



SOLUTION AT GLANCE

STYRE DCIM DATA CENTER INFRASTRUCTURE MANAGEMENT



- ☐ Infrastructure Monitoring and Control
- ☐ Data Center Asset Management
- ☐ Visitor Management Facility

- ☐ Capacity Planning with Predictive Modeling
- ☐ Analytics and Reporting

The development of technology and information systems has triggered globalization and made the changes brought a very significant impact on the business and current society behavior.

Currently the need for data center as a supporting infrastructure in running the operations an organization's business has become a necessity.

However, the complexity of the system in an organization triggering challenges in managing and monitoring the key devices and supporting devices on a data center system.

A solution from Styre to enhance the performance of assets in the data system center through a comprehensive monitoring system. Data center monitoring system uses data in accordance with the existing environment in order to monitor with precision for more effective improvement and efficient data center management.

There is some general principles in developing information technology such as follows:

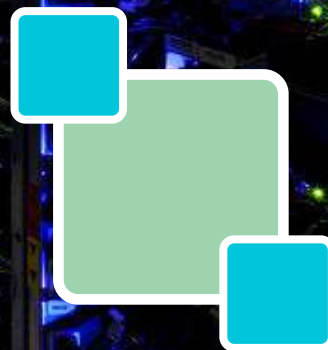
1. Productivity
2. Response
3. Control and audit
4. Risk

If such information technology systems are not managed well, it can lead to inefficiency in the system, such as:

- High IT operating costs due to inefficiency of device performance
- High downtime that causes low productivity
- Slow response in handling incidents and services can cause bad image in the eyes of the user
- Lack of control and internal capability in conducting audits
- Increased risk of fatal damage on the device
- Increased risk of data loss as well as system penetration

Monitoring of IT devices on the data center system should be done with more effective and efficient practice so it will be able to:

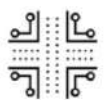
- Provide accurate information regarding the condition of the device's assets both hardware and software
- Controlling via dashboard and reporting system



STYRE SOLUTION

OVERVIEW

Introducing STYRE, A solution from us in improving the performance of the assets in the data center system through comprehensive monitoring system. Data center monitoring system that uses data in accordance to the existing environment circumstances so the monitoring can be more precise and accurate to enhance the effectiveness of data center management.



Data Center
Infrastructure Monitoring
and Control



Data Center
Visitor Management



Data Center
Asset Management



Data Center
Capacity Planning with
Predictive Modeling



Data Center
Analytic and Reporting

Anytime and Anywhere
Keep close to your system
Hold them in your arms and control with
your fingers



STYRE is a data monitoring system center that was made based in its most suitable practice in monitoring data center comprehensively. With Integrated Appliance System Tools model, this system's specifications have been adjusted so as to deliver that performance both in terms of performance and place efficiency storage.

BENEFIT

Some things that will be an advantage in implementing this solution are:

- Do more with the more efficient resource
- Lower Total Cost of Ownership (TCO) in asset management
- Provide quick response and increase productivity
- Monitor real time systems that able to reduce delay in handling downtime so it can improve service quality to end users

STYRE give improvement of performance and efficiency in monitoring and controlling asset in data center with easy, flexible, high performance, efficient, real time, and modular. So that can give option to each organization to implement the features with their needs.

Overall features in STYRE is consolidation from interconnected modules that create reliable monitoring system and controlling in real-time all sensors that will report the condition and devices monitored in dashboard and report.

ITEM AND FEATURES

Whole features owned are:

