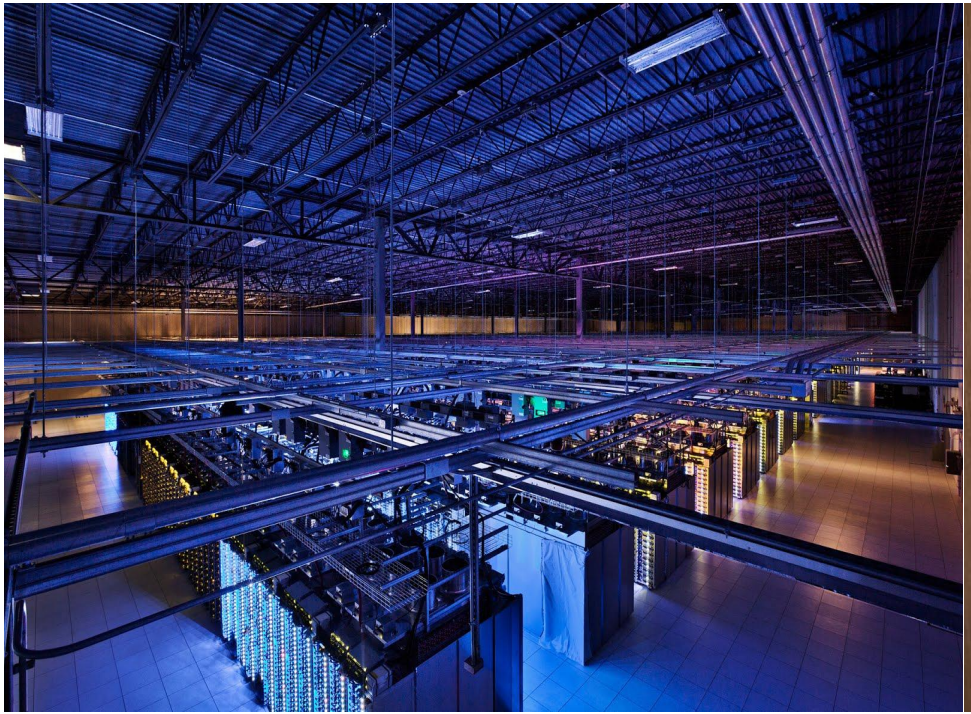
NODEWEAVER Cloud Fabric

Cloud computing is a beautiful thing.



