



# **Total Network Visibility in Modern Data Centers**

## **Layer One 2019**

Connectivity drives  
digitalization.

How do you drive your  
connectivity?



The fine art of  
connecting  
y.



A man in a red jacket and blue jeans stands next to a large, conical pile of straw in a room with white walls and a grey floor. He is looking down at a small amount of straw he is holding in his hands. The straw pile is the central focus of the image. A white rectangular box with black text is overlaid on the lower part of the straw pile.

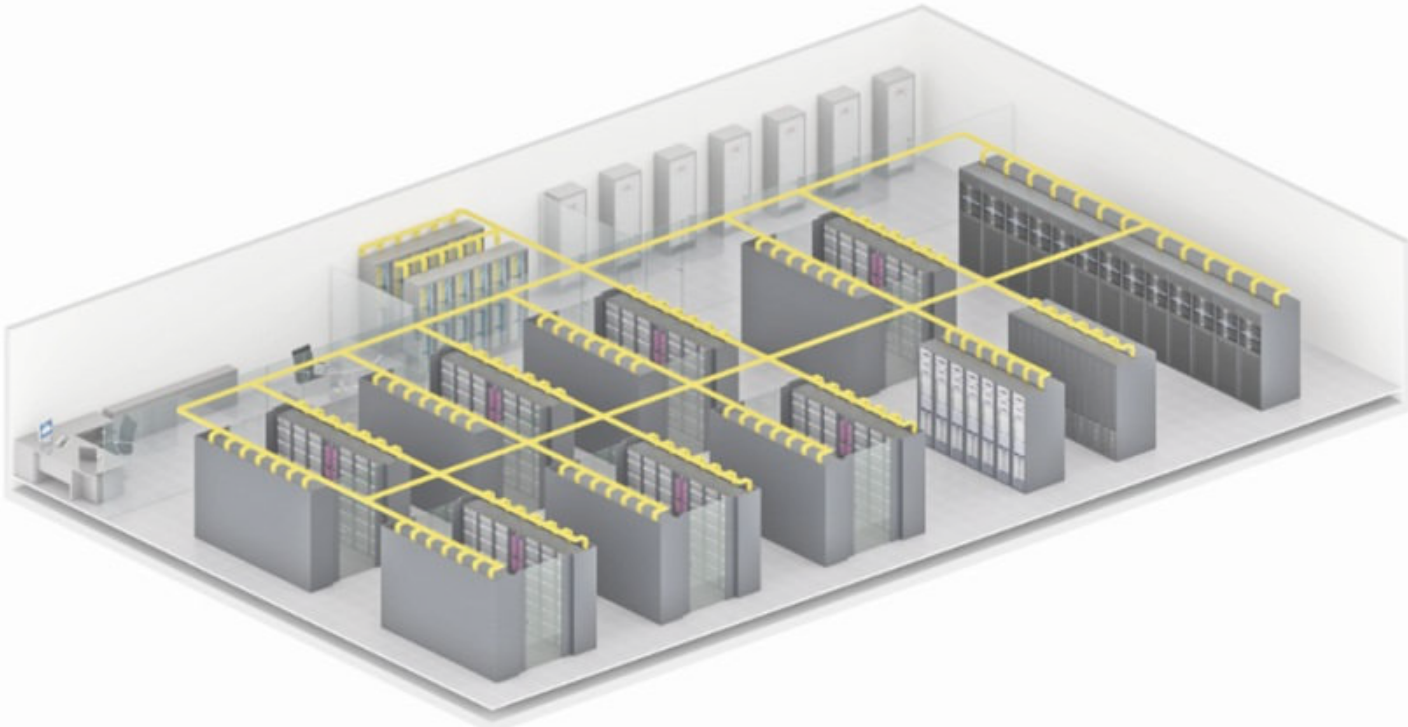
Your Data Center.



