

## Pre-deployment guide

Dear customer, before you start DeskAlerts deployment in your environment please consider our environment requirements.

DeskAlerts solution consists of two main parts – server web application (hosted on Windows-based Application server running IIS) and client application, installed locally on message recipients' machines. Server application stores its data in MSSQL database, which may be hosted on the same server as the application itself, or on a different database server somewhere. Listed below are the hardware and software requirements for Application server, Database server and client workstation.

Note: DeskAlerts server doesn't require a dedicated IIS or database server, and can share any of these with other applications.

### 1) Hardware Server requirements

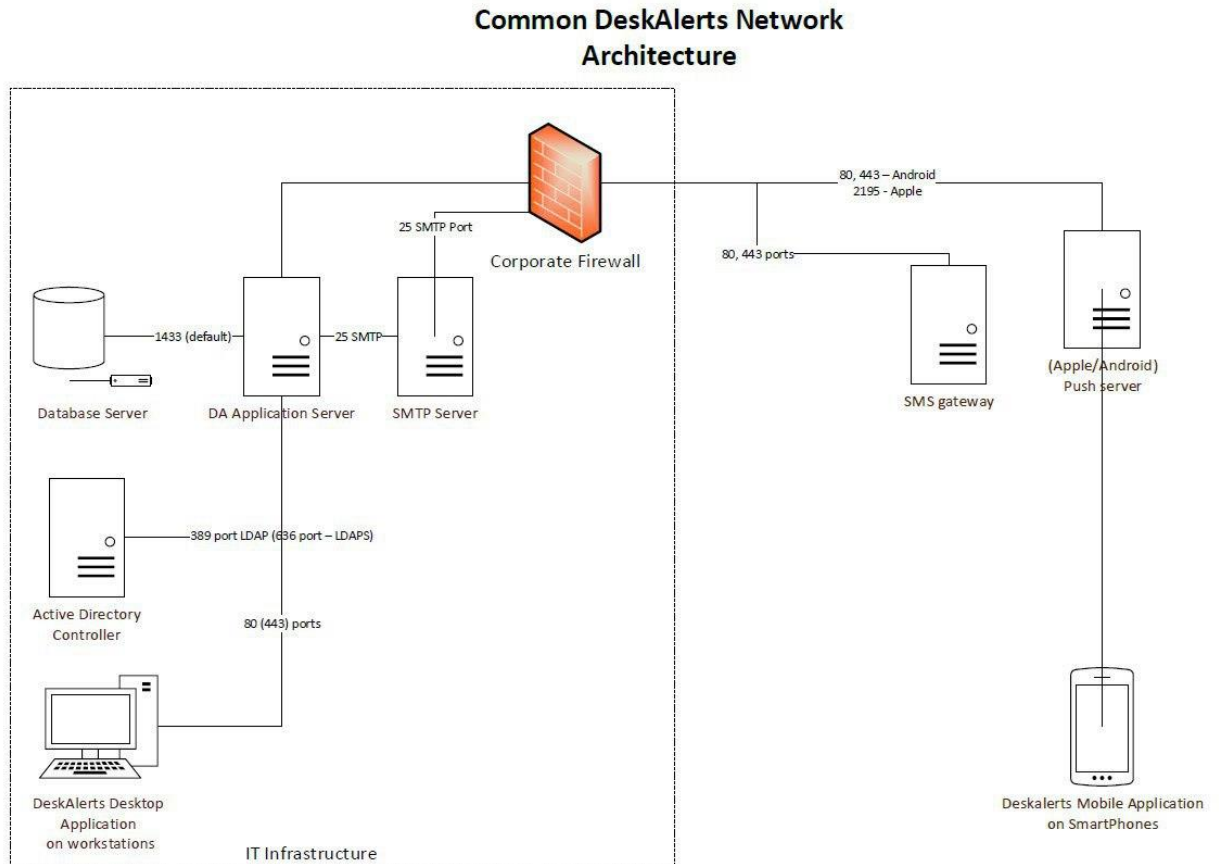
#### 1.1 Application Server requirements.

Number of users	1-600	600-2000	2000-10000	10000-20000+*
CPU speed	2GHz (1 core or higher)	3GHz (2 core or higher)	3GHz (4 core or higher)	3GHz or higher (8 core or higher)
RAM volume	1GB	2GB or higher	4GB or higher	8GB or higher
Hard disk space	200 MB for installation files + 1-2GB for log file	200 MB for installation files + 2-4GB for log files	200 MB for installation files + 4-8GB for log files	200 MB for installation files + 8-20 GB for logs

