

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 an architecture and set of specifications that enable 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.

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

Cisco's Network Admission Control

The starting point for all Cisco NAC information is

<http://www.cisco.com/go/nac/>

with NAC Framework being

<http://www.cisco.com/go/nac/framework/>

Two papers are of particular interest:

NAC Framework Configuration Guide

http://www.cisco.com/application/pdf/en/us/guest/netsol/ns617/c649/cdcont_0900aecd8040bbd8.pdf

NAC Framework Deployment Guide

http://www.cisco.com/application/pdf/en/us/guest/netsol/ns617/c649/cdcont_0900aecd80417226.pdf

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 Working Group

The Network Endpoint Assessment (NEA) Working Group in the Internet Engineering Task Force (IETF) is working on standards so that all the NAC architectures can interoperate. The first step in the NEA WG's efforts is to agree on requirements. The charter for the NEA WG and the draft requirements document are available from the NEA WG web page:

<http://www.ietf.org/html.charters/nea-charter.html>

Most of the NEA WG's activities take place on the nea@ietf.org email list. To join this list or access the archives, go to

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

InteropLabs Las Vegas 2007 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 Microsoft Network Access Protection?

What is the IETF's Network Endpoint Assessment?

Switch Functionality for 802.1X-based NAC

Using RADIUS proxies in NAC

What is 802.1X?

What is the TCG's Trusted Network Connect?

What is Cisco Network Admission Control?

Get the "NAC" of Troubleshooting

Exception Cases and NAC

As part of preparing the NAC demonstrations for Las Vegas 2007 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:

What can NAC do for you now?

<http://www.networkworld.com/reviews/2007/041907-nac-intro.html>

Network Access Control Cram Session

<http://dimension.networkworld.com/symantec/cramsession.html>

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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