

Frequently Asked Questions About Digital TV and the TM2000

What is digital TV?

Digital TV is the signal transmitted by satellite providers like Star Choice™ and Bell ExpressVu™ or large cable companies using a full HITS system. By implementing Cancom HITS QT, small companies can also provide digital television.

What is HITS QT?

HITS (Headend in the Sky) QT (QAM Transmodulated or QAM Transmission) is a system that converts satellite signals to cable format (27 MHz QPSK satellite signals are transmodulated into 6 MHz QAM signals). HITS QT is a low cost solution that allows smaller cable systems to offer more than 150 digital channels without incurring the costs of a traditional digital headend, like HITS. The analog services currently offered remain unchanged. There are currently 25,000 HITS QT users in the United States.

What is the difference between HITS QT and HITS?

| | HITS QT | Conventional HITS |
|--------------------------------------|--------------------------------------|--|
| Headend Cost | \$12,000 to \$30,000 | \$150,000 to \$300,000 |
| Headend Complexity | Low | High |
| Conditional Access | In-Band | Out-of-Band |
| Training Requirement | Minimal | High |
| Distribution Plant | 1-way or 2-way | 2-way preferable |
| Cherry Picking | Not possible | Possible |
| Services Available | All approved ANIK F1 and E2 services | Potentially could include services from other satellites |
| Return Path | Telco | Cable RFor telco |
| Interactive Program Guide | Modified DSR guide | TV Guide or third party guides |
| Local Branding | Yes | Yes |
| Advanced Interactive Services | Not offered | Potentially available |

Why should I implement HITS QT?

- Digital TV is essential to stop losing premium customers.
- HITS QT is cost-effective, quick and easy method to increase channel capacity.
- HITS QT is less complex and less expensive than a full HITS system.
- Headend costs are low and per subscriber costs are incremental.
- Digital cablesystems have customer growth and more satisfied customers.
- HITS QT provides all the services of satellite (hundreds of channels, interactive programming guide, Pay Per View movies, digital music) and all the benefits of cable (multiple outlets, no satellite dish to install, local and community channels, excellent customer service).

What equipment will I need?

- Headend equipment - TM2000 (see www.evsl.com for more info)
- Set-top boxes - DSR471 (contact Motorola)

What are the steps to implement HITS QT?

- 1) Contact the Cancom representative for your area to get a copy of their launch guide. The launch guide includes an outline of the launch process, reference information, and copies of the forms you will have to fill out.
Western Canada: Lee-Ann Brand
Ph: (905) 272-6036 or email: lbrand@cancom.ca
Ontario: Nicole Kirby
Ph: (905) 272-6677 or email: nkirby@cancom.ca
Atlantic & Quebec: Gaston Dufour
Ph: (514) 937-7313 or email: gdufour@cancom.ca
- 2) Choose a satellite map. Advise Cancom of the satellite you have selected and the postal code of the headend using the System Profile Form (in launch guide).
- 3) Choose which digital channels you will carry from each transponder. Arrange Affiliate Agreements with programmers and send copies of the transport consent forms to Cancom.
- 4) Decide how to group the digital channels you are offering into packages (ex. Movies, Children's, Sports, etc.). Complete digital package names form (in launch guide) and send to Cancom.
- 5) Place order for headend equipment - WaveCom TM2000 transmodulators from evsl. Contact: Mandy Maloney (Phone: (306) 931-8822 ext. 22 or email: mandym@evsl.com).
- 6) Place order for set-top boxes – DSR471 from Motorola. Contact: Sean Miller (Phone: (416) 944-2090 or email: smiller@gi.com).
- 7) Design cable map and place order with Motorola. If you choose to display your company logo on the Interactive Programming Guide, include this information.
- 8) Request set-top decoder activation from Cancom and verify cable map and logo. Forward any changes to Motorola.
- 9) Provide Cancom with completed Subscriber Account Form (in launch guide) for each customer who orders digital cable.
- 10) Cancom will provide a monthly report including set-top decoder packages and Pay-Per-View transactions for billing.

How do I choose which digital channels to offer in my cable system?

- 1) Determine what digital channels are available. For a complete list, contact the Cancom representative for your area or search Cancom's website (www.cancom.ca) for an up-to-date listing. For an unofficial list of the services available on Anik F1 and Anik E2 see www.evsl.com.
- 2) Contact signal suppliers for rates and terms.
- 3) Choose services and packages suitable for your unique situation. Tip: Some operators find it useful to examine the packages offered by ExpressVu™, Star Choice™, and major cable operators in Canada to help in this decision.

What is a Channel Map?

