



# ESSArch Core documentation

version 0.9.9

*Last generated: January 16, 2017*

---



© 2017 ES Solutions AB. This is a boilerplate copyright statement... All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law.

# Table of Contents

**Overview**

Get started ..... 2

**Release Notes**

0.9.9 Release notes ..... 3

1.0 Release notes ..... 4

**Installation**

Prerequisites ..... 5

Prepare Environment ..... 9

Install ESSArch Core..... 11

Safety backup procedures..... 13

Logfiles ..... 14

# Getting started with ESSArch Core

## ESSArch Core

This ESSArch core package contains all core functions and is required to be installed before other tools such as ETP, ETA or EPP.

## Release notes 0.9.9

**Summary:** Version 0.9.9 of the ESSArch Core

New feature

Fixed errors

## Release notes 1.0

**Summary:** Version 1.0 of the ESSArch Core

New feature

Fixed errors

## Prerequisites

**Summary:** Hardware configuration for server, network and storage architecture is not affected in this guide. Software configurations for server operating systems occur preferably before the installation of ESSArch begins. The installation is expected to be done as user 'root'.

## Supported OS platforms

OS	Version	Note
CentOS / Redhat	6 (x86_64)	
CentOS / Redhat	7 (x86_64)	
SUSE Linux Enterprise Server	11 (x86_64)	

(Other Linux and Microsoft operating systems have been tested but are not yet fully supported, please send us a request with your needs)

## OS Packages

Before installing ESSArch Core you need to verify that the following packages are installed on your platform

Package	Minimum version	Note	Verified version
kernel-devel	2.6.x		kernel-devel-2.6.32-504.el6.x86_64
sysstat	7.x		sysstat-9.0.4-27.el6.x86_64
make	3.81-15		make-3.81-20.el6.x86_64
patch	2.6.1-1		patch-2.6-6.el6.x86_64
erlang **	R12B-5.8		erlang-R14B-04.3.el6.x86_64

Package	Minimum version	Note	Verified version
gcc	4.1.2		gcc-4.4.7-11.el6.x86_64
gcc-c++	4.1.2		gcc-c++-4.4.7-11.el6.x86_64
openssl	1.0.1		openssl-1.0.1e-30.el6.x86_64
openssl-devel	1.0.1		openssl-devel-1.0.1e-30.el6.x86_64
openldap	2.3.43		openldap-2.4.39-8.el6.x86_64
openldap-devel	2.3.43		openldap-devel-2.4.39-8.el6.x86_64
mt-st	1.1		mt-st-1.1-5.el6.x86_64
mtx	1.2.18		mtx-1.3.12-5.el6.x86_64
sg3_utils	1.25		sg3_utils-1.28-6.el6.x86_64
sg3_utils-libs	1.25		sg3_utils-libs-1.28-6.el6.x86_64
sg3_utils-devel	1.25		sg3_utils-devel-1.28-6.el6.x86_64
mysql	5.0.77		mysql-5.1.73-3.el6_5.x86_64
mysql-server	5.0.77		mysql-server-5.1.73-3.el6_5.x86_64
mysql-devel	5.0.77		mysql-devel-5.1.73-3.el6_5.x86_64
mysql-libs	5.0.77		mysql-libs-5.1.73-3.el6_5.x86_64
gnutls	1.4.1		gnutls-2.8.5-14.el6_5.x86_64
readline	5.1.3		readline-6.0-4.el6.x86_64
readline-devel	5.1.3		readline-devel-6.0-4.el6.x86_64
unixODBC	2.2.11		unixODBC-2.2.14-14.el6.x86_64



Package	Minimum version	Note	Verified version
unixODBC-devel	2.2.11		unixODBC-devel-2.2.14-14.el6.x86_64
freetds	0.64		freetds-0.91-2.el6.x86_64
freetds-devel	0.64		freetds-devel-0.91-2.el6.x86_64
pcre	7.8		pcre-7.8-6.el6.x86_64
pcre-devel	7.8		pcre-devel-7.8-6.el6.x86_64
lzo	2.03-2		lzo-2.03-3.1.el6_5.1.x86_64
lzo-devel	2.03-2		lzo-devel-2.03-3.1.el6_5.1.x86_64
xz	4.999.9-0.1		xz-4.999.9-0.5.beta.20091007git.el6.x86_64
bzip2-devel (libbz2-devel)	1.0.5-5		bzip2-devel-1.0.5-7.el6_0.x86_64
libffi-devel	3.0.5-3.2		libffi-devel.x86_64 0:3.0.5-3.2.el6
sqlite-devel	3.6		3.6.20-1.el6.x86_64
rabbitmq-server	3.3.1		rabbitmq-server-3.3.5-28.el7.noarch

