



Practice Makes Perfect

Lessons Learned from Earlier Pre-testing

September 29, 2021

Five Practices that Maximize Results

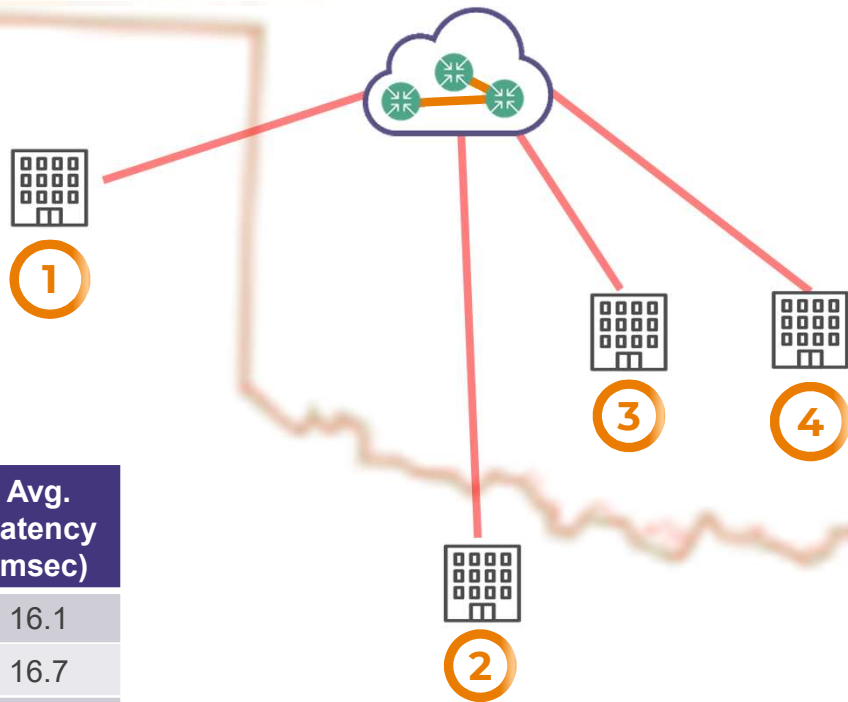
- ☒ Optimize server location
- ☒ Sanitize HUBB data
- ☒ Prepare data for subscriber selection
- ☒ Analyze results and resolve trouble
- ☒ Review results before submitting



