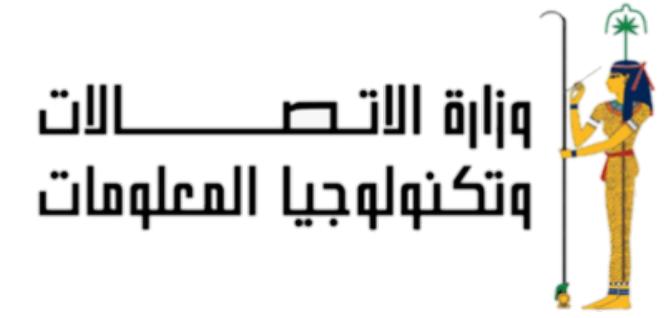




HUAWEI NETWORK ADMINISTRATION



TEAM D

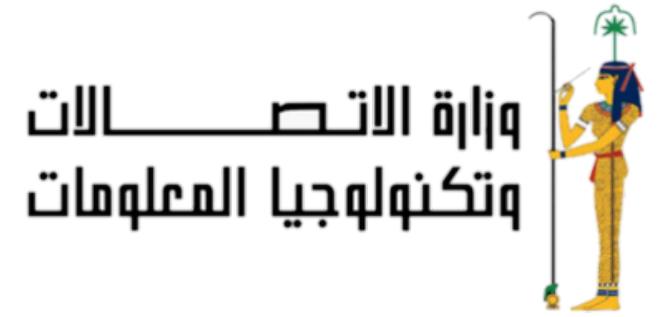
FINAL REPRESENTATION PETROMASR PROJECT

EMULATING NEW ERA OF INFRASTRUCTURE
CAMPUS NETWORK , SDN AND DIGITAL TRANSFORMATION

SUPERVISED BY : ENG \ SAMAH EISA



PETROMASR CAMPUS NETWORK

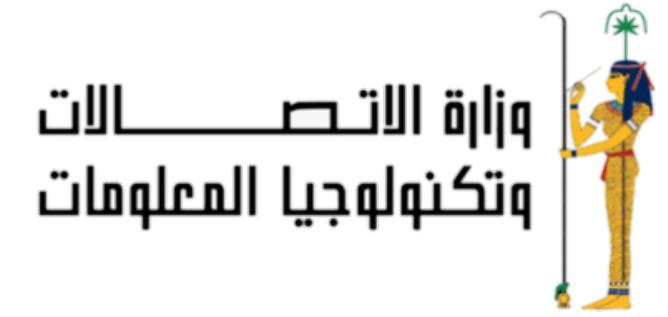


TEAM MEMBERS :

- 1) ABDELRAHMAN WALEED ALM ELDEEN**
- 2) GEORGE NASSER**
- 3) AHMED REDA**
- 4) MAHMOUD ABDELKHALIK**



PETROMASR CAMPUS NETWORK



INTRODUCTION :

**PETROMASR IS A LEADING PETROLEUM INSTITUTION
DEDICATED TO ENERGY EXCELLENCE AND OPERATIONAL EFFICIENCY.
THE ORGANIZATION IS STRUCTURED TO
SUPPORT A VAST INTERNAL AND EXTERNAL OPERATIONS
THROUGH STATE-OF-THE-ART TECHNOLOGY.**



PETROMASR CAMPUS NETWORK



ORGANIZATION DEPARTMENT :

- 1) HUMAN RESOURCE : VLAN 10 TAGGED WITH RED COLOR**
- 2) PUBLIC RELATIONS : VLAN 20 TAGGED WITH YELLOW COLOR**
- 3) FINANCE : VLAN 30 TAGGED WITH GREEN COLOR**
- 4) SUPPORT : VLAN 40 TAGGED WITH PINK COLOR**



PETROMASR CAMPUS NETWORK

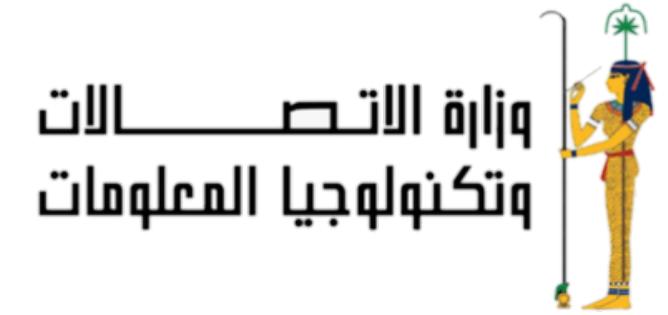


ORGANIZATION ADMINISTRATORS :

- 1) NOC : NETWORK OPERATION CENTER MANAGEMENT**
- 2) SOC : SECURITY OPERATION CENTER MANAGEMENT**
- 3) SYSTEM ADMIN : SERVERS OPERATION CENTER MANAGEMENT**
- 4) SUPERADMIN : INFRASTRUCTURE OPERATION CENTER MANAGEMENT**
- 5) DATABASE ADMIN : DATABASE OPERATION CENTER MANAGEMENT**



PETROMASR CAMPUS NETWORK



ORGANIZATION EXTERNAL STAKEHOLDERS :

- 1) CO-STATIONS ADMINS : DEALING WITH PETROMASR**
- 2) INVESTORS : SECURITY OPERATION CENTER MANAGEMENT**
- 3) IMPORTERS : SERVERS OPERATION CENTER MANAGEMENT**
- 4) XDR : THIRD PARTY INTEGRATION PROVIDE SERVICES AS PROJECTS**
- 5) VISITORS : TO MY WEBSITE**

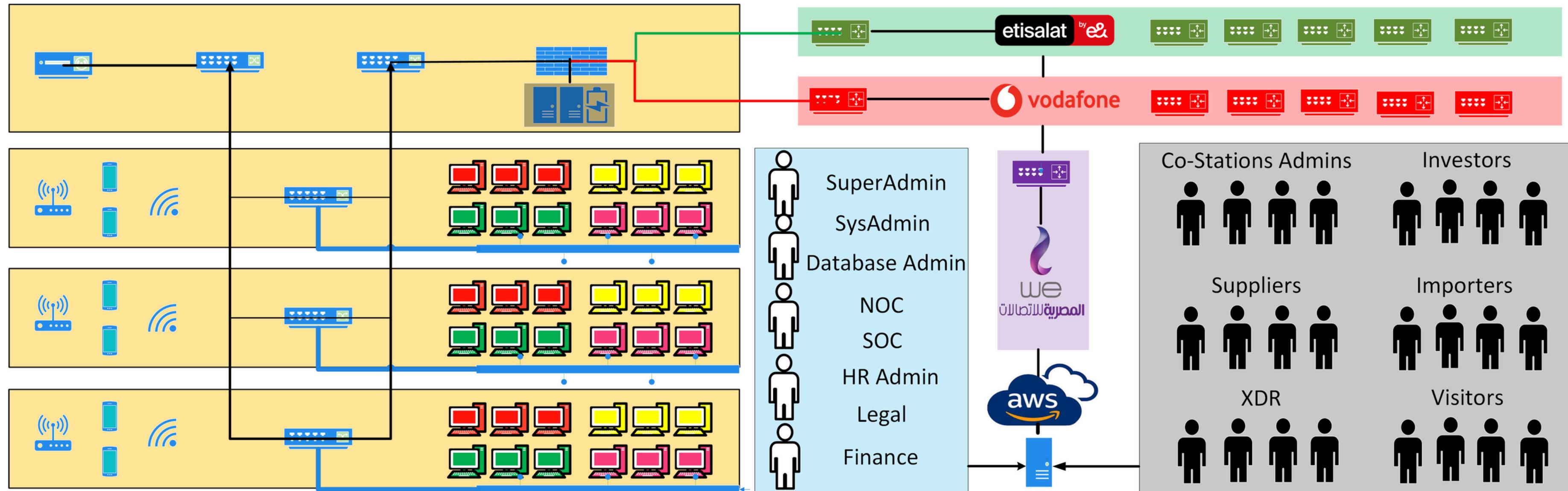


PETROMASR CAMPUS NETWORK

هيئة الاتصالات
وتقنيات جيا المعلومات



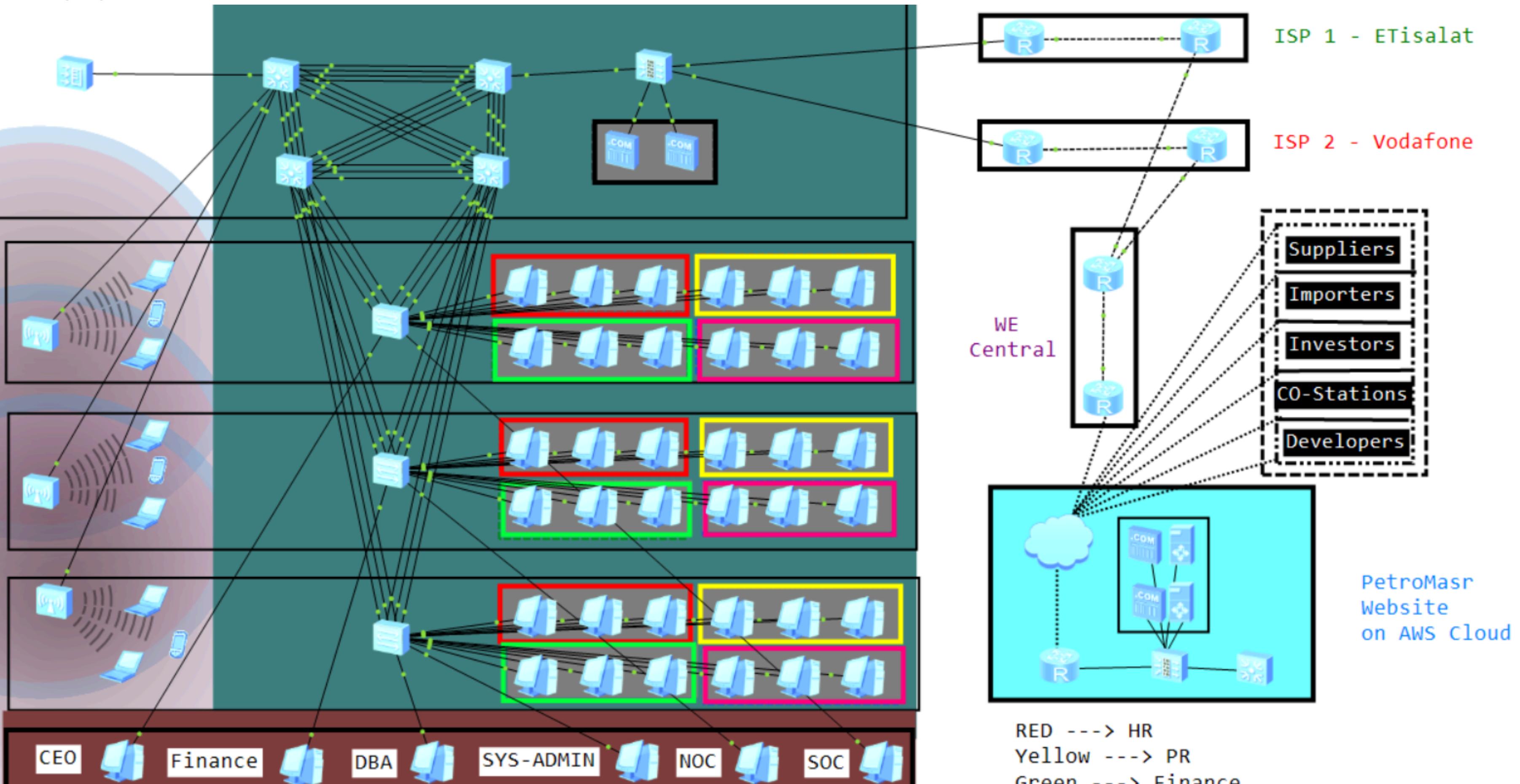
PetroMasr Patorl Comapny Campus Infrastructure





PETROMASR CAMPUS NETWORK

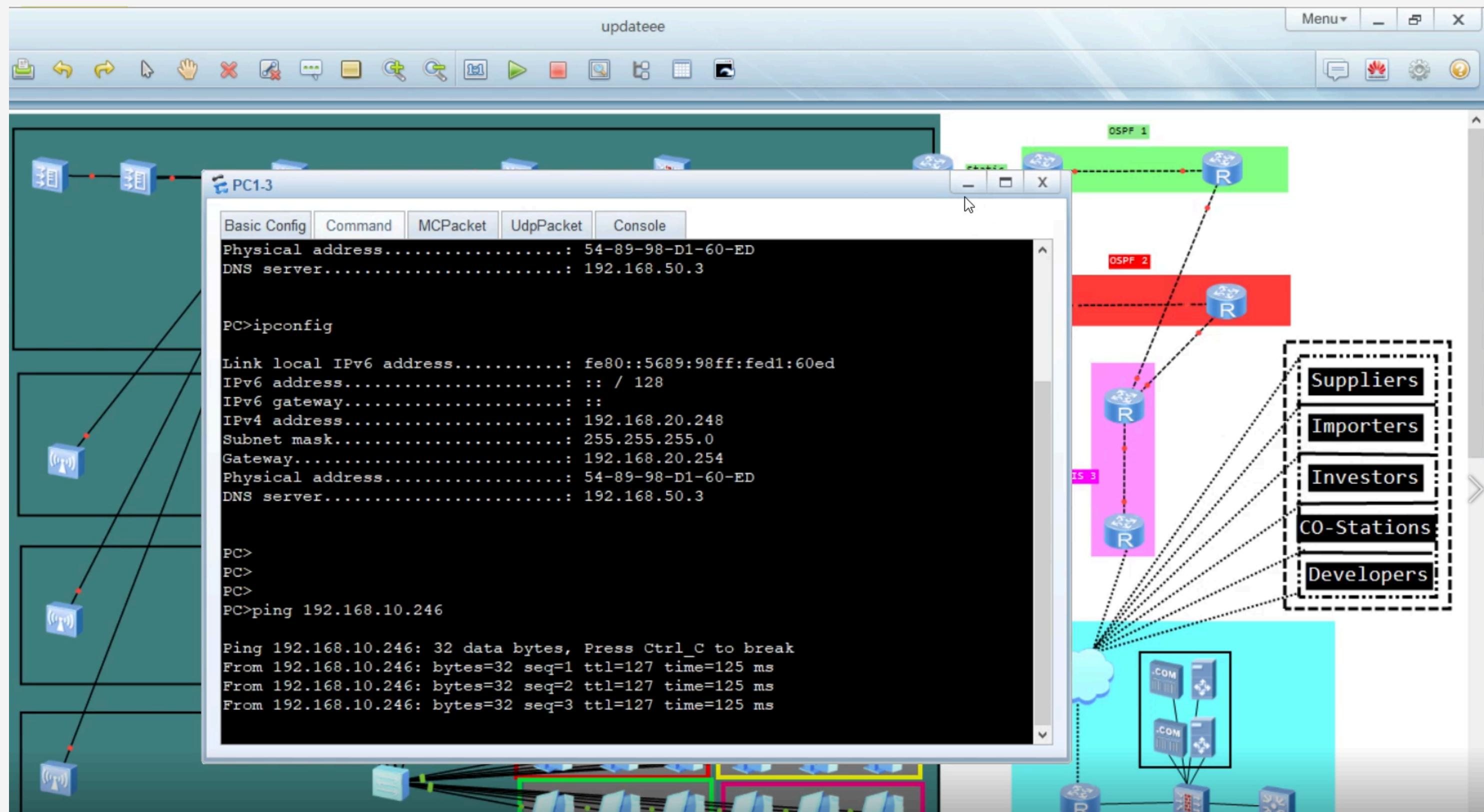
هيئة الاتصالات
وتقنيات جيا المعلومات



RED ---> HR
Yellow ---> PR
Green ---> Finance

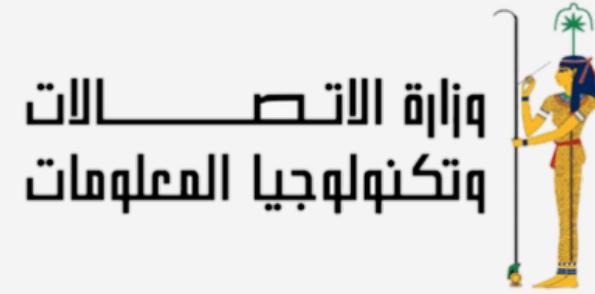


PETROMASR CAMPUS NETWORK





PETROMASR CAMPUS NETWORK



SWITCHING & INTERNAL ROUTING :