\*\* CentOS 6 require extra package: [epel-release](https://dl.fedoraproject.org/pub/epel/epel-release-latest-6.noarch.rpm)  
(<https://dl.fedoraproject.org/pub/epel/epel-release-latest-6.noarch.rpm>)

```
Install this epel repository before you try to install erlang package
# yum install epel-release-latest-6.noarch.rpm
```

\*\* CentOS 7 require extra package: [epel-release](https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm)  
(<https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm>)

```
Install this epel repository before you try to install erlang package
# yum install epel-release-latest-7.noarch.rpm
```

**\*\* SUSE require extra package: [epel-release](http://download.opensuse.org/repositories/devel:/languages:/erlang/)**  
(<http://download.opensuse.org/repositories/devel:/languages:/erlang/>)

```
Install erlang-epmd without dependencies since it requires erlang and vice versa erlang requires erlang-epmd
wget http://download.opensuse.org/repositories/devel:/languages:/erlang/SLE_11_SP4/x86_64/erlang-18.3-12.1.x86_64.rpm
wget http://download.opensuse.org/repositories/devel:/languages:/erlang/SLE_11_SP4/x86_64/erlang-epmd-18.3-12.1.x86_64.rpm
rpm -i --nodeps erlang-epmd-18.3-12.1.x86_64.rpm
rpm -i erlang-18.3-12.1.x86_64.rpm
```

# Prepare Environment

## **Summary:** Prepare Environment

### Create user and group

Please run the following command as user root.

```
# groupadd arch
# useradd -c "ESSArch System Account" -m -g arch arch
```

### Set password for arch user

Please run the following command as user root.

```
# passwd arch
Changing password for user arch.
New UNIX password: password
Retype new UNIX password: password
```

### Customize user environment for arch user

Add the following rows to `/home/arch/.bash_profile`:

```
### ESSArch Core start
##
export PATH=/ESSArch/pd/python/bin:$PATH:/usr/sbin
export LANG=en_US.UTF-8
export LD_LIBRARY_PATH=/ESSArch/pd/python/lib:/ESSArch/pd/libxslt/lib:/ESSArch/pd/libxml/lib:$LD_LIBRARY_PATH
export EC=/ESSArch/pd/python/lib/python2.7/site-packages/ESSArch_Core
export PYTHONPATH=$EC:/ESSArch/config
export DJANGO_SETTINGS_MODULE=config.settings
alias log='cd /ESSArch/log'
##
### ESSArch Core end
```

## Create installation directory

Please run the following command as user root.

```
# mkdir /ESSArch
# chown -R arch:arch /ESSArch
```

# Install ESSArch Core

## EC installation script

Please download the latest installation package from [GitHub](https://github.com/ESSolutions/ESSArch_Core/releases/latest)  
([https://github.com/ESSolutions/ESSArch\\_Core/releases/latest](https://github.com/ESSolutions/ESSArch_Core/releases/latest))

Change to user "arch" with the following command.

```
# su - arch
```

Extract and install the downloaded package.

```
[arch@server ~]$ tar xvf ESSArch_Core_installer-x.x.x.tar.gz
```

```
[arch@server ~]$ cd ESSArch_Core_installer-x.x.x
```

```
[arch@server ~]$ ./install
```

The installation of ESSArch is now running and dependent on hardware configuration, the installation may take some time. To see details of the installation progress please start a new terminal window and run the following command.

```
[arch@server ~]$ tail -f /ESSArch/install.log
```

When installation is finished, search in the log file /ESSArch/install.log for any unexpected errors indicating failure of installation of any modules.

## Enable automatic startup at system boot

Login as root user.

### Enable automatic startup of Apache HTTPD

```
Please run the following command as user root.  
# cp /home/arch/ESSArch_Core_installer-x.x.x/extra/esshttpd2.sh /etc/  
init.d/esshttpd  
# chmod 744 /etc/init.d/esshttpd  
# chkconfig esshttpd on
```

### Enable automatic startup RabbitMQ

```
Please run the following command as user root.  
# chkconfig rabbitmq-server on  
# service rabbitmq-server start
```

# Safety backup procedures

## **Summary:** Safety backup procedures

### Important files to backup

Important data in ESSArch to backup is the configuration, log files and database. All areas which are mounted from external file servers should be backed up.

Everything in the file area /ESSArch should be backed up before and after configuration changes or changes in ESSArch system installation, for example when upgrading and software patches.

Areas that need to be backed up to an external “backup system” daily is the following:

- /ESSArch/backups\_mysql
- /ESSArch/config
- /ESSArch/log
- /ESSArch/data

# Logfiles

## **Summary:** Logfile

## Events and log information

Different types of events are logged both in physical files and tables in ESSArch database. Log entries are tagged with the log level - Debug, Critical, Error, Warning, Info. List of log files:

- /ESSArch/log
- /ESSArch/log/httpd\_access.log
- /ESSArch/log/httpd\_error.log
- /ESSArch/log/httpd\_ssl\_request.log