Under the patronage of **H.E. Dr. Abdullah Belhaif Al Nuaimi -** Minister of Infrastructure Development

CONFERENCE OMAINTEC 2019 EXHIBITION

17th Edition

International Operations & Maintenance Conference in the Arab Countries

19, 20, 21 NOV 2019
Le Meridien Dubai Hotel
& Conference Centre
United Arab Emirates

Under the Theme:
Enhancing Maintenance Through Big Data Management

Asset Management Digital Transformation

Asset Management Digital Transformation based on FM technologies and on the ISO55000 Asset Management standard

Andreas Hadjioannou - Virtual IT

AM from an FM Technology Perspective

- Asset management is the combination of processes and data required to manage, monitor and maintain an organization's Assets lifecycle from procurement to disposal, in the most cost-effective manner
- Digital transformation is about transforming your business processes to be aligned or take advantage of the digital technologies of today for providing a more effective and efficient management of Assets

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ISO 55001
Asset
Management
System
Strategy and Obectives
Planning
Capital Investment
Operations & Maintenance
Lifecycle Value Realization
Shudown & Outage
Creation & Acquisition
Systems Engineering
Configuaration Management
Mainteance Realability
Fault & Incidents Reports
Decomposition & Disposal
Asset Information
Data Management
Organization Structure
Risk Management
Performance Monitoring
Costing & Valuation
Procurement & SCM
Policy

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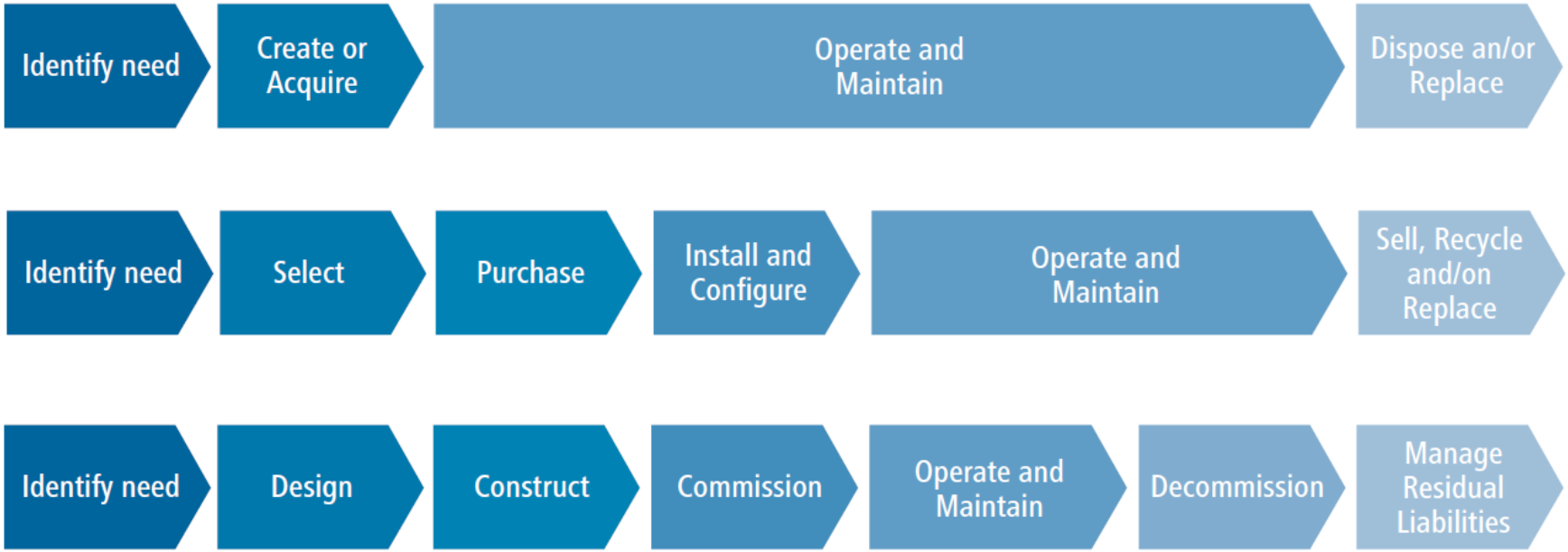
Mainteance Realability
Asset Management From an FM Perspective

Asset Life Cycle Stages



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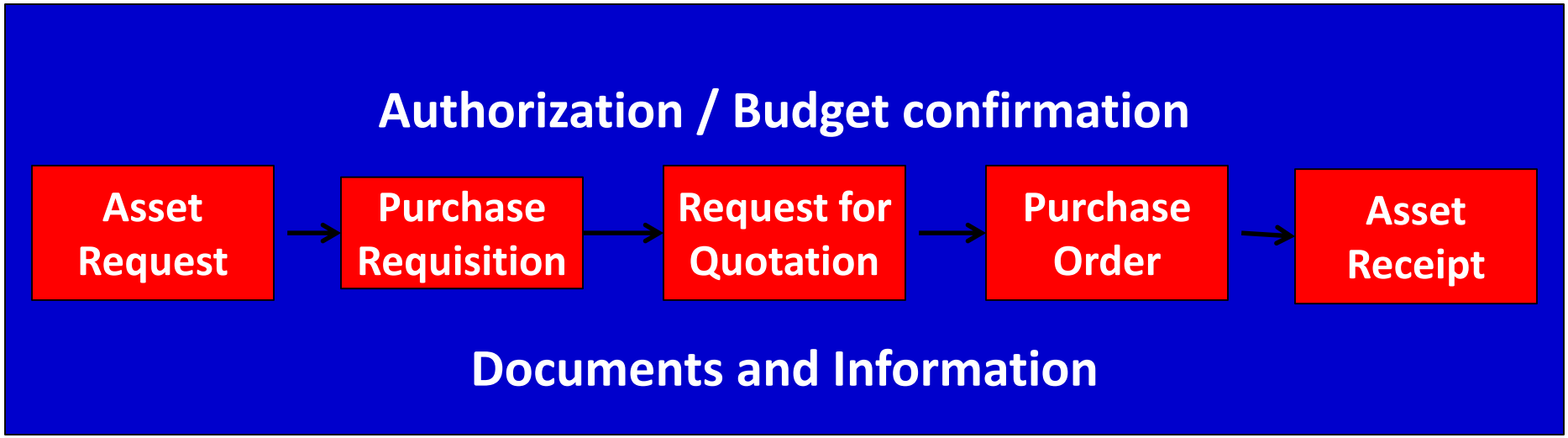
The Institute of Asset Management

Procurement & Supply Chain Management



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Asset Management Information – Data Perspective

- Coding / Bar-coding
- Detail Asset information
- Asset Type and Subtype
- System / Connectivity
- Total view / location
- Purchase and Disposal Cost
- Depreciation Calculation
- Leasing info
- Maintenance Costs
- Allocation Cost to Departments
- Ownership and Usage costs
- Evaluation of Asset performance according to specifications
- Maintenance Contract
- Input of Invoice with Work Orders
- Integration to Finance System
- Document Attachments
- Capital Planning
- Transfer History
- Down time cost analysis
- Procurement Management
  - Requisition
  - Quotation
  - Purchase Order
  - Receipt
- Budget