- 1) ACCESS SWITCHING LAYER**
- 2) DISTRIBUTED SWITCHING LAYER**
- 3) CORE SWITCHING LAYER**



PETROMASR CAMPUS NETWORK

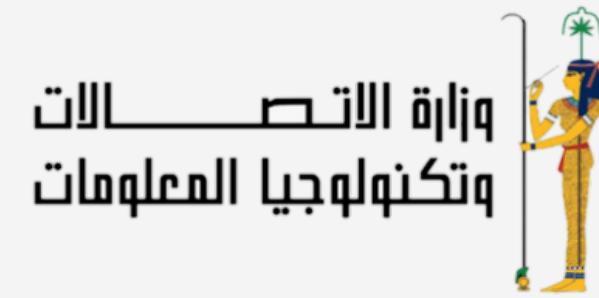


WE HAVE WORKED IN ACCESS SWITCH THE FOLLOWING :

- **VLAN DECLARATION**
- **RAPID STP MODE , LACP PRIORITY**
- **PRIORITY BRIDGE ID**
- **DETECT SWITCHPORTS TYPE ACCESS / TRUNK**
- **ASSIGNING DISTRIBUTED ETH-TRUNK**
- **ENABLING STP EDGED-PORT ON ACCESS PORTS**
- **DETECTING GROUP MEMBERS TO WORK EFFICIENTLY**



PETROMASR CAMPUS NETWORK

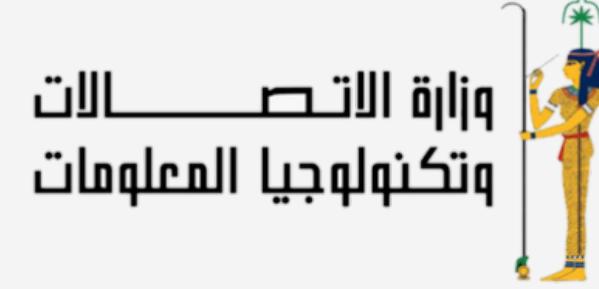


WE HAVE WORKED IN DISTRIBUTED SWITCH THE FOLLOWING :

- **VLAN DECLARATION , RAPID STP MODE AND LACP PRIORITY**
- **SWITCHPORTS TYPE ACCESS AND ETH-TRUNK**
- **STP EDGED-PORT ON ACCESS PORTS**
- **SVI WITH VRRP**
- **DHCP**
- **OSPF INTERNAL ROUTING**



PETROMASR CAMPUS NETWORK

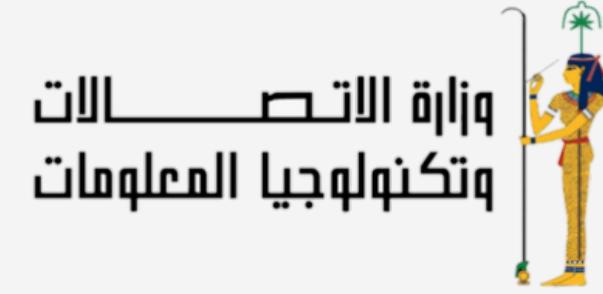


WE HAVE WORKED IN CORE SWITCH THE FOLLOWING :

- **VLAN DECLARATION , RAPID STP MODE AND LACP PRIORITY**
- **SWITCHPORTS TYPE ACCESS AND ETH-TRUNK**
- **STP EDGED-PORT ON ACCESS PORTS**
- **SVI**
- **DHCP**
- **OSPF INTERNAL ROUTING**
- **DELIVER WLAN TECHNOLOGIES**
- **MANAGE THE INTERNAL NETWORK**



PETROMASR CAMPUS NETWORK

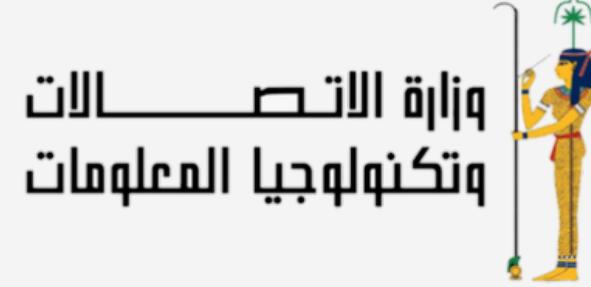


WE HAVE WORKED IN DISTRIBUTED SWITCH THE FOLLOWING :

- **CAPWAP**
- **SSID PROFILE**
- **SECURITY PROFILE**
- **RADIO COUNTRY**
- **VAP PROFILE**
- **WIFI-ROAMING**
- **ESSID**
- **BSSID**



PETROMASR CAMPUS NETWORK



WE HAVE PREPARE 2 SERVERS ZONES:

1) ENTERPRISE SERVERS THAT THEY ARE LOCAL

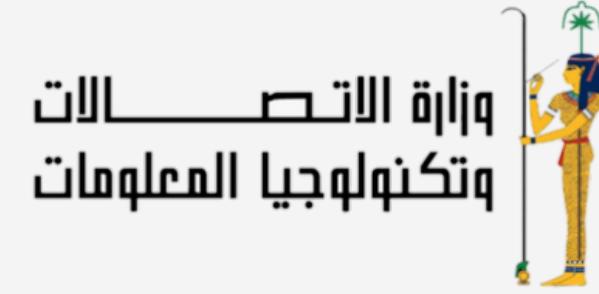
- FOR ACTIVE DIRECTORY
- STORAGE , BACKUP AND RECOVERY
- PRINT SERVER , DMSS SERVER , ETC

2) WEB SERVER CLOUD HOST LIKE AMAZON

- THE INTERFACE THE CONNECT THE ORG WITH STAKEHOLDERS



PETROMASR WEBSITE



FIGMA : UI / UX

FRONTEND : HTML , CSS , REACT JAVE SCRIPT

BACKEND : PHP LARAVEL , MYSQL

AI RECOMMENDATION : ANALYSIS , DECESIONS , VISUALS

AUTOMATION : N8N



Digital Egypt Pioneers

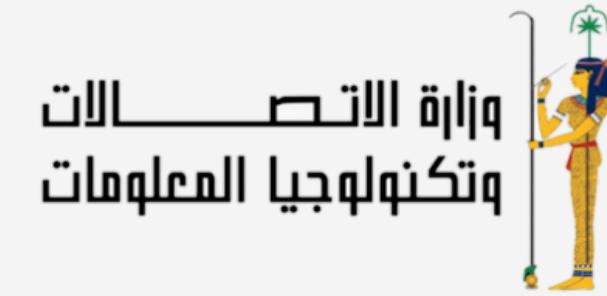
PETROMASR WEBSITE



**ALL DATA AND CREDENTIALS
EXISTS IN THE ATTACHED DOCUMENTATION**



PETROMASR WEBSITE



**DEARS , PLEASE ATTENTION
THIS A FULL WEBSITE IT WASNT A MUST TO MAKE IT
BUT OUR PORTION HAVE BEEN PUSHED US TO
MAKE THE DIGITAL TRANSFORMATION FOR THIS PROJECT
AND NOT JUST A WEBSITE IT IS A PLATFORM
INTEGRATED WITH OUR LOCAL SYSTEM
AND PROVIDE BY INTELIGENT RECOMMENDATION
AND AI AUTOMATION USING N8N**



Digital Egypt Pioneers

PETROMASR WEBSITE



LETS SHOW IT HERE AND LIVE DURING DISCUSSION



OPENNING CMD



PetroMasr

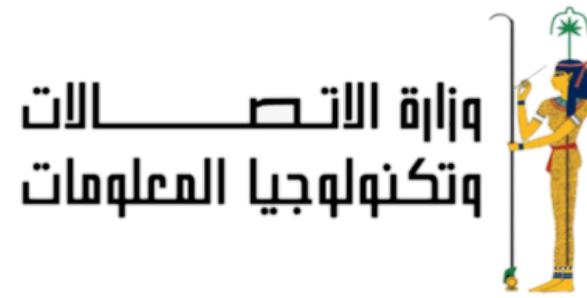
File Home Share View

cmd

Name	Date modified	Type	Size
backend	11/18/2025 5:32 PM	File folder	
node_modules	11/18/2025 7:43 PM	File folder	
src	11/18/2025 7:44 PM	File folder	
COMPLETE_FIXES_SUMMARY.md	11/18/2025 10:47 PM	Markdown Source ...	7
COMPLETE_IMPLEMENTATION_GUIDE.md	11/18/2025 9:43 PM	Markdown Source ...	4
ERRORS_FIXED.md	11/18/2025 7:47 PM	Markdown Source ...	3
FINAL_IMPLEMENTATION_SUMMARY.md	11/18/2025 10:39 PM	Markdown Source ...	7
FIX_ERRORS.md	11/18/2025 7:40 PM	Markdown Source ...	4
FUNCTIONAL_AUDIT_REPORT.md	11/18/2025 9:37 PM	Markdown Source ...	14



OPENNING CMD



```
C:\Windows\System32\cmd.exe - php artisan serve
```

```
Microsoft Windows [Version 10.0.19045.6466]
```

```
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\abdob\Downloads\PetroMasr>cd backend
```

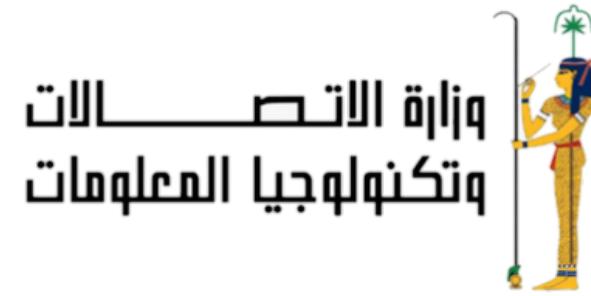
```
C:\Users\abdob\Downloads\PetroMasr\backend>php artisan serve
```

```
INFO Server running on [http://127.0.0.1:8000].
```

```
Press Ctrl+C to stop the server
```



RUNNING BACKEND



```
C:\Windows\System32\cmd.exe - php artisan serve
```

```
Microsoft Windows [Version 10.0.19045.6466]
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\abdob\Downloads\PetroMasr>cd backend
```

```
C:\Users\abdob\Downloads\PetroMasr\backend>php artisan serve
```

```
INFO Server running on [http://127.0.0.1:8000].
```

```
Press Ctrl+C to stop the server
```



Digital Egypt Pioneers

RUNNING FRONTEND



Select Windows PowerShell

Microsoft Windows [Version 10.0.19045.6466]
(c) Microsoft Corporation. All rights reserved.

C:\Users\abdob\Downloads\PetroMasr>npm run dev

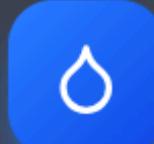
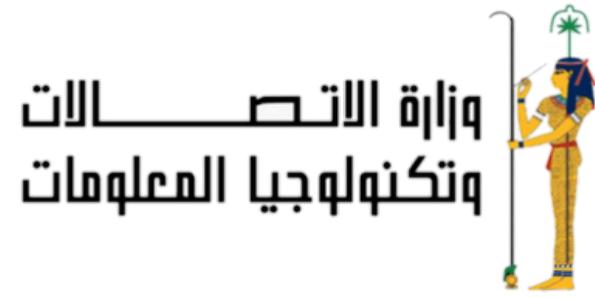
> petromasr-dashboard@1.0.0 dev
> vite

VITE v6.3.5 ready in 420 ms

▀ Local: http://localhost:3000/
▀ Network: use --host to expose
▀ press h + enter to show help



LANDING PAGE



PetroMasr
Excellence in Energy

Login →

Leading the Future of Energy

Powering Progress Through Innovation and Excellence

As a premier petroleum organization, we deliver sustainable energy solutions while maintaining the highest standards of operational excellence.



2.5M barrels

Daily Production



42 sites

Active Facilities



98.5 %

Safety Score



34 %

Market Share



Digital Egypt Pioneers

LANDING PAGE



Record Production Milestone

October 2025

Achieved 2.5 million barrels per day production capacity, exceeding industry benchmarks by 15%.

Production



ISO 45001 Certification

September 2025

Successfully obtained ISO 45001 certification for occupational health and safety management systems.

Quality

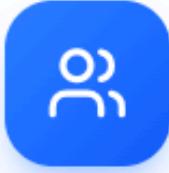


International Partnership

August 2025

Signed strategic partnership with three leading European refineries for long-term crude oil supply.

Business



Workforce Excellence

July 2025

Recognized as "Best Employer in Energy Sector" with 95% employee satisfaction rating.

HR



LANDING PAGE



Access Your Portal

Stakeholders can access their dedicated portals to manage operations, view analytics, and collaborate effectively with our advanced enterprise system.

[Login to Dashboard →](#)



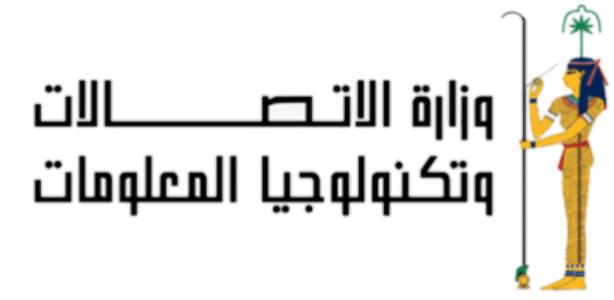
PetroMasr

Excellence in Energy

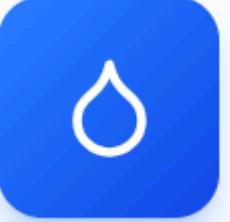
© 2025 PetroMasr. All rights reserved.



