OGCE User Guide for OGCE Release 1

Publisher's Note

Release 2 begins the migration to open standards portlets. The following has been published by the Open Grids Computing Environment:

OGCE Release 2

The OGCE Release 2 contains Grid portlets and services that run in JSR 168-compliant containers. We are initially supporting uPortal and GridSphere container providers.

OGCE development includes support for Velocity-based portlets, so you can migrate Jetspeed 1-based portlets forward into JSR 168 containers.

OGCE 2: Standard-Compliant Portlets

The OGCE is developing standard compliant portlet components that can be reused by multiple container providers. The JSR 168 Portlet Specification defines interoperability standards for portal containers. JSR 168 compliant portlets may be deployed in multiple vendor containers.
The OGCE is developing the following tools for standard portlet containers:

OGCE 2 Release Features	
Core Grid Portlets	A core suite of Grid portlets for proxy management, remote command execution, remote file management, and GPIR based information services.
Grid Programming Interfaces	High level grid programming interfaces using the Java CoG kit that shield portal developers from changes in underlying grid toolkit version.
JSR 168 Velocity Portlets	Support for Velocity and JSP-based portlets. OGCE Velocity portlet tools allow you to port Jetpseed-based portlets into JSR 168 containers.
Choose Your Portal	Integrated build and deploy tools compatible with open source containers such as uPortal and GridSphere. Apache Maven is our build tool of choice.
Portal-Independent Services	Inter-portlet communication tools that allow portlets to share data. OGCE portlets and portlet tools can run in any JSR 168 compliant portal, without relying on container-specific services.

Release Status

The OGCE 2 release is currently available as Release Candidate 1. Future release candidates will include more extensive documentation and platform testing, but we do not anticipate major changes in the code base. We anticipate a final release by mid December, 2004.

NSF NMI Portals Project: The Open Grid Computing Environments (OGCE) Collaboratory

NMI-OGCE Announces Release 1

The NMI-OGCE development team is pleased to announce the release of its first Grid portal software system. Features include browser-based user interfaces to common Grid tools, including a Grid Proxy Manager, GridFTP client, and GRAM-based job submission. The portal kit also includes support for LDAP and GPIR information services, a chat system, document managers, newsgroups, calendar tools, and sharable citation/reference managers. OGCE portal software may be easily customized and extended to include third-pary contributions. Software is available for download from **www.ogce.org**.

About NMI-OGCE

As the use of Grid technologies expands, the need for user-friendly access to Grid services becomes critical. The OGCE portal system provides access to Grid services through sharable and reusable portal components that may be used to build both scientific and information-oriented applications. Sharable components allow portal developers to quickly create a grid portal from standard modules that support baseline Grid technologies, freeing portal developers to concentrate on the specialized needs of a particular scientific community or collaboratory.

With funding from the National Science Foundation Middleware Initiative, the OGCE project was established in Fall 2003 to foster collaborations and sharable components with portal developers worldwide. The OGCE portals project web page can be found at **www.ogce.org.**

Participants

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Portal Users Guide

This guide is intended to help users get started using the portal tools. The capabilities described here apply to all users, including the portal administrator. For additional capabilities of the admin user, please see the accompanying document, Admin.html.

The NMI portal is built on top of Jetspeed (see http://jakarta.apache.org/jetspeed/site/index.html), and more information may be found there.

The following instructions apply to the default build. Your administrator may have made additional customizations, so there may be missing and/or additional features in your portal.

Creating an Account

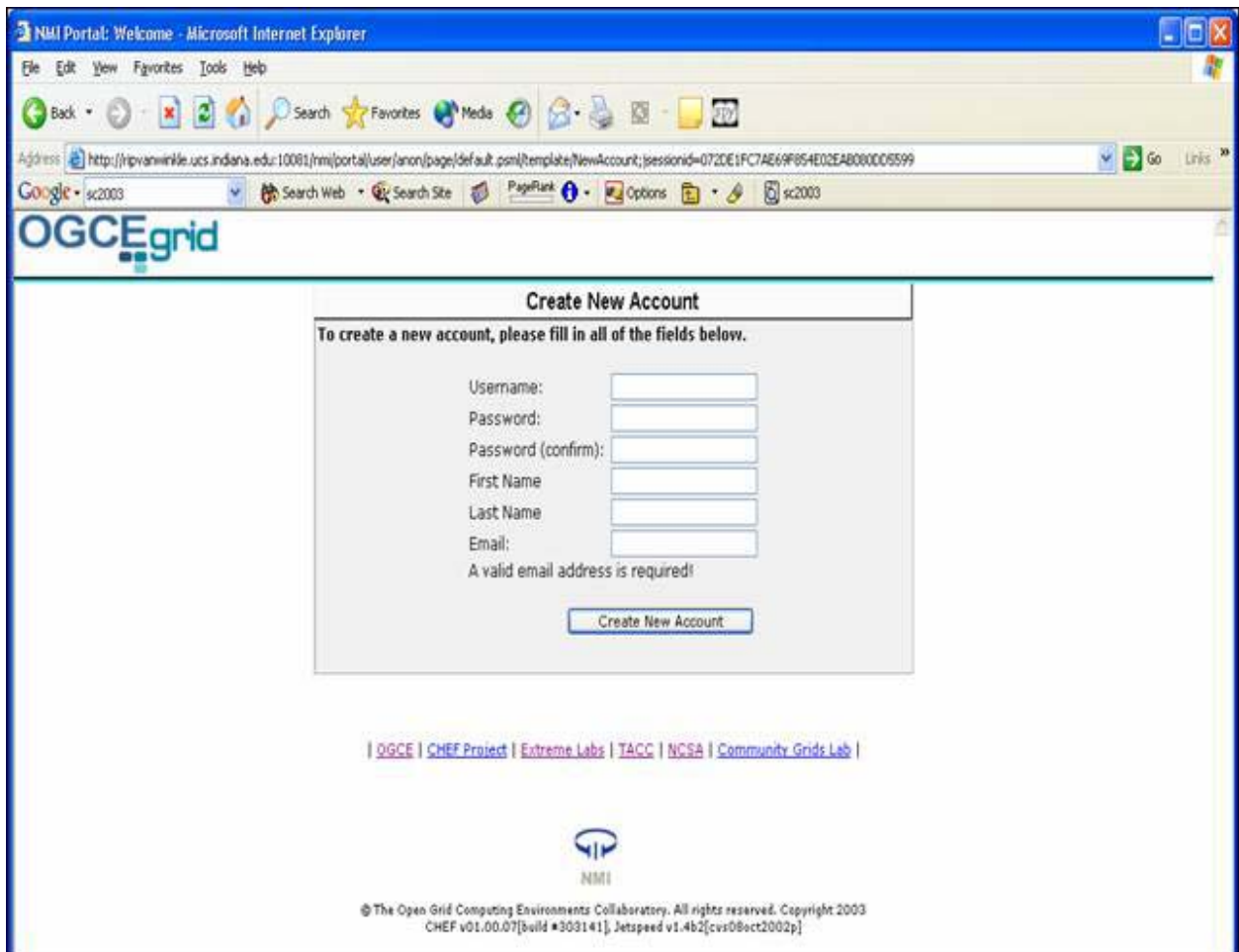After pointing your browser to the portal URL, you should see a page similar to the following:

Figure 1 Portal entry page.