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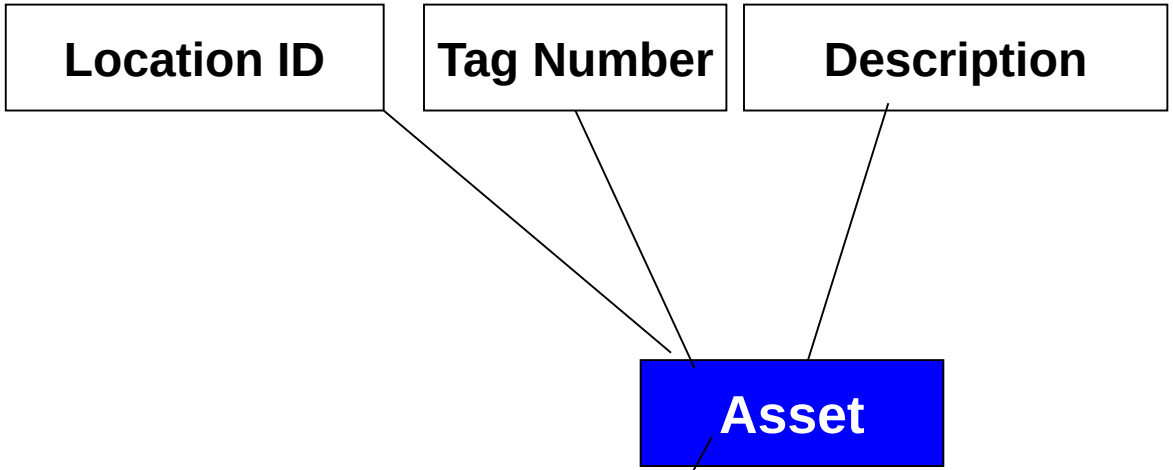
Asset Management Minimum information



Equipment Type

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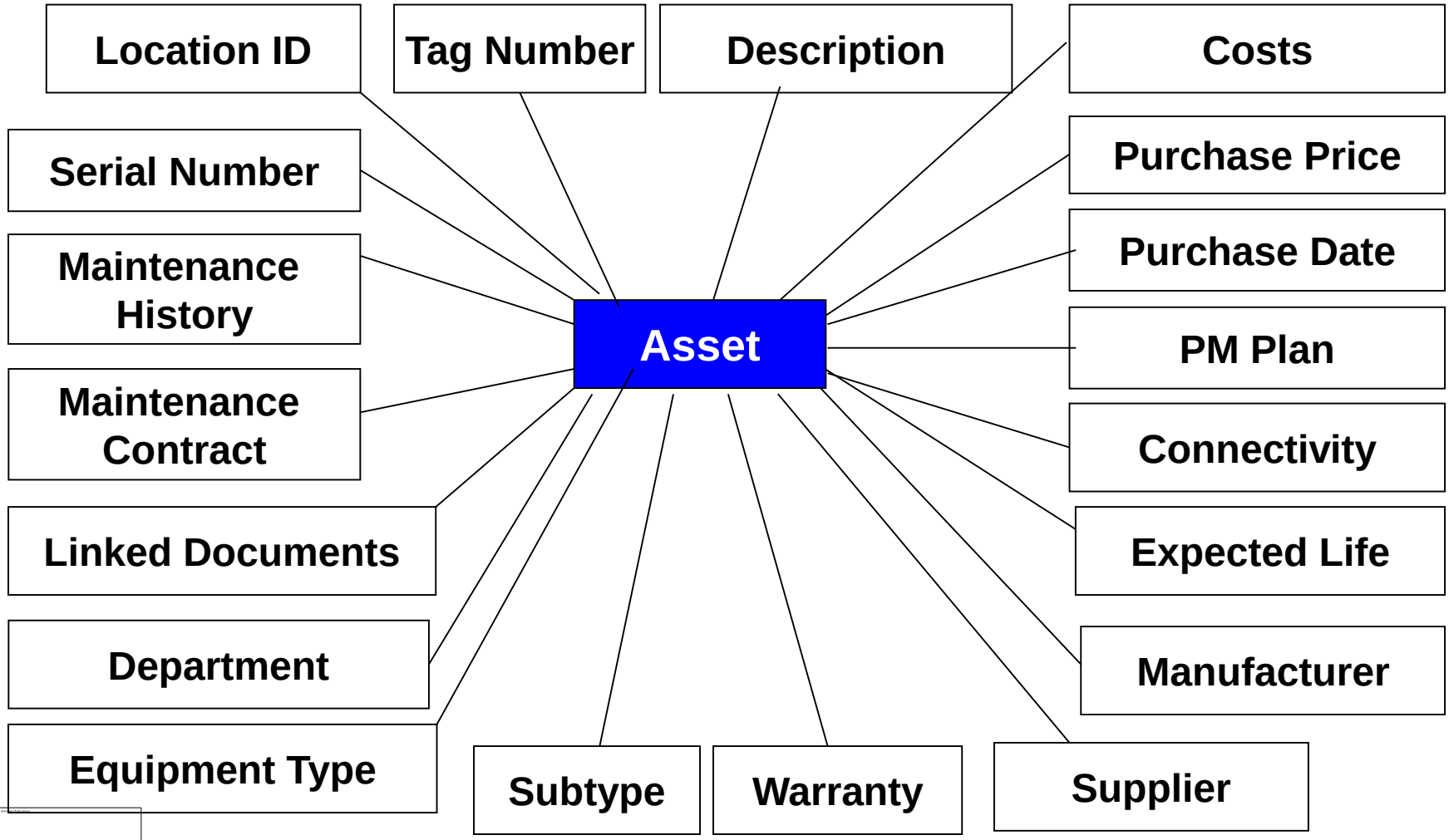
Asset Management Ideal information



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Asset Tagging

- Define the minimum information you can collect possible
- Setup Coding and coding masks
- Consolidate Current available equipment information
  - Hierarchy
  - Inspection Reports (Fire protection equipment, contractor maintenance reports)
  - Walk Through
  - Financial Systems
  - CAD drawings
- Asset validation and data collection
- Asset condition assessment
- Upload the information to a CAFM / Asset Management System
- Print and inspect to evaluate information uploaded
- Upload tasks, processes and PM schedules by equipment type
- Take Asset Register live
- Confirm information during Corrective and Preventive Work
- Put in place a process so that any new Equipment is registered before use