LOGIN PAGE



[← Back to Home](#)



Welcome Back

Sign in to access your portal

Email Address

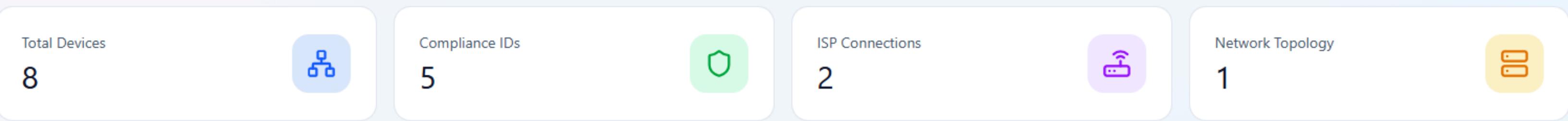
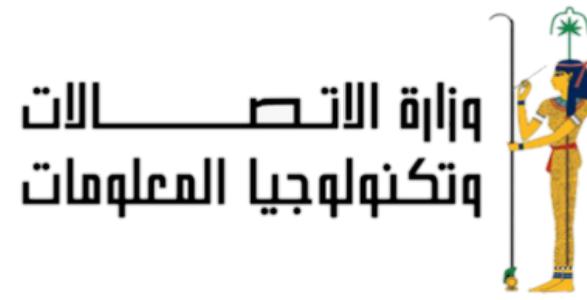
Password

[Sign In](#)



Digital Egypt Pioneers

NOC PORTAL : CONFIGURATION



[Network Devices](#) [Network Topology](#) [ISP Management](#)

Network Infrastructure Devices

Configure and manage all network devices

Online ACSW1 Access Switch Layer 2 Location: Building A Configure	Online ACSW2 Access Switch Layer 2 Location: Building B Configure	Online ACSW3 Access Switch Layer 2 Location: Building C Configure	Online DSW1 Distribution Switch Layer 3 Location: Core Network Configure
Online DSW2 Distribution Switch Layer 3 Location: Core Network Configure	Online LCSW Local Core Switch Layer 3 Location: Local Datacenter Configure	Online RCSW Remote Core Switch Layer 3 Location: Remote Datacenter Configure	Online AC Access Controller (WiFi) Location: Central Office Configure



NOC PORTAL : CURRENT TOPOLOGY

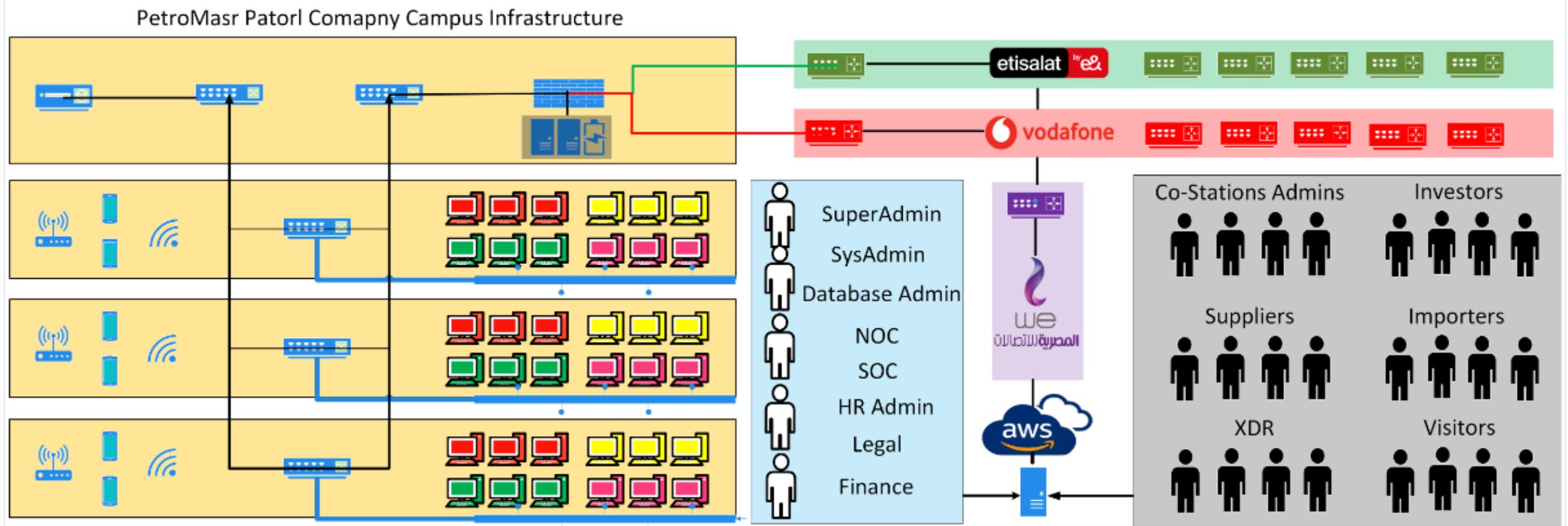


Network Devices **Network Topology** ISP Management

Network Topology

Upload your network diagram (recommended: 16:9 aspect ratio for laptop displays)

Remove





NOC PORTAL : DEALING WITH ISP



Network Operation Control
Petroleum Organization

2 NOC Admin
noc@petromasr.com Logout

Total Devices 8

Compliance IDs 5

ISP Connections 2

Network Topology 1

Network Devices Network Topology ISP Management

ISP 1 - Etisalat
Etisalat - Internet Service Provider Active

Uptime 99.9% Speed 1 Gbps

Latency 12ms Bandwidth 78%

IP Address 41.32.10.1

Gateway 41.32.10.254

Manage Connection

ISP 2 - Vodafone
Vodafone - Internet Service Provider Active

Uptime 99.7% Speed 1 Gbps

Latency 15ms Bandwidth 65%

IP Address 41.65.20.1

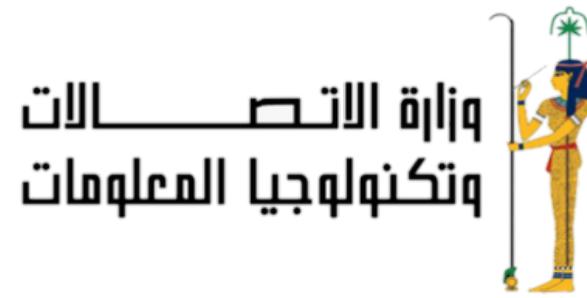
Gateway 41.65.20.254

Manage Connection



Digital Egypt Pioneers

SOC PORTAL : OVERVIEW

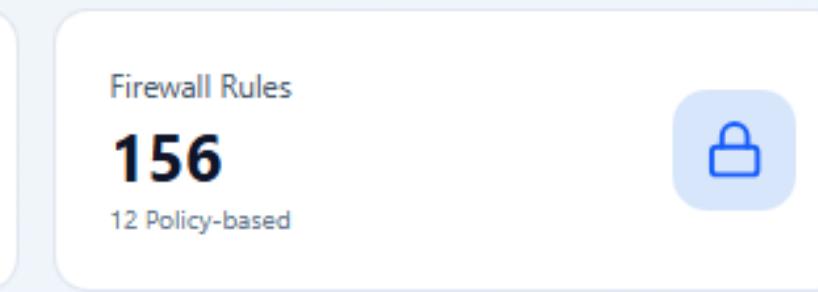
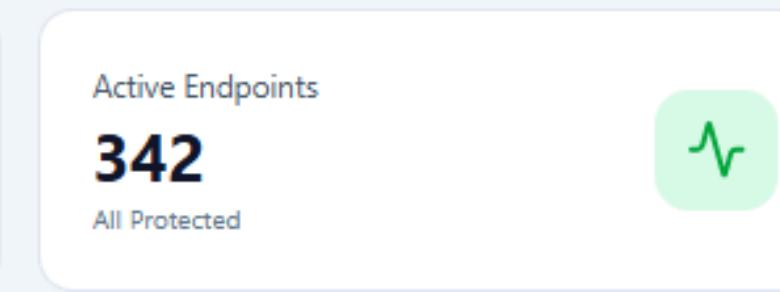
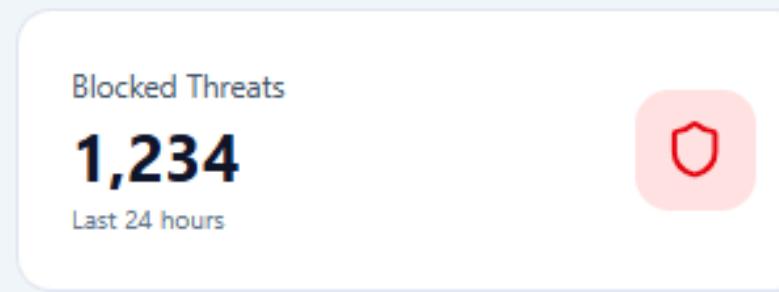
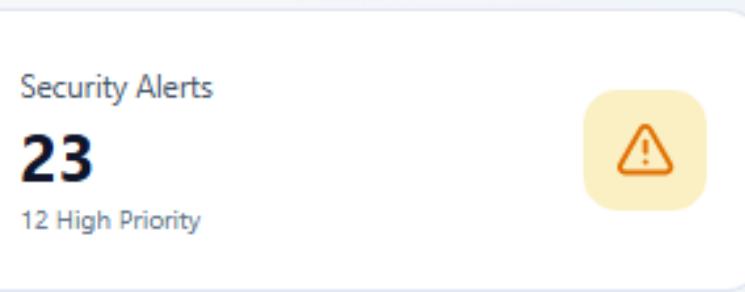


Security Operations Center
Petroleum Organization



SOC Admin
soc@petromasr.com

Logout



Overview Firewall (FortiGate) Email Security (FortiMail) Endpoint Security XDR Tickets

Recent Security Alerts
Latest security events and incidents

- Ransomware Attempt Blocked
EMP-PC-23
5 min ago
 - Suspicious Login Activity
Server-DB-01
15 min ago
 - Firewall Rule Updated
FortiGate-Main
1 hour ago
- Critical
Contained
Warning
Investigating
Info
Completed

Security Posture
Overall security health status

- ✓ Firewall Protection
Active & Configured
Healthy
- ✓ Email Security
Scanning Active
Healthy
- ⚠ Endpoint Protection
4 Devices Need Attention
Warning
- ✓ Threat Intelligence
Database Updated
Current



SOC : LEGACY ROUTING OPTION



Security Operations Center
Petroleum Organization

SOC Admin
soc@petromasr.com

Logout

Security Alerts: 23 (12 High Priority)

Blocked Threats: 1,234 (Last 24 hours)

Active Endpoints: 342 (All Protected)

Firewall Rules: 156 (12 Policy-based)

Overview Firewall (FortiGate) Email Security (FortiMail) Endpoint Security XDR Tickets

FortiGate Firewall Configuration
Configure main firewall system with advanced routing

Show CLI Save Config

Routing Policy-Based Advanced

Default Routing

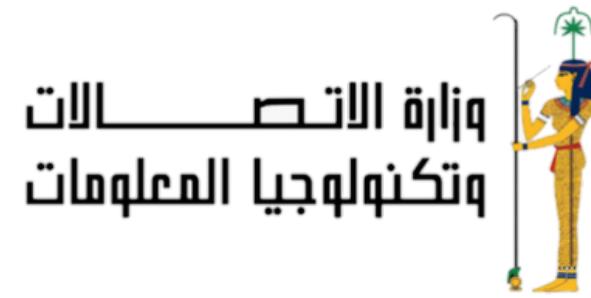
Static Routing + Add Route

RIP (Routing Information Protocol)



Digital Egypt Pioneers

SOC : EMAIL SECURITY



Overview Firewall (FortiGate) Email Security (FortiMail) Endpoint Security XDR Tickets

✉ FortiMail Configuration
Email security gateway configuration and monitoring

Show CLI

Save Config

Protocols Security Monitoring Recommendations

Email Protocol Configuration

POP3 (Post Office Protocol)
Port 110 / 995 (SSL)



SMTP (Simple Mail Transfer Protocol)
Port 25 / 587 (TLS) / 465 (SSL)



IMAP (Internet Message Access Protocol)
Port 143 / 993 (SSL)



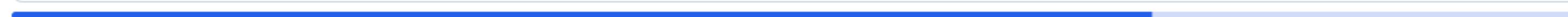
Rate Limiting

Prevent email flooding and DDoS attacks

Maximum Rate (emails/second)

1450 / 2000

2000





SOC : END-POINT SECURITY



Security Operations Center
Petroleum Organization

SOC Admin
soc@petromasr.com

Logout

2 Security Alerts
23
12 High Priority

⚠️ Blocked Threats
1,234
Last 24 hours

Active Endpoints
342
All Protected

Firewall Rules
156
12 Policy-based

Overview Firewall (FortiGate) Email Security (FortiMail) **Endpoint Security** XDR Tickets

Kaspersky Endpoint Security
Comprehensive endpoint protection and threat management

Protected Devices
338
of 342 total

At Risk
4
Require immediate attention

Threats Blocked
1,234
Last 30 days

Protection Features

- Real-time Protection Active
- Firewall Active
- Web Threat Protection Active
- Email Protection Active
- Ransomware Protection Active
- Vulnerability Scan Active

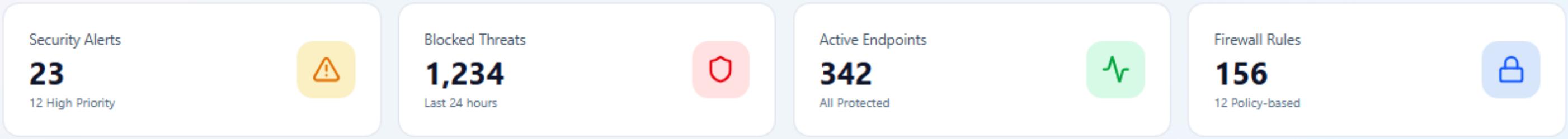
Recent Activity

- Trojan.Win32 Detected EMP-PC-45 - Quarantined 2h ago
- Outdated Signature EMP-PC-12 - Update Required 4h ago
- Full Scan Completed All Servers - No Threats 6h ago



Digital Egypt Pioneers

SOC : XDR



Overview Firewall (FortiGate) Email Security (FortiMail) Endpoint Security XDR Tickets

XDR Ticket System
Security as a Service - Assign issues to external technical support

+ Create Ticket

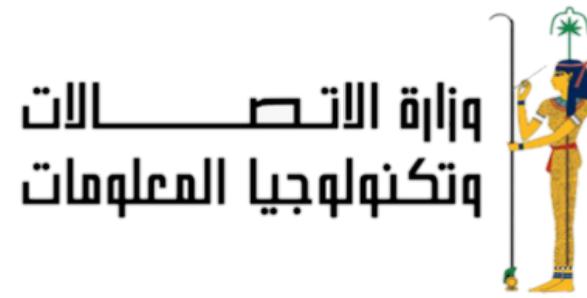
XDR ID	Name	Cost	Status	Assigned To	Date	Actions
XDR-001	Ransomware Detection - Endpoint 45 Suspicious encryption activity detected on employ...	\$500	In Progress	CyberSec Solutions Inc.	2025-11-13	View PDF
XDR-002	DDoS Attack Mitigation High volume of traffic detected from multiple sour...	\$1,200	Open	Unassigned	2025-11-13	Assign
XDR-003	Data Exfiltration Attempt Unusual outbound data transfer pattern detected...	\$800	Open	Unassigned	2025-11-12	Assign

Registered Security Providers
External companies available for security support

CyberSec Solutions Inc. Rating: 4.8/5.0	SecureGuard Technologies Rating: 4.9/5.0	ThreatDefense Pro Rating: 4.7/5.0
InfoSec Partners Rating: 4.6/5.0	Digital Shield Corp Rating: 4.9/5.0	



SYSTEM ADMIN : DEPARTMENT OVERVIEW



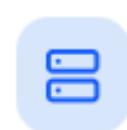
System Administration
Petroleum Organization



System Administrator
sysadmin@petromasr.com

[Logout](#)

Active Servers
6



Domain Users
342



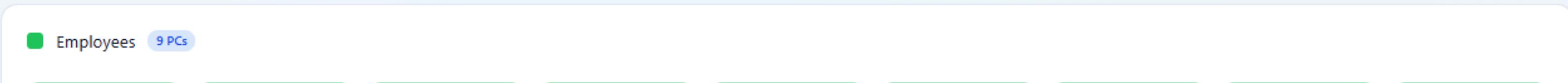
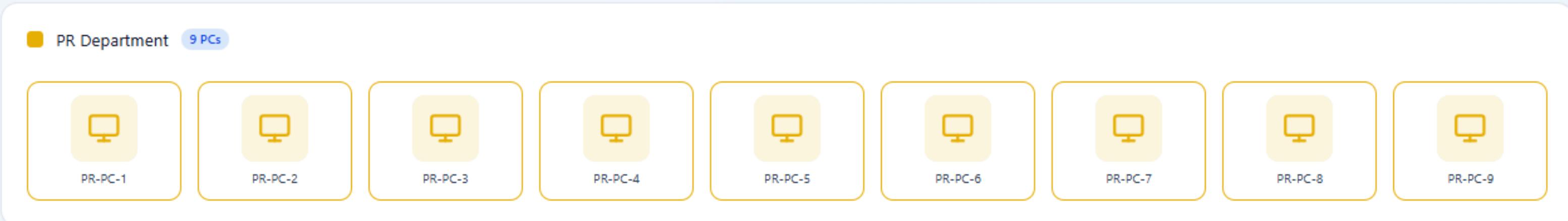
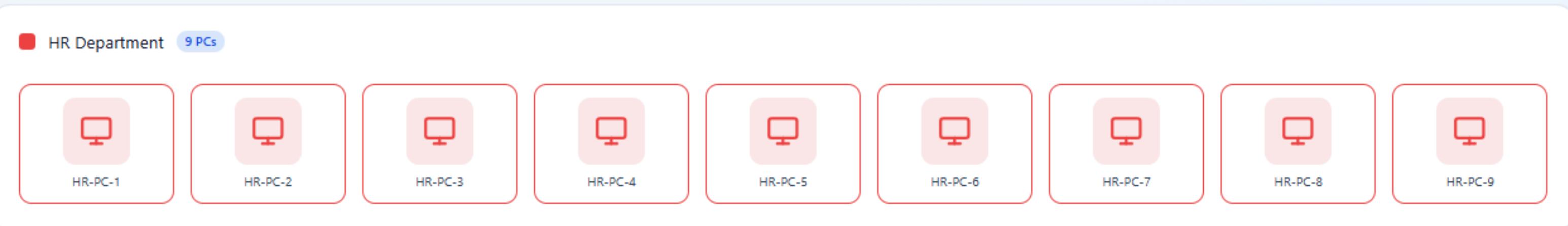
Total PCs
36