Your administrator may have customized the colors and content. Click the "Create New Account" button in the upper center. You will be prompted to fill out the form shown in Figure 2.

Figure 2 Fill out the form to create a new account.

You will be prompted if your username is already in use. You also must provide an email address.

Note that your portal administrator has the option to disable automatic account creation. In this case you will be notified by email when your account is created.

After creating your account, you should see a page similar to the following.
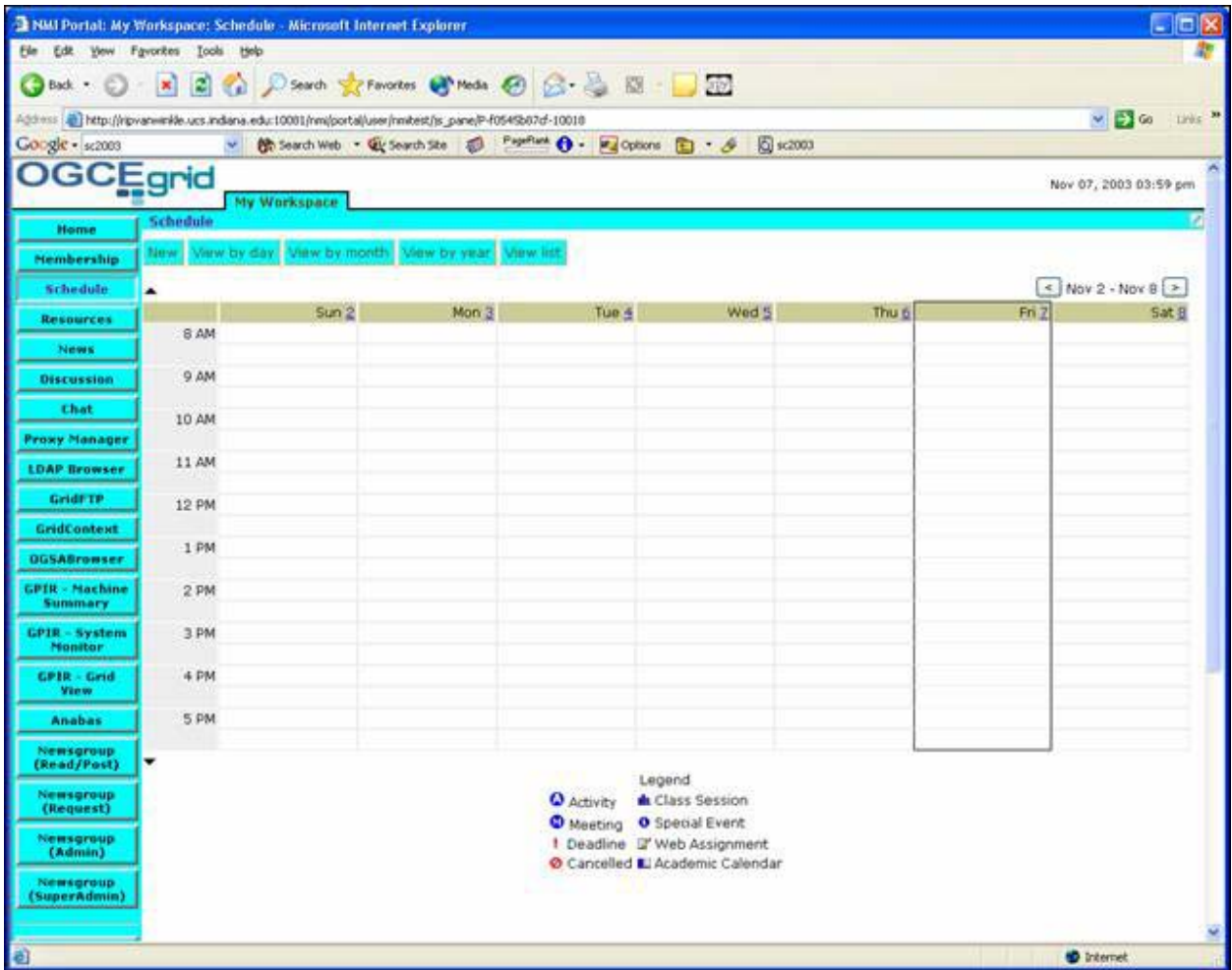
Figure 3 Logged in view of the portal.

You are now ready to explore the portal features.

