



WYDE Software Installation Guide

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<http://docs.wydevoice.com/>

June 30, 2015

Symbols and Notations in this Manual

The following notations and symbols can be found in this manual.



Denotes any item that requires special attention or care. Damage to the equipment or the operator may result from failure to take note of the noted instructions

Figure	Denotes any illustration
Table	Denotes any table
Text	Denotes any text output
<i>Folder/File</i>	Denotes any folders (paths) or files names
commands	Denotes any commands, attributes and parameters

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Chapter 1: Introduction

The installation package for WYDE Voice conferencing bridge software is distributed as DVD disk. Installation media (DVD) contains all necessary files to install WYDE Voice conferencing bridge software. Installation DVD also contains any additional components required for the installation, thereby internet connection is not required for the installation. However internet connection is recommended; while installing WYDE software installer can download the latest version of prerequisite components from official CentOS repository.

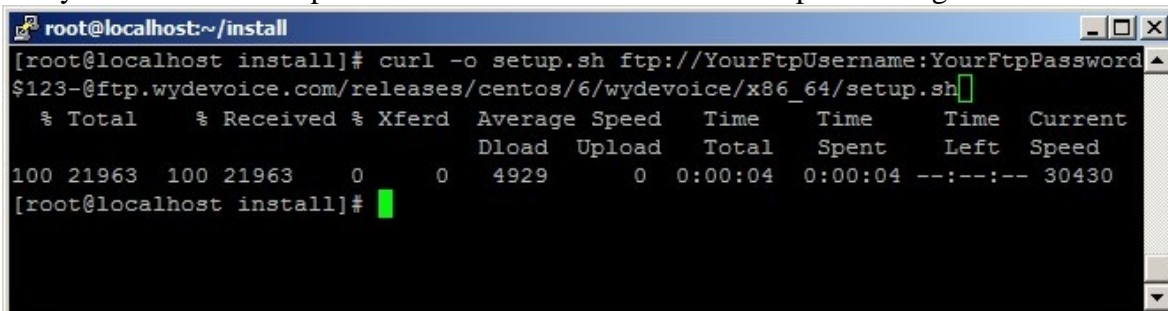
Storing the Installation Files

We recommend in any case that you make and keep copies of the installation DVD contents on your PC's local hard drive – preferably in a dedicated “installer folder” – and that you use these local files when installing. This will ensure immediate access to the installation files in case of subsequent installation upgrades or set-up changes.

Downloading the Installation Files from Internet

The installation files also can be downloaded from Internet using your FTP username and password. You can create the installation folder on your PC's local hard drive, go to this installation folder, and download the files from FTP using curl command:

`curl -o setup.sh ftp://YourFtpUsername:YourFtpPassword$123-@ftp.wydevoice.com/releases/centos/6/wydevoice/x86_64/setup.sh`
Use your username and password instead of shown in the sample. See Figure 1 for details.



```

root@localhost:~/install
[root@localhost install]# curl -o setup.sh ftp://YourFtpUsername:YourFtpPassword$123-@ftp.wydevoice.com/releases/centos/6/wydevoice/x86_64/setup.sh
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
100 21963  100 21963    0     0  4929      0  0:00:04  0:00:04 --:--:-- 30430
[root@localhost install]#
  
```

Figure 1: Downloading the Installation Files from Internet



Right after you have downloaded the installation files to your local computer you should go to installation folder where you downloaded the WYDE installation software, for instance (actual folder could be different), type:

```
cd /root/install/
```

After that you should add the permission to execute all installation script *.sh files using the command:

```
chmod +x *.sh
```

Next you could start WYDE bridge software installation using the command:

```
./setup.sh
```

① Or you can do not add execution permissions to the file and just run `sh ./setup.sh`

Note that necessary WYDE software components as well as the latest version of CentOS prerequisite components can be downloaded from the Internet during the installation process as shown on Figure 2. Make sure that you have Internet connection on your computer to allow it.

```

root@localhost:~/install
---> Package kamailio-postgresql.x86_64 0:4.0.2-1 will be erased
---> Package kamailio-regex.x86_64 0:4.0.2-1 will be erased
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                Arch          Version        Repository      Size
=====
Removing:
asterisk                x86_64        11.3.0-1       @WYDE           28 M
jetty                   noarch        6.1.25-45      @WYDE           48 M
kamailio                x86_64        4.0.2-1        @WYDE           12 M
Removing for dependencies:
kamailio-perl           x86_64        4.0.2-1        @WYDE           214 k
kamailio-postgresql     x86_64        4.0.2-1        @WYDE           202 k
kamailio-regex          x86_64        4.0.2-1        @WYDE           46 k
Transaction Summary
=====
Remove                6 Package(s)

Installed size: 89 M
Is this ok [y/N]: 

```

Figure 2: Downloading the WYDE Software Components from Internet during the Installation

Permissions



You must have administrator (root) permissions to install the WYDE conferencing bridge software.

Domain Name System (DNS)



The computer where you are installing the WYDE conferencing bridge software must have DNS configured to resolve `hostname` to real computer IP address (not to *127.0.0.1*); i.e. “ping `hostname`” must return real computer IP address (such as *192.168.1.32*).

In the simplest case you may need to edit */etc/hosts* file. Read Linux and/or CentOS documentation if you need information how to configure DNS.

Supported Languages

The WYDE conferencing bridge software standard installation contains audio prompt files in US English only. You can also obtain additional audio prompts for the following languages:

- Arabic (AR)
- Australian English (AUS)
- British English (UK)
- Czech (CS)
- Dutch (NL)
- French (FR)
- German (DE)
- Italian (IT)
- Japanese (JA)
- Korean (HE)
- Portuguese (PT)
- Brazilian Portuguese (BR)
- Romanian (RO)
- Spanish (ES)

If you would like to get audio prompts for any of these languages please contact WYDE Voice technical support for detail instructions and assistance.

System Requirements

Please note that the following is required to run WYDE conferencing bridge software:

- **Operating system** – CentOS 6.4 or later (64-bit only), minimum configuration, no additional components installed
- **Ethernet (network) adapter**
- **DVD/CD-ROM drive** – to access the installation files
- **CPU** – Intel® Xeon® X5550 or later
- **RAM** – 4GB RAM
- **HDD space** – 20GB minimum available

This configuration is recommended for 1000 simultaneous calls using default CONF call flow. Please contact WYDE Voice technical support to find which configuration is right for you.

In addition please make sure that the mail server is configured and started (you may need to run: “`service postfix start`” for these purposes). This is needed to send notification emails (for example about any system crashes or reporting) within the WYDE conferencing bridge software.

Chapter 2: Software Installation

The WYDE conferencing bridge software consists of the following components:

- core components – *dnca* database, *mps*, *mf*, *asd2*, and *agiserver* services;
- frontend components – Asterisk service, *WYDE-asterisk* package;
- backend components – Media Processor (mpw) service, *WYDE-mpw* package;
- frontend load balancer and dial out proxy components – Kamailio (OpenSER) SIP proxy server and call router that is responsible for calls routing (redirect) to specific frontend (Asterisk) and for end-users registration, *WYDE-kamailio* package;
- screen sharing service server – media-server that is necessary to maintain screen sharing meetings etc., *WYDE-dp-server* package;
- screen sharing service proxy – media-proxy that is necessary to maintain screen sharing meetings etc., *WYDE-dp-proxy* package;
- billing components – the billing services and database (see “*WYDE Billing Guide*” for additional information);
- web components – Web Services, Web Administration Interface, etc., *WYDE-tomcat*, *WYDE-webadmin* (web frontend), and *WYDE-wyderef* (web backend) packages as well as the core components packages are used for the web components.

There are some WYDE software packages installed and used for all components, e.g. *WYDE-version*, *WYDE-release*, *WYDE-initscripts*, etc.

There are three possible deployment types to install WYDE conferencing bridge software (see Figure 4):

- Standalone – single host installation; install all components of the product on one single computer; usually this deployment type is used for small conferences bridges or as trial;
- Stateless – distributed installation connected to infrastructure; this deployment type is designated to work as part of global infrastructure, all configuration parameters (e.g. DID, DID Groups, etc.) are being received from main central bridge;
- Multihost – distributed multiple hosts installation; this deployment type is also designated to work globally, but all parameters are being configured locally.

Performing distributed stateless or multi-host installation the WYDE components are being installed on different computers, in this case

- core packages (*dnca* database, *mps* and *mf* services) are being installed on separate Linux cluster computers – one Linux computer or two Linux computers that are joined together in the cluster; *core* installation option is being used to do that;
- SIP backend components (Media Processor – *mpw* service) are being installed on another separate computers (one or many); *backend* installation option is being used to do that;
- SIP frontend components (asterisk service) are being installed on separate computers (one or many); *frontend* installation option is being used to do that;
- SBC (kamailio service) – frontend load balancer and dial out proxy components are being installed on another separate computers (one or many); *kamailio* installation option is being used to do that;

- screen sharing service server components of the WYDE software are being installed on computer where core components installed or on another separate computers (only one screen sharing server components per bridge are allowed); *dp-server* installation option is being used to do that;
- screen sharing service proxy components of the WYDE software are being installed on computer where core components installed or on another separate computers (one or many); *dp-proxy* installation option is being used to do that;
- WYDE web interface (Web Services and Web Administration Interface) are being installed on computer where core components installed or on another separate computer; *web* installation option is being used to do that;
- billing database components of the WYDE software (billing database) are being installed on the computer where core components are installed or another separate computers; *billing-DB* installation option is being used to do that;

Note that you can combine and install some set of the components on one computer, and some on another, i.e. in stateless or multi-host installations you can check and select any options to install them on the single computer.

Let's assume that you have copied the contents of the installation DVD disk or downloaded the installation files from Internet to the `/root/install/` folder prior to the installation. To start WYDE conferencing bridge software installation you should perform the following steps:

1. Go to the installation folder of the software, for instance, type:
`cd /root/install/`
if you have copied installation files into this folder.
2. Type `./setup.sh` to start the installation process. The welcome screen shown on Figure 3 appears. Click the “Continue” button.

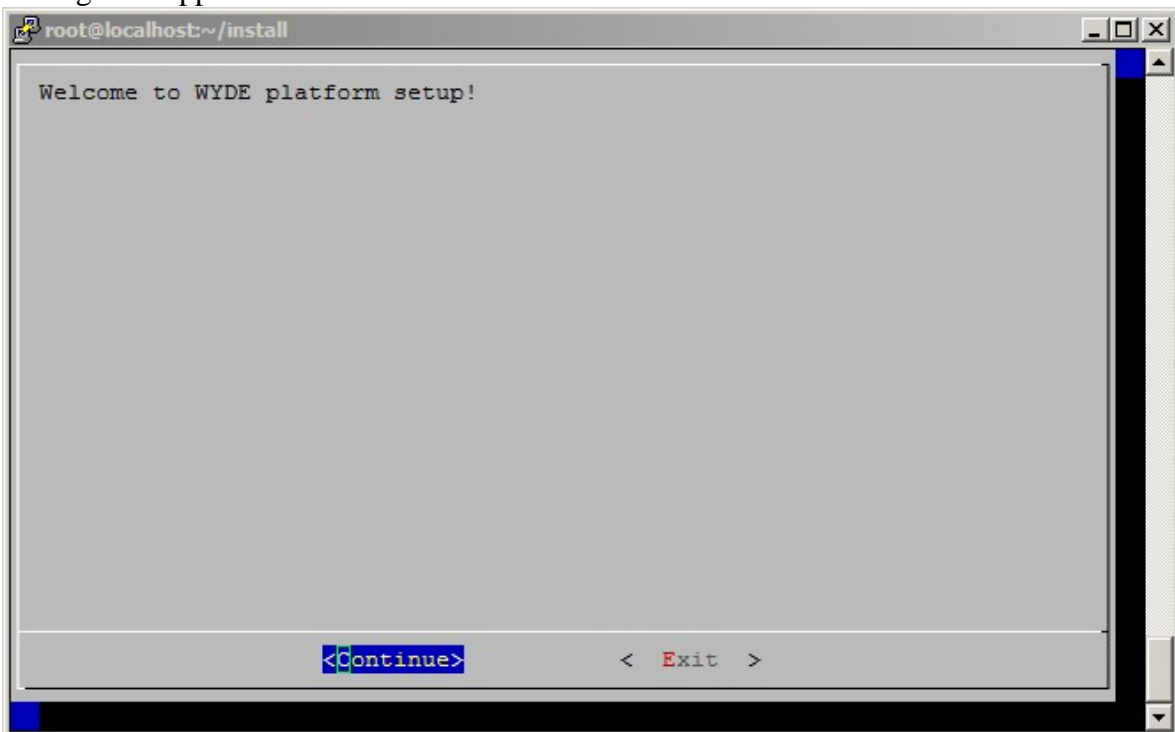


Figure 3: Installation Welcome Screen

3. Select the deployment type question will appear next, see Figure 4.

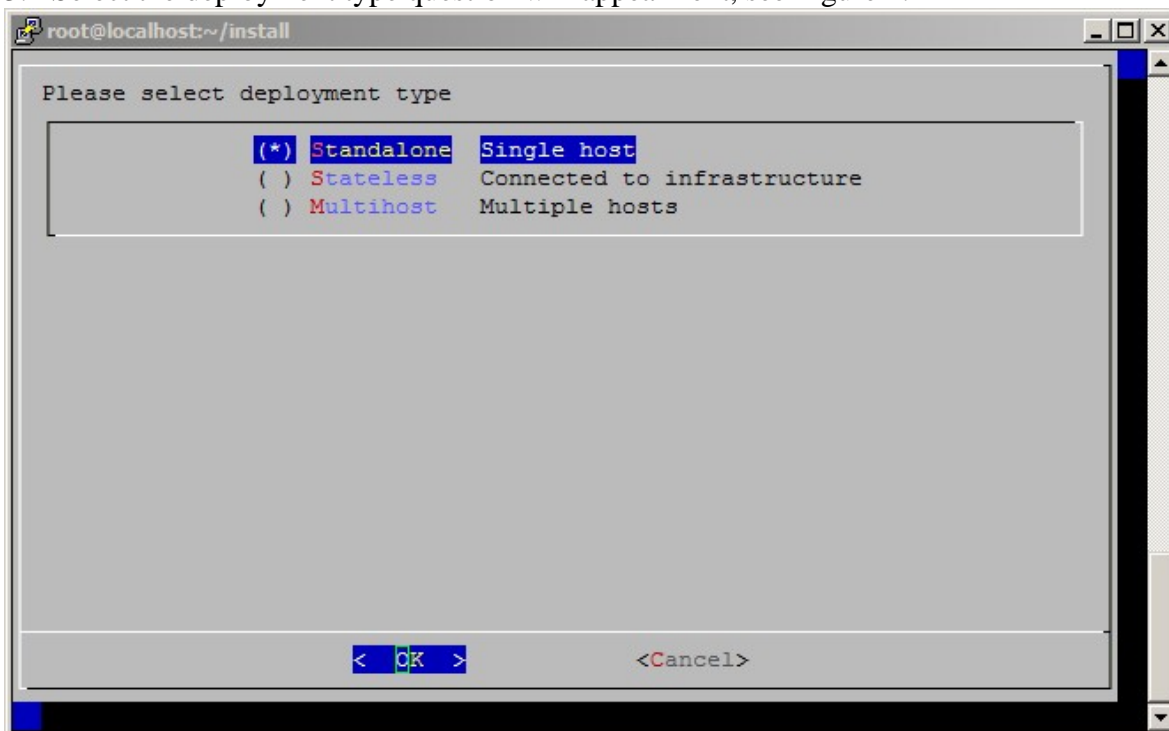


Figure 4: Installation “select deployment type” Question, Standalone Installation Selected

2.1: Standalone Installation

To perform full standalone installation of all components on one single computer you should select *standalone* (single host) deployment type of the installation. The WYDE conferencing bridge software contains the following packages:

- WYDE-4.0.mmm-o.noarch
- WYDE-agiserver-4.0.mmm-o.noarch
- WYDE-asterisk-4.0.mmm-o.noarch
- WYDE-asterisk-perl-4.0.mmm-o.noarch
- WYDE-callflows-core_callflow-4.0.mmm-o.noarch
- WYDE-configurator-4.0.mmm-o.noarch
- WYDE-dp-asd2-4.0.mmm-o.x86_64
- WYDE-dp-proxy-4.0.mmm-o.x86_64
- WYDE-dp-recorder-4.0.mmm-o.x86_64
- WYDE-dp-server-4.0.mmm-o.x86_64
- WYDE-initscripts-4.0.mmm-o.noarch
- WYDE-kamailio-4.0.mmm-o.noarch
- WYDE-mf-4.0.mmm-o.x86_64
- WYDE-mp-mps-4.0.mmm-o.x86_64
- WYDE-mp-mpw-4.0.mmm-o.x86_64
- WYDE-perl-base-4.0.mmm-o.noarch
- WYDE-release-4-6.noarch
- WYDE-tomcat-4.0.mmm-o.noarch
- WYDE-transcoder-4.0.mmm-o.i686
- WYDE-version-4.0.mmm-o.noarch
- WYDE-webadmin-4.0.mmm-o.noarch
- WYDE-wyderel-4.0.mmm-o.noarch

The following call flows packages are being installed in the installation:

- WYDE-callflows-conf_callflow-4.0.mmm-o.noarch
- WYDE-callflows-operator_callflow-4.0.mmm-o.noarch
- WYDE-callflows-playback_callflow-4.0.mmm-o.noarch
- WYDE-callflows-spectel_callflow-4.0.mmm-o.noarch

The following meta-packages containing dependencies information are being installed in the installation:

- WYDE-deploy-backend-4.0.mmm-o.noarch
- WYDE-deploy-core-4.0.mmm-o.noarch
- WYDE-deploy-dp-proxy-4.0.mmm-o.noarch
- WYDE-deploy-dp-server-4.0.mmm-o.noarch
- WYDE-deploy-frontend-4.0.mmm-o.noarch
- WYDE-deploy-kamailio-4.0.mmm-o.noarch
- WYDE-deploy-standalone-4.0.mmm-o.noarch
- WYDE-deploy-web-4.0.mmm-o.noarch

The following services are being installed during standalone installation:

- agiserver
- sipserv
- asd2
- mps
- mf
- mpw
- asterisk
- tomcat
- nginx
- kamailio
- dp-server
- dp-proxy

To perform the full standalone installation of the WYDE conferencing bridge software on a single computer you should start the installation as it was described in the beginning of this chapter and perform the steps from 1 till 3. After that the following steps should be implemented:

4. In the select deployment type question to perform full installation on the single computer you should select Standalone (Single host) option as shown on Figure 4. All WYDE bridge components will be installed in this case.
5. Next the installation program will ask to enter your external host name as shown on Figure 5. This is the virtual host domain name required for secure (https) connection; the secured certificates should be issued/signed for this host domain name.

