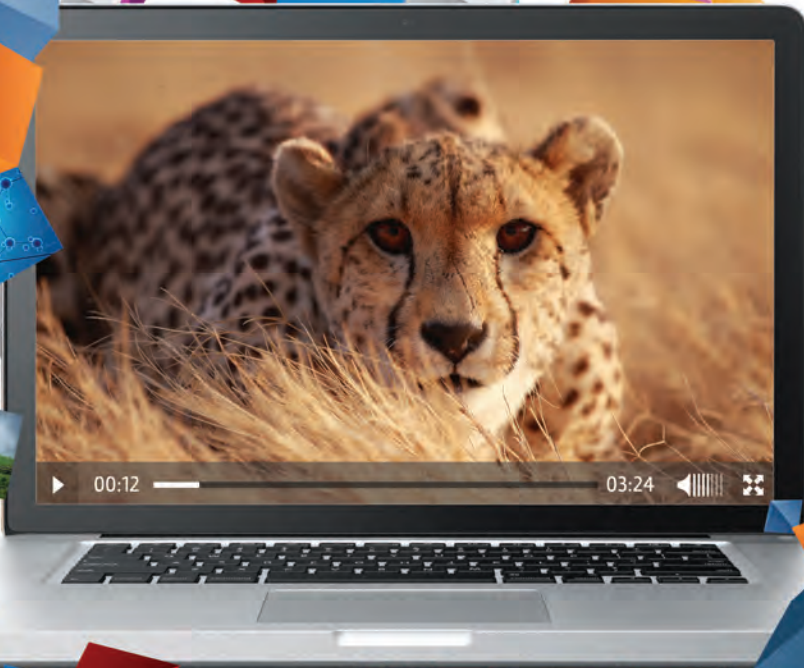


EDUCATION
SOLUTIONS

MediaCAST

by Inventive Technology

Digital Content Management
& Streaming Systems

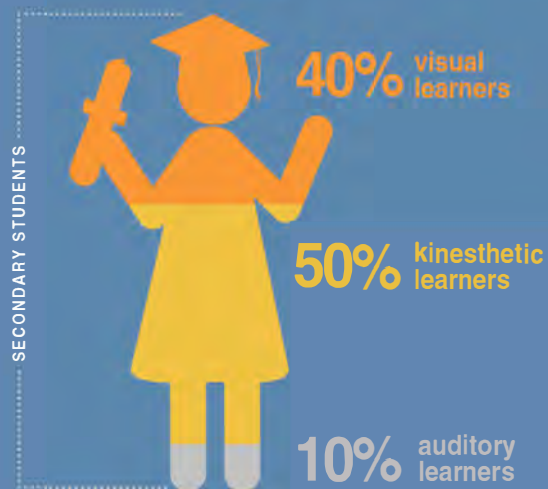


97%

of teachers use digital media in their classrooms



STUDENT LEARNING STYLES



3 OUT OF 4 TEACHERS SAY DIGITAL MEDIA HELPS THEM RESPOND TO A VARIETY OF LEARNING STYLES

VIRTUAL SCHOOLS

45 states & Washington D.C. have a state virtual school or online initiative, full online schools or both



HOW OFTEN TEACHERS USE DIGITAL MEDIA IN CLASSROOM INSTRUCTION

1 in 4 EVERYDAY

6 in 10 FREQUENTLY

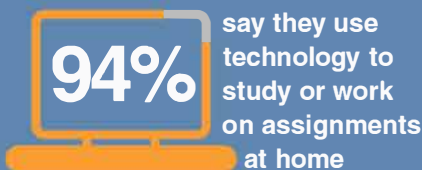
BOULDER VALLEY SCHOOL DISTRICT

“MediaCAST has been a game changer for our students, teachers and curriculum”

- Len Scrogan

Director of Educational Technology and Library Media

OF STUDENTS

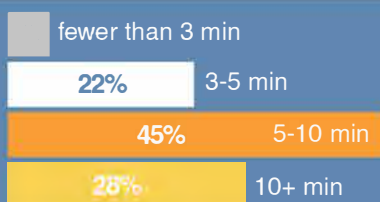


1 OUT OF EVERY 2 STUDENTS HAS CREATED AND POSTED DIGITAL CONTENT ONLINE

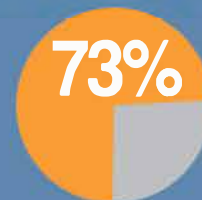


“Multimedia significantly enhances students’ ability to recall basic facts, as well as improves their understanding of complex systems.”

AVERAGE LENGTH OF SEGMENTS USED IN CLASSROOM INSTRUCTION



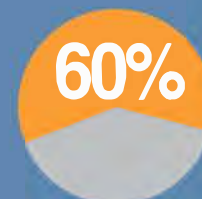
OF TEACHERS



SAY DIGITAL MEDIA IS ESSENTIAL TO A 21ST CENTURY CLASSROOM



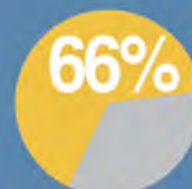
SAY USING TELEVISION AND VIDEO REINFORCES AND EXPANDS ON THE CONTENT THEY TEACH



SAY DIGITAL MEDIA HELPS TEACHERS BE MORE EFFECTIVE



SAY DIGITAL MEDIA INCREASES STUDENT MOTIVATION



SAY STUDENTS PREFER DIGITAL MEDIA OVER OTHER TYPES OF INSTRUCTION

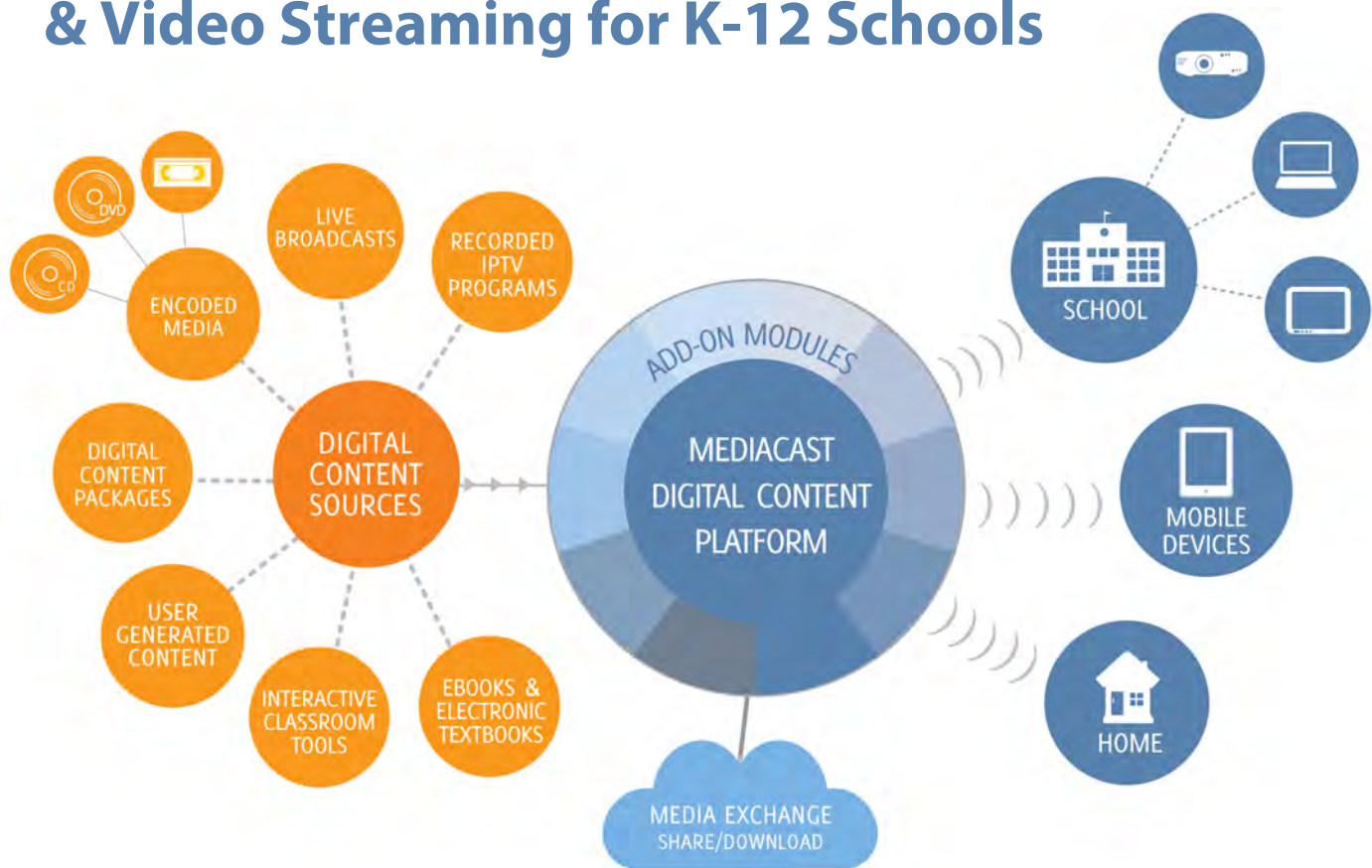
MediaCAST Visual Learning Infrastructure

for live & on-demand media



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Digital Content Management & Video Streaming for K-12 Schools



MediaCAST is an open and interoperable digital content management and streaming solution. It enables the integration of video and rich media with traditional teaching methods, creating an engaging 21st century digital learning environment.

