

NMI Component Testing Guidelines

Pertaining to: NMI Release 1 (released May 7, 2002)

July 8, 2002

This packet contains NMI Component Testing Guidelines for individual components released as part of NMI Release 1.0. The information was prepared by the NMI Integration Testbed Manager working in cooperation with the NMI Testbed-Council to represent the interests of the NMI Management team and also relevant component developers. This information is intended to provide NMI Integration Testbed sites with sufficient guidance per component to enable evaluation of any given component at their site as used with actual projects and applications. It also specifies detailed reporting mechanisms designed to enable the capture, aggregation, and analysis of participating sites' evaluations to determine the overall level of evaluation activity within the Testbed and status checks on how evaluation is proceeding per component.

NMI Testbed site representatives may undertake evaluation of components themselves or may delegate to or collaborate with others at their sites having useful expertise and experience to evaluate specific components. Additional instructions are provided for noting the name and position of the additional evaluator(s) for cases where feedback is originating from someone other than the NMI Testbed site representative.

Though specific actions are listed for the evaluation of all individual components, those participating in evaluation should also consider and operate within the context of the general categories of evaluation for NMI components, as applicable. These general categories of evaluation are:

- Integration at and distribution to workstations and other endpoint resources
- Interaction with commonly deployed campus infrastructure
- Vertical discipline integration within communities of users
- Component scalability and consistency
- To the greatest extent possible, all evaluations should involve real users in realistic application scenarios and the integrated use of several middleware components

A new and updated version of these NMI Component Testing Guidelines will be made available through the NMI Testbed Manager to the NMI Integration Testbed sites prior to each NMI Release to enable the start of the formal integration testing cycle.

NMI Release 1 Components:

Software: **Globus Toolkit™ v2.0**

Software: **Condor-G**

Software: **Network Weather Service v2.1**

Software: **KX.509 and KCA** (as deployed with Globus)

Software: **KX.509 and KCA** (standalone)

Software: **Certificate Profile Maker**

Software: **Pubcookie v2.0**

Directory Object Classes: **eduOrg 1.0** [Status: EXP]

Directory Object Classes: **commObject 1.0** [Status: EXP]

Directory Object Classes: **eduPerson 1.5** [Status: RPR]

Conventions and Practices: **Practices in Directory Groups 1.0** [Status: RPR]

Conventions and Practices: **LDAP Recipe 2.0** [Status: RPR]

Conventions and Practices: **Metadirectory Practices for the Enterprise Directory in Higher Education v1.0** [Status: RPR]

White Papers: **Shibboleth Architecture v.5** [Status: RPR]

Policies: **Campus Certificate Policy for use at the Higher Education Bridge Certification Authority** [Status: RPR]

Policies: **Lightweight Campus Certificate Policy and Practice** [Status: RPR]

Policies: **Sample Campus Account Management Policy** [Status: RPR]

Services: **Certificate Profile Registry** [Status: RPR]

NMI Release 1 Component Testing: Globus Toolkit v2.0

Component:	Globus Toolkit 2.0, as deployed in tandem with other NMI-R1 components such as Condor-G, Network Weather Service and KX.509
Description:	The de facto standard for Grid computing, the Globus of technologies that simplifies collaboration across dynamic, multi-institutional virtual organizations. It includes tools for authentication, scheduling, file transfer and resource description.
Documentation/ download materials: (docs, URLs, binaries, etc.)	Available as part of NMI Release 1 at http://www.nsf-middleware.org/NMIR1/download.htm . See also http://www.globus.org and http://www.grids-center.org .
Prerequisites for site: (specific expertise, experience, config.)	Operating System: Either Red Hat Linux 7.2 or Solaris 8.0. More information is available at: http://www.nsf-middleware.org/documentation/GlobusToolkit/
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Verify installation procedures for Globus Toolkit, both as part of the general NMI-R1 packaging installation and separately.2. Identify scientific projects that could benefit from the Globus Toolkit's features. Ideal demonstrations would involve participants at other testbed sites and other NMI-R1 components.3. Identify specific campus enterprise components (e.g., directory services, user accounts, supercomputer schedulers, etc.) and demonstrate how these can be integrated with specific Globus Toolkit components (e.g., MDS, GSI, GRAM) for resource management, security, information services and data management.4. Demonstrate successful sign-on and execution across multiple sites.
Support mechanism:	Use the NMI developers' discussion list (nmi-developer@nsf-middleware.org). Subscribe by sending email to majordomo@nsf-middleware.org with a message body of "subscribe nmi-developer" (without quotes).
Bug and Enhancement Suggestion reporting mechanisms:	Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-GLOBUS If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.

