Install Elasticsearch 5.6.16 on Windows

Colin Dunn - 2021-12-23 - Comments (0) - Deskpro Legacy

Preface

Read our news post here for full information on the Log4j2 0-day vulnerability. You do not require advanced system administration skills to follow these instructions, there is no command line interaction involved, but you should involve an experienced user (IT/Tech/System Administrator) where possible. For general guidance on whether this is relevant to you:

- **If you are running Elasticsearch v5.0.0 to v5.6.10, you must follow these instructions to update and patch. (source)**
- **If you are running Elasticsearch v2.x or v5.6.11 or above - you do not need to update, however you must apply a patch (also step 9-14 of this document) (source)**
- **If you installed Deskpro on Windows with the automatic installer prior to October 18th 2021, you should follow these instructions.**
- **This documentation can be used on any Windows Server 2008, 2012, 2012 R2, 2016, 2019 - as well as Windows 10.**

This process could take up to 20 minutes to complete. Deskpro can operate without the presence of Elasticsearch, if you do not have the time to address this fully now, you should at least disable Elasticsearch entirely in the short term, and revisit this later.

In summary you will:

1. Detect your version of Elasticsearch to confirm if you are affected
2. Disable the Elasticsearch connection
3. Install and configure the new version of Elasticsearch
4. Apply a patch to fix the vulnerability, restart the Elasticsearch service.
5. Re-enable Elasticsearch

To check your current Elasticsearch version:

Visit your Elasticsearch URL via the browser on the local server.

In most cases this is http://127.0.0.1:9200 by default. Check Admin > Server >

Elasticsearch for your URL if this is not the case.

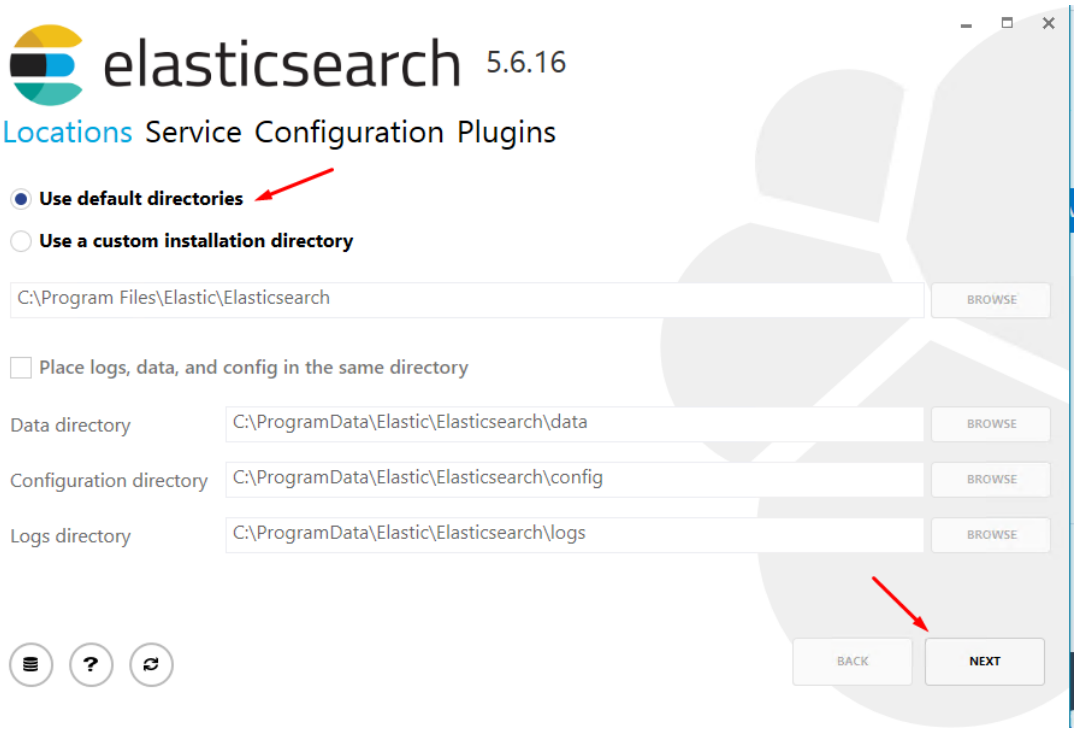
To disable Elasticsearch entirely:

Navigate to Admin > Server > Elasticsearch, untick “Enable Elasticsearch” and press save “Save Settings”.

