



EFM and DGLux5 Installation Guide

Kinetic - Edge & Fog Processing Module (EFM) 1.2.0

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Contents

Introduction	2
EFM and DGLux5 licensing.....	2
Installation of the EFM components	2
Installing more than one instance of the EFM components	2
Steps to install and operate more than one EFM or DGLux5 instance on the same operating system:	3
Installation:	3
Starting each server:	4
Requesting a DGLux5 6 month trial license:	4
Connecting the DGLux5 server to another EFM message broker	6
Obtaining documentation and submitting a service request.....	7

Introduction

The Cisco Edge & Fog Processing Module (EFM) on the Windows and Linux platform contains a graphical user interface development tool called DGLux5. It is not normally exposed nor is it functional with the Cisco EFM license. Because the underlying licensing doesn't normally allow for the DGLux5 operation, we will discuss how to enable it.

EFM and DGLux5 licensing

The Cisco Edge & Fog Processing Module (EFM) upon startup installs a .dglogik licensing file in the home directory of the user. This license enables the EFM to function as a unlimited node, and support the specific EFM projects EFM System Administrator and EFM System Monitor.

There are several options to enable the DGLux5 tool on an EFM installation:

- Convert the only EFM installation to the DGLux5 development environment with a trial license or a permanent license
- Keeping an existing EFM installation operation and installing another instance of the EFM to enable the DGLux5 development environment to coexist on the same host.

The DGLux5 will allow for an automatic 6 month trial license. This license is not renewable and will expire or requires the purchase of a additional license for operation.

Installation of the EFM components

For practical purposes the *EFM Linux Installation Guide* and *EFM Installation Guide for Windows* describe all of the necessary steps for a single instance. Refer to these documents for more details.

Installing more than one instance of the EFM components

If the desire is to keep an existing EFM installation functioning on the host and create another EFM instance for DGLux5 then the following steps are needed to not disable the EFM node without the DGLux5 license operation.

The Cisco Edge & Fog Processing Module (EFM) allows for installation of more than one instance on the same compute operating system running Linux or Windows. What is basically

required is the creation of unique users for each installation and the running of each instance. Upon startup a unique .dglogik licensing file in the home directory of each user that represents the licensed environment. Without taking care for this step, requesting a DGLux5 license will render the EFM node non-functional until a proper license is installed.

Each instance of the EFM or DGLux5 message broker must bind to different TCP ports for connectivity. At installation time or post installation by editing the `efm_server/server.json` file the port configuration can be changed to unique values on the server. Otherwise the second server will not start if the ports are already taken.

Steps to install and operate more than one EFM or DGLux5 instance on the same operating system:

For the purposes of this installation, two EFM servers will be installed on a single host. The first will maintain all EFM functionality and the second will request a trial license for DGLux5. Each server will be configured using unique TCP ports for http/https for browser connectivity and websocket communications.

We will use for EFM server 1 ports 8180 for http and 8543 for https and for EFM server 2 ports 8080 for http and 8443 for https.

Installation:

1. For the first EFM instance
 - a. Create user1
 - b. Login as user1
 - c. Install using the standard EFM installer the EFM components (broker and system administrator at least) in the kinetic folder using unique ports for http and https. For example in Linux, the default path for installation is `/opt/cisco/kinetic`.
2. For the second EFM instance
 - a. As user 1
 - b. Install using the standard EFM installer the dglux component in the kinetic folder using default http and https (8080 and 8443 respectively). Manual configuration of the `dglux/server.json` file is needed to change these options after first time startup.
 - c. Create user2
 - d. Login as user2

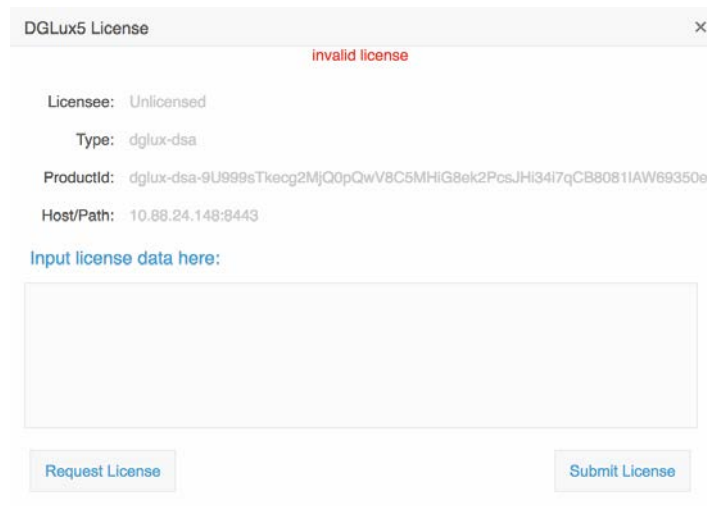
- e. For Linux change user and group ownership of the kinetic/dglux_server folder (for example on linux “sudo chown -R user2 /opt/cisco/kinetic/dglux_server” and “sudo chgrp -R user2 /opt/cisco/kinetic/dglux_server”). For Windows, allow user2 to read, write and execute user1\kinetic\dglux_server folder. This is needed so user2 can write to the directories as files are created.