Deliverable date:	September 1, 2002
Deliverable format:	<p>Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-GLOBUS</p> <ol style="list-style-type: none">1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.2. Listing and brief description of any previously undocumented parameters required within Globus Toolkit configuration.3. Log (date/time/user/use/result) of all sign-on and execution attempts, up to and concluding with documentation of successful usage at end of test period.4. Listing and brief description of any "best practice" issues associated with this mode of working, as input into NMI dissemination activities. <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

NMI Release 1 Component Testing: Condor-G

Component:	Condor-G, as deployed in tandem with other NMI-R1 components such as Globus Toolkit ¹ , Network Weather Service and KX.509.
Description:	Whereas high performance computing (HPC) is often measured in operations per second, Condor-G emphasizes high throughput computing (HTC) to deliver processing capacity over longer periods of time -- days, weeks, months and beyond. NMI-R1 includes an enhanced version of the core Condor software that is optimized to work with the Globus Toolkit for managing Grid jobs.
Documentation/ download materials: (docs, URLs, binaries, etc.)	Available as part of NMI Release 1 at http://www.nsf-middleware.org/NMIR1/download.htm . See also http://www.cs.wisc.edu/condor/ and http://www.grid-center.org .
Prerequisites for site: (specific expertise, experience, config.)	<p>Operating System: Either Red Hat Linux 7.2 or Solaris 8.0.</p> <p>Grid credentials and authorization, either on a locally constructed Grid or an already-established Grid such as the PACI resources, NASA IPG, or DOE Science Grid.</p> <p>Willingness to occasionally replace software with patches from the NMI developers.</p> <p>More information at: http://www.nsf-middleware.org/documentation/CondorG/</p>
Actions or focus areas for testing:	<p>Verify installation procedures for Condor-G</p> <p>The use of Condor-G with other NMI-R1 components such as the Globus Toolkit and Kx509. Testing of Condor-G with resources not using the NMI stack (such as NASA IPG or EU Datagrid) is appreciated but not required</p> <p>Fault tolerance in Condor-G. Routine network and remote resource failures should be considered normal and automatically recoverable.</p> <p>The use of higher level tools such as the Condor DAGMan for managing Grid jobs.</p>
Support mechanism:	Use the NMI developers' discussion list (nmi-developer@nsf-middleware.org). Subscribe by sending email to majordomo@nsf-middleware.org with a message body of "subscribe nmi-developer" (without quotes).
Bug and Enhancement Suggestion reporting mechanisms:	<p>Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-CONDOR-G</p> <p>If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person</p>

	who did the evaluation.
Deliverable date:	September 1, 2002
Deliverable format:	<p>Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-CONDOR-G</p> <ol style="list-style-type: none">1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.2. Listing and brief description of any previously undocumented parameters required for successful use of Condor-G.3. Success (or failure) stories of using Condor-G to use Grid resources for local user's applications. <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

NMI Release 1 Component Testing: Network Weather Service v2.1

Component:	Network Weather Service (NWS) version 2.1, as deployed in tandem with other NMI-R1 components such as Globus, Condor-G and KX.509.
Description:	This distributed system periodically monitors and dynamically forecasts the performance that various network and computational resources can deliver over a given time interval, using a distributed set of performance sensors for instantaneous readings.
Documentation/ download materials: (docs, URLs, binaries, etc.)	Available as part of NMI Release 1. See: http://www.nsf-middleware.org/NMIR1/download.htm . Documentation on how to use NWS can be found at http://www.nsfmiddleware.org/documentation/NWS/users_guide.html and http://nws.cs.ucsb.edu .
Prerequisites for site: (specific expertise, experience, config.)	Operating System: Either Red Hat Linux 7.2 or Solaris 8.0. To take advantage of the services that NWS provides, knowledge of the local network is useful but not necessary. Firewalls and Network Access Translation (NAT) services can adversely affect the reachability of parts of NWS.
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Verify installation procedures for NWS, both as part of the general NMI-R1 packaging installation and separately;2. Feedback on configuration and management of NWS;3. Demonstrate interoperability of NWS with other NMI-R1 components. Whenever feasible, this should be achieved with specific applications such as those developed for large-scale Grid deployments such as iVDGL, PPDG, GriPhyN, NEES, etc.;4. Define how the NWS components in the following areas interact with the campus enterprise (e.g., directory services):<ol style="list-style-type: none">1. Resource Management2. Security3. Information Services4. Data Management5. Devote particular attention to security aspects, including use of NWS in firewall and NAT conditions.
Support mechanism:	Use the NMI developers' discussion list (nmi-developer@nsf-middleware.org). Subscribe by sending email to majordomo@nsf-middleware.org with a message body of "subscribe nmi-developer" (without quotes).
Bug and Enhancement Suggestion reporting mechanisms:	Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-NWS If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person

	who did the evaluation.
Deliverable date:	September 1, 2002
Deliverable format:	<p>Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-NWS</p> <ol style="list-style-type: none">1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.2. Listing and brief description of any previously undocumented parameters required within NWS configuration.3. Listing and brief description of any "best practice" issues associated with this mode of working, as input into NMI dissemination activities. <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

