

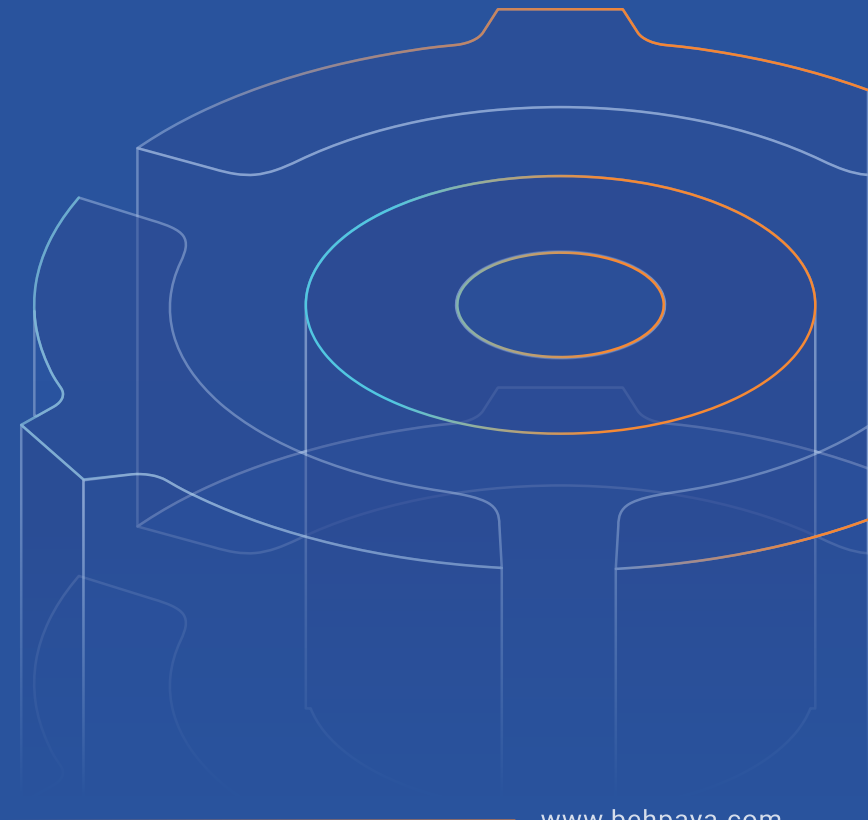


**MOEIN**

Behpaya Technology

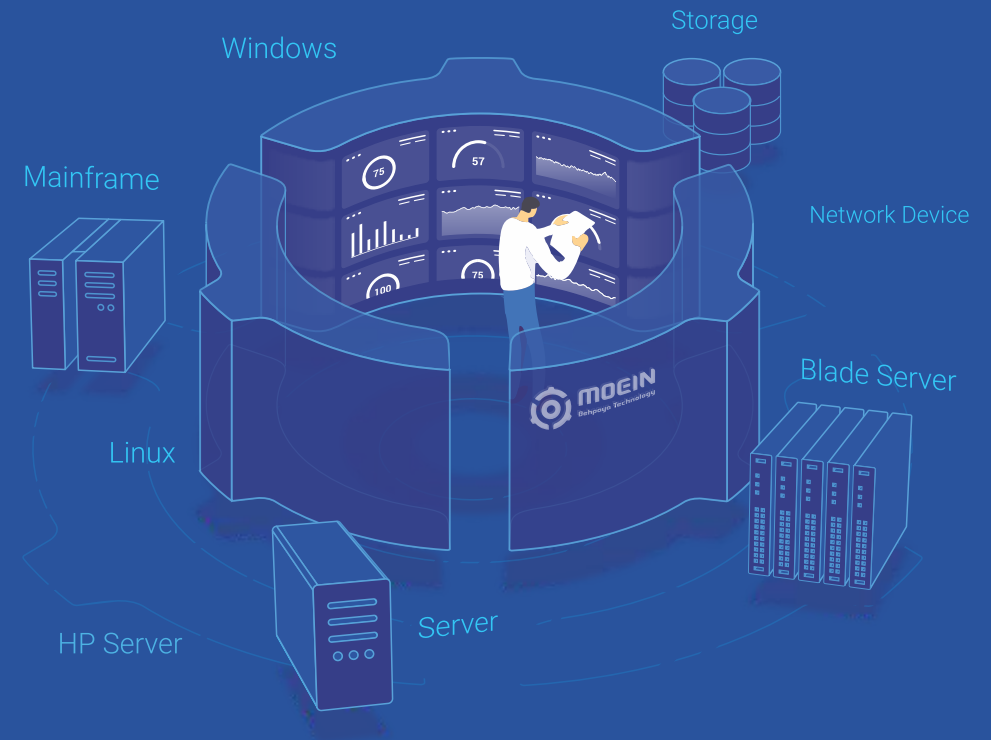
## Integrated Monitoring Platform

Intelligent IT Services Monitoring



## Behpaya Company

Behpaya is a knowledge-based company located in the Sharif innovation area, consisting of graduates of IRAN's top universities. Since 2018, the company is focused on providing comprehensive and efficient solutions to make IT operations and E-businesses smarter. The trend of the company is bringing intelligence by monitoring and observability and its common challenges are management, engineering, and analyzing big data, and applying artificial intelligence or any other innovative ways to facilitate finding the root of problems in the IT operations and E-businesses.