Customizing Your Portal Display

At the bottom of the portal tool button column on the left, you should see a button labeled "Customization". Click this to get the following screen:
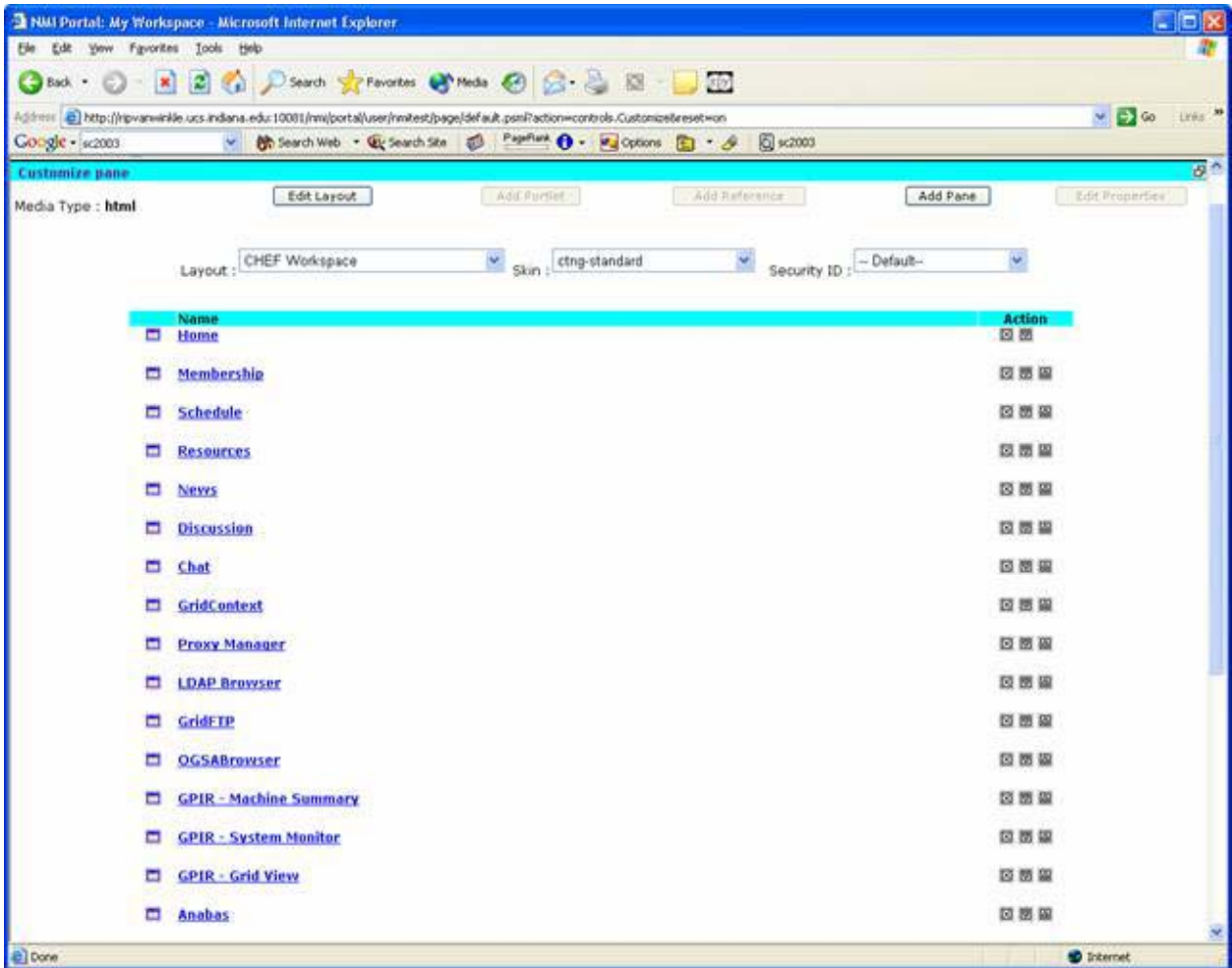
Figure 4 Portal pane list. Click the pane to edit the portlet content.

The links in Figure 4 correspond to the left hand column buttons in Figure 3. From this page you may rearrange the order that portlets appear or even change layouts (although we don't recommend the latter).

Clicking one of the links (say, "Schedule") brings up a screen similar to Figure 5. The display shows the content and properties of the Schedule tab, shown in Figure 3. We have added the "BBC World News" portlet to the display by clicking the "Add Portlet" button (second from left on the top row) and choosing from the list of available components.

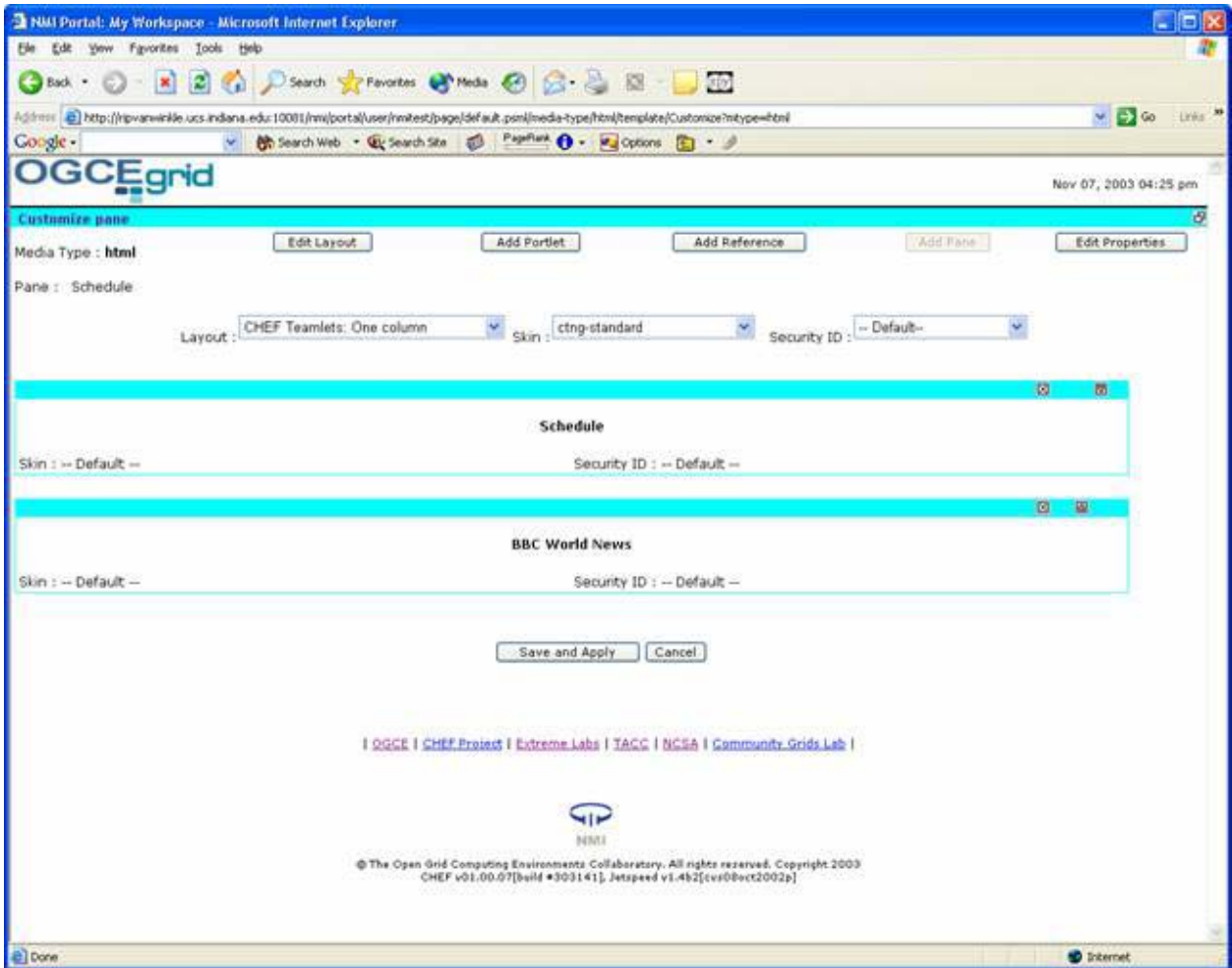From www.collab-ogce.org/nmi/www/UserGuide.html   26 November 2004

Figure 5 You can add portlets to any of the tabs.