NMI Release 1 Component Testing: KX.509(G)

Component:	KX.509 as deployed with Grid Security Infrastructure (GSI) for use with the Globus Toolkit as a bridge between Kerberos and PKI infrastructure.
Description:	KX.509 is included in NMI-R1 to enable the PKI-based security infrastructure of the Globus Toolkit to integrate with Kerberos-based authentication implemented at university campuses.
Documentation/ download materials: (docs, URLs, binaries, etc.)	Available as part of NMI Release 1. See: http://www.nsf-middleware.org/NMIR1/download.htm
Prerequisites for site: (specific expertise, experience, config.)	<p>Globus Toolkit 2.0, as part of NMI-R1.</p> <p>Kerberos infrastructure in place on campus, without PKI Certificate Authority (CA).</p> <p>Operating System: Either Red Hat Linux 7.2 or Solaris 8.0.</p> <p>More information at: http://www.nsf-middleware.org/documentation/KX509KCA/index.html</p>
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Due to the growing need for Grids to work with Kerberos-based sites, NMI-R1 includes KX.509, a utility for converting Kerberos certificates to the PEM format. A significant goal of the NMI testbed is to work through issues of campuses authenticating with Kerberos credentials that can then be used in GSI space. Testbed sites should:2. Verify installation procedures for KX.509/KCA as packaged with the GRIDS deliverables in NMI-R1.3. Demonstrate capability of researchers within projects such as iVDGL, PPDG, and GriPhyN to 1.) authenticate locally using Kerberos, 2.) map through KX.509 to a GSI credential, and 3.) undertake all normal Grid project activities (e.g., resource management, security, information services and data management) by presenting the credential to a DOE Science Grid CA.4. Explore and negotiate security policy with the campus Kerberos authority and the CA's of science projects involving researchers at your campus to determine if campus Kerberos credentials can be mapped into GSI credentials that will be accepted by CA's of existing and upcoming Grid projects.5. Demonstrate above capability with credential as presented to relevant EU Datagrid CAs.

Support mechanism:	Use the NMI developers' discussion list (nmi-developer@nsf-middleware.org). Subscribe by sending email to majordomo@nsf-middleware.org with a message body of "subscribe nmi-developer" (without quotes).
Bug and Enhancement Suggestion reporting mechanisms:	<p>Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-KX509(G)</p> <p>If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.</p>
Deliverable date:	September 1, 2002
Deliverable format:	<p>Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-KX509(G)</p> <ol style="list-style-type: none">1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.2. Listing and brief description of any previously undocumented parameters required within KX.509 configuration.3. Log (date/time/user/use/result) of all sign-on and execution attempts, up to and concluding with documentation of successful usage at end of test period.4. Listing and brief description of any "best practice" issues associated with this mode of working, as input into NMI dissemination activities. <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

NMI Release 1 Component Testing: KX.509(SA)

Component:	KX.509 and KCA as stand-alone applications, deployed outside the context of the Globus Grid Security Infrastructure (GSI)
Description:	This software suite provides a bridge between the different security infrastructures of PKI and Kerberos within a campus authentication infrastructure. Within the NMI release, this enables the PKI-based security infrastructure used by the GRIDS Center tools (Globus) to integrate with Kerberos-based campus authentication implementations.
Documentation/ download materials: (docs, URLs, binaries, etc.)	(Available as part of NMI Release 1. See: http://www.nsf-middleware.org/NMIR1/download.htm) Status: Final (For explanation of status terms, see http://www.nmi-edit.org/development/index.html) KX.509/KCA home: http://www.citi.umich.edu/projects/kerb_pki/
Prerequisites for site: (specific expertise, experience, config.)	<ol style="list-style-type: none">1. KCA server runs on Solaris/AIX/Linux machines.2. KX509 client runs under Windows (9x/2000/ME/XP) /Solaris/Linux.3. Users already get Kerberos IV or V Tickets at login.
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Verify installation procedures for KX.509/KCA.2. Demonstrate capability of users to authenticate locally using Kerberos, run KX.509 to make use of their Kerberos tickets to authenticate to KCA and thereby obtain to an short-term X.509 certificate which will work with services (ex. Web-server based) that already use X.509 certificates for authentication.
Support mechanism:	Send support requests to <nmi-support@nsf-middleware.org> with subject line: TESTBED-SUPPORT-KX509(SA) Response time is 24 hours or less.
Bug and Enhancement Suggestion reporting mechanisms:	Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-KX509(SA) If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.
Deliverable date:	September 1, 2002.