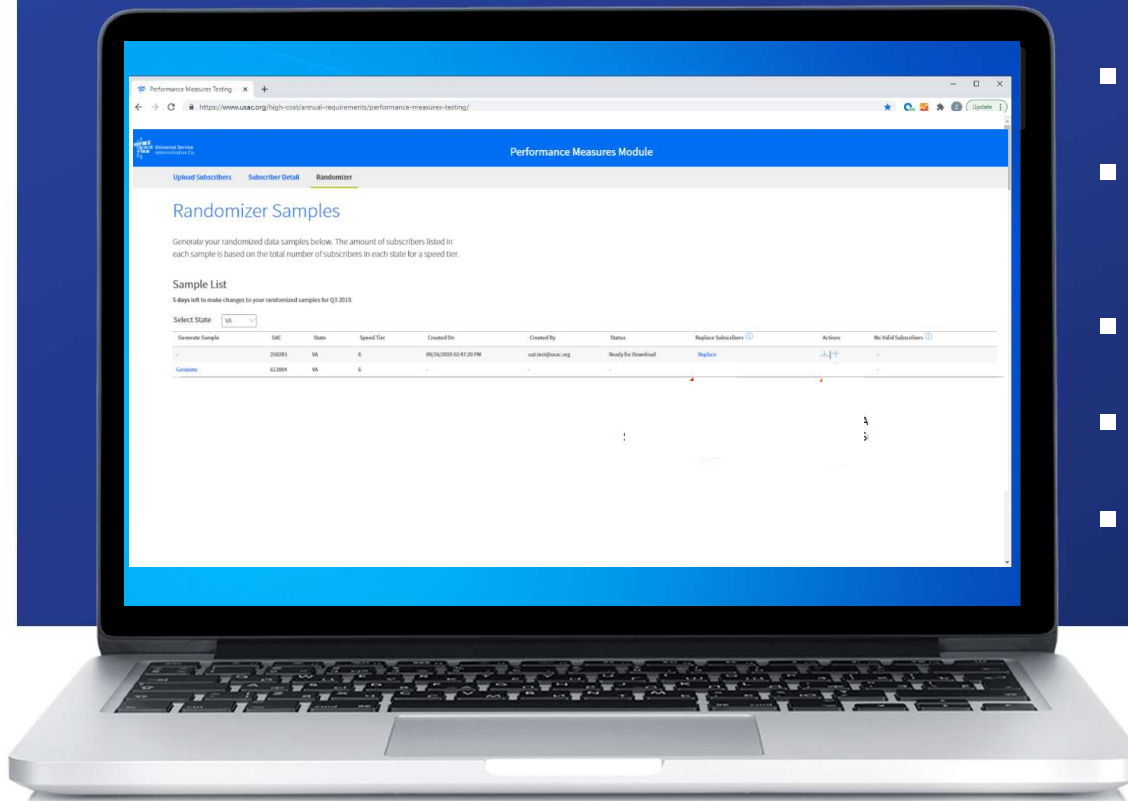
Optimize Server Location

Test Results

Test Server	Avg. DS Speed (Mbps)	Avg. US Speed (Mbps)	Avg. Latency (msec)
Server 1	17.8	15.1	16.1
Server 2	57.0	14.9	16.7
Server 3	47.6	15.0	14.7
Server 4	58.2	15.0	13.7



Sanitize HUBB Data



- Needs to be complete
- Check accuracy of geocodes, addresses
- Compare HUBB data w/map
- Compile active locations
- Collect additional PMM data needed

Prepare data for subscriber selection



- **Maximize # of locations – consider updating HUBB data before January 2022**
- **Make note of FCC waiver for reduced subscribers**
- **Test solutions that ease subscriber recruitment**

Analyze results and resolve trouble

- Identify endpoints w/ latency and speed failures
- Drill down on locations experiencing problems
- Test path impairment points
- Consider retesting for that quarter



- # Analyze results and resolve trouble
- Identify endpoints w/ latency and speed failures
 - Drill down on locations experiencing problems
 - Test path impairment points
 - Consider retesting for that quarter

Review results before submitting

- Each quarter, carriers must certify and upload to the PMM system on the required date
- Don't wait - take the time necessary to ensure:
 - All test groups were executed
 - Information is correctly formatted

A screenshot of the "Performance Measures Module" web interface. The interface includes a header with the USAC logo and title. Below the header, there is a section with a blue button labeled "Upload Performance Data". Underneath this button, there is a section titled "Recently Uploaded Files" which contains a table with columns for "File Name", "Date", and "Size". The table currently shows no data.

Test Report
Upload



CAF Recipient

Broadband Performance Testing Service

PREPARE



- Update HUBB and download randomized list
- Set up FCC tests based on speed tier and state
- Load endpoints from randomized list
- Set up additional active test scenarios

PRETEST



- Verify network readiness
- Proactively perform speed/latency testing
- Validate test servers
- Calix Professional Services will process and analyze the results

ANALYZE



- Joint review of Broadband Performance Testing report
- Analyze upstream, downstream speed results
- Review speed and latency test failures for corrective action
- Monitor skipped tests
- Review Calix Support Cloud reports

REPORT



- Build reports (using FCC USAC format for CAF)
- Submit and validate quarterly reports to the HUBB



Proprietary and Confidential

A Simple, Comprehensive Solution

Broadband Performance Testing Solution



- Test Controller – Calix Support Cloud
- Integrated Test Clients – GigaSpire BLAST U4
- Calix Professional Services guidance, analysis, consulting
 - Reporting and submission assistance
- 7x24 support





Thank You