



DIGITAL TRANSFORMATION FOR ENHANCING GAS & INFRASTRUCTURE BUSINESS

PGNCOM (PT. PGAS TELEKOMUNIKASI NUSANTARA)
ICT/OT SOLUTION PROVIDER

17 JUNI 2025

pgn COM
always reliable



Core Business

Infrastructure

Commerce

Business Derivatives

Upstream

Others

pgn SAKA
power to discover

pgn LNG
open to make a leap

pgn GAGAS
brings energy to you

PGNCOM (www.pgncom.co.id)

A subsidiary of PGN in the field of Information and Telecommunication services

NUSANTARA REGAS
natural gas transportation between PTGAS and PGN

PERTAMINA GAS
lighting brighter future

Transgasindo
TRANSGASINDO

pgn COM
always reliable

pgn SOLUTION
action for excellence

pgn MAS
commitment to service

Subsidiary of **PERTAMINA**
GAS NEGARA

STRUCTURE OF PGN GROUP

A Member of Pertamina

Pertamina

www.pertamina.com

A State Owned Enterprise engaged in the energy sector including oil, gas and new renewable energy in Indonesia

PGN (Perusahaan Gas Negara)

www.pgn.co.id

A State Owned Enterprise as the largest national company in the natural gas transportation and distribution in Indonesia

A BRIEF OF PGNCOM

Anak Perusahaan PT. PGN di Bidang ICT

VISI ★

Menjadi penyedia solusi teknologi Informasi dan komunikasi terkemuka di Indonesia

MISI ★

Mengembangkan bisnis telekomunikasi untuk memenuhi kebutuhan Domestik dan Internasional

Menyediakan solusi teknologi informasi dan komunikasi untuk mendukung PGN Grup dan industri energi



PT PGAS Telekomunikasi Nusantara (PGNCOM)

- Based in Jakarta
- Core Business : Connectivity & ICT solutions.
- Customer: Wholesale (CSP/NAP/ISP), Corporations, SMEs



PGAS Telecommunication International

- Based in Singapore
- Core Business : International Connectivity & ICT solutions
- Customer: Multi national companies

Subsidiary of PGNCOM



PT Telemedia Dinamika Sarana (GASNET)

- Based in Jakarta
- Core Business : Internet Service and its derivatives (Domain, hosting, and contents)
- Customer: Corporations, SMEs, Retails

Subsidiary of PGNCOM

Jaringan Backbone FO PGASCOM

Singapore
Exchange
POP BATAM

Fibre Optic Network
with big capacity,
alongside with the
Natural Gas pipeline
of PT. PGN Tbk

Kuala Tungkal

Jambi

POP JAMBI

Grissik

Palembang

Pagardewa

Terbanggi Besar

Bandar Lampung

Kalianda

Anyer

Labuhan Maringgai

Bojonegara

CYBER JAKARTA



Memberikan Solusi *different path*
traffic ke Singapura dengan landing
point di sisi barat (Jurong Island)

BACKGROUNDS

- From small to large numbers of branches
- Spread in many cities & countries / continents
- Have real-time System Application and Transaction to run in secure network
- Their connectivity model is between branches, to Head Quarter and also to cloud
- Mostly prefer L2/L3 for **connectivity** and need back-up with lower cost.
- **Head Quarter look after a strategic deal, to make a single point of service provider taking care their connectivity service all over the world**

BUSINESS Pain Points related to TECHNOLOGY



Dependency on unreliable
end-to-end connectivity

Network becomes too
complex to maintain



Large Number of Remote sites to
manage and monitor

Exhausted of multiple operator
management



Need instant branch connectivity

SECURITY CONCERN



Valid Data Capture and Standard

Complexitas and massive
data



Internet Of Things & IT/OT Platform



- Remote Terminal Unit (RTU)
- Data Collection
- IOT Platform
- SCADA Platform
- CCTV

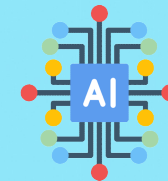
Big Data Analytic & Artificial Intelligence