In the classroom and from home, users can access educational content live and on-demand, extending the learning day and allowing for differentiated instruction.

How Does It Work?

The MediaCAST platform centralizes the storage of your existing media collections, user-generated content and third party video libraries. Users can access all district media through a single easy-to-use web interface, from any computer or

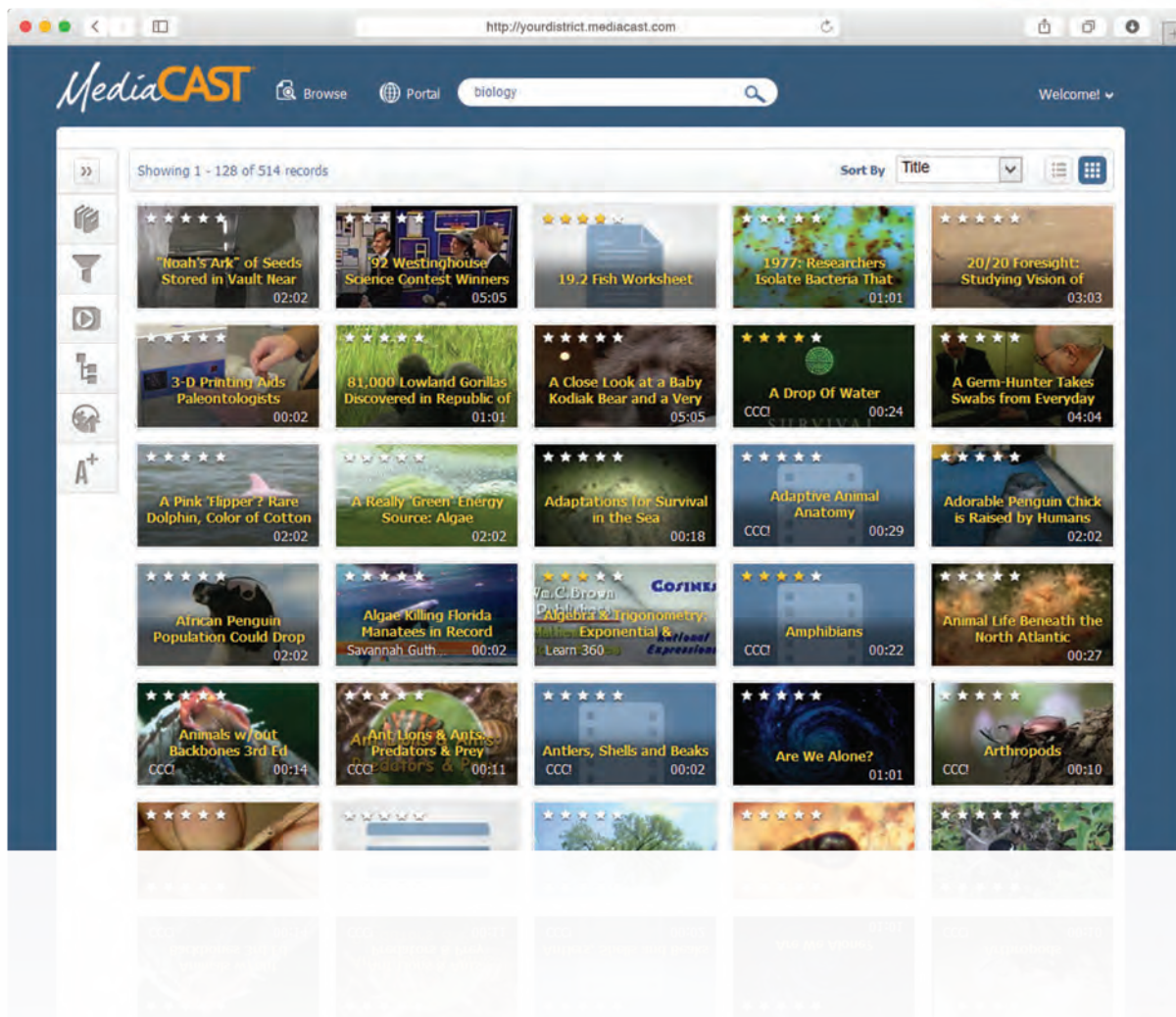
mobile device. Add-on modules let you expand capabilities easily, with less training and without increasing demand on IT staff. Users only have one interface to learn, and IT staff only have one system to support.

Reliable and scalable, the MediaCAST system has a solution for every size district. It can be deployed at one location or scaled to support hundreds of sites for the largest enterprise solution.

By utilizing their WAN/LAN, MediaCAST helps districts add HD quality live broadcasting and on-demand streaming without increasing Internet

bandwidth demands. Off-site hosted services are available to accommodate online and distance learning programs and address bandwidth concerns.

Easy-to-Use Interface



Digital Content Management

The multi-format, publisher-neutral platform gives you all the tools you need to manage your media throughout its lifecycle. Resources such as videos, audio files, images, eBooks, digital textbooks, documents, presentations, video conferences and podcasts are easily uploaded, made searchable and viewed on-demand— copyrights and licenses protected.

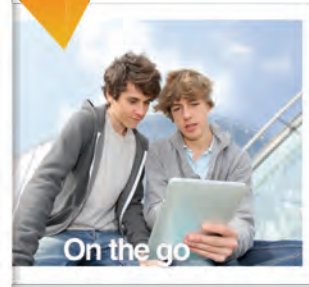
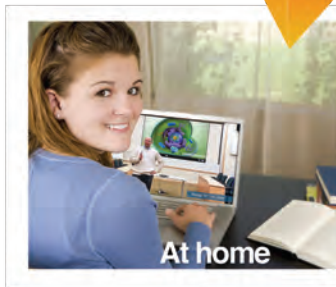
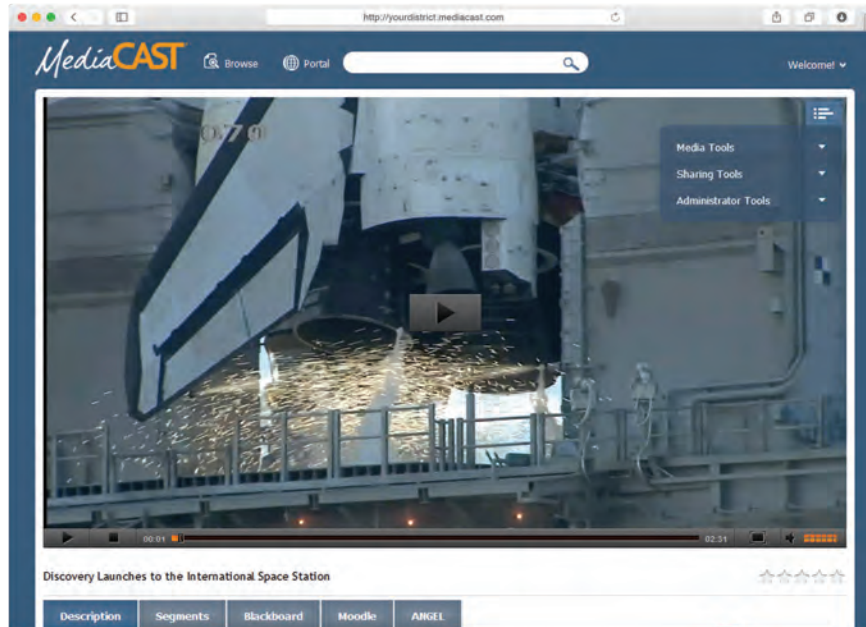
As well as all major media formats, MediaCAST supports other classroom instructional and third-party application files, like interactive whiteboard files, PDF, AutoCAD and more.

Browser-Based Interface

MediaCAST is easy to learn and intuitive to use. With a new interface design, MediaCAST is recognized as having the most user-friendly and powerful content management interface in the educational market.

New features include: enhanced keyword search tools, automatic resource thumbnails, a user rating system, mouse-over metadata, and on-the-fly filtering. It has never been easier for users, regardless of age or experience, to find and utilize relevant educational media.

Streaming Media Player



Video Streaming

MediaCAST is unique in its ability to support all industry-standard video formats. Its technology enables streaming in SD and HD quality and WMV, Flash, H.264, QuickTime, MPEG1, MPEG2, and MPEG4 formats. Easily deliver video to Macs, PCs, LCD screens, projectors, iPads, Android and other mobile devices (see Transcoding Engine p. 23).