The Moein platform is a product of Behpaya company developed to provide a comprehensive and innovative solution for intelligent monitoring of IT services. The development of this product started in 2018 and the first version was released in 2021. Since the prerequisite of intelligent monitoring is integration and comprehensiveness in data and their analysis, the Behpaya team is continuously developing capabilities and features of this product in order to eliminate the need to use multiple monitoring products.

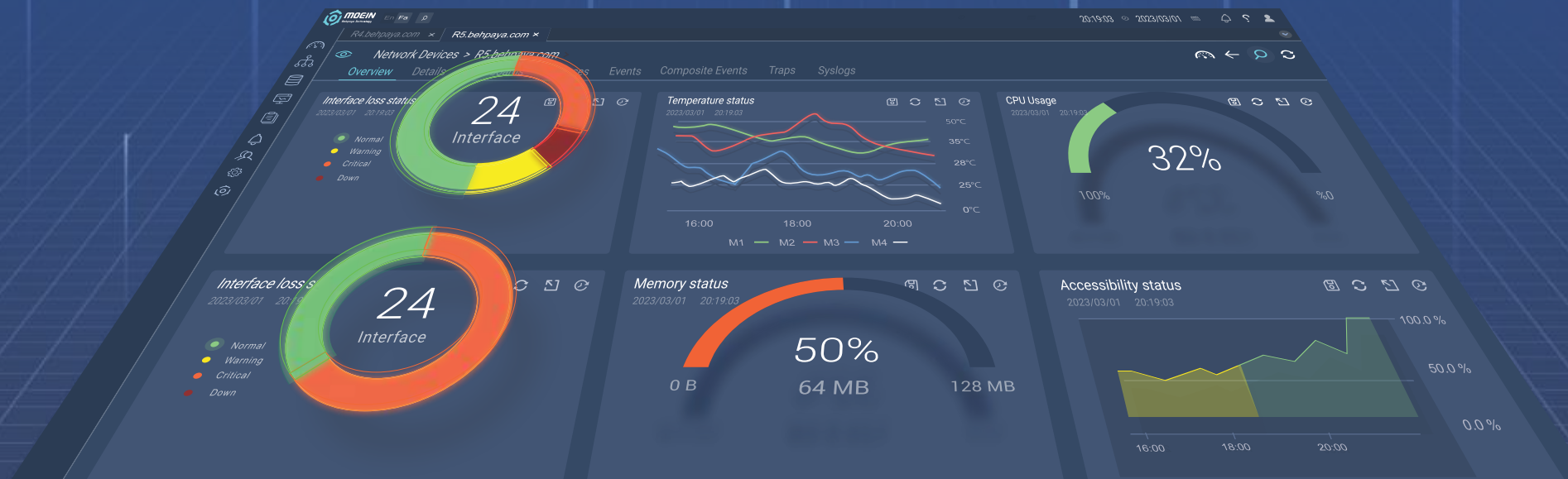
# Moein Platform

Moein, a platform for Integrated monitoring of IT operations and E-businesses, is a comprehensive solution for the intelligent monitoring of IT services, which can bring operational and business intelligence for online service providers.