This will sever the live connection from the internet into your Elasticsearch service, preventing any exploits. If you are following the below instructions, **we also recommend you to first disable Elasticsearch to address the immediate vulnerability.**

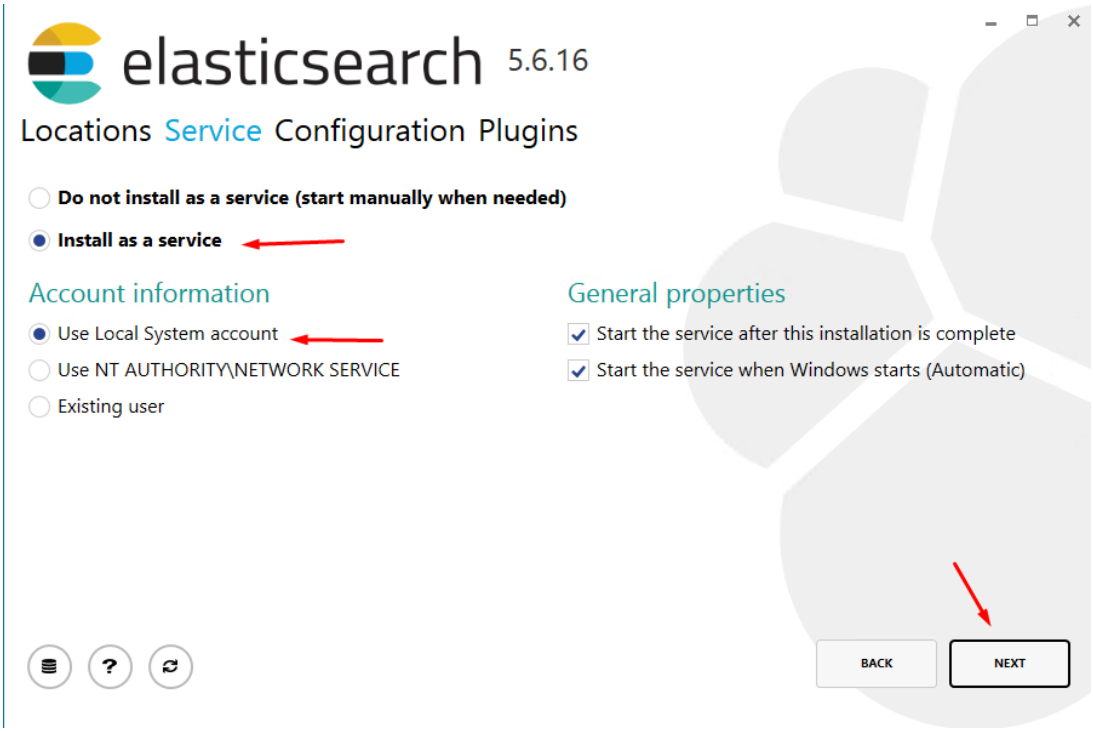
Instructions to install Elasticsearch 5.6.16 (Time to complete: 15-20 minutes)

1. Download the MSI (BETA) version of Elasticsearch 5.6.16. We have tested this installer, it is safe to use. https://www.elastic.co/downloads/past-releases/elasticsearch-5-6-16
2. Click on the .msi installer, this will take you through a simple wizard.
3. You can select **"Use Default Directories"** - unless you spefically want to install this in a custom way.



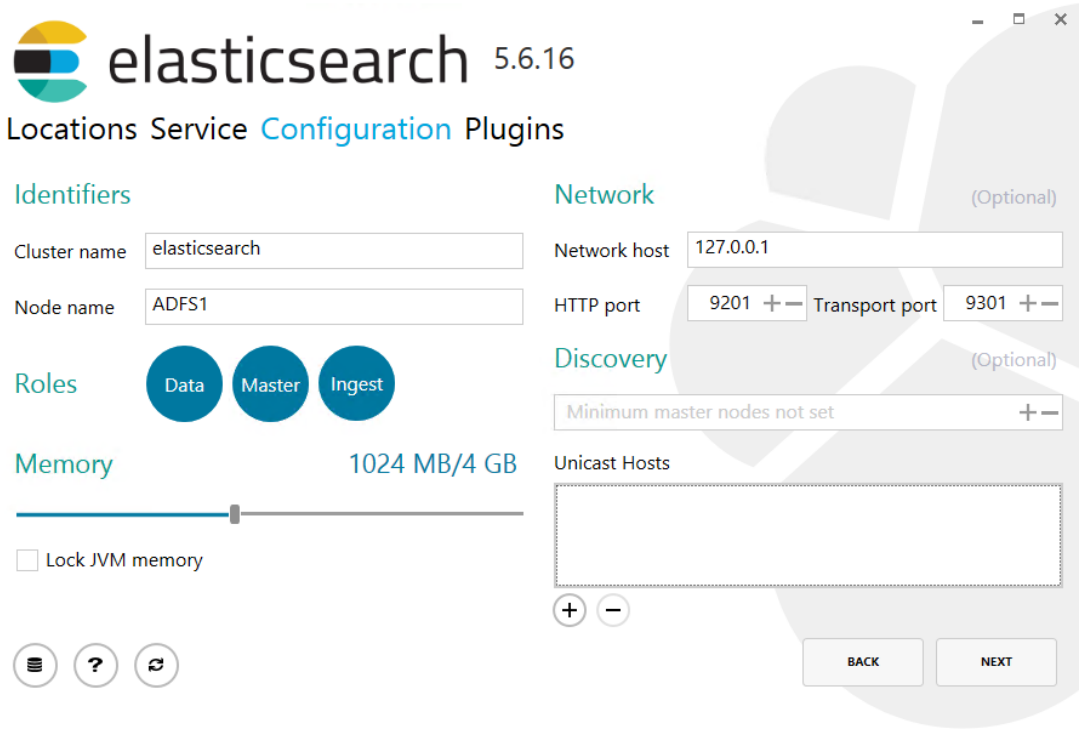
1. You leave the Service settings as default. For clarification, you should have these options selected/enabled:

- Install as a service
- Use Local System account
- Start the service after installation is complete
- Start the service when Windows starts



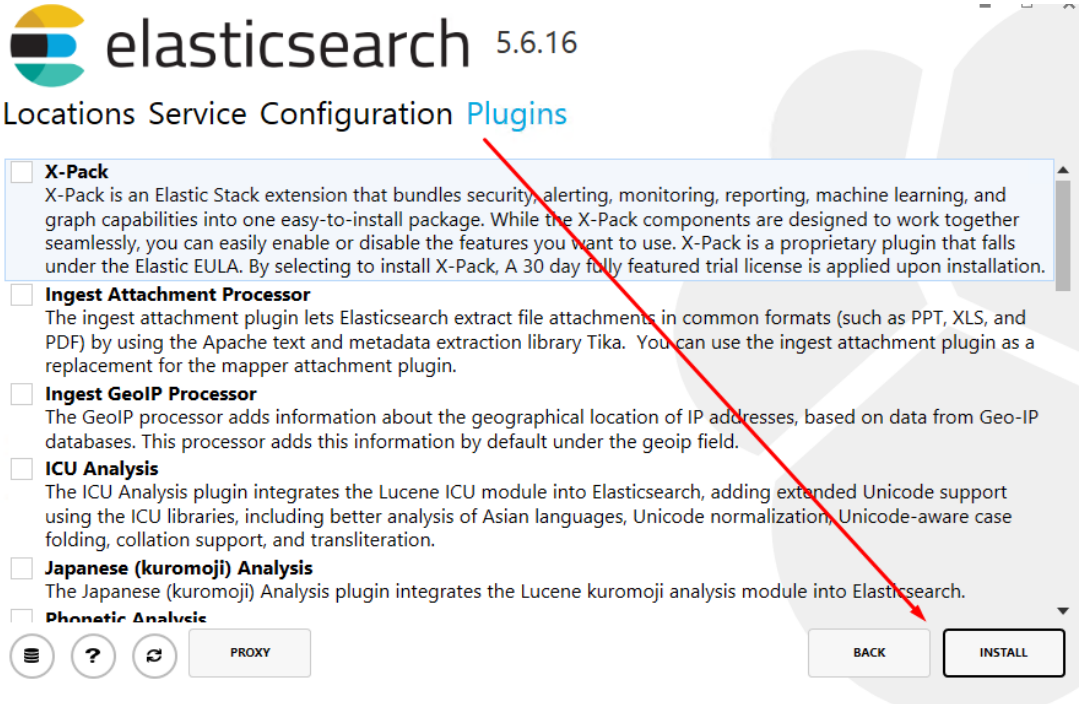
1. You must set the memory, network host, and ports like so:

- Cluster and Node name can be left as default.
- Memory should be set at minimum to 256MB, in this example, we have gone for 1GB. Be aware of your resource availability when setting this, you can set this higher if you wish to.
- Leave "Lock JVM memory" unticked
- Set the "Network host" to **127.0.0.1**
- Set the HTTP port to **9201**
- Set the transport port to **9301**
- Leave Discover and Unicast host empty.