Starting each server:

3. Login as user 1. Start server 1
4. Login as user 2. Start server 2 (dglux)

Requesting a DGLux5 6 month trial license:

5. Using a web browser client, connect to the second server port using http://[Server IP address]: 8080 or https://[Server IP address]:8443.
6. Login as dgSuper and password dglux1234



DGLux5 License

invalid license

Licensee: Unlicensed

Type: dglux-dsa

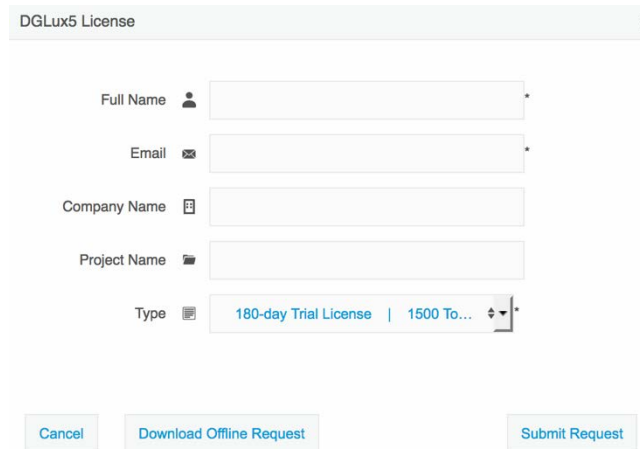
ProductId: dglux-dsa-9U999sTkecg2MjQ0pQwV8C5MHIG8ek2PcsJHi34I7qCB8081IAW69350e

Host/Path: 10.88.24.148:8443

[Input license data here:](#)

Request License Submit License

7. Select “Request License”. Complete the following form, choose “180-day Trial License | 1500 Topics” and select “Submit Request”.



DGLux5 License

Full Name

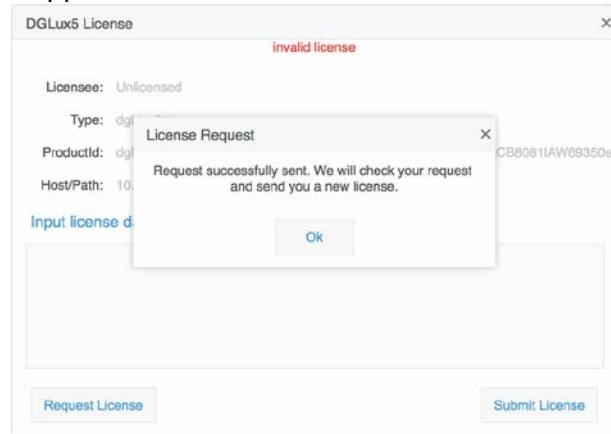
Email

Company Name

Project Name

Type

The following result show appear:



DGLux5 License

invalid license

Licensee: Unlicensed

Type: dgl

ProductId: dgl

Host/Path: 10...

Input license d

License Request

Request successfully sent. We will check your request and send you a new license.

In most instances licensing will be automatic.

- Connect to the dglux server port using `http://[Server IP address]:8080` or `https://[Server IP address]:8443`. Once the license has been approved the following pop-up will appear. If you agree to the End User License Agreement, select "I agree".



EFM and DGLux5 Installation Guide - Cisco EFM, Release 1.2.0

DGLux5

DGLux5 End User License Agreement

End User License Agreement

(Agreement) is entered into as of the date the "I Agree" button is clicked (Effective Date) between DGLux5, Inc. ("DGLux5"), as licensor, and ("you" or "Licensee") as licensee.

A. DGLux5 has developed a standardized architecture and related software for visualization of the "DGLux Framework" and related documentation available in printed, electronic and/or online form ("Documentation").

B. DGLux5 is willing to provide a limited end user license to the DGLux Framework and Documentation upon the terms and conditions set forth herein.

1. LICENSE GRANTS AND RESTRICTIONS

1.1 DGLux Framework. Subject to the terms and conditions contained herein, the Licensor hereby grants you a non-transferable, non-exclusive, limited license ("License") to install, use and execute the DGLux Framework, on a single server, which is identified by a discrete model number or other means during the installation process ("Designated System"), and to use the Documentation in connection therewith, solely for your internal business use. During the installation process, you will receive one email or by other means specified by the Licensor license file to be installed on one server in the Designated System, which file are required for the DGLux Framework to operate. In the event that operation of the DGLux Framework is deemed in more than one server in the Designated System, you will be provided with license file to be installed on each additional required server within the Designated System. Upon representation by you to the Licensor that the Designated System is either inoperative or unavailable due to regularly scheduled maintenance issues, you may transfer the DGLux Framework to a backup computer system you own or lease ("Backup System") and use it thereon, and the Licensor will provide you with the necessary files to effect such transfer. Upon restoration of the Designated System to proper functionality, use of the DGLux Framework on the Backup System must cease and the DGLux Framework must be completely removed from the Backup System unless the Licensor provides written consent permitting continued installation on the Backup System.