Providing high quality services continually is the purpose of operations. However, it requires stability, accessibility, and efficiency of all effective components (infrastructure technologies and related subsystems) of the service. Guaranteeing the quality of a service requires continuous monitoring of all effective components. The Moein platform, on one hand, can monitor all effective components separately, and on the other hand, it can monitor a service integrally by drawing a graph of the effective components and their connections. The integrated monitoring of a service facilitates finding roots of a problem in that service.

Optimal performance of the service components can lead to high-quality services and ultimately an improvement in the business performance. In other words, there is a relation between business metrics and operational metrics in IT services. Therefore, simultaneous monitoring of the operational and business metrics provides better insights about the quality of services or the status of businesses and the causes of fluctuations in them. The Moein platform can collect and analyze the required business metrics by different protocols or methods. To achieve these goals, monitoring is offered in the following three levels by the Moein platform:

- Computing infrastructure
- Application infrastructure
- Business applications



## Intelligent Monitoring of IT Services

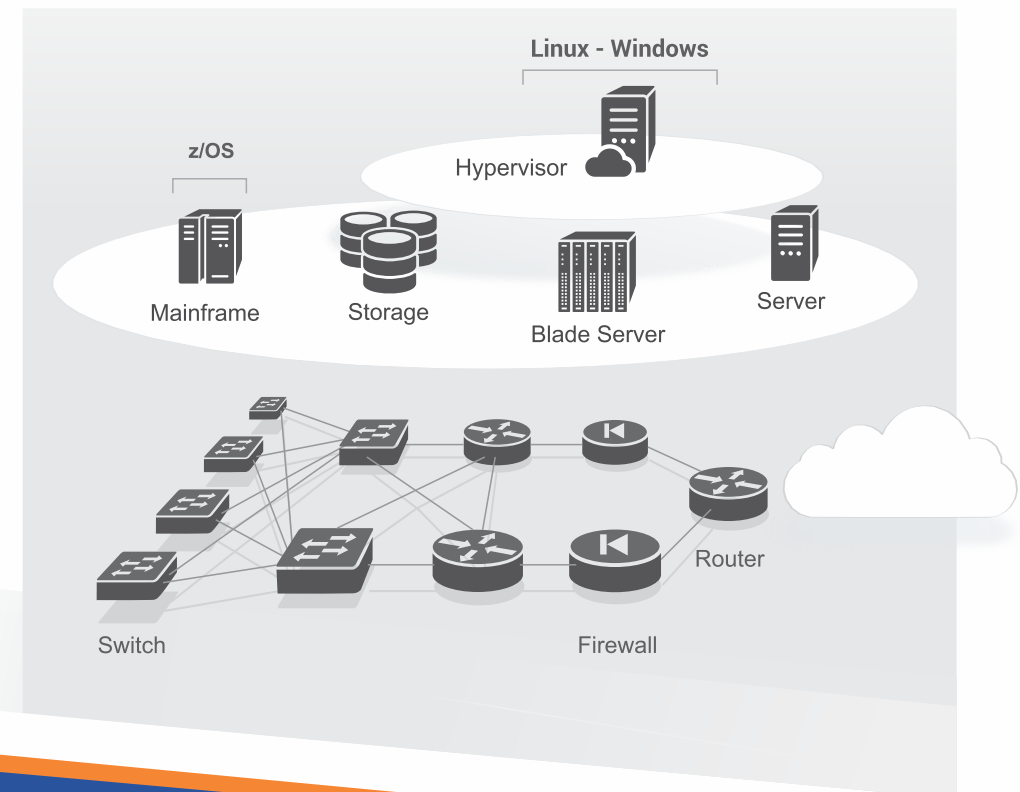
- Discovering the causes of errors in an IT service requires full-stack observability and full-stack monitoring. With full-stack monitoring, the Moein platform monitors all components at any level of computing infrastructures, application infrastructures, and business applications that affect an arbitrary service.

