

Challenges of a Small Data Center or a Server Room

While there has been increased adoption of Cloud infrastructure, there are still millions of small businesses around the world or departments of larger enterprises which continue to depend on in-house IT infrastructure.

Usually this is a small data center or merely a Server Room. But this is the heart of a small business and they cannot afford a failure. What are the usual causes of infrastructure failures?

- a UPS malfunctions, cutting off power to servers, because they are not connected to raw power
- the Cooling Unit's performance is below par, resulting in room temperature becoming dangerously high, leading to forced shutdown of servers.

Business owners realize that continuous device monitoring is no longer a good-to-have option, but unfortunately,

- They do not have adequate staff & infrastructure for an On-premises monitoring application
- Past reliance on manual monitoring led to errors and they did not receive alerts on time
- Spreadsheets for asset details accentuate the problem as they get outdated and lead to inconsistencies.

The spreadsheet conundrum for Data Centers: When staff is questioned after an adverse event (like UPS failure), they don't have the answers

- when was it last serviced,
- how old is this UPS,
- why couldn't we connect to the 2nd UPS?

So, either they totally disband the server room and move 100% to Cloud, or consider an option that will be less disruptive and cost less than entire lift and shift of infrastructure to the Cloud.

Introducing a Cloud Based Secure Subscription service for organizations depending on high reliability, and uptime of machines, devices and critical infrastructure

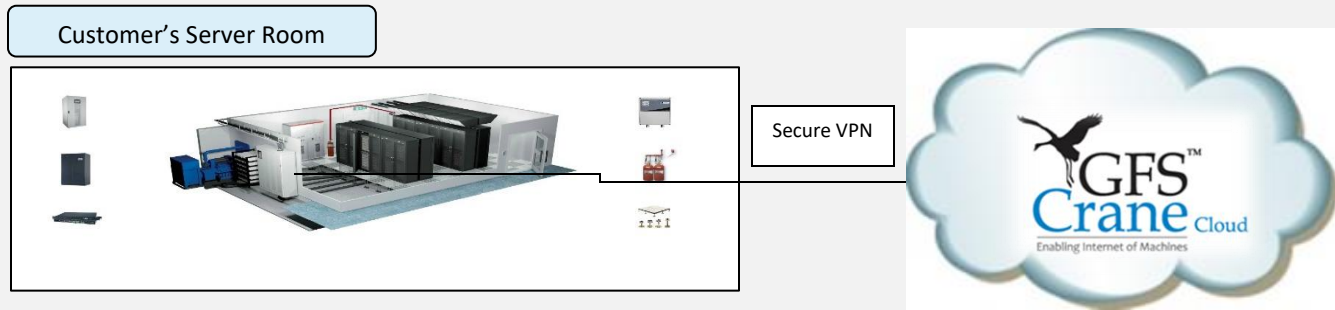
GFS Crane Cloud for Device Monitoring as a Hosted Service

- *Hosted environment. Multi-tenancy to support multiple customers & organizations with data security*
- *Sends critical alerts to designated staff via email & SMS alerts*
- *Collects status, health and performance data from different device categories & different OEMs*
- *Displays monitored data, alerts and KPIs on a customizable dashboard.*
- *Provides analysis that helps reduce failure rates. improve efficiency and performance of the Devices*

GFS Crane Cloud for Asset Management as a Hosted Service

- *Asset Discovery via SNMP. Non-SNMP asset details uploaded from spreadsheets*
- *Maps static attributes of assets from a central OEM Library to create a consolidated asset inventory*
- *Maps critical relationships and dependencies among assets*
- *Maps asset ownership hierarchy and escalation matrix*
- *Maintenance Management schedule; Sends alerts before due dates*
- *Based on Replacement Policy, identifies refresh options for an equipment from OEM Library*
- *Provides Visual display of Racks with U-space occupancy, including device images obtained from OEM Library*

GFS Crane Cloud Device Monitoring & Asset Management as a Service: How It Works



Edge Server with GFS Crane Cloud local agent & database at Customer's Server Room:

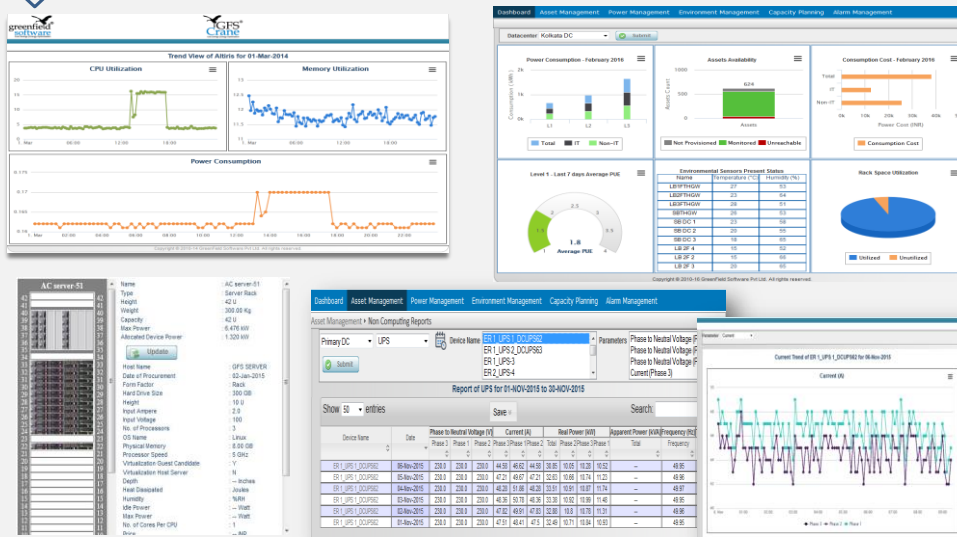
- automated local monitoring & alert delivery via text message & email
- periodic update of central database on Cloud Server over secure VPN service
- in event of WAN failure, no disruption of monitoring & alerts
- data store & forward when VPN service to Cloud is restored

Central Server with GFS Crane Cloud in Secure Cloud Infrastructure

- Generates device parameter reports & trend graphs from monitored data
- Provides insights to state & health of devices
- Helps maintain central database of server room assets:
 - aging analysis & preventive maintenance schedules

- Edge Server Preferred for Device Monitoring only. Not required for Asset Management
- Edge Server may be dispensed with for Monitoring also, if WAN is stable

Device Reports, Trend Graphs, Dashboard



Visualization: Rack view with device details and images.

Live power & temperature status and alerts