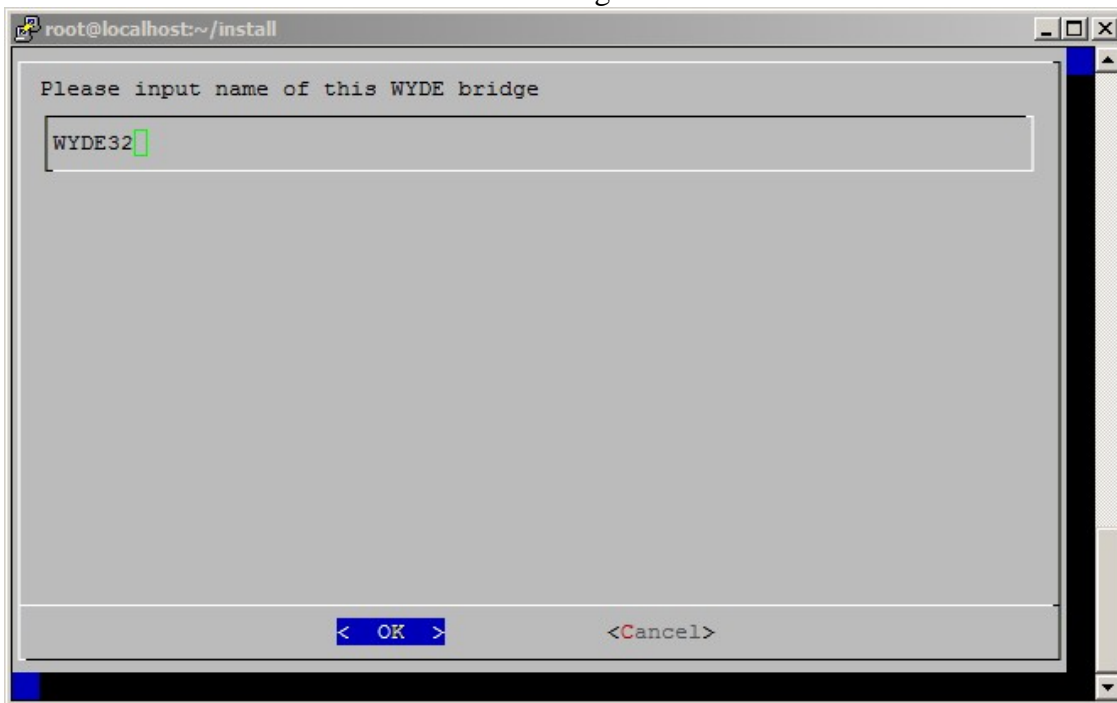


Figure 5: Standalone Installation “input name of this WYDE bridge” Question

6. Next the installation program will ask to enter (check) your private IP address for this computer, see Figure 6.

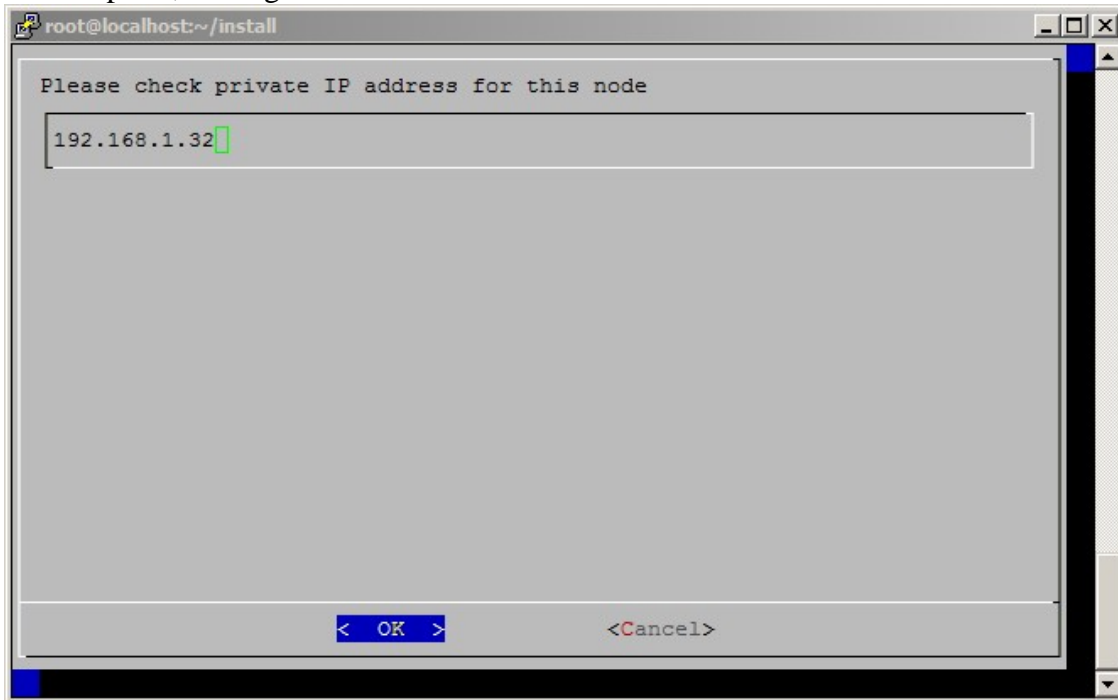


Figure 6: Standalone Installation “check private IP address” Question

7. Next the installation program will ask to enter the email address for notifications about any crashes as shown Figure 7.

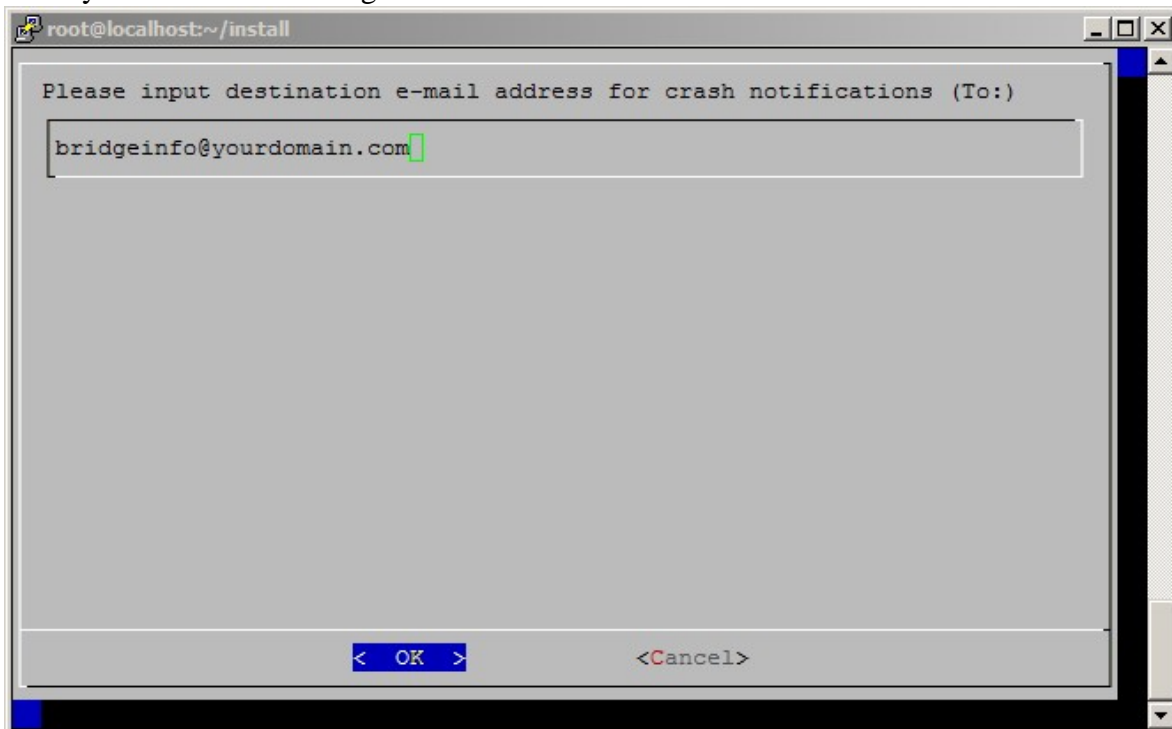
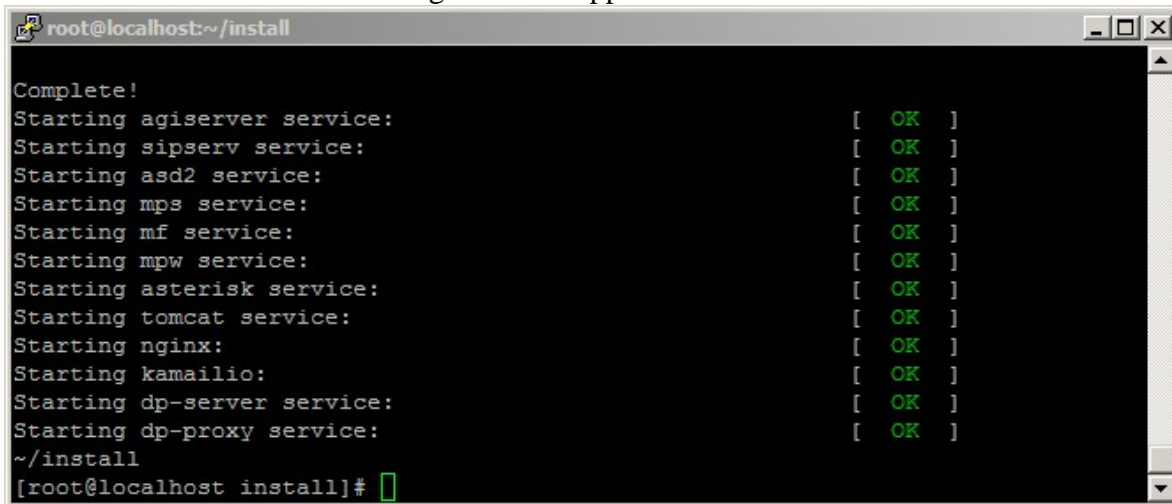


Figure 7: Standalone Installation “input destination e-mail address” Question

Your *nginx* listen IP address and hostname bound to the address that you entered on the previous screens (Figure 6) are stored in the file: `/usr/local/DNCA/etc/wyde_nginx.conf`. The folder `/usr/local/DNCA/etc/` contains the following two self-signed files: *cert.key* (the private-key file of a specific certificate) and *cert.pem* (the public-key file of a specific certificate). You should replace these two files with your certificate files registered/signed for your hostname; however you can use them for testing purposes.

Thus your WYDE bridge web applications, such as Web Administration Interface, are being run from the computer which IP was entered as your “*private IP address*” and which domain name was entered as “*name of this WYDE bridge*” (secure certificates are registered to this name). The connection to these WYDE bridge web applications is secured (https).

8. When the installation process is completed, all WYDE services will be started, and the screen similar to shown on Figure 8 will appear.



```

root@localhost:~/install

Complete!
Starting agiserver service:           [ OK ]
Starting sip serv service:            [ OK ]
Starting asd2 service:                [ OK ]
Starting mps service:                 [ OK ]
Starting mf service:                  [ OK ]
Starting mpw service:                 [ OK ]
Starting asterisk service:            [ OK ]
Starting tomcat service:              [ OK ]
Starting nginx:                       [ OK ]
Starting kamailio:                    [ OK ]
Starting dp-server service:           [ OK ]
Starting dp-proxy service:            [ OK ]
~/install
[root@localhost install]#

```

Figure 8: Standalone Installation Completed Screen

Note that the *http* connection on port 80 is not supported by WYDE bridge, only secure *https* connection is supported. To open Web Administration Interface you should use the IP address of the computer where you have made WYDE software standalone installation, i.e. you should type the URL *https://<your bridge IP>/* (*https://192.168.1.32/* in our sample). See Chapter 4: Verify Software Installation for details.

When the WYDE conferencing bridge software installation is completed the `/tmp/` folder will contain the following log file:

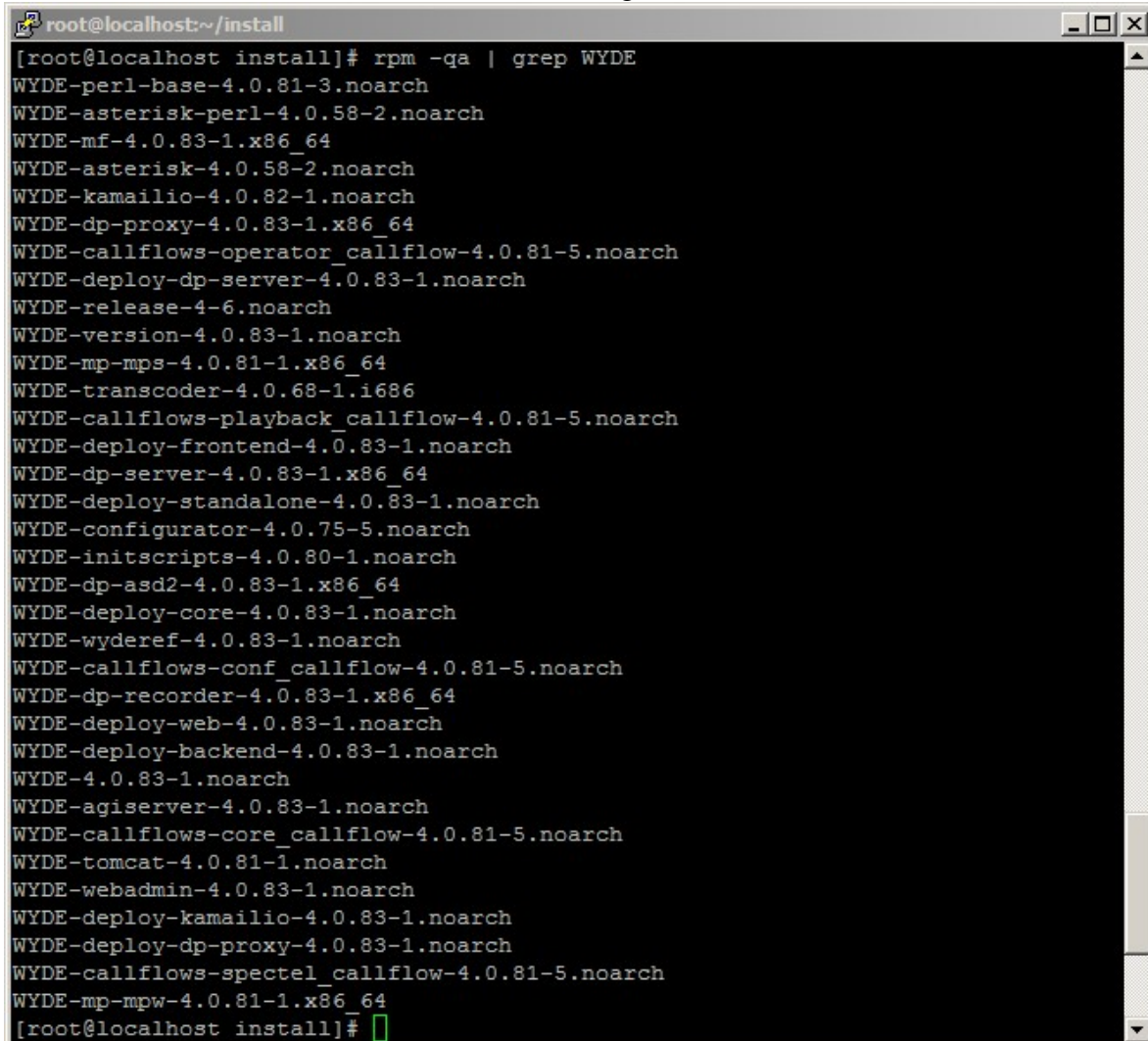
WYDE-setup-<installation date in unixtime format>-<installation process identifier PID>.log (for example log file name could be *WYDE-setup-1431699792-24626.log*).

This file contains information about all actions performed during installation as well as the errors occurred during installation.

You can check the installed WYDE packages using the command:

```
rpm -qa | grep WYDE
```

It should return the screen similar to shown on Figure 9.

A terminal window titled 'root@localhost:~/install' showing the output of the command 'rpm -qa | grep WYDE'. The output lists 34 installed WYDE packages, including perl-base, asterisk-perl, mf, asterisk, kamailio, dp-proxy, callflows-operator, deploy-dp-server, release, version, mp-mps, transcoder, callflows-playback, deploy-frontend, dp-server, deploy-standalone, configurator, initscripts, dp-asd2, deploy-core, wydereref, callflows-conf, dp-recorder, deploy-web, deploy-backend, a generic WYDE package, agiserver, callflows-core, tomcat, webadmin, deploy-kamailio, deploy-dp-proxy, callflows-spectel, and mp-mpw. The terminal window has a standard Linux-style title bar with minimize, maximize, and close buttons, and a scrollbar on the right side.

```
root@localhost:~/install
[root@localhost install]# rpm -qa | grep WYDE
WYDE-perl-base-4.0.81-3.noarch
WYDE-asterisk-perl-4.0.58-2.noarch
WYDE-mf-4.0.83-1.x86_64
WYDE-asterisk-4.0.58-2.noarch
WYDE-kamailio-4.0.82-1.noarch
WYDE-dp-proxy-4.0.83-1.x86_64
WYDE-callflows-operator_callflow-4.0.81-5.noarch
WYDE-deploy-dp-server-4.0.83-1.noarch
WYDE-release-4-6.noarch
WYDE-version-4.0.83-1.noarch
WYDE-mp-mps-4.0.81-1.x86_64
WYDE-transcoder-4.0.68-1.i686
WYDE-callflows-playback_callflow-4.0.81-5.noarch
WYDE-deploy-frontend-4.0.83-1.noarch
WYDE-dp-server-4.0.83-1.x86_64
WYDE-deploy-standalone-4.0.83-1.noarch
WYDE-configurator-4.0.75-5.noarch
WYDE-initscripts-4.0.80-1.noarch
WYDE-dp-asd2-4.0.83-1.x86_64
WYDE-deploy-core-4.0.83-1.noarch
WYDE-wydereref-4.0.83-1.noarch
WYDE-callflows-conf_callflow-4.0.81-5.noarch
WYDE-dp-recorder-4.0.83-1.x86_64
WYDE-deploy-web-4.0.83-1.noarch
WYDE-deploy-backend-4.0.83-1.noarch
WYDE-4.0.83-1.noarch
WYDE-agiserver-4.0.83-1.noarch
WYDE-callflows-core_callflow-4.0.81-5.noarch
WYDE-tomcat-4.0.81-1.noarch
WYDE-webadmin-4.0.83-1.noarch
WYDE-deploy-kamailio-4.0.83-1.noarch
WYDE-deploy-dp-proxy-4.0.83-1.noarch
WYDE-callflows-spectel_callflow-4.0.81-5.noarch
WYDE-mp-mpw-4.0.81-1.x86_64
[root@localhost install]#
```

Figure 9: The WYDE Conferencing Bridge Software Packages Installed during Standalone Installation

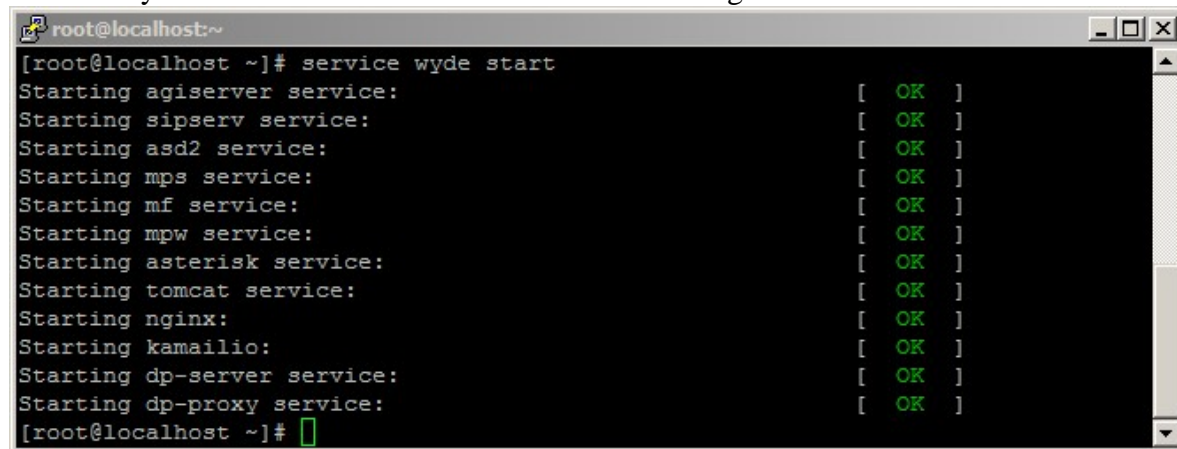
After full standalone installation completed all needed WYDE bridge services will be automatically started. If necessary you can start *agiserver*, *sipserv*, *asd2*, *mps*, *mf*, *mpw*, *asterisk*, *tomcat*, *nginx*, *kamailio*, *dp-server*, *dp-proxy* services manually using the following commands:

```
service agiserver start
service sipserv start
service asd2 start
service mps start
service mf start
service mpw start
service asterisk start
service tomcat start
service nginx start
service kamailio start
service dp-server start
service dp-proxy start
```

Or for the same purposes you can use the command:

```
service wyde start
```

After that you will see the screen similar to shown on Figure 10.



```
root@localhost:~
[root@localhost ~]# service wyde start
Starting agiserver service:      [ OK ]
Starting sipserv service:       [ OK ]
Starting asd2 service:         [ OK ]
Starting mps service:          [ OK ]
Starting mf service:           [ OK ]
Starting mpw service:          [ OK ]
Starting asterisk service:     [ OK ]
Starting tomcat service:       [ OK ]
Starting nginx:                [ OK ]
Starting kamailio:             [ OK ]
Starting dp-server service:     [ OK ]
Starting dp-proxy service:     [ OK ]
[root@localhost ~]#
```

Figure 10: Starting All WYDE Services after Standalone Installation Completed

Note these WYDE services are being started automatically once your computer restarted.

