

# Bridge Hardening

On [Secure Bridge Setup](#), you can find operational concepts for a secure BRIDGE setup. Find here some additional security recommendations to consider for BRIDGE hardening.

## Disabling TLS 1.0



Bridge 7.2.0 As of BRIDGE 7.2.0, TLS 1.0 is disabled by default. Still, you can use this guide to re-enable it if necessary.

If you do not have any clients that need TLS 1.0, we recommend to disable this protocol for the BRIDGE from the security point of view. To be downwards compatible with MagicDraw 17 (see note), we did not implement this to the standard BRIDGE installation.



MagicDraw 17 uses Java 6, and thus only supports protocols up to TLS 1.0. So, if you disable Tomcat TLS 1.0 on your BRIDGE, you will not be able to **deploy** services directly from MagicDraw 17 to this BRIDGE (a handshake error will occur). This does not affect repositories that have been **compiled** with MagicDraw 17. They can be uploaded via the BRIDGE UI nevertheless.

To do disable TLS 1.0, you have to edit the Tomcat and Apache configuration files of the BRIDGE as shown in the table below.

Location	Attribute /Property	Example	Notes
<b>T o m c a t</b> <your BRIDGE programs directory> /servlets /conf /server.xml	sslEnabledProtocols	<del>sslEnabledProtocols=</del> <del>"TLSv1.2,</del> <del>TLSv1.1,</del> <del>TLSv1,</del> <del>SSLv2Hello"</del>  sslEnabledProtocols= "TLSv1.2, TLSv1.1, SSLv2Hello"	<b>This file will get overwritten on BRIDGE updates!</b> The old configuration file is copied to <b>server.xml.old</b> . So, after a BRIDGE update re-apply the changes from the backup copy of the file.
<b>A p a c h e</b> <your BRIDGE data directory> /proxies /templates /httpd.conf	SSLProtocol	<del>SSLProtocol</del> <del>all</del> <del>SSLv2</del> <del>SSLv3</del> <del>TLSv1</del>  SSLProtocol all - SSLv2 - SSLv3 - SSLv3	Copy the Apache templates that have been provided with your BRIDGE installation from folder <your BRIDGE data directory>/proxies/system_templates to folder <your BRIDGE data directory>/proxies/templates and modify the copy.  The actually used file <your BRIDGE data directory>/proxies/conf/httpd.conf is generated from this template file on BRIDGE start-up. The BRIDGE will generate the configuration from the file in folder <b>templates</b> if available. If not, the BRIDGE will use the system templates.

## Steps

1. Apply changes to the files as described above. Consider the notes!
2. Restart the BRIDGE to apply the changed Apache configuration.

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