



ENGIE

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# How containerized data centers play a role in the data center eco-system

SiB conference Kiev, March 2019

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# Legrand Data Center Solutions

## Four main promises :

- Optimize energy efficiency
- Scalability
- Continuity of service
- Safety & security of equipment & data

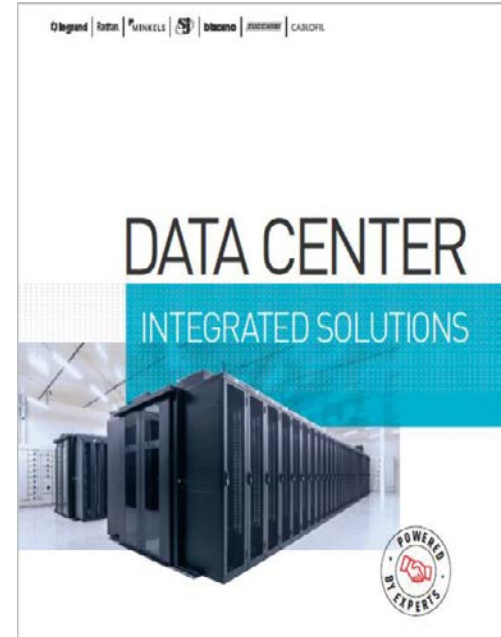


**DATA CENTER  
SOLUTIONS**

**legrand**

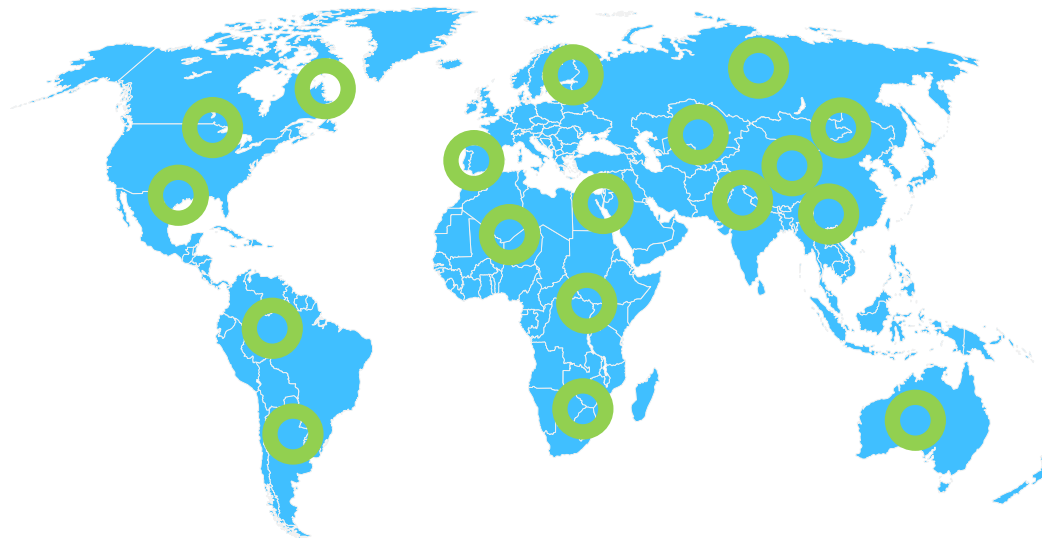
**MINKELS**

**Raritan**



# ENGIE worldwide - Activities and key figures

Powered by  
**legrand**



**153,090**  
employees worldwide



**€66.6 billion**  
revenues



Operations in more  
than **70** countries



**€16 billion**  
growth investments over 2016-2018  
**€1 billion**  
in innovation and digital

# ENGIE worldwide - Activities and key figures

Powered by  
**legrand**



**1<sup>st</sup>**

World's leading independent producer

**117.1 GW**

power production capacity installed

**1<sup>st</sup>**

World's leading provider of energy-efficiency services

**228**

urban heating and cooling networks operated in 13 countries

**ENGIE**



# ENGIE worldwide - Activities and key figures

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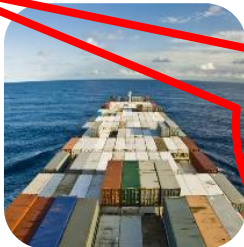
ENGIE makes technology work for its customers,  
with innovative concepts and integrated and sustainable solutions  
for services, industry and infrastructure.