After standalone installation the bridge can process 10 simultaneous audio calls, video calls, and screen sharing sessions only. To increase this amount you should visit <http://licserver.wydevoice.com> using your credentials and the unique hardware signature (*/usr/local/DNCA/etc/hws.bin*) which was built during the installation. See Chapter 3: Licensing of this guide for detail information.

Once you have installed the WYDE conferencing bridge software you can make the calls on the bridge on this computer. See Chapter 4: Verify Software Installation for details how to test the WYDE conferencing bridge software installation.

2.2: Stateless Installation

To perform stateless installation of the WYDE conferencing bridge software you should select *stateless* (connected to infrastructure) deployment type of the installation. After the *stateless* installation the WYDE conferencing bridge software contains the packages depending on components selected during the installation:

- for *core* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-agiserver-4.0.mmm-o.noarch
 - WYDE-asterisk-perl-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-core-4.0.mmm-o.noarch
 - WYDE-dp-asd2-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mf-4.0.mmm-o.x86_64
 - WYDE-mp-mps-4.0.mmm-o.x86_64
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch
- for *backend* components they are:
 - WYDE-deploy-backend-4.0.mmm-o.noarch
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mp-mpw-4.0.mmm-o.x86_64
 - WYDE-release-4-6.noarch
- for *frontend* components they are:
 - WYDE-asterisk-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-deploy-frontend-4.0.mmm-o.noarch
 - WYDE-dp-recorder-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-transcoder-4.0.mmm-o.i686
- for *SBC* (kamailio) components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-kamailio-4.0.mmm-o.noarch
 - WYDE-kamailio-4.0.mmm-o.noarch
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch
- for *screen sharing server* components they are:
 - WYDE-deploy-dp-server-4.0.mmm-o.noarch
 - WYDE-dp-server-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch

- for *screen sharing proxy* components they are:
 - WYDE-deploy-dp-proxy-4.0.mmm-o.noarch
 - WYDE-dp-proxy-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
- for *WYDE web interface* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-agiserver-4.0.mmm-o.noarch
 - WYDE-asterisk-perl-4.0.mmm-o.noarch
 - WYDE-callflows-conf_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-operator_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-playback_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-spectel_callflow-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-core-4.0.mmm-o.noarch
 - WYDE-deploy-web-4.0.mmm-o.noarch
 - WYDE-dp-asd2-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mf-4.0.mmm-o.x86_64
 - WYDE-mp-mps-4.0.mmm-o.x86_64
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-tomcat-4.0.mmm-o.noarch
 - WYDE-version-4.0.mmm-o.noarch
 - WYDE-webadmin-4.0.mmm-o.noarch
 - WYDE-wyderref-4.0.mmm-o.noarch
- for *billing database* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch

If the installation of the core components is selected during the installation, the following call flows packages are being installed:

- WYDE-callflows-conf_callflow-4.0.mmm-o.noarch
- WYDE-callflows-operator_callflow-4.0.mmm-o.noarch
- WYDE-callflows-playback_callflow-4.0.mmm-o.noarch
- WYDE-callflows-spectel_callflow-4.0.mmm-o.noarch

The installed services also depend on components selected during the *stateless* installation:

- for *core* components they are:
 - agiserver
 - sipserv
 - asd2
 - mps
 - mf

- for *backend* components it is:
 - mpw
- for *frontend* components it is:
 - asterisk
- for *SBC* (kamailio) components it is:
 - kamailio
- for *screen sharing server* components it is:
 - dp-server
- for *screen sharing proxy* components it is:
 - dp-proxy
- for *WYDE web interface* components they are:
 - tomcat
 - nginx

To perform WYDE conferencing bridge software stateless installation you should start the installation as it was described in the beginning of this chapter and perform the steps from 1 till 3. After that the following steps should be implemented:

4. In the select deployment type question to perform stateless installation you should select Stateless (Connected to infrastructure) option as shown on Figure 11. When this deployment type is selected, the bridge is designated to work as part of global infrastructure when the configuration parameters are being received from main central bridge. This central bridge is defined at the next step of this installation (see below).

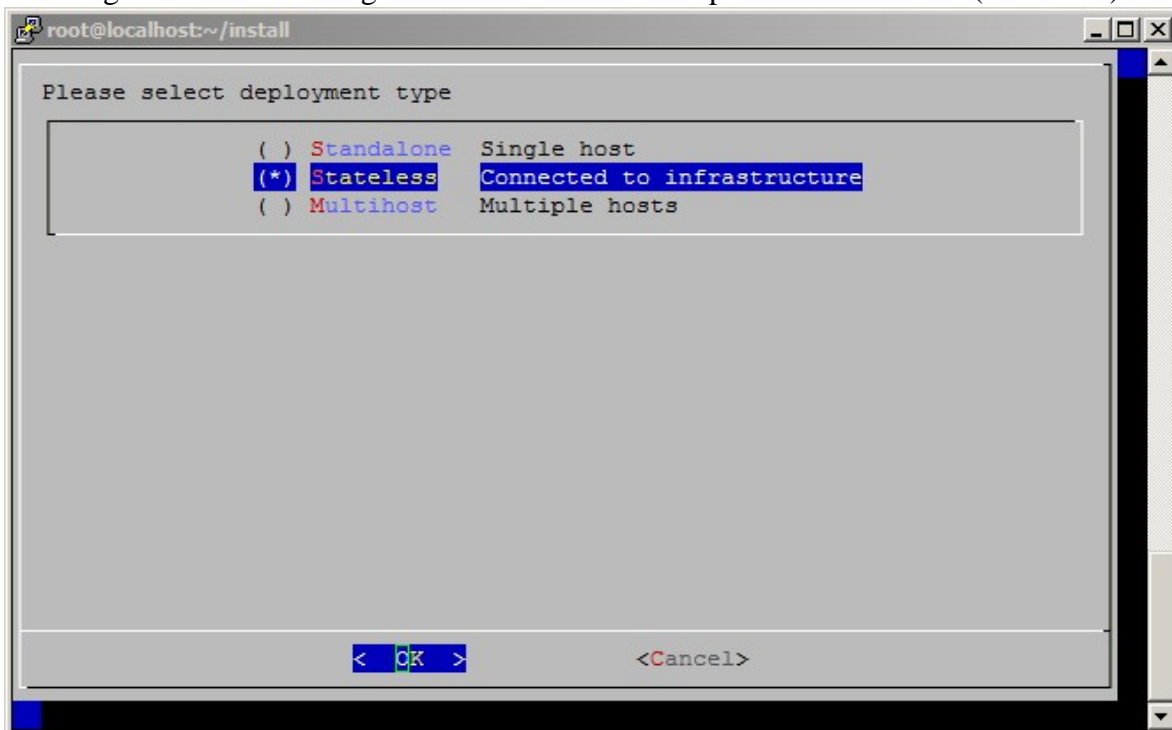


Figure 11: Installation “select deployment type” Question, Stateless Installation Selected

5. Next the installation program will ask to input URL-bases for WYDE central settings server, see Figure 12.

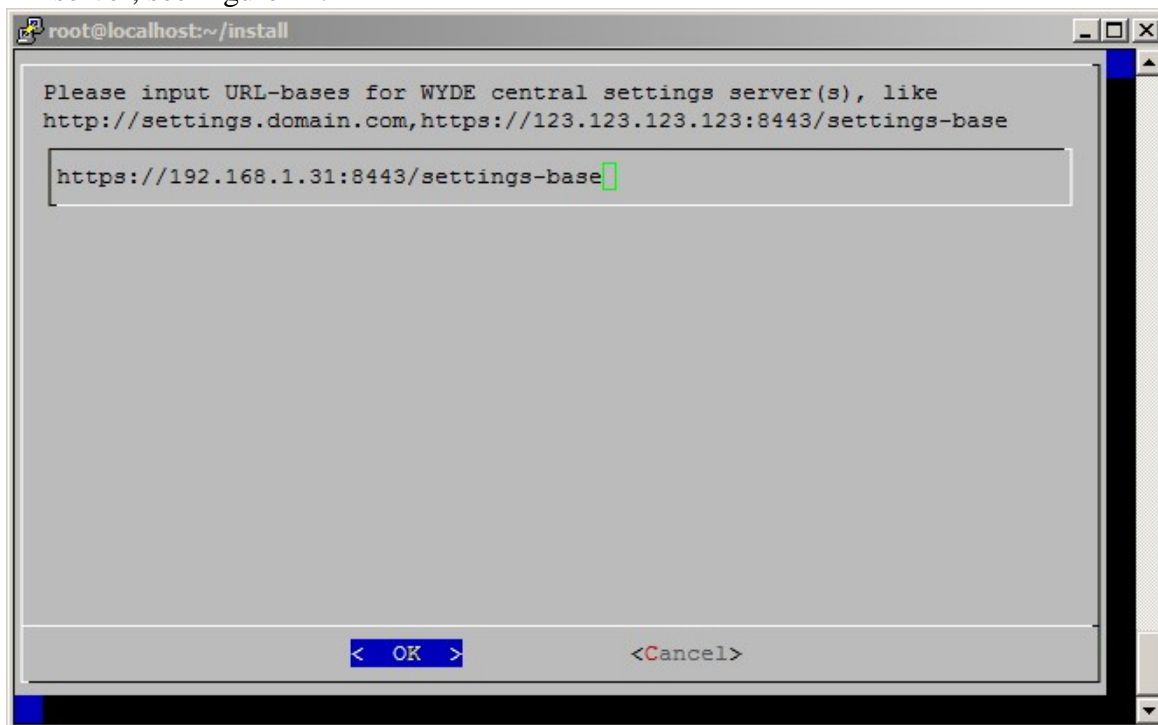


Figure 12: Stateless Installation “enter host IP” Question

6. If some of WYDE central settings servers are not reachable the installation program will suggest re-edit these settings or continue as it is as shown on Figure 13.

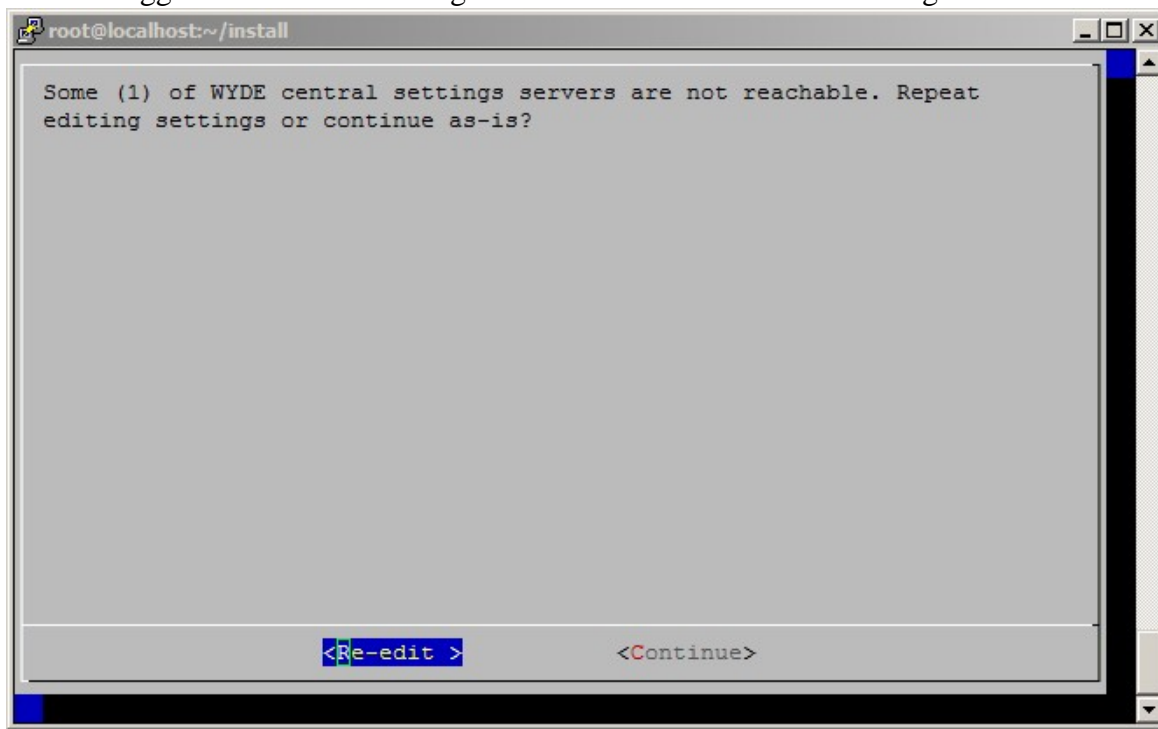


Figure 13: Stateless Installation “notification email” Question

7. In the select components to install you should select what components you would like to install; you can select some and unselect other components depending on your needs, as shown on Figure 14. For this Guide let's assume that we selected all components.

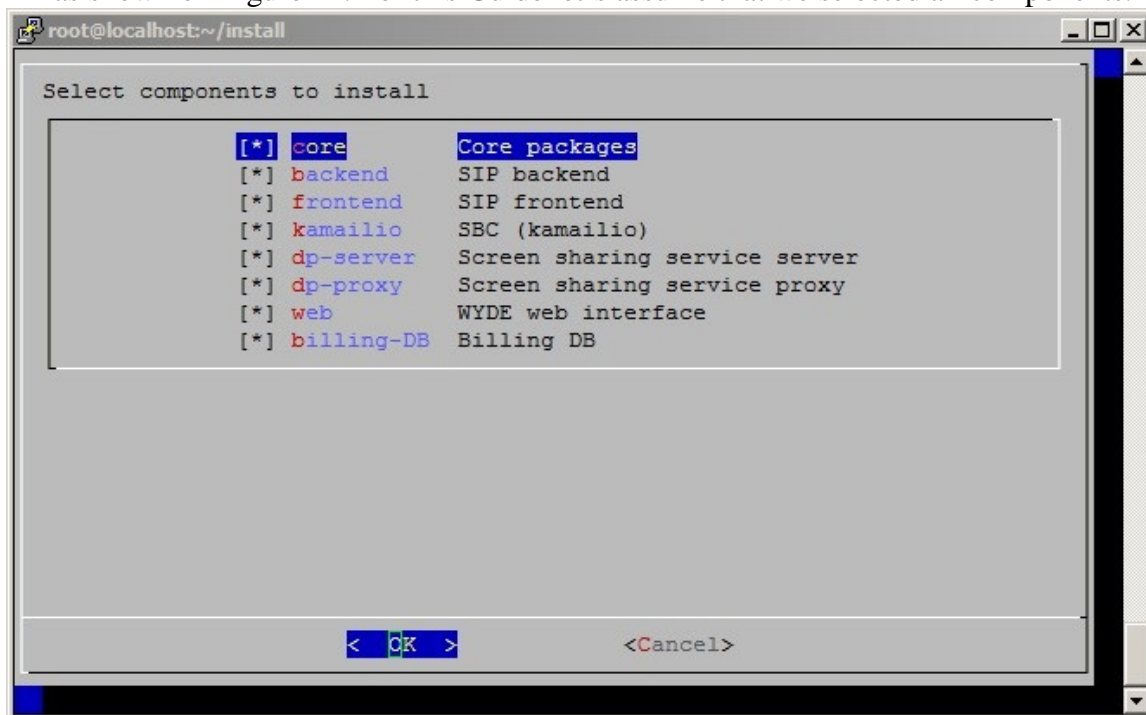


Figure 14: Stateless Installation “select components to install” Question, All Components Selected

8. Next the installation program will ask to enter your external host name as shown on Figure 15. This is the virtual host domain name required for secure (https) connection; the secured certificates should be issued/signed for this host domain name.

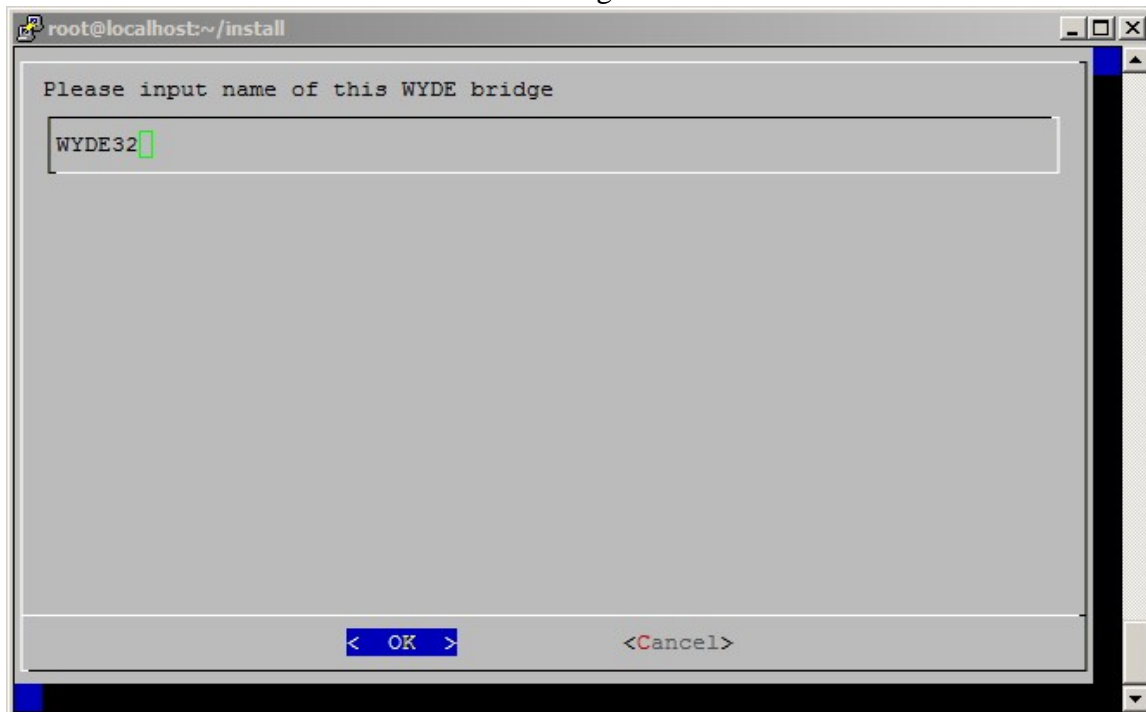


Figure 15: Stateless Installation “input name of this WYDE bridge” Question

9. If you selected the core components, next the installation program will ask to enter (check) your private IP address for this computer, see Figure 16.

