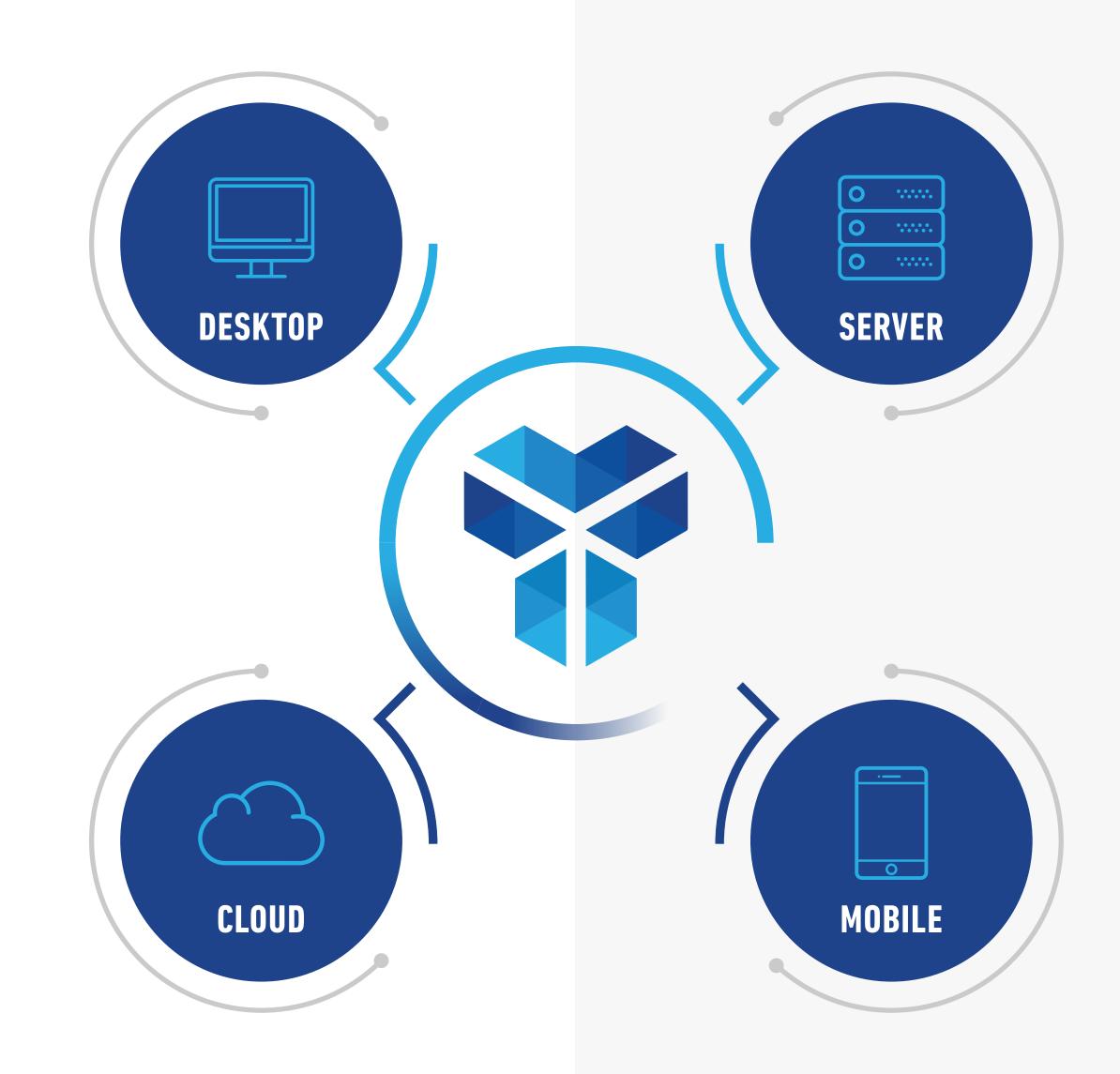


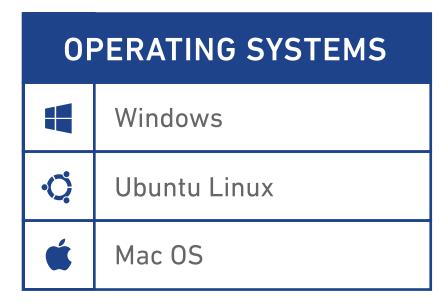
# SYSTEM OVERVIEW

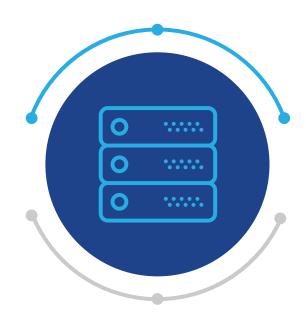
T11 Panorama is the last true IP based video management system with a revolutionary 3rd generation intuitive matrix that will give you complete control of your video from anywhere and at anytime.





The T11 CMS Desktop application is a rich media player with a flexible GRID interface, unmatched speed and responsiveness, instant notifications, an embedded browser, and a user experience unlike any other video management software.





## **SERVER**

The T11 Server application is a lightweight, powerful media server responsible for discovering, connecting to, and managing T11 system devices and data.

OPERATING SYSTEMS				
<b>4</b>	Windows			
Q	Ubuntu Linux			
<b>ARM</b> ■	ARM / Debian Linux			



## **CLOUD**

T11 Panorama Cloud service uses a combination of cloud computing technologies – including Amazon AWS – that enables simple remote connectivity, streaming, and management of one or an unlimited number of T11 Systems.

BROWSERS				
9	Google Chrome			
6	Mozilla Firefox			
e	Microsoft Edge			