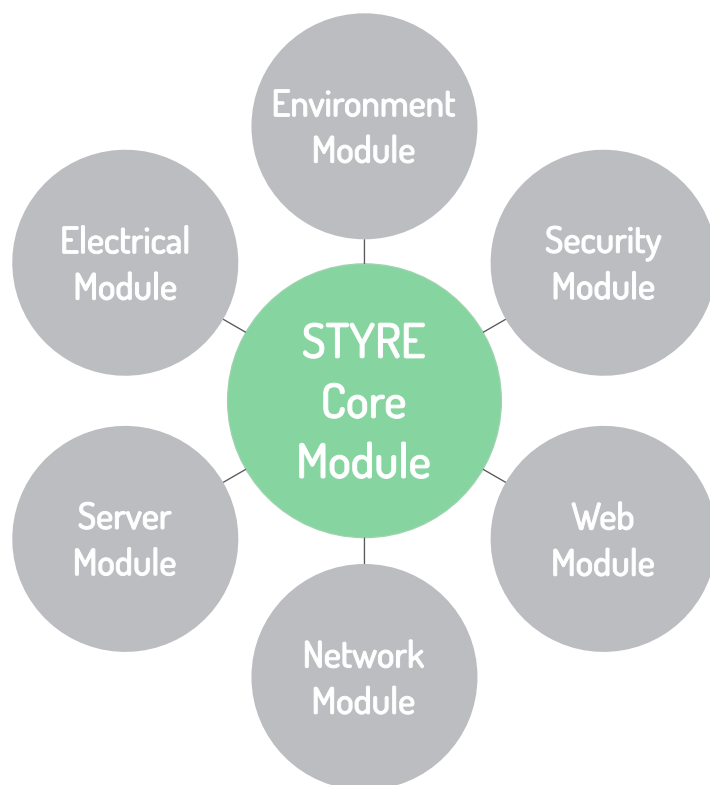
- Real-time monitoring system in dashboard
- Able to show history per module in periodic
- Able to produce reports in the form of documents that display data analysis results
- Features display with Indonesian language

The module on STYRE consists of Infrastructure Monitoring and Control Module which features real-time condition monitoring features at data center facilities including: Environment (Temperature, Humidity, Water Leakage), Electrical System (Power, Current, Voltage, Frequency, Noise) UPS, air conditioning and FSS. Comes with alert system in the right moment when abnormally occurred; Module Capacity Planning with Predictive Modeling to plan data center capacity by looking at utilized capacity owned; Data Center Asset Management Module as part of the management of data center devices; Visitor Management Facility Module for visitor maintenance, recording, and access control; Analytics and Report as integrated feature in Styre for analyzing monitored data and the capacity plan then report it.

STYRE give improvement of performance and efficiency in monitoring and controlling asset in data center with easy, flexible, high performance, efficient, real time, and modular. So that can give option to each organization to implement the features with their needs.



STYRE CORE MODULE



STYRE Core Module are items and features for monitoring Data Center Infrastructure and Management System. The STYRE Core Module itself has 4 main features, including Admin features, Dashboard features, Alert features and Reporting features.

- Admin is an application used to configure device items connected to the STYRE system. Configurations are carried out such as determining certain threshold nodes, setting email/telegram/sms notifications (triggering), entering protocol information, connections, and databases.

- Dashboard is an application that is used to view the monitoring of devices connected to the STYRE system. Dashboard information that can be seen is per module device item. The features of the information obtained on the Dashboard are visualization, alerting and dashboard access rights.
- Alert information on the dashboard display can be set at the existing threshold node. Threshold that is set is usually divided into info/warning/color.
- Reporting is data that is processed to be used as reporting information, either manually

In addition, there are 6 categories of modules that STYRE can monitor and provide information related to Data Center Infrastructure Management needs, including:

- Environment Module: A module for monitoring the environmental conditions of a particular area. Within the scope of the data center, STYRE is able to monitor the condition of the data center room and the condition of the server rack (in-rack).
- Electrical Module: Module for monitoring electrical related devices such as availability (availability), usage (usage) and quality (quality) for both incoming and outgoing information.
- Network Module: Module for monitoring incoming-outgoing network access.
- Server Module: Module for monitoring identity and usage information, both software (operating systems, applications) and hardware.
- Security Module: Module for monitoring information related to video recordings (cctv) and attendance system management (access control).
- Web Module: Module for monitoring information related to website access and pages.

Infrastructure Monitoring & Control Module

This module supports device in a form of server that has ability to monitor variety of sensors and not limited to only one brand. Able to monitor device brand that already support SNMP/Modbus support SNMP/Modbus addressable, involved:

- Intelligent Dashboard
- In Rack Monitoring (Airflow, Humidity, Temperature)
- Environment (Temperature, Humidity, Water leak, Gas/Smoke, Airflow, Doors)
- Electricity (Power, Current, Voltage, Frequency, Harmonics)
- Data Center Map
- Alert Messaging
- Standard Operating Procedure – DCIM Policy
- Efficiency PUE/DCIE
- Access Door (Lock Door, Unlock Door, Give Permission, Deny Permission, Set Time for Access, Registration, Delete User)
- Liquid Oil Monitoring (Oil Tank)
- Monitoring PAC.
- Multi-language User Interface



Temperature

Temperature sensor will detect when overheat happened for instance from the device that not working normally so that causing heat, or PAC works to high so as occurred inefficiency energy usage.