Dream

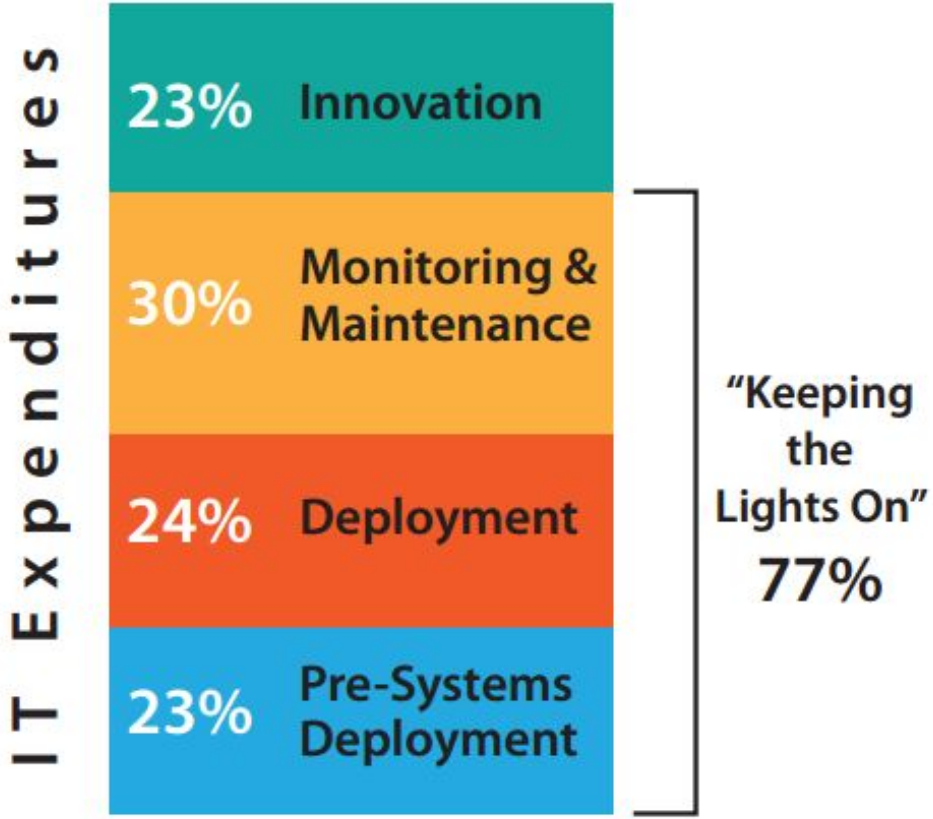
Reality

The problem

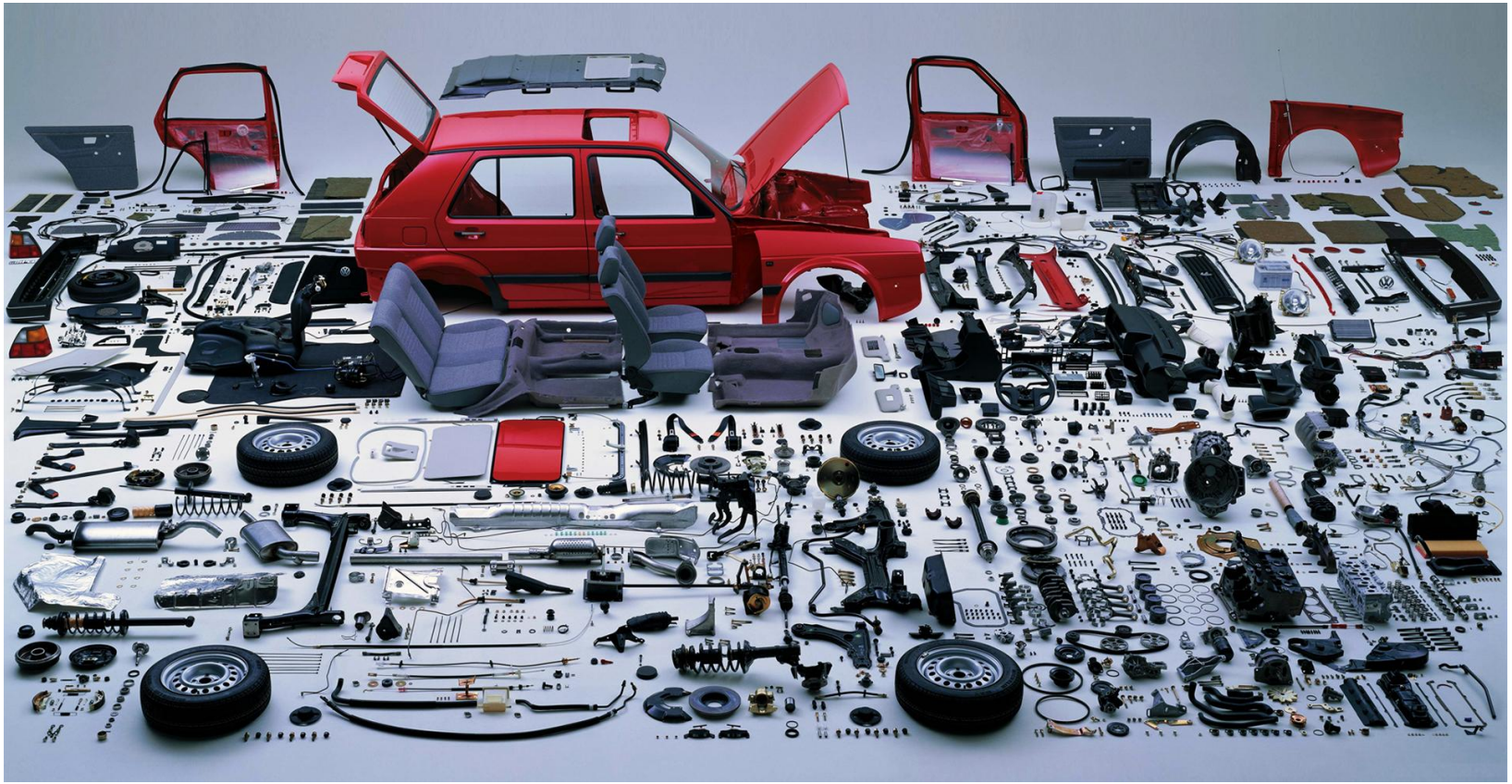
- Compute resources could be in separate islands where they cannot communicate to coordinate computation
- Locations of compute resources may be difficult or costly to access
- Compute in ruggedized enclosures might not be expandable
- Technicians to perform the work may not be easily available
- At the edge, there are no expectations on homogeneity regarding devices, or the hardware and software platforms