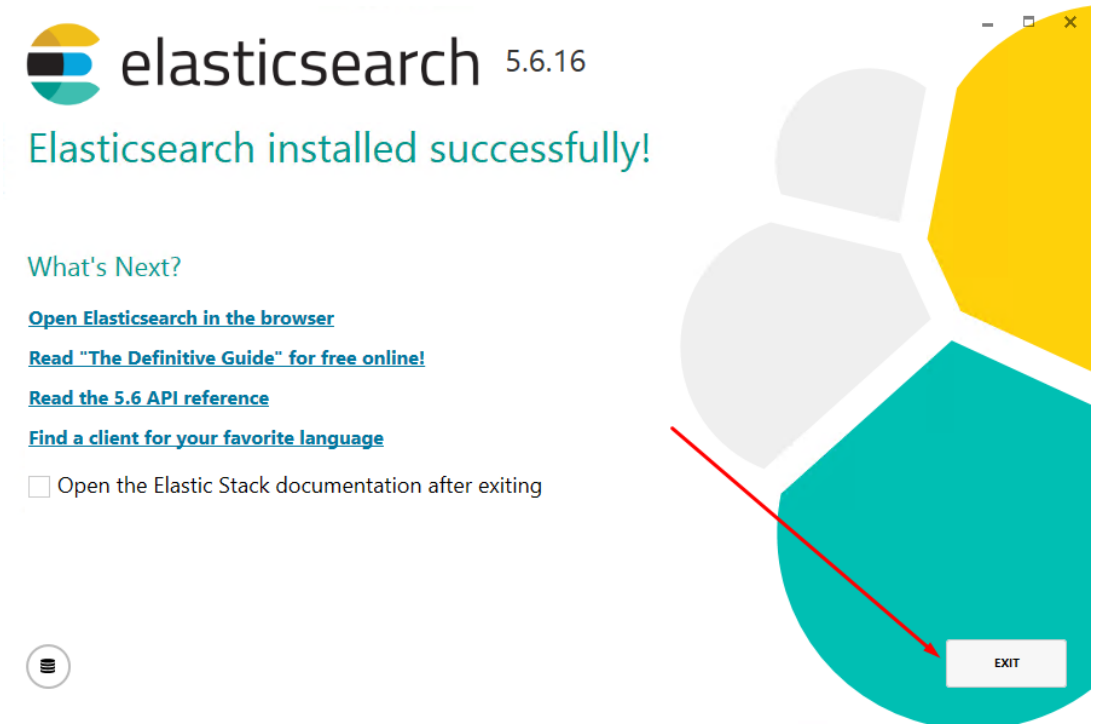


The existing Elasticsearch service will listen on port 9200 by default, so we will use 9201. This can theoretically be any available port, if you already have a service listening on this port (unlikely in 99.9% of instances), please modify the port number as necessary.

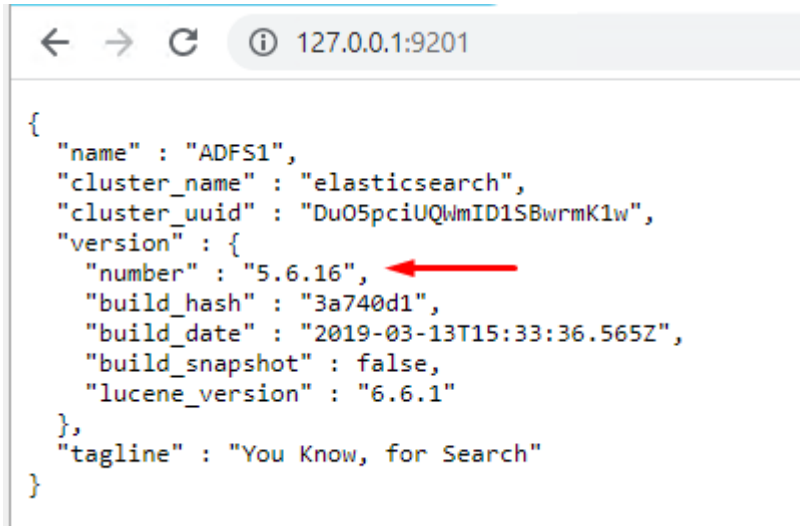
1. Leave all plugin selections empty as default, and proceed to Install.



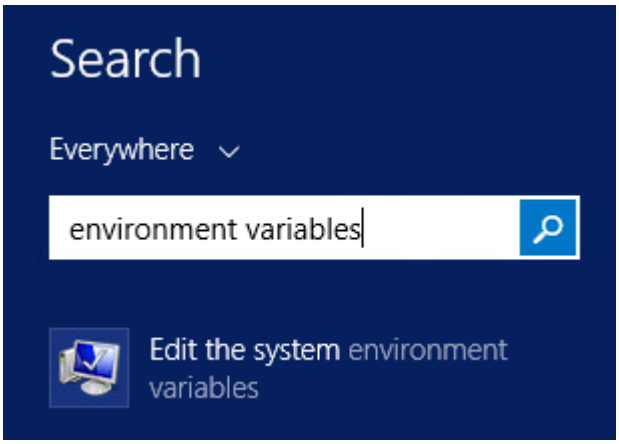
1. Wait a few minutes for this to install, and exit the controller.