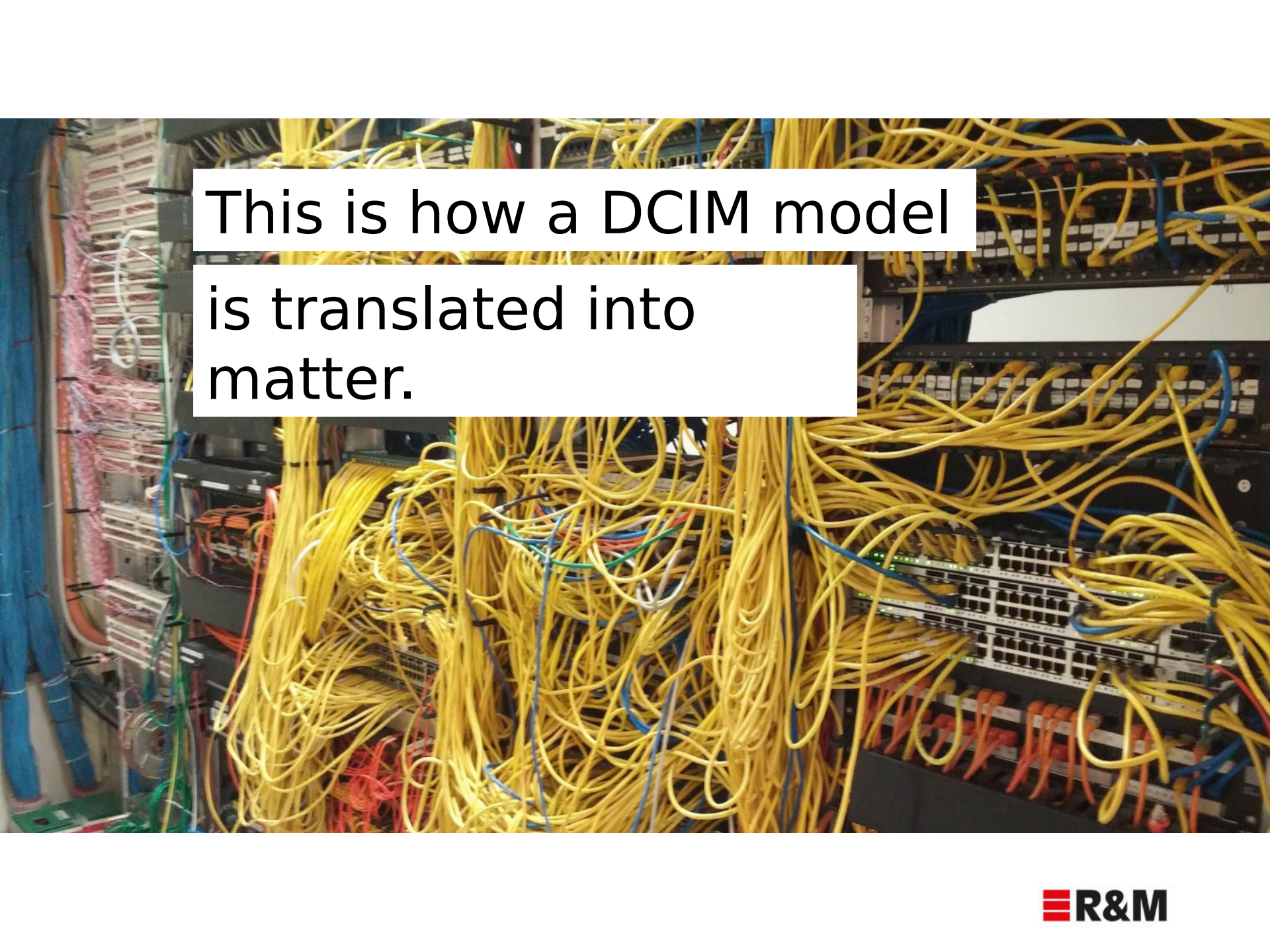
IT vs. Facility.



Server deployment is complex.



Where to pick up service?



This is how a DCIM model  
is translated into  
matter.