Data Integration
& Dashboard



Data Analytic



Artificial
Intelligence

IT/OT Security [SoC, VAPT, Forensik, Security Awareness)



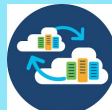
FO



RADIOC



VSAT



SDWAN



GSM



LPWAN : LORA & NB-IOT

ICT INFRASTRUCTURE (INTEGRATED CONNECTIVITY HUB)



DATA CENTER



CLOUD SERVER



CUSTOMER PREMISE EQUIPMENT

6 Pillars of Technology

1. Data Center & Cloud
2. Infra Network
3. IT/OT Security
4. Internet Of Things
5. Big Data
6. Artificial Intelligence

TECHNOLOGY USE CASES FOR GAS INDUSTRY

pgnCOM
always reliable

Subsidiary of  PERTAMINA
GAS NEGARA

Area of technology implementation



Operasi dan Pemeliharaan

1

- Teknologi untuk meningkatkan kehandalan infrastruktur dan *Operation excellence*

Pengelolaan Aset dan Produksi

2

- Teknologi untuk mengoptimalkan usia kerja infrastruktur, menjaga *asset integrity*, dan optimalisasi produksi gas



Pemenuhan Kebutuhan Pelanggan

3

- Teknologi yang relevan bagi pelanggan

HSSE

4

- Teknologi untuk meningkatkan efektivitas dan efisiensi pengelolaan aspek HSSE



Eksplorasi Cara Baru Transportasi Gas

5

- Teknologi untuk menyalurkan gas bumi tanpa menggunakan pipa

Manajemen dan Pengambilan Keputusan

6

- Teknologi untuk meningkatkan kualitas pengelolaan niaga gas dan efektivitas pengambilan keputusan



Keamanan Data & Informasi

7

- Teknologi untuk meningkatkan keamanan Data dan Informasi Perusahaan

Subtitle

Overview Teknologi AI untuk Oil & Gas

pgn COM
always reliable

Subsidiary of  **PERTAMINA**
GAS NEGARA

A. Predictive Maintenance



B. AI Explorasi Minyak & Gas



C. AI - HSSE



C. AI – Produk Minyak & Gas



POSITIONING & FOCUS



- As an ICT Solution Provider in Pertamina Group
- Integrated Digital transformation for Pertamina Group
- Own the competencies in IT & OT
- Roll playing of synergy of Pertamina Group
- Security, agility and optimization
- Industry 4.0 trend setter for upstream



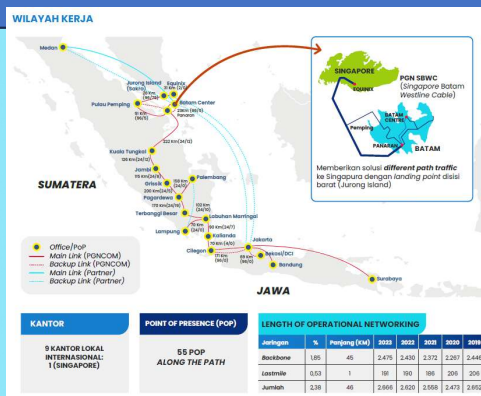
Challenges & Opportunity

DIGITALIZATION by

pgn **COM**
always reliable



WAN PERTAMINA



Enabling dan optimizing
business process with
digital transformation



Safety &
Compliance



Production Operation
& Drilling



Cont Improvement &
Collaboration



Target Objective



- Support Digitalisasi proses
- Penyediaan layanan connectivity dan Profesional Service
- Support dalam pengembangan aplikasi, dashboard monitoring dan Machine learning
- Penyedia Data Center Pertamina Upstream
- AI DRIVEN



