

Get Consolidated!

Virtualization Technology for Railway Communication Systems

Michael Plannerer, Director Global Research & Development, MEN Mikro Elektronik

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The logo for MEN Mikro Elektronik, featuring the letters 'MEN' in a stylized, bold font. The 'M' and 'E' are red, and the 'N' is black. A registered trademark symbol (®) is located to the right of the 'N'.

Always reliable. Always ahead.



Wishes of an Train Operator

Easy
Maintenance

Security and
Safety

Scalability
and
Performance

Satisfied
Customers

Energy
Efficiency

Supplier
Independence

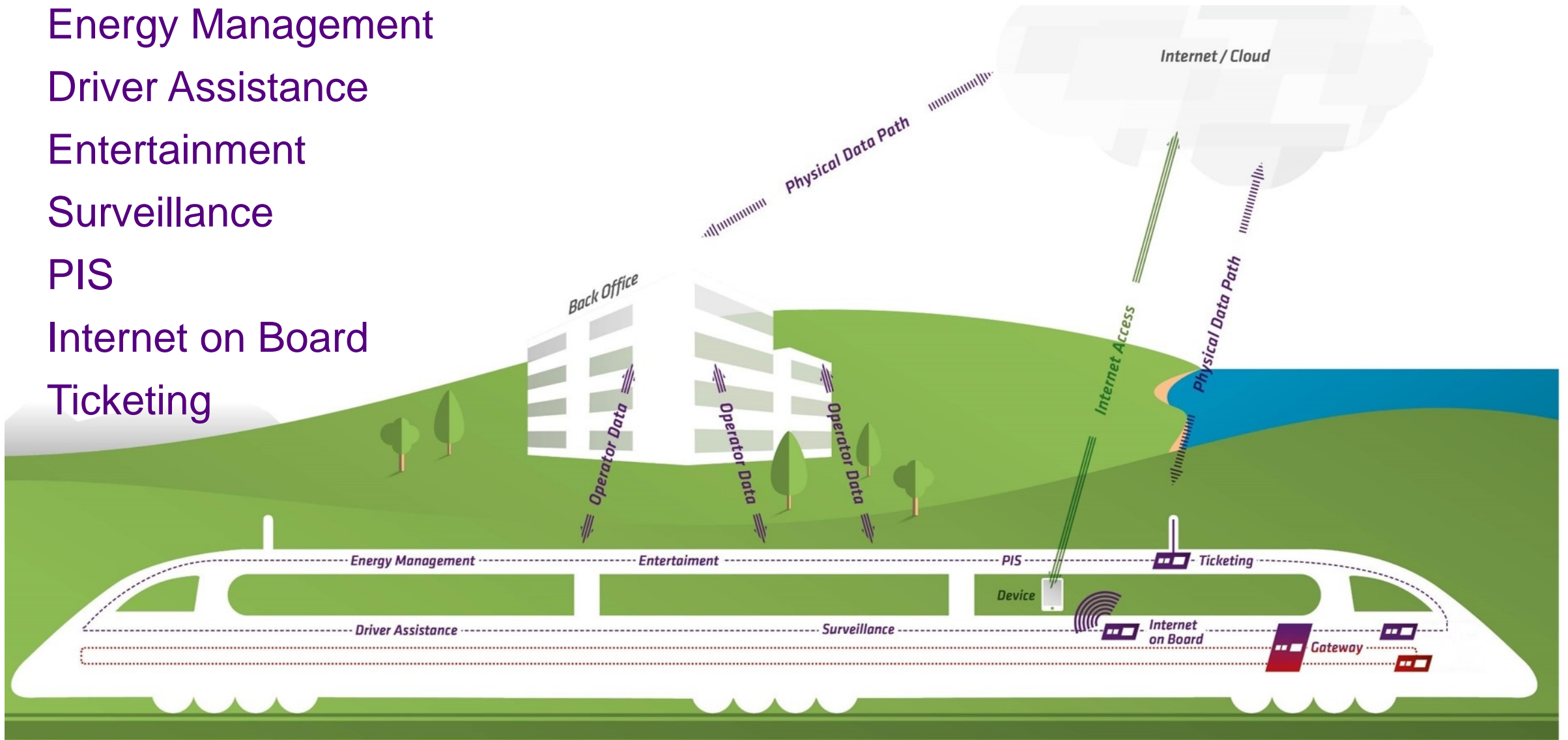
Reduced
Costs

High and
Long-term
Availabilitiy



Typical Applications in a Modern Train

- Energy Management
- Driver Assistance
- Entertainment
- Surveillance
- PIS
- Internet on Board
- Ticketing