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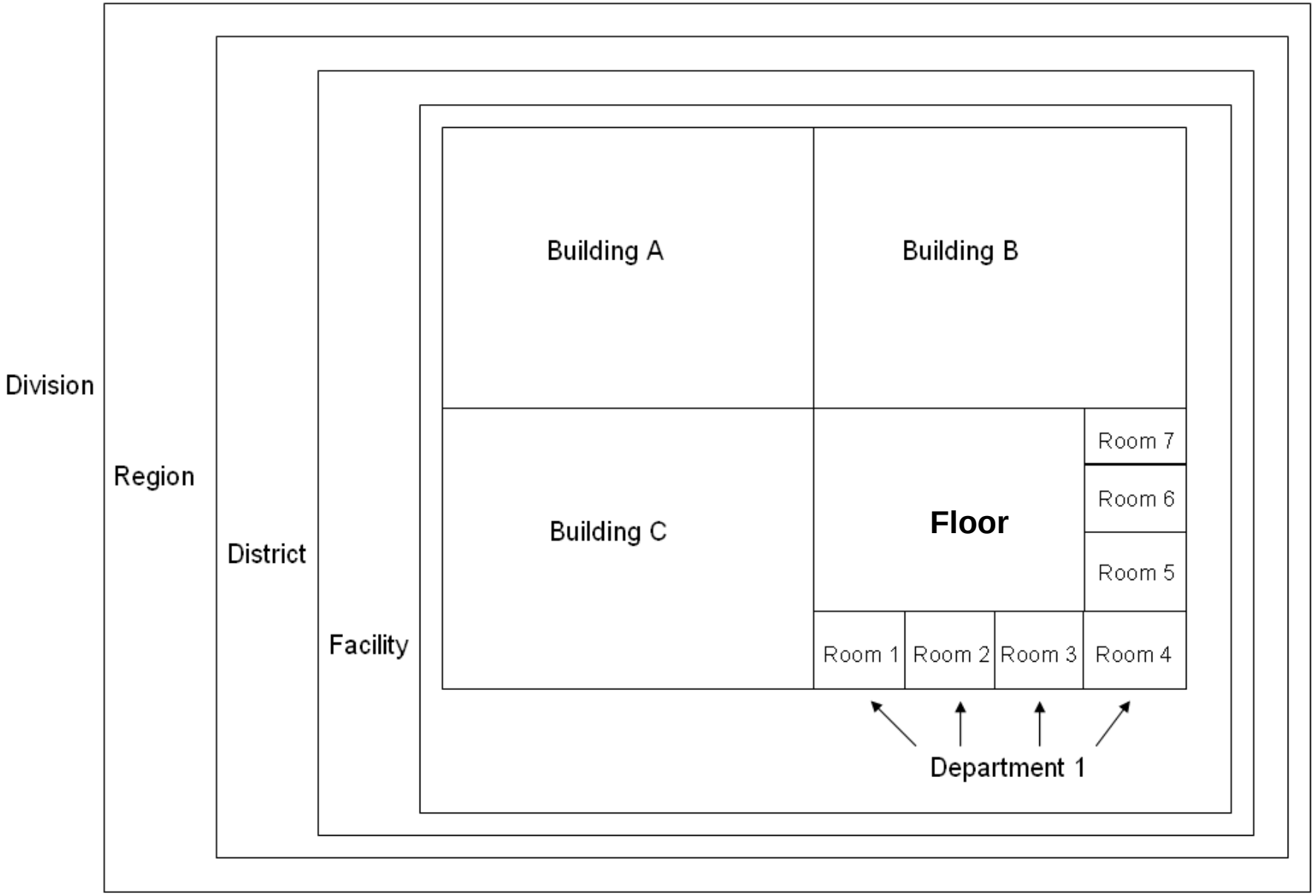
TAXONOMY / HIERARCHY



Computer Aided Facilities Management Systems

Home | Logout | Add | Edit | Copy | Delete | First | Prev | Next | Last | Search | Print | Help | Save

Currency Code AED

Action Menu

- *Linked Documents*
- Create WO
- Last Modified
- Post Down Time
- Transfer History
- Transfer Equipment
- Groups
- Keys
- Tracking
- View Events

Favorites

Transactions

Material

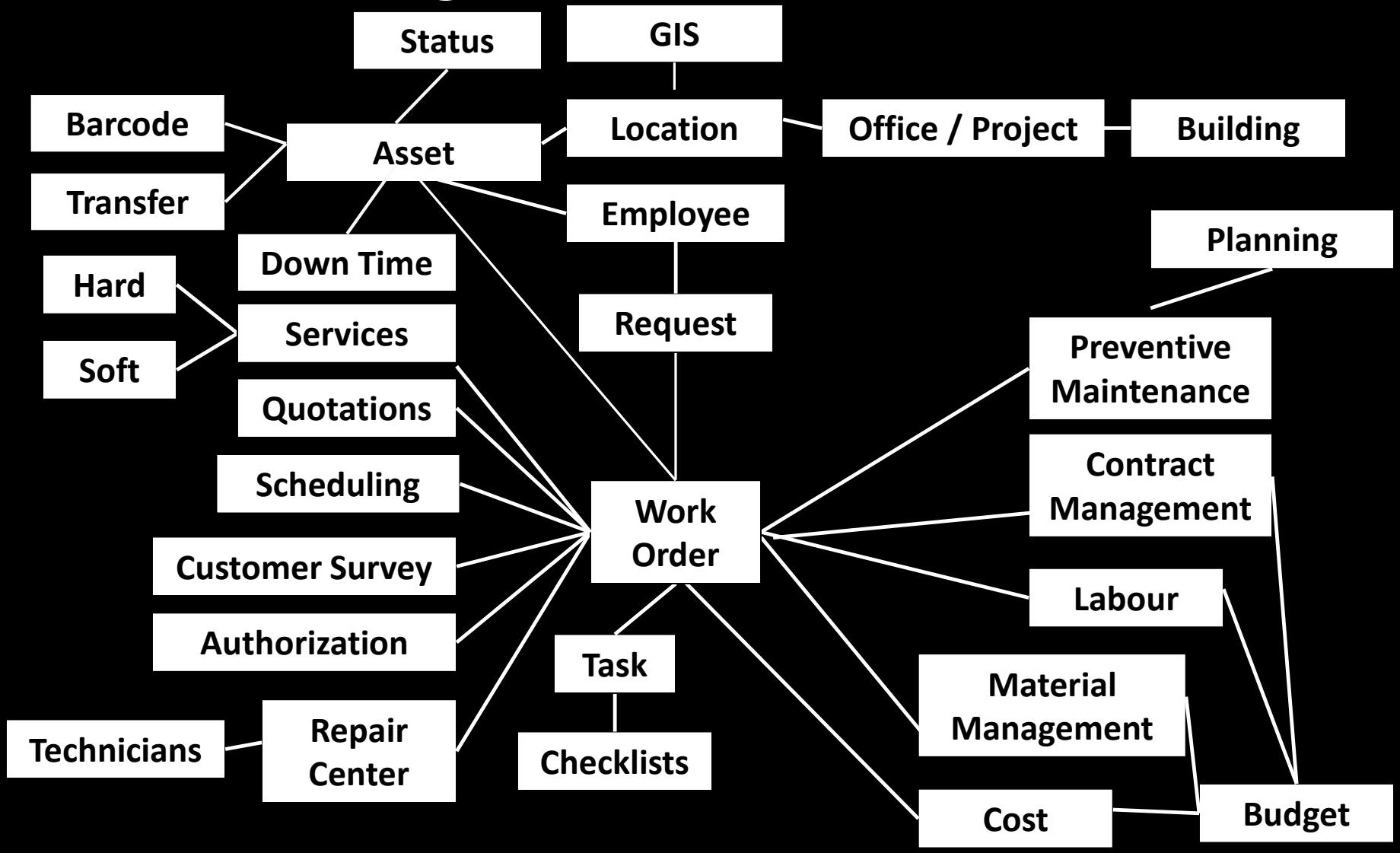
Identity | Motor | Connection | Sub Assemblies | Contractor | Repair Centers | Meter | PMs | Depreciation