Data Centers, one of the strategic segments of the group!



Energy

Water



Data Centers



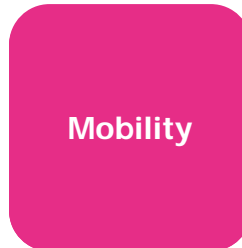
Safety &  
Security



Agro & Food



Mobility

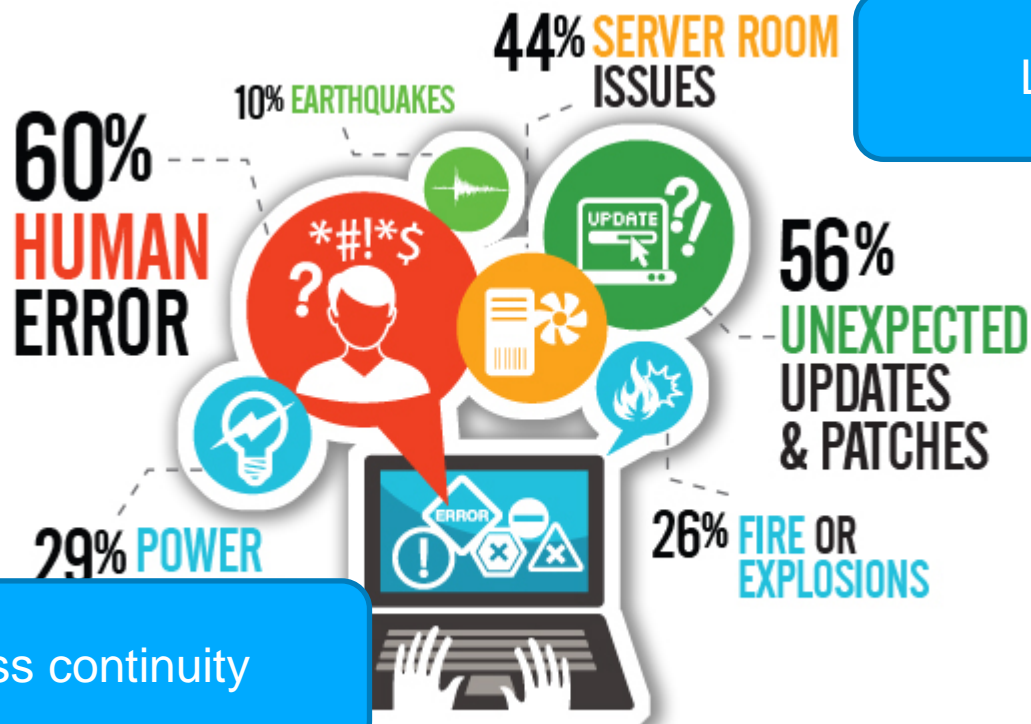


Healthcare



ENGIE

## Drivers within the data center eco system



Loss of service

Business continuity

# Drivers within the data center eco system

IDC predicts that the  
Global Datasphere will  
grow from  
**33 Zettabytes**  
in 2018 to  
**175 Zettabytes**  
by 2025