Live Video Broadcasting

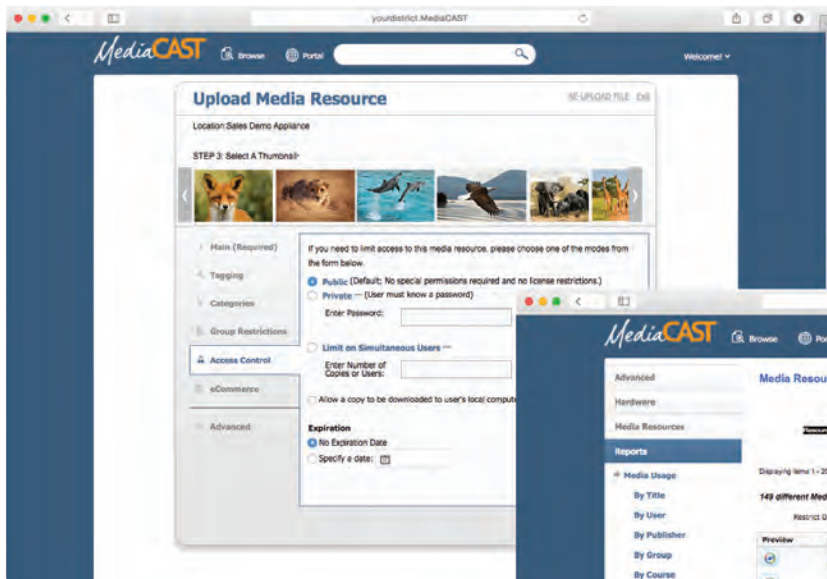
Morning announcements, lessons and events can be broadcast live to schools and homes worldwide. You can broadcast professional development sessions simultaneously to all staff, while capturing them into the digital library for on-demand review.

Platform Media Player

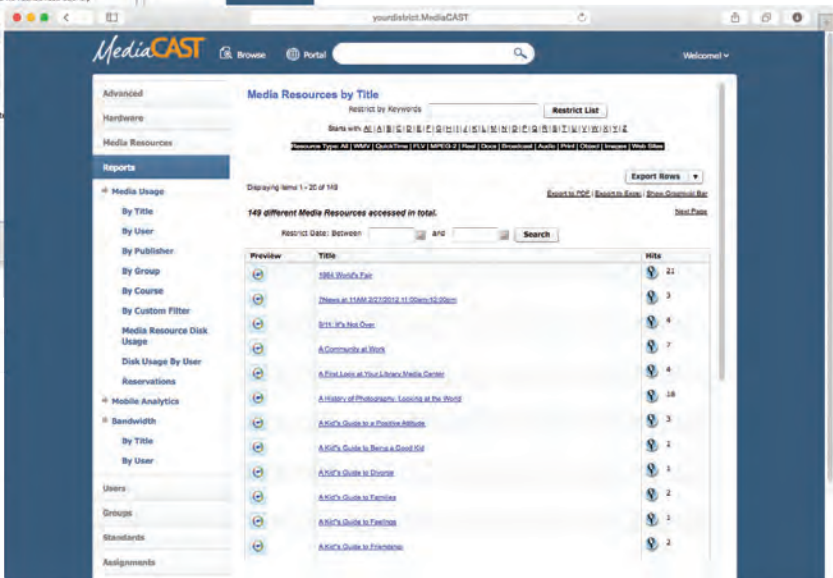
When a user selects a resource, they are taken to the media player page of the interface. The resource can be viewed on the media player page with access to all the MediaCAST tools, or full screen.

To the left of the media player are related search results. Information about the resource, pre-defined segments, standards correlation and other features are located below the player. On the right is the tool box, which contains everything from segment making tools, to state standard correlation tools.

Built-in Copyright & Reporting



Digital Rights Management (DRM) Tools



Admin Reports and Usage Tracking

Content Licensing, Copyright, TEACH Act & Fair Use Regulations Made Easy

Copyright compliance can be tricky for schools to manage and control. Traditional copyright regulations are not the same as those for digital media, and staff often struggle to keep their schools' multi-format media collection in compliance. MediaCAST's copyright management and licensing tools are their allies. These tools help protect, secure and report about licensed content loaded into MediaCAST.

MediaCAST comes with tools to manage access restrictions and licensing on individual media titles. It supports industry-standard Digital Rights Management (DRM) for securing content to prevent unauthorized viewing, copying and

distribution. The e-commerce PayPal® integration lets schools collect from the community through pay-per-view—perfect for fundraisers.

Tracking and Reporting

Under the admin section of the interface, reports help track and evaluate media resource usage, user progress and bandwidth use.

Usage reports can be generated by title, user, publisher, group, course or custom filter (e.g. live broadcasts, IPTV channels, and district uploaded content).

Progress reports can be generated by user, group, program or course.

Bandwidth reports can be generated by resource title or user.

Instructional & Teacher Tools

Snag-A-Segment™

The Snag-A-Segment tool, a teacher favorite, lets users make unlimited segments from longer videos. This helps teachers be more efficient in the classroom by eliminating non-relevant noise and time wasted scanning video or audio for a starting point.

URL Builder

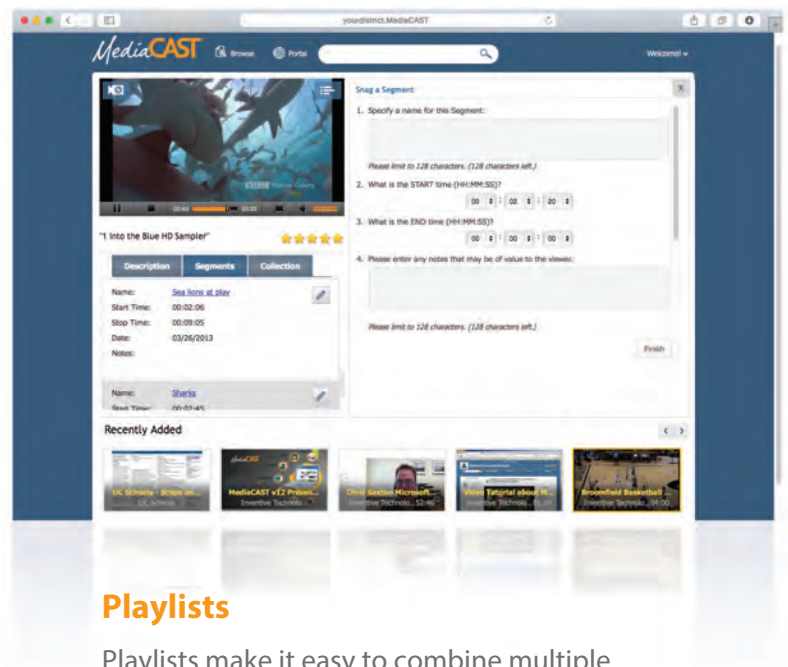
The URL Builder lets users make media resources available in external websites, email or embedded in programs (e.g. PDF, PowerPoint®). This allows teachers to send resources to home-bound students, parents and tutors while still being able to track usage, control expiration and see who has viewed.

Add to Favorites

When a user clicks on Add to Favorites, the resource is added to their 'My Favorites' tab on the homepage. No matter what computer you access MediaCAST from, your favorites are always just one click away.

State Standard Correlation

MediaCAST comes pre-loaded with each state's Education Standards and the national Common CORE. To correlate a media resource to a state standard, simply select the 'Standards Builder' link in the tool box, select your state and choose a standard objective to link to. Users can link resources to a top tier subject or a specific grade and learning objective. MediaCAST also integrates third party content libraries' pre-correlated standards.



Playlists

Playlists make it easy to combine multiple resources into a single set of content. A sequential order in a playlist can prioritize viewing. Through the MediaCAST iPad and Android Apps, playlists can also be accessed from mobile devices.

Share to...

When add-on modules are purchased, corresponding links are added to the tool box (e.g. 'Share to Media Portal,' 'Share to iPad' and 'Add to Moodle'), creating a seamless connection.

Automatic Thumbnailing



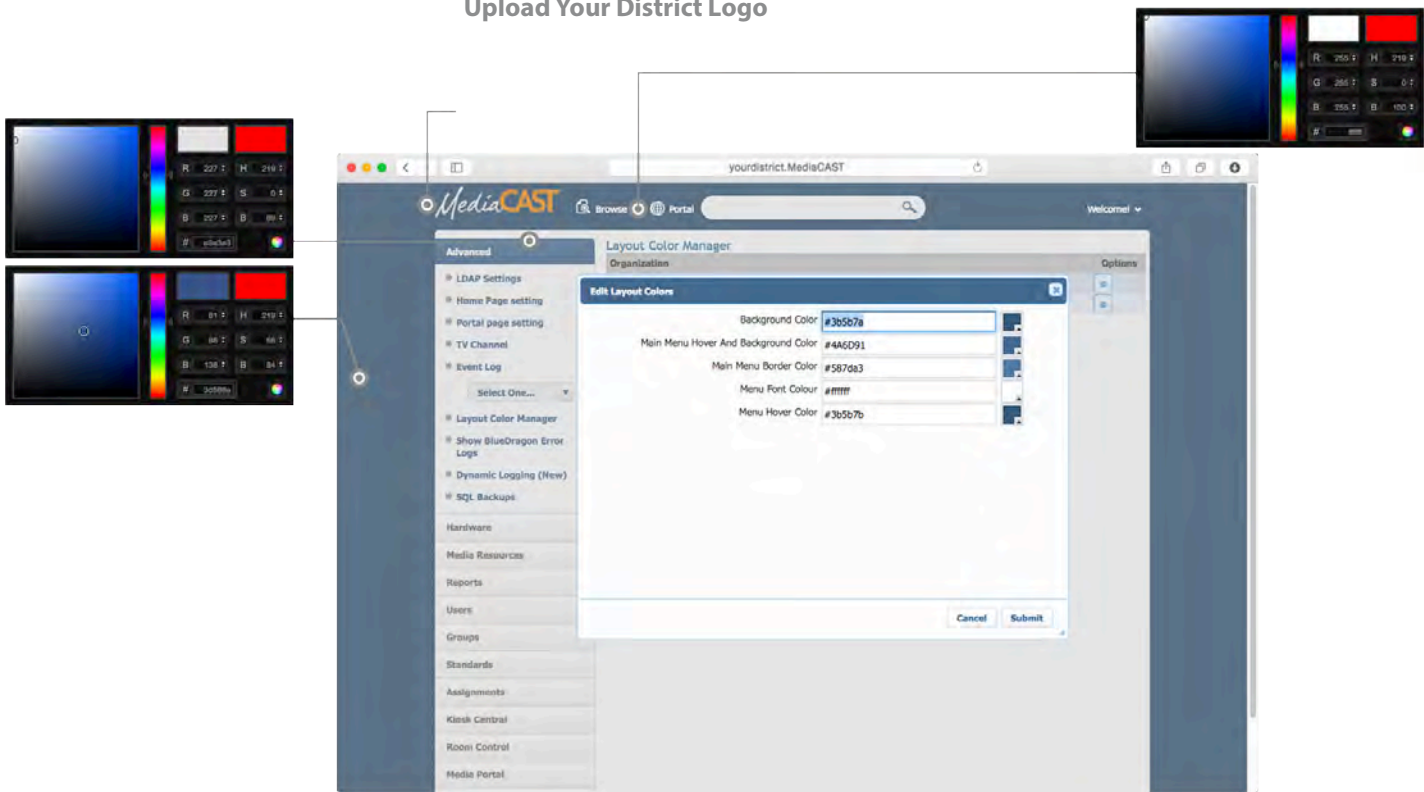
During the upload process, thumbnails are generated from the media resource, allowing you to select the most relevant one. This gives users a preview of resources on the home page and in search results.

