

Cognitive Infrastructure driving agility, automation
& powering resilience for an Oil & Gas Market Leader

Infrastructure Foundation Platform Support



Industrial Network Services



1800+
Average Monthly
Ticket Footfall



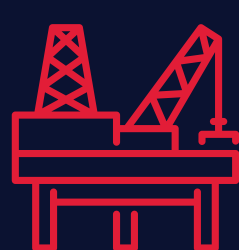
165+ Field
Routers
1400+ Field
Switches



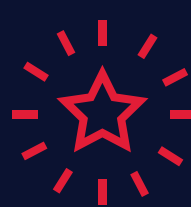
3300+ Industrial
Radios
80+ Network
Gateways



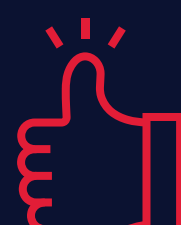
24*5
With on-call support
over weekend



80%
Driven through
Offshore



5/5
CSI Rating



3
Service
Improvements

Service Offering



Ensured operational support, following ITSM best practice, to resolve network infrastructure issues related to supported industrial routers, switches, and outdoor radios



Timely monitoring and resolution of network faults and performance alerts generated from monitoring tools



Performed ticket trend analysis to resolve underlying issues, improving network stability



Hardening and standardization of network device configuration as per the client template



Provided compliance support to OT network infrastructure, following client guardrails, ensuring its health



Tracked and upgraded network hardware and software as per recommended standard versions



Proactively monitored vulnerabilities by auto-registering to the OEM Advisory

Key Achievements



25% reduction of OT infra tickets from ~400 to 300, achieved through proactive monitoring, resolving critical and major alarms, and improving site stability



0 Critical Major Incident Management (MIM) network incidents in the last year



50+ standard SOPs created to support run and maintenance, resulting in ~30% of the ticket volume being resolved by the first-hand support command center team



40% improvement in Mean Time to Resolve (MTTR) by configuring auto notification of radio alerts, directly from Radio Monitoring Tool



95% of supported OT network infra devices made compliant across all supported BUs, strengthening the security posture of OT Infra



75% of supported network devices upgraded to recommended hardware and software versions



Satisfactory closure of BU audits by providing quality evidence in compliance activities

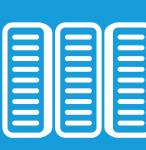
Service Improvement



Saving ~25 hours/month through auto-notification of critical and major alarms for industrial radios, reducing MTTR and count of fault tickets



20% reduction in ticket counts through optimization of inessential network access ports by running SQL query on the Solarwinds Database, and identifying access ports



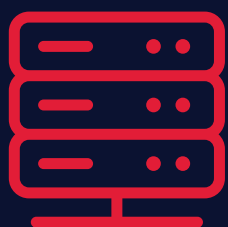
Improved MTTR by 10% with a single pane of glass - visualization for OT network health checks implemented using OT Solarwinds, enabling faster ticket triaging



Auto-remediation of non-impacting OT compliance controls, resulting in a reduction in human efforts by ~100 hours/month to remediate network devices as per standard



300
Average Monthly
Tickets Footfall



Esxi
Hosts

Windows
Servers

180+

1200+



Linux
Servers

AV
client

160+

1400



IAM 4500+



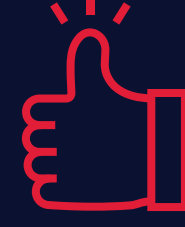
24*5
With on-call support
over weekend



90%
Driven through
Offshore



5/5
CSI Rating



3
Service
Improvements

Service
Offering



Service ops using ITIL processes such as incident, problem, change, and service requests management



Plan and allocate the capacity needed to meet varying demand levels in time. Rationalize and optimize the use of IT resources



Process improvement recommendations and infrastructure efficiency as needed



Work with stakeholders and be responsible for the roadmap (strategy/plan) to ensure the PCN/OT infrastructure portfolio on current/ supportable technologies



IRM compliance, Internal and external audit compliance as per OT cyber guardrails