After you have finished making your modifications, save and apply the changes until you return to the standard user screen. You should now see a display similar to Figure 6.
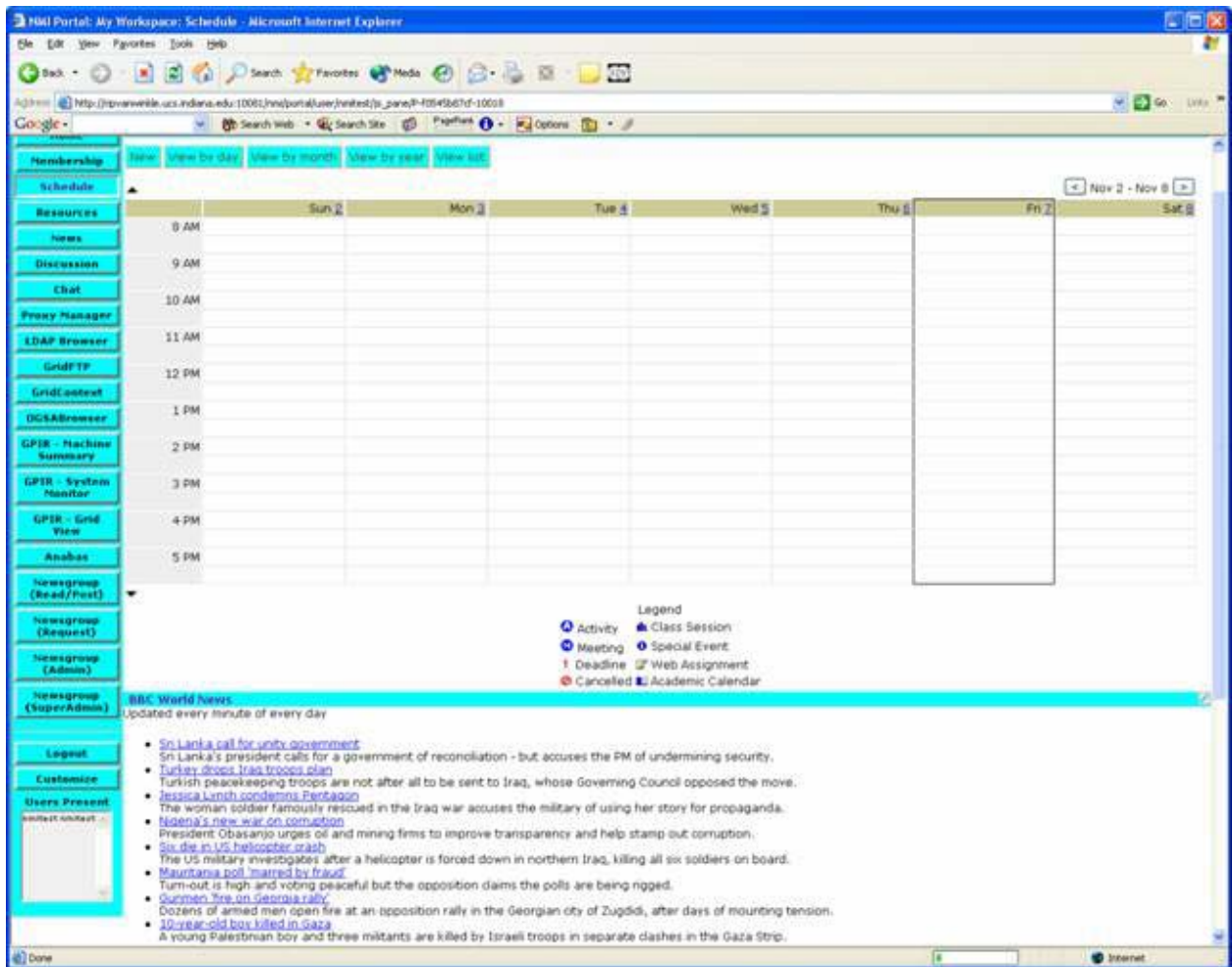
From www.collab-ogce.org/nmi/www/UserGuide.html   26 November 2004

Figure 6 After customization, the schedule tab now also includes a new portlet.

Joining Groups

Your portal administrator may have created one or more groups that you are allowed to join. Group spaces are controlled by the administrator and have shared layouts. Your group administrator controls the customization of these pages. Group page are also used by shared applications (chat, discussions, etc.)

To join a group, click the "Memberships" button (see Figure 3). You should see a list of your current groups and also groups that you may join, such as shown in Figure 7.. If you don't see anything, there are no groups for you to join. Contact your portal administrator to set up groups.
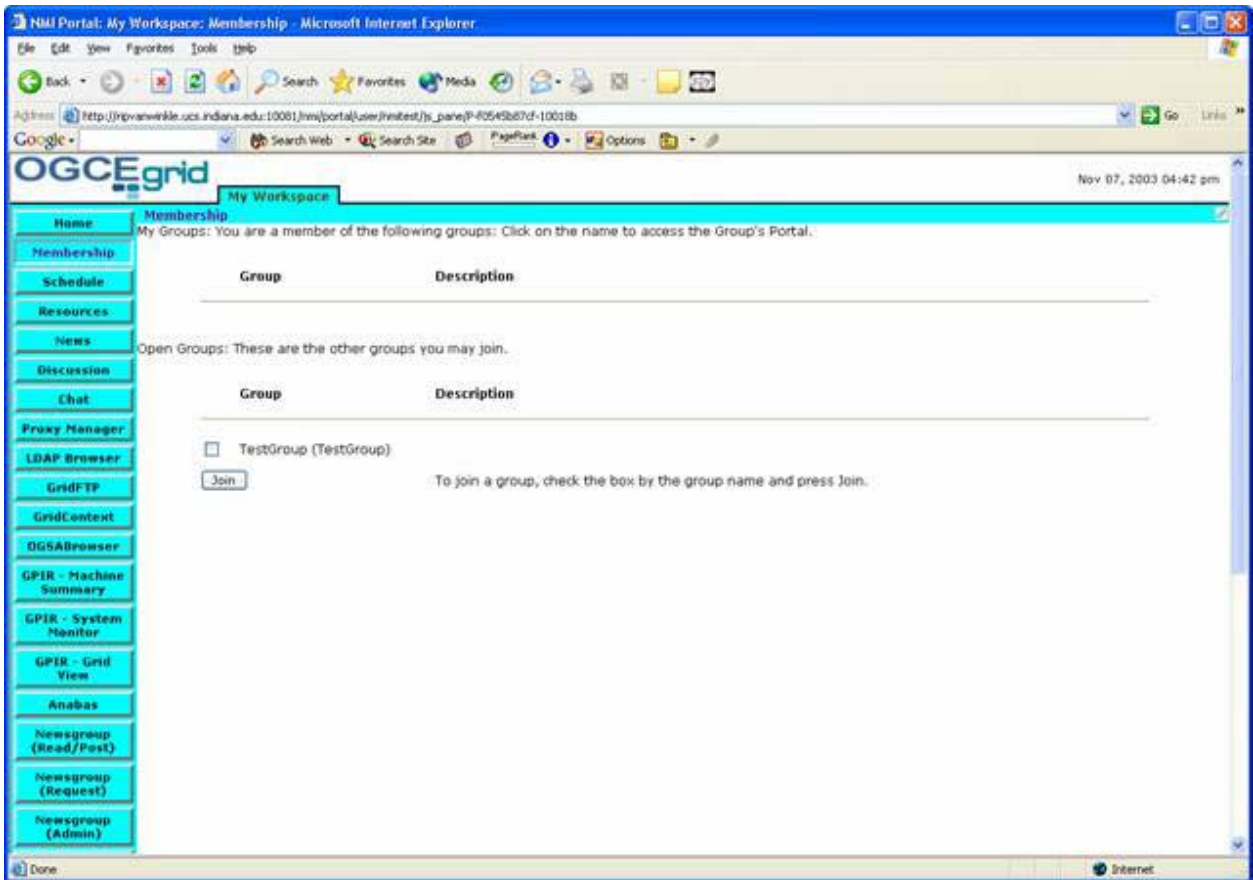
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Figure 7 Get a list of available groups by clicking the Membership button.