#### 1.2 Database Server requirements

Number of users	1-600	600-2000	2000-10000	10000-20000+*
CPU speed	2GHz (1 core or higher)	3GHz (2 core or higher)	3GHz (4 core or higher)	3GHz or higher (8 core or higher)
RAM volume	1GB (2 recommended)	2GB min, 4GB recommended)	4GB min, 6GB recommended)	6GB min, 8GB recommended)
Hard disk space	5 GB	5-10 GB	10-20 GB	20-50 GB
Hard disk speed	7200 RPM	7200 RPM	10000 PRM/SSD	10000 PRM/SSD

## 2) Network and firewall requirements:



Minimal configuration without Active Directory needs ports:

- SQL Server DeskAlerts database (default port 1433) should be available from IIS server and it should have connection 100 Mbps or faster
- IIS server with DeskAlerts server ports: TCP 80<sup>1</sup> (HTTP) or TCP 443 (HTTPS)
- Clients installations. TCP 80 (HTTP) and / or TCP 443 (HTTPS)

Client application use for message delivery next HTTP or HTTPS pages:

```
http://your_server/deskalerts/getalerts.aspx
http://your_server/deskalerts/GetAlert.aspx
http://your_server/deskalerts/GetWallpaper.aspx
http://your_server/deskalerts/get_wallpapers.asp
http://your_server/deskalerts/get_screensavers.asp
```

DeskAlerts client applications connect to IIS server every one minute (it can be changed in pool\_period) and check messages on server. It can generate huge network utilization and it needs link with package delay no bigger than 400ms. And server should be available 99% of time. It's not allowed to use some hardware and / or software to drop network packages.

<sup>1</sup> If you have some reason to use HTTP we can offer Encryption module.

Also we recommend to avoid setup proxy (server and/or client) and IIS on the same server. It can significantly complicate the setup of DeskAlerts.

Extended configuration need minimal + next ports:

- d) Active Directory 389 LDAP<sup>2</sup> or 636 LDAPS<sup>2</sup>
- e) E-mail SMTP server 25<sup>2</sup>
- f) SMS Gateway<sup>3</sup> (we recommend twilio, 80,443)
- g) Push notifications 80,443 for Android and 2195 for Apple<sup>4</sup>

Note. DeskAlerts software can deliver video and other heavy content, and for example 10Mb video for 1000 users will generate 10 GB traffic. You need to check it with your network team.

### 3) Server Software requirements.

Our product tested and works with Microsoft Windows server 2008<sup>5</sup> and higher, Microsoft Internet Information Server 7<sup>4</sup> and higher, Microsoft SQL Server 2008<sup>4</sup> and higher.

#### 3.1) SQL Server

Before beginning to setup DeskAlerts server you need to check what SQL provider do you use. Current version of DeskAlerts works with “ODBC” or “Native SQL provider”

Choose SQL Server authorization or Windows authorization do you need for SQL server.

Also we recommend use “Simple” recovery model and schedule backups, because logs rise fast. Please check it with your DBA team

#### 3.2) Windows and IIS Server

Microsoft .NET Framework 3.5, Microsoft .NET Framework 4.5 should be installed.

Before installation we recommend decide on HTTP or HTTPS do you need to use, and configure IIS Server before setup.

Also if you have many users, logs of IIS can be huge. It is possible to restrict it in IIS but please check it with your security team.

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<sup>2</sup> Ports can be changed if it needed in you environment.

<sup>3</sup> Please ask your SMS provider.

<sup>4</sup> Google and Apple don't declare Push notifications as services with warranted delivery.

<sup>5</sup> DeskAlerts use this products “as is” and we are testing our products with Microsoft updates but we cannot be responsible for Microsoft products.

### 3.3) Active Directory (if needed)

DeskAlerts software take from AD next records:

User: Display Name, mail, mobile, "userAccountControl" (enabled user or not).

Computer: computer.

Group: group name, group member, group member Of, domain.

Domain: Domain Name

### 4.) Clients

DeskAlerts clients are available for Windows (tested with Windows 7 and higher), macOS 10.12 (tested with macOS 10.12 and higher) also DeskAlerts for mobile available in Apple store and Play market.

#### 4.) Client configuration

Every client connect with pool period (by default it is one minute) to server to check new messages. In a big company it can generate huge network and server utilization. For example of server we take configuration like Azure Server B2s (2vcpu Intel Xeon(R) CPU E5-2673 V4 @2.30GHz, 4Gb., HDD).

For this server we recommend to use next formula:

10 seconds for first 100 users and add 1 second for every 20 additional users.

For example I have 2500 users in my company, it means I need  $2400 / 20 = 120$  sec

$120\text{sec} + 10\text{sec} = 130$  sec

This is a rough formula, and this server can work with 35 sec pull period and huge server utilization.

Every client have unique environment configuration. Usually we see DeskAlerts servers in Virtual infrastructure and we can't predict host machine utilization. Based on this we strongly recommend a trial installation to check compatibility of DeskAlerts software and your environment.

Another way we can propose cloud solution.