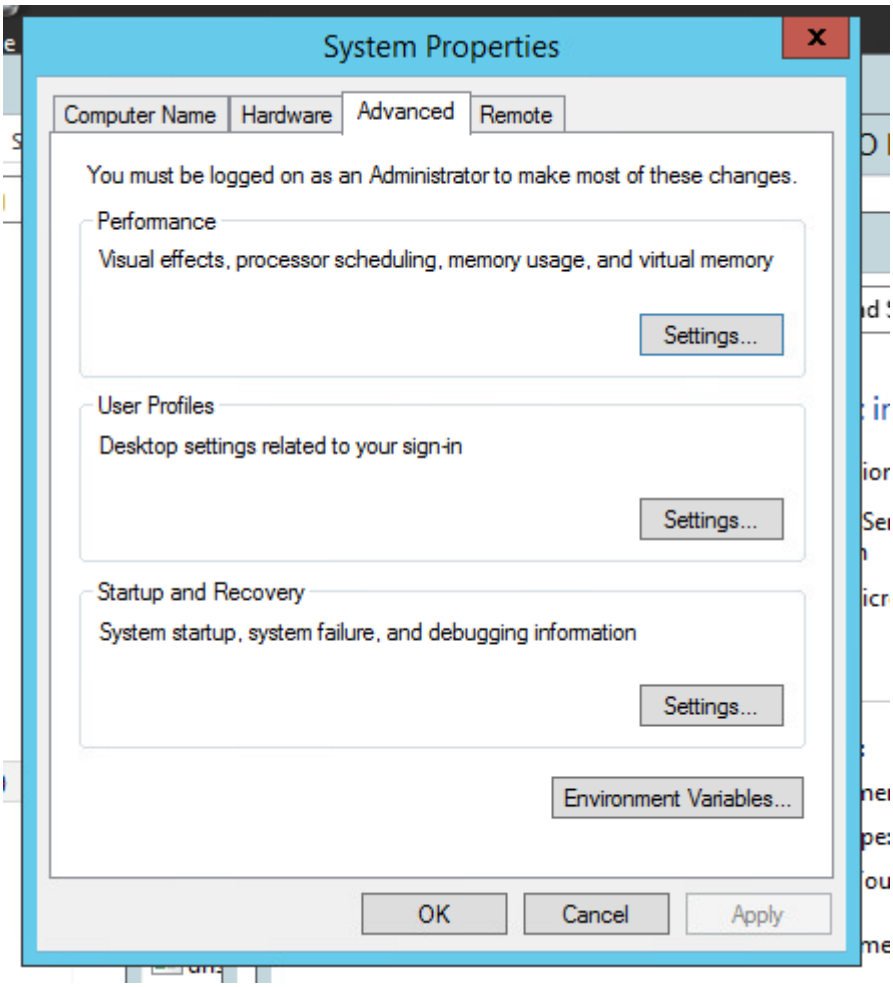
1. Visit http://127.0.0.1:9201 via the browser on the local server, verify the service has been installed, and is listening.



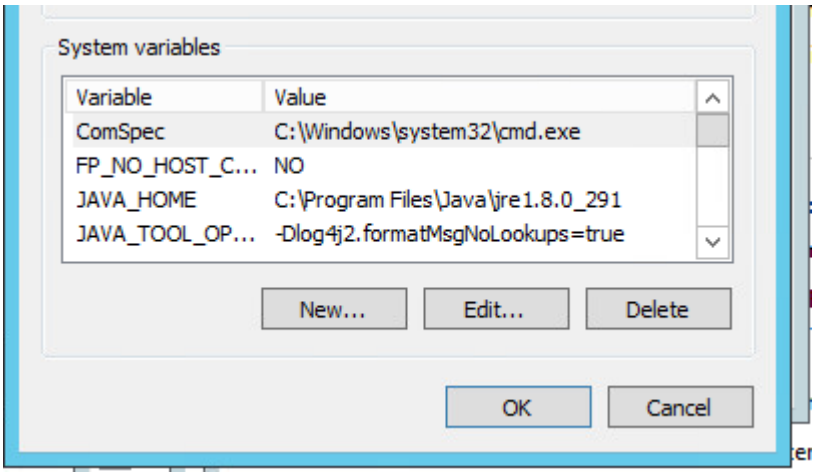
1. Search for “Environment Variables” in the start menu and click on “Edit the system environment variables” (or go to Control Panel > System and Security > System > Advanced system settings)



1. Click on “Environmental Variables”

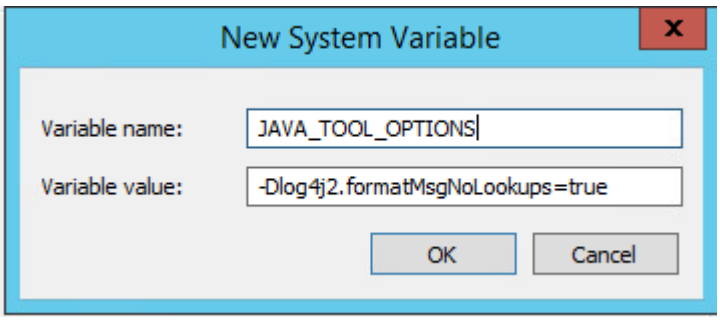


1. . Click on “New”