After joining a new group, it will be added to the horizontal tab list across the top of your screen. See Figure 8 for an example: the new group shown is called "TestGroup". Click this tab and you can see your group space.
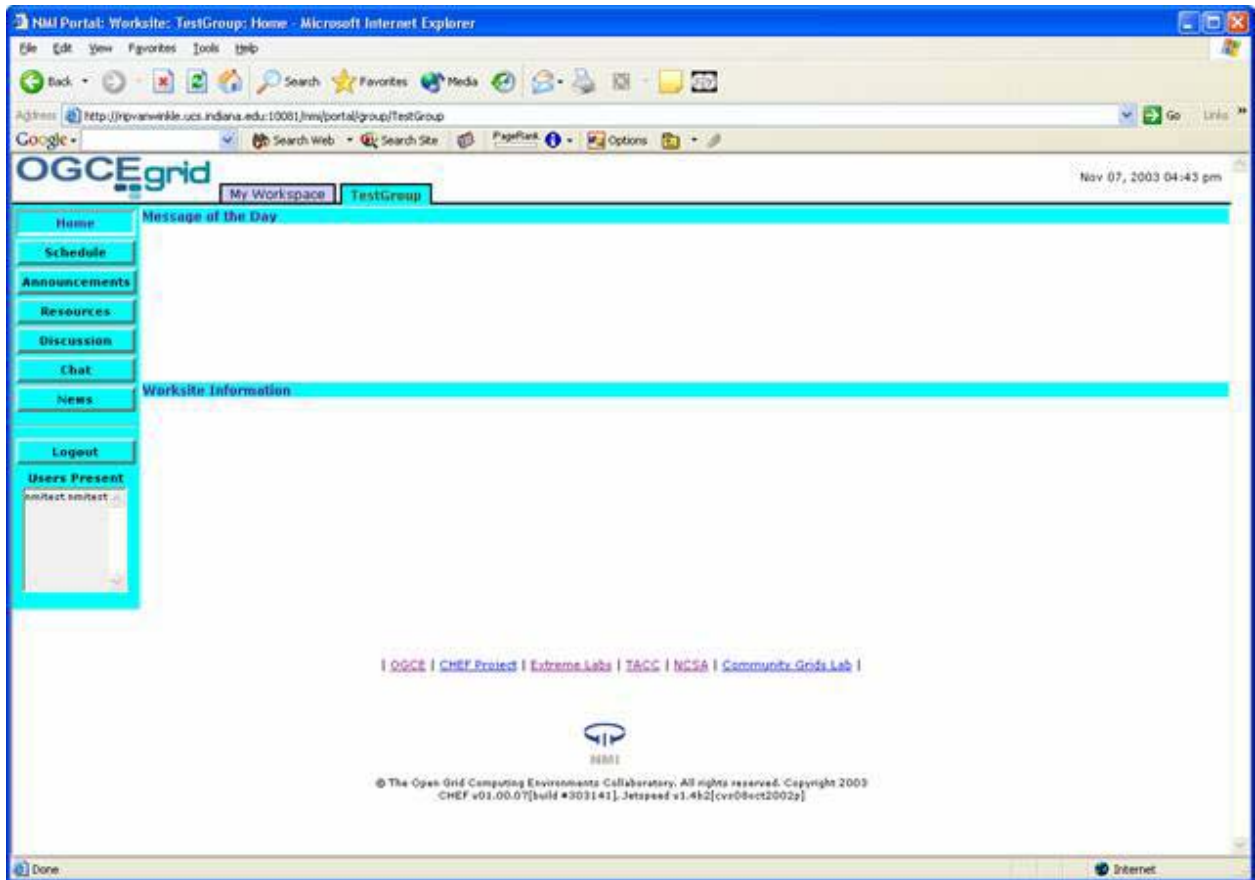
Figure 8 The TestGroup space includes group chats, discussions, resources, and schedules.

You can now use the group features to communicate with other group members.

Using Grid Portlets

Several of the portlets (Proxy Manager, LDAP, Grid FTP, etc) can be used to access remote grid resources. These do not need to be installed on the same host as the portal server and can be anywhere. However, you will need a Grid credential to use them.

The NMI portal is set up to work with remote MyProxy servers. See http://grid.ncsa.uiuc.edu/myproxy/ for more information on MyProxy. This and other Grid resources must be set up separately from the portal. We recommend the NMI GRIDS center releases if you are interested in setting up a grid, although the portal software has been tested with several other Globus (http://www.globus.org/) releases. See http://www.nsf-middleware.org/ and http://www.grids-center.org/ for more information.

We will assume a general familiarity with Grid security from the user. See documentation from the Globus and MyProxy sites for more extensive documentation.

Storing a Proxy Credential

The Proxy Manager portlet retrieves short term proxy credentials from a remote MyProxy server.   Before you can use this portlet, you must log into a MyProxy client host and deposit your credentials into the MyProxy server. This must be done outside of the portal.