CHALLENGE

Hard to Integrate

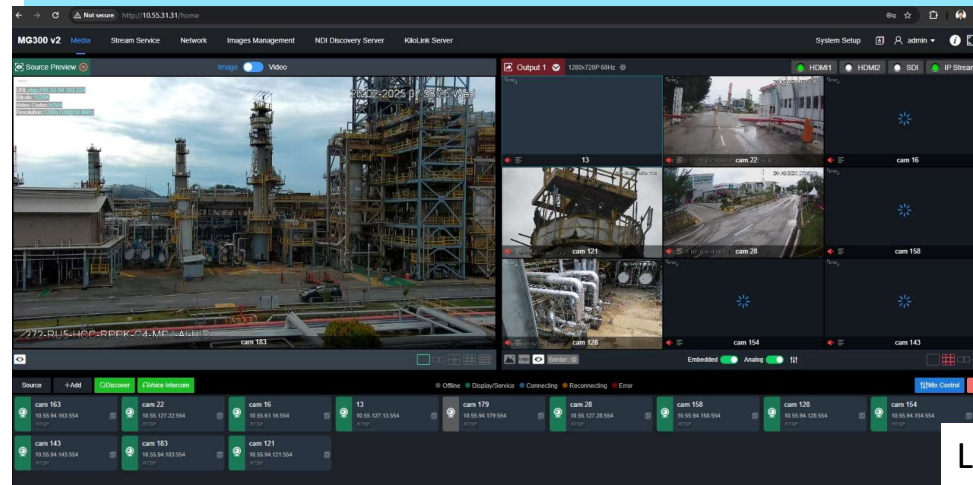
Traditional VMS lacks playback precision, suffers from lag, and offers limited customization for timeline control and integration, frustrating users during video review.

Complexity

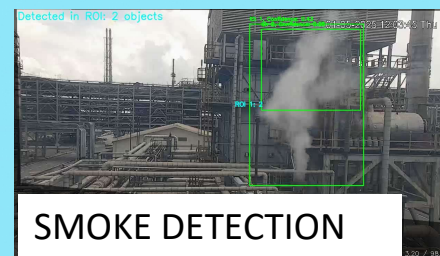
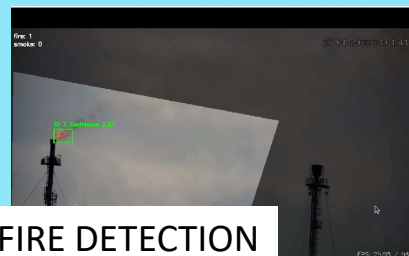
Conventional VMS systems are hard to use due to confusing interfaces, hidden features, and lack of clear user guidance.

Layout Management

Traditional VMS makes camera management hard due to poor searchability, lack of map-based tools, and challenges with multi-brand device integration.



ADVANCED AI



CYBER SECURITY

▪ SECURITY OPERATION CENTER



Fitur Utama :

- Threat Analyst
- Corellation
- Identify Asset Impact
- Find Information Related
- Create Document Analyst & Risk Impact
- Threat Hunting
- Threat intelligence
- Create Mitigation Recommendation
- Create Ticket for Record Incident

▪ VAPT (Vulnerability Assesment & Penetration Testing)



Fitur Utama :