1.2 Limited Sublicense Rights. You will be permitted to sell up sub-user accounts within the DGLux Framework pursuant to which you may allow third party tenants and other sub-users access to certain data available within the DGLux Framework. You may allow sub-users to access any information that is directly relevant to such sub-user and not to specific information related to other persons (such as, for example, detailed data directly related to individual sub-users occupied by unrelated tenants within a building monitored by the DGLux Framework). Each sub-user screen made available for access to a sub-user is referred to herein as a "Shared Dashboard". You may charge sub-users reasonable fees for access to Shared Dashboards. No sublicense rights other than as expressly stated above are permitted hereunder.

1.3 No Other Rights Granted. Apart from the License and the rights expressly granted in Sections 1.1 and 1.2 above, no license or other right is granted by DGLux5 to you under this Agreement, either directly or by implication, estoppel, or otherwise (including, but not limited to, the right to prepare derivative works). You shall have no right or access to the source code of the DGLux Framework other than the source code, if any, for certain application programs ("Plugins") that are included with the DGLux Framework. If any source code is included with the DGLux Framework, it is provided solely as a reference, is provided subject to all of the limitations of Section 2 below, and may not be modified by you in any way. You shall have no right to use the DGLux Framework to operate or control any system, or component of any system, of any third party.

2. YOUR RESPONSIBILITIES

YOU SHALL NOT MODIFY, DECOMPILATE, DISASSEMBLE, DECRYPT, EXTRACT, OR OTHERWISE REVERSE ENGINEER THE DGLUX FRAMEWORK OR ANY PART THEREOF, OR ANY APPLICATION ENABLER, OR GRANT ANY OTHER PERSON OR ENTITY THE RIGHT TO DO SO OR TAKE ANY ACTION THAT WOULD ASSIST ANY OTHER PERSON OR ENTITY IN DOING SO. YOU WILL PROMPTLY NOTIFY THE LICENSOR OF ANY ATTEMPT BY ANY OTHER PERSON OR ENTITY TO COPY, REVERSE ENGINEER, DISASSEMBLE, DECRYPT, EXTRACT, OR OTHERWISE REVERSE ENGINEER THE DGLUX FRAMEWORK OR DOCUMENTATION, WITHOUT LIMITING THE FOREGOING, YOU SHALL NOT (i) INSERT, DELETE, REPLACE, CHANGE OR OTHERWISE ALTER ANY FILES IN THE DGLUX FRAMEWORK OR APPLICATION ENABLER, (ii) MODIFY, CHANGE, PREPARE DERIVATIVE WORKS OF OR OTHERWISE ALTER ANY BINARY CODE FILES INCLUDED WITH THE DGLUX FRAMEWORK, (iii) LOAN, RENT, LEASE, GIVE, SUBLICENSE, TRANSFER, PUBLISH, DISCLOSE, DISPLAY OR OTHERWISE MAKE AVAILABLE THE DGLUX FRAMEWORK OR DOCUMENTATION, IN WHOLE OR IN PART, TO ANY OTHER PERSON OR ENTITY, (iv) MODIFY ANY APPLICATION PROGRAMMING INTERFACE, INCLUDING MODIFYING ANY APPLICATION PROGRAMMING INTERFACE BY CREATING ADDITIONAL CLASSES WITHIN ANY INTERFACE OR OTHERWISE CAUSING THE ADDITION TO OR MODIFICATION OF THE CLASSES IN AN INTERFACE, AND (v) INCORPORATE ANY CODE INCLUDED WITH THE DGLUX FRAMEWORK OR ANY DOCUMENTATION IN ANY DEVELOPER PRODUCT. YOU SHALL USE ALL COMMERCIALLY REASONABLE EFFORTS TO ENSURE THAT YOUR EMPLOYEES COMPLY WITH THE TERMS OF THIS AGREEMENT.

3. TECHNICAL SUPPORT. The Licensor shall have no obligation of any kind to provide technical support with respect to the DGLux Framework except as provided in a separate support agreement between you and the Licensor.

Connecting the DGLux5 server to another EFM message broker

The dglux installation contains a fully functional DSA message broker that is compatible with the Cisco Kinetic EFM message broker. The EFM System Administrator on the first server or any other node can be used to connect the DGLux5 broker node

Use [http://\[Server IP address\]: 8180/efm-admin](http://[Server IP address]: 8180/efm-admin) or [https://\[Server IP address\]:8543/efm-admin](https://[Server IP address]:8543/efm-admin).

Under the Management tab, selecting the upstream option a new upstream broker can be configured as with any other EFM node.

Obtaining documentation and submitting a service request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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