Source: “Introduction to Edge Computing in IIoT”, Industrial Internet Consortium, 2018

The problem


IT Expenditures
23%
Innovation
30%
Monitoring & Maintenance
24%
Deployment
23%
Pre-Systems Deployment
"Keeping the Lights On"
77%

The problem



The problem

Chris C. Kemp
@Kemp
Segui
@Vish talks about tweaks you can make to the over 600 parameters you can set in #OpenStack Nova at #OSATX
Traduci il Tweet
Sponsored By
TriNet

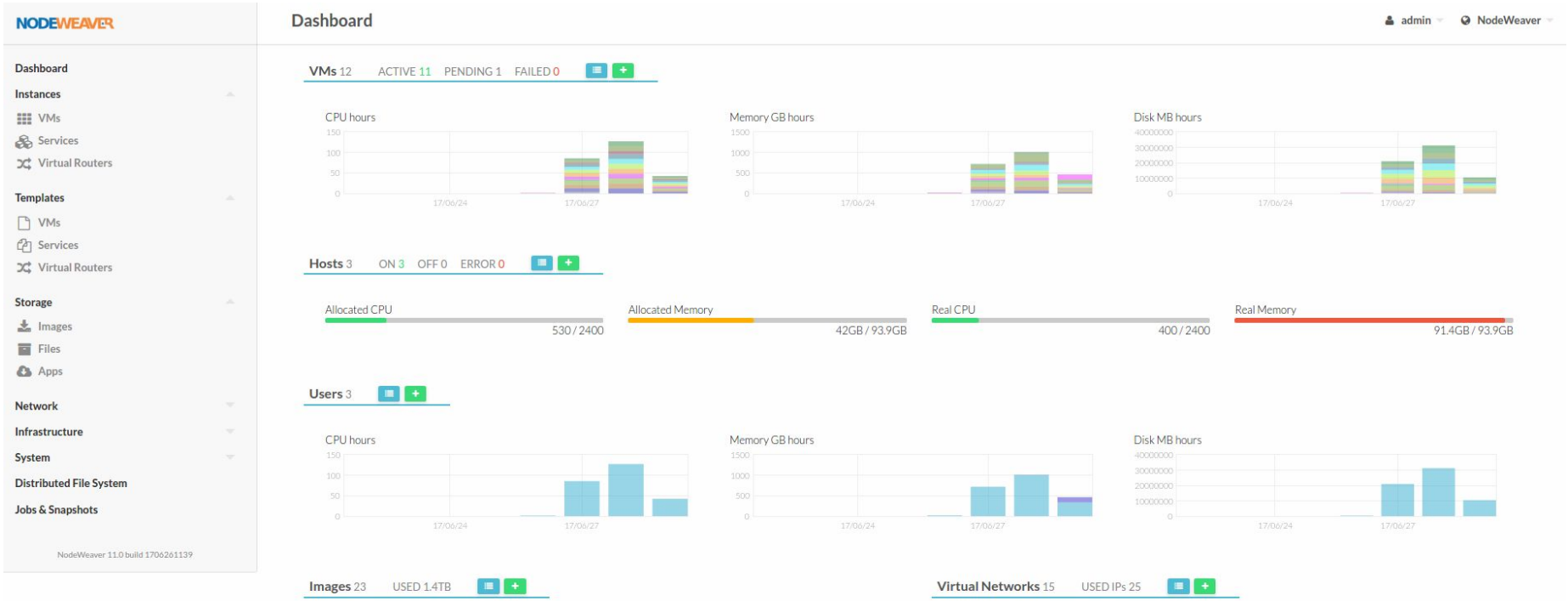
The problem

Manufacturing	Oil & Gas	Energy & Utilities	Transportation & Automotive	Defense & Law enforcement	Telcos, Media & Comms	Campus, Branch & Retail

Operational Tech Edge — **IoT Edge** — **Enterprise IT Edge**

NodeWeaver is a software-only Edge cloud fabric
That runs **any** application - VM, containers -
that **manages itself**
running on **any** hardware, of any size
Pay-as-you-go like public clouds

Control from anywhere



Designed to handle any disaster autonomously

What makes us different?

- Autonomous management, optimization, remediation
- Pay-as-you-go
- Declarative - ask, the system will find a way
- Automatically compose the optimal software platform: from the ultra-small (SoC) to Core cloud

Edge

ROBO

Core

What makes us different? (2)

- Soft-realtime capability (for industrial control apps)
- Integrated Disaster Recovery
- Transparent network across different cloud islands
- Digital timestamp of system logs in the Blockchain
- Integrated security, full user auditing
- Transparently encrypted storage for sensitive data (eg. medical IoT, video surveillance)

- We use many open source components, but all the differentiating parts are proprietary
- Most software/knowledge coming from our EU research:

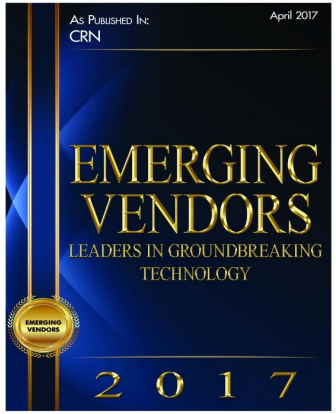
- And from additional FP7 and H2020 ones:

The Edge Cloud Market