System Health
97%



[Department PCs](#) [Active Directory](#) [Servers](#) [Group Policy](#)





SYSTEM ADMIN : ACTIVE DIRECTORY



System Administration
Petroleum Organization

System Administrator
sysadmin@petromasr.com

Logout

Active Servers: 6

Domain Users: 342

Total PCs: 36

System Health: 97%

Department PCs | Active Directory | Servers | Group Policy

Total Users: 5

Active PCs: 5

Policies Applied: 10

Active Directory Users
Manage user accounts, credentials, and group policies

+ Add User

User ID	PC ID	Username	Department	IP Address	Role	Status	Work State	Applied Policies	Actions
USR-001	PC-DEPT-101	ahmed.salem	Engineering	192.168.10.101	Senior Engineer	active	continue	Security Policy Software Restriction	
USR-002	PC-DEPT-102	fatma.hassan	Finance	192.168.10.102	Financial Analyst	active	continue	Security Policy Data Protection	
USR-003	PC-DEPT-103	mohamed.ali	HR	192.168.10.103	HR Manager	active	continue	Security Policy HR Access	
USR-004	PC-DEPT-104	sara.ibrahim	Engineering	192.168.10.104	Junior Engineer	active	new hired	Security Policy	
USR-005	PC-DEPT-105	omar.khalil	IT	192.168.10.105	IT Specialist	active	continue	Security Policy Admin Tools Software Restriction	



Digital Egypt Pioneers

SYSTEM ADMIN : SERVERS



System Administration
Petroleum Organization

System Administrator
sysadmin@petromasr.com

Logout

Active Servers

6



Domain Users

342



Total PCs

36



System Health

97%



Department PCs Active Directory Servers Group Policy



Web Server

Uptime: 99.9%



Backup Server (Veeam)



DNS Server



DHCP Server



WDS Server

Uptime: 99.6%



WSUS Server

Uptime: 99.5%



DMSS Camera Server

Uptime: 99.9%



Web Server Backup (Veeam) DNS DHCP WDS WSUS Camera Server

Hosting Provider

Amazon AWS



Service Status

Active



Region

EU-Central-1



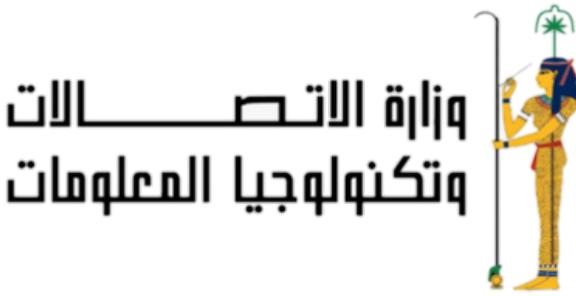
Instance Type

t3.medium





SYSTEM ADMIN : POLICIES



GPO ID	Name	Type	Applied To	Status	Created	Action
GPO-001	Security Hardening Policy Enhanced security settings for all workstations	Custom	Engineering, Finance, +1	Active	2025-11-01	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-002	Software Restriction Policy Restrict execution of unauthorized software	Custom	All Users	Active	2025-10-15	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-003	Password Complexity Policy Enforce strong password requirements	Custom	Domain Users	Active	2025-09-20	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-004	USB Device Restriction Block unauthorized USB storage devices	Custom	Finance, Legal	Inactive	2025-11-10	<button>Enable</button> <button>Edit</button> <button>Delete</button>

[» Security Hardening Policy - Command Details](#)

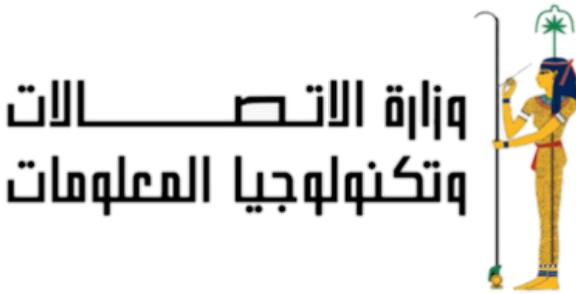
[» Software Restriction Policy - Command Details](#)

[» Password Complexity Policy - Command Details](#)

[» USB Device Restriction - Command Details](#)



SYSTEM ADMIN : POLICIES



GPO ID	Name	Type	Applied To	Status	Created	Action
GPO-001	Security Hardening Policy Enhanced security settings for all workstations	Custom	Engineering, Finance, +1	Active	2025-11-01	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-002	Software Restriction Policy Restrict execution of unauthorized software	Custom	All Users	Active	2025-10-15	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-003	Password Complexity Policy Enforce strong password requirements	Custom	Domain Users	Active	2025-09-20	<button>Disable</button> <button>Edit</button> <button>Delete</button>
GPO-004	USB Device Restriction Block unauthorized USB storage devices	Custom	Finance, Legal	Inactive	2025-11-10	<button>Enable</button> <button>Edit</button> <button>Delete</button>

[» Security Hardening Policy - Command Details](#)

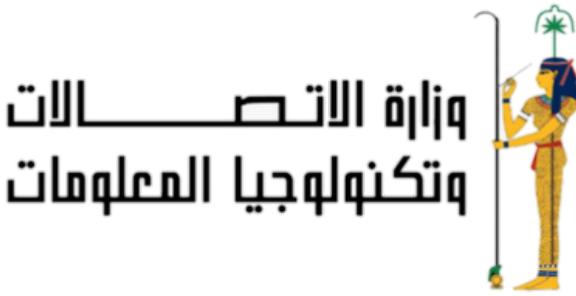
[» Software Restriction Policy - Command Details](#)

[» Password Complexity Policy - Command Details](#)

[» USB Device Restriction - Command Details](#)



SUPERADMIN : POLICIES



GPO ID	Name	Type	Applied To	Status	Created	Action	Action
GPO-001	Security Hardening Policy Enhanced security settings for all workstations	Custom	Engineering, Finance, +1	Active	2025-11-01	<button>Disable</button>	<button>Edit</button>
GPO-002	Software Restriction Policy Restrict execution of unauthorized software	Custom	All Users	Active	2025-10-15	<button>Disable</button>	<button>Edit</button>
GPO-003	Password Complexity Policy Enforce strong password requirements	Custom	Domain Users	Active	2025-09-20	<button>Disable</button>	<button>Edit</button>
GPO-004	USB Device Restriction Block unauthorized USB storage devices	Custom	Finance, Legal	Inactive	2025-11-10	<button>Enable</button>	<button>Edit</button>

[» Security Hardening Policy - Command Details](#)

[» Software Restriction Policy - Command Details](#)

[» Password Complexity Policy - Command Details](#)

[» USB Device Restriction - Command Details](#)



SUPERADMIN : CREATING ENTITIES



Super Admin Dashboard
Petroleum Organization



Admin Manager
superadmin@petromasr.com

Logout

Total Entities

48



Active Deals

23



Pending Requests

12



Total Users

342



Entities Users Deals Requests System

All Entities

Manage all organization entities and accounts

+ Create Entity

ID	Name	Type	Admin	Email	Branches	Status	Actions
1	CO-Station Brand A	CO-Station	John Anderson	admin@costation.com	8	Active	
2	ACME Suppliers	Supplier	Sarah Johnson	supplier@acme.com	-	Active	
3	Global Importers	Importer	Michael Chen	importer@global.com	-	Active	
4	HR Department	Department	Emma Williams	hr@petromasr.com	-	Active	
5	Legal Department	Legal	Lisa Martinez	legal@petromasr.com	-	Active	



SUPERADMIN : CREATING ENTITIES



Super Admin Dashboard
Petroleum Organization



Admin Manager
superadmin@petromasr.com

Logout

Total Entities

48



Active Deals

23



Pending Requests

12



Total Users

342



Entities Users Deals Requests System

All Entities

Manage all organization entities and accounts

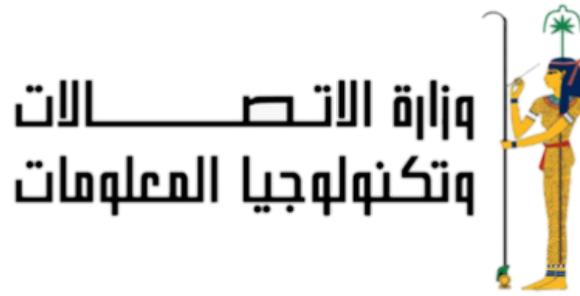
+ Create Entity

ID	Name	Type	Admin	Email	Branches	Status	Actions
1	CO-Station Brand A	CO-Station	John Anderson	admin@costation.com	8	Active	
2	ACME Suppliers	Supplier	Sarah Johnson	supplier@acme.com	-	Active	
3	Global Importers	Importer	Michael Chen	importer@global.com	-	Active	
4	HR Department	Department	Emma Williams	hr@petromasr.com	-	Active	
5	Legal Department	Legal	Lisa Martinez	legal@petromasr.com	-	Active	



Digital Egypt Pioneers

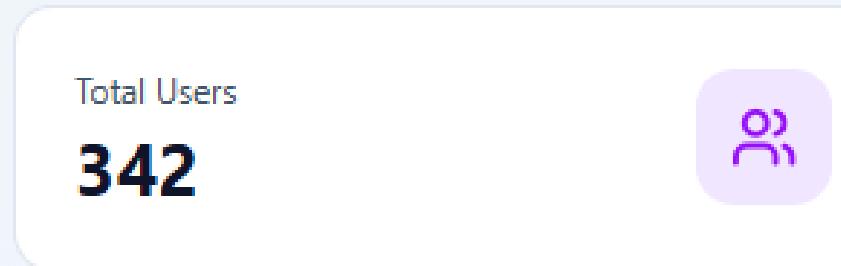
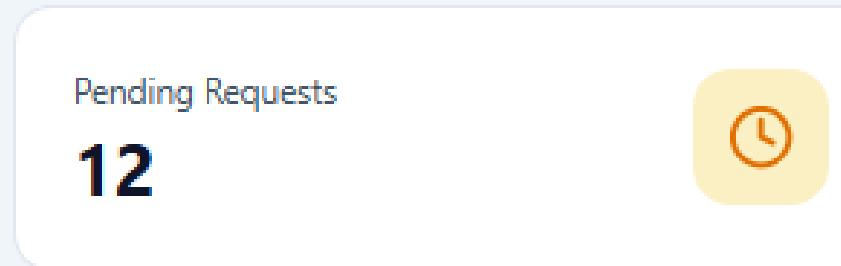
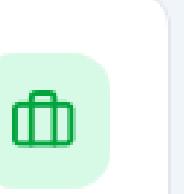
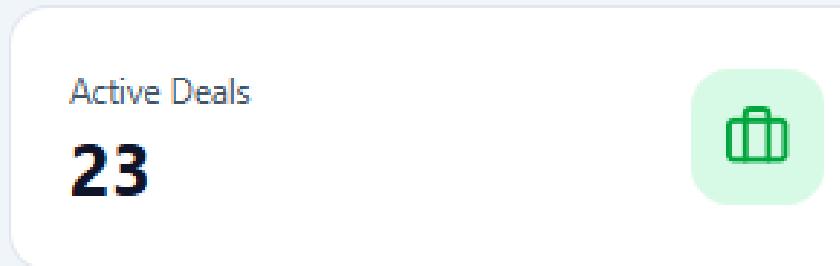
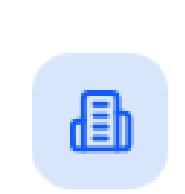
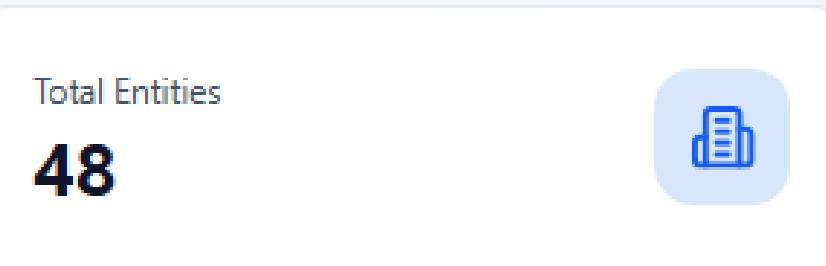
SUPERADMIN : DEALS



Super Admin Dashboard
Petroleum Organization



Admin Manager
superadmin@petromasr.com



Entities Users **Deals** Requests System

Active Deals

Monitor and manage all deals across the system

Deal ID	Entity	Product	Amount	Status	Date	Actions
D001	CO-Station Brand A	Premium Gasoline	\$125,000	Pending	2025-11-13	
D002	Global Importers	Crude Oil Export	\$2,500,000	In Progress	2025-11-12	
D003	ACME Suppliers	Equipment Supply	\$450,000	Completed	2025-11-11	



Digital Egypt Pioneers

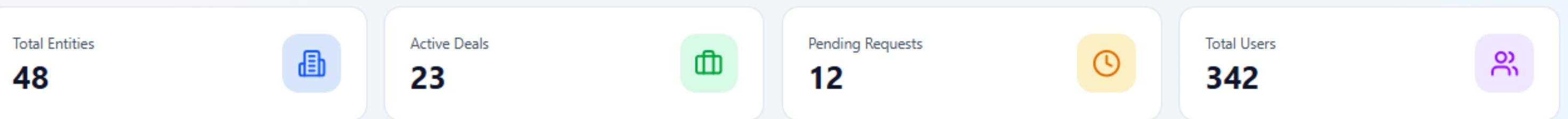
SUPERADMIN : DEALS



Super Admin Dashboard
Petroleum Organization

Admin Manager
superadmin@petromasr.com

Logout



Entities Users Deals Requests **System**

NOC Portal
Network Operations Center - Manage network infrastructure
[Access Portal](#)

SOC Portal
Security Operations Center - Monitor security threats
[Access Portal](#)

System Admin Portal
System Administration - Manage servers and infrastructure
[Access Portal](#)

Database Administrator Portal
Database Administration - Manage database infrastructure
[Access Portal](#)

Financial Department Portal
Financial Management - Revenue, expenses, and reporting
[Access Portal](#)

