

KVH® INDUSTRIES
MINI-VSAT
B R O A D B A N D

WORLD'S NO. 1 MARITIME VSAT SERVICE

Commercial Maritime Solutions

NEW!

IP-MobileCast™

A world of entertainment content and operations data for ships at sea

MOVIElink™

TVlink™

SPORTSlink™

NEWSlink™

MUSIClink™

FORECASTlink™

CHARTlink™

TRAININGlink™



CONTENT DELIVERY

IP-MobileCast – Delivering *licensed* entertainment and *critical* operations content to ships at sea

The unique and economical solution for crew welfare and operational needs

Highlights

- Content is delivered automatically in the background over the top of the mini-VSAT Broadband network
- Does not consume vessel's data plan and has no effect on onboard data speeds
- Delivers hundreds of gigabytes per month of content to the vessel using a separate datastream
- Crew access to commercially licensed media using personal devices or messroom TVs
- Addresses MLC-2006 mandates regarding crew welfare, entertainment, and training
- Remote management and control by KVH, no burden for IT or crew onboard
- Obsoletes physical delivery of DVDs or content to ships
- Brings maritime training courses onboard easily
- Enables large files to be delivered, such as the entire ECDIS ENC global chart database
- Affordably delivers high-resolution weather and ocean data for voyage optimization

The capability to receive KVH's exciting IP-MobileCast service is built into all TracPhone® VIP systems, and can be easily added to older TracPhone V-series products with the addition of the KVH Media Server.

NEWSlink™

TVlink™

MOVIElink™

MUSIClink™

SPORTSlink™

CHARTlink™

FORECASTlink™

TRAININGlink™



IP-MobileCast

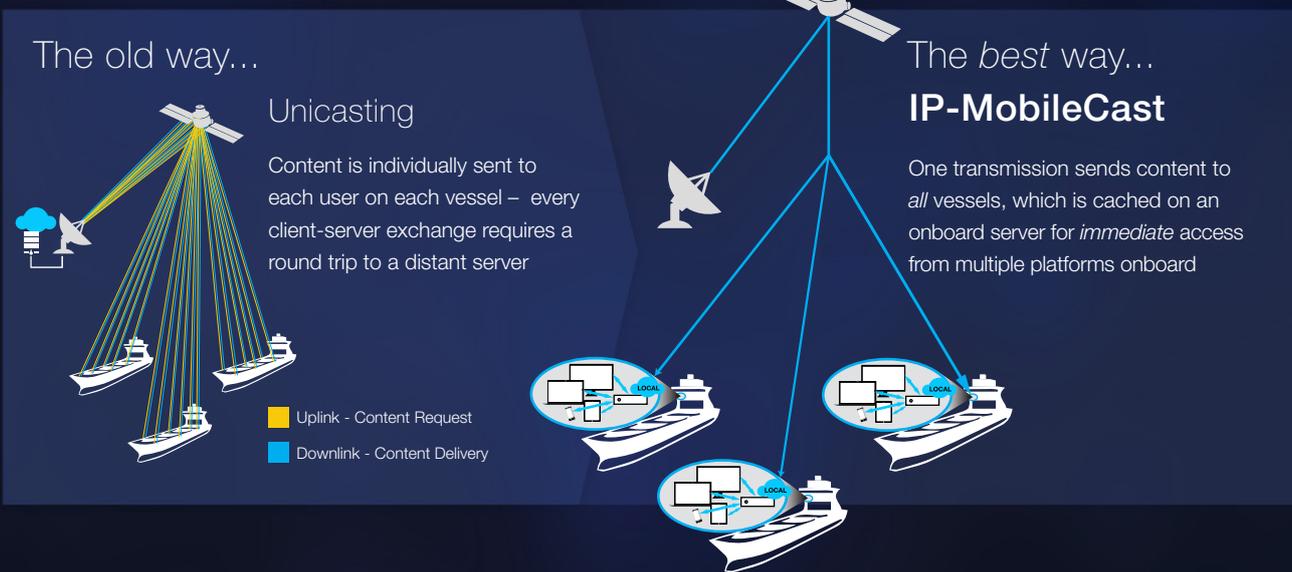
Content Delivery Service



How it works

IP-MobileCast utilizes multicasting technology, a technique for one-to-many communications over an IP infrastructure. Advantages of multicasting vs. unicasting include efficient use of bandwidth and instant access to content.

Unicast vs. IP-MobileCast



Watch on any device

Everyone onboard has immediate, simultaneous, unlimited access to IP-MobileCast's news, sports, movies, TV episodes, and music channels – using their favorite device.