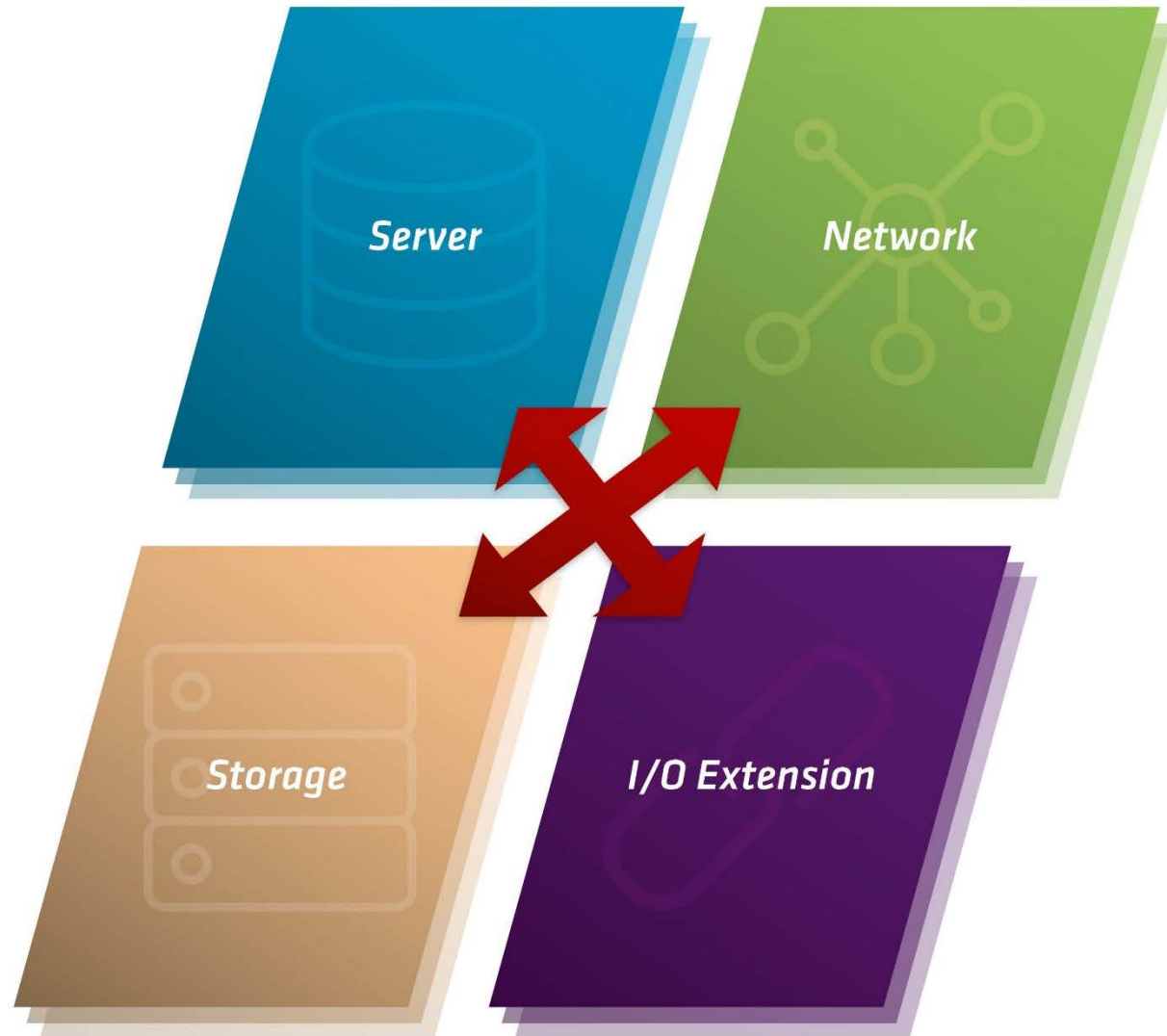
The Solution to make Train Operators happy