## **MOBILE**

Connect . View . Source . Control.

A fast-loading, user-friendly, custom developed media player mobile application for IOS and Android devices that allows users to connect to, view, search, and control your IP cameras from anywhere in the world by just adding your cloud credentials.

OPERATING SYSTEMS				
<b>(</b>	Google Android			
<b>É</b>	Apple iOS			

SYSTEM OVERVIEW

## SYSTEM SCALABILITY

- I The maximum number of recommended servers, resources, and users in a single has been increased significantly.
  - Maximum recommended servers in a system: 100
  - Maximum recommended resources (Cameras, NVR Channels, I/O Modules) in a system: 10,000
  - Maximum recommended total amount of users in a system: 1,000
- I If approaching maximum recommended system size please consult with support for scalability planning.
- I The maximums outlined are based on lab testing results and could vary significantly based on the project's real-world environmnet.

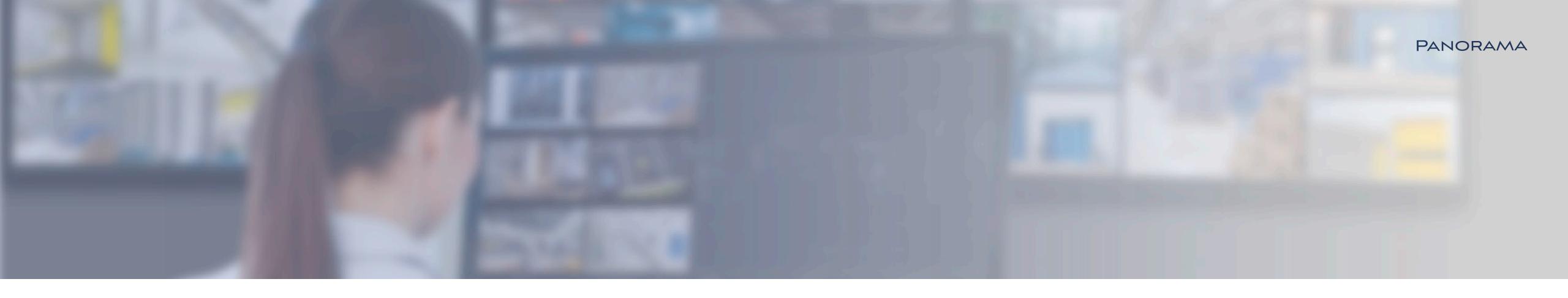
SYSTEM OVERVIEW



## DESKTOP OVERVIEW

A rich media browser with a flexible GRID interface designed for connecting to, viewing, and managing your T11 Panorama.