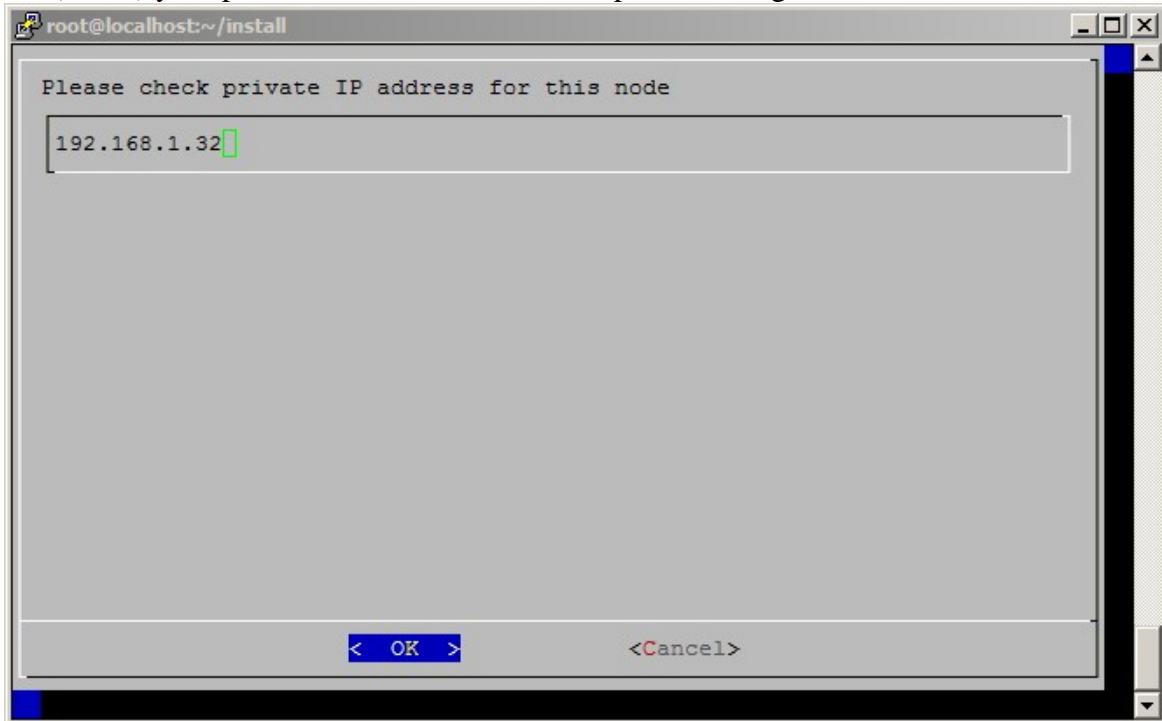


Figure 16: Stateless Installation “check private IP address” Question

If you did not select the core components, the installation program will ask to input the IP address of WYDE core node, see Figure 17.

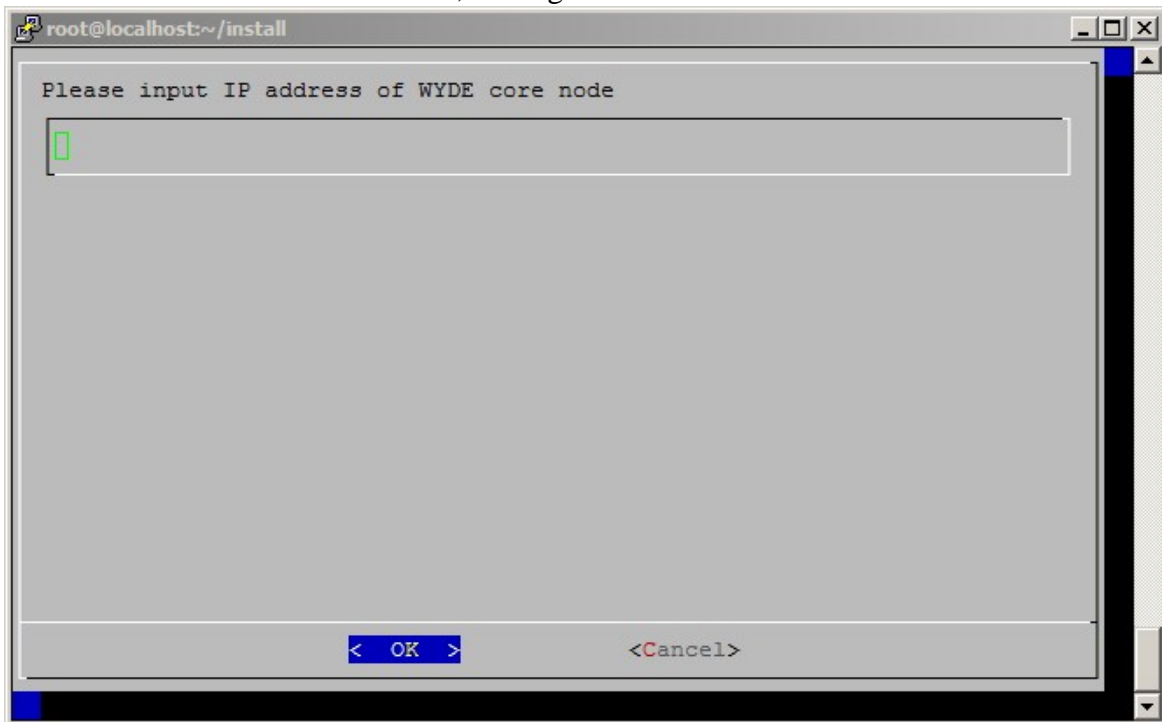


Figure 17: Stateless Installation “input IP address of the WYDE core node” Question

10. Next the installation program will ask to enter the email address for notifications about any crashes as shown on Figure 18.

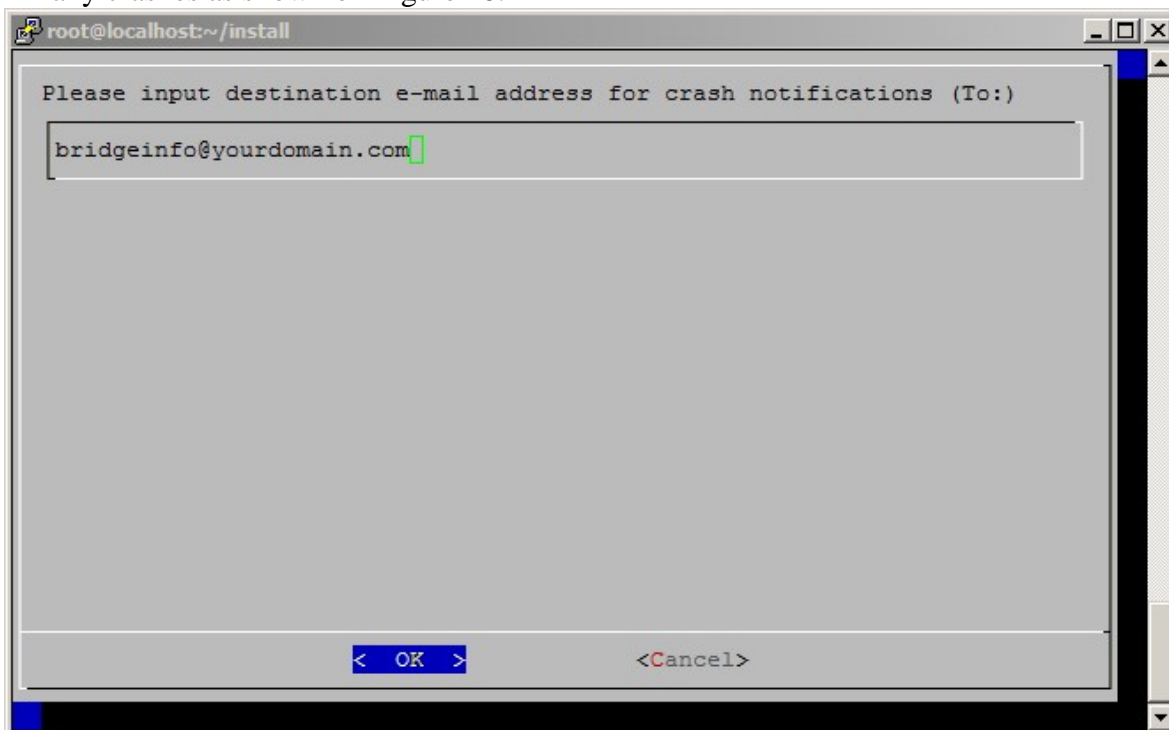


Figure 18: Stateless Installation “input destination e-mail address” Question

11. After stateless installation has been completed you will see the screen similar to shown on Figure 19.

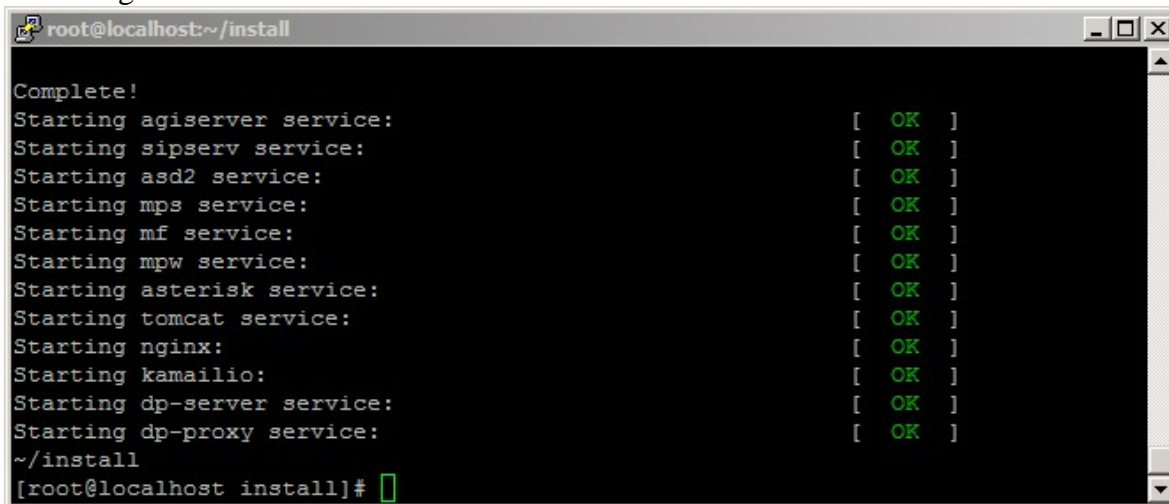
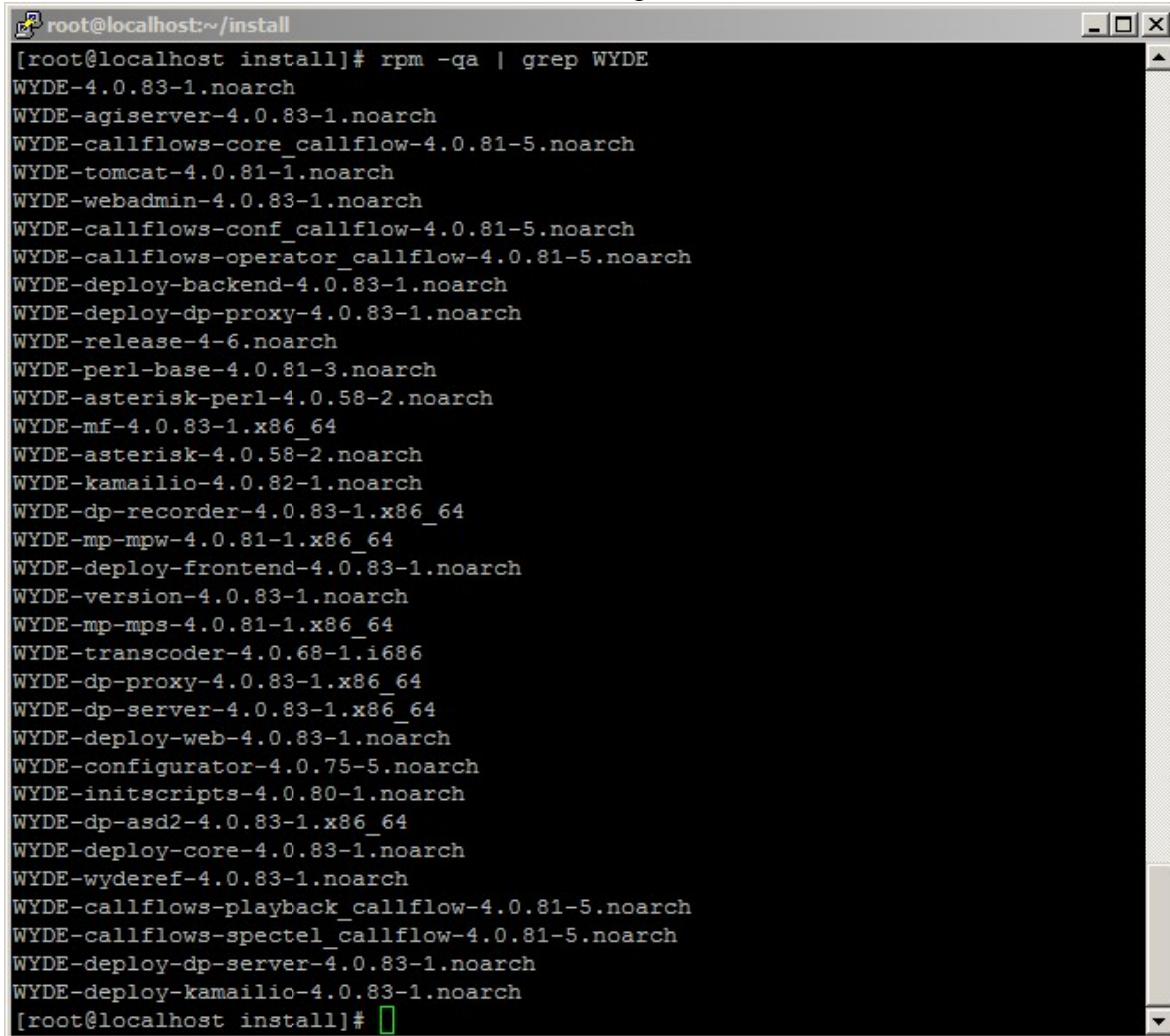


Figure 19: Stateless Installation Completed Screen

You can check the installed stateless packages using the command:

```
rpm -qa | grep WYDE
```

It should return the screen similar to shown on Figure 20.

A terminal window titled 'root@localhost:~/install' showing the output of the command 'rpm -qa | grep WYDE'. The output lists 33 installed WYDE packages, including core components like 'callflow', 'tomcat', and 'webadmin', as well as various deployment and utility packages. The terminal has a standard Linux window interface with a title bar and a scrollbar on the right.

```
[root@localhost install]# rpm -qa | grep WYDE
WYDE-4.0.83-1.noarch
WYDE-agiserver-4.0.83-1.noarch
WYDE-callflows-core_callflow-4.0.81-5.noarch
WYDE-tomcat-4.0.81-1.noarch
WYDE-webadmin-4.0.83-1.noarch
WYDE-callflows-conf_callflow-4.0.81-5.noarch
WYDE-callflows-operator_callflow-4.0.81-5.noarch
WYDE-deploy-backend-4.0.83-1.noarch
WYDE-deploy-dp-proxy-4.0.83-1.noarch
WYDE-release-4-6.noarch
WYDE-perl-base-4.0.81-3.noarch
WYDE-asterisk-perl-4.0.58-2.noarch
WYDE-mf-4.0.83-1.x86_64
WYDE-asterisk-4.0.58-2.noarch
WYDE-kamailio-4.0.82-1.noarch
WYDE-dp-recorder-4.0.83-1.x86_64
WYDE-mp-mpw-4.0.81-1.x86_64
WYDE-deploy-frontend-4.0.83-1.noarch
WYDE-version-4.0.83-1.noarch
WYDE-mp-mps-4.0.81-1.x86_64
WYDE-transcoder-4.0.68-1.i686
WYDE-dp-proxy-4.0.83-1.x86_64
WYDE-dp-server-4.0.83-1.x86_64
WYDE-deploy-web-4.0.83-1.noarch
WYDE-configurator-4.0.75-5.noarch
WYDE-initscripts-4.0.80-1.noarch
WYDE-dp-asd2-4.0.83-1.x86_64
WYDE-deploy-core-4.0.83-1.noarch
WYDE-wyderref-4.0.83-1.noarch
WYDE-callflows-playback_callflow-4.0.81-5.noarch
WYDE-callflows-spectel_callflow-4.0.81-5.noarch
WYDE-deploy-dp-server-4.0.83-1.noarch
WYDE-deploy-kamailio-4.0.83-1.noarch
[root@localhost install]#
```

Figure 20: The WYDE Conferencing Bridge Software Packages Installed during Stateless Installation

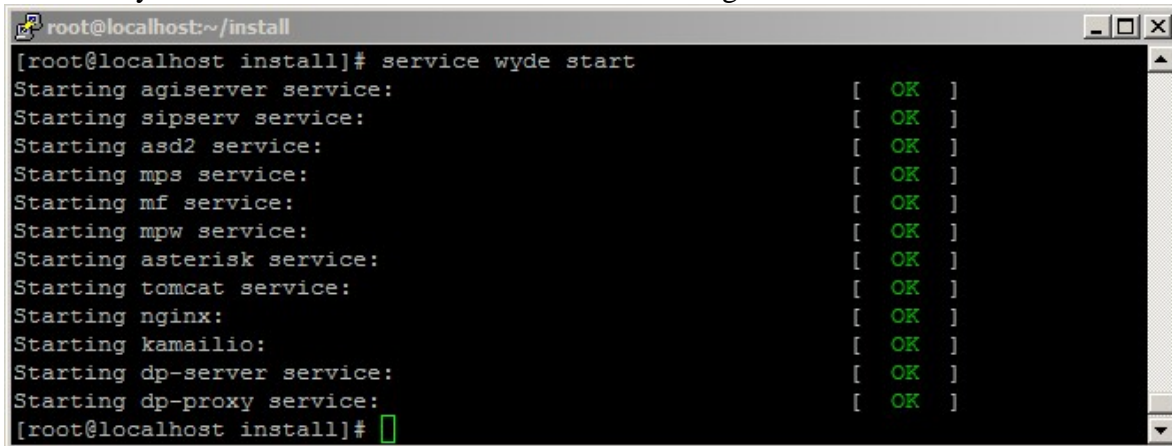
After stateless installation completed all installed WYDE bridge services will be automatically started. If necessary you can start *agiserver*, *sipserv*, *asd2*, *mps*, *mf*, *mpw*, *asterisk*, *tomcat*, *nginx*, *kamailio*, *dp-server*, *dp-proxy* services manually using the following commands:

```
service agiserver start
service sipserv start
service asd2 start
service mps start
service mf start
service mpw start
service asterisk start
service tomcat start
service nginx start
service kamailio start
service dp-server start
service dp-proxy start
```

Or for the same purposes you can use the command:

```
service wyde start
```

After that you will see the screen similar to shown on Figure 21.



```
root@localhost:~/install
[root@localhost install]# service wyde start
Starting agiserver service:           [ OK ]
Starting sipserv service:             [ OK ]
Starting asd2 service:                [ OK ]
Starting mps service:                 [ OK ]
Starting mf service:                  [ OK ]
Starting mpw service:                 [ OK ]
Starting asterisk service:            [ OK ]
Starting tomcat service:              [ OK ]
Starting nginx:                       [ OK ]
Starting kamailio:                    [ OK ]
Starting dp-server service:           [ OK ]
Starting dp-proxy service:            [ OK ]
[root@localhost install]#
```

Figure 21: Starting WYDE Services after Stateless Installation Completed

Note these services are being started automatically once your computer restarted.

After stateless installation the bridge can process 10 simultaneous audio calls, video calls, and screen sharing sessions only. To increase this amount you should visit <http://licserver.wydevoice.com> using your credentials and the unique hardware signature (*/usr/local/DNCA/etc/hws.bin*) which was built during the installation. See Chapter 3: Licensing of this guide for detail information.

Once you have performed the stateless installation of the WYDE conferencing bridge software you can make the calls on the bridge on this computer. See Chapter 4: Verify Software Installation for details how to test the WYDE conferencing bridge software installation.