Deliverable format:

Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-KX509(SA)

1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.
2. Listing and brief description of any previously undocumented parameters required within KX.509 configuration.
3. Log (date/time/user/use/result) of all sign-on and execution attempts, up to and concluding with documentation of successful usage at end of test period.
4. Listing and brief description of any "best practice" issues associated with this mode of working, as input into NMI dissemination activities.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Component Testing: Certificate Profile Maker

Component:	Certificate Profile Maker (CPM)
Description:	This package creates an XML certificate profile and produces a sample x.509 certificate in XML, according to the profile.
Documentation/ download materials: (docs, URLs, binaries, etc.)	Available as part of NMI Release 1. See: http://www.nsf-middleware.org/NMIR1/download.htm Status: Final (For explanation of status terms, see http://www.nmi-edit.org/development/index.html) Documentation included in bundle, also online at http://www.nsf-middleware.org/documentation/CPM/index.html
Prerequisites for site: (specific expertise, experience, config.)	Technical: A UNIX system with Apache to host the software (or) Use Certificate Profile Maker from the Internet2 PKI development machine http://pkidev.internet2.edu/cpm/ Operational: General knowledge of PKI A more in-depth understanding of X.509 certificates, certificate profiles, and RFC-2459.
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Verify installation procedures for OS platform(s) being tested.2. Demonstrate capability of users to generate a valid certificate profile3. Report on problems, needed additional attributes, etc.
Support mechanism:	Send support requests to <nmi-support@nsf-middleware.org> with subject line starting with: TESTBED-CPM-SUPPORT:
Bug and Enhancement Suggestion reporting mechanisms:	Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-CPM If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.
Deliverable date:	Status update due September 1, 2002. One submission per school. Later updates upon agreement with Testbed Manager.

Deliverable format:

Submit responses to the evaluation questions in email to testbed-reports@sura.org with the subject line of: FINAL-R1-CPM. If comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Component Testing: PubCookie v2.0

Component:	<p>Pubcookie v2.0</p> <p><i>Note:</i> Pubcookie 3.0 will be available soon; testbed sites are <u>strongly</u> encouraged to wait for its release or pre-release. Estimated availability is currently July 1, 2002 or earlier.</p>
Description:	<p>This software allows users with standard web browsers to access protected web resources without having to authenticate multiple times.</p>
Documentation/ download materials: (docs, URLs, binaries, etc.)	<p>Available as part of NMI Release 1. See: http://www.nsf-middleware.org/NMIR1/download.htm</p> <p>Status: Final (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p> <p>Pubcookie home: http://www.washington.edu/computing/pubcookie/ext/</p>
Prerequisites for site: (specific expertise, experience, config.)	<p>Pre-existing authentication service (e.g. Kerberos, LDAP, PKI, shadow passwd file) and some expertise with its interfaces.</p> <p>Experience configuring SSL on Apache & Microsoft IIS web servers.</p>
Actions or focus areas for testing:	<ol style="list-style-type: none">1. Verify that Pubcookie overview info is sufficient prior to installation2. Demonstrate capability of user to deploy test Pubcookie login server3. Demonstrate capability of user to deploy test Pubcookie application server which talks to test login server4. Demonstrate capability of user to use login server's verifier interface with pre-existing authentication infrastructure
Support mechanism:	<p>Send support requests to <nmi-support@nsf-middleware.org> with subject line starting with: TESTBED-PUBCOOKIE-SUPPORT:</p>
Bug and Enhancement Suggestion reporting mechanisms:	<p>Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-PUBCOOKIE</p> <p>If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.</p>

Deliverable date:	September 1, 2002. One submission per school. Later updates upon agreement with Testbed Manager.
Deliverable format:	<p>Submit the following in an email message or attached MS-Word document to testbed-reports@sura.org with the subject line of: FINAL-R1-PUBCOOKIE</p> <ol style="list-style-type: none">1. Listing of date/time/brief summary line of bugs and enhancement suggestions submitted throughout the test cycle.2. Listing and brief description of any previously undocumented parameters required within PubCookie configuration.3. Log (date/time/user/use/result) of all sign-on and execution attempts, up to and concluding with documentation of successful usage at end of test period.4. Listing and brief description of any "best practice" issues associated with this mode of working, as input into NMI dissemination activities. <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