- Connect to your T11 System (s) from anywhere, anytime.
- Discover compatible IP video devices and storage locations.
- View live or recorded video, images, and even URLs with a built in browser
- Manage all of your T11 System (s) users, devices, and rules.
- Search everything instantly using keywords, smart motion, timeline and more.
- Integrate anything using HTTP events & requests and soft triggers.



## **USABILITY**



Consolidated Notifications

Adaptive Playback

Customizable Layouts

Digital Maps

Adaptive Scaling

### MEDIA



RTSP/HTTP Streams

I/O Devices

Web Pages / URLs

Recorded Video Files

Static Image Files

### CONFIGURATION

Events & Rules Engine

User Management

IP Video Devices

Server Management

I/O Device Management

Storage Management

### SEARCH

Smart Motion Search

Keyword Search

Calendar Search

Time-Slice Search

★ Bookmarks

Audit Trail

DESKTOP OVERVIEW





#### **In-Camera Analytics**

Use In-Camera Ánalytics from Hikvision, Axis, or Hanwha to create Rules in the Events Rules engine.



#### **Bitrate Throttling**

Use Bitrate Throttling to dial-in a camera's network usage to in limited bandwidth or storage environments.



#### **Enhanced Export**

Simple, fast & flexible, you can export single or multi-video, use rapid review, add a timestamp or custom text, or even add your own watermark.



#### **Easy Bookmark Export**

Operators can now easily export bookmarked videos directly from the timeline with just a quick click of the mouse.



#### **Archive Integrity Check**

Users receive a notification when reviewing video when the original archive has been modified (files modified or removed).



#### **Custom Camera ID**

Users can create a virtual camera and import offline video from wearable cameras, phones, and other devices to archive which can then be viewed by other System users like a regular IP camera / video stream.



#### Flex GRID User Interface

A revolutionary interface that allows users to create an unlimited number of customizable, shareable layouts.



#### **Help Manual Revamp**

The T11 Panorama Desktop context sensitive manual has been completely re-written – with new graphical explanations and more!



#### **Advanced PTZ**

Control PTZ cameras using quick point and click or outline-to-zoom user interface controls.



#### **Cloud Connect**

Connect your T11 Panorama to the cloud and login to your T11 Panorama system from anywhere, anytime.



#### **User Management**

Quickly add users and manage user rights with custom user roles, LDAP / Active Directory integration, and more.



#### **Adaptive Scaling**

T11 Panorama Desktop uses adaptive scaling technology to optimize speed while minimizing CPU and network usage.



#### **Multi-Camera Viewing**

View up to 64 video streams on a single layout – with support for MJPEG, H.264 and H.265 live streams.



#### **Secure & Encrypted**

T11 Panorama Desktop uses HTTP and SSL to communicate with all System servers for secure, encrypted communications.



#### **Super Lightweight**

The T11 Panorama Desktop application is an 80 MB installer and can run well even on low-end computers (like the Intel Compute Stick).



#### **Unbelievably Fast Search**

Search an entire year's worth of recorded video in less than a second using any combination of keywords, calendar, bookmarks, and smart motion.



#### **Soft Triggers**

T11 Panorama Desktop's Soft Triggers give operators the ability to manually trigger any event — event integrations to 3rd party systems (e.g. Access Control, Fire, Building Automation).



#### **HTTP Events & Actions**

Integrate any 3rd party System or Device using standard HTTP events and actions combined with notifications, soft triggers, and more.



#### Showreel

Create completely customizable timed viewing tours of any system resource – live cameras, recorded videos, images, web pages, I/O control panels.



#### **Two Way Audio**

T11 Panorama Desktop's Two Way audio works like a walkie-talkie, allowing operators to engage with individuals or groups through an IP camera's built-in audio.



#### **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.



#### **Storage Analytics**

Analyze and predict the amount of data being captured by cameras on every storage location in the system to manage storage.



#### **Bookmarks**

Manually or Automatically (using the Events Rules Engine) create Bookmarks to highlight critical events and related video.



#### **Dual RTSP / UDP / HTTP Streams**

Administrators can create dual-streaming "cameras" using RTSP / HTTP / UDP to enable adaptive scaling in T11 Panorama clients.



#### **C2P Integration**

T11 Panorama v4.0 includes integration with C2P (Convergence to Pixels) – an Open Platform Integration Framework enabling integration with over 38 with 3rd party systems.