TV

Bring crew together in the messroom



Tablets

View movies privately in cabin*



Smartphones

Check news quickly*

*Personal device fee applies; see IP-MobileCast Activation Order for details.

CONTENT



Your crew will love IP-MobileCast Entertainment Content

KVH has launched the IP-MobileCast content delivery service with a full suite of commercially licensed entertainment. Your crew will enjoy the latest movies, TV shows, news and sports clips, digital newspapers, and music, all delivered free of transmission charges over the mini-VSAT Broadband network, so you pay only a reasonable monthly subscription for the content.

Providing IP-MobileCast services onboard your vessels will demonstrate your company's compliance with MLC-2006 recommendations to provide your crews with good sources of news and entertainment. Many ship operators don't realize that use of personal DVDs onboard ships, even in crew cabins, violates international copyright laws.

IP-MobileCast entertainment services include **MOVIElink**, **TVlink**, **SPORTSlink**, **NEWSlink**, and **MUSIClink**, featuring daily or monthly refreshed content that is broadcast to your vessel and stored on your TracPhone system's Integrated CommBox Modem (ICM) or the KVH Media Server. Your crew can access the content on their favorite devices via an Ethernet connection or Wi-Fi.

KVH Media Server & Digital Rights Management

The KVH Media Server has been designed to address digital rights management (DRM), which is a way of safeguarding the copyrighted movies, TV programs, training, and music that IP-MobileCast delivers to vessels. To receive DRM content, a vessel must have the KVH Media Server. SPORTSlink and NEWSlink-TV content does not require the Media Server.

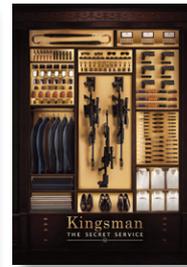


If vessel is receiving:	KVH Media Server Required
MOVIElink TVlink NEWSlink PRINT MUSIClink	
TRAININGlink	
SPORTSlink independent channel	not required
NEWSlink TV independent channel	not required

MOVIElink™

The latest blockbusters and new releases from Hollywood and Bollywood, as well as classic movies; can be watched an unlimited number of times onboard.*

*1 year license, DVD quality



TVlink™

Your favorite shows and other great TV programming including complete seasons of the most popular series; can be watched an unlimited number of times onboard.*

*1 year license, DVD quality



SPORTSlink™

Highlights, previews, reviews, and interviews from OMNISPORT global sports and English Premier League. Great selection of sports genres, plus Special Event programming of the world's most watched sporting events.



NEWSlink™ PRINT

Daily news from home in seafarers' native languages, produced in a digital newspaper format and covering sports, business, entertainment, and more. Available on any device or to print.



NEWSlink™ TV

National news channels from around the world, with top stories delivered in seafarers' native languages, and covering top stories of interest.



MUSIClink™

Quality digital music for crew enjoyment, with choices featuring different genres of music created from libraries of songs mixed automatically.



CONTENT

DELIVERED BY
KVH
IP-MobileCast™

Your bridge will benefit from IP-MobileCast Operations Content

Improving fleet efficiency is a key concern for maritime operators, whose many challenges include complying with international maritime regulations, increasing crew skill level, safeguarding ship security, and minimizing fuel use. Moving critical applications data to your fleet enables your crew to work smart.

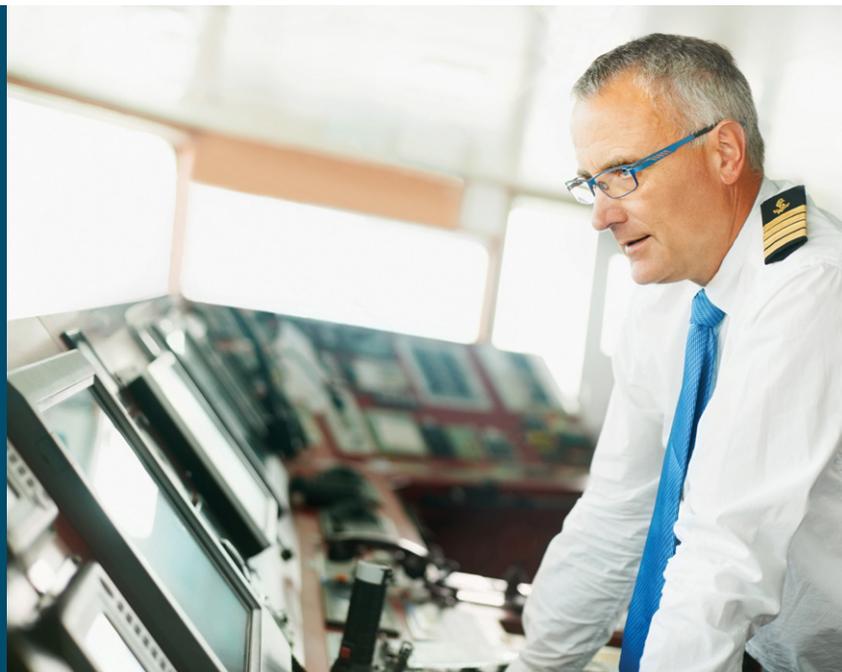
Affordable connectivity opens a new generation of operational services for your vessels. KVH is teaming up with industry leaders in charting, voyage optimization, weather, and training to deliver operations solutions to your vessels affordably and quickly via a delivery platform unlike any other in the maritime industry today.