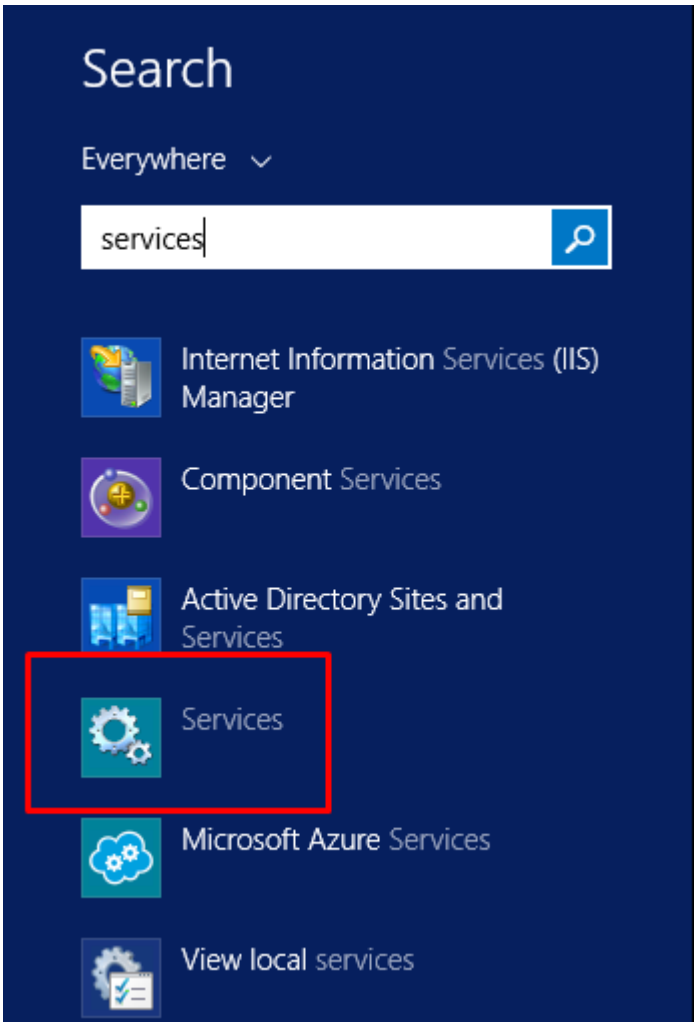


1. . For the “Variable name” enter: `JAVA_TOOL_OPTIONS`

For the “Variable value” enter: `-Dlog4j2.formatMsgNoLookups=true`

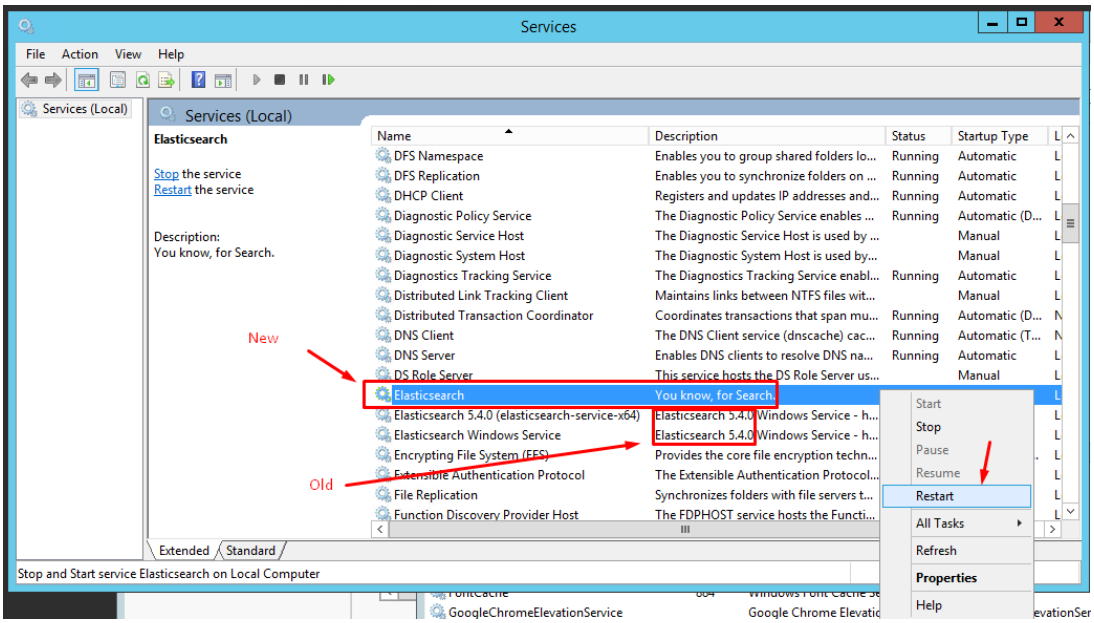


1. Press “OK” on the Window, “OK” again, and “OK” once more, till the system properties window is closed. You can try and open this up again, to confirm the changes have applied.
2. You must restart the Elasticsearch service after applying this. Open the “Start” menu and Search for Services, Open “Services”