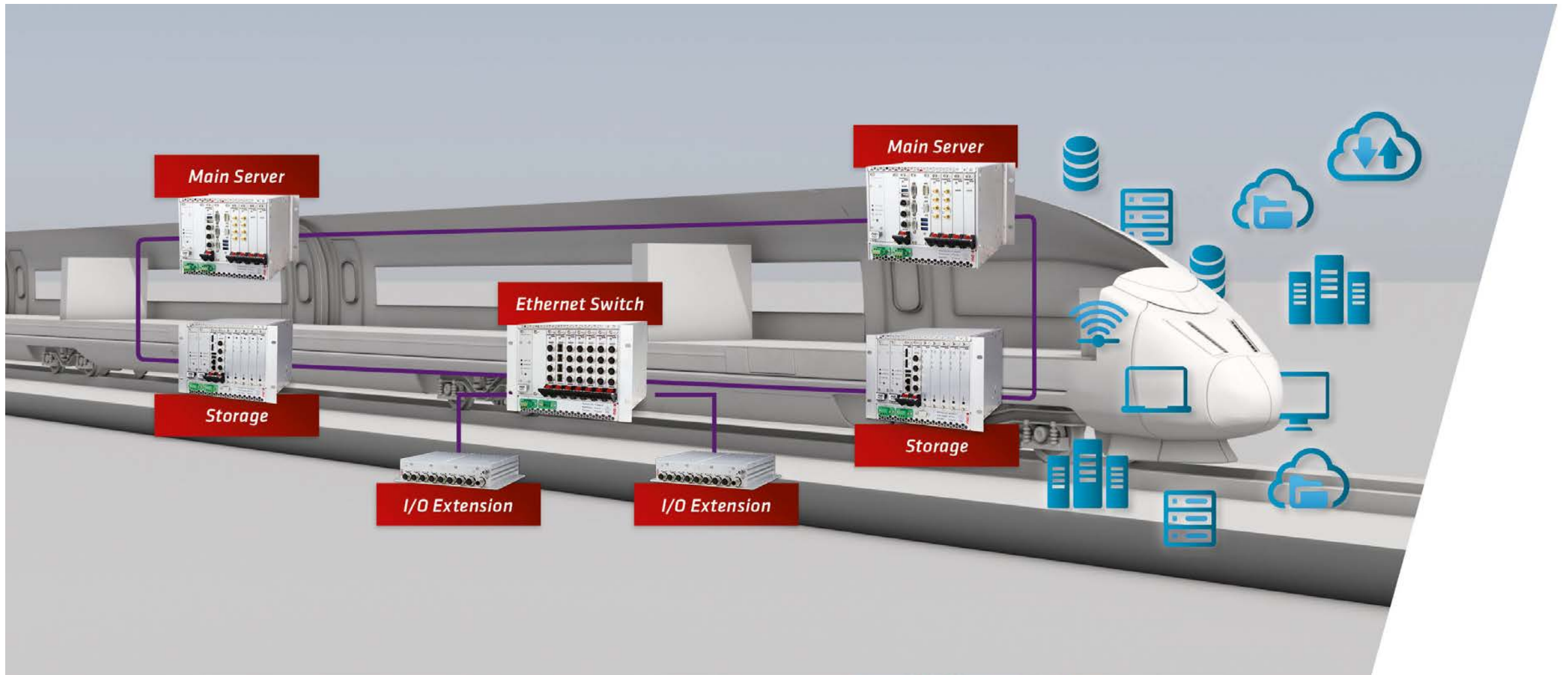
Always reliable. Always ahead.



