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Edge Transforming to cloud: The Smart Cities Paradigm

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intel®

Smarter
technology
for all

Lenovo

Smarter creates world-changing technology

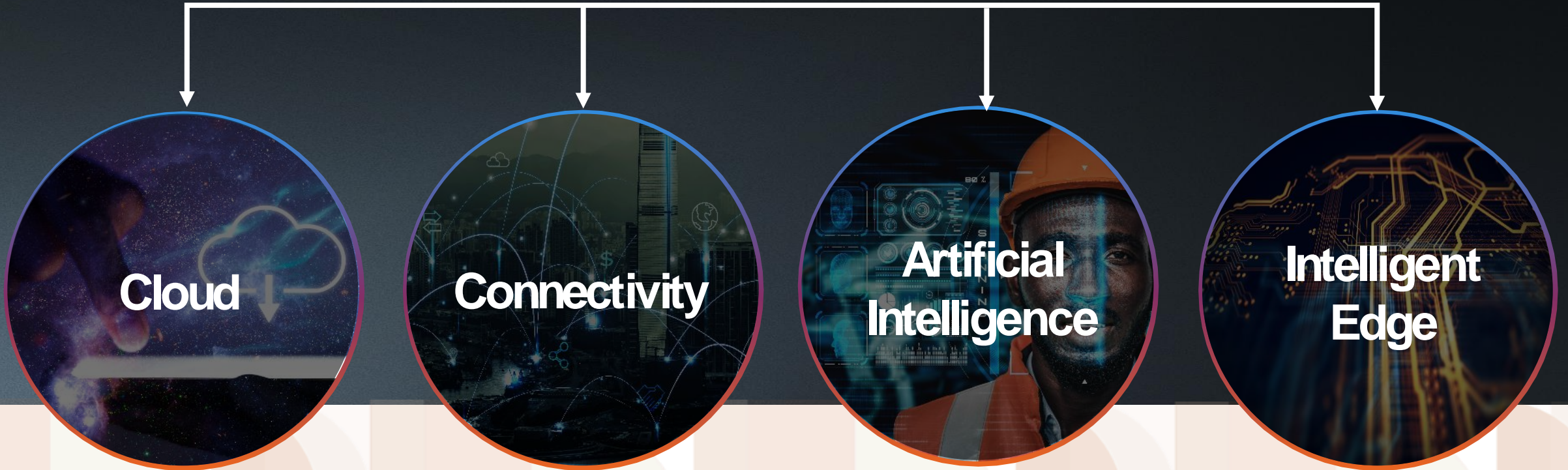
Creating world-changing technology
that improves life for everyone.

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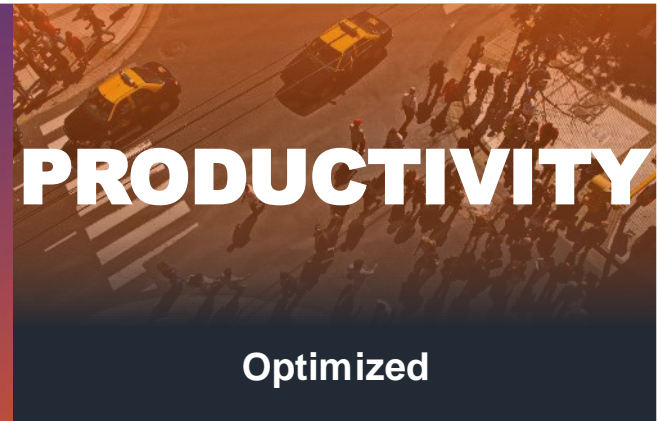
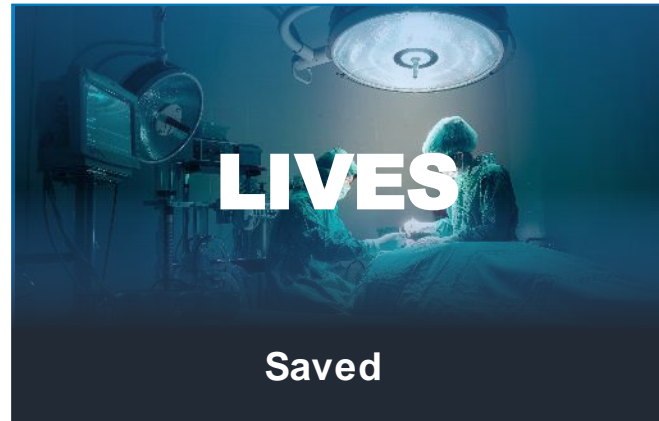
A Changing World

Four Superpowers



IoT: Empowering New Capabilities

and opening up new possibilities



Smart City Trends

60%

Global population
will live in cities
by 2050.

41

Megacities
expected by
2030.

Up from 28 in 2014.

Citizens now expect a lot from their cities

Expanding digital services in the society



However, daunting your data challenge is now, 5G technology means IoT is about to get a whole lot bigger.



More Data



More Speed



More Reliability



Enabling the **5G Smart City** of the future

Lenovo ThinkEdge

is making Barcelona a smarter and safer city with Lenovo ThinkSystem SE350 Servers and Lenovo Open Cloud Automation — helping security personnel respond faster than ever.

**Smarter
technology
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Smart City (Barcelona)

IOT/FOG Multi-Tenant for Smart City

Solution

- Deployment of Edge infrastructure in street cabinets
- NearbyOne orchestration for both:
 - the communication layer (MPLS city network)
 - the lifecycle management of urban services as virtualized applications
- Industrial systems, e.g. street lightning, traffic, irrigation and smart bins

Added Value

- Simplicity
- Centralized Management of IT and OT systems
- Increased availability
- Improved switching of OT maintainers (low-latency)
- OPEX and CAPEX reduction



Enabling the smart city of Barcelona



- ThinkEdge SE450 deployed in street cabinets
- Hosting several edge AI use cases
 - Tourism, traffic, management, security, etc.
- Small form-factor, Secure, Quiet, Ruggedized



Enabling the smart city of Barcelona

**Holograms IESE,
Barcelona Activa**



**Virtual Shopper
(Boquería)**



**5G Private Network
(City Guard)**



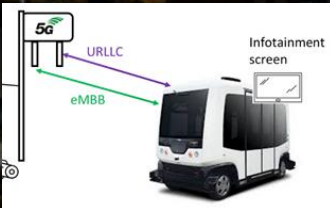
Industry 4.0



5G Broadcast



**Autonomous Shuttle
Bus (Fira Barcelona)**



**Dynamic Capacity
on beaches**



Powerful computing, when and where it's needed



ThinkEdge SE30 Edge Client



ThinkEdge SE50 Edge Client



ThinkEdge SE70 Edge Client



ThinkEdge SE350 Edge Server



ThinkEdge SE450 Edge Server

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thanks.

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