Ops support activities including OS Administration, Patching & Compliance, Antivirus/Antimalware Management, Alert Management

Key
Achievements



Developed 30+ process documentations, leading to increased process adherence and audit readiness



92% of supported OT Infra devices are compliant, strengthening the security posture of OT Infra



56% improvement in MTTR achieved by ensuring the best practices and regular team trainings for ticket handling



98% patching compliance with standardization of schedule and auto deployments



Satisfactory closure of BU Internal Audits through quality evidence in compliance activities



Daily infrastructure health check monitoring, leading to 0 critical MIM



Satisfactory closure of BU audits by providing quality evidence in compliance activities

Service
Improvement



The automated VMware snapshot deletion solution has improved datastore management and reduced manual effort by ~0.5 hours/month



Automated AD password expiry notification email to users with a defined frequency has saved ~200+ hours in manual efforts



Deployment of centralized cybersecurity log monitoring and vigilance



Strengthened the security posture by implementing CIS benchmarks via AD group policy



Standardized UAR process to disable 90% inactive accounts and groups



Vulnerability and patching compliance for RHEL servers by deploying centralized RHEL Satellite/Capsule Servers



40

Average Monthly
Ticket Footfall



200

SQL Servers
across 8 BUs



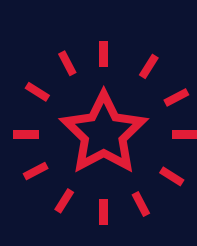
16x5

24x7 On-call
Support



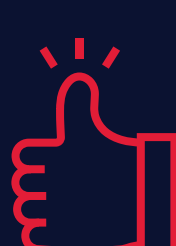
100%

Driven through
Offshore



5/5

CSI Rating



2

Service
Improvements

Service Offering



Database software and patch management



Database security management



Disaster recovery and high availability support



Database migration/upgrade



Compliance activities on database servers



Automation

Key Achievements



95% of records created for the database servers with application to database mappings



90% of the database servers compliant as per policy



20+ SOPs created for operational activities and process documentation

Service Improvement



Saved ~85 hours/quarter - Automated the User Access Review process, including database/ server-level/ statement-level permissions



Saving 30 hours/month – Fully automated the compliance check process for all SQL servers, which inspects all the controls required as per policy and generates the report



SQL Login Password Expiry Report Automation

- Automated Password Aging report through PowerShell & SQL Job
- Reduces manual effort by ~288 hours /Annually

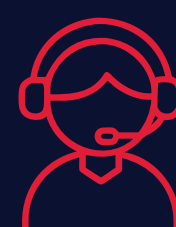
Data Hosting – Backup/Storage



130+
Average Monthly
Ticket Footfall



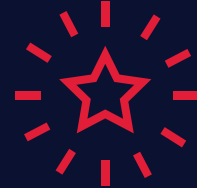
1300+ Backup
Clients
50 TB
Storage



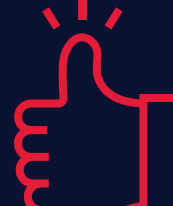
24*5
With on-call support
over weekend



100%
Driven through
Offshore



5/5
CSI Rating



2
Service
Improvements

Service Offering



Following best practices, operational support to resolve data hosting infrastructure issues



Windows and LINUX server backups



Server restorations – VM/Bare Metal recovery



DR drills in coordination with stakeholders



Compliance activities for backup infrastructure



Tailored backup requirements as per specific needs of the customer



Health checks summary using dashboards



Automation

Key Achievements



0 critical MIM data hosting incidents since the initiation of support



Enhanced organizational efficiency and operational readiness by developing DR process documents for **nine** different BUs – documentation review and restoration tests carried out as an evergreen process



100% compliance achieved for Veeam backup infra. Minimized security risks associated with legacy systems by timely off-boarding/decommissioning



Ensured consistency and quality control by creating **11** master SOPs, resulting in **100%** CHG implementation success



Configuration Management Database (CMDB) accuracy improved from **37%** to **90%**, resulting in streamlined ops and improved decision-making



Satisfactory closure of BU audits by providing quality evidence in compliance activities



Satisfactory closure of BU audits by providing quality evidence in compliance activities

Service Improvement



Single pane of glass visualization for backup health checks implemented using advanced Excel – enhancing operation efficiency and savings of **~25 man-hours/month**



Automation using Windows-native tools – PowerShell and Task scheduler – to capture license details, which is then sent as an email to admins. Savings of **~18 man-hours/month**



Automation to capture configuration data and check compliance status (access control/audit reports/flaw remediation, etc.)