2.3: Multihost Installation

To perform multihost installation of the WYDE conferencing bridge software you should select *multihost* (multiple hosts) deployment type of the installation. After the *multihost* installation the WYDE conferencing bridge software contains the packages depending on what components were selected during installation:

- for *core* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-agiserver-4.0.mmm-o.noarch
 - WYDE-asterisk-perl-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-core-4.0.mmm-o.noarch
 - WYDE-dp-asd2-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mf-4.0.mmm-o.x86_64
 - WYDE-mp-mps-4.0.mmm-o.x86_64
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch
- for *backend* components they are:
 - WYDE-deploy-backend-4.0.mmm-o.noarch
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mp-mpw-4.0.mmm-o.x86_64
 - WYDE-release-4-6.noarch
- for *frontend* components they are:
 - WYDE-asterisk-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-deploy-frontend-4.0.mmm-o.noarch
 - WYDE-dp-recorder-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-transcoder-4.0.mmm-o.i686
- for *SBC* (kamailio) components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-kamailio-4.0.mmm-o.noarch
 - WYDE-kamailio-4.0.mmm-o.noarch
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch
- for *screen sharing server* components they are:
 - WYDE-deploy-dp-server-4.0.mmm-o.noarch
 - WYDE-dp-server-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch

- for *screen sharing proxy* components they are:
 - WYDE-deploy-dp-proxy-4.0.mmm-o.noarch
 - WYDE-dp-proxy-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
- for *WYDE web interface* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-agiserver-4.0.mmm-o.noarch
 - WYDE-asterisk-perl-4.0.mmm-o.noarch
 - WYDE-callflows-conf_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-core_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-operator_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-playback_callflow-4.0.mmm-o.noarch
 - WYDE-callflows-spectel_callflow-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-deploy-core-4.0.mmm-o.noarch
 - WYDE-deploy-web-4.0.mmm-o.noarch
 - WYDE-dp-asd2-4.0.mmm-o.x86_64
 - WYDE-initscripts-4.0.mmm-o.noarch
 - WYDE-mf-4.0.mmm-o.x86_64
 - WYDE-mp-mps-4.0.mmm-o.x86_64
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-tomcat-4.0.mmm-o.noarch
 - WYDE-version-4.0.mmm-o.noarch
 - WYDE-webadmin-4.0.mmm-o.noarch
 - WYDE-wyderref-4.0.mmm-o.noarch
- for *billing database* components they are:
 - WYDE-4.0.mmm-o.noarch
 - WYDE-configurator-4.0.mmm-o.noarch
 - WYDE-perl-base-4.0.mmm-o.noarch
 - WYDE-release-4-6.noarch
 - WYDE-version-4.0.mmm-o.noarch

If the installation of the core components is selected during the installation, the following call flows packages are being installed:

- WYDE-callflows-conf_callflow-4.0.mmm-o.noarch
- WYDE-callflows-operator_callflow-4.0.mmm-o.noarch
- WYDE-callflows-playback_callflow-4.0.mmm-o.noarch
- WYDE-callflows-spectel_callflow-4.0.mmm-o.noarch

The installed services also depend on components selected during the *multihost* installation:

- for *core* components they are:
 - agiserver
 - sipserv
 - asd2
 - mps
 - mf

- for *backend* components it is:
 - mpw
- for *frontend* components it is:
 - asterisk
- for *SBC* (kamalio) components it is:
 - kamailio
- for *screen sharing server* components it is:
 - dp-server
- for *screen sharing proxy* components it is:
 - dp-proxy
- for *WYDE web interface* components they are:
 - tomcat
 - nginx

To perform WYDE conferencing bridge software multihost installation you should start the installation as it was described in the beginning of this chapter and perform the steps from 1 till 3. After that the following steps should be implemented:

4. In the select deployment type question to perform multihost installation you should select Multihost (multiple hosts) option as shown on Figure 22. When this deployment type is selected, the bridge is designated to work as part of global infrastructure when the configuration parameters are being configured locally.

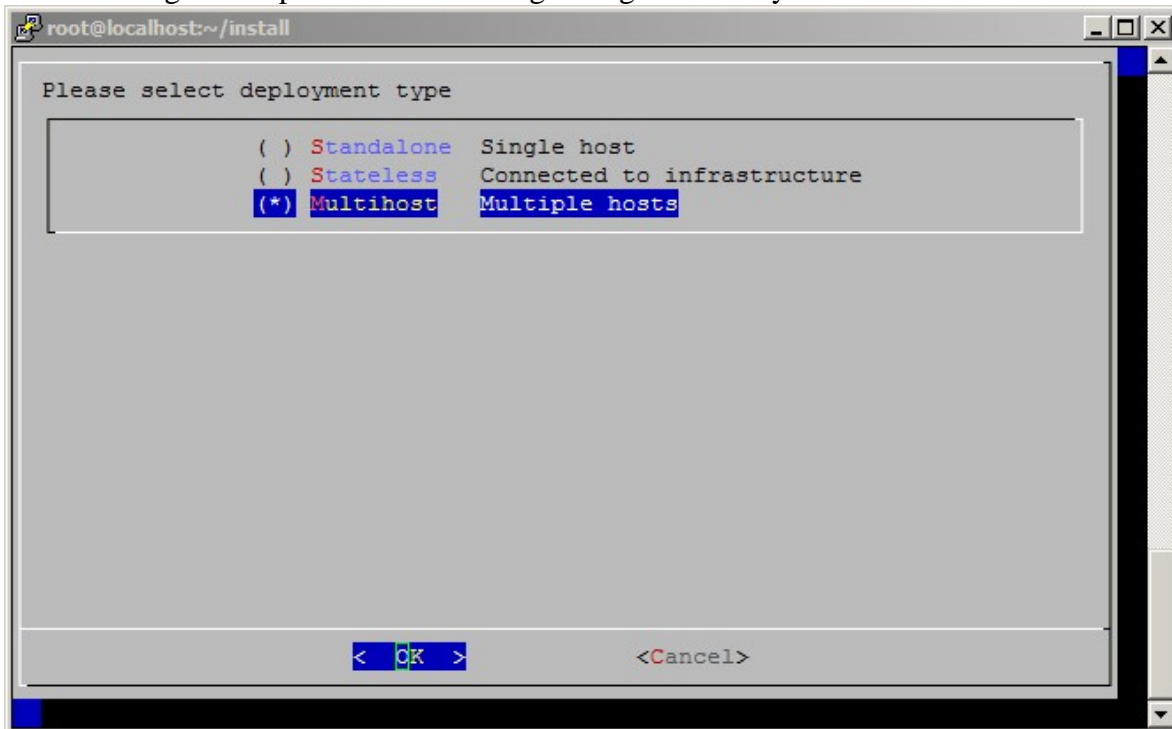


Figure 22: Installation “select deployment type” Question, Multihost Installation Selected

5. In the select components to install you should select what components you would like to install; you can select some and unselect other components depending on your needs, as shown on Figure 23. For this Guide let's assume that we selected all components.

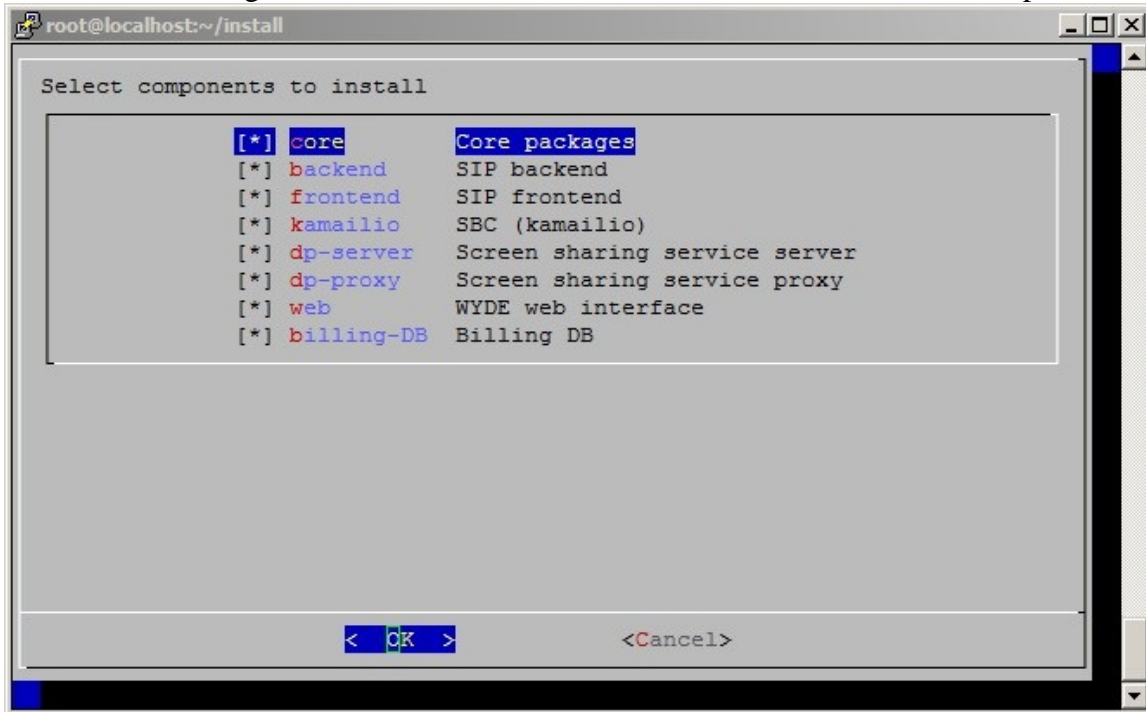


Figure 23: Multihost Installation “select components to install” Question, All Components Selected

6. Next the installation program will ask to enter your external host name as shown on Figure 24. This is the virtual host domain name required for secure (https) connection; the secured certificates should be issued/signed for this host domain name.

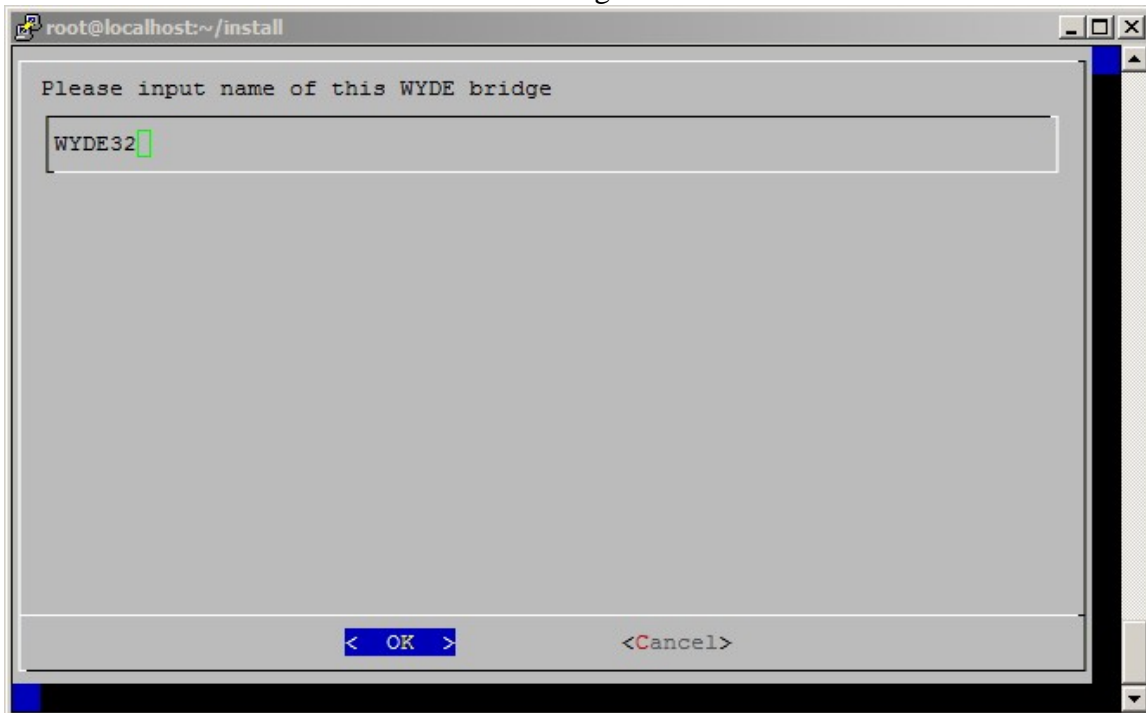


Figure 24: Multihost Installation “input name of this WYDE bridge” Question

7. If you selected the core components, next the installation program will ask to enter (check) your private IP address for this computer, see Figure 25.

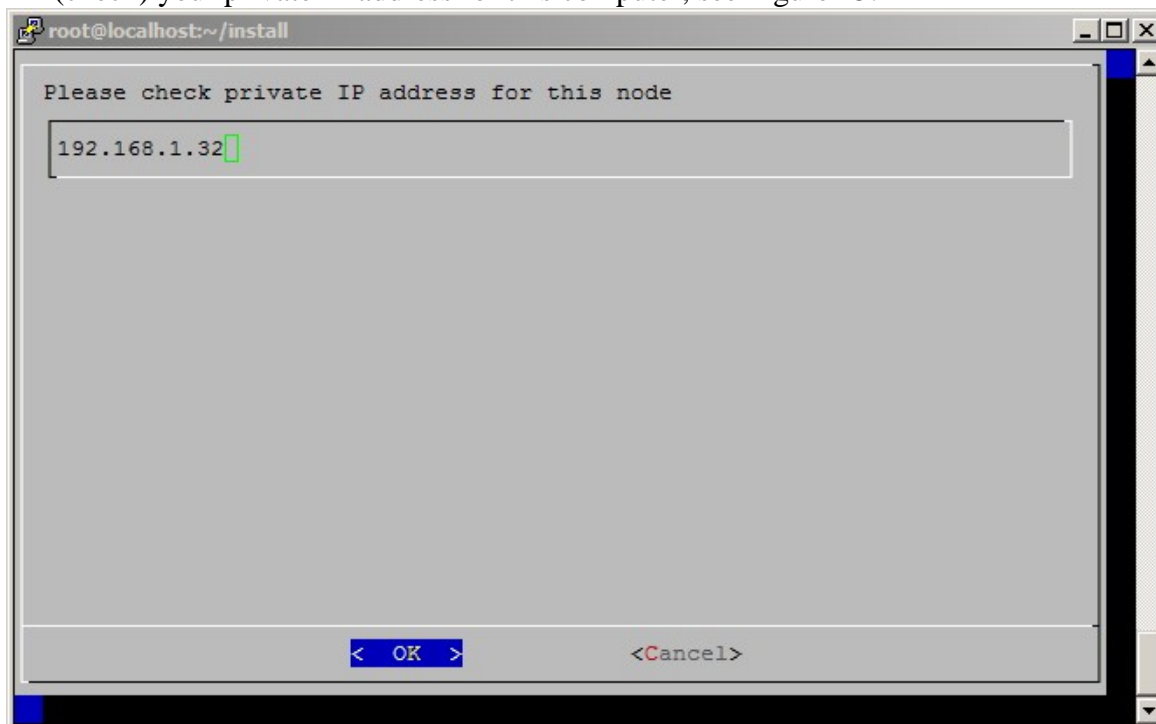


Figure 25: Multihost Installation “check private IP address” Question

If you did not select the core components, the installation program will ask to input the IP address of WYDE core node, see Figure 26.

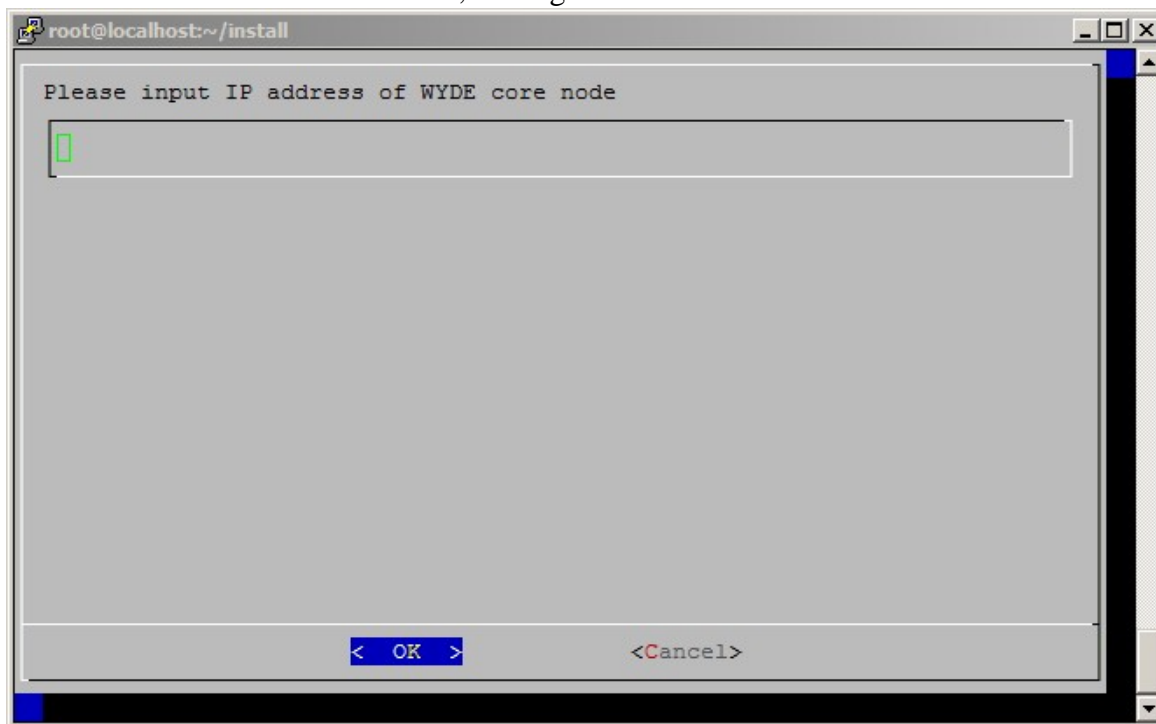


Figure 26: Multihost Installation “input IP address of the WYDE core node” Question

8. Next the installation program will ask to enter the email address for notifications about any crashes as shown on Figure 27.