- Scanning Vulnerabilities
- Report Finding
- Pentest
- Remediation

▪ SECURITY AWARENESS

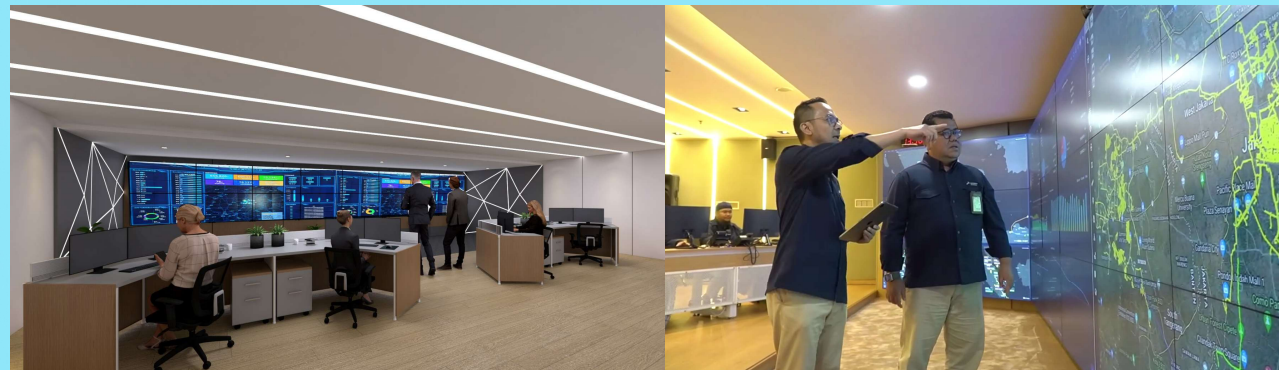
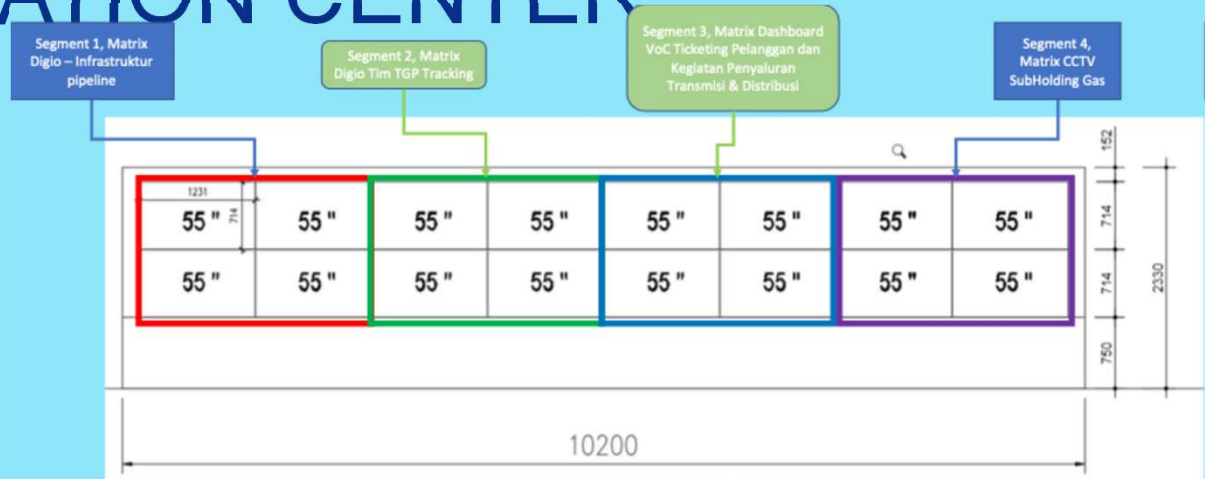


Fitur Utama :

- User Requirement
- Pemrograman .net, PHP
- Database SQL Server, Postgree
- API PHP dan Oracle SOA

INTEGRATED MONITORING OPERATION CENTER

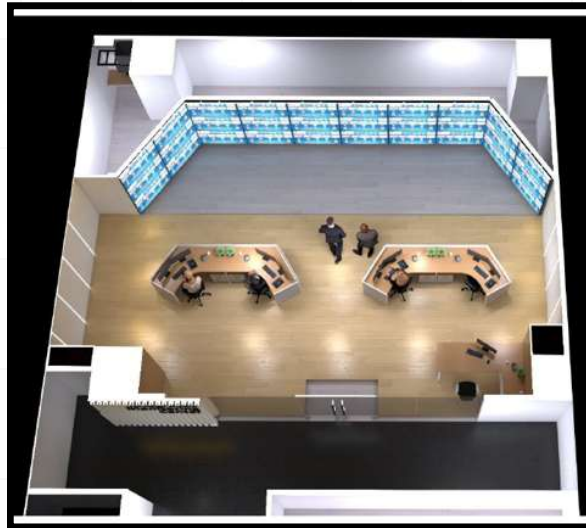
1. Melakukan monitoring pengelolaan, penyaluran gas pipeline, dan niaga gas baik di Region maupun anak perusahaan
2. Melakukan monitoring kondisi dan operasional infrastruktur jaringan gas
3. Menyediakan informasi secara cepat dan akurat
4. Membantu Contact Center dalam memberikan layanan, penanganan keluhan baik pelanggan maupun non pelanggan melalui platform digital yang tersedia
5. Menjadi show room yang representative dalam menerima kunjungan stakeholder dan dapat menunjukkan bahwa PGN merupakan Prudent Gas Operator yang telah mengaplikasikan digital technology dalam kegiatan operasi dan bisnis-nya.