- Introduced an AI-based Veeam license analytics solution, as a part of AI first initiative

~24 hours annual savings achieved while adding predictive capabilities for proactive decision-making

Highly Scalable: Near-zero cost to expand across servers, geos, or domains

- Automated Veeam Health check monitoring using PowerShell scripts

- Reduces manual effort by ~201 hours/Annually



30000+
Users



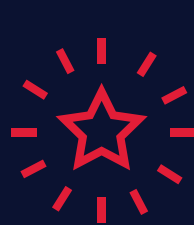
150+ applications
packaged



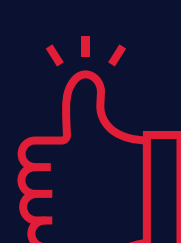
24*5
Support Coverage
(App Packaging and Citrix
Support)



75%
Driven through
Offshore



4.8/5
CSI Rating



9
Service
Improvements

Service Offering



Citrix and AVD design contribution and collaboration



Demonstration, implementation, and training of newly developed feature



Design, consulting, and implementation for application packaging



Packaging support for small, medium, and complex cloud-paging apps published in virtual workspace



Implementation of self-service packaging



Managing application publishing, upgrades, and removal



Transition from on-prem to Numecent SaaS solution



24*7 support for supply right NetGIL environment

Key Achievements

Secured Management Zone:

- Designed and implemented a zero-trust enablement solution for power users, providing them a secure VDI platform to perform multiple administrative tasks across the client network by clicking on the required tool/app rather than accessing them via a full AVD desktop.
- Quick access: **~75% effort reduction**
- Secure access to the desired apps through custom policies and network access control

SaaS Migration:

- **First-in-industry** on-prem to Numecent SaaS migration of app packaging infrastructure, leading to better UX and alignment with modern desktop company portal solution
- **Cost savings of ~10k USD/year** (by consolidating four on-prem servers to SaaS and man-efforts to manage them)
- Automatic product version update in real-time

Service Improvement

Automated mechanism to delete Citrix Files Folders:

- Developed an automated mechanism to delete Citrix files from folders for FSLogix user profiles
- Cost saving: **~100hrs/year efforts savings**
- Effort saving: **Task effort reduced from ~20 minutes to 3 minutes**


Automated region-wise Azure CVW

Subscription/Consumption details:


- Designed, tested, and onboarded a **PowerBI** dashboard to generate region-wise Azure CVW subscription/consumption details
- Effort saving: Effort reduced **from 80 hours to 1 hour per month in administrative effort**

APAC ITSM & PCN Support Services



 **5**
MI

 **120**
CRQ's

 **3**
PBI's

 **4**
Sites

 **24*7**
Support Coverage

 **40%**
Driven through
Offshore

 **5/5**
CSI Rating

 **8**
Service
Improvements

Key Activities / Highlights

- Secure remote access solution for PCN users
- Citrix solutions were used to access servers and applications, which were slow and had high license costs
- Created an in-house RDS (Remote Desktop Services) model
- **80% faster login** time to access PCN apps – **150+ users positively impacted**

DMZ test Infrastructure refresh project

- HPE products being used were at the end of their lives, with the unavailability of updates/firmware and security postures being under threat
- Replaced EOL blade servers and HP C3000 chassis with Cisco mini UCS solution with **0% downtime**
- The solution was documented and applied across the DMZ infrastructure

ITSM: Change management

- Implemented a change management process, which **reduced 50%** of emergency and expedited change
- Eliminated unauthorized change and **reduced 90%** of retrospective CRQ