DB Health
Status Healthy

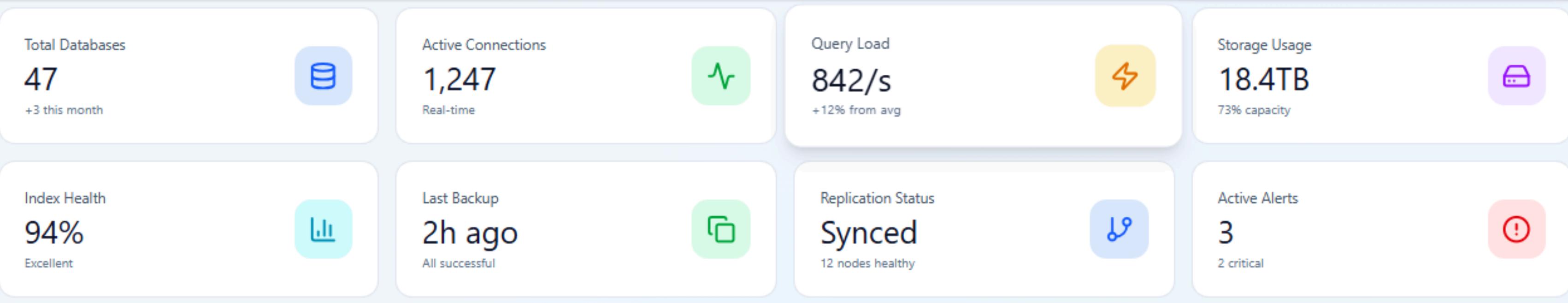
Financial Status
Revenue Today **\$284K**

DB Alerts
Active Alerts 3

Payment Issues
Overdue Payments 15



DATABASE ADMINISTRATOR: OVERVIEW



Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance

Quick Actions

Common database administration tasks

[**Open Query Console**](#)

[**Database Instances**](#)

[**Run Backup Now**](#)

[**Security Audit**](#)

[**Performance Monitor**](#)

[**Maintenance Tools**](#)

Recent Activities

Latest database operations

- Database backup completed prod_db_01 2 min ago
- Slow query detected analytics_db 15 min ago
- Index rebuilt successfully orders_db 1 hour ago
- New user role created user_management 2 hours ago



DATABASE ADMINISTRATOR: DATABASES



Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance

SQL Databases

24

PostgreSQL, MySQL, SQL Server

NoSQL Databases

15

MongoDB, Cassandra, DynamoDB

In-Memory Databases

8

Redis, Memcached, ElastiCache

Database Instances

Manage all database instances across the organization

Add Database

Database Name	Engine	Status	Uptime	Storage	Connections	Query Load	Index Health	Actions
prod_petroleum_db	PostgreSQL v15.3	running	45 days	2.4TB	342	245/s	96%	
analytics_warehouse	MySQL v8.0.34	running	30 days	5.8TB	128	189/s	88%	
cache_redis_cluster	Redis v7.0.12	running	60 days	128GB	1247	8542/s	100%	
nosql_documents	MongoDB v6.0.8	running	22 days	3.2TB	89	156/s	92%	
timeseries_metrics	InfluxDB v2.7.1	maintenance	8 days	1.1TB	0	0/s	94%	
search_elasticsearch	Elasticsearch v8.9.0	running	15 days	890GB	56	423/s	85%	



DATABASE ADMINISTRATOR: DATABASES



Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance

SQL Databases

24

PostgreSQL, MySQL, SQL Server

NoSQL Databases

15

MongoDB, Cassandra, DynamoDB

In-Memory Databases

8

Redis, Memcached, ElastiCache

Database Instances

Manage all database instances across the organization

Add Database

Database Name	Engine	Status	Uptime	Storage	Connections	Query Load	Index Health	Actions
prod_petroleum_db	PostgreSQL v15.3	running	45 days	2.4TB	342	245/s	96%	
analytics_warehouse	MySQL v8.0.34	running	30 days	5.8TB	128	189/s	88%	
cache_redis_cluster	Redis v7.0.12	running	60 days	128GB	1247	8542/s	100%	
nosql_documents	MongoDB v6.0.8	running	22 days	3.2TB	89	156/s	92%	
timeseries_metrics	InfluxDB v2.7.1	maintenance	8 days	1.1TB	0	0/s	94%	
search_elasticsearch	Elasticsearch v8.9.0	running	15 days	890GB	56	423/s	85%	



DATABASE ADMINISTRATOR : SCHEMAS



Overview Databases Schemas > Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance

Schema Explorer
Browse database schemas and objects

- prod_petroleum_db
 - public
 - users 15,420
 - orders 234,567
 - products 8,923
- analytics_warehouse

Table Details
Viewing: users

Row Count **15,420** Size on Disk **42MB** Fragmentation **12%**

Columns (5)

- id** SERIAL PK NOT NULL
- email** VARCHAR(255) NOT NULL
- name** VARCHAR(255) NOT NULL
- role_id** INTEGER FK NOT NULL
- created_at** TIMESTAMP NOT NULL

Indexes: 3
This table has 3 indexes configured

[View Data](#) [Edit Table](#) [Add Column](#) [View Indexes](#) [Export](#) [ER Diagram](#)



DATABASE ADMINISTRATOR: SQL CONSOLE



Database Administrator Portal
Petroleum Organization



Database Administrator
dba@petromasr.com

Logout

> SQL Query Console
Execute SQL queries and analyze performance

prod_petroleum_db ▾

```
-- Enter your SQL query here  
SELECT * FROM users LIMIT 10;
```

prod_petroleum_db

Execute Query

Save Query

Share

Execution Plan

Saved Queries Query History Performance

Saved Queries

Your frequently used SQL queries

Get Active Users

prod_petroleum_db

Load



```
SELECT id, email, name FROM users WHERE status = 'active' LIMIT 100;...
```

Last run: 2025-11-18 14:30:00

Sales Summary by Month

analytics_warehouse

Load



```
SELECT DATE_TRUNC('month', created_at) as month, SUM(total_price) as revenue FROM orders GROUP BY mo...
```



DATABASE ADMINISTRATOR: MONITORING

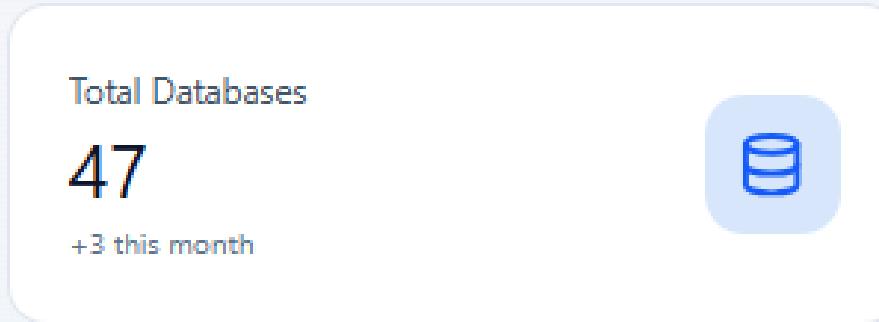


Database Administrator Portal
Petroleum Organization



Database Administrator
dba@petromasr.com

Logout



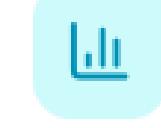
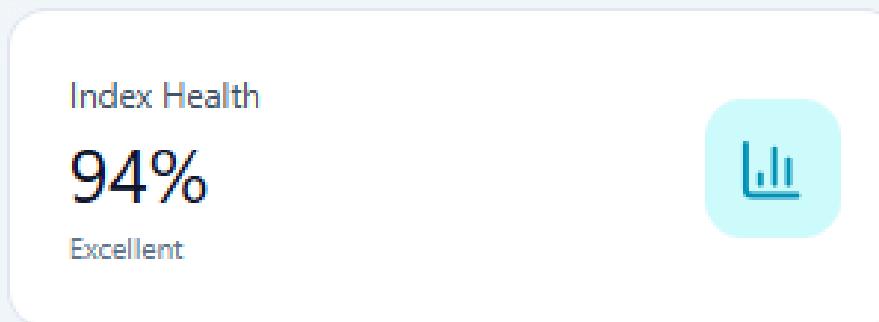
Active Connections
1,247
Real-time



Query Load
842/s
+12% from avg



Storage Usage
18.4TB
73% capacity



Last Backup
2h ago
All successful



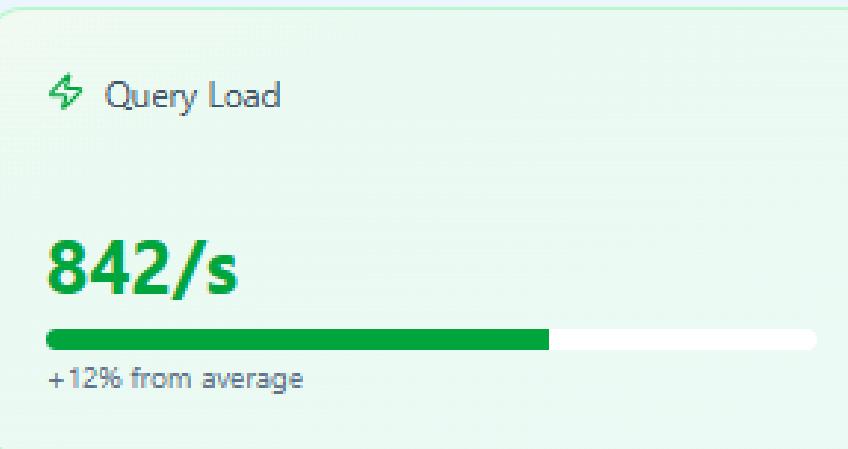
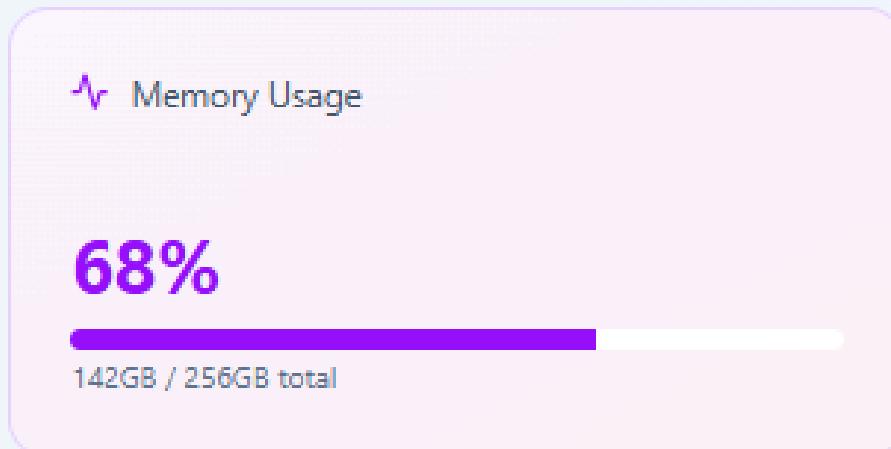
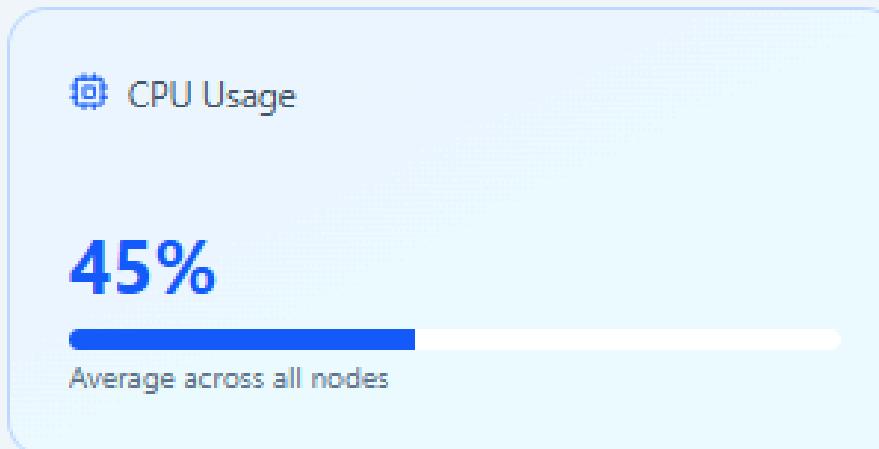
Replication Status
Synced
12 nodes healthy



Active Alerts
3
2 critical



Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance





DATABASE ADMINISTRATOR : BACKUP



Database Administrator Portal
Petroleum Organization

+3 this month Real-time +12% from avg 73% capacity

Index Health: 94% (Excellent) Last Backup: 2h ago (All successful) Replication Status: Synced (12 nodes healthy) Active Alerts: 3 (2 critical)

Overview Databases Schemas Query Console Monitoring **Backup & Recovery** Users & Roles Security Replication Maintenance

Last Backup: 2h ago (All databases) Success Rate: 98.5% (Last 30 days) Total Backup Size: 24.8TB (Across all databases) Scheduled Backups: 12 (Active schedules)

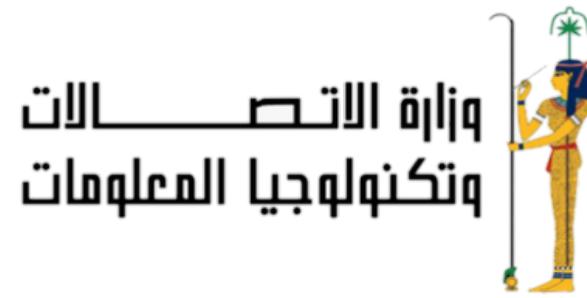
Create Backup Now **Restore Database** **Schedule Backup** **Point-in-Time Restore**

Backup History
Recent backup operations

Backup Type	Database	Size	Duration	Status
Full	prod_petroleum_db	2.4TB	42m	Success
Incremental	analytics_warehouse	450GB	18m	Success



DATABASE ADMINISTRATOR: USERS



Database Administrator Portal
Petroleum Organization

Database Administrator
dba@petromasr.com

Logout

Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance

Total Users

25



Active Roles

8



Active Sessions

18



Database Users

Manage user accounts and permissions

+ Create User

Username	Role	Databases	Last Login	Status	Actions
dba_admin	DBA Admin	All	2025-11-18 14:30	Active	
app_user	Application User	prod_petroleum_db	2025-11-18 14:25	Active	
analytics_READONLY	Read Only	analytics_warehouse	2025-11-18 12:15	Active	
backup_service	Backup	All	2025-11-18 02:00	Active	



DATABASE ADMINISTRATOR : SECURITY

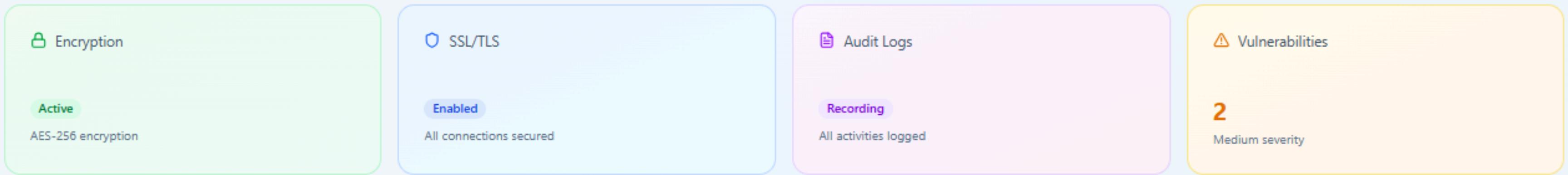


Database Administrator Portal
Petroleum Organization

Database Administrator
dba@petromasr.com

Logout

Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security Replication Maintenance



Security Audit Logs

Recent security-related events

Timestamp	User	Action	Target	Status
2025-11-18 14:30:22	admin@petromasr.com	User created	dba_user_01	Success
2025-11-18 14:25:15	dba.user@petromasr.com	Database accessed	prod_petroleum_db	Success
2025-11-18 14:20:08	unknown	Login attempt	prod_petroleum_db	Failed
2025-11-18 14:15:45	admin@petromasr.com	Privilege granted	SELECT on users table	Success
2025-11-18 14:10:33	user@external.com	Login attempt	analytics_warehouse	Failed

