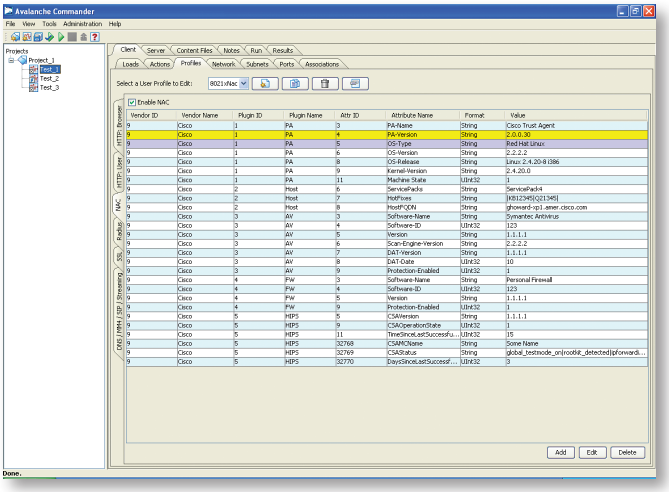
SPIRENT AVALANCHE

802.1X AND NAC FOR SPIRENT AVALANCHE

To ensure only authorized users with healthy devices access network resources requires 802.1x and Network Access Control (NAC). Spirent Avalanche™ enables Network Equipment Manufacturers, Service Providers and Enterprise IT professionals to performance test 802.1x and NAC solutions.

APPLICATIONS

- Test basic 802.1x and NAC authentication and policy administration
- Emulate multiple authenticating supplicants
- Wide-range of application traffic over authenticated ports—truly measures user experience
- Test impact of Posture Validation on network traffic
- Test multiple 802.1x and NAC transport methods
- Conduct NAC solutions testing using Agent-based, Agent-less and with Web Authentication modes
- Determine maximum capacity and response time of 802.1x capable devices and NAC servers



IT professionals require intelligent authentication at the edge of the network to stay ahead of the perpetual vulnerability and patch-management cycle. Validating users and hosts against corporate security policie—before granting access—effectively prevents the spread of malicious traffic.

Spirent Avalanche provides a comprehensive set of integrated 802.1x and NAC features including NACP and Radius to properly assess any performance implications arising from implementations of NAC solutions prior to production deployment.

BENEFITS

- Generate and maintain 802.1x compliant supplicants and achieve a quicker time to test. Integrated 802.1x and NAC allows full performance characterization of security authentication devices, leading to faster production roll-outs.
- Test Layer 4-7 traffic over 802.1x and NAC and test DUTs for single and multi-host authentications. This avoids downtime. High-performance testing with real traffic identifies proper sizing for your environment and comprehensive statistics locate the problem areas.
- Test different transports such as EAP over LAN, EAP over UDP and EAP over Radius. The investment protection includes support for 802.1x while NAC and Radius ensure testing needs can be supported now and with future generation testing.
- Measure the latency imposed by network based authentication; test with different EAPoL network traffic; and, test the impact of Posture Validation on network traffic. This minimizes cost. NAC is a fully integrated Avalanche application supporting countless numbers of use cases and minimizing the number of test applications to learn and support.
- Compatible with fan-out switches for testing large port-count deployments to emulate the real-world environment of multiple site-to-site authentication.

TECHNICAL SPECIFICATIONS

Authentication Protocols

- 802.1x, Layer 2 NAC (LP1x)
- Layer 3 NAC (LPIP, GWIP, EAPoUDP)
- Web Authentication
- EAP over Radius

Authentication Methods

- EAP-MD5, EAP-MS CHAPv2, PEAP, LEAP, EAP-FAST, EAP-GTS, EAP-TTLS

Authentication Modes

- Single-Host, Multi-Host Single-Auth, Multi-Host Multi-Auth

Test Parameters

- Identity, Password, Auth, Start, Mode, PolicyTry, DestMAC, RetryCount, RetryTime, PACFile, PACKEY, PacOpaque
- Session rate, Set-up delay, tear-down delay, authentication triggers, fall-back sequence, NAC profiles, MAC addresses, VLAN IDs

Session Statistics

- Runtime, Realtime and Summary statistics available for:
  - Session logons
  - Session rates
  - Session Duration
  - NAC Posture Tokens
  - NACP Packet latency

SUPPORTED MODULES & PLATFORMS

802.1x and NAC is supported on a number of different hardware and software platforms to meet you exact testing needs.

REQUIREMENTS

- Hardware
  - Spirent C1 and C100 Appliances
  - Spirent TestCenter chassis with Spirent CM and mX modules
  - Software
  - Avalanche Version 4.20 or higher

SPIRENT SERVICES

Spirent Global Services provides a variety of professional services, support services and education services—all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services website at www.spirent.com or contact your Spirent sales representative.

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