A Channel Map is a mapping of transponders from Anik F1 and E2 to cable channels. Several Channel Maps have been prepared by Cancom and Motorola to suit the needs of cable operators with different channel capacity.

Do I have to offer all the channels on a transponder?

No. You can choose which channels you will be offering in digital form and the remainder will be "hidden". Hidden channels will not be displayed on the IPG (Interactive Programming Guide).

What is a unique Cable Channel Map?

Your unique Cable Channel Map is the listing of all services you will be offering on both the analog and digital portions of your channel line-up. The actual channel numbers of your digital offering will be shown on the list of VCNs (Virtual Channel Numbers) in the list of all Anik F1 and Anik E2 services.

What costs are involved with the HITS QT system?

- 1) Headend equipment: Ranges from \$12,000 to \$30,000 depending on which channels you choose and how many you wish to offer.

Contact Mandy Maloney for a quote. Phone: (306) 931-8822 ext. 22 or email: mandym@evsl.com

- 2) Motorola: Set-top boxes, channel mapping charge, and charge for customized logo on IPG (optional). Contact Motorola for a quote. (Sean Miller Phone: 416-944-2090 or email: smiller@gi.com)

3) Cancom monthly access fee, box activation fee, and transport fees.
Contact Cancom representative in your area for fees (see above for contact info).

4) Signal fees. Contact signal suppliers for rates.

How are the set-top boxes installed and activated?

- 1) Fax or email the box UAs to Cancom so they can be entered into your account.
- 2) Connect the DSR471 to a valid VCN for your channel map.
- 3) Request an Authorization Reset from Cancom.
- 4) Your unique channel map will replace the factory default.
- 5) Install in the customer premises complete with a telco connection.
- 6) Call Cancom to have the box tiered for the customer's package (could be done in advance).

How do I make changes to a customer's programming package?

Initially, subscriber management will be done by phone, fax or email with Cancom. By September of 2002, Cancom plans to have a web browser subscriber management system so the cable operator can change the packages directly. Payment for signals and transport is similar to the current methods.

How will I sell digital TV to my customers?

- Focus advertising on premium customers through letters, brochures and bill messages.
- Compare pricing and digital channel line-up to that offered by Star Choice™ and ExpressVu™.
- Offer free previews, programming credit, free Pay Per View movies. Focus on the benefits of cable with digital over satellite (see below).
- Offer free previews, programming credit, free Pay Per View movies.
- Provide excellent customer service - convenience and flexibility in installation times, teaching customers how to use IPG and Pay Per View services.
- Keep in mind that most customers who buy the set-top box (premium customers) will take a full programming package. If they're going to spend the money for the box, they will want to get as much programming as they can from it.

Why will my customers buy digital TV instead of a satellite dish?

- No satellite dish to install and align
- Includes local and community channels
- Competitively priced
- Excellent customer service

- Doesn't require a set-top box for every TV. The set-top box will display the digital channels on the designated television and all the analog channels will still be available on every TV.

How does the Interactive Programming Guide (IPG) work?

The IPG includes all analog and digital channels (ex. Analog channels 1 to 30 & Digital channels 200 to 980). The guide includes parental controls, favorite channel list, theme search and all other features of a satellite programming guide. An option is available for you to display your cable system logo on the main screen of the IPG.

How does Impulse Pay Per View work?

The DSR set-top box will be pre-loaded with a predetermined amount of credit. When the customer orders a movie, it is reported to Motorola by toll-free telco. Cancom will send billing information to the cable operator monthly. The money from Pay Per View sales is divided between the cable operator, the movie studio, and Viewer's Choice. Contact Cancom for Pay Per View transport rates and billing information.

What incentives and discounts are available to CCSA members?

CCSA member companies are eligible for:

- special discounted pricing for headend equipment from evsl, the CCSA's Exclusive Preferred Supplier for HITS QT equipment
- special rates from Cancom for the access, activation, and transport fees
- special discounted pricing for Motorola DSR471 set-top boxes

CCSA members can contact Debbie Randon at the CCSA for member prices.

(Phone: 506-849-1334 ext. 207 or email: drandon@ccsa.cable.ca)

For more information on the CCSA go to www.ccsa.cable.ca.

What innovations are coming up for HITS QT?

An RF return path version of the DSR471 set-top box is in development. Cancom plans to have a web browser subscribe management system in place by September of 2002.

More questions?

Contact evsl:

Mandy Maloney, ext. 22 or email: mandym@evsl.com

Don Wohlberg, ext. 11 or email: donw@evsl.com

Phone: (306) 931-8822

Fax: (306) 931-8787