Transparency Market Research: **$13.3B by 2022** ($8B in 2017), CAGR **10.9%**

Market Research Future: **$19.4B by 2023**, CAGR of **17.9%**

Some of our recognitions



"A focused approach on small clouds in vertical sectors gives NodeWeaver something of a blue ocean strategy: an area of the market not well served that we know of. The dirt-cheap pricing NodeWeaver is willing to be up with should be a strong attractor"
(451 Group)

Traction

- 220+ installations (paying customers)
- 10% growth month/month
- Partners:
  - Australia
  - Canada
  - Estonia
  - Germany
  - Italy
  - Peru
  - Poland
  - Russia/CIS
  - Spain
  - Switzerland
  - UK
  - USA

Team

Carlo Daffara (CEO): 2 companies, 20+ years of IT experience, principal investigator in 10 EU research projects, cloud & IT economics expert for EU public entities, JISC, EC

Lorenzo Faleschini (CTO): 15+ years of IT experience, extensive IT design and system architecture experience in SMEs

Stefano Massarotti (COO): 25+ years of IT consulting experience, founded 2 companies

US office:

Tom Mays: 25+ years of experience, ex SVP of Data Solutions at Verizon-Terremark

Mike Grosswald: 35+ years in enterprise sales; from start-ups to technology manufacturers

Mitch Kitay: 15+ years of experience, past Director of Product Management at Virtustream, VP Verizon-Terremark

Partnerships

Addressing utilization through pricing models

Proliferation of pay-as-you-go private clouds tackling utilization:

- Microsoft AzureStack
- HPE Greenlake
  - Rackspace Partnership
- Oracle Cloud@Customer
- Dell EMC CloudFlex
- Nutanix
- NodeWeaver
- Hypergrid

Source: 451 Research, Cloud Price Index, Having your cake and eating it too: the trend for pay-as-you-go private clouds, 2017

We hope to have told you an interesting story.
We have much more to show...

https://www.nodeweaver.eu