# Automated Management (AIM).



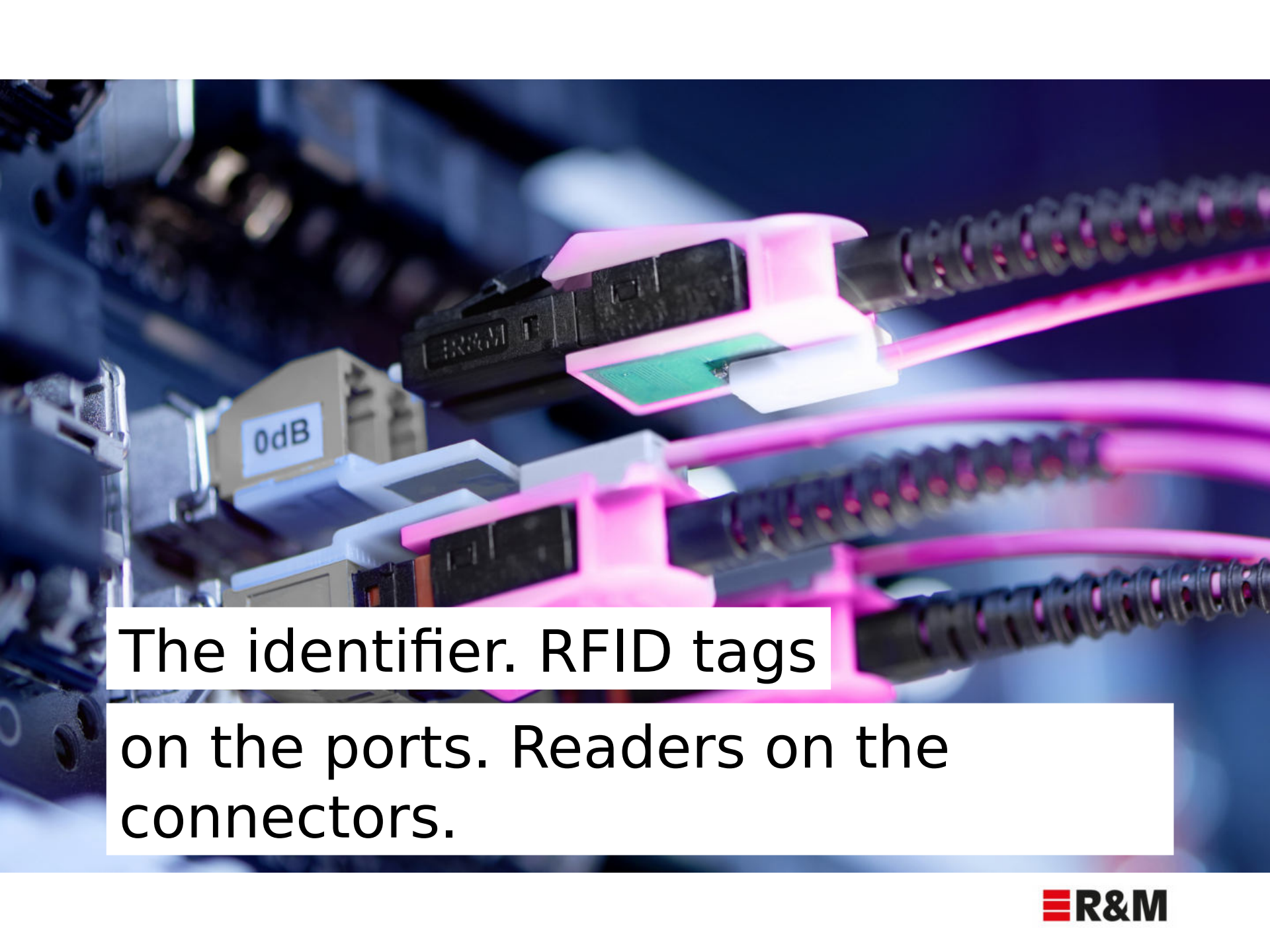


A close-up photograph of a keyboard's internal mechanism. The image is dominated by a row of glowing red LEDs that illuminate the keyboard's internal components. The lighting is a mix of deep red and blue, creating a high-tech, futuristic atmosphere. In the foreground, several black plastic key stems are visible, some with red accents. A white rectangular text box is overlaid on the left side of the image, containing the text "The heart. RFID sensors on the panel." in a clean, black, sans-serif font.

The heart. RFID sensors  
on the  
panel.

Automated Infrastructure  
Management solutions  
monitor cross-connects.

Changes on the switch,  
storage or server side still  
have to be documented  
manually



