PRSS Engineering Team Completely Rebuilds BuNOC

In preparation for the buildout of public radio's next generation distribution system, the Engineering Team of the PRSS recently broke down its Back-up NOC (BuNOC) in St. Paul and completely rebuilt it from the ground up.

The project involved all facets of building an entirely new data center - hardware, software, networking, cabling, procurement, shipping, testing, operating and validating each piece of gear. Every cable in the facility was recut, reconnected, relabeled and reinstalled. New racks were constructed, and electrical power was overhauled.

The PRSS engineering team, consisting of Doug Bevington, Alex Albadree, Muzeeb Rehmani Shaik, Frank Qualls, and Julio Cardiel, spent several weeks on-site clearing out the old set-up and installing the new one. The PRSS technology/operations teams back in Washington supported the effort the whole way.

The system is up and online, but the final test will come in the coming weeks when the PRSS conducts its first drill of the new BuNOC. The PRSS will alert the system in advance of this drill.
Breaking down the previous BuNOC Set-up
Doug Bevington Helps Build the New Racks

Installing and Wiring the New Hardware
Installation Work is Complete. Next Step: BuNOC Drill to Confirm Readiness
Join PRSS Officials at Super-Regional for Metadata Talk

The 2017 Super-Regional Meeting of the Public Radio Regional Organizations is taking place in late September in St. Paul, Minn., (home of the PRSS Back-up NOC), and there will be a special presentation you won't want to miss.

At 4:00 pm on Wednesday, Sept. 27, PRSS Chief Mike Beach will host a discussion called "New Challenges for Content Promotion, Donations and Sponsorship" in which he will talk about how public radio content enhanced with metadata can attract new audiences and encourage them to tune in for a longer period of time.

Toward this end, Mike will discuss MetaPub, the proprietary system developed by NPR Distribution to allow producers to attach enhanced metadata to their content and for stations to then broadcast it.

MetaPub is being used by stations and producers to synchronize text, images and links with live broadcasts of audio programming on smartphones with FM receivers, on HD and RDS radios, including car dashboards, and on web sites and other mobile devices.

We hope to see you at this year's Super-Regional Meeting!

The News

PRSS Introduces CDDrive Feature to ContentDepot

A new feature has been added to the ContentDepot, CDDrive, a virtual storage area for producers to which they can push metadata from their Content Management Systems (CMS). Once files are in CDDrive, producers and PRSS staff can access the files and download them.

Currently, it is only a temporary storage space - files uploaded will only remain for 24 hours. But the release of CDDrive allows users to become familiar with this feature. In an upcoming ContentDepot release, the PRSS will allow producers to upload files to CDDrive as well.

All of this is part of a larger effort to make it easier for producers to push audio and metadata to the ContentDepot and eventually attach files stored in CDDrive to their episode pages. With the latest ContentDepot release, Producer Administrators can now view CDDrive under their Customer Profile and grant optional permissions to staff.

If you want to learn more about using our API to push files to CDDrive, or if you would like to beta test this new feature with us, please view the API documentation: https://contentdepot.prss.org/api/swagger-ui/dist/index.html?url=/api/swagger-v2.yaml

To use CDDrive, users must first be authenticated by the PRSS. This can be done by sending an email or calling the PRSS Help Desk at 800.971.7677, or via email: prsshelp@npr.org.
Q&A with PRSS Product Manager Megan Williams

In the meantime, take a look at the following conversation with PRSS Product Manager Megan Williams, who has helped oversee the recent ContentDepot upgrades, particularly those involving MetaPub.

What are the latest features that have been added in the past three months?

We've been working on the latest version of the MetaPub API and adding authentication. The latest version of MetaPub features an Electronic Program Guide (EPG) that allows for easier scheduling in middleware and improved handling of file episodes with long or overlapping air windows. We've also developed features to streamline metadata workflow for producers, including a Push API.

What are the primary features in whole?

Since we first launched MetaPub last spring, we've been providing stations with additional text and graphics to enhance HD radio displays, RDS, Next Radio, and web streaming apps. That includes artist/contributor information, story and song titles, logos and graphics. Plus, MetaPub has also always supported time-shifting of metadata for stations that time-delay or record and play-back episodes or segments. MetaPub also integrates with existing station middleware such as Arctic Palm's Center Stage, which routes local and nationally syndicated metadata to end listener platforms.