Humidity

High humidity would cause corrosion in electronics and low level of humidity would cause problems in static electricity.



Water Leakage

Sensor could monitor leakage inside cooler equipment, leakage from pipe near it, or water due to flooding or disaster. Water sensor must be placed in lowest level (wherever there is puddle) in floor, and under pipe connection. AC condensation tray should also be equipped with sensors to detect overflow.



Voltage

Voltage sensor detect the presence or not of line voltage. Identify frequency of out for measuring power supply and performance of uninterruptible service providers.



Power

Electrical failure could cause cooling equipment closed and even when UPS that uninterruptible assured server active and run receipt to overheated server room in a short time. It is best to monitor the inflows into the data center, and to keep IT from stopping. Downtime for one or two hours is much better than widespread devices failure that caused by overheating conditions.



Frequency

Before device installed must assured not only voltage and frequency, but also confirmed frequency that can be received by the device. The normal values are generally between 50 Hz-60 Hz. If frequency that accepted above 60 Hz, so the equipment would increase the temperature until failure could be happened.



Currency

The power cord has the capability to supply electricity. For that need to know the amount of electric current that flows on an electrical wire. What is monitored: the maximum limit and the stability. Excessive electric current will cause the heat cable can even cause a fire.



Harmonics (Electrical Noise Monitoring)

Harmonics is voltage sinusoidal wave or current that have multiple frequency from its fundamental frequency. If harmonics merge with fundamental frequency wave, so it would cause the wave is no longer be sinus wave.



Power Supply

Calculates how much power a particular device or power strip is used to help keep an eye on overall energy usage and prevent overload of circuit breakers.



Access Door

Dry contact sensors that detect door opening and closing should be installed at the entry point of the room and on the door of the server and UPS cabinets. On a busy day, these sensors can send warnings over and over again and cause time-consuming irritation, but managers can configure alerts to take account of weekend vs weekend operations, working hours vs overnight, and other factors to help reduce the number of alerts. Sending and showing unusual activity.



Gas/Smoke

The signs that a place will have a flame / fire is the presence of gas / smoke. For that reason, monitoring or observing of gas / smoke is necessary so that no large fires can damage the device in the datacenter. The core of monitoring gas / smoke is to anticipate as early as possible in order to avoid a fire hazard.



Air Flow

Make sure air is flowing through the rack in addition to monitoring A/C vent intake and outtakes.

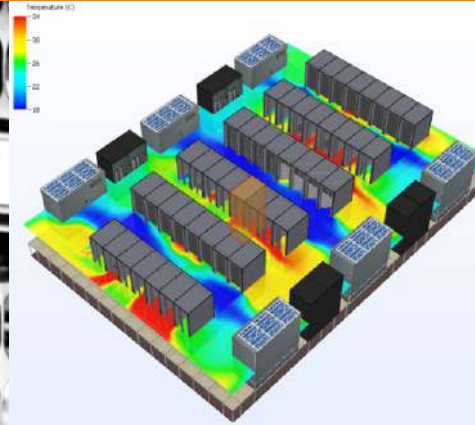
This module has a warning function for users, with the alert system and messaging users can receive notifications directly from the dashboard or messages such as SMS, Email, and Chat.

- Warning System via SMS
- Email Alert System
- Warning System via Chat (Telegram)



Capacity Planning With Predictive Modelling Module

Styre Optimize and
Simulate Your
Data Center Investment



Capacity Planning moves beyond simple visualization to identify opportunities for capacity right-sizing. STYRE uses sophisticated analytics tools (6Sigma Room) to accurately forecast capacity based on historical trends and planned events in real time basis.

Therefore, you will be able to predict the maximum capacity based upon your current practices and be able to look at the possible impacts of potential new projects. Once you have the ability to predict the future, you can decide the best decision to optimize your current capacity.

