



ENTRA®

ACCESS SIMULATORS



Identify bottlenecks, validate capacity, and uncover performance issues before they reach production.

Entra® Access Simulators mimic Distributed Access Architecture (DAA) devices and customer premises equipment (CPE) at scale, enabling Broadband Service Providers (BSPs) to validate the **device lifecycle, service delivery, traffic handling, capacity, and performance** of virtual and physical CCAP cores, PON OLTs, and other network elements integrated into provisioning systems.

BSPs can assess network service functionality by simulating thousands of devices simultaneously under **production-like operational and traffic conditions**.

Tested with Entra products and other (v)CMTS platforms from leading providers, the Access Simulators solution helps identify network bottlenecks, ensuring resilience and optimal performance. Designed for cost-effective, standards-compliant simulation, it supports diverse access technologies, empowering operators to optimize capacity planning and test complex scenarios in Converged Multi-Access Network environments.



RPD Simulation

Production-scale RPD simulation at scale enables capacity and performance testing of (v)CMTS, PTP, ToD, and DHCP services, identifying bottlenecks that impact customer service delivery in production environments.



Cable Modem & Traffic Simulation

Simulated cable modems reproduce provisioning, registration, service flows, security, and subscriber traffic behavior to expose performance and capacity limitations before production deployment.



Simplified Orchestration

Unified management of RPD and CM simulators on a production scale simplifies testing procedures and improves operational efficiency.



Advanced Telemetry

Metrics and workflow trace collection from simulated devices accelerate root cause analysis through modern visualization tools.

Enhancing large-scale testing efficiency
with advanced simulators.

Challenge

Production Scale Testing

- **Thousands of devices** are impractical with physical labs alone.
- Failures often appear only at **full scale** (provision, load, timing)
- Need the lab to mirror production-like **conditions and performance**.

Solution

ENTRA Access Simulators

- **Simulate up to 160 RPDs** and 25,000 CMs on single 1RU x86 server.
- Stress access networks with **simulated subscriber traffic**.
- **Repeat** large-population RPD/CM scenarios on demand.
- **Expose** performance and capacity limits before rollout.

Tested devices
and services



vCMTS



Video Core



DHCP



TFTP



TOD



PTP



Other DAA
Cores



Provisioning
Systems

Benefits

- Part of Vecima's Entra Cloud™ platform of open, interoperable, cloud-native applications
- Reduce lab cost and complexity by replacing large physical device populations with scalable simulation
- Test (v)CMTS, provisioning systems, and cable network services in production-scale
- Identify capacity and performance limits before production deployment
- Quickly replicate and troubleshoot scenarios observed in live networks
- Seamless compatibility with integrated and virtual CMTS platforms from leading providers
- Advanced telemetry for detailed analysis on modern observability platforms