In the past year we've integrated ContentDepot with MetaPub and added user entry fields for "pieces" to make MetaPub an option for all PRSS producers. MetaPub will also leverage existing metadata fields in the ContentDepot such as program title, logo, and host if producers choose to make their program(s) MetaPub enabled.

To eliminate duplicative efforts and save producers time, we've added a Standardized Rundown option to the Rundowns panel on episode pages, which will make use of data that producers have already entered for their episodes, including per-piece timings.

In the newest version of the API, we've added features for middleware vendors and station clients, such as

- XML support
- Better handling of air windows for time-shifting file programs
- An existing standard (Radio DNS)
- No real time dependency
- Improved reliability
- Options for stations to display information about what's up next
- Program and episode metadata provided simultaneously with piece-level metadata
- Web links to allow stations to create an interactive experience on web streaming platforms
What is on the horizon for MetaPub features?

Right now we're focused on testing the latest version of MetaPub with middleware clients so that stations can take advantage of the new features. We're also aiming to test the Push API (now live) with interested producer clients.

Recent MetaPub additions have also given us an opportunity to add more enhancements to ContentDepot. We're opening up the producer API to support pushing a variety of file types to a ContentDepot drive "CDDrive" and adding options for producers to manage that content on the user interface.

Stations have also expressed a need to shuffle metadata pieces, so we're conducting research around those use cases.

Are producers enthusiastic about how metadata can enhance their content?

Over the course of this summer, we've seen a good variety of programs add metadata to their offerings in ContentDepot. It's exciting to think about how different genres might leverage MetaPub, from news to music, entertainment to current events, cooking shows to literary excerpts. There are a lot of opportunities for producers to create an enhanced listener experience.

Through projects like the MetaPub station pilot, the Great California ShakeOut, as well as support calls from new stations getting set up, I'd say there's a lot of interest in the station community as well. I believe we'll continue to see metadata efforts increase at public stations across the country.

And as a reminder, anybody can see which shows offer metadata very simply. Just go to the 'browse' feature in ContentDepot and click on the box titled 'MetaPub enabled'.

Tips 'n' Tricks

Alabama Network Receives Help with Outages

The PRSS and its sister company NPR Satellite Services (NPRSS) have a long history of helping out when producers or stations run into a jam. Recently, Alabama Public Radio (APR) found itself with a problem when a construction crane blocked the line of sight from its uplink to the satellite, knocking their network out of service. Using its Hub@NPRSS uplink service, NPR Satellite Services was able to get APR back on the air quickly.

EsPRSSo spoke with APR Director of the Center for Public Television and Radio Elizabeth Brock about what happened.

APR found itself in a problem. What was happening exactly?

Alabama Public Radio is comprised of four transmitters and one translator serving Alabama audiences from across the state, stretching from Muscle Shoals to the Gulf Coast. For many years, we have worked with NPRSS to deliver our programming from our main...
Our uplink dish—which feeds programming to all the APR transmitters via NPRSS—is located on the University of Alabama's campus in an area undergoing significant construction. As part of the construction project the current satellite farm will be relocated to a different site—one being developed to host all the University's broadcast transmission and reception needs.

Unfortunately the construction project created a problem sooner than we had anticipated. On July 12, we determined that the cranes onsite were linked to intermittent outages at two of our transmitter sites, and we began exploring alternatives that we could put into place before the permanent relocation to the new satellite farm could be accomplished. By August 1, two transmitters and one translator were off the air. Our engineers confirmed that our Eb/No reading (which as I understand it measures signal strength) qualified us as more noise than signal. They immediately contacted NPR.

What was the solution proposed and how did you carry it out?

Luckily even before this crisis, APR's engineering team had been in discussions with NPRSS regarding its HUB service. For those of you who (like I) were English majors, the HUB is a service that allows networks like APR to send programming to its stations without a local head-end. Using proprietary equipment installed at the main studio and at each transmitter site, networks can send their programming via fiber to NPR's own satellite uplink in Washington, D.C for distribution to network downlink sites. The HUB would allow us to work around our compromised uplink dish with equipment that would continue its usefulness when the new satellite farm was completed.