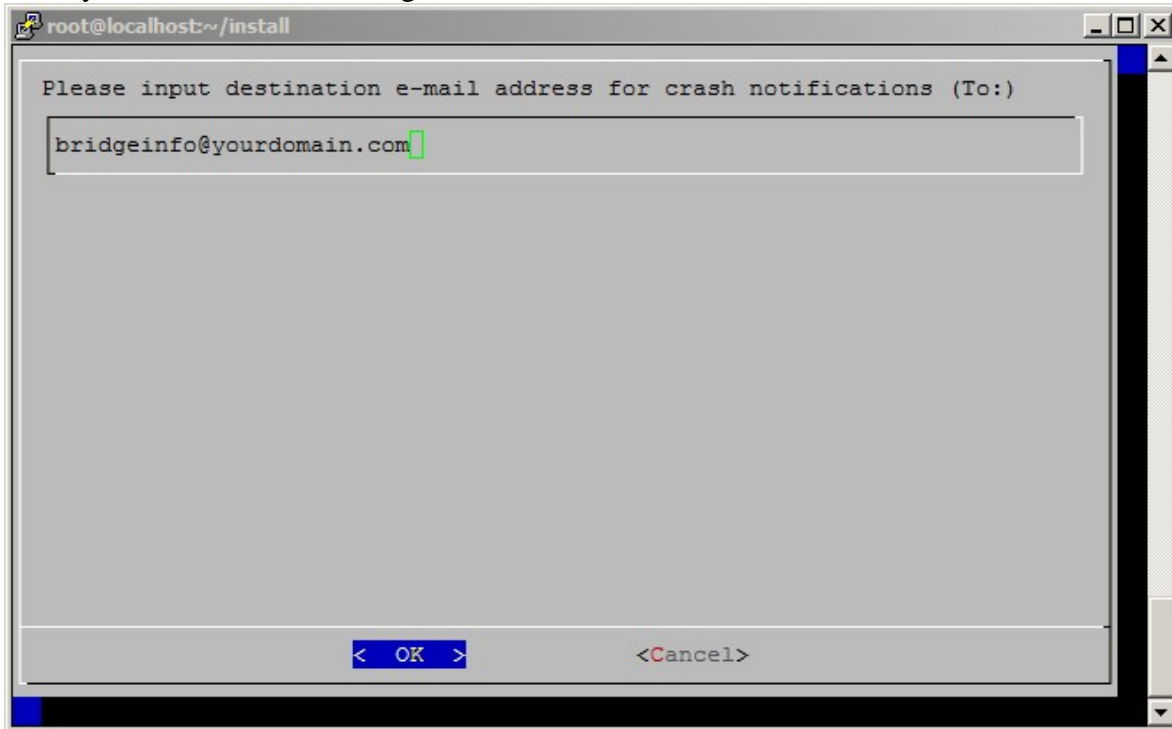


Figure 27: Multihost Installation “input destination e-mail address” Question

9. After multihost installation has been completed you will see the screen similar to shown on Figure 28.

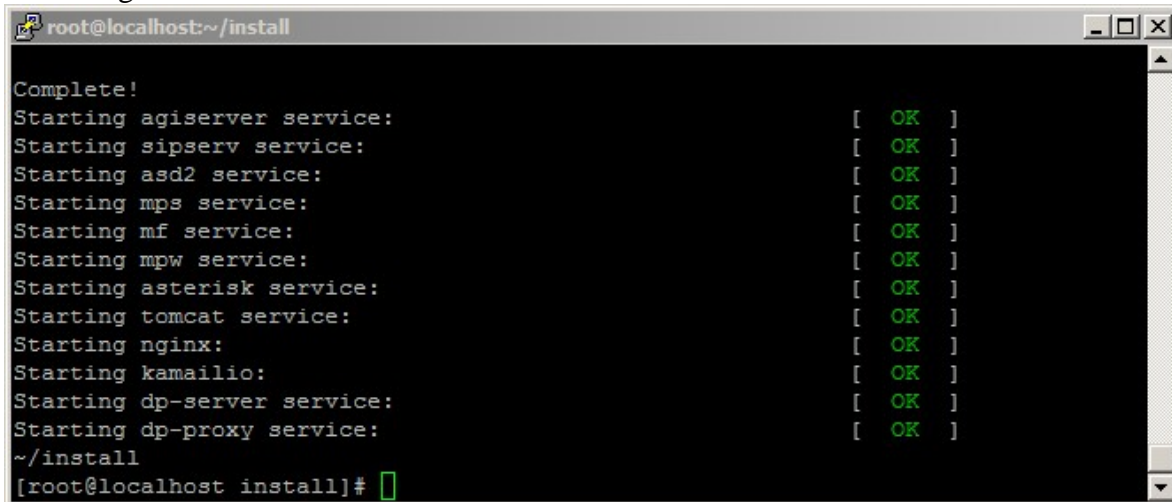
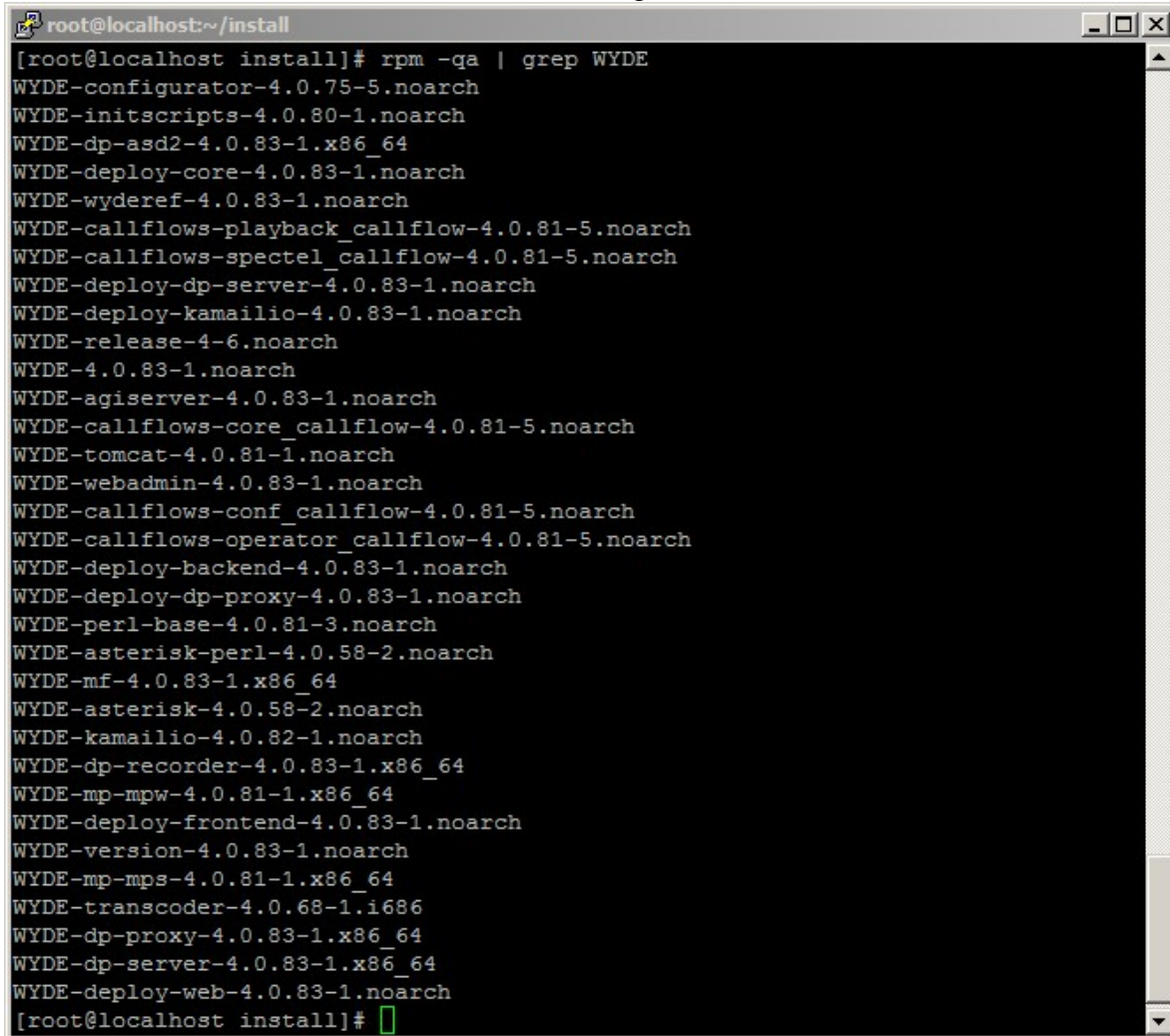


Figure 28: Multihost Installation Completed Screen

You can check the installed multihost packages using the command:

```
rpm -qa | grep WYDE
```

It should return the screen similar to shown on Figure 29.

A terminal window titled 'root@localhost:~/install' showing the output of the command 'rpm -qa | grep WYDE'. The output lists 30 installed WYDE packages, including configurator, initscripts, dp-asd2, deploy-core, wyderefer, callflows-playback, callflows-spectel, deploy-dp-server, deploy-kamailio, release, 4.0.83-1.noarch, agiserver, callflows-core, tomcat, webadmin, callflows-conf, callflows-operator, deploy-backend, deploy-dp-proxy, perl-base, asterisk-perl, mf, asterisk, kamailio, dp-recorder, mp-mpw, deploy-frontend, version, mp-mps, transcoder, dp-proxy, dp-server, and deploy-web. The terminal window has a standard Linux desktop environment with window controls and a scrollbar on the right.

```
[root@localhost install]# rpm -qa | grep WYDE
WYDE-configurator-4.0.75-5.noarch
WYDE-initscripts-4.0.80-1.noarch
WYDE-dp-asd2-4.0.83-1.x86_64
WYDE-deploy-core-4.0.83-1.noarch
WYDE-wyderefer-4.0.83-1.noarch
WYDE-callflows-playback_callflow-4.0.81-5.noarch
WYDE-callflows-spectel_callflow-4.0.81-5.noarch
WYDE-deploy-dp-server-4.0.83-1.noarch
WYDE-deploy-kamailio-4.0.83-1.noarch
WYDE-release-4-6.noarch
WYDE-4.0.83-1.noarch
WYDE-agiserver-4.0.83-1.noarch
WYDE-callflows-core_callflow-4.0.81-5.noarch
WYDE-tomcat-4.0.81-1.noarch
WYDE-webadmin-4.0.83-1.noarch
WYDE-callflows-conf_callflow-4.0.81-5.noarch
WYDE-callflows-operator_callflow-4.0.81-5.noarch
WYDE-deploy-backend-4.0.83-1.noarch
WYDE-deploy-dp-proxy-4.0.83-1.noarch
WYDE-perl-base-4.0.81-3.noarch
WYDE-asterisk-perl-4.0.58-2.noarch
WYDE-mf-4.0.83-1.x86_64
WYDE-asterisk-4.0.58-2.noarch
WYDE-kamailio-4.0.82-1.noarch
WYDE-dp-recorder-4.0.83-1.x86_64
WYDE-mp-mpw-4.0.81-1.x86_64
WYDE-deploy-frontend-4.0.83-1.noarch
WYDE-version-4.0.83-1.noarch
WYDE-mp-mps-4.0.81-1.x86_64
WYDE-transcoder-4.0.68-1.i686
WYDE-dp-proxy-4.0.83-1.x86_64
WYDE-dp-server-4.0.83-1.x86_64
WYDE-deploy-web-4.0.83-1.noarch
[root@localhost install]#
```

Figure 29: The WYDE Conferencing Bridge Software Packages Installed during Multihost Installation

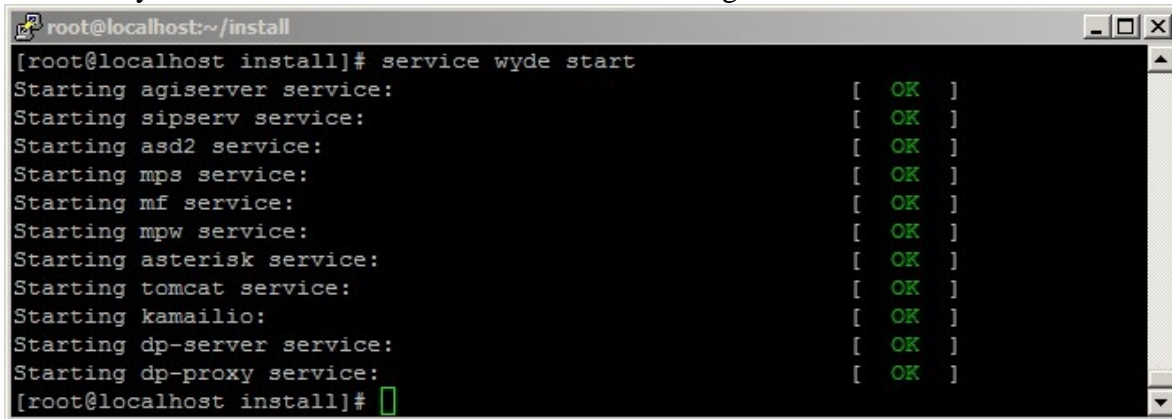
After multihost installation completed all installed WYDE bridge services will be automatically started. If necessary you can start *agiserver*, *sipserv*, *asd2*, *mps*, *mf*, *mpw*, *asterisk*, *tomcat*, *nginx*, *kamailio*, *dp-server*, *dp-proxy* services manually using the following commands:

```
service agiserver start
service sipserv start
service asd2 start
service mps start
service mf start
service mpw start
service asterisk start
service tomcat start
service nginx start
service kamailio start
service dp-server start
service dp-proxy start
```

Or for the same purposes you can use the command:

```
service wyde start
```

After that you will see the screen similar to shown on Figure 30.



```
root@localhost:~/install
[root@localhost install]# service wyde start
Starting agiserver service:      [ OK ]
Starting sipserv service:       [ OK ]
Starting asd2 service:          [ OK ]
Starting mps service:           [ OK ]
Starting mf service:            [ OK ]
Starting mpw service:           [ OK ]
Starting asterisk service:      [ OK ]
Starting tomcat service:        [ OK ]
Starting kamailio:              [ OK ]
Starting dp-server service:     [ OK ]
Starting dp-proxy service:      [ OK ]
[root@localhost install]#
```

Figure 30: Starting WYDE Services after Multihost Installation Completed

Note these services are being started automatically once your computer restarted.

After multihost installation the bridge can process 10 simultaneous audio calls, video calls, and screen sharing sessions only. To increase this amount you should visit <http://licserver.wydevoice.com> using your credentials and the unique hardware signature (*/usr/local/DNCA/etc/hws.bin*) which was built during the installation. See Chapter 3: Licensing of this guide for detail information.

Once you have performed the multihost installation of the WYDE conferencing bridge software you can make the calls on the bridge on this computer. See Chapter 4: Verify Software Installation for details how to test the WYDE conferencing bridge software installation.

2.4: Upgrade Installation

If it is necessary you can always upgrade the WYDE conferencing bridge software to newer version. To do that you should perform the following steps:

1. Go to the installation folder of the software, for instance, type:
`cd /root/install/`
if you have copied new installation files into this folder.
2. Type `./setup.sh` to start the installation process. The welcome screen shown on Figure 3 appears. Click the “Continue” button.
3. “WYDE platform already installed” screen will appear next as shown on Figure 31.

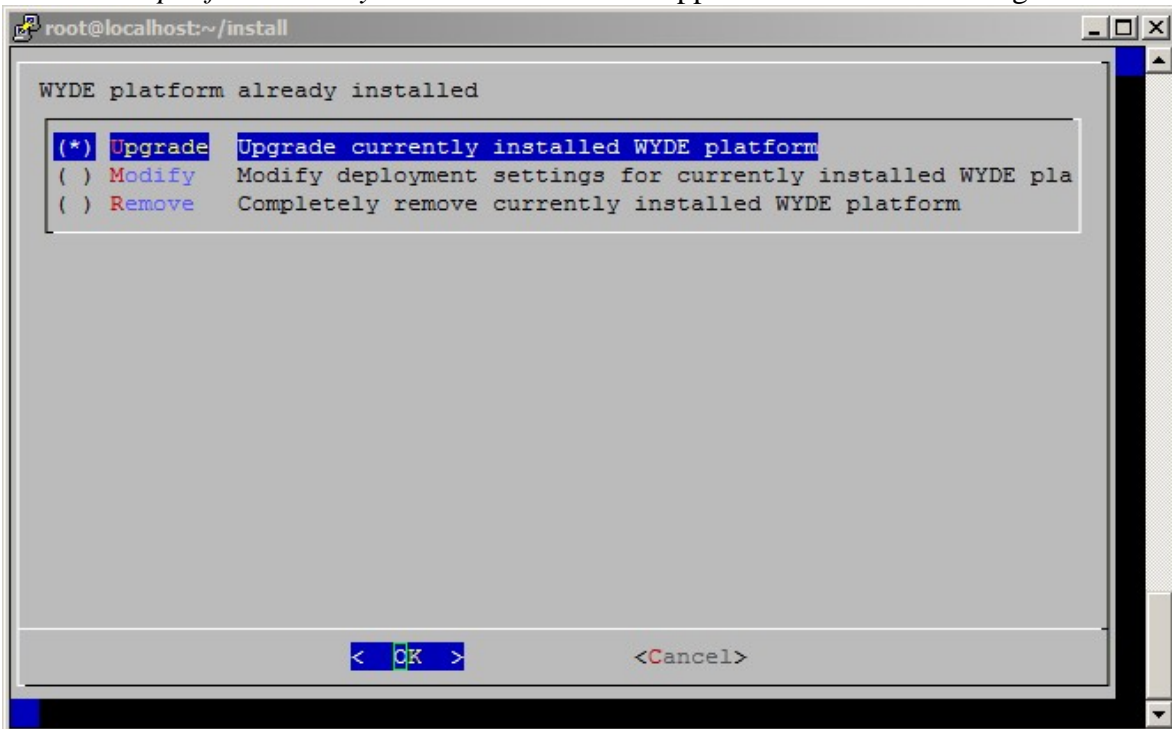


Figure 31: Upgrade Setup Option Selected

On this screen you should select *Upgrade* (upgrade currently installed WYDE platform) option if you would like to upgrade the WYDE conferencing bridge software to newer version.

4. After that your WYDE bridge will be upgraded using the same configuration parameters that you are already using in the previous version.
Note the latest WYDE software components can be downloaded from the Internet during the upgrade installation.

2.5: Modify Installation

If it is necessary you can modify the deployment settings of the WYDE conferencing bridge software installed. To do so you should perform the following steps:

1. Go to the installation folder of the software, for instance, type:
`cd /root/install/`
if you have copied installation files into this folder.
2. Type `./setup.sh` to start the installation process. The welcome screen shown on Figure 3 appears. Click the “Continue” button.
3. “WYDE platform already installed” screen will appear next as shown on Figure 32.

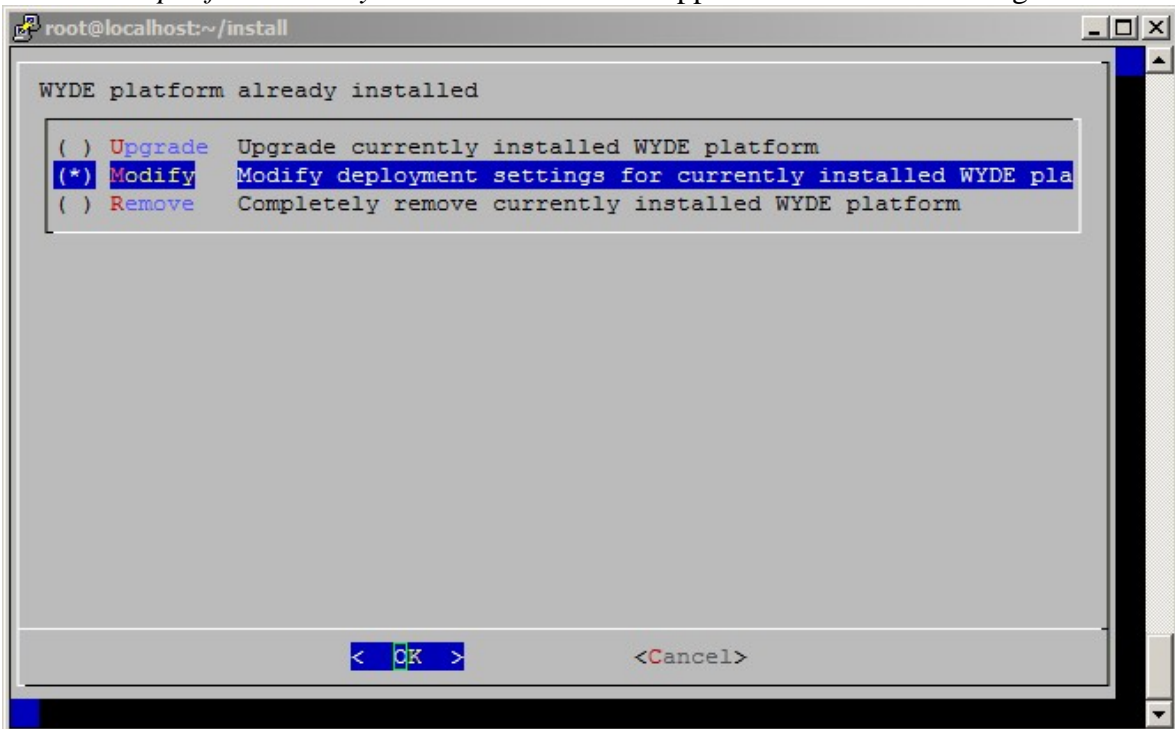


Figure 32: *Modify Setup Option Selected*

On this screen you should select *Modify* (modify deployment settings for currently installed WYDE platform) option if you would like to modify them for the WYDE conferencing bridge software currently installed.

4. The select the deployment type question will appear next, see Figure 4. On this screen you are be able either select your current or choose new deployment type.
5. Next the setup program will continue and ask all installation questions according to the selected deployment type; see sections “2.1: Standalone Installation” “2.2: Stateless Installation”, “2.3: Multihost Installation” for details.