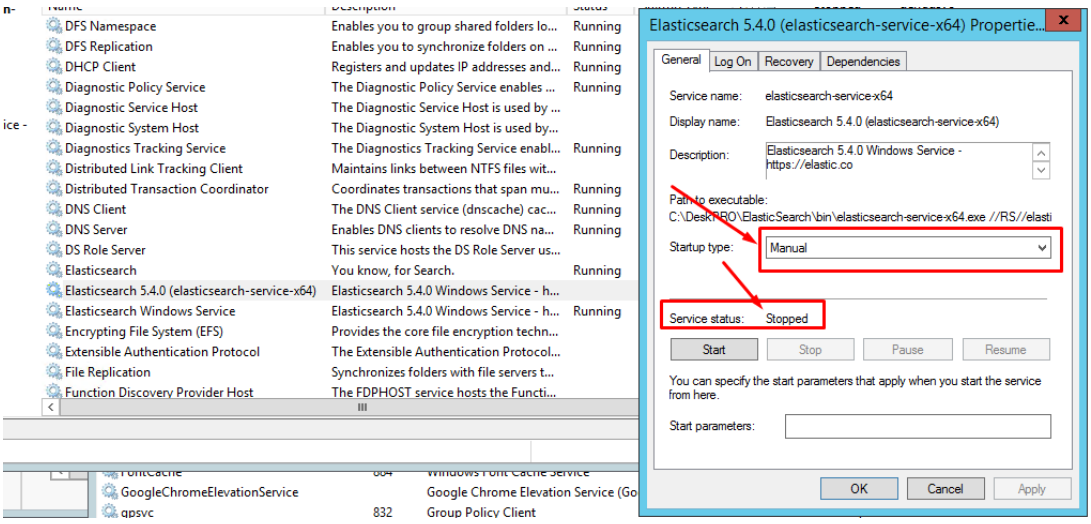
1. Locate the NEW Elasticsearch service, right click, and **restart.** The previous Elasticsearch services should be labelled with the old version 5.4.0.

If you are not sure, restart all of the Elasticsearch services. This is the only way to apply the above patch.