NMI Release 1 Component Testing: eduOrg 1.0

Component:	eduOrg 1.0 Object Class for LDAP Directories Status: Experimental (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)
Description:	This associates attributes to institutions, such as management and security policies, and can be used to discern the organizational structure of a college, for example.
Documentation/ download materials:	Description and LDIF files available at http://www.educause.edu/eduperson and from NMI download site: http://www.nsf-middleware.org/NMIR1/download.htm
Prerequisites for site:	Enterprise LDAP Directory and accompanying directory expertise
Actions or focus areas for testing:	<p>There are three levels of testing that would be relevant for this object class. You are encouraged to do as many of these as is feasible. These levels are additive, i.e. performing level 2 would presume that you have also performed level 1, and performing level 3 would presume that you have performed levels 1 and 2.</p> <p>1. Read through the object class specification document, and provide feedback in relation to:</p> <ol style="list-style-type: none">Document the fit of the object class with your environment. Would you use it? Explain why or why not.Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.Is this object class ready for wide distribution and deployment? Explain why or why not.On the documentation, note suggested changes/additions/omissions to attribute descriptions.Is the document written at an appropriate level for the target audience? If not, explain why.Indicate your recommended publication and dissemination venues for this object class.On the documentation, note suggested changes/additions/omissions to attribute descriptions. <p>2. Install and test in a pilot or production environment with applications.</p> <p>Do level 1 and:</p> <ol style="list-style-type: none">Comment on the ease or problems encountered in installationComment on the ease or problems encountered in populating it with dataNote suggestions for improvement or changes

- k) Perform test queries against this object class, and note any issues or problems that arise
- l) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- m) Include a description of the application and the purpose for which it was used.
- n) Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.
- o) Is this object class ready for wide distribution and deployment? Explain why or why not.

3. Test inter-institutional applications using this object class

Do levels 1-2 and:

- p) Note suggestions for improvement or changes
- q) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- r) Document additional attributes that would be useful (within the context of inter-institutional applications). Include explanation of use and requirements for the proposed attribute.
- s) Is this object class ready for wide distribution and deployment useful (within the context of inter-institutional applications)? Explain why or why not.
- t) On the documentation, note suggested changes/additions/omissions to attribute descriptions useful (within the context of inter-institutional applications).
- u) Include a description of the application and the purpose for which it was used.

Support mechanism:

Send support questions to nmi-support@nsf-middleware.org.

Bug and Enhancement
Suggestion reporting
mechanisms:

Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-EDUORG

If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.

Deliverable date:

September 1, 2002

Deliverable format:

Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-dir-comments@internet2.edu and with the subject line of: FINAL-R1-EDUORG. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Component Testing: commObject 1.0

Component:	<p>commObject 1.0 Communications Object Class for LDAP Directories</p> <p>Status: Experimental (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This associates attributes to a videoconferencing system, an IP telephone, or a user. Applications can use this information to contact a certain user's IP telephone or videoconferencing station.</p>
Documentation/ download materials:	<p>Description available at http://middleware.internet2.edu/video/exp-nmi-edit-vidmid_vc-commObject_Definition-1.0.html</p> <p>Accompanying white paper available at http://middleware.internet2.edu/video/draft-nmi-edit-vidmid_vc-commObject_White_Paper-1.0.html</p>
Prerequisites for site:	<p>Enterprise LDAP Directory and accompanying directory expertise. Since these object classes represent h.323 video/voice conferencing endpoints, it is useful to test the classes using real h.323 account and user data.</p>
Actions or focus areas for testing:	<p>There are three levels of testing that would be relevant for this object class. You are encouraged to do as many of these as is feasible. These levels are additive, i.e. performing level 2 would presume that you have also performed level 1, and performing level 3 would presume that you have performed levels 1 and 2.</p> <p>1. Read through the object class specification document, and provide feedback in relation to:</p> <ul style="list-style-type: none">v) Document the fit of the object class with your environment. Would you use it? Explain why or why not.w) Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.x) Is this object class ready for wide distribution and deployment? Explain why or why not.y) On the documentation, note suggested changes/additions/omissions to attribute descriptions.z) Is the document written at an appropriate level for the target audience? If not, explain why.aa) Indicate your recommended publication and dissemination venues for this object class.bb) On the documentation, note suggested changes/additions/omissions to attribute descriptions. <p>2. Install and test in a pilot or production environment with</p>

applications.