Idea: IT Infrastructure



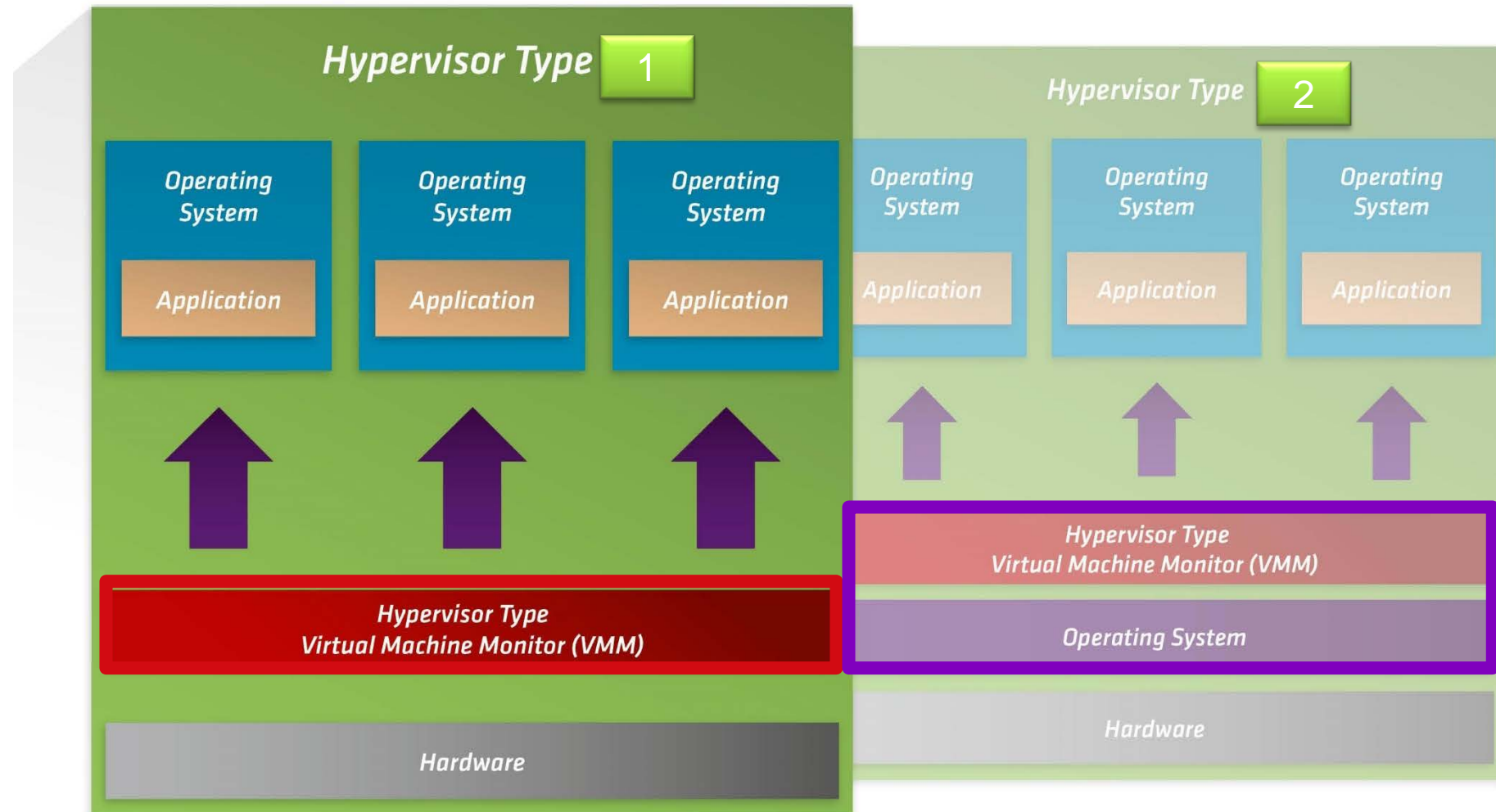
Next Generation: IT-based Train Infrastructure



