

Install and licence guide

Version 11.4 · for the person installing Ekalix

1. WHAT YOU NEED

- A **Windows Server 2016 or later** to run Ekalix - or Windows 10 or 11 for a trial. Windows PowerShell 5.1 and the .NET Framework are built in; nothing else is installed - no PowerShell modules, no Python, no agents - here or on the servers you watch.
- A **SQL Server 2016 SP1 or later** for the Ekalix database, any edition. With none on the computer, the installer offers SQL Server 2022 Express, free from Microsoft. Allow about 30 MB per monitored server for two years of history: 100 servers is about 3 GB, so SQL Server Express is enough up to about 300 servers.
- **One Windows account to run Ekalix**, ideally a service account. It runs everything - the page, the collectors, the recorder and the alerts - so the rights below are all for this one account.
- **Your licence file** from your account at ekalix.com. The free 14-day trial licence comes with the download.
- People open the page in Edge or Chrome and sign in with their Windows account: on the Ekalix server itself, or from their own computers when Ekalix is started with `-Network`.

2. INSTALL - ABOUT TEN MINUTES

1. Right-click the downloaded zip, choose **Properties**, tick **Unblock** and press OK. Then right-click it again and choose **Extract All**. It holds one folder, `Ekalix`; put it where you like, for example `D:\Ekalix`. Do not run anything from inside the zip.
2. Double-click `Install Ekalix.cmd` in that folder; Windows asks an administrator to approve once. It checks the computer, finds the SQL Server for Ekalix's data (or installs SQL Server Express if there is none), asks which account runs Ekalix, gives that account its rights here, and starts Ekalix with Windows (the scheduled task `Ekalix`). On a server it runs with nobody signed in; on a PC it can start when you sign in, which needs no password. It also writes the read-only rights for your servers into `config\access` and applies them now to the servers you name, if you want. To let colleagues open the page from their computers, answer yes when it asks, or run `Ekalix.cmd -Install -Network`.
3. Open the `Ekalix` shortcut on the desktop, or `http://localhost:8100`. On the setup page enter the SQL Server instance the installer named (for SQL Server Express, `localhost\SQLEXPRESS`) and press **Test**. Choose where the data and log files go and press **Create the database**; for an empty database your DBA prepared, press **Install into this database**. You become the first Owner.
4. **Install your licence**: setup ends by asking for the licence file. Nothing is collected until one is installed. (Later: **Administration** > **Licence**.)
5. When asked, press **Export key file** and keep the file and its passphrase safe, apart. It unlocks the passwords Ekalix stores.
6. Press **Add server** for each SQL Server instance, Windows, IIS or MongoDB server. Monitoring starts at once.
7. In **Administration** > **Access**, give AD groups or people a role. Keep at least two Owners.

Without the installer, `Ekalix.cmd` starts Ekalix in its own window, as whoever opened it, and it runs while that window is open. Run `Install Ekalix.cmd` again at any time to change the account; every step checks first and does only what is missing.

RIGHTS AND PORTS AT A GLANCE

Who or where	Needs	For
The Ekalix account on the Ekalix server	An ordinary user. No administrator rights. The installer gives it Log on as a batch job (to run with nobody signed in) and Modify on the Ekalix folder. A service account, or a group managed service account with no password to look after.	Runs the page, the collectors, the recorder and the alerts.
An administrator, once - for the installer	Approves the prompt from <code>Install Ekalix.cmd</code> . To apply the read-only rights on your servers from the installer, that person also needs <code>sysadmin</code> there, and administrator rights on the Windows servers; otherwise give the files in <code>config\access</code> to someone who has.	The account's rights, and the scheduled task.

... on the SQL Server holding the Ekalix database	dbcreator for setup - or db_owner of an empty database your DBA created. Afterwards db_owner of the Ekalix database.	Settings, servers, history, the audit log and the licence.
... on each SQL Server you monitor	The read-only rights below, or sysadmin . Optional: ALTER ANY EVENT SESSION for the MonitorEx event session. A SQL login per server also works; its password is stored encrypted.	Health, jobs, backups, AGs, waits, queries - read only.
... on each Windows or IIS server you monitor	Member of the local Administrators group, and WinRM (TCP 5985). Without WinRM a reduced set is read over DCOM (TCP 135 and the RPC range).	Counters, disks, services, event logs, IIS sites and pools.
... on each MongoDB you monitor	The read-only monitorex user below.	Server, replication and operations - never a document.
An administrator, once - only for - Network	Approves the prompt from Ekalix.cmd -Network : the address http://+:8100/ reserved for the Ekalix account, and TCP 8100 opened in Windows Firewall (domain and private networks).	Colleagues open the page from their own computers.
People who use the page	A role in Administration > Access, given to AD groups or people: Owner - everything, plus licences, the key file and other Owners; Admin - configuration, servers, access below Owner; Operator - monitoring, Live, explanations, acknowledging; Viewer - read only. Everyone else is refused. Windows sign-in, no separate passwords, no rights on the monitored servers.	Who sees and does what. The Ekalix account itself is always an Owner.