#### **Staged System Updates**

The upgrade process has been optimized to be more dependable and give System Administrators more control over when and how they upgrade System Servers.



#### Universal Fisheye De-warping

De-warp any live or recorded fisheye video or image, add virtual PTZ tours, and more.



#### **Launch Desktop Client with CLI**

The Desktop client can now be launched using the Command Line Interface.



#### Minimum Layout Grid

Users have the option to set a minimum Viewing Grid size (initial number of Viewing Grid items) in Layout Settings dialog.



#### **Open Layout as an Action**

Administrators can now create Rules in the Rules Engine to open any user-defined Layout as an action for roles or specific users.



#### **Secure Export**

Users with Export rights can now password protect exported videos using .exe or .nov formats in the Multi-Video export tab.



#### **Custom Watermark over Video**

Administrators can add Operator Names to live, recorded, and exported video as an option to prevent / discover leaked video.



#### **Virtual Camera**

Users can create a virtual camera and import offline video from wearable cameras, phones, and other devices to archive which can then be viewed by other System users like a regular IP camera / video stream.



#### **Webcam Support**

USB Webcams, Laptop Cameras, and even the Raspberry Pi camera module will all now be auto-discovered and can be recorded and streamed.



#### **Notifications Panel Revamp**

The Notifications Panel allows operators to quickly view and search video using Notification, Motion, Bookmarks, Events, and detected Objects.



#### Failover on Storage Failure

Failover now works when all storage drives on a Server fail.



#### **Automatic Local Files Refresh in Resource Panel**

Local file list is updated when a source folder is changed or a file in the folder is removed or added.



#### Plugins

Plugins are installable .dll files which run on the T11 Panorama server to enable seamless integrations with 3rd party system via the metadata SDK.



#### Flexible Video Wall

User can add backgrounds to layouts on Video Wall screen and enable/disable the Timeline on Video Wall.

## DESKTOP SPECS

#### **HARDWARE REQUIREMENTS**

#### **MINIMUM SUPPORTED SPECS**

Hard Drive: HDD/SSD/mSATA

RAM: 2GB

CPU: Quad Core Intel Celeron CPU or higher

**Graphics:** Intel HD Graphics 3000

w/ OpenGL2.1 support

Networking: 1Gbps NIC

#### **PERFORMANCE SPECS**

Hard Drive: Performance SSD

RAM: 16 GB RAM

CPU: Intel Core i5

**Graphics:** NVIDIA GeForce GTX 1050 (OpenGL2.1 support is required)

Networking: 10 GB NIC

#### **MAXIMUM # OF GRID ITEMS PER LAYOUT**

64 Items (e.g. 64 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 2016 v1607

Windows 10 Enterprise

#### **UBUNTU LINUX**

Ubuntu Linux 16.04 LTS Ubuntu Linux 18.04 LTS

#### MAC OS

OSX 10.12 OSX 10.13

OSX 10.14

#### **UNIQUE CAPABILITIES**

#### **DESKTOP MODES**

Connected Client: Manage any connected T11 Panorama System

Media Player: View, edit, and export offline videos and images

Video Wall: Put T11 Desktop into Video Wall mode to conrol remotely

#### **UNIQUE FEATURES**

Multilingual Support: Support for 20+ languages

Showreel: Fully customizable viewing sequences of any GRID media

Customizable Branding: Customizable Desktop background

Drag & Drop Reassignment: Move cameras/streams between Ser

#### **SEARCH**

**Keyword:** Search System Resources using Keywords

Flex Timeline: Search by date / time using calendar or mouse movements

**Events:** Quickly search System event log to find event-driven video

**Smart Motion:** Select specific pixels to search a year of archive in seconds

**Bookmarks:** Create Bookmakrs manually or automatically with Rules Engine

#### **SUPPORTED OPERATING SYSTEMS**

#### **LIVE STREAMING (CAMERAS & STREAMS)**

Codecs: H.265 H.264 MJPEG

#### **OFFLINE MEDIA FILES**

Videos: AVI MKV MP4 MOV, TS M2TS

MPEG MPG FLV WMV 3GP

Images: JPG PNG GIF BMP TIFF

#### **CONTROL DEVICES**

I/O Devices: Status and Triggers

Servers: Server Health Monitoring

#### **BUILT-IN BROWSER**

#### **Browser Support:**

Websites, URLs, IP Addresses



## SERVER OVERVIEW

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

SERVER OVERVIEW



## DISCOVER



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

[m] Metadata SDK

Video Source SDK

Storage SDK

Server via Cloud API

SERVER OVERVIEW





#### **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 Al-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 KEY FEATURES