**1 Supported computing infrastructures:** network devices, security devices, physical servers, storage devices, operating systems, virtualization tools, environmental devices, etc.

**2 Supported application infrastructures:** databases, web servers, application servers, message queues, service provisioners, data analysis tools, orchestration tools, network and security tools, enterprise tools, runtime environments, etc.

**3 Monitoring business applications:** the Moein platform monitors the operational and business metrics of online business applications and their services. Also, at this level, full-stack observability of business applications has been provided by the Moein platform. In other words, monitoring the transactions has been realized in the Moein platform by collecting trace logs of services.

- The Moein platform brings Intelligent monitoring for an IT service using the component graph of the service, operational metrics, business metrics, event logs, and trace logs of those components. With the Intelligent monitoring of IT services and custom OI (Operational Intelligence) and BI (Business Intelligence) dashboards, the Moein platform facilitates business monitoring and root causes analysis in case of disruption in the operations.



## Moein Features

The Moein platform has been developed to cover IT infrastructure monitoring of enterprises on small to large scale. Therefore, in addition to common features, it has some features for large organizations such as monitoring units, ticketing system, centralized user management, work shifts, etc.



## Moein Main Capabilities

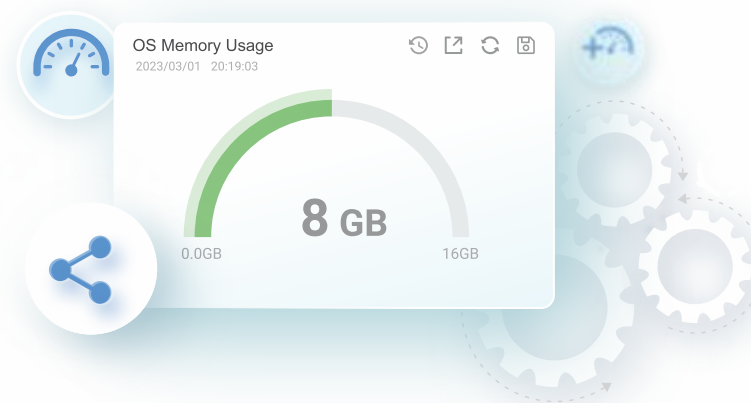
- Monitoring all levels of information technology infrastructure
- Covering different monitoring data such as metric and log
- Monitoring a dozen types of technologies from all levels
- Automatic discovery using ranges of network addresses
- Integrated monitoring of all effective components in a service
- Finding root cause of service error among the effective components
- Definition and monitoring of custom metrics and devices
- Definition and monitoring of service business metrics

## Moein Enterprise Aspects

- User-friendliness, accessibility, scalability, and high security
- Ability to define a monitoring unit to separate workgroups
- Supporting internal and centralized user management (LDAP, SSO)
- Having a ticketing system with notes, editing, and tracking
- Connecting to external 3rd party ticketing systems such as Jira
- Accept employee work shifts for management of notifications
- Support both fixed and time variable thresholds for metrics
- Support alerting via SMS, email, web push, and mobile notification

## Moein Data Visualization

- Monitoring with three web, mobile, and desktop user interfaces
- Providing custom dashboards with the possibility of sharing
- Supporting rotational dashboard for use in the video walls
- Default reports of status and operational metrics of objects
- Generating reports on various objects for a given time interval
- Customizing reports with different types of diagrams and widgets
- Scheduling reports to generate and send them using email
- Exporting reports in different formats of PDF, CSV, and JPEG







## User Interfaces



Web

The web user interface is the main interface of the Moein platform that provides users a responsive interface with all features of the Moein platform, such as user management, unit management, object discovery, custom dashboard, ticket management, etc.



Mobile

The mobile user interface is a cross-platform interface for senior users that provides users with some of main features from the Moein platform such as ticket management, viewing dashboards, metrics, the status of objects or services, and notifications.



Desktop

The desktop user interface is a cross-platform interface for administrators that facilitates informing administrators of events, objects, and services status so that administrators don't need to view dashboards constantly.

## Target Audience



### Banks and companies providing financial services

Banks and financial institutions, commodity and securities exchange, etc.



