



The Importance of Proper HD Radio Configuration and Operations

The growth of HD Radio penetration in mobile and portable systems—including support for iBiquity's *Artist Experience* feature—along with the proliferation of video display screens in automotive center consoles, makes it increasingly important that the radio industry provide an experience equal to that of other technologies. To ensure a consistent customer experience, iBiquity recommends that HD Radio broadcasters verify proper implementation of the eight elements of their services. Their recommendations (largely based on work done by a group of broadcasters, consumer electronics manufacturers, iBiquity and others in 2012) are listed below.

1. Maximum Digital Power
2. Time and Level Alignment Between Analog and Digital Signals
3. Complete and Accurate SIS Data
4. Dynamic Program Information
5. Music Tagging Support
6. Station Logo Service
7. Artist Experience Support
8. Consistent, High-Quality Multicasting

Maximum Digital Power

A digital power increase for your FM station is an important investment to increase the overall positive listening experience for your audience. The original regulations allowing FM HD Radio digital signal to be broadcast at -20 dB below a station's analog signal will result in a digital coverage that does not effectively replicate the station's analog service area. Increasing digital power level to at least -14 dB will improve the coverage area for multicast channels and increase the building penetration of digital service for in-home and in-office listening. Taking digital power to -10 dB allows an FM HD Radio station to fully replicate its analog coverage for indoor reception.

Time and Level Alignment

Time and level alignment between analog and digital signals are critical to the main channel (HD1) listening experience. This is a key factor by which listeners, automakers and receiver manufacturers evaluate HD Radio performance.

Complete and Accurate SIS Data

SIS (Station Information Service) is the first information that is received by a HD Radio receiver. This information is used to properly configure the radio and displays the station's call letters, name and slogan. It also tells the receiver if the station is carrying additional data services such as Artist Experience, Station Logo and/or traffic services. Make sure all fields are populated with text.

Dynamic Program Information

Dynamic PSD (Program Service Data) provides basic information for tagging, bookmarking, Artist Experience and all other data. Music-formatted stations should include dynamic song title, artist and album name data whenever it is provided by the source material.

Music Tagging Support

Unique File Identifier (UFID) data included in HD Radio broadcasts enables users to easily purchase music from online vendors. Currently *iTunes* tagging is supported in some receivers, allowing songs to be bookmarked by users as they are broadcast, for immediate or subsequent download to a connected device.

Station Logo Service

The FM station logo is a static image initially displayed when a station is tuned in and whenever a music- or program-synchronized image is not available. A simple, easy-to-use station logo tool can be obtained from iBiquity or your HD Radio Importer manufacturer, or through [TagStation](#) or [Jump2Go](#) software. Some receivers support the display of logos associated with station presets (see photo).



Artist Experience Support

This feature provides stations with the opportunity to broadcast a synchronized image (such as album cover art) along with their audio programming. Broadcasters are also able to include images supporting advertisers during commercial breaks. Artist Experience implementation can be achieved with the latest Importer framework and selecting a service provider such as *TagStation* or *Jump2Go*.

Consistent High-Quality Multicasting

Multicasting channels (HD2, HD3, HD4) should provide compelling content accompanied by dynamic PSD, Artist Experience data and station logos, along with quality audio processing to ensure consistent levels. .

Software Updates

It's also important that both HD Radio Exporter and Importer software be kept up to date to enable maximum performance and reliability. Check for the latest versions at your manufacturers' websites. For further information, watch [this video](#).

Hybrid Radio Webcast Released for NAB Members

[The NAB Online Leadership Academy: Summer Webcast Series for Radio](#) just released *The NAB Labs Presents: The Opportunities for Hybrid Radio* webcast. With content taken directly from the 2014 NAB Show's *Hybrid Radio: Making It Happen at Your Station* workshop, discover all of the potential hybrid radio has to offer radio stations, consumers and advertisers. Speakers include [Paul Brenner](#), Senior Vice President, CTO, Emmis Communications, [Scott Burnell](#), Global Lead, Business Development & Partner Management, Ford Motor Company and [Eric Williams](#), Product Manager, Sprint.

Access to the Summer Webcast Series is complimentary to NAB members only. To register, click [here](#).

NAB Partners with Technology Trade Associations for U.S. Vets

NAB is honored to partner with a group of national and regional technology trade associations in [USTechVets.org](#), an initiative to connect veterans to employment opportunities in the U.S. technology sector. The initiative helps facilitate veterans' transition to civilian careers, reduce veteran unemployment and give our member companies access to our country's unique veteran workforce.

Participation in USTechVets.org is free to any NAB member company. To get started, a primary human resources or recruiting contact at your company should [apply](#) for an employer login to the site. Once logged in, you can post jobs manually, search the site's database of more than 800,000 veteran resumes, and add additional recruiters to your company's account.

Monster.com, one of the primary partners of USTechVets.org, provides helpful video tutorials on the site. You can also click [here](#) for tips on how to create an account or [here](#) for tips on posting jobs. In addition, Monster will host webinars to guide employers on how to get the most value out of the job

board and resume database. Please email veterans@nvtc.org for dates and call-in information for future webinars.

If your company already has active postings on Monster.com, those jobs will automatically be reposted to the USTechVets.org job board at no additional cost. However, if you do not want your company's Monster.com jobs reposted to the USTechVets.org site, you must notify NAB by August 1, 2014 by emailing membership@nab.org.

Finally, NAB members who have a job board on their company website can elect to have specific jobs reposted to the USTechVets.org job board for a small fee. To learn more about this option, please contact Ted Wadsworth at ted.wadsworth@monster.com.

NAB is pleased to offer this valuable resource to our members. If you have any questions, please email Chris Vane email cvane@nab.org or (202) 429-5400.

Important Dates and Upcoming Events

[NAB Radio Show](#)

September 10 - September 12, 2014

Indianapolis, Indiana

[NAB/SBE Satellite Uplink Operators Training Workshop](#)

September 29 - October 2, 2014

Washington, DC

[137th International AES Convention](#)

October 9 - October 12, 2014

Los Angeles, CA

[2014 IEEE Broadcasts Symposium](#)

October 15 - October 17, 2014

San Antonio, TX