- Manage your IT asset information by upgrading spreadsheets and visio templates to a comprehensive 3D model.
- More than 4,000 vendor library items, containing IT, racks, relevant power and cooling attributes can be accessed easily.
- Understand your current resource allocation by effortlessly set-up 3D space, cooling and power views at the cabinet level in your data center.
- Intensify pre-configured IT, power, space, and cooling dashboards to discover the state of your data center for better planning and decision.
- Easy moves, adds, and changes you model equipment fast and accurate with our simple drag and drop feature.
- Model any size data center in-browser, over the network, with our optimized data loading times

Asset Management Module



Styre **Simplify** Your Assets Management

This module has function in managing asset that able to consolidate and automate the asset management non-computable and computer from the spread in doing retirement, including auditing asset data, tracking, and reconciliating.

Reducing the complexity of managing multiple map stand-alone database is key to efficient asset management. Through a function-based web access, this solution tracks non-computer and computer assets in a single configuration management database.

- Flexible data imports can combine multiple databases, create a complete view of computer and non-computer assets
- Able to audit computer assets on Windows, Macintosh, Linux and Solaris, any software titles or digital assets and their configurations
- Easy to create new types of asset and its relation

List of features:

- Asset General Information
Product Details, Vendor Data, Contact Info, Installed Date
- Asset Maintenance Schedule
Maintenance Schedule information
- Asset Warranty Information
Warranty information
- Asset Location Information
Details location of assets in the Data Center Area
- Asset Ownership Information
Ownership equipment status
- Standard Operating System
Provides step by step procedure in maintaining assets and facing emergency or disaster issue

This module is a system of visitor management or entry of visitors into the room. This system is the main system in supporting the security of a building and its rooms, and substantial in the security of data center space. This system also facilitates the recording visitors which is new visitor and local visitor of the building. The capabilities of this module include the following:

- Save the visitor data
- Set the access privilege of each visitor ID
- Knowing the current status and access history of each visitor ID
- Prevents visitors from going in and out without record in system

List of Features:

- Rules Management
Manage all the visitor likes registration models, visitor requirements, visitor grouping and etc.

- Identification Management
Passes management Identification likes ID Card, Badges, Ticketing and etc
- Reporting Management
Easy and real-time reporting system; displayed on the Realtime Monitoring System and or hardcopy reported
- Tracking Management
Easy to define the visitor status by time, rooms, area and etc
- Evacuation Management
Accessible for emergency and evacuation action

Visitor Management Module



Styre **Secure** Your Data Center Environment



Analytic & Reporting

Styre Predict and Monitor Your Data Center Reliability

Dashboard panel shows general conclusions about all parameters of the monitored sensor as a whole. All Parameters under monitoring can be displayed on a single page, so that all the details in parameters that are monitored can be viewed and analyzed.

- All facility components are perceived by sensors, monitored and reported in real time
- All results of monitoring are analyzed as representative from the real condition happened and provide insight for tackling the problems as DCIM policy.
- PUE efficiency from data center operations is shown by PUE calculation.

The capabilities are included in the following:

- Intelligent Monitoring Dashboard Leverage pre-configured IT, power, space and cooling dashboards to understand the state of your data center. Display moving averages in trend and historical projections. Graphically display when demand will exceed capacity

• Predictive Impact Analysis

Utilize predictive impact analysis in predicting complicity of different cases of power, loading and cooling to all components of the design to examine the layouts. Run what-if failure scenarios on any element of your design to test layouts and study the implications of different power, loading and cooling scenarios.

• Facility Performance Visualization

With The Green Grid's integrated Performance Indicator you can visualize your facility's performance, and see industry consensus such as ASHRAE, PUE and SLA compliance.

• Reporting

Make your modified and auto reporting to show your latest design in quick step. You can publish your best images and movies in gif, wmv and other formats.