Annual Size of the Global Datasphere



Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, Nov 2018

**Factor 5!!**

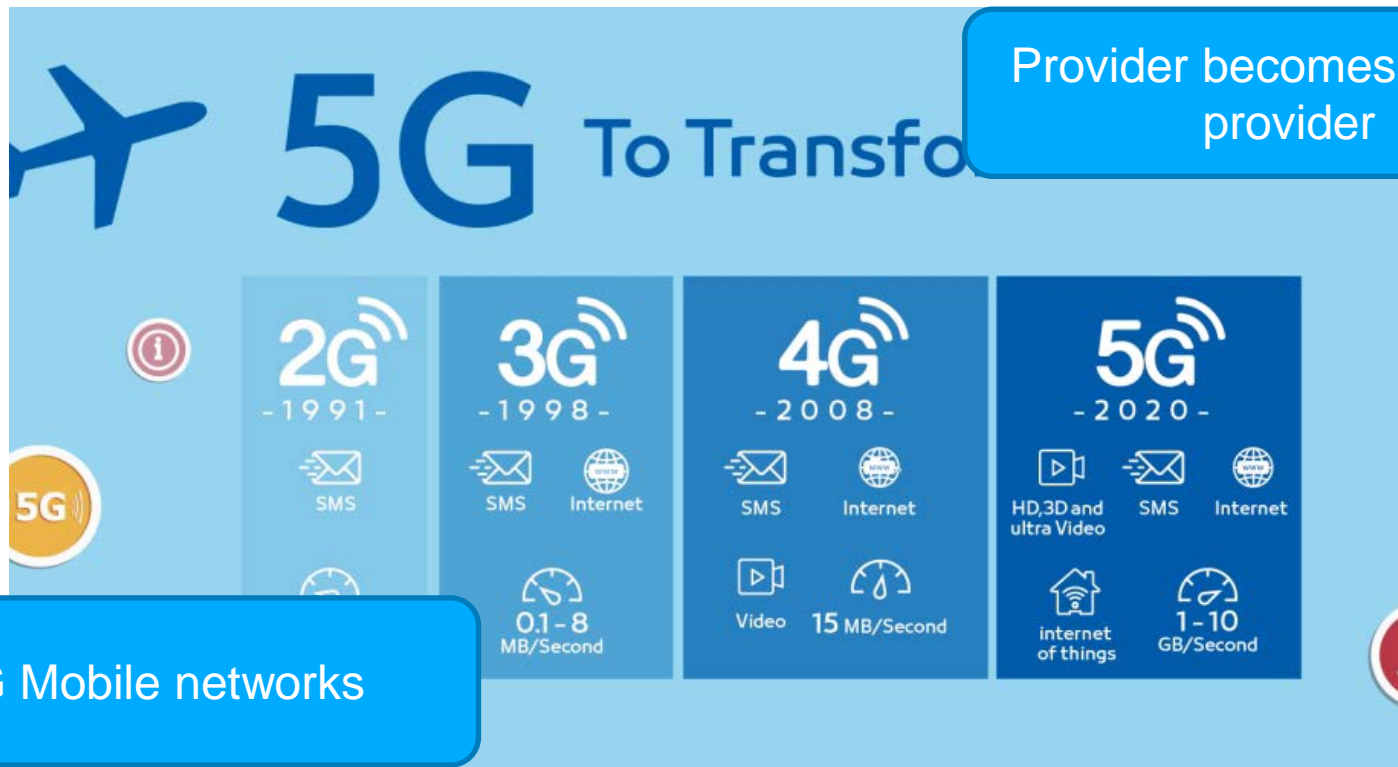
## Drivers within the data center eco system



Internet of Things (IoT)



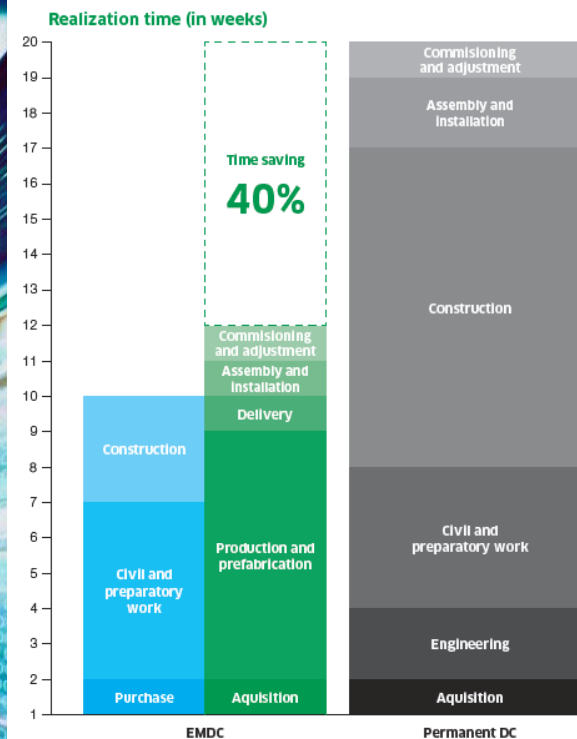
## Drivers within the data center eco system