## 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			

<sup>\*</sup>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

#### **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**

Rasperry 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

#### **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)

#### **SECURITY**

User Rights: Ldap/active Directory Secure Password Recovery

Technologies: Https Open Ssl Salted Md5 Hash Tsl/ssl **Encryption:** Secure Connections Encrypted Video

#### **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

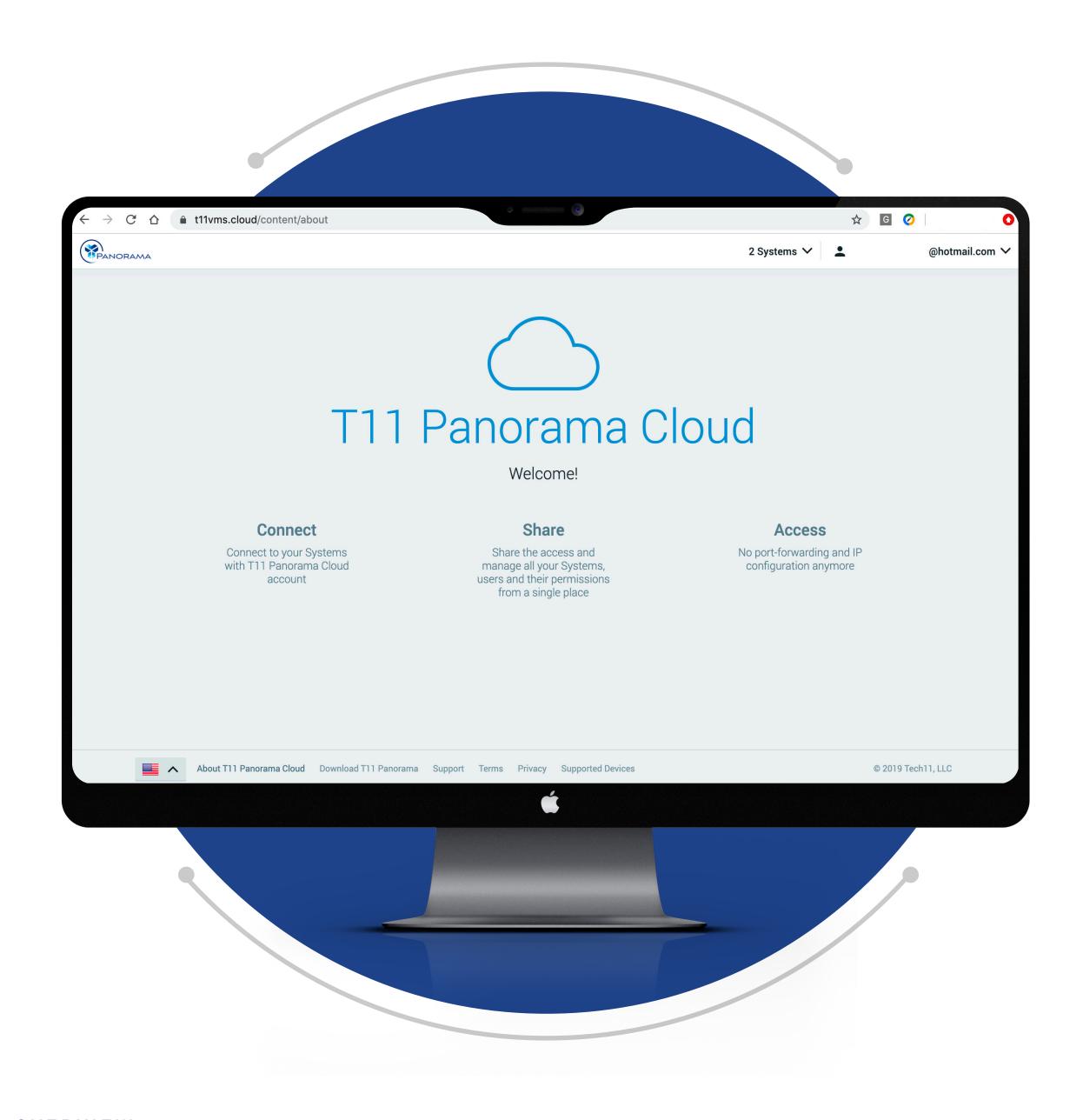
Images: JPG PNG GIF BMP TIFF

Virtual Camera: Upload Footage From Offline

Cameras (E.G. Wearable Cameras)