Tag #:	DU-OFF-CHL-001	Building Asset	☑ Active ☑
Description:	Chiller Units	Leased	☐ Out of Service ☐
Make:	Daikin	Service Contract	☑ BMP ☐
Model #:	VRV-22936	Risk Level:	0
Serial #:	251729201	Type Desc:	Chillers
Location ID:		Subtype Desc:	
Facility Name:	Residential Sites	Vendor Name:	Hydrothermiki Ltd
Building Name:	Main Building Tower A	Manufacturer:	Hydrothermiki Ltd
Floor Code:	DZ-ROOF	Account #:	400700
Area #:		System:	CHILLER PLANT SYSTEM
Department:	Administration	Subsystem:	
Regulatory Category:	ISO 9001	SOP:	

Owner's Department:	Administration
Parent Tag #:	ABJAR-DC-420-PROJECT-03
Alternate Tag #:	2000
Device #:	2376152
Attached to Vehicle:	
Longitude:	
Prevent Archival	☐

Details | Dates | Energy | Popup Message

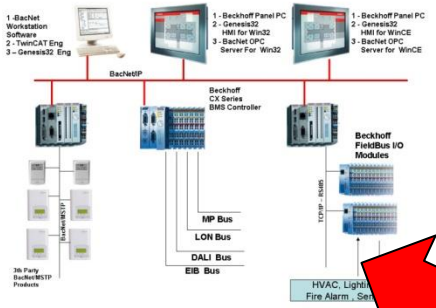
Asset Management - CAFM Related Functions



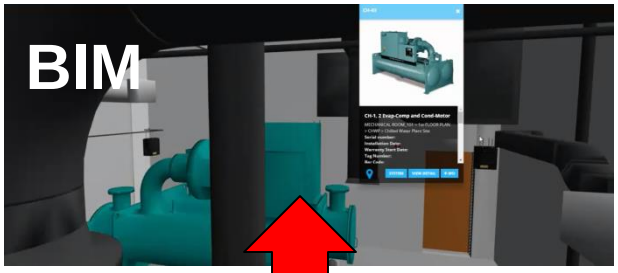
Facility Scheduler	Reporting	Doc Management
Alerts and Notifications	KPIs	Project Management