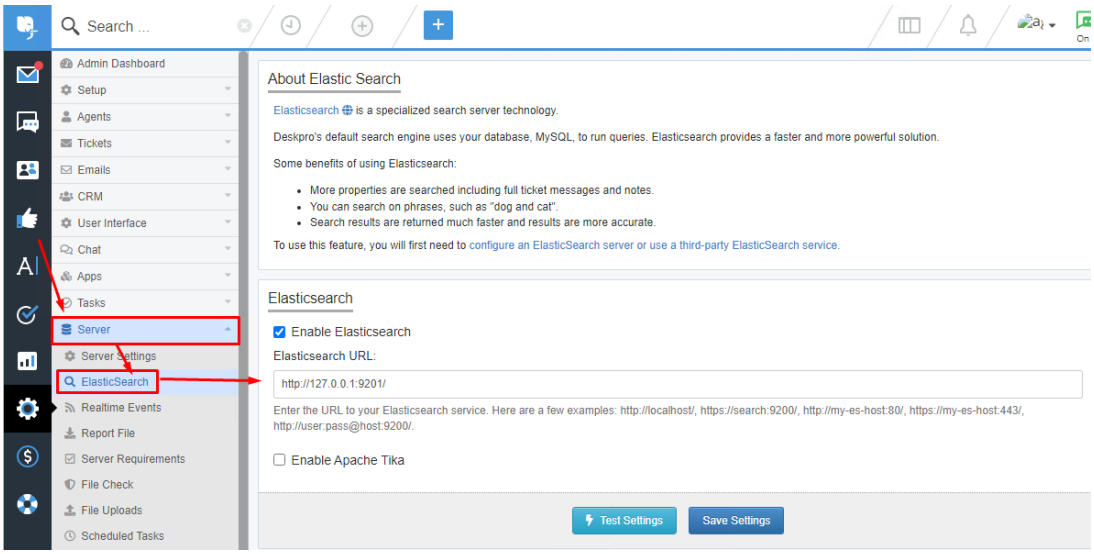


1. Disable the previous services entirely. Right click on the defunct services, and select properties.

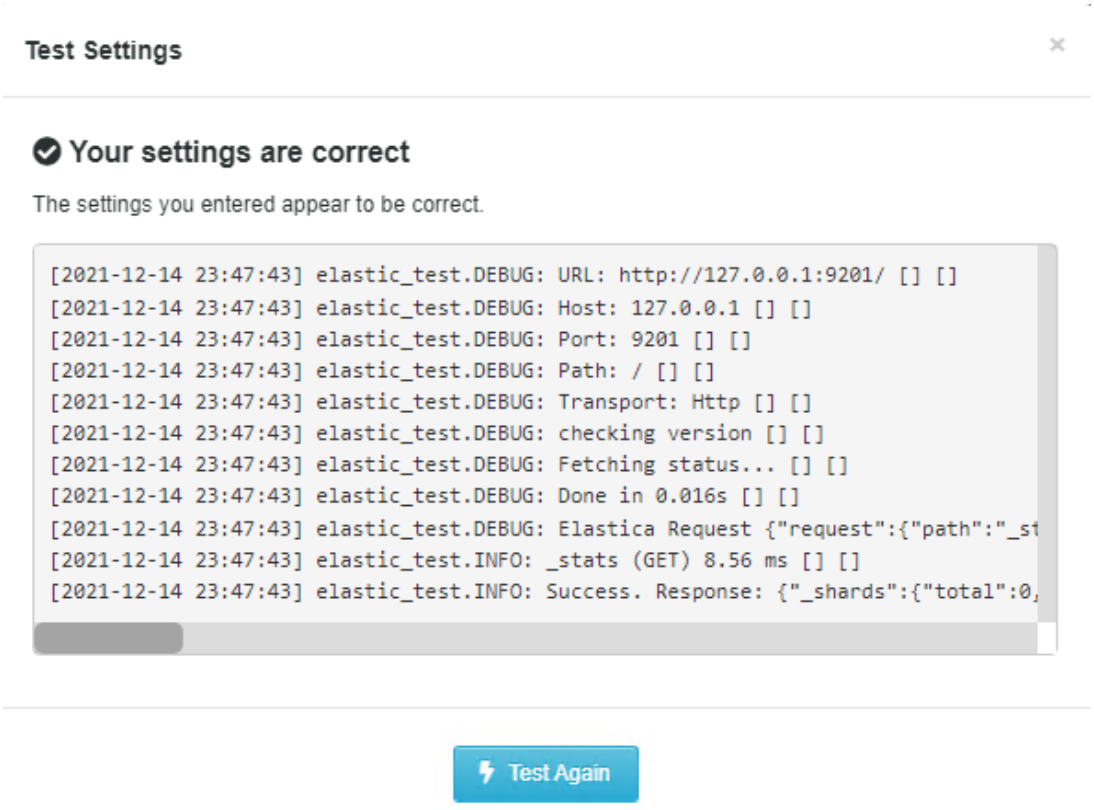
Ensure the old services are both **stopped,** and the **Startup type is set to disabled.** You will get a warning from the Deskpro Manager that some services are not working, this can be ignored.



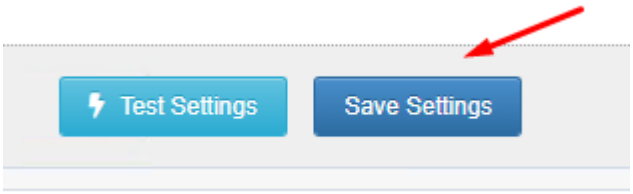
1. Log into your Deskpro Administrator area, navigate to Server > Elasticsearch, and enter in the new URL: http://127.0.0.1:9201



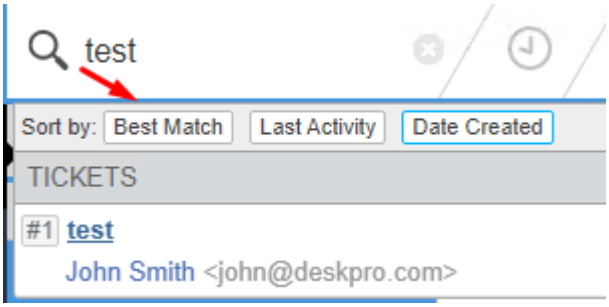
1. Click on "Test Settings" to do a soft-test of the server. You should see a window pop up confirming the new URL is correct, and responding properly



1. Close out of this, and click "Save Settings". The Elasticsearch index will automatically attempt to re-index itself.



1. Allow this to run for a number of minutes, to hours (depending on the size of your index) You may see an error suggesting your Elasticsearch service is down, you usually are able to refresh, and this will clear itself up.

   When complete, Deskpro will show "The Elasticsearch index was initialized on:" - and display the objects inn Elasticsearch, compared to those in Deskpro. The numbers on each side of the graph should be more or less equal.

1. Final check, search for a string, in your search box, and ensure the "Sort By:" options are displaying, and output different results. If Elasticsearch is not working, these options will not display.