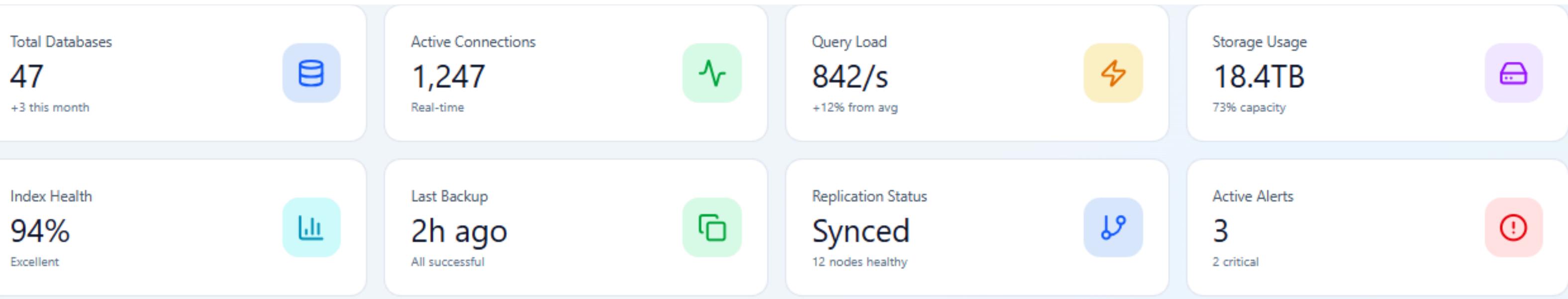
Vulnerability Scan Results

Security issues requiring attention

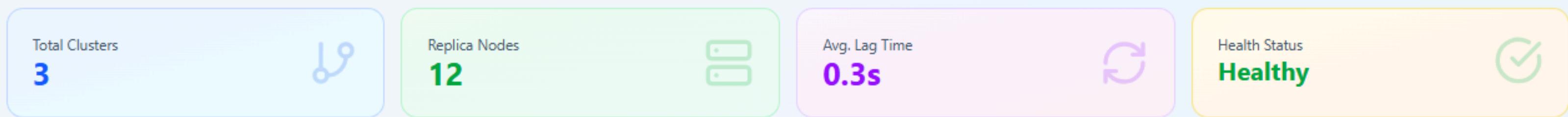
Run Scan Now



DATABASE ADMINISTRATOR: REPLICATION



Overview Databases Schemas Query Console Monitoring Backup & Recovery Users & Roles Security **Replication** Maintenance



Production Cluster
Master-Slave Topology • 3 replica nodes



Master Node Primary

db-master-01.petromasr.com

Read/Write • Active • Last sync: 2 min ago

Healthy

Refresh

Healthy

Replica Nodes (3)



Replica 1

db-slave-01.petromasr.com

Read Only • Lag: 0.3s



Replica 2

db-slave-02.petromasr.com

Read Only • Lag: 0.3s



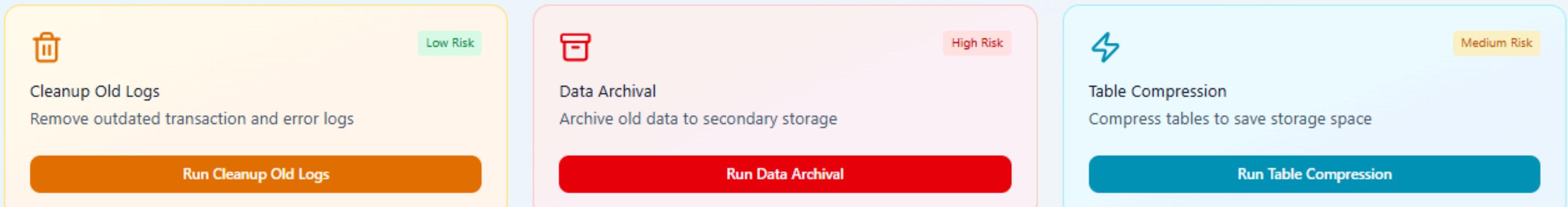
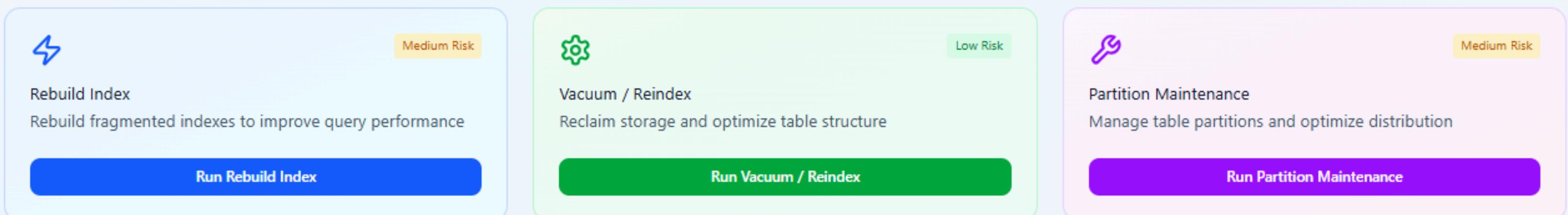
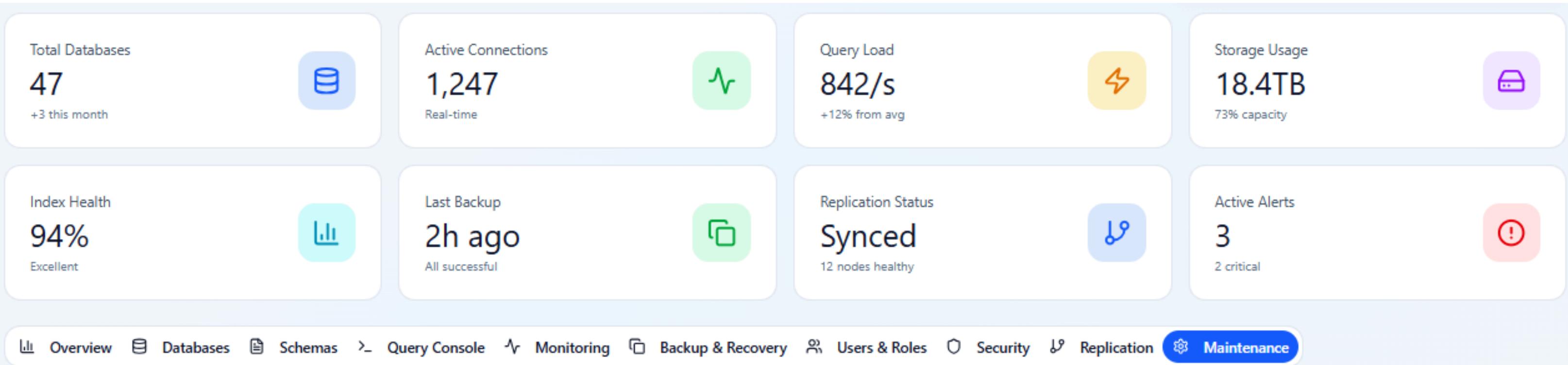
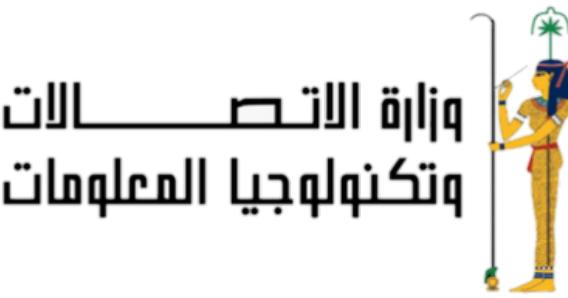
Replica 3

db-slave-03.petromasr.com

Read Only • Lag: 0.3s



DATABASE ADMINISTRATOR: MAINTAINCE





Digital Egypt Pioneers

 Employee Portal
Petroleum Organization

EMPLOYEE PORTAL : OVERVIEW



Robert Taylor
employee@petromasr.com

 Logout

Monthly Salary

\$6,500



Next payment: Nov 30

Insurance Status

Active



Coverage: Comprehensive

Performance

92%



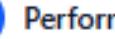
Above target

Leave Balance

12 days



Available for use

 Overview  Performance  Compliance

Personal Information

Your profile details

Employee ID

EMP-2024-1234

Position

Senior Engineer

Email

employee@petromasr.com

Department

Operations

Join Date

Jan 15, 2020

Phone

+1 234 567 8900

Recent Achievements

Your recognition and awards

Employee of the Month

October 2025

Outstanding performance in Q3

Safety Champion

September 2025

Zero incidents for 6 months

Innovation Award

August 2025

Process improvement initiative



Digital Egypt Pioneers

 Employee Portal
Petroleum Organization

EMPLOYEE PORTAL : OVERVIEW



Robert Taylor
employee@petromasr.com

 Logout

Monthly Salary

\$6,500



Next payment: Nov 30

Insurance Status

Active



Coverage: Comprehensive

Performance

92%



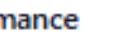
Above target

Leave Balance

12 days



Available for use

 Overview  Performance  Compliance

Personal Information

Your profile details

Employee ID

EMP-2024-1234

Position

Senior Engineer

Email

employee@petromasr.com

Department

Operations

Join Date

Jan 15, 2020

Phone

+1 234 567 8900

Recent Achievements

Your recognition and awards

Employee of the Month

October 2025

Outstanding performance in Q3

Safety Champion

September 2025

Zero incidents for 6 months

Innovation Award

August 2025

Process improvement initiative



Digital Egypt Pioneers

EMPLOYEE PORTAL: PERFORMANCE



Employee Portal
Petroleum Organization



Robert Taylor
employee@petromasr.com

[Logout]

Monthly Salary
\$6,500
Next payment: Nov 30



Insurance Status
Active
Coverage: Comprehensive



Performance
92%
Above target



Leave Balance
12 days
Available for use



Overview Performance Compliance

⌚ Performance Metrics
Track your KPIs and progress towards targets

Productivity
Current: 92% / Target: 100%

92%

Quality Score
Current: 88% / Target: 90%

98%

Project Completion
Current: 15 projects / Target: 20 projects

75%

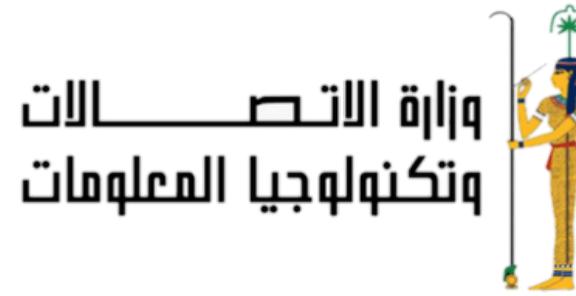
Team Collaboration
Current: 95% / Target: 100%

95%



Digital Egypt Pioneers

EMPLOYEE PORTAL : COMPLIENCES



Employee Portal
Petroleum Organization



Robert Taylor
employee@petromasr.com

[Logout](#)

Monthly Salary
\$6,500



Next payment: Nov 30

Insurance Status
Active



Coverage: Comprehensive

Performance
92%



Above target

Leave Balance
12 days



Available for use

[Overview](#) [Performance](#) [Compliance](#)

Employee Compliance System
Submit and track your compliance complaints

[+ New Complaint](#)

Complaint ID	Against Who	Status	Submitted Date	Response Date	Actions
COMP-001	Department Manager - Operations	Pending	2025-11-10	-	@ Letter
COMP-002	HR Department	Accepted	2025-11-05	2025-11-08	@ Letter Download Response
COMP-003	Finance Team Lead	Rejected	2025-10-28	2025-11-01	@ Letter Download Response



Digital Egypt Pioneers

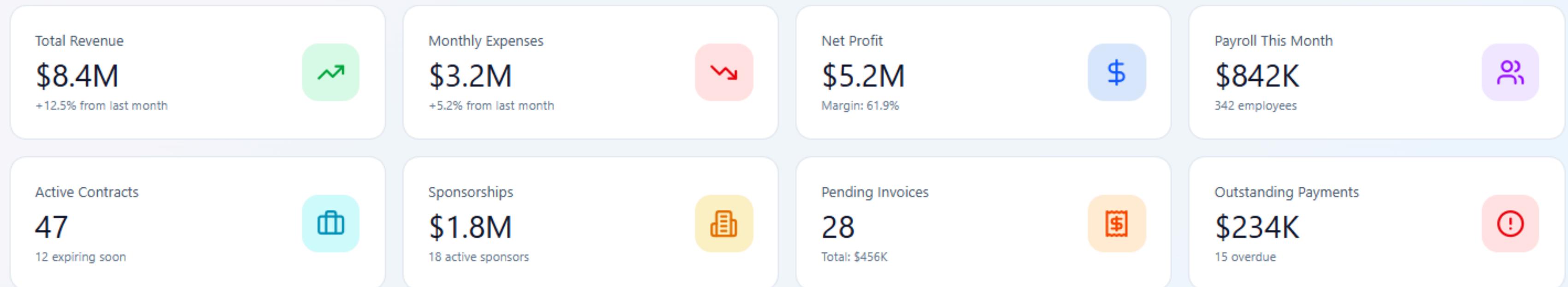
FINANCE PORTAL: OVERVIEW



Financial Department Portal
Petroleum Organization

Finance Manager
financemgr@petromasr.com

Logout



Overview Payroll Contracts Revenue Expenses Sponsorships Invoices Documents Reports Audit

Quick Actions
Common financial operations

Process Payroll

Create Invoice

View Reports

Add Expense

Contracts

Documents

Alerts
Important notifications

15 payments are overdue
[Review Now →](#)

12 contracts expiring within 30 days
[View Contracts →](#)

Monthly financial report ready
[View Report →](#)



FINANCE PORTAL: DOCUMENTS



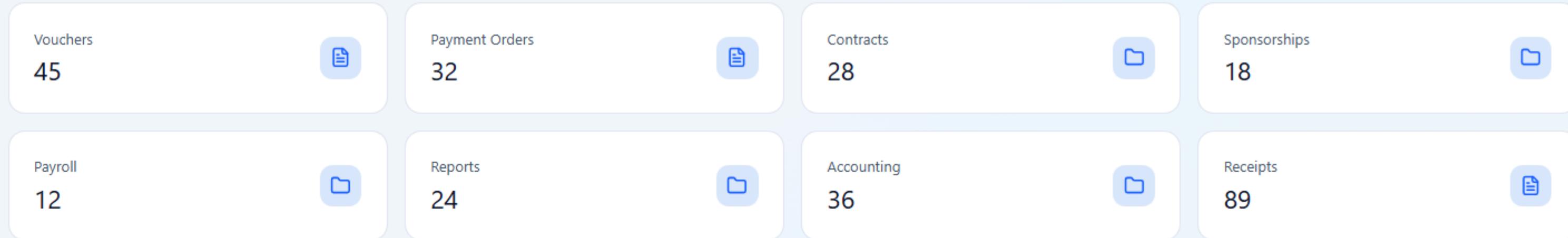
Financial Department Portal
Petroleum Organization



2



Finance Manager
financemgr@petromasr.com



Document Repository
All financial documents, records, and files

Upload Document

Search documents...

