Secure Authentication Key Metadata
Version 1.0

Title: Secure Authentication Key

Subject: Provide a more secure authentication method for machine authentication.

Abstract: Secure Authentication keys are a more secure means of authenticating NAAS accounts tied to a specific machine. If widely used, the security of machine-to-machine transactions on the Exchange Network will be enhanced. This document outlines their use, how they should be requested, and explains how they are more secure than current Exchange Network authentication..

Table of Contents:

Creator: Network Technology Group

Creator Contact Information: Connie Dwyer, dwyer.connie@epa.gov, (202) 566-1691

Contractor: Yunhao Zhang

Contractor Contact Information: yzhang2006@gmail.com

Contributors:

Participant	Affiliation
Connie Dwyer	EPA Office of Environmental Information
Joe Wilson	Office of Water
Chuck Freeman	EPA Office of Environmental Information
Nick Mangus	EPA Office of Air
Chris Clark	EPA Office of Environmental Information
Nathan Wilkes	EPA Office of Environmental Information
Scott Totten	Missouri Department of Natural Resources
Tom Aten	Wisconsin Department of Natural Resources
Dennis Burling	Nebraska Department of Environmental Quality
Dennis Murphy	Delaware Department of Natural Resources and Environmental Control
Randy Moody	North Carolina Department of Environment and Natural Resources
Glen Carr	Oregon Department of Environmental Quality
Yunhao Zhang	
Joe Carioti	CSC
Steve Abercrombie	Ross & Associates Environmental Consulting, Ltd.
Matt Markoff	Ross & Associates Environmental Consulting, Ltd.

Initiator: Network Technology Group

Version: 1.0

Version History: N/A

Revision Date: April 6, 2006

Commission Date: January 2006

Relationships to Other Products:
"Environmental Information Exchange Network Node Administrators Guide to Network Security", March 17, 2004 – Document could be upgraded to include information about SAKs

"Network Security Guidelines and Recommendations" April 16, 2003, http://exchangenetwork.net/node/dev_toolbox/security_guidelines_041603.pdf - Document could be upgraded to include information about SAKs

"Network Node Functional Specifications Document Version 1.1" September 17, 2003, http://www.exchangenetwork.net/node/dev_toolbox/network_exchange_protocol_v1.1.pdf

"Network Node Protocol Document Version 1.1" September 17, 2003, http://www.exchangenetwork.net/node/dev_toolbox/network_exchange_protocol_v1.1.pdf

A recommendation that SAKs be used for machine authentication by nodes and a reference to the Secure Authentication Key document could be added to the Node Protocol and Node Specification document at their next revision.

Review Process:
Final Draft Review March 27– April 6, 2006

Reviewers: Network Technology Group (NTG)

Comments: Major comments related to whether Secure Authentication Key should be strongly recommended for implementation at Nodes.

Comments Resolution Process: The NTG agreed that use of SAK should be strongly recommended.

Pros and Cons:
Pros: Nodes implementing SAKs will have more secure authentication.
Cons: Nodes will have to request SAK (and possibly new NAAS ID) and replace in code.

Follow-up Activities: The NTG has strongly recommended that Nodes with the ability to do so implement SAKs for machine authentication.

Actions Required to Complete and Communicate Document: Guidance encouraging nodes to implement SAK should accompany this document. An Exchange Network Alert should announce document release, suggesting that Node Operators implement SAKs and listing the Node Help Desk as a contact for questions.