The general steps are
1. Acquire a long term Grid credential and private key on a host with MyProxy installed on it.
2. On Unix/Linux, issue the following bash shell commands:
    export GLOBUS_LOCATION=/Path/to/MyProxy/Client/Installation
    export MYPROXY_SERVER=myproxy.server.name
    export PATH=$GLOBUS_LOCATION/bin:$PATH
    . $GLOBUS_LOCATION/etc/globus-user-env.sh

    For csh and tcsh users, use the following :
    setenv GLOBUS_LOCATION /Path/to/MyProxy/Client/Installation
    setenv MYPROXY_SERVER myproxy.server.name
    setenv PATH $GLOBUS_LOCATION/bin:$PATH
    source $GLOBUS_LOCATION/etc/globus-user-env.csh

3. From the command line, run myproxy-init and enter your username, password, and desired pass phrase.

You now have a stored credential that will be valid for one week, by default. This duration can be increased or decreased. As long as this ticket is valid, you can acquire short term credentials through the Proxy Manager portlet.

Getting Credentials through the Portal

To get your credentials, first log in to the portal as normal and click the "Proxy Manager" button on the left-hand navigation list. You should see a screen similar to the one below. You will see several red warning messages because you do not yet have credentials.
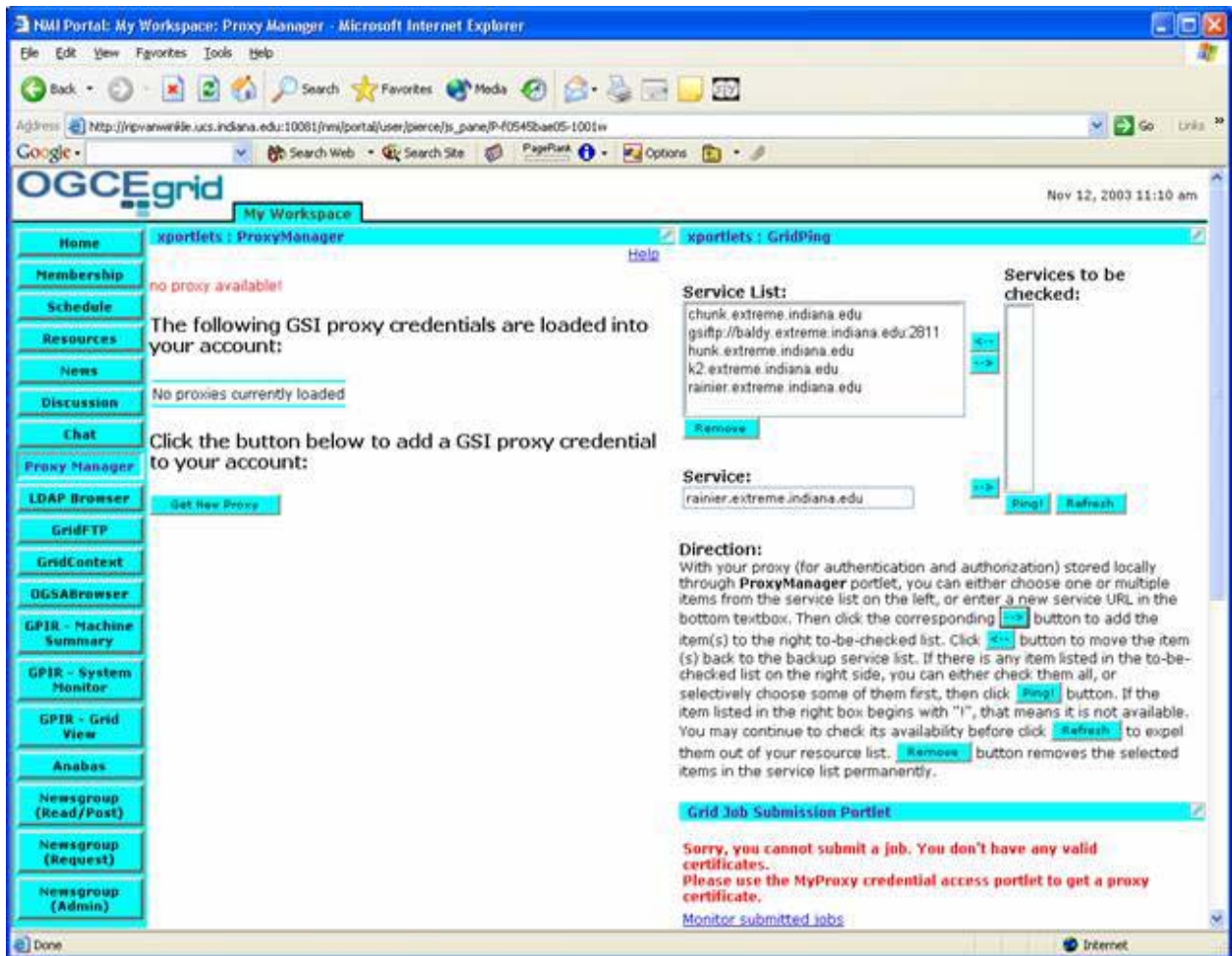
Figure 9 The proxy manager portlet and two other grid portlets.