The Administrator Tools section of the tool box contains a thumbnail wizard to help admins add thumbnails to existing resources.

Interface Client Branding

Clients asked for more interface customization options and we listened. Districts now have the option to change the background color, the menu gradient colors, the title and add your logo. You can also create custom filters and content category trees for searching.

Upload Your District Logo



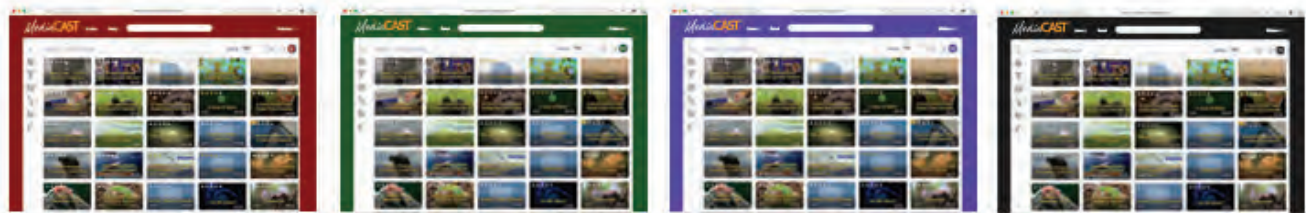
Example Combinations

Red & Silver

Green & Silver

Purple & White

Black & Gold



Branding Package (optional): This package includes graphic designer-assisted color application to ensure color accuracy and overall aesthetic appeal. Logo assistance is also included in this package, so don't worry if your logo has a white background or needs color modification. We can take care of everything to ensure your interface has a customized, professional look.

Modern Features

responsive design & transcoding



Responsive Web Design

v12 brings the latest Web-enabled technology to the user interface through responsive web design (RWD). RWD provides optimal viewing experiences across a wide range of devices and screen sizes. It gives MediaCAST unparalleled support for mobile support, usability, and ease of use compared to its competitors.

Automatic screen adjusted layouts reduce the need for a user to scroll, pan and resize their screen. This is especially beneficial when on a mobile device using your finger instead of a mouse/keyboard. Search and Filter menus change form and hide-away automatically on smaller screens and overlay when ready for use. Navigation menus change from larger graphics with text to smaller touch friendly icons that save space.



Transcoding

MediaCAST's Transcoding Engine converts digital video from a variety of native formats into a common H.264 format for greater accessibility, mobile delivery, and storage efficiency. Users interact with the transcoding module through the platform interface, where they can choose to automatically or selectively convert library titles to the widely-supported H.264/AAC format. This enables cross-platform (Mac and Windows) delivery of video and iPad/Android mobile device support.

Add-On Modules get the most out of your media

MediaCAST modules add capabilities to the core digital content platform. Our 360° seamless integration between platform and modules shows how schools can add new media technologies and content through a single system.

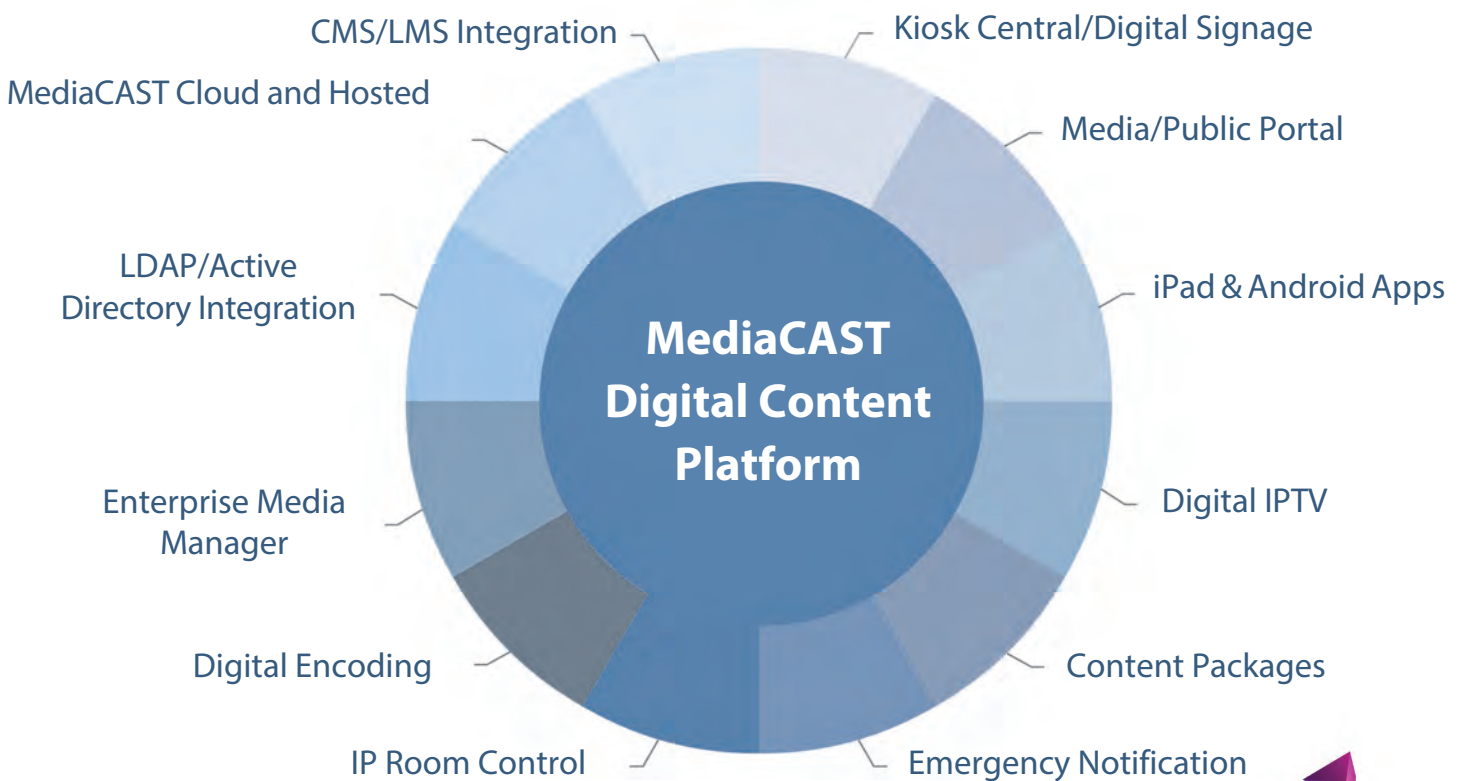
Since modules are accessed through the main menu, users never need to learn a new interface,

MediaCAST Cloud and Hosted

enter another login or worry about things working together.

MediaCAST's wide range of optional modules allow you to customize your system and can be added at any time.

The following pages contain descriptions of each module.



+ Kiosk Central

enterprise, scalable digital signage



a) Emergency Announcements b) Digital Bulletin Boards c) Cafeteria/Nutritional Information d) Live Morning Announcements

MediaCAST's Kiosk Central combines digital signage with video streaming, giving you a complete visual communication tool. It is extremely powerful for distributing important information to students, faculty and the community.

Kiosk Central is easy-to-use and customizable. Web-based tools allow you to manage content, playlists and channels independently.

The Layout Genius provides drag-and-drop widgets to create dynamic channel layouts. Widgets include live weather, ticker tape, image rotator, calendar, date and time clock, content window and RSS feeds. Upload backgrounds and school logos to create branded channels.