Asset Management - Data Integration

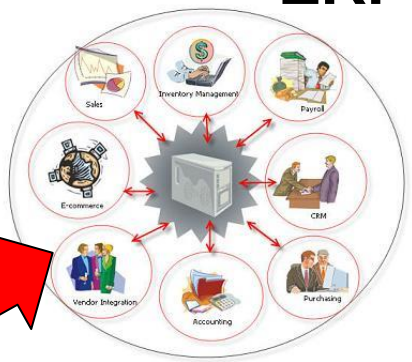
BMS



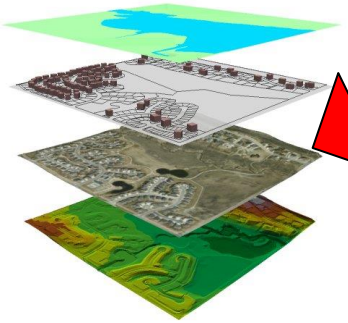
BIM

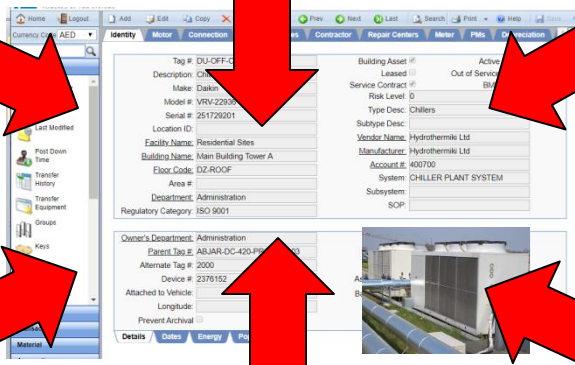


ERP

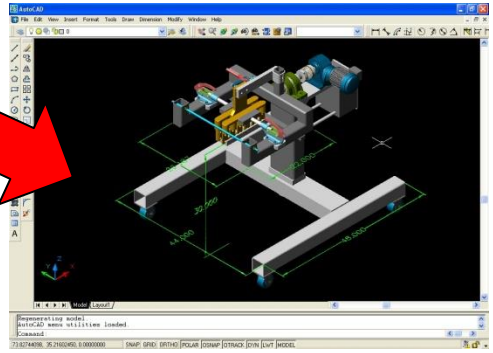


GIS





AutoCAD



Mobile / Pad

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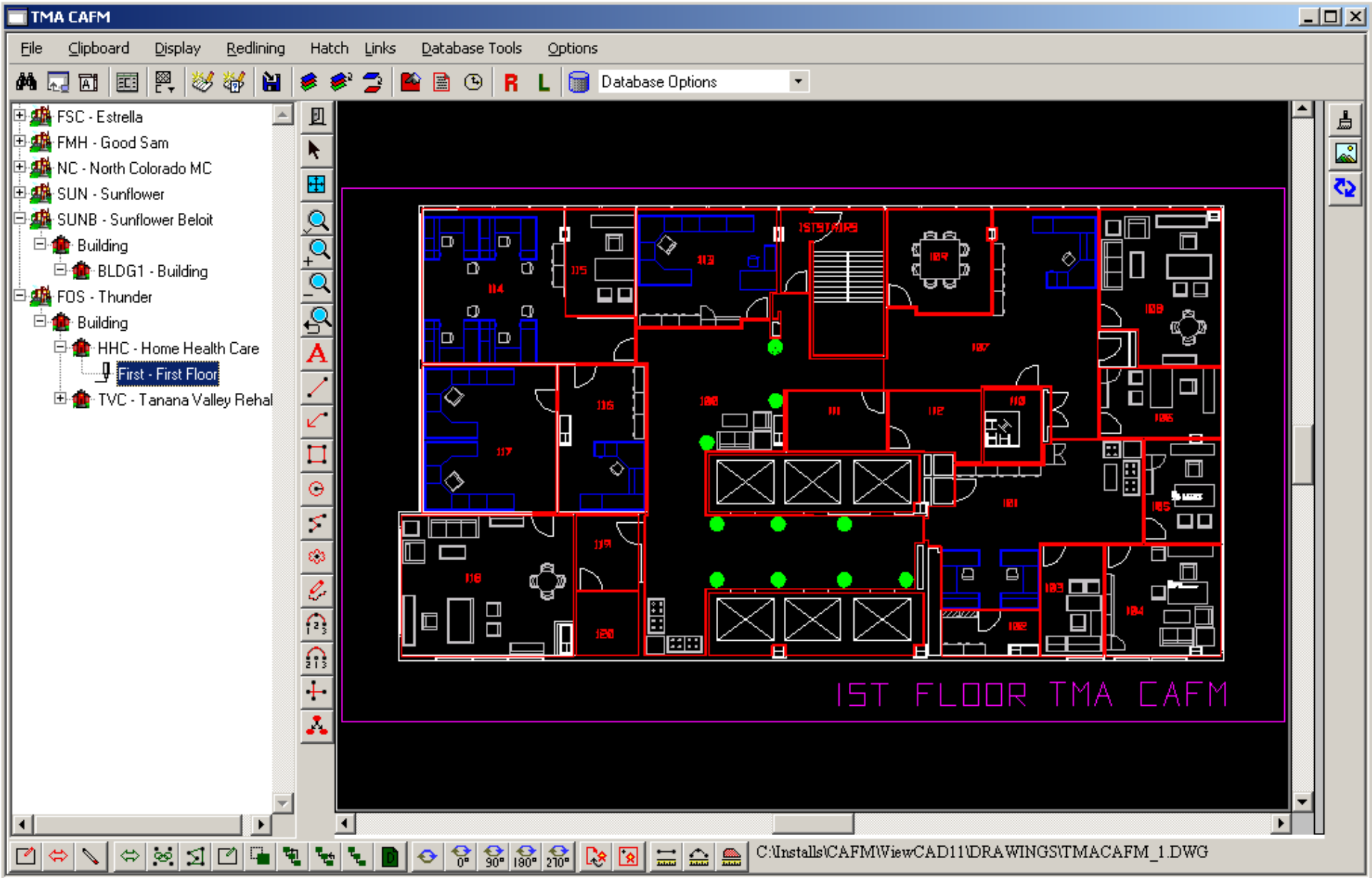
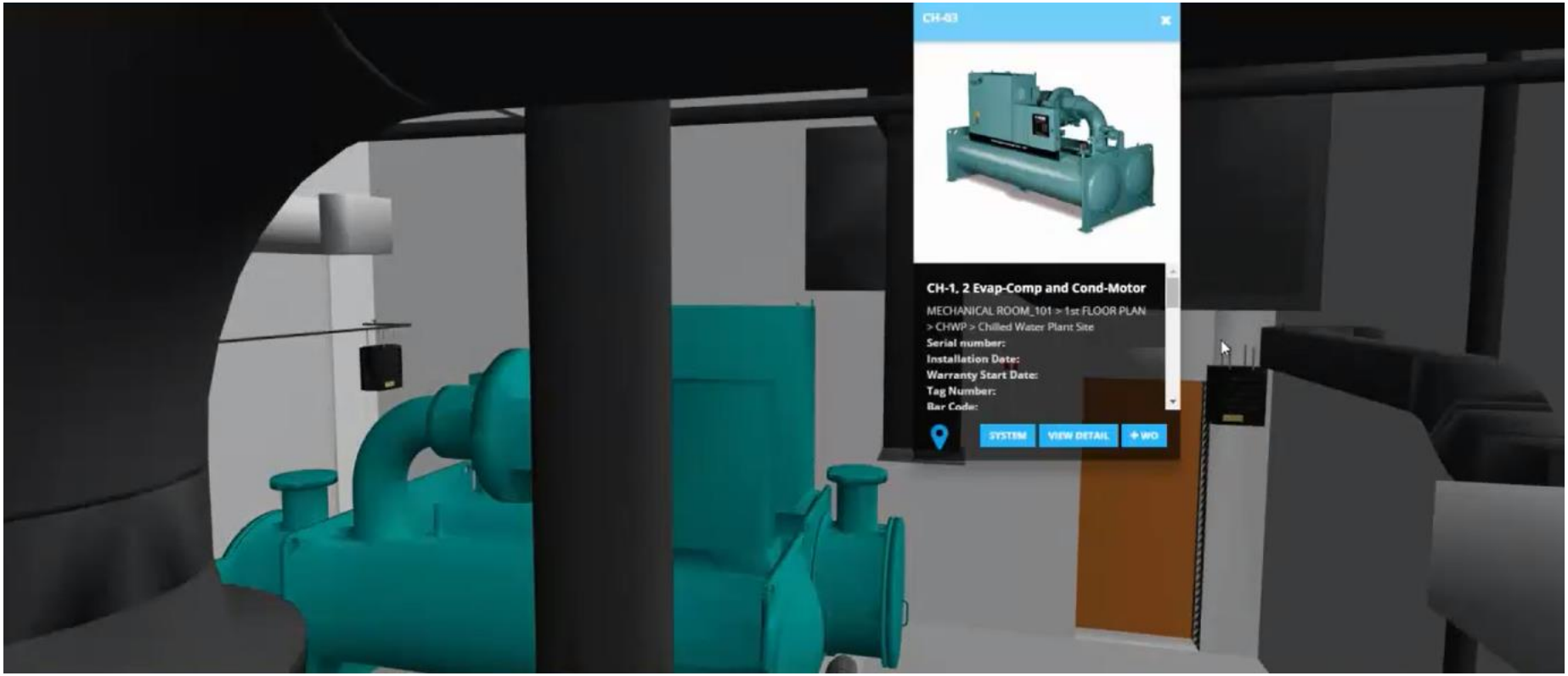
AutoCAD Integration



Building Information Modelling (BIM)



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Device Alerts

Identity

Start Date: 08.01.2010 Search

Number	Date	Priority	Headline
A14287	14.07.2010	High	Technidata—TD-Synergy Software: Non-Consolidated Microbiology Results May Be Overwritten by Blank Results
A14258	14.07.2010	High	Brainlab—Kolibri Navigation Station Mobile Camera Stands: Camera Unit May Loosen and Detach from Camera Interface
A14278	14.07.2010	High	Roma—Scooters and Power Chairs: Faulty Batteries or Battery Packs May Produce Hydrogen Gas, Potentially Leading to Ignition
A13881 02	14.07.2010	Normal	Welch Allyn—Model CP 200 Electrocardiograph Systems: Manufacturer Issues Clarification Regarding Patient Identification Information on Electrocardiograph Reports
A13881 01	14.07.2010	Normal	Welch Allyn—Model CP 200 Electrocardiograph Systems: Manufacturer Issues Clarification Regarding Patient Identification Information on Electrocardiograph Reports
A14279	14.07.2010	High	Philips—1.5T Edge Eclipse Systems: Slice Grids May Be Shown In Incorrect Position
A14214	14.07.2010	High	ArjoHuntleigh—Series 800 Contoura Beds: Manual Cardiopulmonary Resuscitation Mechanism May Fail
A14216	13.07.2010	High	Roche—AMPLILINK Software: Controls with "Failed" Result May Not Invalidate Patient Samples
A14211	13.07.2010	High	TomoTherapy—Hi·Art Treatment Systems: Plan Reports May Provide Incorrect Dose Statistics
A14265	13.07.2010	High	CMS—Focal 4D Radiation Treatment Planning Software: May Not Align Imported Image Sets