Clear Filters

ID	Document Name	Category	Type	Upload Date	Size	Version	Actions
DOC-001	Monthly Accounting Sheet - Oct 2025	Accounting	PDF	2025-10-31	2.4 MB	v1	
DOC-002	Payroll Records - Nov 2025	Payroll	XLSX	2025-11-15	1.8 MB	v1	
DOC-003	Contract - ACME Corporation	Contracts	PDF	2025-09-15	856 KB	v2	
DOC-004	Sponsorship Agreement - Global Tech	Sponsorships	PDF	2025-08-20	1.2 MB	v1	
DOC-005	Cash Flow Statement Q3 2025	Reports	PDF	2025-10-05	3.1 MB	v1	
DOC-006	Payment Voucher #PV-1234	Vouchers	PDF	2025-11-10	245 KB	v1	
DOC-007	Balance Sheet 2024	Reports	PDF	2025-01-15	4.2 MB	v1	



Digital Egypt Pioneers

INVESTOR PORTAL: OVERVIEW



Investor Portal
Petroleum Organization



Jennifer Davis
investor@funds.com

[Logout](#)

Portfolio Value
\$2.5M
+ 12.5%



Monthly Returns
\$18,750
+ 8.2%



Share Price
\$127.50
+ 3.1%



Dividend Yield
4.8%
+ 0.3%

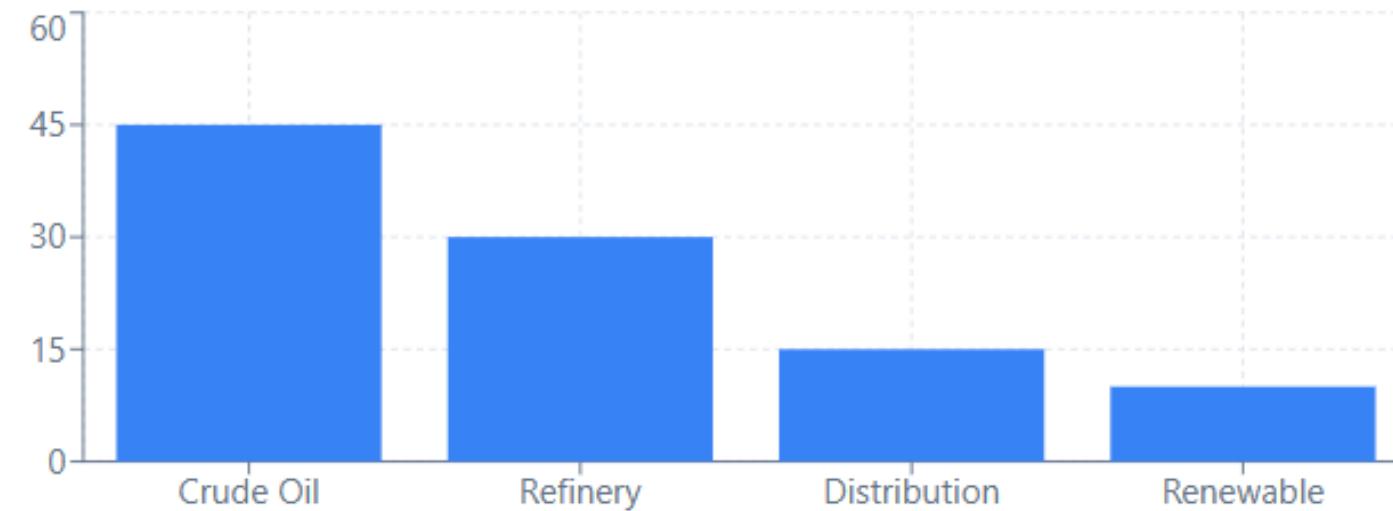


[Overview](#) [Portfolio](#) [Calculator](#) [Investment Shares](#) [News](#)

Profit Trends
Monthly profit distribution (Last 6 months)



Portfolio Distribution
Investment allocation by sector



Invest With Us

Expand your portfolio with additional investment opportunities

[+ View Opportunities](#)

[Download Report](#)



Digital Egypt Pioneers

INVESTOR PORTAL: PORTOFOLIO

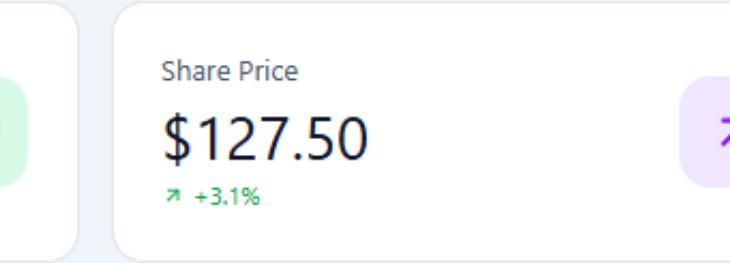
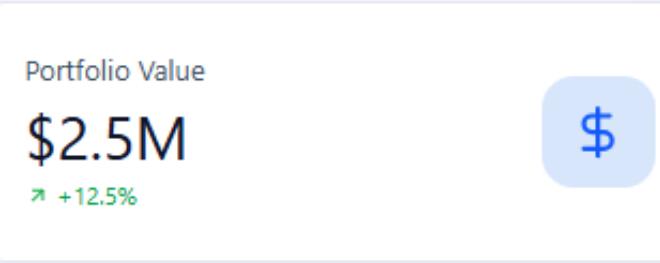


Investor Portal
Petroleum Organization

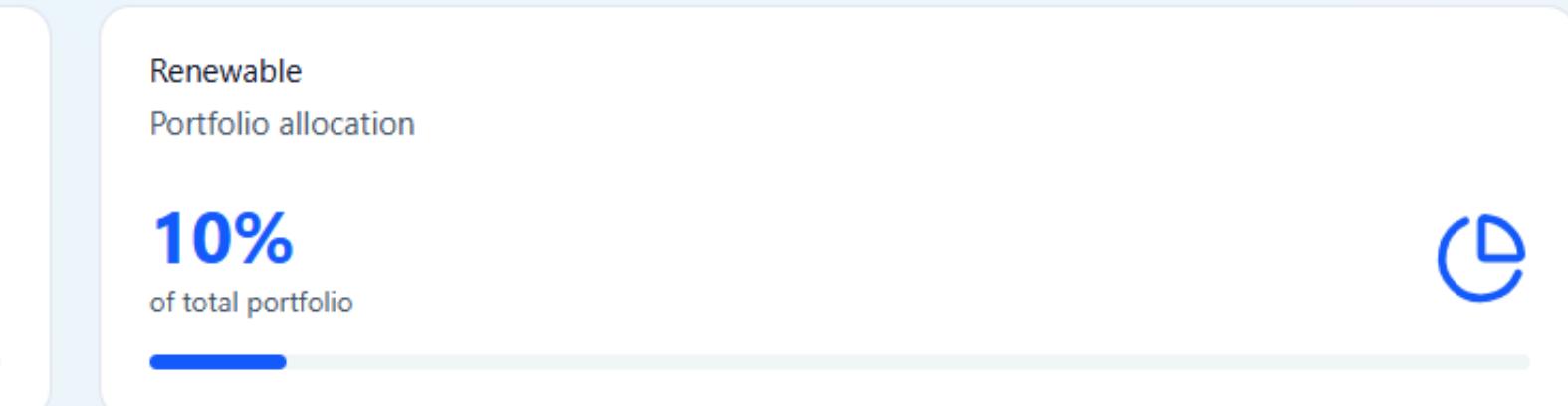
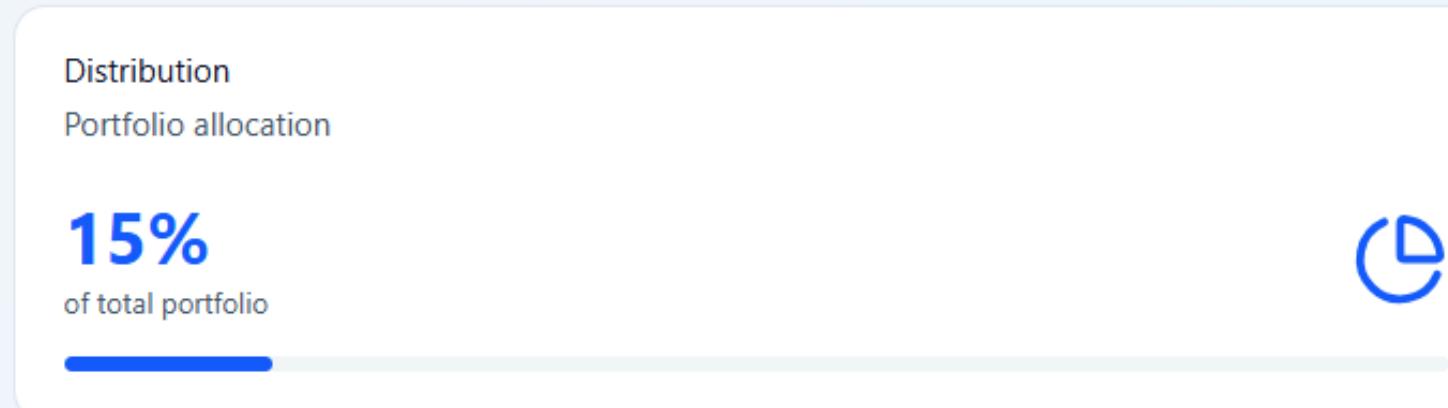
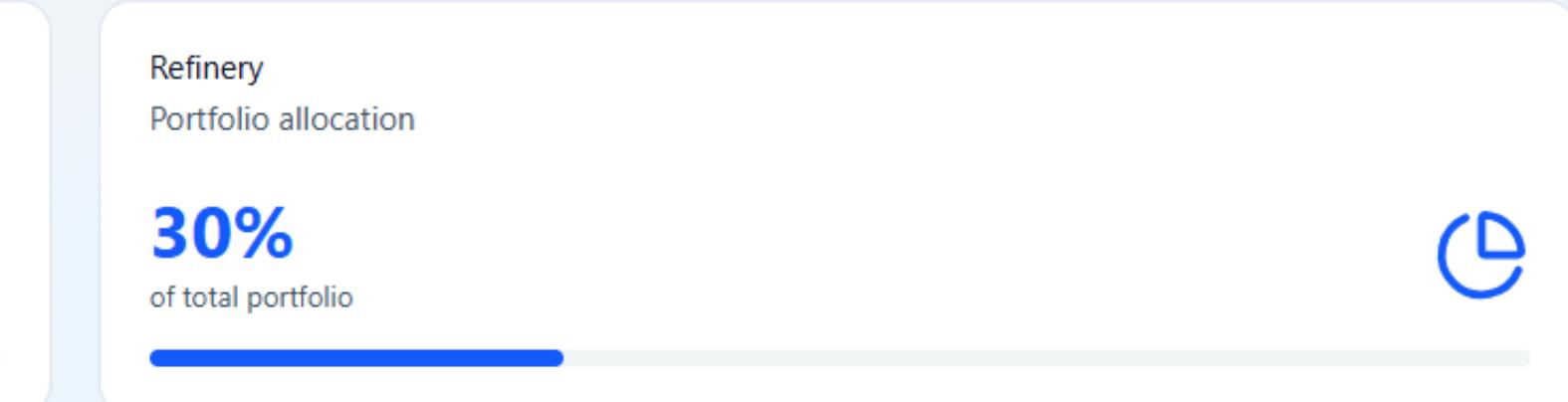


Jennifer Davis
investor@funds.com

[Logout]



Overview **Portfolio** Calculator Investment Shares News





INVESTOR PORTAL: CALCULATOR



Investor Portal
Petroleum Organization



Jennifer Davis
investor@funds.com

✓ Investment projection calculated

Portfolio Value
\$2.5M
↗ +12.5%

Monthly Returns
\$18,750
↗ +8.2%

Share Price
\$127.50
↗ +3.1%

Dividend Yield
4.8%
↗ +0.3%

Overview Portfolio **Calculator** Investment Shares News

Investment Calculator

Calculate potential returns on petroleum investments (12.5% annual rate)

Investment Amount (\$)

500000

Duration (months)

12

Actions

Calculate

Investment Projection

Initial Investment

\$500,000

Projected Return

+\$62,500.00

Total Value

\$562,500.00

Return Percentage: **12.50%**

Based on 12 months at 12.5% annual rate

+ Invest This Amount



INVESTOR PORTAL: INVESTMENTS SHARES



Investor Portal
Petroleum Organization



Jennifer Davis
investor@funds.com

Logout

Portfolio Value
\$2.5M
+12.5%



Monthly Returns
\$18,750
+8.2%



Share Price
\$127.50
+3.1%



Dividend Yield
4.8%
+0.3%



Overview Portfolio Calculator **Investment Shares** News

Total Investment
\$33,300

Current Value
\$34,880

Total P&L
+ \$1,580

Investment Shares Portfolio

Manage your petroleum investment shares

Share ID	Type	Quantity	Purchase Price	Current Price	P&L	Actions
SHR-001	Crude Oil Futures	100	\$75.50	\$82.30	+\$680.00 (9.01%)	
SHR-002	Refined Products ETF	250	\$45.20	\$43.80	-\$350.00 (-3.10%)	
SHR-003	Energy Sector Fund	500	\$28.90	\$31.40	+\$1250.00 (8.65%)	



Digital Egypt Pioneers

INVESTOR PORTAL: OVERVIEW



Investor Portal
Petroleum Organization

2

Jennifer Davis
investor@funds.com

Logout

Portfolio Value

\$2.5M

\$

Monthly Returns

\$18,750

↗

Share Price

\$127.50

↗

Dividend Yield

4.8%

🥧

Overview Portfolio Calculator Investment Shares News

Latest News & Updates

Important updates that may affect your investments

Q3 Results Exceed Expectations

Organization reports 23% increase in quarterly profits, driven by operational efficiency.

2025-11-10

New Refinery Expansion Approved

\$500M investment approved for expanding refinery capacity by 40%.

2025-11-08

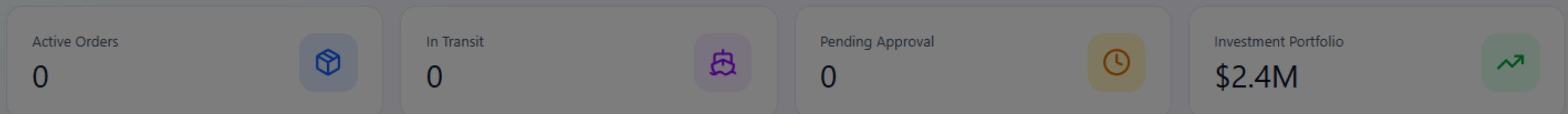
Strategic Partnership Announced

Partnership with leading European energy company for renewable energy projects.