With IP-MobileCast, you can receive updated charts automatically at the bridge, utilize high-resolution weather data for voyage optimization that can save you time and money, and ensure that every crew member has the most up-to-date training to protect life, vessel, and cargo.

Multicasting allows KVH's IP-MobileCast service to deliver gigabytes of operations data to ships at very low cost. Through **CHARTlink**, **TRAININGlink**, and **FORECASTlink**, IP-MobileCast delivers content from maritime industry leaders in electronic charting, training programs, and weather data. *The advantage of receiving this crucial content via IP-MobileCast multicasting?* There is simply no faster, more reliable, or more affordable way to get this data to the bridge.

"I would like to thank you for the KVH system we now have onboard, especially the new Media Server and IP-MobileCast service. Everyone onboard is enjoying the possibilities. For me it is a miracle, and I never expected this was technically possible. I'd like to thank you and the company for making this possible for us."

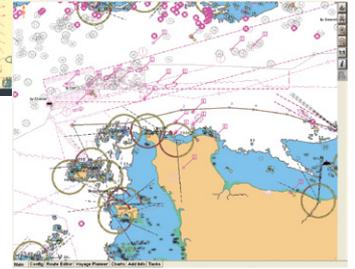
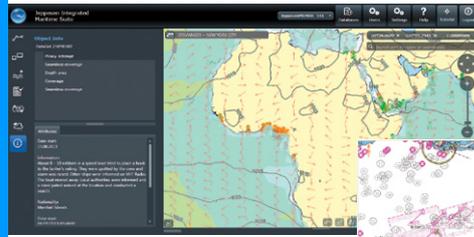
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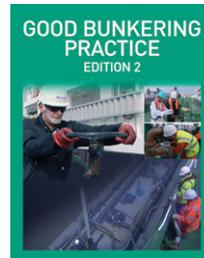
Electronic Chart Delivery

- Fast, affordable delivery of charts from leading maritime providers – Jeppesen® and Transas
- Jeppesen Professional+, Jeppesen ENCService, and Jeppesen PRIMAR ECDIS Service
- Transas Admiralty Data Service (TADS), based on the renowned Admiralty chart set, for vessels with Transas ECDIS systems
- KVH provides regular multicasts of global databases
- No updates to manually unpack and install
- Charts are always available and always up-to-date, automatically



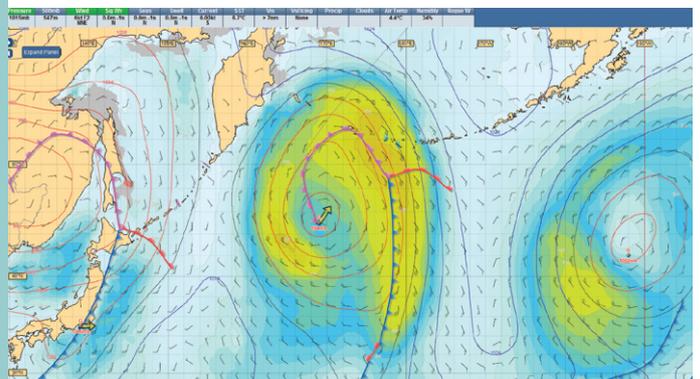
Videotel™ Training Services and Content

- Videotel – global leader in maritime e-Learning and training solutions; a KVH company
- Onboard e-Learning and computer-based training
- Reduces the time and expense of shore-based training
- Actual onboard equipment can often supplement training sessions
- Assessments and test results immediately transmitted using mini-VSAT Broadband connectivity
- Immediate overview of risk analysis and training progress
- Basic Training Package of 20 essential Videotel programs on seamanship – exclusively available via IP-MobileCast
- Onboard video content and course materials with link to onshore instructors