Service Improvements

Dedicated SharePoint site for LNG Plant

- Project and operational data lacked structure, leading to scattered information and no ownership
- A new SharePoint site with custom lists and automated flows was developed to manage decisions, version control, inventory, and service checklists—improving data integrity and reliability

SWAT analysis

- ~10 stability incidents reported in a month for TA Pro and Primavera P6
- Formed a SWAT team, performed RCA, and identified the root cause
- 90% reduction in incidents per quarter

ITSM

- Introduced a text message tool to communicate during MI/ Cyber incident/ Freeze/BCP, to access and broadcast

Data & Insights

- Automated daily monitoring using Power Automate, resulting in an **effort reduction of 8-10 hours weekly**
- Performance optimization on S3 database resulted in high reliability and integrity

Issues & Challenges

- Connecting and coordinating between PCN/OT and other BUs' PCN/OT teams was an issue due to a lack of formalized global channels or forums for information exchange among PCN/OT teams
- Onsite resource attrition

Network, Monitoring, and Security Services (NMS)



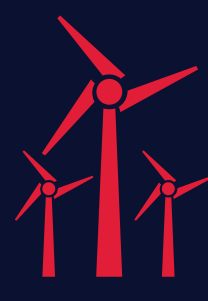
1000
Average Monthly
Ticket Footfall



25000
Network Devices
Security and
Monitoring



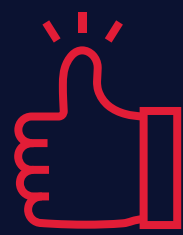
200+
Windows and
Linux Server



15 tools
Solarwinds,
Cisco, Lighthouse



24*5
Support Coverage



**On-call
support**
P1 tickets

Key Activities / Highlights

Agentic AI

Created Co-pilot agent that leverages existing documentation and knowledge bases to provide timely and accurate information, enhancing user experience and operational efficiency

- Facilitating onboarding and Knowledge Transfer (KT)
- Utilizing documentation to speed up resolution
- Delivering functional and technical expertise
- Retrieve answers to commonly asked questions related to daily operations
- Uses existing applications knowledge base as source
- Rendering of Standard Operating Procedure (SOP) documents

Service Improvements

Reduction of Technical Debt

- Achieved **\$360K cost savings** by **decommissioning 75+ VMs** as part Application/Tool Optimization and consolidation
- **100+ Linux Server OS Upgraded to RHEL8** and made compliant from EOS OS
- DC movement of 82 VMs consisting of 12 applications to state of art **Databank infrastructure** led to smoother and more reliable operations and enhanced security/compliance
- Legacy App migrated to IAM to eliminate legacy code and maintenance issues which **saved \$90k annually**
- Saved approximately **\$200K in CAPEX by using Virtual Edition (VE) appliances**, ensuring critical applications have good redundancy and 100% uptime

Automation & Modernization

- Enabled Nautobot to ServiceNow sync, improving data quality from **30% to 70%**
- Auto-updating of Looking Glass device from Nautobot
- Unmanaging of nodes/interfaces from SolarWinds via automation via ServiceNow
- Auto Removal of inactive/terminated users from all NMS-managed application

Elimination of Toil

- Automated service restart via Microsoft Power Automate
- Reduction in ticket volume due to end-to-end alert muting automation via ServiceNow
- Automate device onboarding into ISE with SNOW Workflow to reduce manual efforts and ensure timely ticket resolution
- Continuous improvement in CMDB quality using API, integration, and scripting

The NMS team simplified device onboarding across the company's network tools with a centralized portal that boosts accuracy, efficiency, and compliance.

The NMS team enabled proactive bandwidth management across the company's fleet by building a real-time dashboard that helps avoid costly Starlink overages providing productivity gains of 100K

Issues & Challenges

- Gap in efficiently managing onboarding, knowledge transfer, and resolving queries quickly
- Gap was bridged by the agent, leveraged existing documentation and knowledge bases to provide timely and accurate information, enhancing user experience and operational efficiency.

Thank you

*For any queries, reach out to us at **eugene.comms@ltimindtree.com***

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