2.6: Un-installation

If for some reasons you would like to uninstall the product you should perform the following steps:

1. Go to the installation folder of the software, for instance, type:
`cd /root/install/`
if you have copied installation files into this folder.
2. Type `./setup.sh` to start the installation process. The welcome screen shown on Figure 3 appears. Click the “Continue” button.
3. “WYDE platform already installed” screen will appear next as shown on Figure 33.

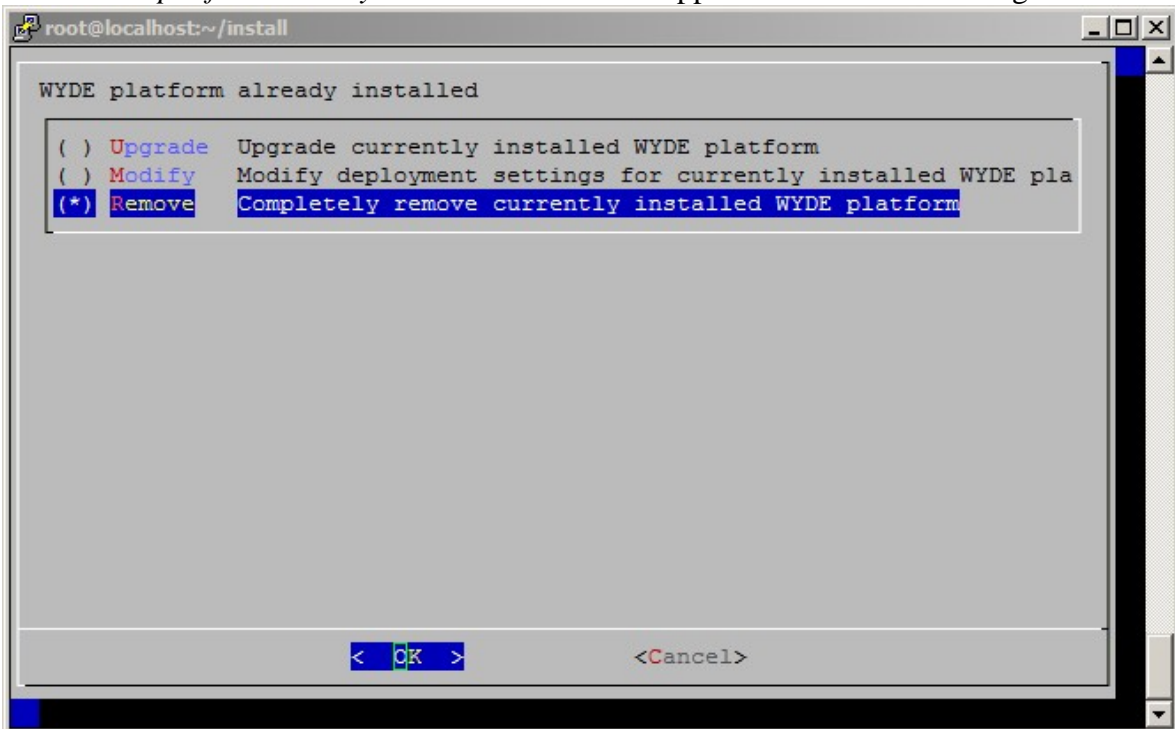


Figure 33: Remove Setup Option Selected

On this screen you should select *Remove* (completely remove currently installed WYDE platform) option if you would like to uninstall the WYDE conferencing bridge software.

4. Next the installation program will ask to confirm that you wish to uninstall WYDE software, see Figure 34 for details.

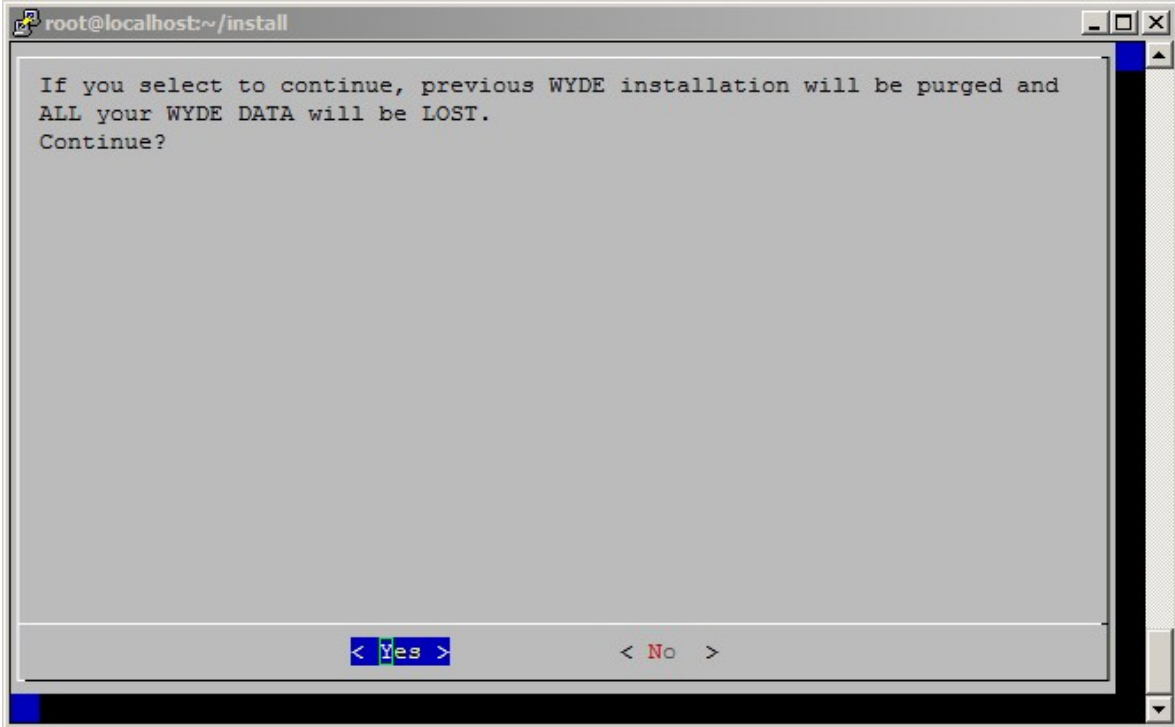


Figure 34: Uninstall WYDE Voice Software Confirmation

5. After you confirm that you want to continue, the un-installation process begins and all WYDE Voice software installed components will be removed. See Figure 35 for details.

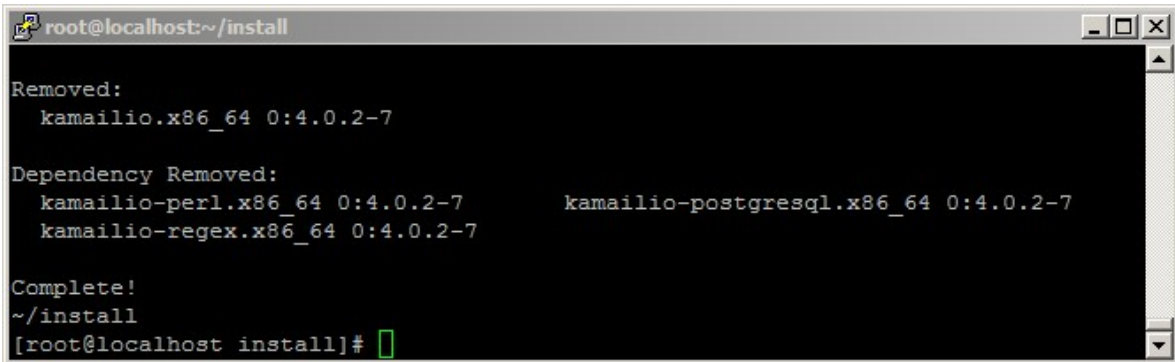


Figure 35: Uninstall WYDE Voice Software

Note the un-installation process removes all installed WYDE components, existing WYDE installation will be removed and all your WYDE bridge data will be lost. You can not select the specific component to uninstall.

Chapter 3: Licensing

By default the WYDE Voice conferencing bridge software has the maximum number of the simultaneous audio calls, video calls, and screen sharing sessions on the bridge equal to 10. To support larger number of calls you should obtain the additional licenses.

To obtain additional licenses you should perform the following steps:

1. Generate hardware profile.

Additional licenses are tied to the hardware that you are using. The installation program (core components) creates the file with hardware profile *hws.bin* in the folder */usr/local/DNCA/etc/*. Also this file can be generated at any time manually using the command:

```
/usr/local/DNCA/bin/hwsgen.x
```

This command generates hardware profile file *hws.bin* in the current folder.

2. After that you should go to the WYDE Voice Licensing Server site at <http://licserver.wydevoice.com/>, see Figure 36.



Figure 36: WYDE Voice Licensing Server Login Screen

You should login to the Licensing Server using login/password provided to you. The screen similar to shown on Figure 37 appears next.

WYDE VOICE Licensing Server

Request a Quote
866-508-9020

Account Details

Personal

First Name: Michael
Last Name: Zilber
E-mail: wyde@enols.com

Ports Remained

Audio: 700 / 1000 ports
ScreenSharing: 800 / 1000 ports
Video: 900 / 1000 ports

Logout

Enter Details for New License

Choose License Type: ☒ Standard ☐ Cluster ☒ Audio ☐ ScreenSharing ☐ Video

HW Signature: Browse...

Ports Amount: 700 ports

Comments:

Get License

Create Time	Expire Time	Type	Media	Ports	Status	Link	Comments
2015-05-25 10:35:37	2015-05-26 10:35:37	Standard	Video	100	OK	Download	192.168.1.32 server screen sharing license edit
2015-05-25 10:34:07	2015-05-26 10:34:07	Standard	ScreenSharing	200	OK	Download	192.168.1.32 server video license edit
2015-05-25 10:25:39	2015-05-26 10:25:39	Standard	Audio	300	OK	Download	192.168.1.32 server audio license edit

Total 1 Audio license(s) for 300 ports
Total 1 ScreenSharing license(s) for 200 ports
Total 1 Video license(s) for 100 ports
(0 license(s) suspended)

Wydevoice.com 2009

Figure 37: WYDE Voice Licensing Server Main Screen

3. Generate license files.

License files are being generated based on the hardware profile – *hws.bin* file separately for audio calls, screen sharing sessions, and video calls. To get additional licenses you should populate data in the “*Enter Details for New License*” section:

- Choose License Type – you should select one of the following types:
 - Standard – if you are installing the system on single machine (in this case you will need one hardware profile file and one license file will be generated);
 - Cluster – if you are installing the system on cluster of two machines (in this case you will need two hardware profile files (from each cluster computer) and two license files will be generated);

And also should choose between the following media alternatives:

- Audio – if you are requesting the license for audio calls;
- ScreenSharing – if you are requesting the license for screen sharing sessions;
- Video – if you are requesting the license for video calls;
- HW Signature – the file or files on your local disk with the hardware profile;
- Ports Amount – the number of simultaneous calls that should be provided by the license, the number of requested ports will be decreased from the total number of ports available for you (i.e. ports remained will be decreased);
- Comments – your comment for the generated license.

For instance if you would like to get the single server license for 300 simultaneous audio calls you should populate the form as shown on Figure 38. If you would like to get the cluster servers licenses for 500 simultaneous audio calls you should populate the form as shown on Figure 39. Once you populated the form you should click the “*Get License*” button and new license will be generated, *license.bin* file with license information will be downloaded.

Enter Details for New License

Choose License Type: ☒ Standard ☐ Cluster

Choose License Type: ☒ Audio ☐ ScreenSharing ☐ Video

HW Signature: /usr/local/DNCA/etc/hws.bin [Browse...](#)

Ports Amount: 300 ports

Comments: 192.168.1.32 server audio license

[Get License](#)

Figure 38: Enter Details for New Standard License

Enter Details for New License

Choose License Type: ☐ Standard ☒ Cluster

Choose License Type: ☒ Audio ☐ ScreenSharing ☐ Video

HW Signature #1: /usr/local/DNCA/etc/hws.bin [Browse...](#)

HW Signature #2: /usr/local/DNCA/etc/hws.bin [Browse...](#)

Ports Amount: 500 ports

Comments: 192.168.1.31 and 192.168.1.32 cluster servers audio license

[Get License](#)

Figure 39: Enter Details for New Cluster License

Note that you should obtain the licenses for audio calls, video calls, and screen sharing sessions separately. Enter details for each media type and download the license files.

Recently generated licenses can be seen in the Licensing Server “*Recent Licenses*” section, see Figure 40. You can download generated license files (*license.bin*) if you click the “*Download*” button.

Recent Licenses							
Create Time	Expire Time	Type	Media	Ports	Status	Link	Comments
2015-05-25 10:35:37	2015-05-26 10:35:37	Standard	Video	100	OK	Download	192.168.1.32 server screen sharing license edit
2015-05-25 10:34:07	2015-05-26 10:34:07	Standard	ScreenSharing	200	OK	Download	192.168.1.32 server video license edit
2015-05-25 10:25:39	2015-05-26 10:25:39	Standard	Audio	300	OK	Download	192.168.1.32 server audio license edit
Total 1 Audio license(s) for 300 ports Total 1 ScreenSharing license(s) for 200 ports Total 1 Video license(s) for 100 ports (0 license(s) suspended)							

Figure 40: WYDE Voice Licensing Server – Recent Licenses



Each license file has expiration time; once the license file is expired the maximum number of simultaneous calls will be reset to 10. After that the WYDE bridge software will try to renew and register the license via internet (http) automatically. If for some reason the license file could not be renewed automatically the notification email would be sent to you to the address that is registered in WYDE Voice Licensing Server as your login (see Figure 37, “Account Details” section, “E-mail” field). After that you should go to the licensing server and update the expired license manually. See Figure 41 for details. Click the “*Update*” button to generate the renewed license. After that the screen changes as shown on Figure 40, i.e. “*Update*” button will be replaced with “*Download*” button and you will be able to download new valid *license.bin* file.

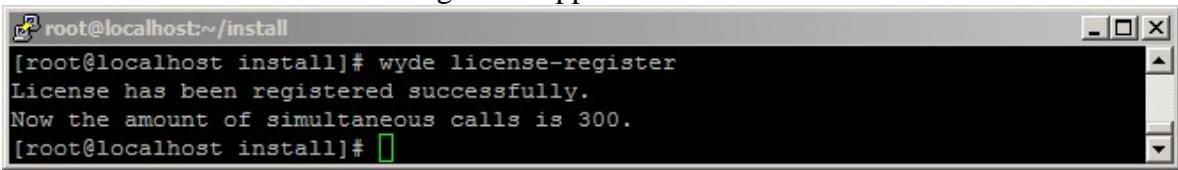
Recent Licenses							
Create Time	Expire Time	Type	Media	Ports	Status	Link	Comments
2015-05-25 10:35:37	2015-05-26 10:35:37	Standard	Video	100	Expired	Update	192.168.1.32 server screen sharing license edit
2015-05-25 10:34:07	2015-05-26 10:34:07	Standard	ScreenSharing	200	Expired	Update	192.168.1.32 server video license edit
2015-05-25 10:25:39	2015-05-26 10:25:39	Standard	Audio	300	Expired	Update	192.168.1.32 server audio license edit
Total 1 Audio license(s) for 300 ports Total 1 ScreenSharing license(s) for 200 ports Total 1 Video license(s) for 100 ports (0 license(s) suspended)							

Figure 41: Update Expired Licenses

4. Generated license files *license.bin* (either for new license or for renewed license) should be placed on the bridge into */usr/local/DNCA/etc* folder:
 - audio calls *license.bin* file should be placed into this folder as it is;
 - video calls license file should be renamed to *video-license.bin* and placed into this folder;
 - screen sharing sessions license file should be renamed to *screensharing-license.bin* and placed into this folder.

After that you should register new license using the following command:
`wyde license-register`

The screen similar to shown on Figure 42 appears next.

A terminal window titled 'root@localhost:~/install' with a dark background. The text inside shows the command 'wyde license-register' being executed, followed by the output: 'License has been registered successfully. Now the amount of simultaneous calls is 300.' The prompt '[root@localhost install]#' is visible at the bottom with a green cursor.

```
root@localhost:~/install
[root@localhost install]# wyde license-register
License has been registered successfully.
Now the amount of simultaneous calls is 300.
[root@localhost install]#
```

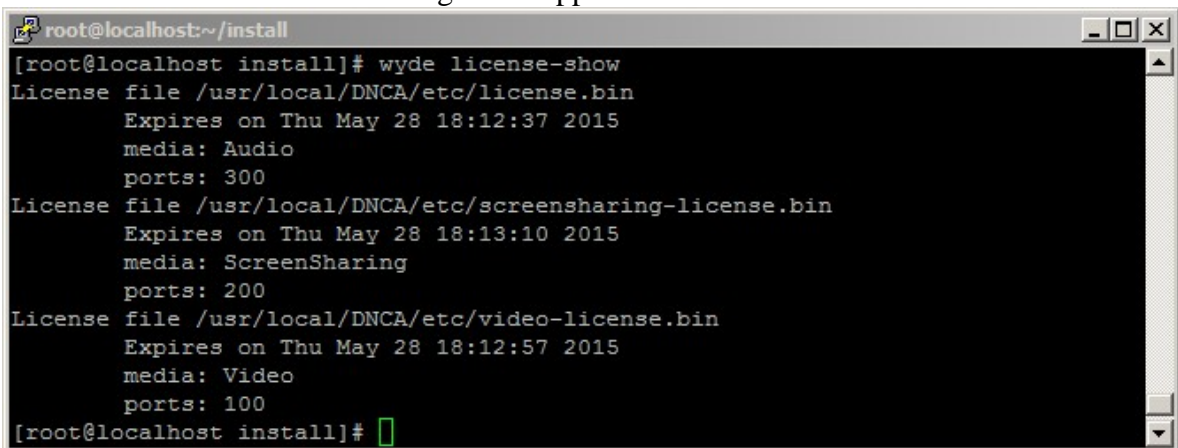
Figure 42: Register New/Updated Licenses on the Bridge

After that the amount of allowed simultaneous audio calls, video calls, and screen sharing sessions for the WYDE Voice conferencing bridge software will be set equal to the amount specified by your license files.

You can use the following command to show the licenses currently registered on the bridge:

```
wyde license-show
```

The screen similar to shown on Figure 43 appears.

A terminal window titled 'root@localhost:~/install' with a dark background. The text inside shows the command 'wyde license-show' being executed, followed by the output: 'License file /usr/local/DNCA/etc/license.bin Expires on Thu May 28 18:12:37 2015 media: Audio ports: 300', 'License file /usr/local/DNCA/etc/screensharing-license.bin Expires on Thu May 28 18:13:10 2015 media: ScreenSharing ports: 200', and 'License file /usr/local/DNCA/etc/video-license.bin Expires on Thu May 28 18:12:57 2015 media: Video ports: 100'. The prompt '[root@localhost install]#' is visible at the bottom with a green cursor.

```
root@localhost:~/install
[root@localhost install]# wyde license-show
License file /usr/local/DNCA/etc/license.bin
Expires on Thu May 28 18:12:37 2015
media: Audio
ports: 300
License file /usr/local/DNCA/etc/screensharing-license.bin
Expires on Thu May 28 18:13:10 2015
media: ScreenSharing
ports: 200
License file /usr/local/DNCA/etc/video-license.bin
Expires on Thu May 28 18:12:57 2015
media: Video
ports: 100
[root@localhost install]#
```

Figure 43: Show Licenses for the Bridge

Note you will get emails about any event related to your license:

- when you obtain new license you receive “*Create License Notice*” email;
- when you license is going to be expired soon you receive “*Alert: License will expire soon*” email;
- when your license is renewed you receive “*Update License Notice*” email;
- when your license is expired you receive “*Alert: Expired license has been found*” email.

Let’s review each of these emails.

When you obtain new license (audio or video or screen sharing) you will receive notification email “*Create License Notice*” about that as shown below. This email contains the information about your requested new license, the URL to renew it and data about total number of ports taken/remaining for each media license.