Playlists can include live video, stored video, audio, websites, PowerPoints and more. Live video feeds and on-demand content can be broadcast to one display, a whole school or every building. See the MediaCAST Viewer on p. 27 for hardware information.

- ▶ Scales from a single building to multi-campus enterprise
- ▶ IP-based solution for scheduled announcements and emergency bulletins
- ▶ Control all Kiosk displays from any computer
- ▶ Unlimited channels -multiple schools can deliver their unique channels simultaneously
- ▶ Drag and drop layout design

+ Media Portal NEW!

public website video player for live and on-demand

MediaCAST's Media Portal makes school websites come alive with video and live broadcasts.

Administrators can set up Media Portal channels (e.g. Athletics, Music Concerts, Drama Performances, Award Ceremonies, Board Meetings, etc.) and populate them with media from the MediaCAST digital library.

Record a big game, upload it to MediaCAST, and add it to the "Athletics" channel to share with the community.

With social media buttons, it's easy for viewers to share Media Portal content with friends and family.

Two implementation options ensure compatibility with any website, as illustrated below.



Embedded In Your District Website Easily add a few lines of provided code to your website and watch it come to life.



District Website Link Opens In New Window For districts who prefer an external portal, a link can be placed on the website that opens the media player in a new window.



Color & Logo Customization

Just like the platform interface, your Media Portal can be customized to match your district colors and logo.



+ MediaCAST iPad & Android Apps

portable, secure content management



MediaCAST's mobile apps are a mobile device content manager. They allow access to MediaCAST resources and manage digital content licenses on multiple mobile devices. This module helps districts manage infrastructure issues presented by a growing population of mobile devices, while ensuring media is available 24/7, in the classroom and on the go.

Example: When the instructor hits the 'sync' button, designated resources are sent out to the class's iPads. These resources are saved on the mobile device, allowing for viewing without Internet connectivity.

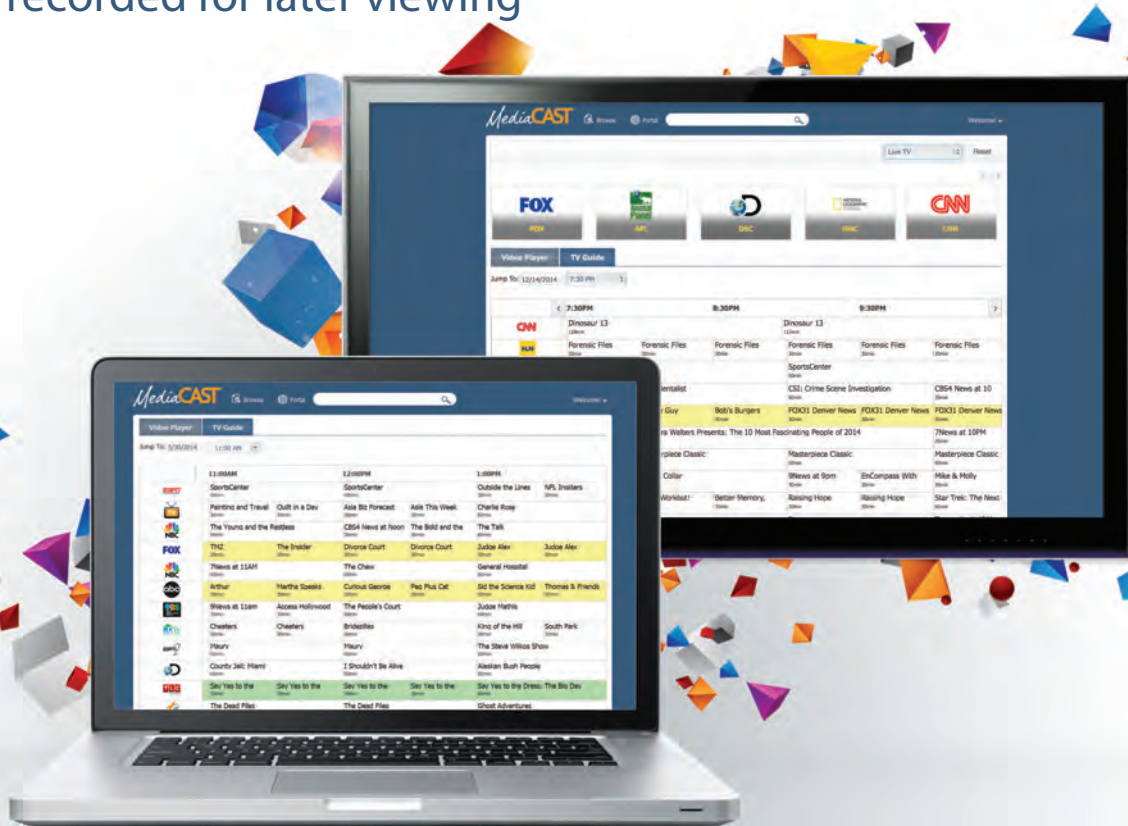
Expiration date and time can be set for each resource. When the students reconnect to the network, the resources are taken off of the mobile device, and the licenses returned to the digital library.

Districts can use the expiration date feature when distributing eBooks and digital textbooks to ensure resources are automatically removed from student devices on the last day of class.

- ▶ **New features:** Capture and upload video and photos directly from your iOS or Android device
- ▶ **When online:** Access your MediaCAST library, view resources and push content to one or many student devices
- ▶ **When offline:** View videos, eBooks, images and documents previously pushed to the mobile devices. Content expiration dates ensure licenses return to centralized license bank so they are available for the next group of users

+ IPTV

live & recorded for later viewing



Many districts are concerned about the cost associated with maintaining their analog TV systems or transitioning to digital television. With MediaCAST's IPTV solution, you can support distribution and increase channel control while minimizing hardware investment and ongoing support costs.

MediaCAST IPTV lets you to watch live TV programs and record them for on-demand viewing. The Snag-a-Segment tool allows instructors to create and integrate segments of programs into their lessons. Copyright tools ensure educational use.

With a few clicks, administrators can give everyone, or specific groups of users, access to a special event. Increase control and reduce costs by broadcasting TV over your existing IP network.

See *MediaEncoders* on pp. 25-26 for hardware information.

- ▶ **Save the cost of installing coax cabling in new schools and tuners in each classroom**
- ▶ **Centrally broadcast live channels over your network**
- ▶ **Control channel selection for each building**
- ▶ **Record TV programs for on-demand viewing from 14-day TV guide menu**
- ▶ **Supports NTSC, ATSC, QAM, digital cable and satellite**

+ Third Party Content Packages

the content you want, pre-loaded, automatic updates and unified search

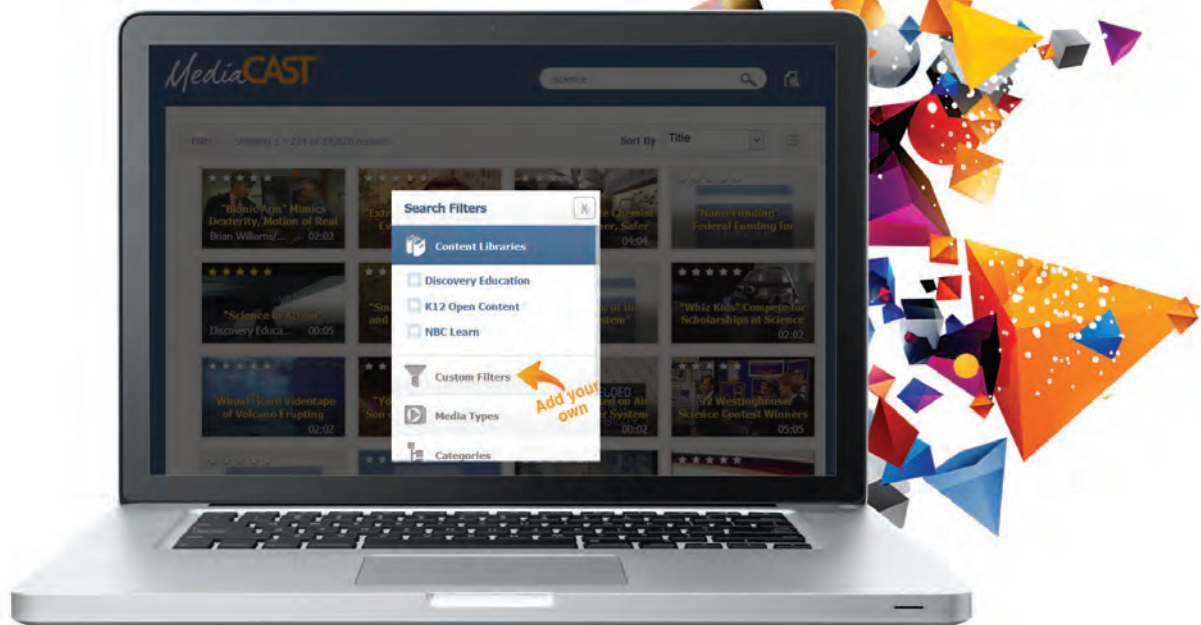
You know your district's needs best. MediaCAST's unique content-neutral, publisher-neutral platform lets you select the content that is best for your students. Other systems require every district to use only one content provider or limit provider choice.

All content packages are loaded into your system and come with detailed metadata for easy searching and pre-set copyright and licensing information. Many also come with pre-correlated state standards.