Do level 1 and:

- cc) Comment on the ease or problems encountered in installation
- dd) Comment on the ease or problems encountered in populating it with data
- ee) Note suggestions for improvement or changes
- ff) Perform test queries against this object class, and note any issues or problems that arise
- gg) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- hh) Include a description of the application and the purpose for which it was used.
- ii) Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.
- jj) Is this object class ready for wide distribution and deployment? Explain why or why not.

3. Test inter-institutional applications using this object class

Do levels 1-2 and:

- kk) Note suggestions for improvement or changes
- ll) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- mm) Document additional attributes that would be useful (within the context of inter-institutional applications). Include explanation of use and requirements for the proposed attribute.
- nn) Is this object class ready for wide distribution and deployment useful (within the context of inter-institutional applications)? Explain why or why not.
- oo) On the documentation, note suggested changes/additions/omissions to attribute descriptions useful (within the context of inter-institutional applications).
- pp) Include a description of the application and the purpose for which it was used.

Support mechanism:

Send support questions to nmi-support@nsf-middleware.org.

Bug and Enhancement
Suggestion reporting
mechanisms:

Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with a cc to Tyler_Johnson@unc.edu and with the subject line: TESTBED-FEEDBACK-R1-COMMOBJ

If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.

Deliverable date:

September 1, 2002

Deliverable format:

Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mw-vidmid@internet2.edu and with the subject line of: FINAL-R1-COMMOBJ. In addition, If comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Component Testing: eduPerson 1.5

Component:	<p>eduPerson 1.5 Object Class for LDAP Directories</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>eduPerson contains the inetorgPerson attributes localized to higher ed and research and 8-10 additional attributes for individuals to foster inter-institutional collaborations.</p> <p>This associates information or attributes to individuals at an institution. Applications can use this information to find out someone's email address or phone number, for example.</p>
Documentation/ download materials:	<p>Description and LDIF files available at http://www.educause.edu/eduperson and from NMI download site: http://www.nsf-middleware.org/NMIR1/download.htm</p>
Prerequisites for site:	<p>Enterprise LDAP Directory and accompanying directory expertise</p>
Actions or focus areas for testing:	<p>There are three levels of testing that would be relevant for this object class. You are encouraged to do as many of these as is feasible. These levels are additive, i.e. performing level 2 would presume that you have also performed level 1, and performing level 3 would presume that you have performed levels 1 and 2.</p> <p>1. Read through the object class specification document, and provide feedback in relation to:</p> <ul style="list-style-type: none">qq) Document the fit of the object class with your environment. Would you use it? Explain why or why not.rr) Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.ss) Is this object class ready for wide distribution and deployment? Explain why or why not.tt) On the documentation, note suggested changes/additions/omissions to attribute descriptions.uu) Is the document written at an appropriate level for the target audience? If not, explain why.vv) Indicate your recommended publication and dissemination venues for this object class.ww) On the documentation, note suggested changes/additions/omissions to attribute descriptions. <p>2. Install and test in a pilot or production environment with applications.</p>

Do level 1 and:

- xx) Comment on the ease or problems encountered in installation
- yy) Comment on the ease or problems encountered in populating it with data
- zz) Note suggestions for improvement or changes
- aaa) Perform test queries against this object class, and note any issues or problems that arise
- bbb) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- ccc) Include a description of the application and the purpose for which it was used.
- ddd) Document additional attributes that would be useful. Include explanation of use and requirements for the proposed attribute.
- eee) Is this object class ready for wide distribution and deployment? Explain why or why not.

3. Test inter-institutional applications using this object class

Do levels 1-2 and:

- fff) Note suggestions for improvement or changes
- ggg) Please include a detailed configuration of your test environment, including HW configuration, LDAP server/version used, any additional information that would be helpful
- hhh) Document additional attributes that would be useful (within the context of inter-institutional applications). Include explanation of use and requirements for the proposed attribute.
- iii) Is this object class ready for wide distribution and deployment useful (within the context of inter-institutional applications)? Explain why or why not.
- jjj) On the documentation, note suggested changes/additions/omissions to attribute descriptions useful (within the context of inter-institutional applications).
- kkk) Include a description of the application and the purpose for which it was used.

Support mechanism:

Send support requests to <nmi-support@nsf-middleware.org> with subject line starting with: TESTBED-EDUPERSON-SUPPORT:

Bug and Enhancement Suggestion reporting mechanisms:

Send bug reports and enhancement suggestions to nmi-support@nsf-middleware.org with the subject line: TESTBED-FEEDBACK-R1-EDUPERSON1.5

If the person who is sending the feedback is not the same as the sender of the email message, indicate name/position of the person who did the evaluation.