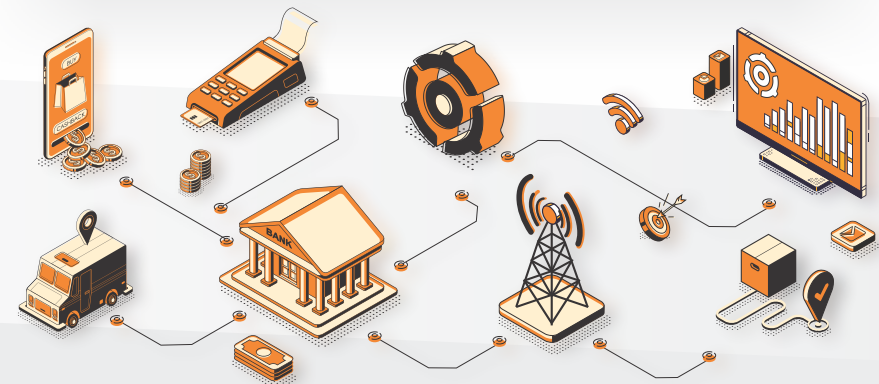
### Providers of communication and processing services

Data centers, mobile operators, cloud computing service providers, etc.
























### Businesses providing electronic services













Online stores, internet platforms, electronic government services, etc.



## Monitoring Computing Infrastructures








The Moein platform at the level of computing infrastructures can monitor network devices, security devices, physical servers, storage devices, operating systems, virtualization tools, environmental devices, and other related devices. This level is very diverse in terms of technologies and brands. To achieve integration in monitoring, the Moein platform covers a wide range of types and brands at this level. Also, new types and brands are constantly being developed based on the requirements of customers.

Security Devices	Environmental Devices	Virtualization Tools	Storage Devices	Physical Servers	Operating Systems
					
					
					
					

Network Devices					
					
					

## Some Metrics

Computing infrastructures level

	Network Devices	CPU usage, memory usage, network interfaces status, network interfaces traffic, etc.
	Security Devices	CPU usage, memory usage, network interfaces status, HA status, session statistics, etc.
	Physical Servers	The health of chassis and blades, used disks, RAID controllers, chassis temperature, etc.
	Storage Devices	Percentage of used capacity, the health of controllers and disks, exchange traffic, IOPS, etc.
	Operating Systems	CPU usage, memory usage, network interfaces traffic, partitions status, process statistics, etc.
	Virtualization Tools	The health of hosts, virtual machines, and disks, traffic of host machines, etc.
	Environmental Devices	Temperature and humidity sensor, UPS status, batteries, input/output line voltage, etc.



The Moein platform at the level of application infrastructures can monitor databases, web servers, application servers, message queues, service provisioning tools, data analysis tools, orchestration tools, network and security tools, enterprise tools, runtime environments, and other application infrastructures. In general, services are developed on the basis of a number of these applications, so providing a high-quality service requires the optimal performance of those applications. The Moein platform currently monitors many common and well-known applications, and the number of covered applications is continuously increasing. Also, based on the requirements of customers, it is possible to develop Moein to monitor custom applications, softwares, or tools.

