows Server 2016 or 2019 Standard or Datacenter edition
- .Net framework 4.8+
- Server name must be less than 15 characters
- Latest version of Google Chrome, Microsoft Edge, or Firefox with cookies enabled
- Quad core processor (or 4 vCPU's)
- 8 GB of memory
- 60 GB hard drive, if Capsule logging is desired: additional 50gb hard drive
- Static IP address
- Required for certain vital monitors
- May be installed on the Secure Cloud Connector server

Network, Firewall, and Internet Access

- 100 ms maximum latency to Microsoft® Azure® for optimal performance
 - Utilize azurespeed.com and select East US region to verify latency
- Access to customer’s identity provider (ex. login.microsoft.com)
- Bandwidth – broadband internet access
 - Varies dependent upon concurrent users and saturation of existing internet connection
 - Reference table below for typical bandwidth use scenarios
 - Firewall whitelist requirements: [Whitelist](#)

Internet Connection	Bandwidth (Mbps)	Concurrent users
T1	1.54	2
T2	6.3	7
T3	44.7	47
10 MB	10	10
25 MB	25	26
100 MB	100	104
1 GB	1000	1044

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