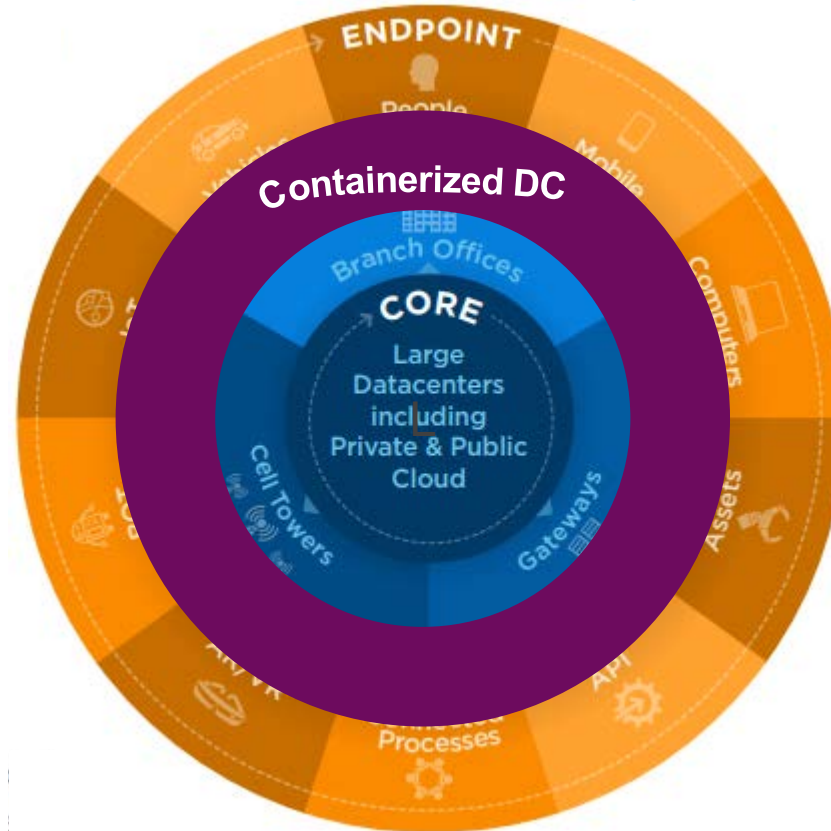
# Drivers within the data center eco system



Deployment 40% faster

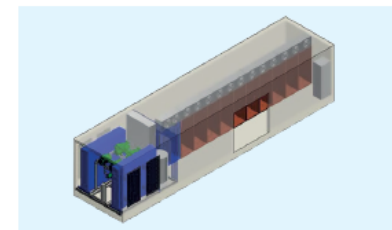
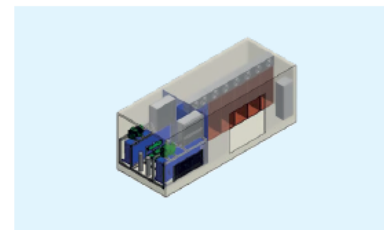


# Current situation of the data center eco system



# The solution of Legrand and ENGIE

- Suitable for low, medium and high density solutions, modular from **12 kVA / kW** to **110 kVA / kW**
- Plug- and-Play prefabricated solution, fully integrated, factory commissioned
- All technical documentation included and up to 5 year extended warranty
- Based on European standard EN-50600