Click the "Get New Proxy" button to see a form similar to the one below. You need to provide the name of the MyProxy server that you are using (it is the same that you used in the MYPROXY_SERVER environment variable above), and the port. The default port for MyProxy servers is 7512. Contact your Grid administrator if using a different port number. You must lastly provide your user name and pass phrase. The first is your username on the MyProxy client and the second is the pass phrase that you provided when you stored your credential.
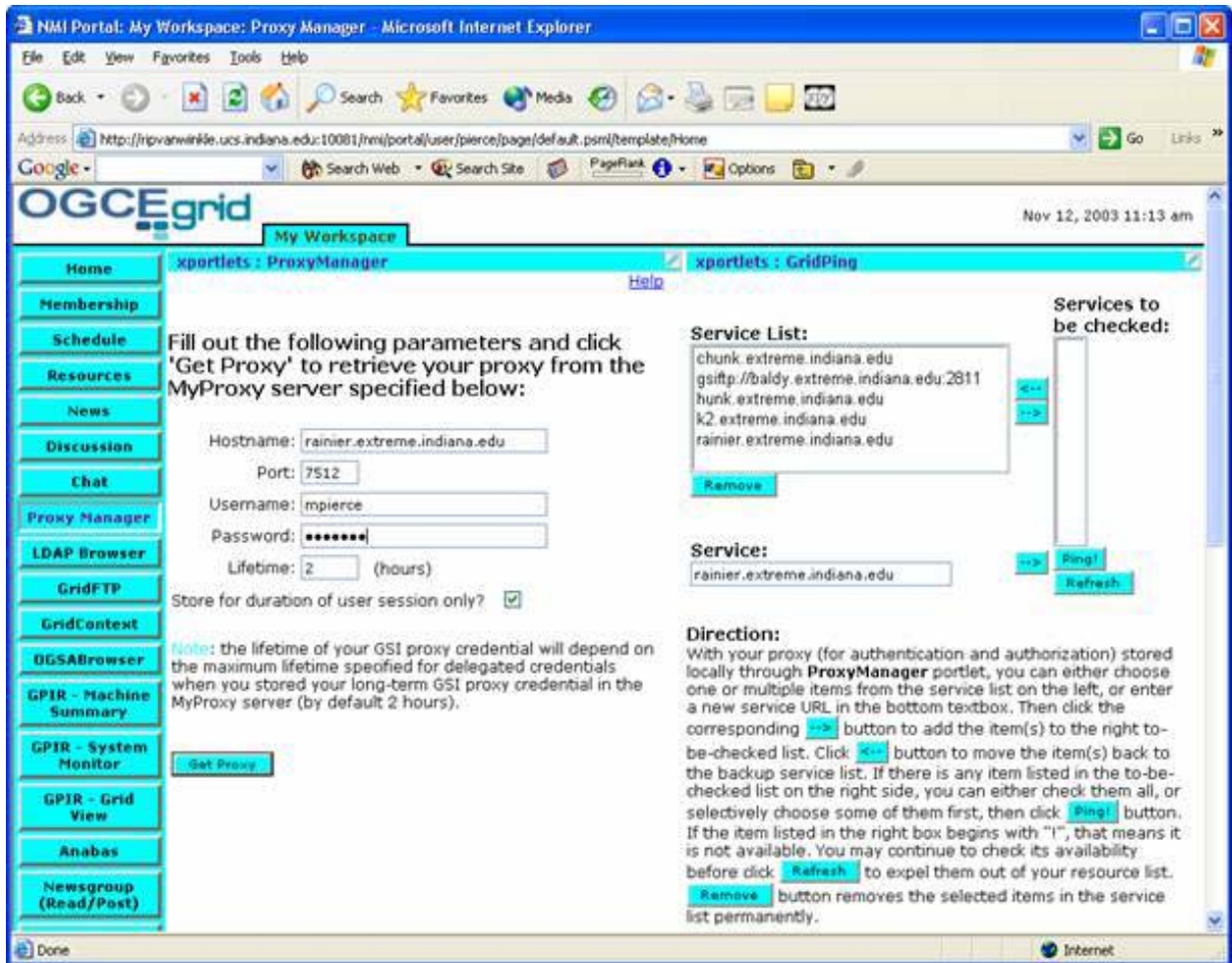
Figure 10 Getting a Grid credential.

After successfully logging in, you should see a screen similar to Figure 11, from which you can review your credential properties. The Proxy Manager allows you to store and manage multiple credentials for multiple grids. If you have more than one credential stored in more than one MyProxy server, change the hostname (as shown in Figure 10) to point to the second MyProxy server and get a new credential. The NMI Grid portlets will maintain copies of all credentials.
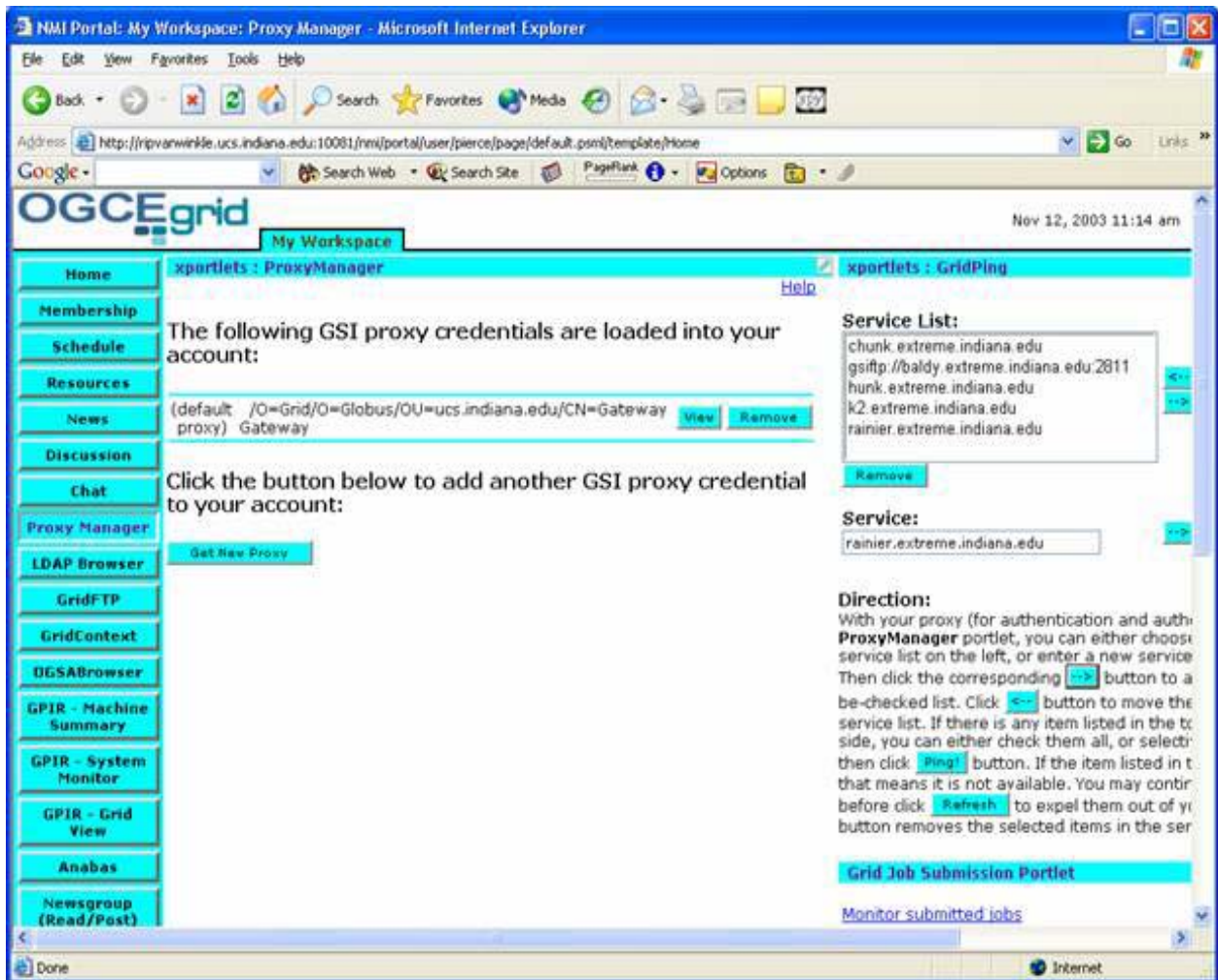
Figure 11 After successfully logging in, you can view credentials and use Grid services.