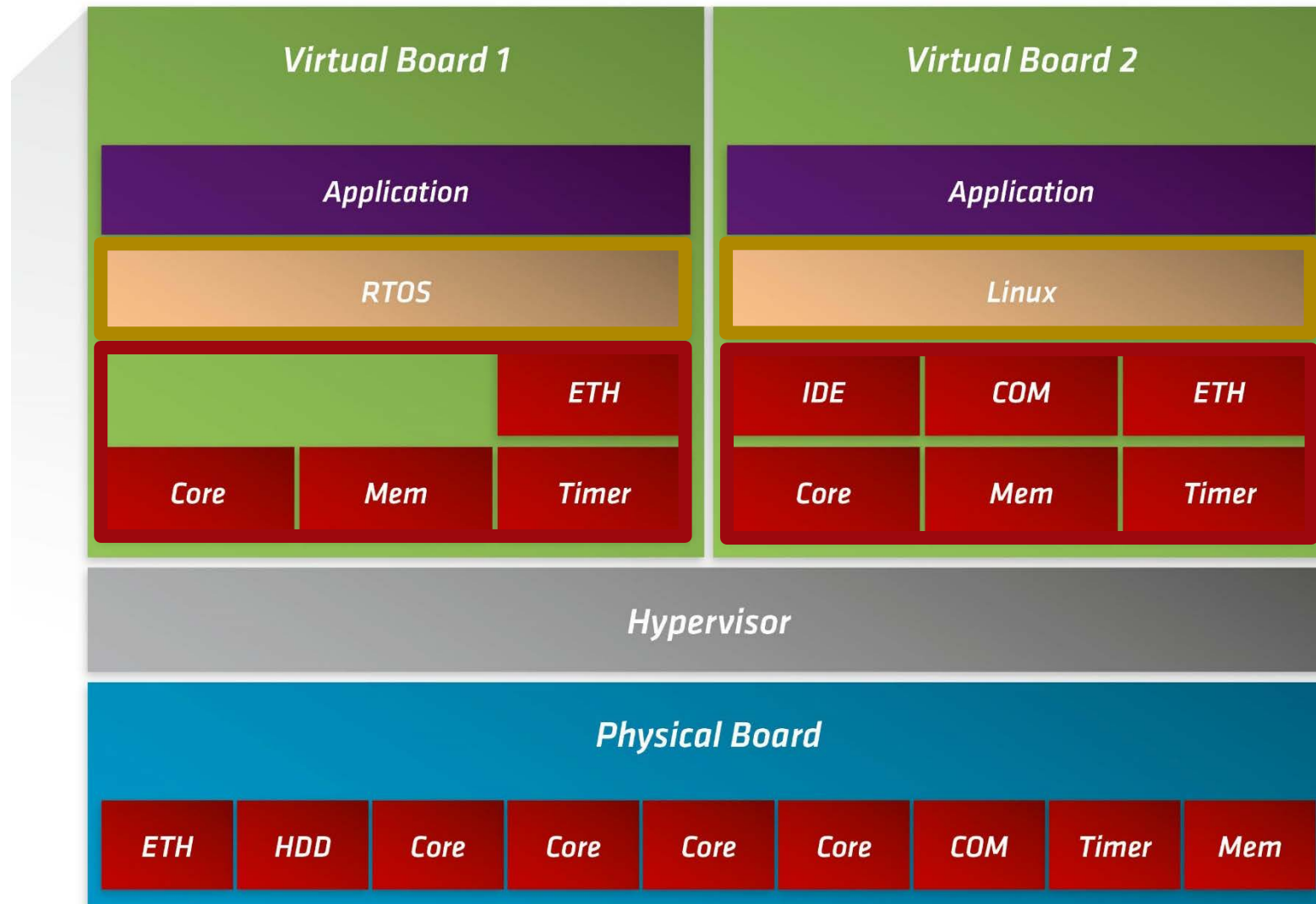
Let's Start with the Voodoo Magic



