



INFORMATIONAL MEMORANDUM

TO: Finance & Governance Committee

FROM: Technology and Innovation Services

BY: Joel Bush, Chief Technology Officer

CC: Mayor Ekberg

DATE: January 10th, 2022

SUBJECT: City of Tukwila PEG Channel - Channel 21

ISSUE

The infrastructure used to broadcast content to the City of Tukwila's PEG Channel, Channel 21, is in need of modernization. Before modernizing the infrastructure, an analysis needs to be completed to ensure Channel 21 is the most cost effective and equitable way to share content with City of Tukwila stakeholders.

BACKGROUND

Section 611 of the Communications Act enables the City of Tukwila as a local franchising authority to require cable operators to set aside channels for public, educational, or governmental ("PEG") use:

Public access channels are available for use by the general public. They are usually administered either by the cable operator or by a third party designated by the franchising authority.

Educational access channels are used by educational institutions for educational programming. Time on these channels is typically allocated among local schools, colleges and universities by either the franchising authority or the cable operator.

Governmental access channels are used for programming by local governments. In most jurisdictions, the local governments directly control these channels.

The City of Tukwila's Franchise Agreement with Comcast stipulates that they provide a Channel for Governmental use. The current Channel 21 infrastructure (CASTUS Corporation) was initially installed in the Council Chambers in November of 2014. The system was tested until the end of the year and began streaming live Council meetings in January of 2015. The system is comprised of two servers, one for live streaming and another for hosting the VOD of previous meetings and other TV content. The initial cost for the system was \$26,660. We pay a yearly support and maintenance fee of \$1,200 and a yearly VOD hosting and live streaming services fee of \$2,194.50.

DISCUSSION

The technological environment has changed significantly since the inception of Tukwila's Channel 21. Currently, Channel 21 is only available to Comcast subscribers in a Standard Definition format (480p). To increase the picture quality of Channel 21 to High Definition (720p) the City will need to include this requirement in future franchise negotiations. Additionally, the infrastructure used to broadcast content has reached end of life and is in need of replacement.

An alternative to Channel 21 is leveraging the City of Tukwila's YouTube Channel to livestream and store Committee of the Whole, Council, and other relevant content. The primary benefit of YouTube channel is reducing complexity and point of failures associated w/ broadcasting content to Channel 21 and auto-captioning in up to 190 languages.

FINANCIAL IMPACT

Upgrading CASTUS Channel 21 Infrastructure:

If we continue to live stream content to channel 21, we will need to update the CASTUS QuickCast server. The cost of a new server is estimated to be \$9,995.05.

The current Video on Demand (VOD) server will need to be replaced as well, and CASTUS now offers it as a Cloud Service instead. The price changes depending on the streaming quality we choose. For 720p content streaming, the recurring yearly cost is \$2,999. For 1080p content streaming quality, the recurring yearly cost is \$3,999. And if we want adaptive bit-rate streaming (changes streaming quality depending on connection speed of user), the recurring yearly cost is \$5,099.

CASTUS is also offering two new services. We can add live closed captioning to all Council and Council Committee meetings for a recurring yearly cost of \$1,599. They also offer a City branded VOD mobile app for Apple iOS and Google Android for a recurring yearly cost of \$2,099.

Migrating to a Youtube Channel:

Negligible

RECOMMENDATION

Information Only. Staff seeks permission to conduct outreach to determine viewership level of Channel 21 and inform the Committee of a potential upgrade or transition plan. Staff will report back on findings in 1 month.

ATTACHMENTS

Channel 21 Engagement Plan
Castus Estimates

Chanel 21 Engagement Plan

- Memo to the City Council
- Hazelnut
- Social media (City, Fire, PD and P&R)
- City Website
- Tukwila School District (TSD)
- Faith Based Orgs
- Seattle South Side Chambers
- Senior Living Residential areas (SHAG, etc.)
Senior Newsletter (P&R)
- Optional or Not Required
 - South King County Jurisdictions (Renton, Burien, SeaTac, etc.)
 - Health Clinics, Community Base Orgs, Experience Tukwila)

DRAFT



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ESTIMATE # 1562

DATE 01/07/2022

EXPIRATION DATE 02/28/2022

SHIP VIA

UPS

SALES REP

Nathan Bosseler

DESCRIPTION	QTY	RATE	AMOUNT
CASTUS QuickCast 4th Generation- Single Channel IP/HDSI Video Server One HDSI / IP Inputs QuickCast channel has (1) multicast output for IP out Schedule creator and editor interface- yearly, monthly, weekly or daily Block scheduler interface for automated scheduling Web interface with confidence monitors and audio meters Multi file format support- ZERO transcoding Support for- RTMP, SRT, HLS, NDI & more Supports Live Closed Captions and Side Car files- VTT, SCC, MCC & More Connects to routing switching- Black Magic and more Playlist and multi-region playlist creator/editor Output to Facebook and Youtube live Connect to CASTUS Cloud Services (CCS) Generate online schedule guide to embed on website Video editor for assembling and trimming clips RSS crawl overlay capability File manager library Audio input and automatic background music detection Built in audio normalization for outputs 8 global overlays per channel HDMI preview channel DVD to file rip utility Hardware: Super fast processor, dense form factor and extremely reliable 2RU server grade chassis 2RU chassis with server grade power supply 4TB storage included (single drive) *RAID 1 with 8TB upgrade available 8GB RAM (1) HDSI Output (1) HDSI Input 250GB SSD for CASTUS OS 24X DVD-RW INCLUDES 3 YEAR HARDWARE WARRANTY Customer Loyalty Discount- 10%	1	9,995.00	9,995.00T
	1	-999.50	-999.50T