Create License Notice

```
This is to inform you that WYDEVoice client:

Name: Michael Smith
Login: wyde@enols.com

Has successfully requested new license file:

- type: standard
- media: audio
- ports amount: 300
- comments: 192.168.1.32 server audio license
- expired: 2015-05-26 10:25:39

The license file can be renewed at any time through the following URL:
http://licserver.wydevoice.com/get\_license?id=123456789c2c05e73654b6e64f188658dWlkPTImbGlkPTM=

Total number of ports taken by audio licenses is 300/1000 (30%).
Total number of ports taken by screensharing licenses is 0/1000 (0%).
Total number of ports taken by video licenses is 0/1000 (0%).

Thank you,
http://licserver.wydevoice.com
```

When your license is going to be expired within the next 5 days you will receive notification email “*Alert: License will expire soon*” about that as shown below. This email contains the information about your current license, the URL to renew it and the current licenses usage data for all medias.

Alert: License will expire soon

```
This is to inform you that WYDEVoice client:

Name: Michael Zilber
Login: wyde@enols.com

Has a license that will expire soon:

- type: standard
- media: audio
- ports amount: 300
- comments: 192.168.1.32 server audio license
- expired: 2015-05-26 10:25:39

The license file can be renewed at any time through the following URL:
http://licserver.wydevoice.com/get\_license?id=123456789c2c05e73654b6e64f188658dWlkPTImbGlkPTM=

Total number of ports taken by audio licenses is 300/1000 (30%).
Total number of ports taken by screensharing licenses is 200/1000 (20%).
Total number of ports taken by video licenses is 100/1000 (10%).

Thank you,
http://licserver.wydevoice.com
```


If you click the URL from this email your license will be renewed and you will be prompted to download the updated *license.bin* file as shown on Figure 44. The license will be extended, and new license expiration date will be equal to the current date plus user's license duration.

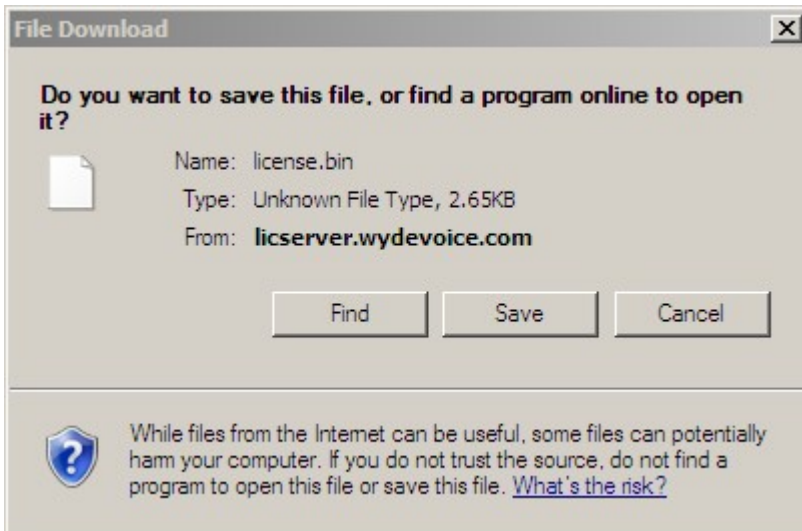


Figure 44: Download Renewed *license.bin* File

Once your license is renewed you will receive another notification email “*Update License Notice*” about that as shown below. This email contains updated information about your current license, i.e. it contains new expiration date of your license, as well the URL to renew the license and the current licenses usage data for all medias.

Update License Notice

```
This is to inform you that WYDEVoice client:

Name: Michael Zilber
Login: wyde@enols.com

Has successfully renewed license file:

- type: standard
- media: audio
- ports amount: 300
- comments: 192.168.1.32 server audio license
- expired: 2015-05-27 06:40:00

The license file can be renewed at any time through the following URL:
http://licserver.wydevoice.com/get\_license?id=123456789c2c05e73654b6e64f188658dWlkPTImbGlkPTM=

Total number of ports taken by audio licenses is 300/1000 (30%).
Total number of ports taken by screensharing licenses is 200/1000 (20%).
Total number of ports taken by video licenses is 100/1000 (10%).

Thank you,
http://licserver.wydevoice.com
```

In addition if your license is expired you will also receive alert email “*Alert: Expired license has been found*” about that as shown below with the information about your current license status, the URL to renew the license and the current licenses usage data for all medias.

Alert: Expired license has been found

This is to inform you that WYDEVoice client:

Name: Michael Zilber
Login: wyde@enols.com

Has an expired license:

- type: standard
- media: audio
- ports amount: 300
- comments: 192.168.1.32 server audio license
- expired: 2015-05-26 10:34:07

The license file can be renewed at any time through the following URL:

http://licserver.wydevoice.com/get_license?id=123456789c2c05e73654b6e64f188658dWlkPTImbGlkPTQ=

Total number of ports taken by audio licenses is 300/1000 (30%).

Total number of ports taken by screensharing licenses is 200/1000 (20%).

Total number of ports taken by video licenses is 100/1000 (10%).

Thank you,

<http://licserver.wydevoice.com>

Chapter 4: Verify Software Installation

SIP Calls to and from the Bridge

After WYDE software full standalone installation Asterisk is processing the calls using the port 5065; Kamailio (OpenSER) is processing the calls using the port 5060. If you installed frontend load balancer and dial out proxy components you can make the calls to the port 5060, for instance to *10@<your bridge IP>:5060*, where your bridge IP address is actually the IP of the computer where Kamailio components were installed (*10@192.168.1.32:5060* in our sample); Kamailio takes such call and routes it to Asterisk on the port 5065. If you did not install frontend load balancer and dial out proxy components or do not want to call to OpenSER, you should make the calls directly to Asterisk (frontend) to the port 5065, for instance to *10@<your bridge IP>:5065*, where your bridge IP address is actually the IP of the computer where frontend components were installed (*10@192.168.1.32:5065* in our sample). If you make your calls and do not specify the port, by default the calls are being made to the port 5060 (Kamailio components).

If the installation was successful you should be able to call on your bridge. You can use [X-Lite](#) or [SJphone](#) softphones to make VOIP call on your bridge using the IP address that was entered during installation as your IP address (see Figure 6).

Let's register the VoIP phone number for your default *admin* WYDE bridge user; this number could be used to dial-in to this subscriber. To do you should run the following *wyde* command:

```
wyde subscriber-set login admin sip_phone 7007
```

In this sample *admin* user's phone number is 7007.

If you use X-Lite software you should configure it as shown on Figure 45. Run X-Lite, select menu "Softphone", then sub-menu "Account Settings", and enter account properties as shown on this figure.

Your user ID and authorization name should be equal to SIP phone number registered for the subscriber (7007 in our sample); the default *admin* user password is *admin* as well. In addition you should enter *<your bridge IP>* into domain field and into proxy address field (the proxy option should be selected). If you would like to be able to receive the calls from your bridge you should also check the checkbox "Register with domain and receive calls".



The image shows the 'SIP Account' settings window in X-Lite. The 'Account' tab is selected. The 'Account name' is 'admin' and the 'Protocol' is 'SIP'. Under 'Allow this account for', 'Call' is checked and 'IM / Presence' is unchecked. The 'User Details' section contains: 'User ID' (7007), 'Domain' (192.168.1.32), 'Password' (masked with dots), 'Display name' (Administrator), and 'Authorization name' (7007). The 'Domain Proxy' section has 'Register with domain and receive calls' checked. For 'Send outbound via', 'Proxy' is selected with the address '192.168.1.32'. The 'Dial plan' is '#1\a\a.T;match=1;prestrip=2;'. 'OK' and 'Cancel' buttons are at the bottom right.

SIP Account

Account Voicemail Topology Presence Transport Advanced

Account name: admin

Protocol: SIP

Allow this account for

☒ Call

☐ IM / Presence

User Details

* User ID: 7007

* Domain: 192.168.1.32

Password: •••••

Display name: Administrator

Authorization name: 7007

Domain Proxy

☒ Register with domain and receive calls

Send outbound via:

☐ Domain

☒ Proxy Address: 192.168.1.32

Dial plan: #1\a\a.T;match=1;prestrip=2;

OK Cancel

Figure 45: X-Lite SIP Account Settings

After that you will be able to make SIP calls to the IP address of your bridge that you used during installation. For instance you can call to number 10 as shown on Figure 46.

If you are using SJphone software you do not need any additional configuration. You can just make the call to *10@<your bridge IP>* (*10@192.168.1.32* in our sample) as shown on Figure 47.

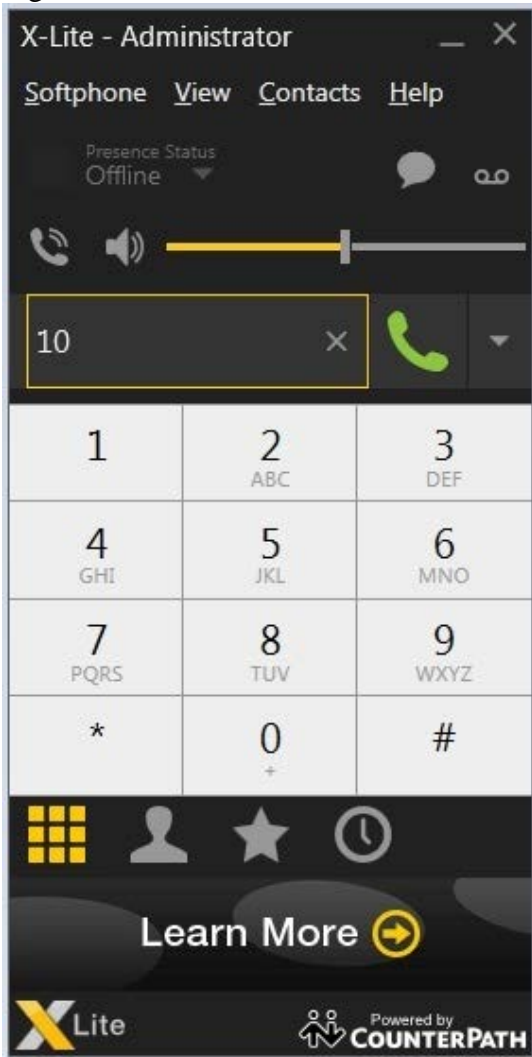


Figure 46: X-Lite SIP Call to the Bridge



Figure 47: SJphone SIP Call to the Bridge

When you call to number *10* you can enter any access code when prompted. All calls with the same access code will join into the same conference.

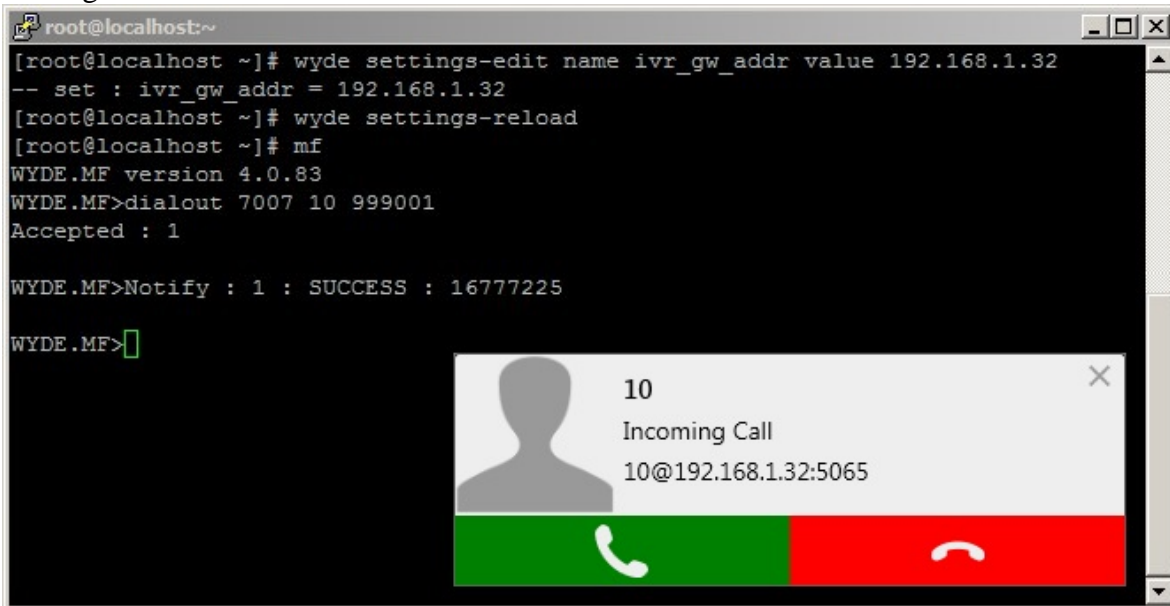
Now let's configure the installed bridge to be able to make the calls from the bridge to the users registered their VoIP phone numbers. To do so you should run the following commands:

```
wyde settings-edit name ivr_gw_addr value 192.168.1.32
wyde settings-reload
```

Next you can start *mf* console (use *mf* command for that) and make dial-out to your registered number using the command:

```
dialout 7007 10 999001
```

See Figure 48 for details.



```
root@localhost:~  
[root@localhost ~]# wyde settings-edit name ivr_gw_addr value 192.168.1.32  
-- set : ivr_gw_addr = 192.168.1.32  
[root@localhost ~]# wyde settings-reload  
[root@localhost ~]# mf  
WYDE.MF version 4.0.83  
WYDE.MF>dialout 7007 10 999001  
Accepted : 1  
  
WYDE.MF>Notify : 1 : SUCCESS : 16777225  
  
WYDE.MF>
```

The terminal window is overlaid with a notification box for an incoming call. The notification box contains a grey silhouette icon, the number '10', the text 'Incoming Call', and the identifier '10@192.168.1.32:5065'. At the bottom of the notification box are two buttons: a green button with a white telephone handset icon and a red button with a white telephone handset icon.

Figure 48: WYDE Bridge Configuration and Dialing-out to the User's Phone Number

For detail information about how to configure dialout settings on the bridge and how to make the calls from the bridge to the subscriber's phone numbers please see "*Command Line Administration Interface – User Guide*".

Web Administration Interface

In addition you should be able to open Web Administration Interface in your browser from the computer where you installed web components (or from the computer where standalone installation has been made). You should use the IP address of this computer to do that, i.e. you should type *https://<your bridge Web IP>/* (*https://192.168.1.32/* in our sample) in your browser URL bar. You will see a screen similar to the shown on Figure 49. Use login: *admin* and password: *admin* to login to the installed system.

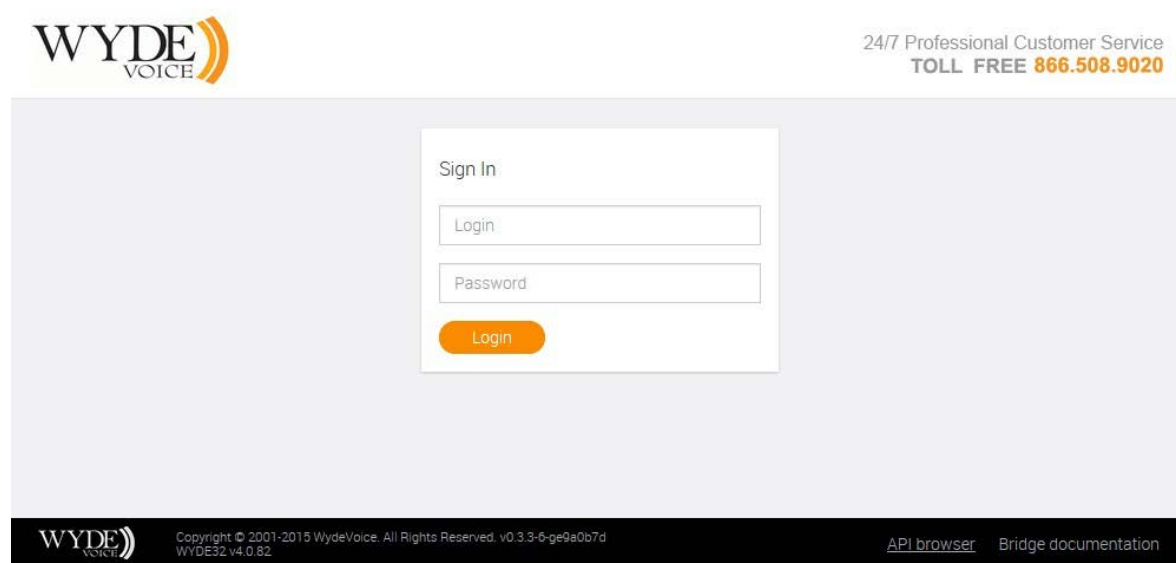


Figure 49: Initial Web Administration Login Screen

Note <your bridge IP> and <your bridge Web IP> could be different:

<your bridge IP> – the IP of the computer where you have installed core components;

<your bridge Web IP> – the IP of the computer where you have installed web components.

When the calls are made on the bridge you should be able to see the meetings and the calls using Web Administration Interface; you will see the screen similar to shown on Figure 50.

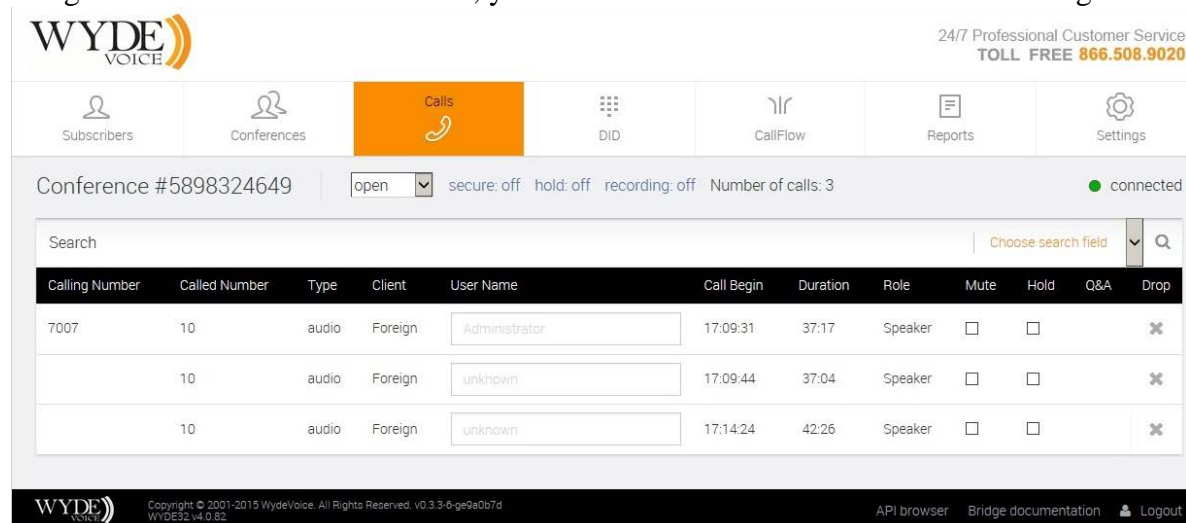


Figure 50: Meeting Calls Screen when the First Two Calls made on the Bridge

You can see “Web Administration Interface – User Guide” for detail information how to use web administration interface.

Appendix A: Support Resources

If you have difficulty with this guide and any of the procedures listed herein, please contact us using the following support resources.

Support Documentation

In addition to this Guide, you may obtain other WYDE Voice documentation from WYDE Voice or from the WYDE Voice documentation Web site: <http://docs.wydevoice.com/>.

Web Support

Our support website is available 24 hours a day, 7 days a week, and 365 days a year at <http://www.wydevoice.com>. You may download patches, support documentation and other technical support information.

Telephone Support

For difficulties with any procedures described in this Guide, please contact us at 866-508-9020 during our normal phone support hours of 7:00 am to 6:00 pm Pacific Standard Time (PST). An engineer will respond to your inquiry within 24 hours.

Email Support

You may also email us your questions at support@wydevoice.com. We will respond to your question within 24 hours.