Deliverable date:

September 1, 2002. Later updates upon agreement with Testbed Manager.

Deliverable format:

Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-dir-comments@internet2.edu and with the subject line of: FINAL-R1-EDUPERSON1.5. In addition, If comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: Practices in Directory Groups v1.0

Document:	<p>Practices in Directory Groups 1.0</p> <p>Available from: http://middleware.internet2.edu/dir/groups/rpr-nmi-edit-mace_dir-groups_best_practices-1.0.html</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This paper includes concepts, good practices, open issues, and principals resulting from early experiences with authorization and group messaging using directory services at higher education institutions.</p>
Target Audience	<p>IT Architects or equivalents; enterprise directory managers and implementers.</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document written at an appropriate level for the target audience? If not, explain why.2. Is this document useful to you? Explain why or why not.3. Do you have any suggested changes and/or additions?4. Does the content of this document vary widely from your or your institution's experience with enterprise directory groups? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.7. Are you using groups in your enterprise directory? If yes, for what purposes? Highlight uses that are not mentioned in the document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-dir-comments@internet2.edu and with the subject line of: FINAL-R1-PRACTICES-IN-GROUPS. In addition, If comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p>

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: LDAP Recipe 2.0

Document:	<p>LDAP Recipe 2.0 Available from http://middleware.internet2.edu/dir/rpr-nmi-edit-mace_dir-ldap_recipe-2.0.html</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This paper includes recommended ways to populate directories among the higher education community. Using these common practices enable federated administration and distribution of directory data, allowing applications to use information from a directory infrastructure. Practical techniques are described and associated with other developments of the NSF Middleware Initiative, such as metadirectories and group management.</p>
Target Audience	<p>IT Architects or equivalents; enterprise directory managers and implementers.</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document written at an appropriate level for the target audience? If not, explain why.2. Is this document useful to you? Explain why or why not.3. Do you have any suggested changes and/or additions?4. Does the content of this document vary widely from your or your institution's experience with enterprise directories? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-dir-comments@internet2.edu and with the subject line of: FINAL-R1-LDAP-RECIPE. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who</p>

| did the evaluation.

NMI Release 1 Documentation Testing: Metadirectory Practices for Enterprise Directory in Higher Ed v1.0

Document:	<p>Metadirectory Practices for the Enterprise Directory in Higher Education 1.0</p> <p>Available from: http://middleware.internet2.edu/dir/metadirectories/rpr-nmi-edit-mace_dir-metadirectories_practices-1.0.html</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This paper offers alternative approaches to the metadirectory functions of information flow, transformation and redistribution. Topics range from the identity management function to the many forms of information used by connected systems. The focus throughout is on clarifying the essential functions being performed and covers techniques and tools as well.</p>
Target Audience:	<p>IT Architects or equivalents; enterprise directory managers and implementers.</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document written at an appropriate level for the target audience? If not, explain why.2. Is this document useful to you? Explain why or why not.3. Note suggested changes and/or additions.4. Does the content of this document vary widely from your or your institution's metadirectory architecture? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.7. What functions does your metadirectory perform? Highlight uses that are not mentioned in the document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-dir-comments@internet2.edu and with the subject line of: FINAL-R1-METADIR-PRACTICES. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p>

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: Shibboleth Architecture v.5

Document:	<p>Shibboleth Architecture v.5</p> <p>Available from http://middleware.internet2.edu/shibboleth/docs/draft-internet2-shibboleth-arch-v05.pdf</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This paper presents an architecture for the secure exchange of authorization information that can be used to decide who can access a protected web resource. Called the Shibboleth project, Internet2/MACE (Middleware Architecture Committee for Education) and IBM joined together to support inter-institutional sharing of access-controlled resources.</p>
Target Audience	<p>CIOs and technical management (sections 1 through 4 only), IT Architects or equivalents, and implementers</p>
Focus areas for review:	<p>For each audience above (management, architects, and implementers), please address the following:</p> <ol style="list-style-type: none">1. Is this document written at an appropriate level for the target audience? If not, explain why.2. Is this document useful to you? Explain why or why not.3. Do you have any suggested changes and/or additions?4. Is this document ready for wide publication? Explain why or why not.5. Indicate your recommended publication and dissemination venues for this document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with a cc to mace-shib-comments@internet2.edu and with the subject line of: FINAL-R1-SHIBBOLETH. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the</p>

sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: Campus Certificate Policy for HEBCA