1 2 3 4 5 6 7 8 9 10 ... 460 items in 46 pages

New Active

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Key Performance Indicators (KPIs)

Classification	Indicator Groups		
	Economical	Technical	Organizational
Requests / Complaints			Total pending complaints within a period
Work Orders	Cost of total work order for specific service	Failure analysis	Total pending work orders within a period
Contract	Budgeted vs Actual cost of contract		SLAs
Equipment	Total value of equipment	Asset performance	Inactive equipment per location
Material	Total material spent for specific service	Material failure	Unavailability of materials

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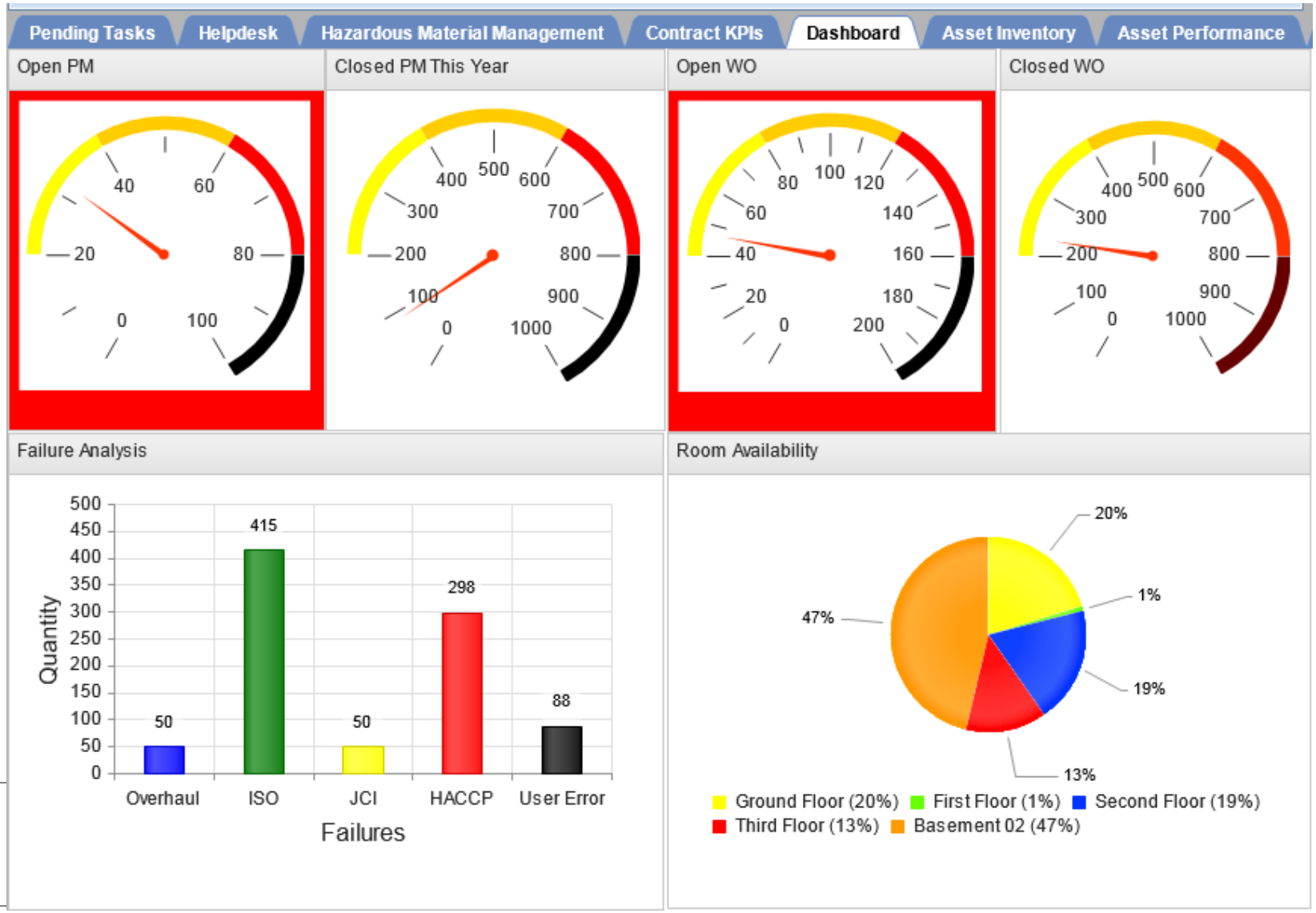
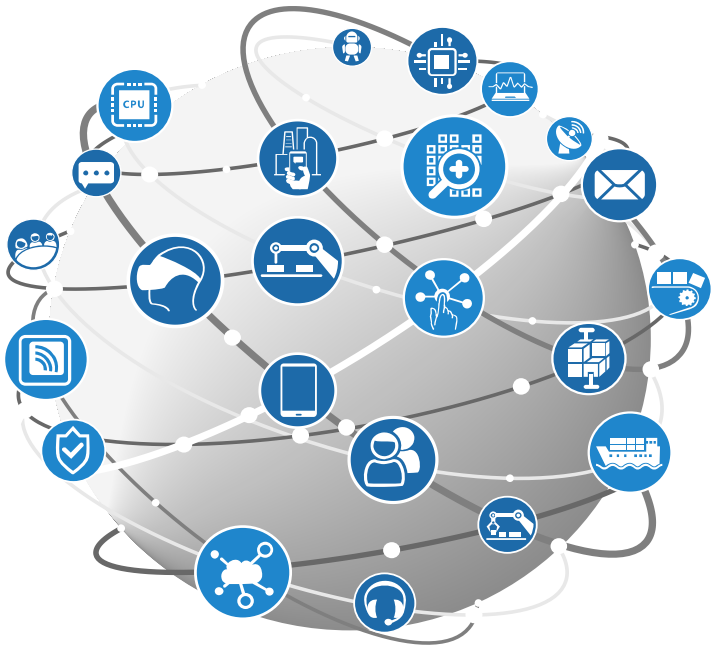
Performance Benchmarking



INTERNET OF THINGS (IoT) CONNECTED DEVICES



What is IoT

Is a system of interrelated computing devices, mechanical and digital machines that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

Example of IoT

- Temperature
- Energy
- Motion Detection
- Water Detect
- Light Meter and Detection
- HVAC Monitoring

