XSEDE Operations Deployment Plan: XCI-139
GSI-OpenSSH 7.5p1b-1 Update

19 September 2017
Version 1.2
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N/A
# A. Document History

<table>
<thead>
<tr>
<th>Section</th>
<th>Version</th>
<th>Date</th>
<th>Changes</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Document</td>
<td>1.0</td>
<td>2017-06-27</td>
<td>Initial draft</td>
<td>Venkat Yekkirala</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Shava Smallen</td>
</tr>
<tr>
<td>E.2, F.1</td>
<td>1.1</td>
<td>2017-08-31</td>
<td>Updated globus package versions</td>
<td>Shava Smallen</td>
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<td></td>
<td></td>
<td></td>
<td>and added news announcement</td>
<td></td>
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<tr>
<td>Review entire document</td>
<td>1.2</td>
<td>19 Sept 2017</td>
<td>Update document</td>
<td>V. Hazlewood</td>
</tr>
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</table>
B. Document Scope

This document outlines the XSEDE Operations deployment plan for an upgrade to the GSI-OpenSSH 7.5p1b-1 servers and clients at XSEDE Service Providers (SPs).
C. Overview

GSI-OpenSSH ([http://grid.ncsa.illinois.edu/ssh/](http://grid.ncsa.illinois.edu/ssh/)) is a modified version of OpenSSH that adds support for GSI authentication and credential forwarding (delegation), providing a single sign-on remote login and file transfer service. GSI-OpenSSH also includes High Performance Networking (HPN - [https://www.psc.edu/hpn-ssh](https://www.psc.edu/hpn-ssh)) updates for OpenSSH from the Pittsburgh Supercomputing Center, iSSHD/NERScmod (run-time disabled by default), username mapping using the gridmap file, and TCP wrapper support. XCI-139 delivers and update to version 7.5p1b-1 of GSI-OpenSSH server and client at SPs.

The XCI-139 overview documentation is available at [https://software.xsede.org/display/xci-139](https://software.xsede.org/display/xci-139). The test plan and test report are linked off this document. Do not use the deployment plan as that is the draft deployment plan. The deployment plan is available at [http://software.xsede.org/production/deployment_plans/XSEDE-Deployment-XCI-139-GSISSH.pdf](http://software.xsede.org/production/deployment_plans/XSEDE-Deployment-XCI-139-GSISSH.pdf)

IMPORTANT NOTE: Per [https://www.openssh.com/security.html](https://www.openssh.com/security.html) many older versions are vulnerable to multiple security issues. Also older GSI-OpenSSH releases don’t support peers using newer OpenSSL 1.1. Hence, it’s imperative and strongly encouraged that all XSEDE GSI-OpenSSH SPs upgrade to this new GSI-OpenSSH release 7.5p1b.

D. Resources

D.1. Human Resources

The deployment of this component requires installation at each of the SPs. The following human resources have been identified:

<table>
<thead>
<tr>
<th>Resource</th>
<th>SP Site/XSEDE Group/Other Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>XSEDE UI (documentation)</td>
</tr>
<tr>
<td></td>
<td>See section F.3</td>
</tr>
<tr>
<td>Staff</td>
<td>OSG</td>
</tr>
<tr>
<td>Staff</td>
<td>PSC (Bridges, Bridges GPU)</td>
</tr>
<tr>
<td>Staff</td>
<td>TACC (Stampede2, Maverick, Jetstream*, Wrangler*)</td>
</tr>
<tr>
<td>Staff</td>
<td>SDSC (Comet)</td>
</tr>
<tr>
<td>Staff</td>
<td>Indiana (Jetstream*)</td>
</tr>
<tr>
<td>Staff</td>
<td>LSU (SuperMIC)</td>
</tr>
</tbody>
</table>
D.2. Budget

No additional resources are required to deploy this update to GSI-OpenSSH.

E. Coordination and Communication

E.1. Deployment coordination

XSEDE users make frequent use of the GSI-OpenSSH servers at the SP sites (e.g., via login.xsede.org, SP login nodes, and/or Science Gateway portals). Please update this service accordingly to minimize interruption to users.

F. Deployment

F.1. Software repo

The gsi-openssh-server-xsede RPMs below that has been tested as part of this activity have been copied to the Production repository and the tar files and tar file installation instructions were copied to https://software.xsede.org/production/gsi-openssh-server/7.5p1b-1/. Since this update requires newer versions of Globus packages, additional Globus metapackages were copied over to the Production repository as well:

- gsi-openssh-server-xsede-7.5p1b-1
- globus-gram5-xsede-5.7-13
- globus-client-xsede-6.0-7
- globus-gridftp-xsede-6.0-6

F.2. XSEDE Service Providers

SPs will need to update both their GSI-OpenSSH clients and servers using the installation instructions at

https://software.xsede.org/production/gsi-openssh-server/7.5p1b-1/XSEDE-GSI-OpenSSH-install.html

or


and update their version information in the information services using the instructions under “XSEDE GSI OpenSSH Service Availability Publishing”. Note that if they have the globus-client-
xsede, globus-gram5-xsede, or globus-gridftp-xsede metapackages installed on the node they are updating, those packages will get updated as well due to updates to dependent Globus packages.

**Inca**

No monitoring changes required for Inca tests.

**F.3. XSEDE Portal Documentation**

Documentation changes for the XSEDE User Portal are noted in: [https://software.xsede.org/svn/xci/activities/xci-139/trunk/Deliverables/userdoc-changes.txt](https://software.xsede.org/svn/xci/activities/xci-139/trunk/Deliverables/userdoc-changes.txt)

**G. Schedule**

The schedule for deployment involves installation and configuration of the {title} software and testing by the SPs.

<table>
<thead>
<tr>
<th>Task #</th>
<th>Task</th>
<th>Start Date</th>
<th>End Date</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Update Portal documentation</td>
<td>9/19/2017</td>
<td>10/1/2017</td>
<td>XSEDE documentation</td>
</tr>
<tr>
<td>2.</td>
<td>Upgrade GSI-OpenSSH server and client.</td>
<td>9/19/2017</td>
<td>10/31/2017</td>
<td>SPs</td>
</tr>
<tr>
<td>3.</td>
<td>Deployment complete</td>
<td></td>
<td>11/1/2017</td>
<td></td>
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