Thinking about changing publishers? No problem, you have the freedom to change content providers at any time. Your system doesn't have to be changed just because you want to use 8 different content providers. With MediaCAST, you have the flexibility to use content from any leading educational content library.

- ▶ Supports over 80,000 pre-loaded titles and 200,000 segments
- ▶ Don't be forced to use outdated or sub-par content!
- ▶ Our content partners provide immediate access to tens of thousands of high-quality digital titles of your choosing
- ▶ Well-known content providers such as National Geographic®, Discovery®, Disney®, PBS®, BBC®, History Channel®, NBC® and National Science Foundation®

Add custom publisher filters for one-click search filtering



Company names and logos are used for identification purposes only. They are the property of their respective owners.



The Open Content Library offers the best public domain and creative commons content from across the web. The Open Content Library provides students and teachers immediate access to over 10,000 digital resources including videos, ebooks, documents, images, lessons plans, audio files and more. All content in the Open Content Library comes with detailed metadata for easy searching.



Over 13,000 video resources targeted for K12 - short 2 to 5 minute videos are engaging, relevant and inspiring, and help students develop critical thinking skills. Emmy award-winning original video - NBC Learn series including "Science of NFL Football," "Science of the Olympic Winter Games," "Chemistry NOW!" and "Finishing the Dream: Learning from the Civil Rights Era."

nbclearn.com



Learn360® recently upgraded their library to include over 8,900 video titles and 27,000 clips. Along with video, Learn360 offers audio files, images and supplemental materials.

learn360.com



With thousands of standards-aligned resources, Discovery Education Streaming Plus provides you with the tools to teach your students to think critically about the content they use, see, and experience in their daily lives and to ask questions about the world around them.

discoveryeducation.com

CCC! Core Curriculum Content

CCC!® from New Dimension Media® is a digital library filled with core curriculum content created specifically for K-12. CCC! is comprised of over 4,200 video titles with hundreds of new titles added each year. Recent additions to the CCC! library include thirteen episodes of Bill Nye's "Eyes of Nye" and 40 BBC Motion Gallery science and environment titles.

cccvod.com

Additional Content Partners



Visual Learning Company® produces science videos, teacher's guides, and digital media to support elementary, middle, high school, and introductory college curriculum.

visuallearningco.com



STEM (Science, Technology, Engineering, Math) focuses on student's engagement and skills from the earliest grades in science, math and technology to help foster interest for their later school years and careers.

stem.definedlearning.com

+ Emergency Announcement

District wide Visual Alert Notification Solution



MediaCAST Emergency Announcement notifications are flexible and completely customizable for each site. From a loud screaming hallway notification to a silent alert with location mapping the activation area, MediaCAST can provide multiple layers of notification based on each type of alert activation.

Activations can be setup to push Alert Notifications to ALL MediaCAST digital signage displays – all connected classroom displays and all Teacher/Admin workstations (MAC / PC).

Activations can also be grouped into zones for discreet notifications for groups of display types.

- **Teacher activated classroom disruption event**
Admin Zone would receive the alert notification with a map of the area activating the alert
- **Alert triggered by the fire pull station in the High School GYM**
High School Zone would receive the alert notification
- **LOCKDOWN activated by HS Principal**
ALL district Zones would receive the notification.

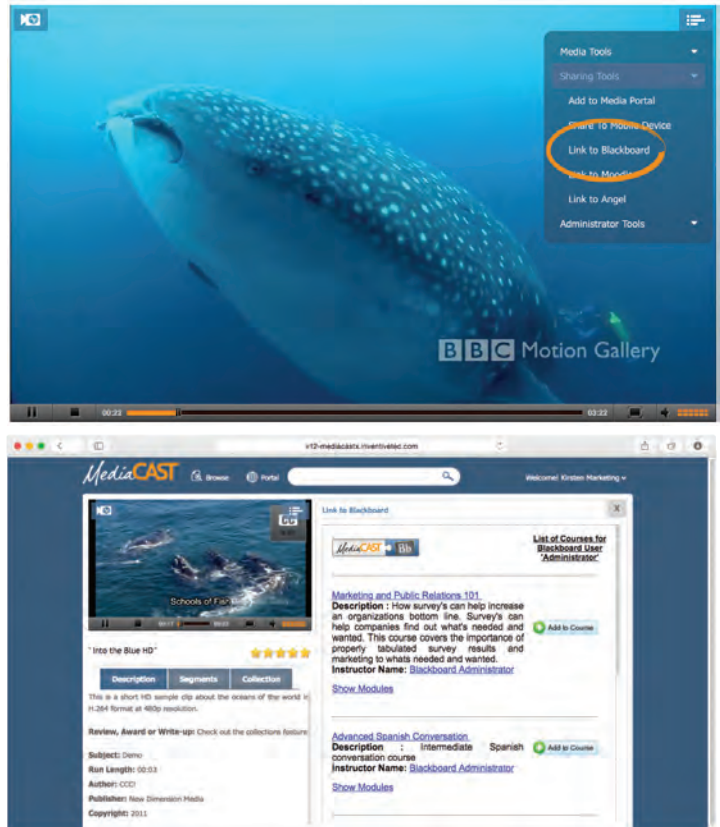
Customizable to all district procedures needed for alert notifications: Weather, Shelter in Place, Fire, as well as LOCKDOWN. An All Clear notification is available as well.

Multiple input device types can be used to activate the ALL CALL played for a specific Emergency Announcement :

- ▶ Mobile device (top right) uses your login permissions to allow Admin users to activate the system from any mobile platform and or any desktop platform.
- ▶ Contact closure activation from your existing systems or add one of ours. (bottom left)
- ▶ Use your emergency dial code from your intercom system. (top left)
- ▶ Use http / data stream integration from your existing EMS alert software. (bottom right)

+ CMS/LMS Integration

add video to your online courses



MediaCAST offers three methods to easily integrate content from its repository into other platforms including learning management systems, customer Web sites, portals and Web-based products. MediaCAST provides an External URL tool and embed tool that works with all Web-based products. MediaCAST also supports LTI.

LTI stands for Learning Tools Interoperability. The IMS Global Learning Consortium promotes the use and adoption of LTI to advance and simplify integration between products. The principal concept of LTI is to establish a standard way of integrating rich learning applications with platforms like learning management systems, portals, or other educational environments.

Further enhance your learning environment - MediaCAST Lecture Capture, MediaCAST Express, Live Broadcasting and IPTV.

How it Works

1. Once a course is enabled, a new activity type appears on your CMS/LMS page called 'MediaCAST Resources.' This adds a MediaCAST search box to the course, allowing the instructor to search the digital library from within the CMS.
2. A link in the toolbox adds the resource directly to the chosen course.
3. Students view media tied to their coursework. Usage can be tracked, allowing instructors to monitor student activity and content licensing.

+ Analog to Digital Encoding

transition your vhs and dvd media into your digital library



MediaCAST MediaEncoders are high-performance hardware-based encoders that convert audio and video into streaming digital formats. Convert VHS tapes, DVDs and CDs into digital formats for centralized storage and efficient streaming. Encoders are also used to make digital TV channels available and broadcast live events over the network and Internet.

MediaEncoders can be placed at locations on an organization's LAN/WAN and at remote sites. They can be rack-mounted, put in a mobile cart or used wirelessly for portable encoding. Connect directly to a video source, such as a camera, video conferencing station or incoming cable/satellite feed to broadcast and record. MediaEncoders include predefined encoding templates to make it easy-to-use for nontechnical personnel. For the technically savvy, preference settings can be accessed and modified for custom bit-rate, resolution and other video parameters.

Copyright tools in MediaCAST help districts with compliance, but it is the district's responsibility to ensure copyright and license guidelines are followed.

- ▶ **Standardize digital content formats for universal access**
- ▶ **Deliver video/audio in the latest IP streaming formats**
- ▶ **Live broadcasting for instruction, training, meetings and presentations**
- ▶ **Enable capture/conversion of analog content**
- ▶ **Encode Internet radio, MP3 audio, podcasts, and webcasts**