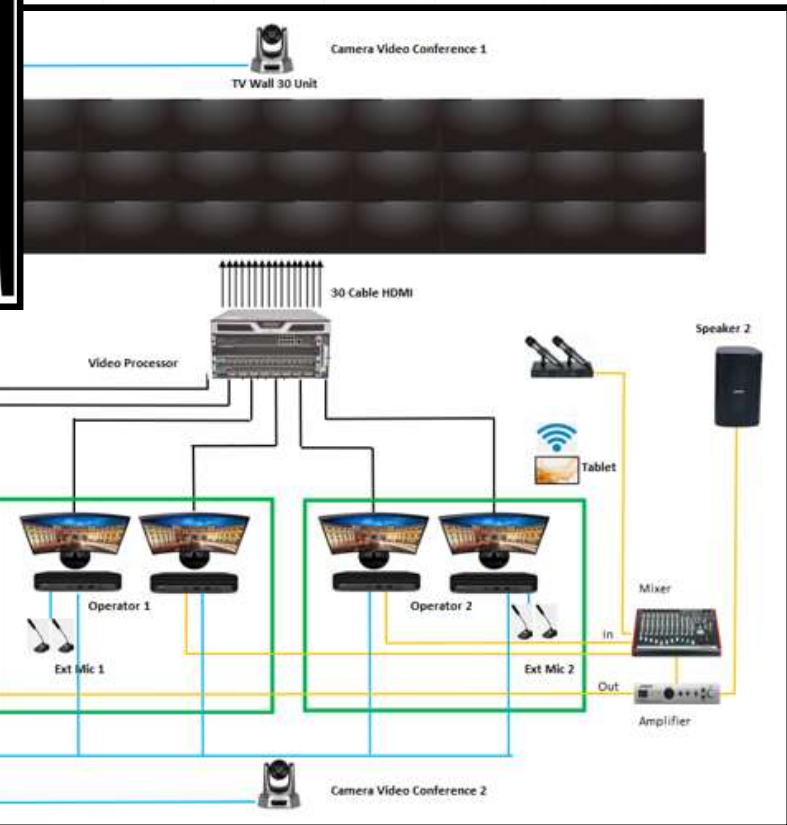
Dashboard Multimedia

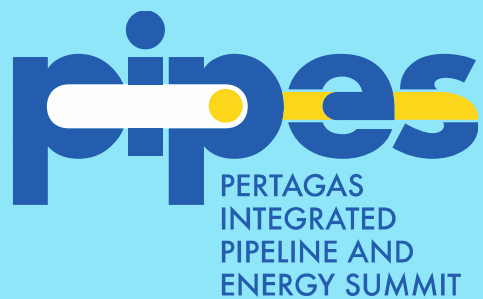
pgn **COM**
always reliable

Subsidiary of **PERTAMINA**
GAS NEGARA



- Menyediakan informasi dengan cepat dan tepat mengenai kondisi operasional atau kondisi lain yang harus dimonitor;
- Memonitoring layanan pelanggan, meningkatkan respon dan penanganan keluhan/gangguan, permintaan informasi, permintaan layanan baik pelanggan maupun non pelanggan yang melalui Contact Center lebih cepat respon dan tepat sasaran;
- Tersedianya tools digitalisasi terintegrasi yang mendukung proses bisnis sehingga meningkatkan tingkat layanan kepada pelanggan;
- Menyediakan suatu ruangan yang dapat menjadi ruang representative dalam menjelaskan kondisi operasional atau kondisi lain yang harus dimonitor.





TERIMA KASIH