

Network Access Control Resources

This white paper provides pointers to some resources that we've found helpful in our research on Network Access Control (NAC) architectures and interoperability.

Core Architectures

The NAC interoperability demonstrations highlight three different architectures, from the Trusted Computing Group, Cisco, and Microsoft. You can learn more about each of these by reading our white papers and by investigating the web sites for each architecture. In addition to these three, the IETF (Internet Engineering Task Force) has begun work in this area. Resources from these four groups are highlighted below.

Trusted Computing Group's Trusted Network Connect

Trusted Computing Group is an industry consortium whose members develop and promote open, vendor-neutral, industry standard specifications for trusted computing building blocks and software interfaces across multiple platforms. Trusted Network Connect (TNC) is a specification that enables the application and enforcement of security requirements for endpoints connecting to the corporate network. The TNC web site has white papers explaining the architecture, as well as information on participating vendors and products that adhere to the TNC specifications.

<https://www.trustedcomputinggroup.org/groups/network/>

Vendor info and Interop announcements can be found at

https://www.trustedcomputinggroup.org/news/events/interop_2006/

Cisco's Network Admission Control

Organized under Security and VPN Solutions for Large Enterprises, this web site discusses Cisco's architecture as well as Cisco products.

http://www.cisco.com/en/US/netsol/ns466/networking_solutions_package.html

Interop attendees interested in the technical side of Cisco's approach will find *Network Access Control: Technical Overview* to be very useful (available through Cisco's web site).

Microsoft's Network Access Protection

Microsoft's Network Access Protection web site has a wealth of good resources describing both the architecture and the products Microsoft is developing, as well as pointers to partners.

<http://www.microsoft.com/nap>

Network Access Protection Platform Architecture, linked from the main NAP web page, is an excellent overview that has good technical detail and explains the MS-NAP architecture as well as its implementation within future versions of Windows.

IETF's Network Endpoint Assessment BOF

The IETF has created a BOF (birds-of-a-feather) group, to investigate IETF standardization of NAC technology (which IETF is calling, for the time being, "Network Endpoint Assessment."). The IETF members participating in this BOF hope it will become a formal Working Group and begin work soon. The initial working paper discussing the issues that the IETF hopes to solve is available as an Internet draft:

<http://www.ietf.org/internet-drafts/draft-thomson-nea-problem-statement-01.txt>

Because Internet drafts expire after 6 months, we have put a copy of the IETF draft on the Interop NAC group home page:

<http://www.opus1.com/nac/IETFdraft-thomson-nea-problem-statement-01.txt>

To see or join the ongoing discussion group, go to

<http://www1.ietf.org/mailman/listinfo/nea>

InteropLabs Las Vegas 2006 NAC Resources

The NAC Labs team has written several brief White Papers to help you understand NAC technology and architectures, and how NAC might work in your own network. These white papers are all available at the NAC iLabs booth, and on-line at the NAC resource page.

<http://www.opus1.com/nac/>

Our white papers include:

What is Network Admission Control?
Getting Started with Network Admission Control
What is Cisco Network Admission Control?
What is Microsoft Network Access Protection?
What is the TCG's Trusted Network Connect?
What is the IETF's Network Endpoint Assessment?
What is 802.1X?

As part of preparing the NAC demonstrations for Las Vegas 2006 Interop, we have also uploaded all the configurations to the NAC home page (<http://www.opus1.com/nac/>) which may be useful in understanding what we did or how you can replicate this work in your own test lab.

Articles

These articles offer an overview of NAC technologies and can help to provide some additional information on architectures and products:

Network World: *The Competition for NAC*

<http://www.networkworld.com/research/2006/040306-nac-overview.html>

Eweek: *Startups Rush to Fill Network Access Control Void*

<http://www.eweek.com/article2/0%2C1895%2C1860588%2C00.asp>

Background Technology: 802.1X

One of the technology topics that NAC makes heavy use of is IEEE 802.1X. If you are not familiar with 802.1X, some older White Papers prepared by the iLabs team might be helpful in understanding this key technology to any NAC implementation. We've placed these White papers on 802.1X and EAP, including *What is 802.1X*, *What are your EAP Authentication Options?*, *802.1X Inner Authentication Methods*, and *802.1X Resources*, on the NAC home page:

<http://www.opus1.com/nac/>

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InteropLabs NAC Participating and Supporting Vendors

A10 Networks
 Aruba Networks
 Enterasys Networks
 Extreme Networks
 Cisco Systems
 Hewlett-Packard
 InfoExpress
 Juniper Networks
 LANDesk Software
 Lockdown Networks
 Microsoft
 Nortel Networks

Open1X Project
 Open Systems Consultants
 Symantec
 Vernier Networks

American Power Conversion (supporting)
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