SERVER SPECS 12

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



## CLOUD OVERVIEW

A public cloud application built to enable simple, fast, remote connectivity and management of T11 Panorama Systems.

CLOUD OVERVIEW 13



## CONNECT

- % NAT Traversal
- Data Proxy via AWS
- LDAP Credentials
- Encrypted Connections
- ₩ifi / LAN / WAN
- 4G / LTE / Data

### VIEW

- Live Video (adaptive)
- Recorded Video (adaptive)
- Camera Details
- Keyword Search
- Calendar Search
- Scalable Timeline

### MANAGE

- System Settings
- User Permissions
- Cloud Connections
- Share via EMail

## SCALE

- Unlimited # of Systems
- Unlimited # of Users
- Unlimited # of Devices
- Cloud API

CLOUD OVERVIEW





#### **Cloud Connect**

Connect your T11 Panorama System to the cloud and login to your T11 system from anywhere, anytime, on any device.



#### **Cloud Merge**

System Owners can merge cloud-connected Systems together to create larger Systems in the T11 Panorama Cloud browser-based interface.



#### **Cloud Proxy**

T11 Panorama Cloud proxies video streams in instances where direct NAT connections to a Systems's Servers cannot be established.



#### **Cloud Client**

View live or recorded video from any camera connected to any cloud-connected system without the need to install anything.



#### **Share Access**

Quickly share access to any system connected to T11 Panorama Cloud with anyone using their email address and custom user roles.



#### **Unlimited Systems**

Connect an unlimited number of systems to a single account for managed services or large enterprise customers.



#### **Secure & Encrypted**

T11 Panorama Cloud undergoes continual security testing and uses the latest encryption technologies to secure user data.



#### **Encrypted Video**

Supports video encryption between T11 Panorama Servers and T11 Panorama Cloud Client to help prevent man-in-the-middle interception of video traffic.



#### **Cloud API**

T11 Panorama Cloud has an API that allows integration to 3rd party Internet-connected systems – like Zapier.

CLOUD KEY FEATURES

## CLOUD SPECS

#### **COMPATIBLE HARDWARE**

#### **MAXIMUM # OF CONNECTED SYSTEMS**

UNLIMITED

#### MAXIMUM # OF USERS

UNLIMITED

#### **NX CLOUD SERVICES**

#### **CLOUD CONNECT**

Connect any T11 Panorama System to T11 Panorama Cloud for simple remote connectivity from anywhere using T11's NAT Traversal and Cloud Data Proxy technology.

#### **MANAGE USERS**

Add an unlimited number of users to a single T11 Panorama Cloud System. Share access to your T11 Panorama System in seconds using only email addresses. Create Custom Roles to quickly assign access to multiple T11 Panorama Cloud connected Systems.

#### **UNIQUE CAPABILITIES**

#### CONNECTIVITY

**Cloud Data Proxy:** Connect via T11 Panorama Cloud to view System data and video

**NAT Traversal (Default):** Connect directly to System via Cloud addressing

#### **SECURE COMMUNICATIONS**

#### **SECURITY**

Password Recovery: Reset Password Via Email

Password Storage: Complex Multi-level Md5 Hash

**Encyrpted Connections:** Https Openssl

**Encrypted Video:** Encrypt Video Between Client And

Server Applications

#### **INTERFACE**

#### **CLOUD INTERFACE**

Systems: View Connected System Tiles In Cloud Web Admin

Settings: View Users, Rename Systems, Disconnect Systems

View: View Live Or Recorded Video From Connected

Cameras / Streams

#### **SUPPORTED BROWSERS**

Mobile / Tablet: Chrome Safari Firefox Edge (And Others)

