



## Product description

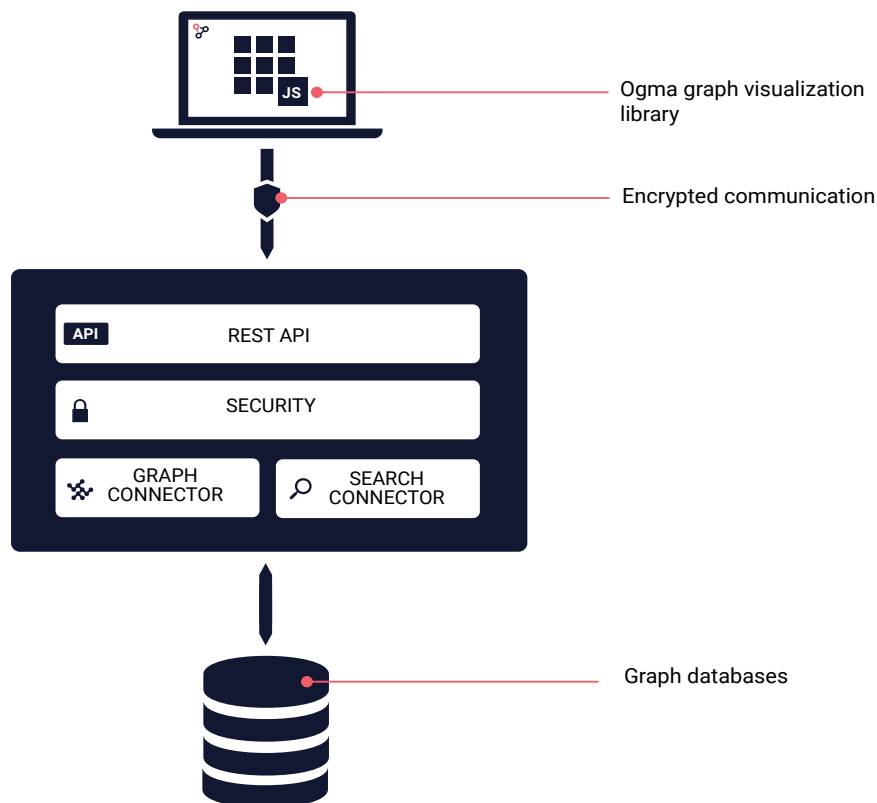
Linkurious Enterprise is an on-premises and browser-based platform that works on top of graph databases. It brings graph visualization and analysis capabilities to analysts tasked to detect and analyze threats in large volumes of connected data. It is used by organizations such as the French Ministry of Economy and Finance, Zurich Insurance or Bank of Montreal to fight financial crime, terror networks or cyber threats.

## Three-tier architecture

The presentation layer is a web-based application with a user interface designed for investigation of graph data. It leverages Linkurious' JavaScript graph visualization library, Ogma, for rich interactions with graphs.

The logic layer is a multi-tenant Node.js-based server. It comes with a unified, Json-based, REST API to read/write and search into graph databases. It implements a security layer with modular authentication for role-based access control policies.

The data layer supports several graph databases, as well as indexation engines. In order to use your data in Linkurious Enterprise, you first need to import it in one of the graph databases it supports.



*Linkurious Enterprise's three-tier architecture*

## Server deployment

The Linkurious Enterprise server can be installed locally or on a cloud instance. Once installed, you connect it to one of the supported graph databases. You configure an external search index or use the embedded Elasticsearch server (zero-configuration) and get started.

### Server requirements

- Hardware: 32GB of RAM, 8 CPU cores, 50GB of free space (SSD preferred), Linkurious Enterprise requires a 64-bit system to run.
- Operating System: Windows 7+, Linux, OS X 10.10+
- Java JRE (or JDK) 7 or 8 (if using the embedded Elasticsearch engine)

### Search index in production environments

Linkurious Enterprise embeds an Elasticsearch server, making your graph database searchable with little configuration. The Elasticsearch driver typically indexes between 2,000 and 20,000 nodes or edges per second. For databases with more than a couple of millions of nodes and edges or requiring frequent re-indexation, Linkurious Enterprise offers alternative search solutions (listed below).

## Client deployment

Linkurious Enterprise is a web application server, the client does not require any installation. Users access it from their web browsers. You can enable and configure user authentication to secure the access to your data. It will allow you to assign access-rights to groups of users.

### Client requirements

- Hardware: up to 500 nodes in a visualization, we recommend a machine with 4 GB RAM, and 2 CPU cores @ 1.6 Ghz.
- Web-browser: Chrome 23+ (fastest), Internet Explorer 11+, Firefox 17+, Opera 12+, Safari 11+

## Security

<b>Authentication</b>	Linkurious Enterprise supports the following external authentication services: LDAP, Microsoft Active Directory, Microsoft Azure Active Directory, Google Suite, OpenID Connect, SAML2 / ADFS.
<b>Access-control</b>	Linkurious Enterprise relies on a group-based access-rights model. You define rights, per data-source, at the node-category or edge-type level for groups of users.
<b>Secure communication</b>	Linkurious supports HTTPS for secure communications. Custom Certificate Authorities (CA) can be added easily.
<b>Accountability</b>	The Audit trail brings you detailed logs about the operations performed on your graph database by Linkurious Enterprise users. It's easily bindable to a log management system like Logstash for interpretation.

## Scalability

<b>Install as a service</b>	Install as a service to have Linkurious Enterprise started and monitored along with other operating system services.
<b>Large graphs</b>	With the adequate hardware setup and graph database configuration, Linkurious Enterprise can be used with graphs of billions of nodes and edges.
<b>Multitenancy</b>	Linkurious Enterprise offers support for multiple graph databases at the same time. You can switch between active data-sources in one click. Several users can use a different graph database at the same time.
<b>Concurrent-users</b>	Linkurious Enterprise can handle between 20 and 100 active concurrent users, depending on your graph database (up to 100 with Neo4j).

## Compatibility

<b>Search index</b>	<p>Bring full-text search to your users with zero-configuration thanks to an embedded Elasticsearch server. For better performances on bigger graphs, use your own Elasticsearch cluster or choose from the supported alternatives:</p> <ul style="list-style-type: none"><li>• neo4j-to-elasticsearch Neo4j plugin (Neo4j)</li><li>• Neo4 Search (Neo4j)</li><li>• JanusGraph built-in search indices (JanusGraph)</li></ul> <p>For comparison table between search options, see <a href="#">Linkurious documentation</a>.</p>
<b>Graph database compatibility</b>	<p>Linkurious Enterprise is compatible with the best graph database vendors on the market. It supports the following property-graph databases:</p> <ul style="list-style-type: none"><li>• Cosmos DB</li><li>• JanusGraph 0.2.1+ and JanusGraph on IBM Compose</li><li>• Neo4j 2.1.5+</li></ul>

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