MediaEncoder Hardware Family - see pages 25 & 26 for more information

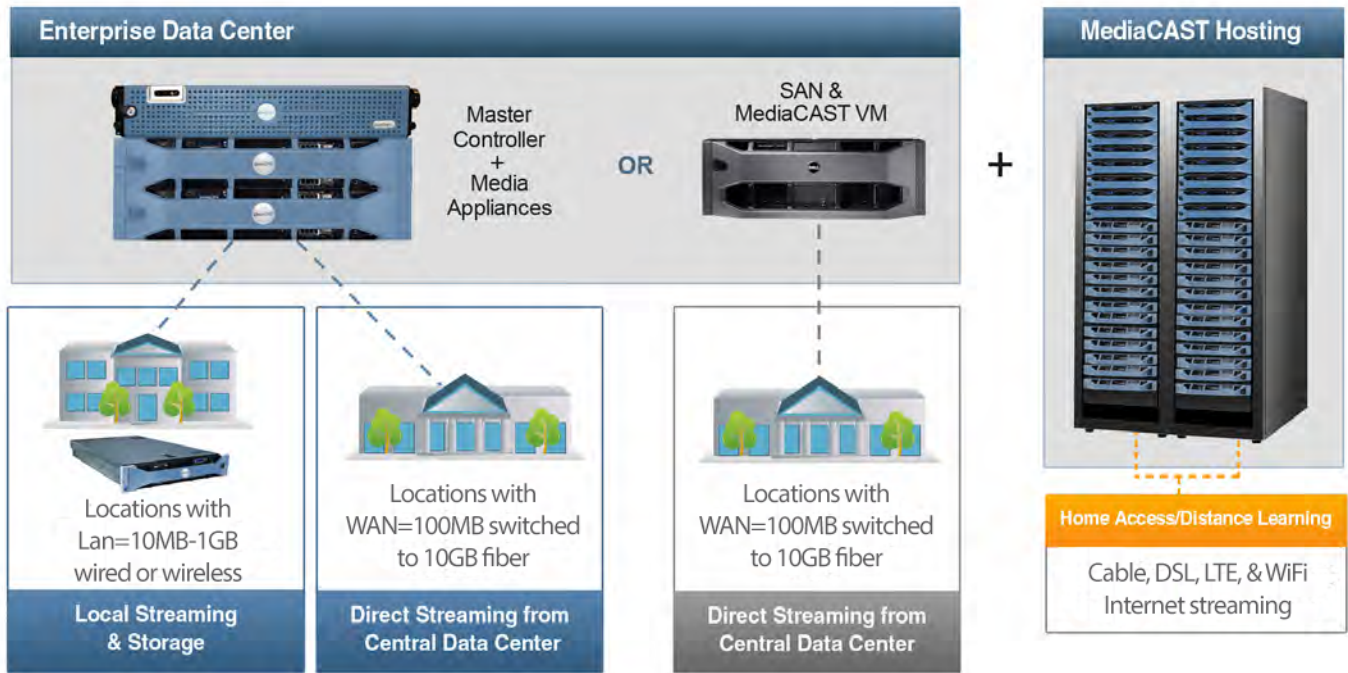
Desktop Encoder

OnLocation Cart

SportsCAST

+ Enterprise Media Manager

scalability and up to Five Nines availability for large organizations



MediaCAST's Enterprise Management tools help large organizations, or those with extensive digital media usage, increase their reliability and scalability. This software adds support for automatic content replication, replication queuing, the creation of multiple media server farms, management of dispersed media farms and media server load-balancing.

Content replication provides a seamless method of automatic content copying from a primary site to one or more content servers located at other sites. If the primary site goes down, the mirrored servers take over.

Load-balancing configures multiple Media Appliances in the system to ensure delivery of high-bandwidth content to users from the 'best' location, based on availability or server load. Content may be delivered to a user from a building's LAN Media Appliance or a centralized media farm located on a different campus or in a different city.

- ▶ **Increase availability with redundancy**
- ▶ **Media Appliances are easily scalable and work together to deliver increased capacity without making it more difficult for IT staff to manage content on multiple servers**
- ▶ **Extend the life of Media Appliances by load-balancing older and newer hardware within the same system for a long-term, cost-effective solution**
- ▶ **Alleviate bandwidth concerns across your entire user map to ensure everyone has high-quality access**

For more information on Media Appliance configurations, visit our website:
www.inventivetec.com/enterprisemanager

+ MediaCAST Cloud & Hosted Streaming

meet bandwidth needs with hosted streaming and storage

MediaCAST Express provides hosted bandwidth to enhance your MediaCAST system, support online learning or add streaming media to your online courses. It is scalable: you can provide it for a few users, a department or a global enterprise.

Both a media storage and media delivery platform, MediaCAST Express is powerful enough to store thousands of hours of content and to stream media to tens of thousands of concurrent users.

Our carefully structured architecture provides a highly available, redundant and secure solution.

If you would like to ensure high-quality media delivery to all users, host live graduations, broadcast board meetings, sporting events and extracurricular activities but are concerned about bandwidth limitations, MediaCAST Express is the answer. Fully hosted and hybrid deployments are available, see diagrams below.

Hosted Solution - for districts with limited bandwidth



Hybrid Solution - combines benefits of Hosted and Local storage and delivery



+ LDAP/AD/eDirectory Authentication

eliminate the need for multiple usernames and passwords

The user authentication module allows organizations to utilize current usernames, passwords and permission information in MediaCAST. This lets end users log in to MediaCAST with their existing username and password, synchronized with the district authentication server.

This integration eliminates the need to re-enter usernames and re-key group membership information. Users are happy because they don't have a new login to remember, and support staff is happy to manage users in their existing authentication system.

The module comes with security management tools for administrators. Users can be assigned one or more user roles based on what functions they need in MediaCAST. Disabling a user in the client's directory makes the digital content system inaccessible to that individual until the user is reactivated.

- ▶ **Use existing usernames, passwords and security settings**
- ▶ **Most client directories supported**
- ▶ **Administrator security and user access management tools**
- ▶ **Minimizes training and support**
- ▶ **If no authentication server, MediaCAST supports comma delimited files for simple mass user data imports with duplicate record verification and error checking tools included**

+ IP Room Control

on-screen a/v equipment remote control

MediaCAST's IP Room Control module provides an A/V control solution for classrooms, conference rooms and auditoriums. The Room Control interface is a browser-based virtual remote for flexibility in setup and ease of deployment across the largest organizations.

IP Room Control integrates control of most A/V equipment through IR and RS232 over IP. It works with the Kiosk Central digital signage module to automate turning on/off displays during all-calls and emergency broadcasts.

MediaCAST can provide IP Controllers (IP to RS232/IR conversion) for projector control. IP Controllers come with and without audio control capability. See the IP Controller on p. 26 for hardware information. Room Control also supports several 3rd party companies' IP control boxes (Extron®, Calypso® and others).

- ▶ **A convenient grid-style approach allows a nontechnical user to populate buildings, rooms, and equipment quickly**
- ▶ **Schedule rooms and display devices for all-calls, turning on/off and evening event preparation**



MediaCAST Hardware

MediaCAST is designed around non-proprietary hardware integrated with a robust software platform. The modular architecture is scalable, making it easy to accommodate rapid growth or enhance existing systems with added capacity and increased speed.

STORAGE & STREAMING



Media Appliance/Virtual Appliance

Media Appliances are digital media servers that store and stream video, audio and other multimedia content. They are comprised of integrated hardware and software that run the streaming server applications and other MediaCAST programs. Media Appliances are available in several configurations ranging from 200 to 2000 concurrent on-demand streams. More streams are supported at broadband quality and fewer at HD quality. Many Media Appliances can be supported to provide scalability in total streaming capacity.

Different sizes offer storage capacities from 1000 hours of video to 20,000 hours.

tech specs: www.inventivetec.com/media-appliances



SAN Integration with Virtual Media Appliances



Customers with high-performing SAN equipment in place can leverage those resources to deliver streaming video without additional hardware investment (see p. 29). Virtual Media Appliances can be installed on the SAN in conjunction with virtualization technology for enterprise level deployments.

MediaCAST Hardware

BROADCAST ENCODERS



MediaBroadcaster Pro

MediaBroadcaster Pro is a chassis-based encoder ideal for streaming IPTV. MediaCAST MediaBroadcaster Pro provides live encoding, recording and broadcasting in H.264 format from SD to HD1080 quality.

MediaBroadcaster Pro features modular flexibility, allowing you to migrate from SD to HD as your needs change. With the ability to hold up to 17 SD encoder blades, 8 HD blades or a combination of SD and HD blades, MediaBroadcaster Pro maintains flexibility for years to come.



OnLocation™ HD Live Broadcast & Encoding Cart

The OnLocation Cart is an enclosed mobile cart that gives you everything you need to create live video broadcasts, record video, and convert analog media into one or more digital streaming formats.

Configurations are available for encoding resources into Windows Media, Flash Video, H.264, QuickTime, MPEG1, MPEG2 and MPEG4. HD and SD options are available.

Includes built-in Chroma key capability for use with green screens. This allows live video broadcasts to be conducted from any “virtual” location.

Provides for titling overlay and includes built-in sets of transitions and effects for live editing during broadcast events.



tech specs: www.inventivetec.com/onlocation-cart

MediaCAST Hardware

BROADCAST ENCODERS (CONTINUED)



Desktop MediaEncoder

MediaEncoders are designed to convert analog and digital video and audio into a variety of streaming formats for on-demand access and live IP broadcasting. Built-in DVD burners and USB ports make it easy to ingest content, including HD, and to archive files.

The Desktop Encoder is an excellent option for classrooms, board rooms and offices with limited available space.

tech specs: www.inventivetec.com/mediaencoder



Mini-Encoder HD



Mini-Encoder is a small, extremely low-power video encoder. It supports both wireless 802.11x and wired Ethernet connections for maximum flexibility. It uses the world's most advanced video compression – H.264 High Profile Level 4.1 and provides HD 1080 video quality.



SportsCAST



SportsCAST is a portable, turnkey HD live video broadcasting solution. It includes a rugged carrying case, a shoulder mount kit, a mobile power kit, a Mini-Encoder HD and an accessory kit.