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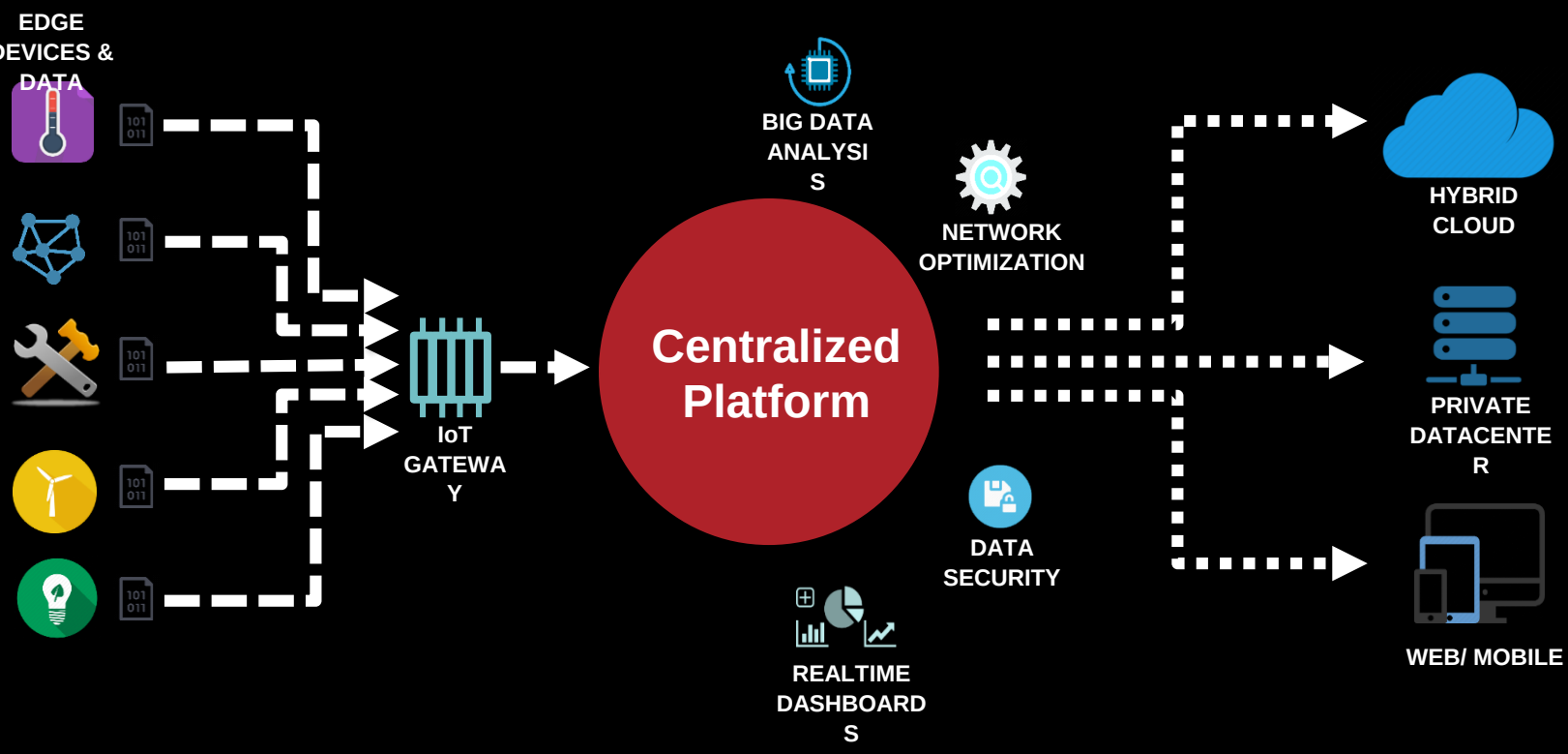
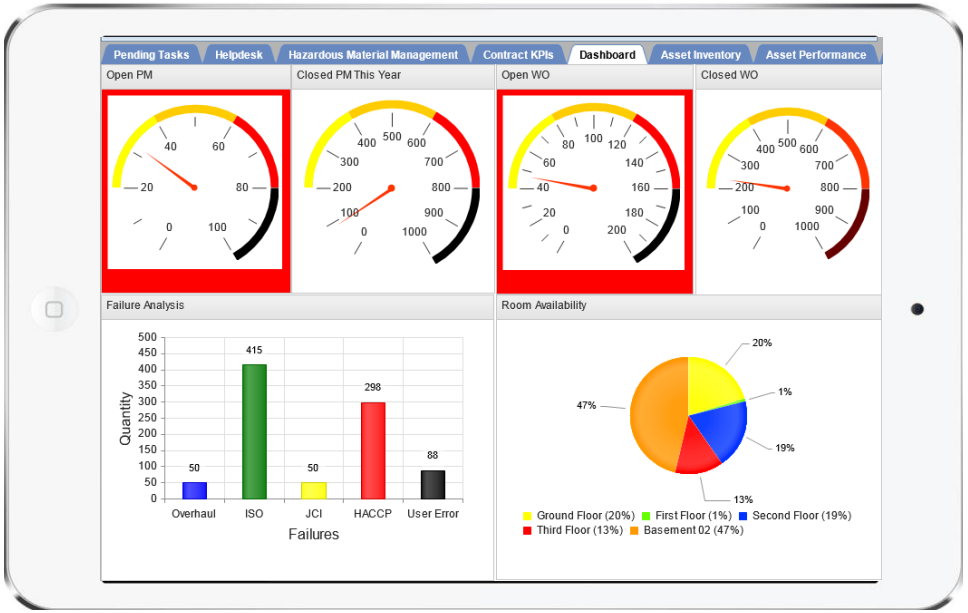
IoT and Predictive Analysis



Current Tariff
0.20 AED
Current Cost
600 AED
610
Kwh
Real time energy Consumption
40
KG
Real time Estimated Emission
LOCATION WISE DATA


Pending Tasks
Helpdesk
Hazardous Material Management
Contract KPIs
Dashboard
Asset Inventory
Asset Performance
Open PM
Closed PM This Year
Open WO
Closed WO
Failure Analysis
Quantity
Overhaul
ISO
JCI
HACCP
User Error
Failures
Room Availability
20%
1%
47%
19%
13%
Ground Floor (20%)
First Floor (1%)
Second Floor (19%)
Third Floor (13%)
Basement 02 (47%)