QuickCast upgrade for the City of Tukwila (WA). For questions please contact- nathan@castus.tv.	SUBTOTAL	8,995.50
	TAX (0.1)	899.55
	SHIPPING	100.00
	TOTAL	\$9,995.05

Accepted By

Accepted Date



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NA

SALES REP

Nathan Bosseler

DESCRIPTION	QTY	RATE	AMOUNT
CASTUS Cloud Services Video On Demand (NO ABR) 720p	1	2,999.00	2,999.00
CASTUS Cloud Portal for control panel and admin access Easy upload web interface to CASTUS Cloud (AWS) Auto transcode to 720p .mp4 Detailed analytics for individual videos and batch reports Ability to index and chapterize videos Access to download .mp4 HD video files for free Options for further customization Front End Video Guide- Easy to navigate home pages with playlists and live categories. Search function with 'smart word' search Ability to feature videos and playlists Customizable home screen and banner User account management with social engagement (like, dislike and comment) Social media sharing tools Desktop and mobile supported interfaces Cloud Specs- CDN with unlimited number of live viewers Unlimited number of embedable LIVE HLS streams (Live channels) 2TB storage limit with file manager (each additional TB \$100 per month) Auto transcode to downloadable .mp4 file Recurring monthly renewal (on credit card)- \$259 Recurring annual renewal- \$2,999 OR	1	0.00	0.00T
Choose between one of three Video On Demand Packages 720P, 1080P or Adaptive Bit-Rate (ABR)	1	3,999.00	3,999.00
CASTUS Cloud Services Video On Demand 1080P	1	3,999.00	3,999.00
CASTUS Cloud Portal for control panel and admin access Easy upload web interface to CASTUS Cloud (AWS) Auto transcode to 1080p .mp4 Detailed analytics for individual videos and batch reports Ability to index and chapterize live meetings and video files Access to download .mp4 HD video files for free Options for further customization Front End Video Guide- Easy to navigate home pages with playlists and live categories. Search function with 'smart word' search Ability to feature videos and playlists Customizable home screen and banner User account management with social engagement (like, dislike and comment) Social media sharing tools Desktop and mobile supported interfaces Cloud Specs- CDN with unlimited number of live viewers Unlimited number of embedable LIVE HLS streams (Live channels)			

DESCRIPTION	QTY	RATE	AMOUNT
2TB storage limit with file manager (each additional TB \$100 per month) Auto transcode to downloadable .mp4 file			
Recurring monthly renewal (on credit card)- \$329 Recurring annual renewal- \$3,899			
OR	1	0.00	0.00T
Choose between one of three Video On Demand Packages 720P, 1080P or Adaptive Bit-Rate (ABR)			
CASTUS Cloud Services Video On Demand 4 Profile Adaptive Bit-Rate (ABR)	1	5,099.00	5,099.00
CASTUS Cloud Portal for control panel and admin access Easy upload web interface to CASTUS Cloud (AWS) Auto transcode to Adaptive Bit Rate (ABR)- 4 profiles Detailed analytics for individual videos and batch reports Ability to index and chapterize live meetings and video files Access to download .mp4 HD video files for free Options for further customization			
Front End Video Guide- Easy to navigate home pages with playlists and live categories. Search function with 'smart word' search Ability to feature videos and playlists Customizable home screen and banner User account management with social engagement (like, dislike and comment) Social media sharing tools Desktop and mobile supported interfaces			
Cloud Specs- CDN with unlimited number of live viewers Unlimited number of embedable LIVE HLS streams (Live channels) 4TB storage limit with file manager (each additional 2TB is \$100/mo) Auto transcode to ABR with access to downloadable .mp4 files			
Recurring monthly renewal (on credit card)- \$429 Recurring annual renewal- \$5,099			

Video On-Demand and Live streaming annual packages. Choose between one of three Video On Demand Packages: 720P, 1080P or Adaptive Bit-Rate (ABR). For questions please contact-nathan@castus.tv.	SUBTOTAL	12,097.00
	TAX (0.1)	0.00
	TOTAL	\$12,097.00

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SALES REP

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DESCRIPTION	QTY	RATE	AMOUNT
CASTUS Cloud Services Closed Captioning (LIVE Event Captioning) 200hrs/yr 95% + accuracy 200 hours of LIVE captioning annually CASTUS Cloud Portal for control panel and admin access Easy to use web portal to connect to CASTUS Cloud Auto transcode audio stream from QuickRoll/QuickCast for live captioning Easy to use intuitive interface to edit captions Ability to download caption files for archival purposes Recurring annual renewal- \$1,599	1	1,599.00	1,599.00
CASTUS Cloud Services Video On Demand Mobile App REQUIRES CASTUS VOD CASTUS Cloud Portal for control panel and admin access Entire app deployed to Apple iOS and Google Android Playstore Calendar and News Feed tabs with weather and financial tickers Admin can moderate posts and users Social media engagement features- like/dislike and comments (can be disabled) Easy to navigate fully functional app interface Search functionality Support and updates Recurring monthly renewal (on credit card)- \$179 Recurring annual renewal- \$2,099	1	2,099.00	2,099.00
CASTUS Cloud Services additional annual options- Live Closed Captioning and custom branded Mobile App. For questions please contact- nathan@castus.tv.	TOTAL		\$3,698.00

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