Works with most cameras, allowing you to select and change brands as desired. Camera not included.

tech specs: www.inventivetec.com/sportscast

DIGITAL SIGNAGE DELIVERY



MediaCAST HD Viewer™

Viewers are small-form factor, digital signage set-top decoders. Used with the Kiosk Central software module, Viewers enable streaming video, audio and other digital media playback over the Ethernet/IP network. They enable playback of content originating from the digital library and digital IPTV channels on a wide range of displays including TVs, LCDs and projectors. Unlike other solutions, Viewers support all industry-standard video formats plus other media formats including PDFs, websites, images, PowerPoints and more. Viewers support RS232 control of displays for automating on/off, selecting inputs and audio volume during all-calls and emergency broadcasts. Handheld remote optional. 1080 HD

tech specs: www.inventivetec.com/viewer

Kiosk Central Main Menu

Launch all-call broadcasts to one or more buildings for morning announcements, special events, cafeteria signage and emergency notifications. Automatically initiate playback of digital signage channels on a pre-scheduled basis.

Integrate with security systems and send out emergency alerts and notifications to building-wide digital signage by the press of a panic button.



Architecture & Deployment

integration with future IT strategies and systems

MediaCAST has five hardware and licensing models to best meet district needs and budgets



Local Installation

Use our hardware or yours. Enjoy the benefits of our non-proprietary approach.

Hardware installed in a single data center provides the highest possible performance to every school in the district, regardless of building age or location.

- ▶ Master Controller
- ▶ Media Appliance



VM Virtualized Edition



Reduce data center footprint by utilizing existing hardware.

In the VM Virtualized Edition, multiple servers with a single function are virtualized onto a single robust server. This reduces the number of servers required, making for a smaller data center footprint and minimizes the number of devices IT staff need to support. Use our servers or your existing VM hardware.



Windows Server[®]
Hyper-V[™]



- ▶ Master Controller
- ▶ Media Appliance

Architecture & Deployment

integration with future IT strategies and systems

Continued



VM SAN Edition



Capitalize on current investments.

MediaCAST SAN Edition is designed to help districts see direct educational impact from their equipment investment.

By allocating storage from your SAN, disk volumes can be expanded on-the-fly as capacity needs increase.



Windows Server[®]
Hyper-V™



- ▶ Virtualized Master Controller
- ▶ Virtualized Media Appliance
- ▶ Virtualized Disaster Recovery Appliance
- ▶ SAN Storage



Cloud Hosted Edition and Hybrid Edition



(details on next page)

Use our bandwidth and storage, not yours.

No hardware to buy, maintain or support and enough bandwidth for hundreds or thousands of concurrent, asynchronous streams.

- ▶ Cloud Deployment
- ▶ Local Media Appliance (Hybrid Edition optional)

Cloud Hosted Platform Edition

storage & streaming benefits with limited hardware investment

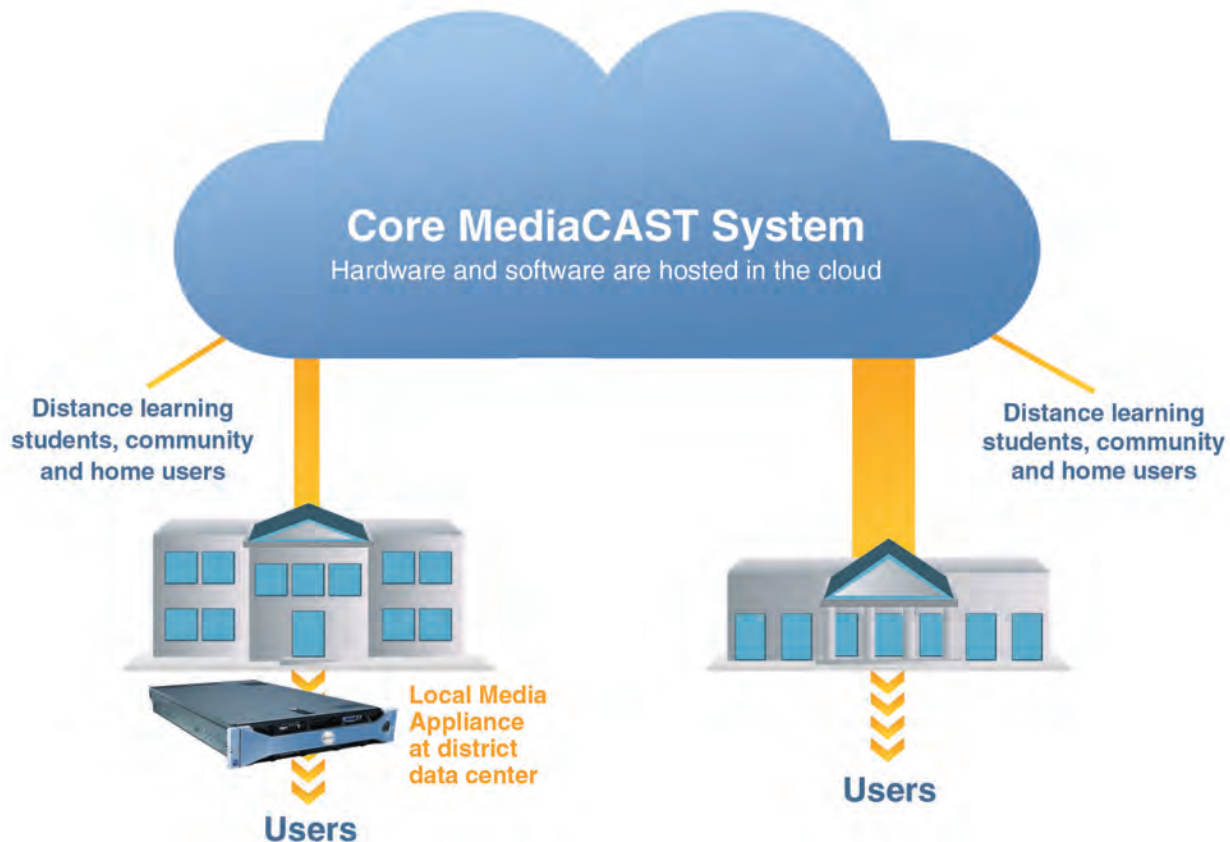
MediaCAST Cloud Edition is the perfect solution for small to medium size organizations interested in a digital content management and streaming system, but without the funding to support a hardware investment or internal IT resources.

Instead of requiring locally installed servers, the Cloud Edition is a subscription-based service that provides hosted streaming servers, MediaCAST database/web servers and streaming bandwidth from multiple high-performance hosting facilities.

We invest in and maintain the hardware and infrastructure. You get the benefits at a lower cost.

The Cloud Edition is based on virtualization technology which enables a robust and scalable architecture. As your organization's streaming needs grow, so does your Cloud. Your content is stored in the Cloud as a virtual instance and can be migrated to a locally installed MediaCAST system at any time.

The Cloud Edition is your fastest path to streaming. It comes in two configurations, Hybrid and Fully Hosted. See diagram below for more information.



HYBRID

Combination of a local installation and the cloud hosted edition. Use local Media Appliances and your WAN/LAN for on-campus streaming. Use our bandwidth for off-campus access.

FULLY HOSTED

Subscription-based service that employs streaming bandwidth from multiple high-performance hosting facilities.

With MediaCAST, everyone gains an advantage

STUDENTS

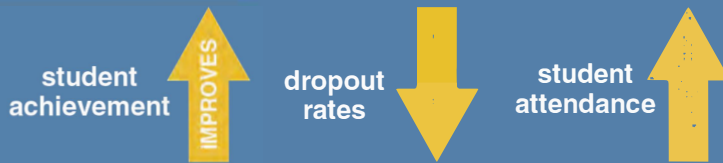


Engaging multimedia, streaming video, webcasts and podcasts bring class material

to life

in a way that stimulates young minds and facilitates learning.

When technology is a routine part of the school experience,



TEACHERS



Intuitive interface helps teachers find relevant media easily.

Segment/media-making tools help teachers

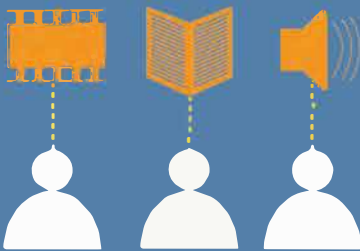
ignite the classroom

with multimedia infused lessons and address a wide range of learning styles.



Teachers can download **free** media resources and share user-generated content on the Media Exchange.

SPECIAL ED AND GIFTED INSTRUCTORS



Deliver the right content to the right student at the right time. Customize resource lists for individual students' learning style and level.

24/7

access allows students to continue learning



outside the classroom



at their own pace



closed captioning

Closed captioning tools help teachers **reach students** with hearing difficulties and read/write and visual learning styles.

MEDIA SPECIALISTS/LIBRARIANS



Store and retrieve digital resources under Copyright enforcement using Fair Use Manager with digital tracking and reporting along the way. Protect content from unauthorized copying and distribution.

TECHNOLOGY DIRECTORS

SIMPLIFY

- content storage
- content delivery
- management

MINIMIZE

- workload
- bandwidth use
- impact on network

INSTRUCTIONAL & CURRICULUM DIRECTORS



Intuitive, sophisticated web-based tools help you **correlate educational standards** and **performance benchmarks**. They be accessed online, at home and on the go.

ADMINISTRATORS

See direct improvement in **student achievement** and **teaching effectiveness**



from investments in technology. A cost-effective, future-proof solution that allows users to utilize visually stimulating multimedia in a variety of applications.



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