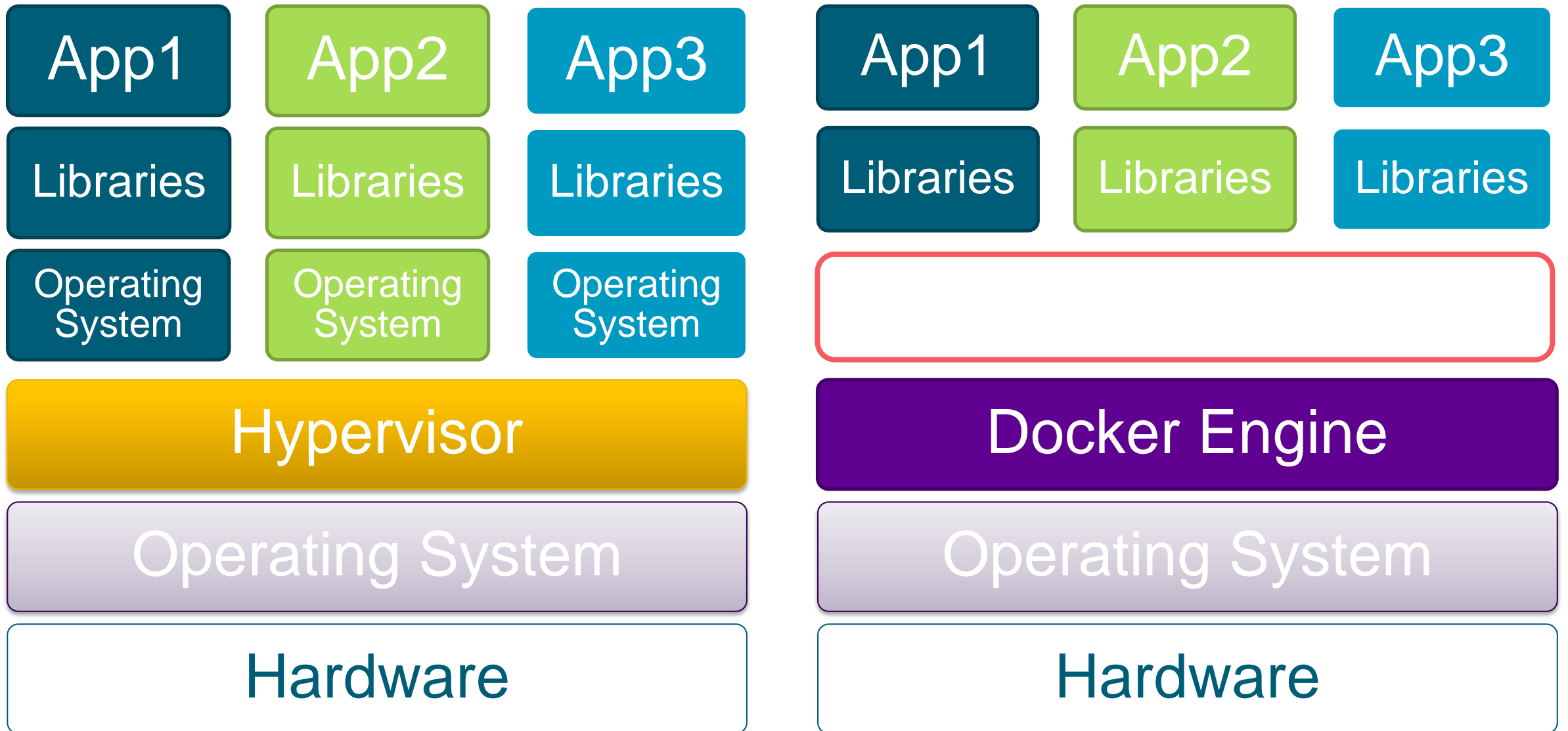
Virtualization Enables Multiple OS - Hypervisor Type 1 vs. 2