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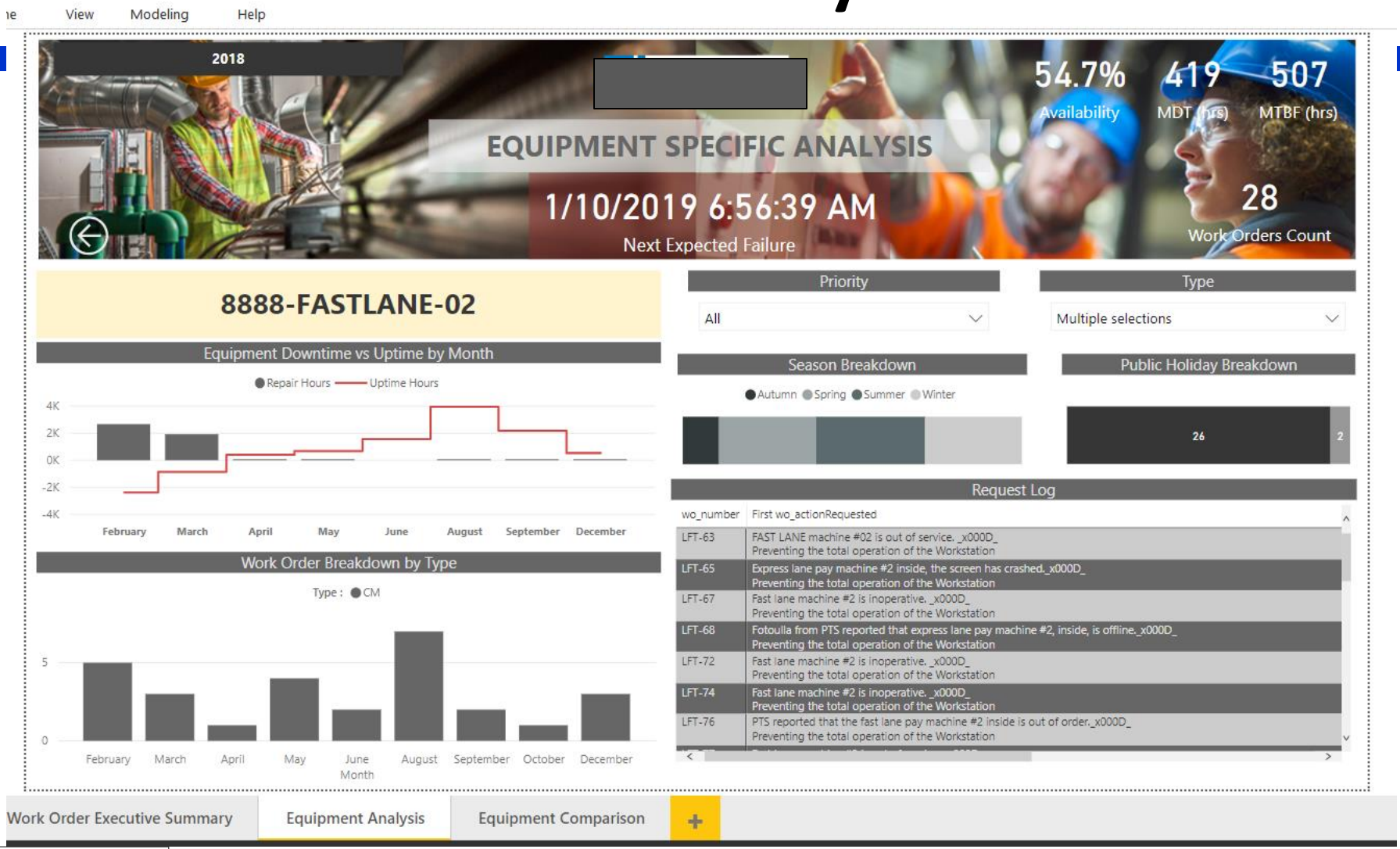
Predictive Analysis



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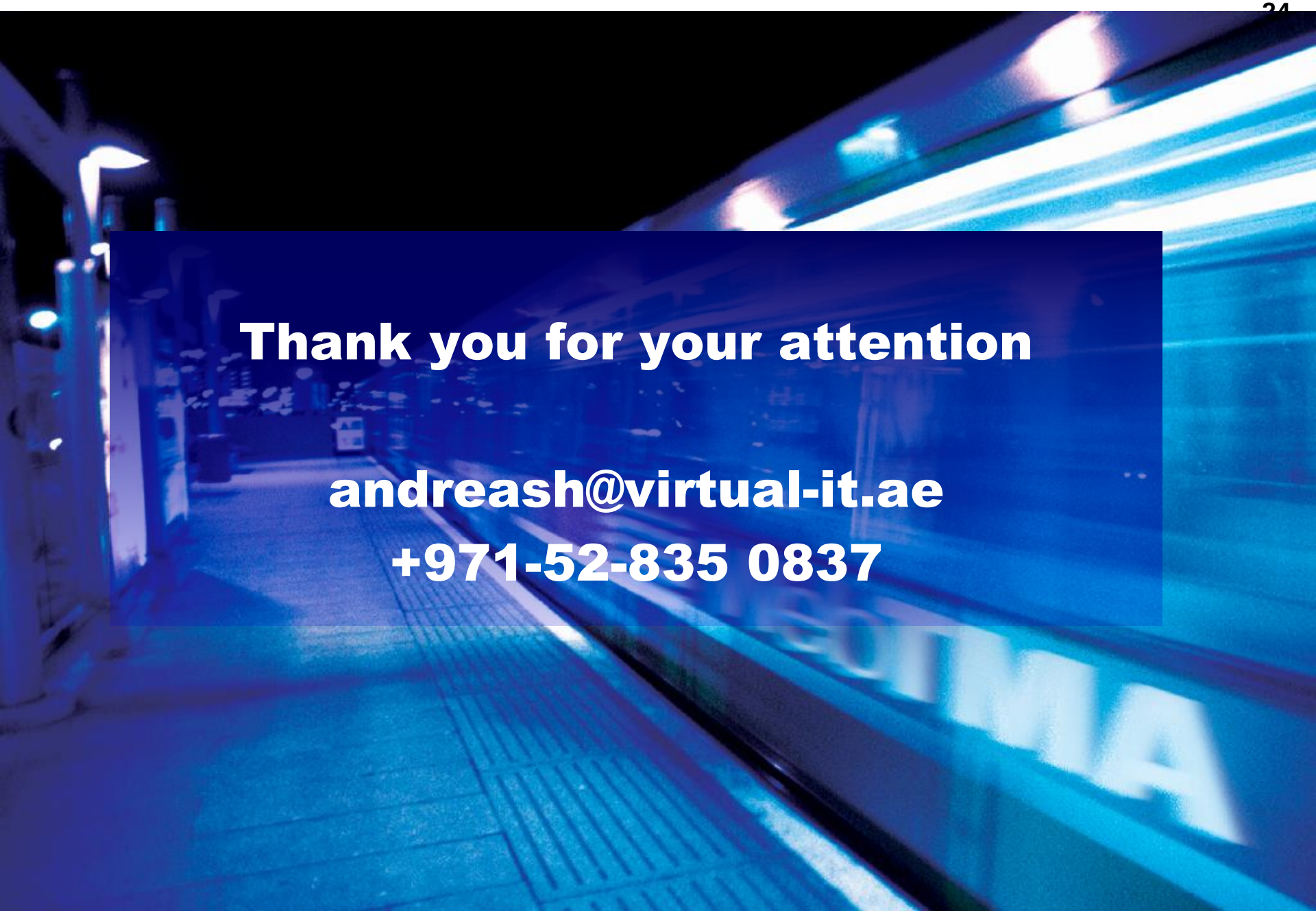

Thank you for your attention

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