















# SERVER OVERVIEW

A lightweight media server application designed for discovering, adding, and managing system resources and their related metadata.







DISCOVER

-  99% of IP Cameras, Webcams
-  I/O Devices
-  Encoders
-  RTSP / HTTP / UDP Streams
-  SAMBA NAS Devices
-  T11 Systems and Servers







MANAGE

-  Device Configurations
-  System Rules
-  Failover / Redundancy
-  Connections (HTTP, HTTPS)
-  Archived Video
-  Flexible Archive Backup

VIEW

-  Server Health
-  Live / Recorded Video
-  System Configuration
-  Log Files
-  Audit Trail
-  Storage Status


INTEGRATE


-  HTTP Events & Actions
-  Server API
-  Metadata SDK
-  Video Source SDK
-  Storage SDK
-  Server via Cloud API





# SERVER


## KEY FEATURES


- **IP Camera Auto-Discovery**

The T11 Panorama Server application automatically discovers 99% of IP cameras on the market today using a combination of ONVIF and native camera SDKs.
- **Manually Add Streams**

Every T11 Panorama Server lets users add any RTSP, HTTP, or UDP stream from any device (IP camera, drone, etc) or 3rd party system (DVR, NVR, etc).
- **Server Hive Architecture**

Every Server in an T11 Panorama System synchronizes user and configuration data in real-time ensuring no single point of failure in any size system.
- **Store Anywhere**

The T11 Panorama Server allows users to capture and store video pretty much anywhere – local drives, SD cards, NAS devices, Veracity Coldstore, or even cloud locations.
- **Web Admin Interface**

Every T11 Panorama Server has a built-in Web Admin Interface to view cameras, check up on things, connect to cloud, or download API and SDK documentation.
- **Event Rules Engine**


Every T11 Panorama Server has an IFTT Events Rules Engine that lets operators configure simple or advanced rules based on System-generated or integrated 3rd party events.


- **Developer Tools**


Integrate anything – literally anything – with a RESTful Server API and a full suite of SDKs for device and system integration.
- **Incredibly Lightweight**

The T11 Panorama Server application is small, compact, powerful, and can run on anything from a Raspberry Pi to a Supercomputer.
- **Failover on Storage Failure**


Automatic Camera Failover will now be activated when all storage on a Server has failed.
- **Encrypted Connections**

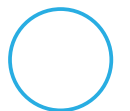
Administrators can now require all connections in a System to utilize HTTPS with SSL/TLS encryption.
- **Encrypted Video**


Administrators can now encrypt video between Servers and T11 Panorama Desktop / Mobile / Web clients.
- **H.265 Support for ONVIF Cameras**


H.265 support has been extended to include all ONVIF-compliant devices.
- **Secure Export**

Password protect exported video.

- **Notifications**

Send any combination of notifications – built-in desktop notifications, email, or even via SMS or 3rd party systems using HTTP actions.
- **Metadata SDK**

Enables seamless, semantic integrations between T11 Panorama VMS and 3rd party AI-powered video analytics like VisionLabs.
- **Dual RTSP / UDP HTTP Streams**

Administrators can now create dual-streaming “cameras” using RTSP / HTTP / UDP to enable adaptive scaling in T11 Panorama clients.
- **Plugins**

Plugins allow seamless integration between T11 Panorama VMS and 3rd party Systems, pulling in object data and associated bounding boxes, paths, and metadata tags.



# SERVER SPECS

## COMPATIBLE HARDWARE

### RECOMMENDED BASED ON # OF STREAMS

STREAMS	RAM	NIC	CPU
Up to 8	1 GB	1 GB	Dual Core ARM
Up to 16	2 GB	1 GB	Dual Core Atom
Up to 32	4 GB	1 GB	Dual Core Celeron
Up to 64	8 GB	1 GB	Core i3
Up to 128	16 GB	1 GB	Core i3

\*CPUs change fast and this spec sheet is fixed.

### RECOMMENDED MAXIMUMS

# OF RESOURCES PER SYSTEM: 10,000  
# OF STREAMS PER SERVER: 128  
# OF SERVERS IN A SERVER HIVE: 100  
# OF CLIENTS PER SYSTEM: UNLIMITED  
# OF USERS IN A SYSTEM: 1000

\* Based on lab environments. Designing a system that exceeds the numbers above? Contact us for assistance.

## 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 2016 v1607  
Windows 10 Enterprise

### UBUNTU LINUX

Ubuntu Linux 16.04 LTS  
Ubuntu Linux 18.04 LTS

### ARM DEVICES

Raspberry Pi  
Jetson TX1, TX2, XAVIER AGX  
  
\* Contact us to learn more about our ARM support

## UNIQUE CAPABILITIES

### SERVER HIVE

**Synchronization:** Servers Synchronize System Data In Real Time  
**Failover:** Automatic Camera Failover When Server Fails

### NO PREREQUISITE SOFTWARE REQUIRED

**Database:** Sqlite + Proprietary Archive Index  
**Lightweight:** ~75mb Install File

### SECURITY

**User Rights:** Ldap/active Directory Secure Password Recovery  
**Technologies:** Https Open Ssl Salted Md5 Hash Tsl/ssl  
**Encryption:** Secure Connections Encrypted Video

### ARCHIVE INTEGRITY

**Integrity Check:** Notification When Files Manual Modified  
**Backup:** Real-time (Concurrent) Or Scheduled

### STORAGE

**Lan / Wan:** Hdd Ssd Nas (Samba)  
**Storage Sdk:** Integrate New Storage Mediums (E.G. Ftp, Cloud)

## SUPPORTED MEDIA STREAMING

### LIVE STREAM (AVAILABLE VIA SERVER API)

**Video:** H.265 H.264 MJPEG  
**Audio:** MPGA  
**Protocols:** RTSP WEBM HLS  
**Transcoding:** Supported (For Web Client, Mobile, Api)

### OTHER MEDIA

**Videos:** AVI MKV MP4 MOV TS M2TS MPEG MPG FLV WMV 3GP  
**Images:** JPG PNG GIF BMP TIFF  
**Virtual Camera:** Upload Footage From Offline Cameras (E.G. Wearable Cameras)