**Computers:** Chrome Safari Firefox Edge (And Others)

#### **INTEGRATION TOOLS**

#### **FOR DEVELOPERS**

Cloud Api: Integrate with 3rd party applications and devices

#### **FOR ADMINS**

Zapier: Create connections to other Cloud apps with Zapier.com

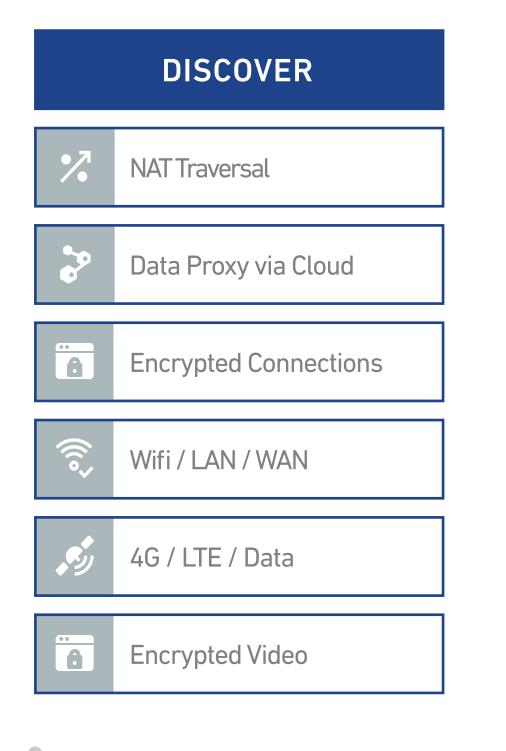
CLOUD SPECS 16



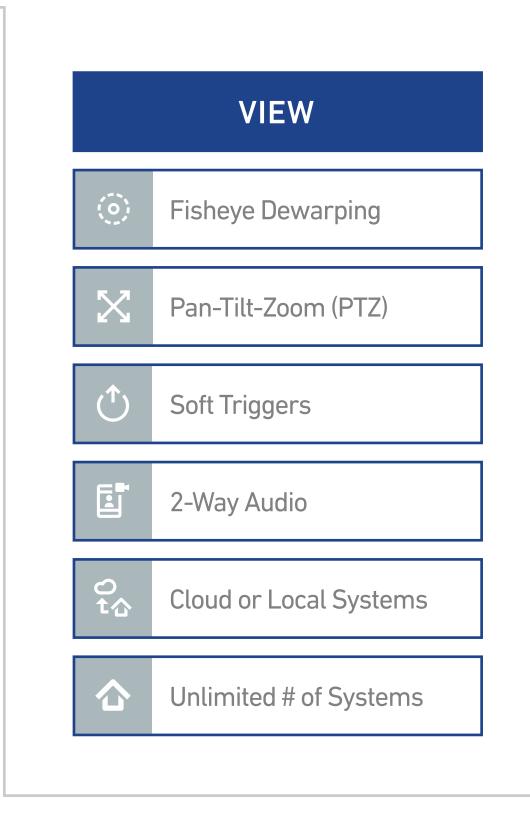
## MOBILE OVERVIEW

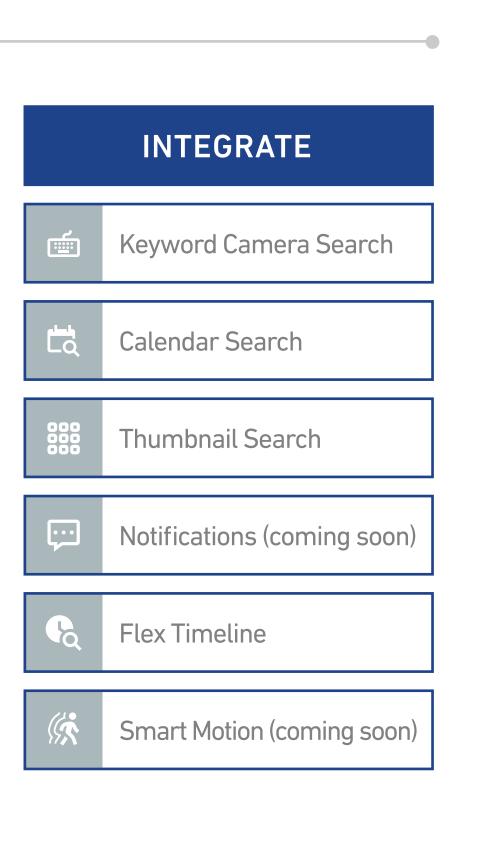
A mobile application for iOS and Android devices design for connecting to, viewing, and interacting with system devices.