Document:	<p>Campus Certificate Policy for the Higher Ed Bridge Certificate Authority (HEBCA)</p> <p>Available from: http://middleware.internet2.edu/certpolicies/HEPKI_CP_011.pdf</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>This Certificate Policy (CP) statement defines the terms and conditions under which a Certificate Authority (CA), issuing Public Key Certificates (PKC) that reference the policy object identifier (OID) for the HEBCA CP, MUST operate. Operation includes management of the PKCs it issues and management of its own infrastructure. The term "issues" in this context refers to the process of digitally signing with the private key associated with its authority certificate a structured digital object conforming to the ISO X.509, version 3 or compatible PKC format. One or more companion Certification Practice Statement(s) (CPS) MUST be defined for each CA operating under this CP. Such a statement MUST articulate how the CA implements the provisions of this policy.</p>
Target Audience	<p>IT Architects or equivalents, campus security managers, campus legal, campus PKI implementers</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document a useful example of a certificate policy that would guide discussion on your campus?2. Is this document problematic, conflicting with efforts or policies already underway or in place on your campus?3. Do you have any suggested changes and/or additions?4. Does the content of this policy vary widely from your or your institution's experience with certificate policies? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with the subject line of: FINAL-R1-HEBCA-CERT-POLICY. In addition, if comments were made on the document itself, include that as an attachment with suggested</p>

changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.

If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.

If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: Lightweight Campus Certificate Policy & Practice

Document:	<p>Lightweight Campus Certificate Policy and Practice Statement</p> <p>Available from: http://middleware.internet2.edu/hepki-tag/pki-lite/pki-lite-policy-practices-current.htm</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>PKI-Lite focuses on employing PKI technology for standard assurance applications that already have established and implemented requirements for initial user authentication and overall system security.</p>
Target Audience	<p>IT Architects or equivalents, campus security managers, campus legal, campus PKI implementers</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document a useful example of a certificate policy that would guide discussion on your campus?2. Is this document problematic, conflicting with efforts or policies already underway or in place on your campus?3. Do you have any suggested changes and/or additions?4. Does the content of this policy vary widely from your or your institution's experience with certificate policies? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with the subject line of: FINAL-R1-PKI-LITE. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the</p>

sender of the email message, indicate name/position of person who did the evaluation.

NMI Release 1 Documentation Testing: Sample Campus Account Management Policy

Document:	<p>Sample Campus Account Management Policy</p> <p>Available as part of the NMI R.1 release: http://middleware.internet2.edu/shibboleth/samplepolicy/</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Description:	<p>Sample for discussion with stakeholders on your respective campus and potential localization to meet the unique needs of your environment, if found to be meaningful in that context.</p>
Target Audience:	<p>IT Architects or equivalent, campus IT security managers, campus legal counsel</p>
Focus areas for review:	<ol style="list-style-type: none">1. Is this document a useful example of an account management policy that would guide discussion on your campus?2. Is this document problematic, conflicting with policies or such efforts underway or in place on your campus?3. Do you have any suggested changes and/or additions?4. Does the content of this policy vary widely from your or your institution's experience with account management policies? If yes, please include a write-up on your experience.5. Is this document ready for wide publication? Explain why or why not.6. Indicate your recommended publication and dissemination venues for this document.
Deliverable date:	<p>August 1, 2002. One submission per school.</p>
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with the subject line of: FINAL-R1-SAMPLE-ACCOUNT-POLICY. In addition, if comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>

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NMI Release 1 Component Testing: Certificate Profile Registry

Service:	<p>Certificate Profile Registry</p> <p>Holds profiles for standard certificate formats and an institutional root certificate service for the community, and provides a functional way for certificate path construction to be done within the community.</p> <p>Available from: http://middleware.internet2.edu/certprofiles/</p> <p>Status: Released for Public Review (For explanation of status terms, see http://www.nmi-edit.org/development/index.html)</p>
Target Audience	Campus security managers & campus PKI implementers
Focus areas for review:	<ol style="list-style-type: none">1. Comment on the sufficiency of the certificate profile formats available in registry2. Comment on the ease of use of submission of profiles and retrieval of profiles from other schools.3. Should the registry also include guidance or suggestions for implementers?
Deliverable date:	August 1, 2002. One submission per school.
Deliverable format:	<p>Submit responses to the evaluation questions in email to testbed-reports@sura.org with the subject line of: FINAL-R1-CERT-PROFILE-REG. In addition, If comments were made on the document itself, include that as an attachment with suggested changes highlighted in some fashion (color, italics, change bars, etc.) for ease of reading.</p> <p>If the site was only able to complete partial testing of the component as requested above, please provide additional detail as to what was not tested and why.</p> <p>If the person submitting the evaluation report is not the same as the sender of the email message, indicate name/position of person who did the evaluation.</p>