Weather and Ocean Data

- High-resolution data from Applied Weather Technology, Inc. (AWT) multicast to vessels
- Weather data and global forecasts for route optimization
- High-resolution data for winds, sea states, currents, and tidal streams
- 16-day forecasts, continually updated
- Port vicinity forecasts
- Updates for pirate attacks, rogue waves, visibility, satellite imagery, and more

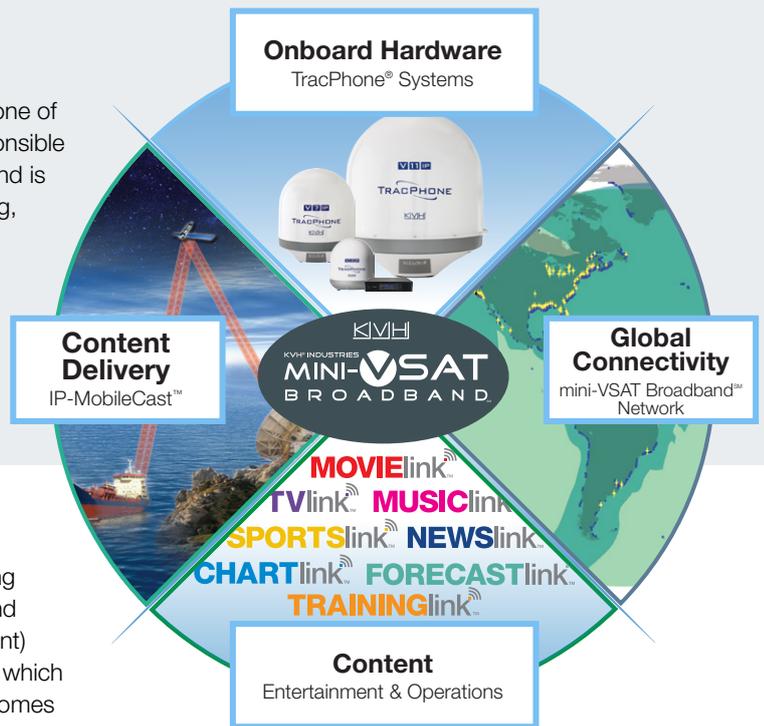


The KVH Advantage – The Power of One

Only global player with one true end-to-end solution

The reliability and simplicity of a single-provider solution is one of the most important aspects of IP-MobileCast. KVH is responsible for every aspect of the connectivity and content solution, and is unique in the maritime industry for designing, manufacturing, and providing all four parts of the solution:

- Hardware
- Connectivity
- Content
- Content Delivery



Ease of implementation

For existing mini-VSAT Broadband customers, implementing IP-MobileCast simply requires subscribing to the service and integrating a KVH Media Server (if needed for certain content) with onboard set-top boxes and Wi-Fi access points, all of which are managed through the belowdecks unit, the ICM, that comes with every KVH TracPhone ViP system.

A system for every vessel

For maritime operations that do not already have mini-VSAT Broadband service onboard, implementing IP-MobileCast is as simple as switching to KVH's end-to-end solution for connectivity and content by choosing a TracPhone ViP system:



TracPhone V11iP		TracPhone V7iP		TracPhone V3iP	
Dual-mode C/Ku-band antenna for the ultimate in global VSAT connectivity – a complete IT & C solution; 1.1 meter (42.5 in) antenna; C/Ku-band service		Fully integrated, enterprise-grade solution for broadband connectivity and onboard network management; 60 cm (24 in) antenna; Ku-band service		The world's smallest maritime VSAT, with faster data speeds and lower airtime costs than competitors; 37 cm (14.5 in) antenna; Ku-band service	
Supports Entertainment Packages:		Supports Entertainment Packages:		Supports Entertainment Packages:	
Bronze	Silver	Bronze	Silver	Bronze Only	
Gold	Platinum	Gold	Platinum		
SPORTSlink	NEWSlink TV	SPORTSlink	NEWSlink TV		



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KVH, TracPhone, IP-MobileCast, NEWSlink, TVlink, MOVIElink, SPORTSlink, MUSIClink, CHARTlink, FORECASTlink, TRAININGlink, Videotel, and the unique light-colored dome with dark contrasting baseplate are trademarks of KVH Industries, Inc.