NPRSS was simply extraordinary. Within three days, the equipment was configured and shipped to our team, who were ready to jump into action. They had determined an efficient and effective work flow, timeline and communication plan. Once the equipment was onsite, our team worked with NPR to restore service to sites across the state in a 24 hour period and worked with their colleagues at the station to keep listeners informed and...at least in some cases...amused.

The installation went flawlessly and we are back to normal operations. In fact, listeners tell us our signal is stronger than ever, and the time they spent without Alabama Public Radio reminded them how important we were in their lives. Hope they remember that during the Fall Membership Drive!

Any advice for other stations and/or networks facing a similar situation?

First and foremost, support an engineering team that can navigate the demands and opportunities of traditional and emerging technology—the APR team manages that balance with creativity, intelligence and a commitment to the mission of public broadcasting. Secondly, encourage your tech folks to develop their own relationships with colleagues at other stations and at NPRSS. Being familiar with the HUB and the folks at NPRSS saved our bacon.

Finally, over-communicate with staff and listeners. Everyone on staff was able to give updates to listeners and colleagues—and we used emails, postcards, and social media to keep our audience informed. Above all, keep your cool and respect one another. Pointing fingers and assigning blame is neither productive nor helpful. And remember to say thank you...sincerely and often.
FEMA EAS Test Scheduled for End of September

This is a reminder that the Federal Emergency Management Agency (FEMA) in collaboration with the FCC will conduct a nationwide test of the Emergency Alert System (EAS) on September 27, 2017, at 2:20 pm ET. In the event conditions on that day prevent the test from happening, a secondary test date is scheduled for October 4, 2017.

By now, all EAS participants should have filled out the 2017 ETRS Form One (deadline: August 27). On or before 11:59 pm ET on Sept. 27, EAS participants must submit any updates or corrections to their 2017 Form One filings and must file the "day of test" information sought by ETRS Form Two. On or before November 13, 2017, participants must file the detailed post-test data sought by ETRS Form Three.

For more information, please visit the following link: https://www.fcc.gov/general/eas-test-reporting-system.

Please take a moment and fill out our survey

The 2017 PRSS Customer Satisfaction Survey will close in the next week. If you haven't yet provided your perspectives and opinions on the job that the PRSS is doing, please do so now. On Friday, Sept. 10, each interconnected general manager will get a final reminder and a link to the survey. If you haven't filled it out yet, please do so. Your comments greatly influence and inform our work, and it is very helpful to know which areas we're doing well in and which areas we have room for improvement. If you receive a reminder email, please take a few minutes and fill out the survey. Thank you very much.

What's New in ContentDepot?

There are several new programs (both recurring and one-time-only) appearing in the ContentDepot this month. Listed below are details on a sampling of new regularly occurring programs that your listeners may enjoy:

Radiolab Presents: More Perfect - A one-hour, five part series from New York Public Radio that examines Supreme Court decisions and explains what they mean for average people.

Passage to the Middle Kingdom - A miniseries of eight 4 and a half minute shows from Creative PR that focuses on the musical exports of China.

The Minnesota Show with Garrison Keillor - A two hour, one-time-only special from American Public Media that presents a September 1, 2017 performance at the Minnesota State Fair Grandstand.

Stay in Touch

We Want to Hear From You!

EsPRSS-O welcomes and encourages your questions, comments, suggestions and ideas.

- Have you or your team developed a particularly unique and/or nifty technique in operating ContentDepot?

- Are you facing any new challenges and want to get the perspective of others who might be in a similar situation?
Are you seeing any technology or business developments on the horizon that your pubradio colleagues ought to know about?

Got a notion on your mind that you want to share with the PRSS?

If so, don't hesitate, write in today!

Send any and all correspondence to PRSSCommunications@npr.org along with info on the best way to get in touch with you.

Stay in touch! Send your questions, comments and ideas to PRSSCommunications@npr.org. As always, the PRSS Help Desk is also available 24/7 at 800.971.7677 or email PRSSHdp@npr.org.