DNS-SD for NMOS

The Business Benefits

Gerard Phillips,
Systems Engineer,
Arista Networks

THE BUSINESS BENEFITS OF USING DNS-SD IN AN NMOS ENVIRONMENT

IP-based architectures bring substantial benefits in increased agility and system scalability that can help broadcasters develop new business models and remain competitive. However, setting up an IP-based infrastructure is more complicated than with its predecessor, SDI.

NMOS specification IS-04 provides Discovery & Registration, but how can devices (endpoints) find the Registration and Discovery System (RDS)? This can be achieved manually, by statically configuring endpoints with the IP address of the RDS, but a moderately sized IP facility might have thousands of endpoints, leading to a time-consuming task which would be very costly in staff effort. We need an approach which is simpler, more efficient and easy to deploy.

A solution to this problem is available, using service discovery via the Domain Name System (DNS), which is already standardised and used successfully in the IT world. DNS provides a mechanism that allows users to work with device names rather than anonymous IP addresses. It is possible to configure a DNS server, by using DNS Service Discovery (DNS-SD) to announce the name and IP address of RDS servers on the network, which avoids the need for manual configuration of endpoints.

This takes us much closer to "plug and play" in setting up, changing and maintaining an IP-based system.

The benefits are simple. End users and integrators can build a system more quickly. Operational staff can work more efficiently. Fault-finding is simpler. And the built-in flexibility supports future developments and expansion.

This translates to cost savings at all stages of the system's life.

Further technical information, including additional technical descriptions and a 'how-to' document describing how you can build a DNS-SD server that advertises RDS in your lab, is available at

https://specs.amwa.tv/info-004/

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