2025-11-05



IMPORTER PORTAL: SEND EXPORT REQUEST



Export Orders Investment Calculator Investment Shares

Export Orders			+ New Request
Order ID	Material	Grade	Status

New Export Request

Submit a request for oil material export

Material Type Grade

Crude Oil Brent

Quantity Destination Port

e.g., 100,000 barrels e.g., Rotterdam

Preferred Delivery Date (ETA) Incoterm

mm/dd/yyyy Select incoterm

[Cancel](#) [Submit Request](#)



SUPPLIER PORTAL: PROCESS REQUESTS



Supplier Portal
Petroleum Organization



Sarah Johnson
supplier@acme.com

Logout

Active Requests
12



Active Contracts
8



Pending Orders
5



Total Revenue
\$1.8M



Requests Contracts Stock

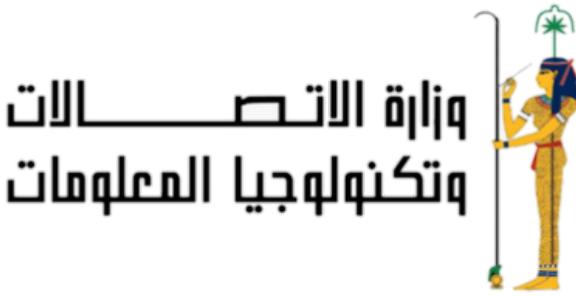
Petroleum Needs Requests

Manage incoming requests from the organization

Request ID	Item	Quantity	Urgency	Status	Date	Action
REQ-001	Drilling Equipment	5 units	High	Pending	2025-11-10	<button>Process</button>
REQ-002	Safety Gear	200 units	Medium	Approved	2025-11-08	<button>Process</button>
REQ-003	Pipeline Valves	15 units	High	In Progress	2025-11-12	<button>Process</button>



SUPPLIER PORTAL: VIEW CONTRACTS

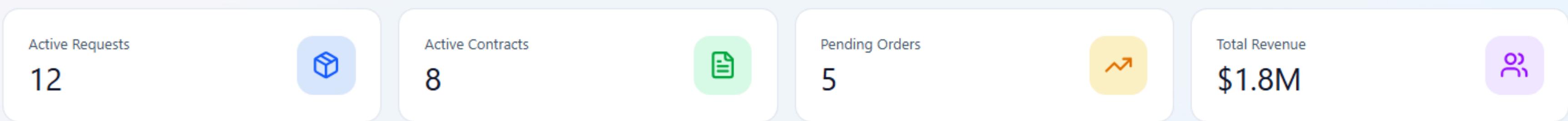


Supplier Portal
Petroleum Organization



Sarah Johnson
supplier@acme.com

Logout



Requests Contracts Stock

Active Contracts

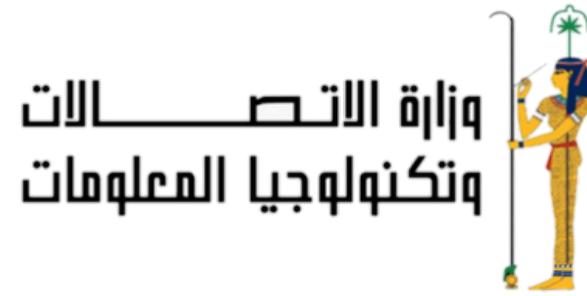
View and manage your contracts with the organization

Contract ID	Name	Value	Status	Period	Action
C001	Equipment Supply Contract	\$450,000	Active	2025-2026	<button>View</button>
C002	Safety Equipment Contract	\$280,000	Active	2025	<button>View</button>
C003	Maintenance Parts Contract	\$320,000	Renewal	2024-2025	<button>View</button>



Digital Egypt Pioneers

SUPPLIER PORTAL: STOCK UPDATE



Supplier Portal
Petroleum Organization



Sarah Johnson
supplier@acme.com

[Logout](#)

Active Requests
12



Active Contracts
8



Pending Orders
5



Total Revenue
\$1.8M



[Requests](#) [Contracts](#) **Stock**

Stock Inventory

Monitor your stock levels and availability

Item	Current Quantity	Minimum Stock	Status	Action
Drilling Equipment	45 units	20 units	Good	Update
Safety Gear	850 units	500 units	Good	Update
Pipeline Valves	15 units	30 units	Low	Update
Maintenance Parts	320 units	150 units	Good	Update



Digital Egypt Pioneers

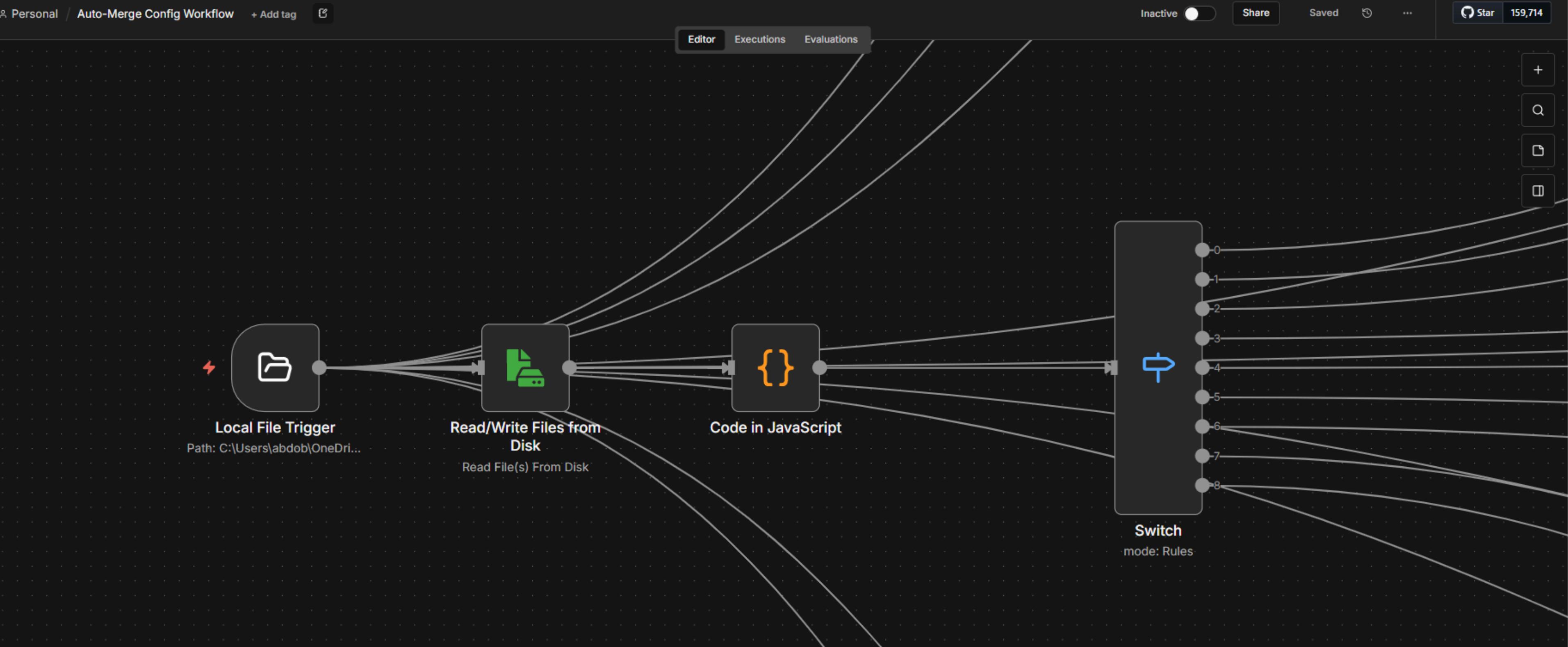
N8N AUTOMATION

وزارة الاتصالات
بتكنولوجيا المعلومات



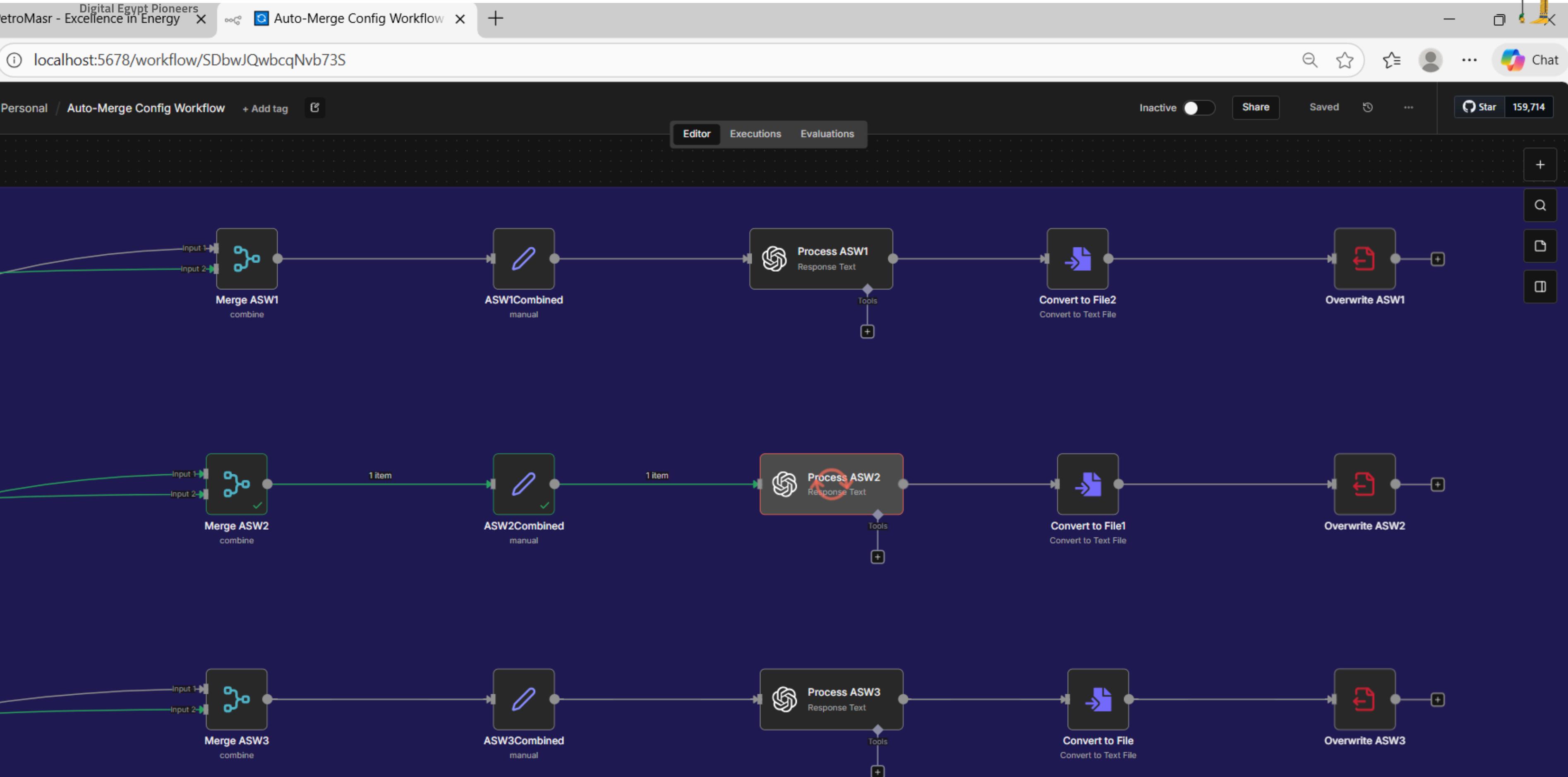
PetroMasr - Excellence in Energy X ▶ Auto-Merge Config Workflow - X +

i localhost:5678/workflow/SDbwJQwbcqNvb73S



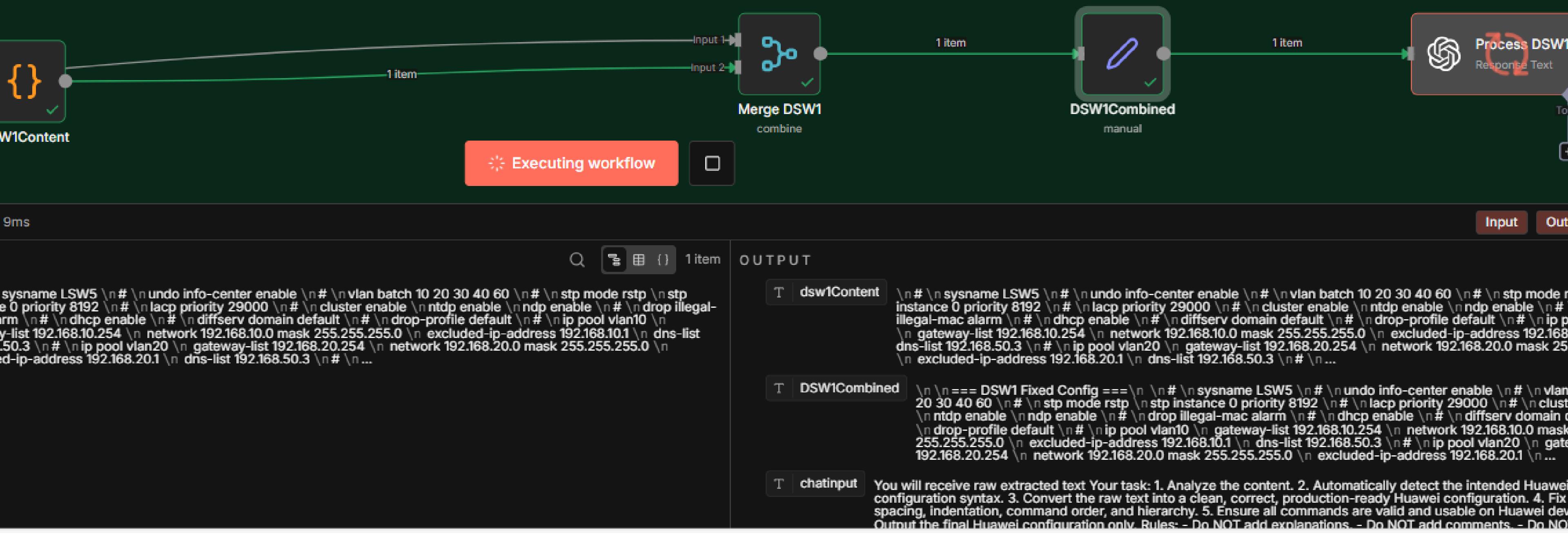


N8N AUTOMATION RUNNING





N8N AUTOMATION WORKING

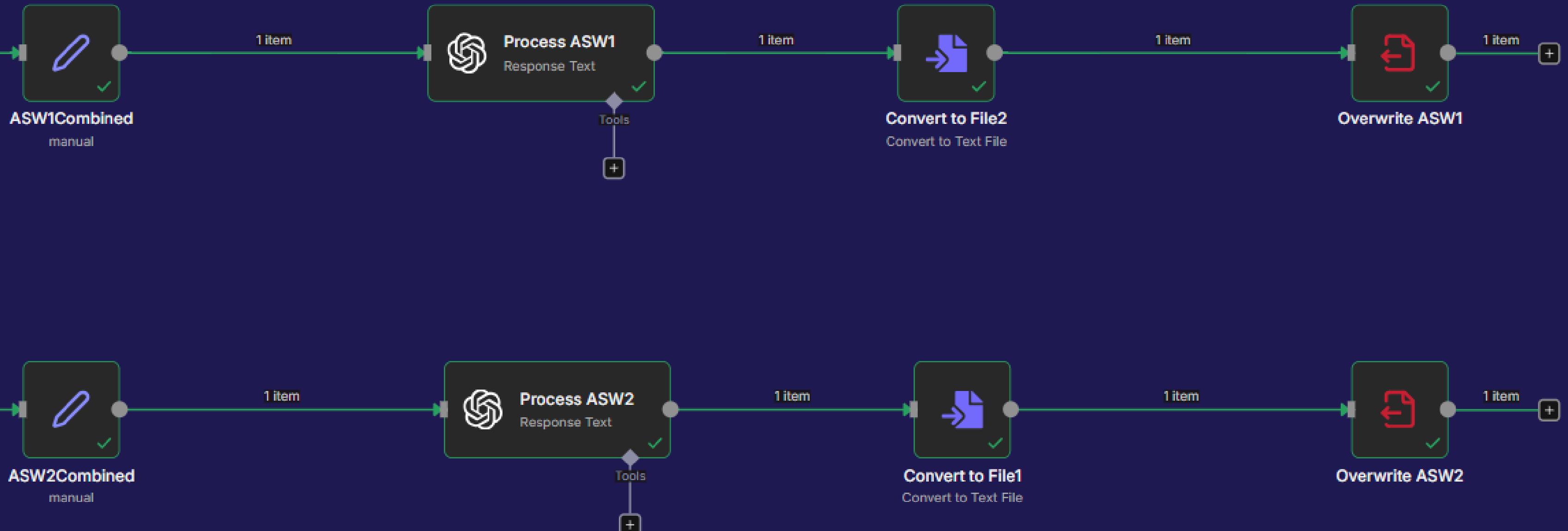




N8N AUTOMATION SUCCESSFULLY DONE



Editor Executions Evaluations





N8N AUTOMATION SUCCESSFULLY DONE



Nov 30, 03:45:39

Succeeded in 33.316s | ID#313





Digital Egypt Pioneers



CONCLUSION & VISION

THIS DOCUMENT REPRESENTS MORE THAN JUST A TECHNICAL BLUEPRINT; IT IS A TESTAMENT TO THE IMMENSE EFFORT, DEDICATION, AND PRECISION INVESTED BY THE TEAM TO CREATE A ROBUST DIGITAL FOUNDATION FOR THE ORGANIZATION.

**A CALL FOR SUPPORT
WE EARNESTLY REQUEST YOUR CONTINUED
SUPPORT AND ADOPTION OF THIS
PROJECT**

THANKS TO



بيانات الاتصال
وتقنيات جيا المعلومات