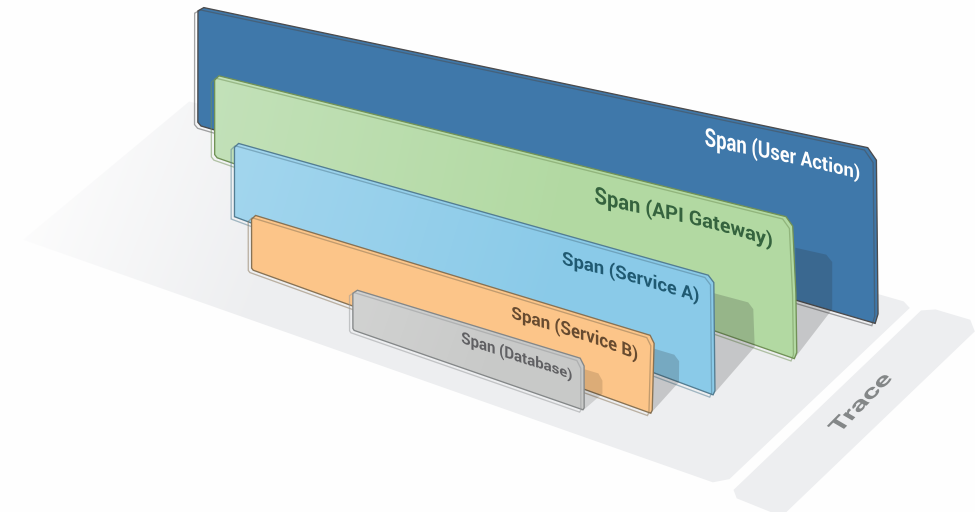
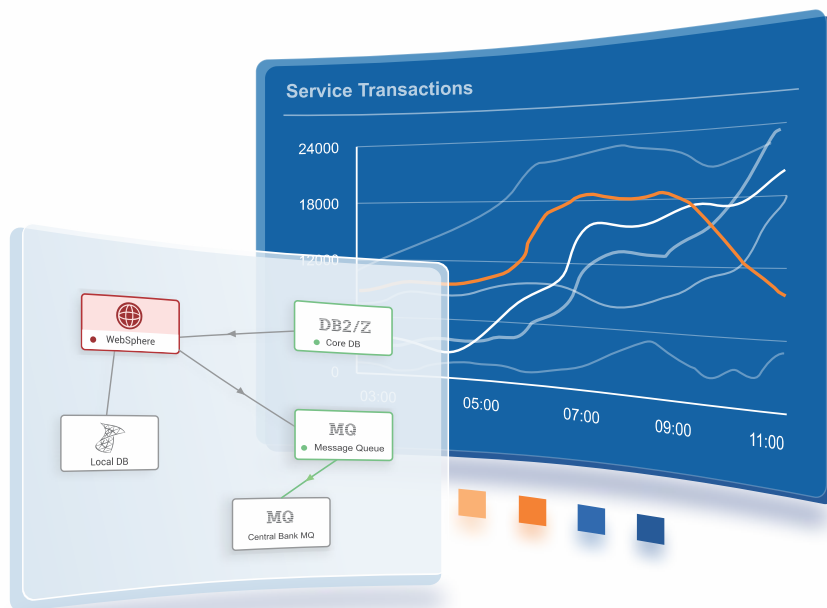




## Monitoring Business Applications

The Moein platform at the level of business applications provides operational and business monitoring of applications and their services developed for a business. For monitoring a business service, the Moein platform has a capability of defining a corresponding business service consisting of required business and operational metrics and creating custom dashboards to display the history and status of these metrics.

For monitoring a business application, the Moein platform has a capability of defining and drawing an integrated system consisting of all the effective components and their connections that realize the application and writing a health function based on the state of these effective components and their connections.



In addition to metrics, the Moein platform can collect event logs and trace logs. Event logs are common logs that may be produced by computing infrastructures, application infrastructures, or business applications after the occurrence of a change or event, which can be collected in different ways in the Moein platform. Trace logs contain information about distributed transactions in a business application which also can be collected in the Moein platform.

Collecting operational and business metrics, drawing the graph of effective components, and collecting event and trace logs of a business application and its services, are among the many features of the Moein platform at this level.



## Business Intelligence

Extracting, analyzing, and aggregating business metrics from applications and services over time provides useful information to managers and decision-makers about the business state of a company. These metrics and analyzes are used to provide business intelligence dashboards. These types of metrics are obtained from a data source (the application itself or its database) by using various APIs and protocols.

To do so, the Moein platform provides a feature called custom metric supporting all the APIs and protocols needed to extract business metrics. With the ability to create custom dashboards, it is possible to create all kinds of dashboards visualizing the history and status of these metrics to realize business intelligence.

## Operational Intelligence

One of the distinctive features of the Moein platform compared to other monitoring systems is the ability to define the operational environment of an application by an integrated system. This feature allows the user to draw a graph consisting of all the effective components in an application so that he can graphically express all the components affecting the operational health of that application and define a health function for it.

Using this graph, operational intelligence would be realized by the Moein platform. In other words, if a problem occurs in an application or its services, the users can see the root of the problem in a tree created from this graph and take the necessary actions to fix it