Virtualization Abstracts the Hardware from the Application



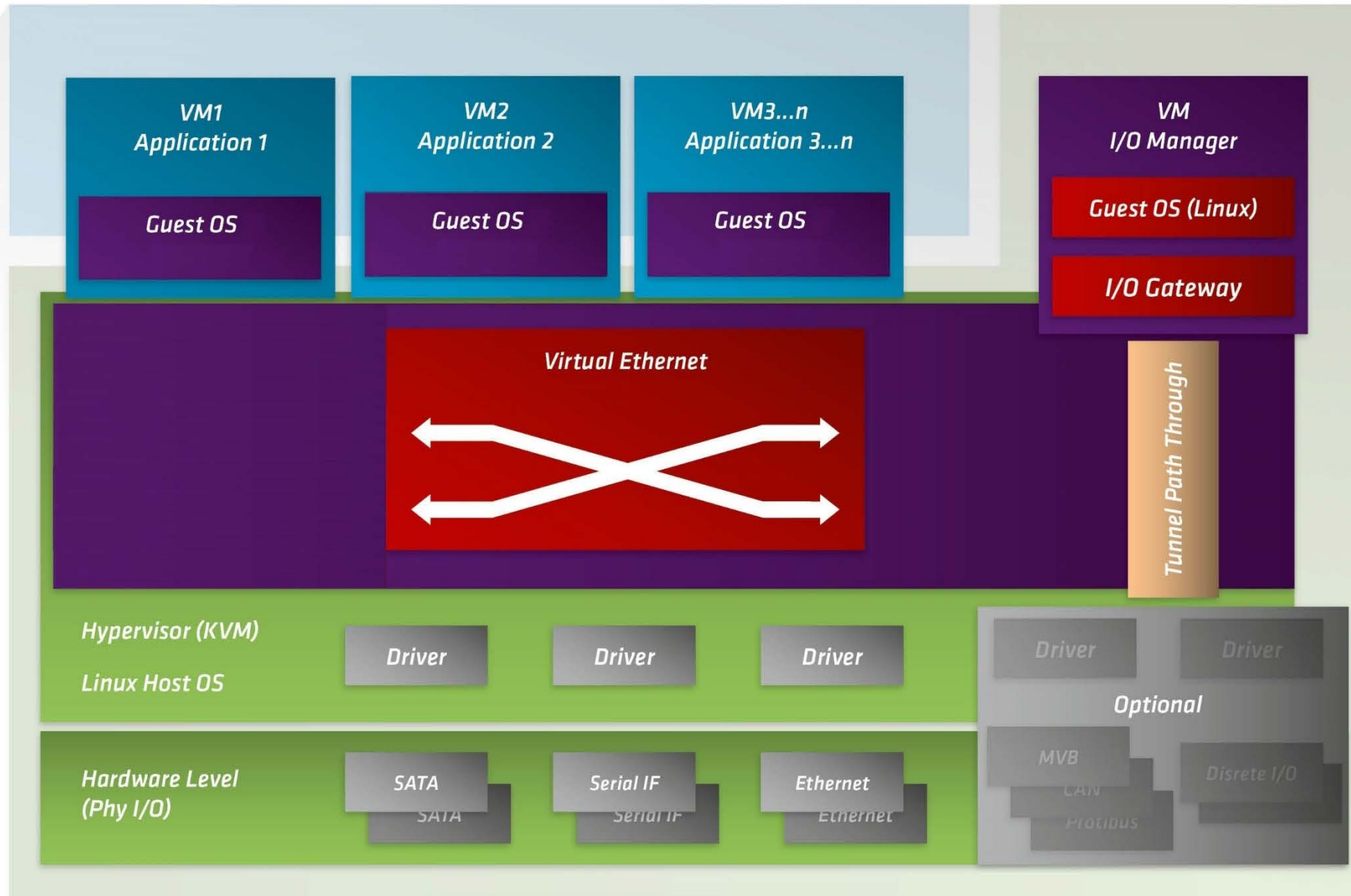
Virtualization Light – Docker Container



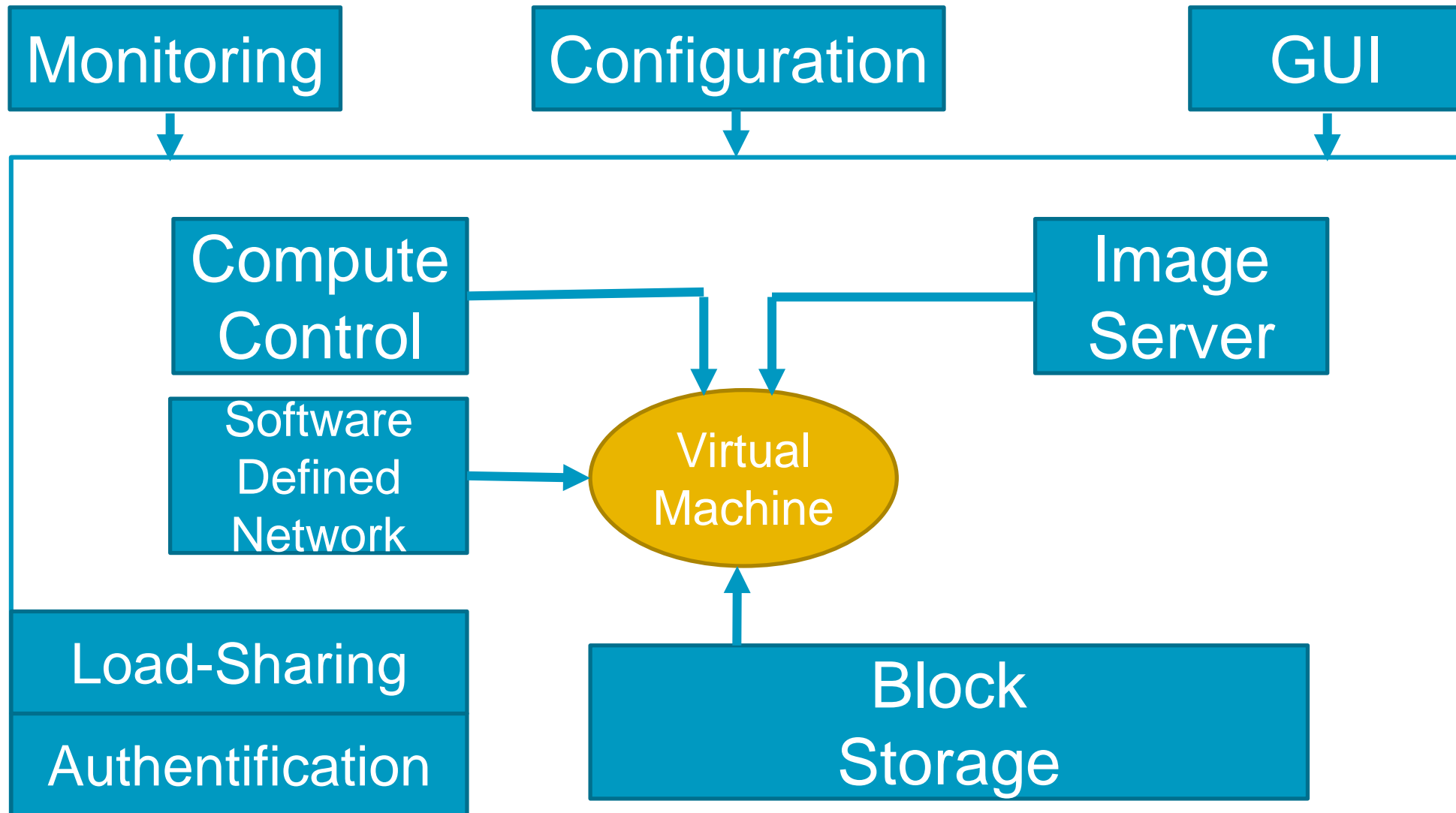
I/O Infrastructure – Centralized and Decentralized I/O



Virtualization Abstracts the I/O Hardware



Virtualization at the Top – OpenStack Cloud



Benefit Summary

*Scalability
Performance*

*Secure Systems
Easy Maintenance*

*I/O and Hardware
Independence*

*Reduced Costs
Energy Efficiency*

*High / Long-term
Availability*



Typically



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