Port	From	To
TCP 8100 (or the port you set)	People's browsers	The Ekalix server - on that server only, unless started with -Network
TCP 1433 or the instance's port (UDP 1434 for named instances found by name)	The Ekalix server	The SQL Server holding the Ekalix database, and each SQL Server you monitor
TCP 5985 (WinRM) - or TCP 135 and the RPC range (DCOM)	The Ekalix server	Each Windows or IIS server you monitor
TCP 27017	The Ekalix server	Each MongoDB member you monitor
HTTPS, outbound	The Ekalix server	Only if you switch on AI explanations: your chosen provider. Nothing else leaves your network.

READ-ONLY RIGHTS ON A MONITORED SQL SERVER

```
-- Run on each monitored SQL Server. Replace DOMAIN\svc-ekalix with your account.
USE master;
CREATE LOGIN [DOMAIN\svc-ekalix] FROM WINDOWS;
GRANT VIEW SERVER STATE, VIEW ANY DEFINITION, CONNECT ANY DATABASE TO [DOMAIN\svc-ekalix];
CREATE USER [DOMAIN\svc-ekalix] FOR LOGIN [DOMAIN\svc-ekalix];
GRANT EXECUTE ON sys.xp_readerrorlog TO [DOMAIN\svc-ekalix];      -- the error log
USE msdb;
CREATE USER [DOMAIN\svc-ekalix] FOR LOGIN [DOMAIN\svc-ekalix];
ALTER ROLE SQLAgentReaderRole ADD MEMBER [DOMAIN\svc-ekalix];    -- Agent jobs
ALTER ROLE db_datareader ADD MEMBER [DOMAIN\svc-ekalix];         -- backup history
-- Only on a replication distributor:
-- USE distribution; CREATE USER [DOMAIN\svc-ekalix] FOR LOGIN [DOMAIN\svc-ekalix];
```

```
-- ALTER ROLE db_datareader ADD MEMBER [DOMAIN\svc-ekalix];
-- Only where you want the MonitorEx event session (deadlocks, timeouts, long queries, severe errors).
-- It is the one thing Ekalix creates on a server: 4 files of 8 MB at most in SQL Server's log folder.
-- USE master; GRANT ALTER ANY EVENT SESSION TO [DOMAIN\svc-ekalix];
```

READ-ONLY RIGHTS ON A MONITORED MONGODB

```
// Run once per replica set, on its primary, in mongosh. Ekalix reaches every member over TCP 27017.
use admin
db.createUser({
  user: "monitorex",
  pwd: passwordPrompt(),
  roles: [ { role: "clusterMonitor", db: "admin" }, // server, replication, operations, sizes - read-only
           { role: "read", db: "local" } ] // optional: the oplog window (first and last entry only)
})
// Nothing it is given can change data. Ekalix never reads a document from your collections,
// and keeps queries only as their shape, never their values.
```

3. YOUR TRIAL AND YOUR LICENCE

- **The trial** is a licence file: it comes with the download from your account at **ekalix.com** - 14 days, every feature, up to 100 units. Until a licence is installed, Ekalix collects nothing.
- **To buy**, choose the number of units at checkout in your account. You can bind the licence to this database with its **repository id** (**Administration** > **Licence** > **Copy repository id**) or leave it open.
- **Units**: a SQL Server instance, an application server or a MongoDB member is 1. A Windows server is ½, or free when it is the same machine as a monitored SQL Server or application server.
- You receive a small licence file. Install it at the end of setup, or in **Administration** > **Licence** > **Install licence**. It cannot be edited; one bound to a repository id works only on that database.
- Buying, adding servers and renewing keep the same licence id: download the file again and install it over the old one. Retiring a server frees its unit.
- When a paid licence ends there are 30 days' grace with a warning; a trial simply ends. Then collection pauses until a new licence is installed. Everything collected stays readable.

4. LOOKING AFTER IT

- **Back up** the Ekalix database like any other database.
- **Moving** to another server: copy the folder, run `Ekalix.cmd`, choose to connect to the existing database, and give it the key file. The licence moves with the database.
- **A new version**: back up the database, stop Ekalix, replace the `scripts`, `web` and `db` folders (keep `config`), and start it. An Owner is asked to upgrade the database.
- **Removing it**: delete the scheduled task Ekalix (`Unregister-ScheduledTask -TaskName Ekalix`), stop Ekalix, delete the folder, drop the Ekalix database. With `-Network` used, an administrator can also remove the reservation (`netsh http delete urlacl url=http://+:8100/`) and the firewall rule Ekalix (TCP 8100).

Ekalix only reads from the servers it monitors. It installs nothing on them and changes nothing - apart from the optional MonitorEx event session, where you allow it.