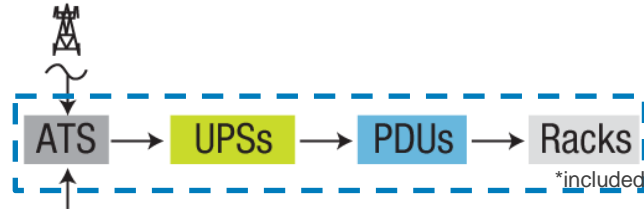


EMDC dimensions	8 x 3 Mtr			13 Mtr							
Rack consumption	4kVA/rack	8kVA/rack	11kVA/rack	4kVA/rack	8kVA/rack	11kVA/rack					
	3	4	5	3	4	5	6	7	8	9	10
Redundancy	Yes		No		Yes		No				

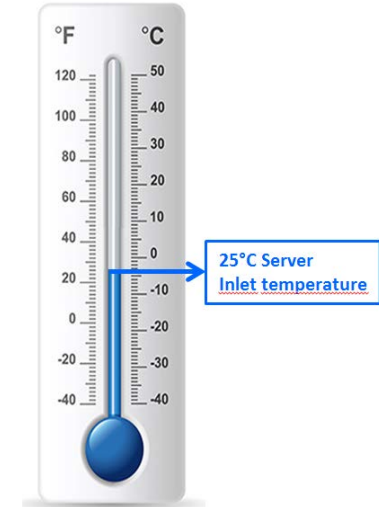
# The solution of Legrand and ENGIE

- Integrated ENGIE industrial, PLC controlled, cooling solution with optional indirect free cooling
- Fancoil mounted on top of the server racks
- End-to-end Legrand electrical solution, up to 10 cabinets and A+B Raritan PDU
- Legrand Archimod three-phase modular UPS systems (19" rack cabinets)