TECHNICAL DESCRIPTION			REMARKS
PHYSICAL MODEL			
Type Model	Rackmount Appliance System		
Dimension	Width	19"	
	Depth	17.7"	
	Height	3.5"	
Weight			
Rack support	ReadyRails™ II sliding rails for toolless mounting in 4-post racks with square unthreaded round holes or tooled mounting in 4post threaded hole racks, with support for optional toolless cable management arm		
COMPUTATION			
Hard drives	Hot-plug hard drive	2.5" SAS SSD, SATA SSD, SAS (15K, 10K)	
		SAS (7.2K), SATA (7.2K)	
		3.5" SAS (15K, 10K)	
		SAS (7.2K), SATA (7.2K)	
Processor	Intel® processor	Up to Intel Xeon E5-2650 V3 10 Core 20 Threads, Dual	
Motherboard	Intel® processor	Up to Intel C612 Chipset E5-2600 V3 Dual Processor Server Motherboard	
Memory	RAM	Up to 8 * DIMMServer ECC RAM DDR4-2400MHz, 128GB	
Modem	GSM	Support SMS and 1 Slot Sim card	
STORAGE			
HDD Type	Up to 15000 RPM		
Storage Capacity	Up to 2 * 2.5" SAS up to 1TB 15000rpm and 1 * 2.5" SSD 512GB		
RAID Card	0, 1, 5, 10, 50		
ENVIRONMENT			
PowerConsumption	AC 85V ~132V and AC 170V~ 265V (Automatically)		
Temperature	Operation	5°C ~ 40°C	
	Storage	-15°C ~ 50°C	
Humidity	Operation	35%RH ~ 85%RH (It does not dew)	
	Storage	10% R H ~ 90% R H (It does not dew)	
PROTOCOL			
HTTP	Browser View		
SNMP	Support V1 and V2c		
Modbus TCP	Support TCP/IP Addressable		

Note : Specification are subject to change without notice

Our Featured Products

STYRE Appliances

- Fast
- Auto-Backup
- Upgradeable
- Container System



- Discover greater versatility
- Deliver powerful performance
- Maximize operational efficiency
- Ready for virtualization and container system

STYRE Neo FireBit



- Statefull Firewall
- End Point Security
- Network Traffic Analytic

STYRE Access Door



- Smartpss Management (Version 2.02 above)
- Support 6 kinds of state keys: Check-In, Check-Out, Break-Out, Break-In, OT-In, OT-Out
- Camera (build in) support to capture the real time photo
- Support to configure timetable and shift standalone

STYRE CCTV

- 1/2.7" 2Megapixel progressive scan CMOS
- H.264&MJPEG dual-stream encoding
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- Max. IR LEDs Length 30m
- IP67, PoE



STYRE Intelligent Cabinet



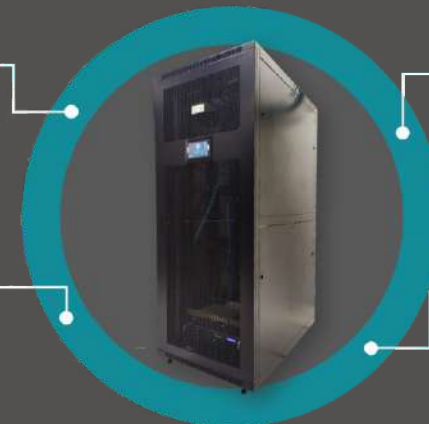
LCD Display Panel



Digital Power



Safety



Up to Height 42U

Our Featured Products

STYRE Sensor Environment



STYRE Switch PoE



- PoE budget: 240W
- Support PoE, PoE+, Hi-PoE
- 250 meters long distance PoE transmission

STYRE Access Door

With redundant power supplies and up to 24 hot-swap bays this system is a perfect storage server. Run as a NAS (Network Attached Storage) via Windows Server or Linux.



STYRE Fanless Mini PC



- Low-Carbon Green
- Strong
- Beautiful



- Output
- Slim
- Noiseless



Styre DCIM is provided and supported by
PT. OTKA TEKNO ADITAMA, now & tomorrow partner

Setiabudi 2 Building 2nd floor Suite 207 B-C
Jalan H.R. Rasuna Said Kav. 62 – Kuningan Jakarta Selatan – 12920
Phone. +62 (21) 52900828 | Fax. +62 (21) 52971875
Email. info@otka.co.id | Website. <http://www.otka.co.id>



Visit : styre.co.id
or Contact us at +62 (21) 52900828

STYRE DCIM Solution has opened mindset of how easy data centers can be managed. Our solution presents from insight of understanding real user problems. We help data center managers operate taskin their data center faster and more efficient than ever before, while saving budget occupying new appliances and improving availability. We strive to eliminate the complexity they have been faced in data center or applying homegrown application. STYRE delivers on this commitment with unexpected simplicity through products that are fast and easy to deploy, use, and maintain. Our solutions are rooted from customers' needs and demand who motivate us to develop disruptive product.

For more information, please visit styre.co.id