MOBILE OVERVIEW 17



# MANAGE Live Video (Adaptive) U Recorded Video (Adaptive) Camera Status Layouts Adjustable Resolutions Portrait / Landscape





MOBILE OVERVIEW 18

19





#### **Soft Triggers**

T11 Panorama Mobile's Soft Triggers give operators the ability to manually trigger any event – event integrations to 3rd party systems (e.g. Access Control, Fire, Building Automation).



#### **Smart Motion Search**

T11 Panorama Mobile's Smart Motion Search lets users select all or part of a camera view (specific pixels) to search for motion.



#### **Encrypted Video**

Supports video encryption between T11 Panorama Servers and T11 Panorama Mobile helping prevent man-in-the-middle interception of video traffic.



#### **PTZ Controls**

T11 Panorama Mobile lets users control their PTZ cameras using specially designed touch controls.



#### **Secure & Encrypted**

The T11 Mobile app connects to the T11 Panorama systems using HTTPS and SSL encryption for end-to-end security.



#### Multi System Switching

Switch between an unlimited number of systems quickly via T11 Panorama Cloud or saved connections.



#### Fisheye Dewarping

T11 Panorama Mobile has built-in universal multi-touch fisheye dewarping you have to see to believe.



#### **Live Thumbnails**

See what's happening with your T11 Panorama system(s) at a glance with Live Thumbnails.



#### **Low Latency**

T11 Panorama Mobile has a custom mobile media player with adaptive technology to reduce latency whether you're connected via Wifi or Data.

MOBILE APP KEY FEATURES

## MOBILE SPECS

#### **SUPPORTED DEVICES**

#### **ANDROID PHONES / TABLETS**

Android 5.0: "Lollipop" (November 2014)

Android 6.0: "Marshmallow" (October 2015)

**Android 7.0, 7.1:** "Nougat" (August 2016)

**Android 8.0, 8.1:** "Oreo" (August 2017)

Android 9.0: "Pie" (August 2018)

#### **APPLE PHONES / TABLETS**

iOS 10 (September 2016)

iOS 11 (September 2017)

iOS 12 (September 2018)

#### **VIEWING / PLAYBACK**

#### **VIEWING MODES**

Portrait

Landscape

#### **ADJUSTABLE RESOLUTIONS**

**Highest Speed (Best Available Frame Rate)** 

**Best Quality (Best Available Resolution)** 

1080p

720p

480p

360p

#### **KEY FEATURES**

#### **CONNECT FROM ANYWHERE**

Lan / Wan: Connect To Systems Using Public Ip Address Or Dynamic Dns Via Nx Cloud: Login To T11 Panorama Cloud To View All Shared Systems

Adaptive Connections: Works Well On Wifi Or Data (4g / Lte / 3g)

#### **VIEW LIVE OR RECORDED VIDEO**

**Live Video:** Connect To Systems Using Public Ip Address Or Dynamic Dns **Archived Video:** Login To T11 Panorama Cloud To View All Shared Systems

#### **CONTROL CAMERAS**

**Fisheye Cameras:** Universal Dewarping For Fisheye Cameras **Ptz:** Control Ptz Cameras With Joystick And/or Tap To Move Ux

**Soft Triggers:** Control Soft Triggers On Cameras

2 Way Audio: Talk Through I/o Or Ip Cameras That Support Audio In / Out

#### **SEARCH**

**Keyword:** Universal Dewarping For Fisheye Cameras

Calendar: Control Ptz Cameras With Joystick And/or Tap To Move Ux

Layouts: Control Soft Triggers On Cameras

Live Thumbnails: Scroll Through Live Thumbnails To Find A Camera / View

Flex Timeline: Search Using The Same Timeline Interaction As T11 Panorama Desktop

Smart Motion: Search Using Smart Motion

MOBILE SPECS 20