If your login fails, you will get a red warning message in the Proxy Manager portlet. If you have repeated failures to log in, contact your portal administrator: you may be trying to use a MyProxy server with an unrecognized CA.

Using Newsgroups

The NMI portal newsgroup system provides several levels of administration:

1. Super admins: All portal administrators are automatically also newsgroup "super administrators". Super-admins can assign topic administration privileges to any user.
2. Admins: these users have privileges to allow or deny regular users to join groups and can change access (read/write) privileges.
3. Regular users: these users can read and (if allowed) post to topics.

User roles and permissions topic-based: a user can have admin privileges of one news topic and only regular user privileges in another. Portal administrators always have newsgroup super-admin privileges.

Joining Newsgroups

Before you can post to a newsgroup topic, you must first request a subscription and then be approved by one of the topic administrators. First, log into the portal and click "Newsgroups (Request)". Under "User's Topic Management", click "Select New Groups" to see all currently unsubscribed groups, or click "View All" to see your list of subscribed and unsubscribed groups. You should see a screen similar to Figure 12. Pick a group of your choice and the privileges you want to have (such as read, write, and admin) and then click "Submit Selections" at the end.
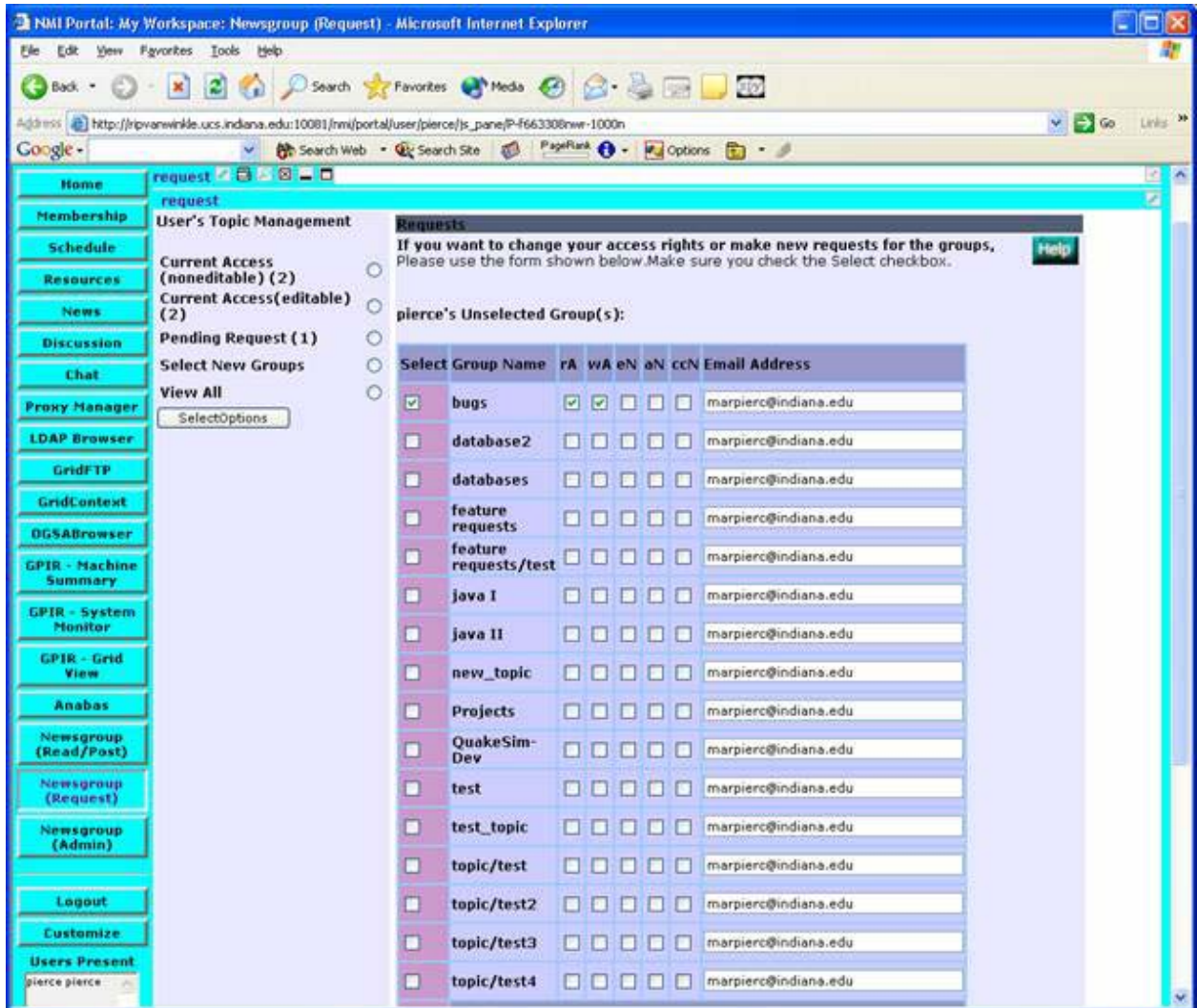

Figure 12 Select from the list of available newsgroups.

You must now wait for a topic administrator to approve your subscription to the topic. The admin may also edit the privileges that you requests.

To see if your request is still pending, log into the portal, click the "Newsgroup" request button, and click the "Pending Requests" option.

Reading and Posting

To read and post messages to your subscribed lists, select the "Newsgroup (Read/Post)" button. You should see a screen similar to Figure 13. Select one of your topics from the topic list and you should see all posted messages to that topic. Select a message from the list to see the message. You can either post a new message or respond to the current message.

If you prefer to see a threaded view of posted messages, click the "newsgroupThreaded" tab across the top.

Figure 13 Read and post to subscribed topics.

Running Newsgroups

Regular portal users may be granted Newsgroup topic administration privileges by the portal administrator. These users can approve or reject requests to join topics. To see the topics that you currently administer, click the "Newsgroup (Admin)" button on the left-hand navigation list.

You should see a screen similar to Figure 14.

Figure 14 See current users and approve new users.

Select a topic under "Topic List" and view subscribed users and requests. You can approve or delete requests for subscriptions.

To edit privileges of already subscribed users, click the "newsadmin part 2" tab across the top. Select one of the topics from your topic list and you should see the subscribed users and their privileges. You can edit privileges here to, for example, revoke write access or grant admin privileges.

Figure 15 Newsgroup admins can change subscribed users' privileges.

Finally, you can see information about all users subscribed to the topics that you manage by selecting "newsadmin part 3", the rightmost tab across the top under "My Workspace".   You should see a screen similar to Figure 16.

Figure 16 A unified view of all the users of the topics that you manage.

Click the radio button next to a user's name, then click "Select User". You should see all of his/her permissions on current groups and pending requests for groups that you manage.

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