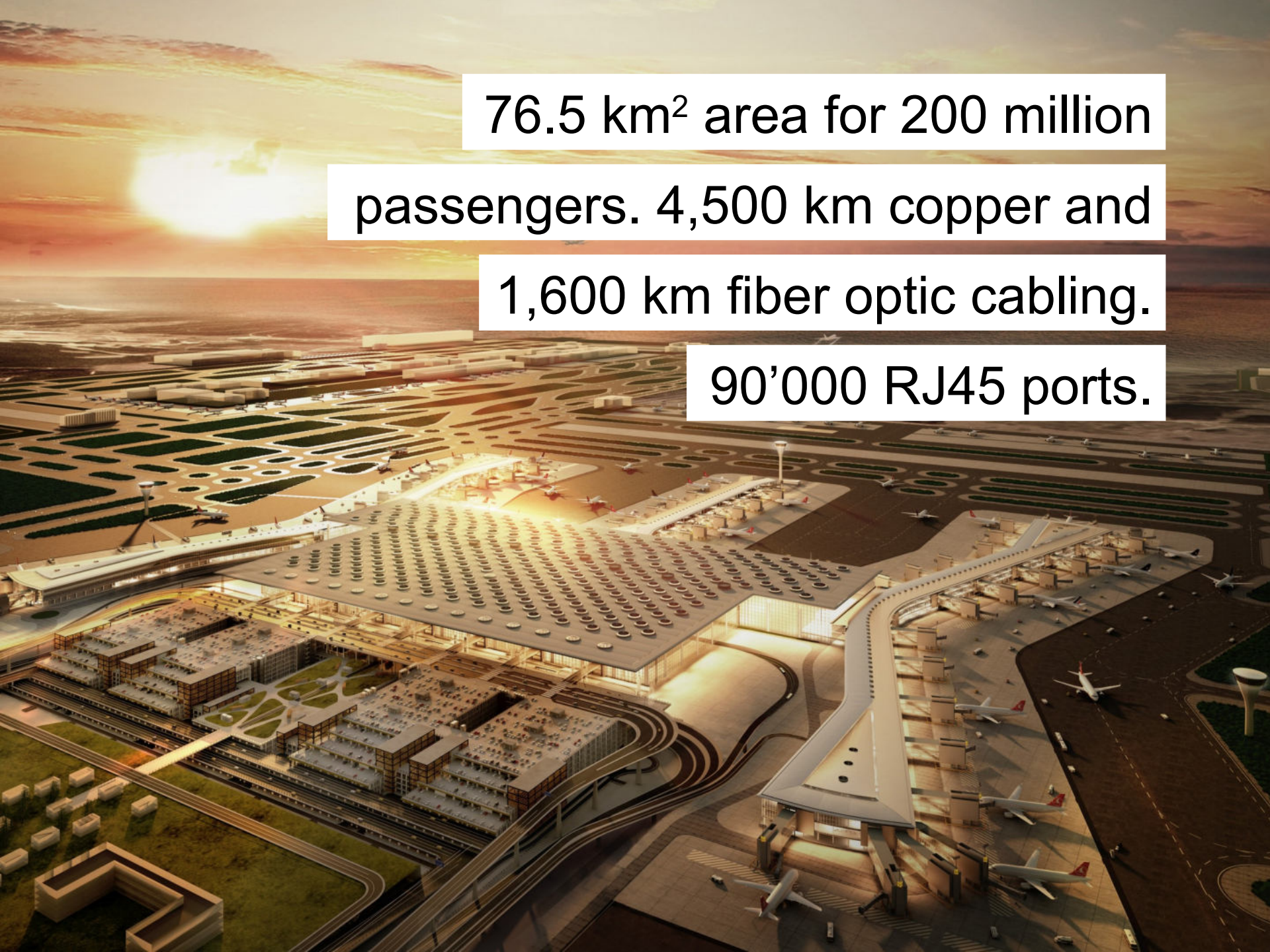
The identifier. RFID tags  
on the ports. Readers on the  
connectors.

End-to-end automated  
documentation, and  
monitoring.



Automated visibility. End-to-  
end.



An aerial photograph of a large airport terminal complex at sunset. The terminal is illuminated from within, and the sky is a mix of orange and blue. Several aircraft are visible on the tarmac. Overlaid on the image are four white rectangular boxes containing technical specifications.

76.5 km<sup>2</sup> area for 200 million  
passengers. 4,500 km copper and  
1,600 km fiber optic cabling.  
90'000 RJ45 ports.

# Smart Networks



## Case Study: Airport

### App and Services



inteliPhy

**75%**

reduction in MTTR

### IoT Layer



Open Connector

**99.999%**

availability

### Products



Netscale 120



HD

**67%**

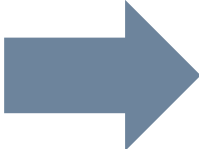
Increase in fiber density

*«We believe that becoming the biggest airport in the world is not important. The important thing is functionality and using advanced technologies.»*

Ersin Inankul, CIO, Istanbul Airport

# It all started with...

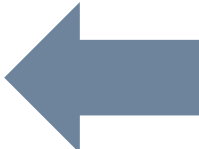
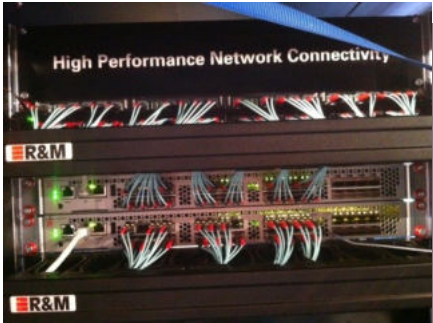
Greater density