Electricity grid



Backup power generator



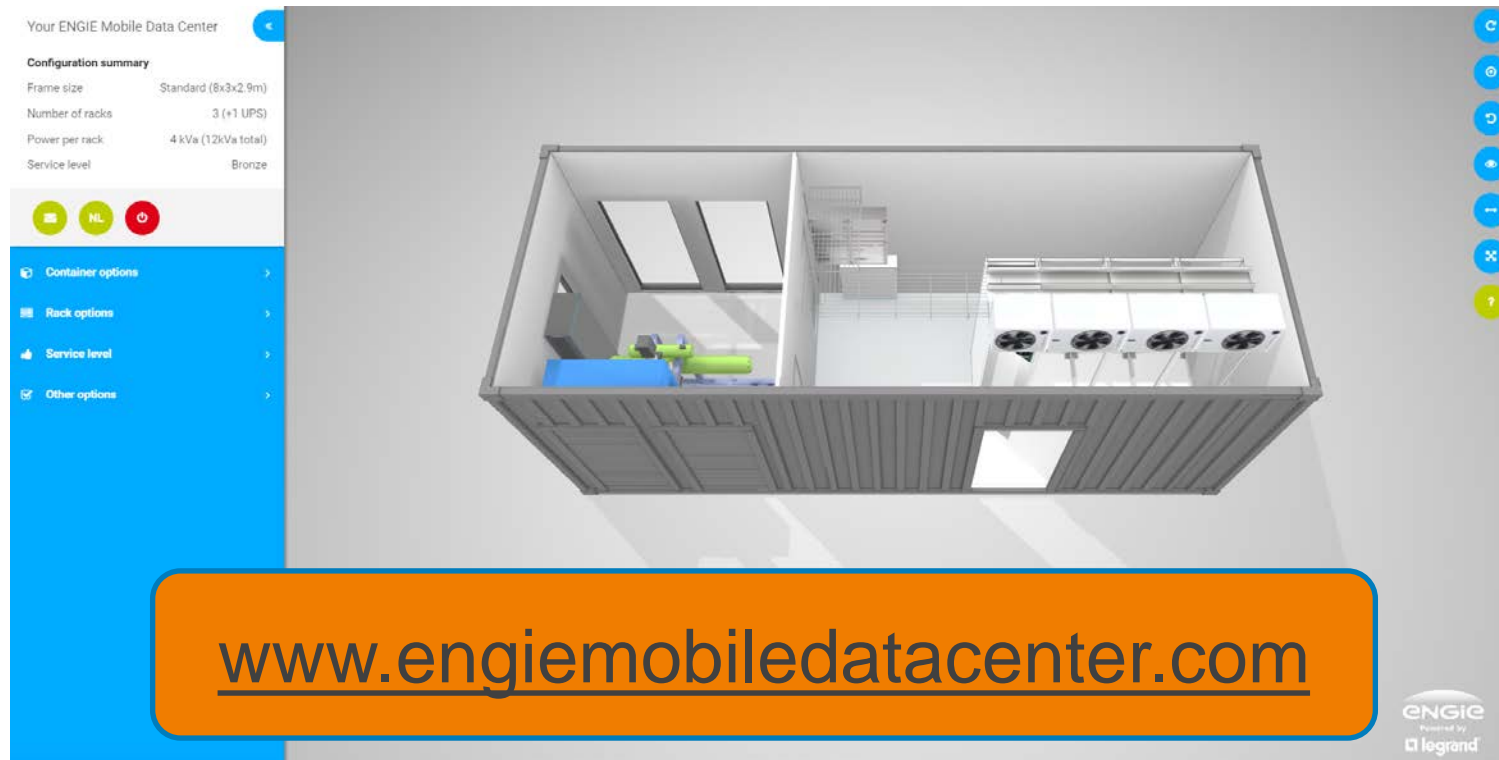


## The solution of Legrand and ENGIE



More than 275 days of free-air-cooling in Kiev!

# The solution of Legrand and ENGIE



# Possible use case of the Legrand and ENGIE solution

## High density & Private cloud

- On-premise solution
- Healthcare / Education

## Edge / Fog data center

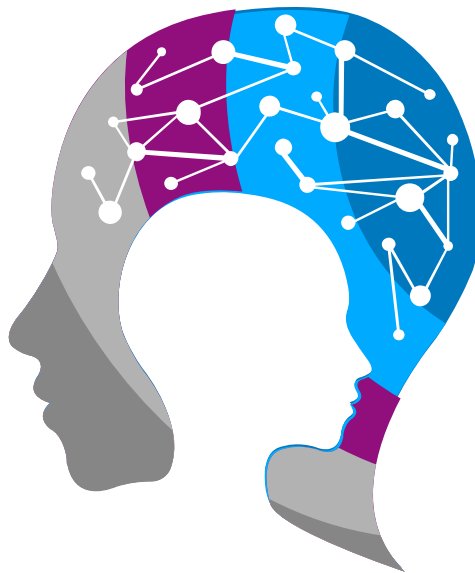
- IoT hub
- (5G) Content delivery
- Smart-X (cities/factories)

## Consolidation

- Redundancy
- Leased office space
- Retrofit

## Remote and/or Harsh locations

- Mining
- Oil&Gas



# Summary of the solution of Legrand and ENGIE

- Fit for your purpose, due to modular design and online configurator
- Real plug & play! Only power and data connectivity required, operational within 3 months
- Extra width unit 3 meters, with cold/hot aisle, easy to manoeuvre inside the data center
- True mobile, from shut down to operational within two hours
- Cooling and electrical redundancy
- Free-air-cooling results in a very low PuE
- Realtime insights in the performance of your EMDC



# The key message

## Our world is changing rapidly!

- Time is ticking – all needs to be quicker and more efficient
- Moving from centralized to decentralized eco-system
- Containerized data centers are the solution
- **With the ENGIE and Legrand EMDC your ready for the next data center step**





## Contact information



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