Modular platform



Monitoring of entire cabling plant

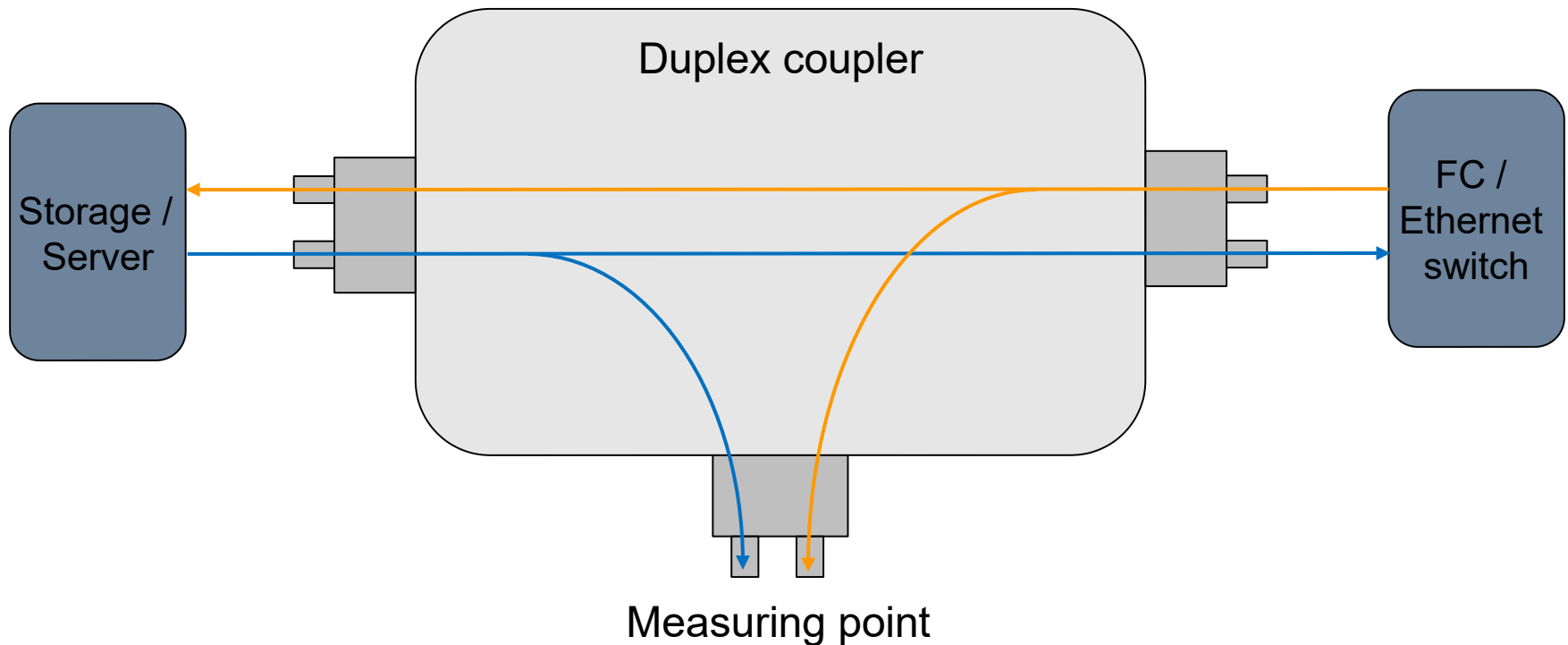


Monitoring of patches

and then people asked,  
"Can you make me some of these...?"



A Traffic Access Point (TAP) uses fiber optic splitters to generate a mirror copy of the signal from both channels of a duplex link



TAPs provide access to all protocols and layers

TAPs are completely lossless at full line rate

TAPs are passive and transparent to the live data path

The signal copy is out-of-band and transmit-only –  
upstream operations cannot impact the live link

Far superior to Switched Port Analyzer (SPAN) or mirror  
port, which...

- Only accesses upper level protocol layers (FC3-4), no error  
traffic

- Arbitrarily drops frame data when port and/or switch capacity  
limits are reached

- Introduces small, but significant latency

# Real-Time Visibility with Smart Networks

