



The Truly All Fiber Enterprise (AFE)

The Future is Power with Data

AFE - Pulling the Future Forward

Inevitable Technologies



FTTH

LED Lighting

AI

Electric Cars

Another Major Inevitable Technology.....

+ Many Others...

CAT Cable will be Replaced by Fiber

Why? Any Interconnection over 3 ft and over 10G will need fiber

10G interconnects are coming. Remote powering is needed. Low Latency Networks are a must.

How can we pull this inevitable future forward?

Why Fiber Now?



FIBER INFRASTRUCTURE

- In terms of cost and installation, installing fiber is comparable to installing CAT cable
 - Fiber can be connectorized in under 1 minute
(<https://www.youtube.com/watch?v=l1Am-uNrFts>)
- New fiber technologies provide reliability and network stability (cleerline.com)
- New fiber technologies can be installed and operated reliably in any enterprise environment

FIBER DATA

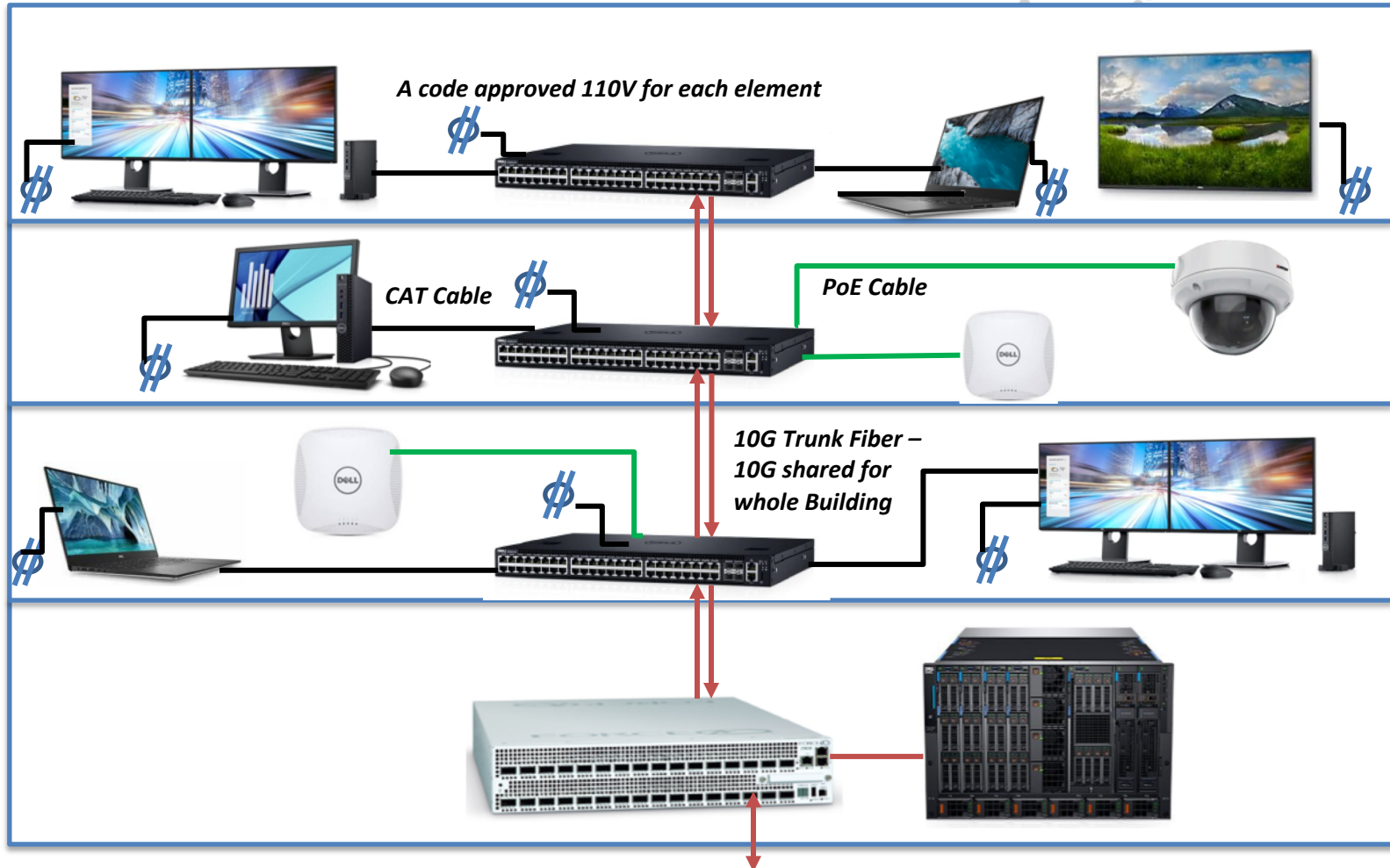
- 1G Conversion Devices are < \$1, 10G<\$5
 - Futureproofed to over 40G
- New fiber Topologies allow Home Run, Fiber Rich Topologies with zero added latency
- Ultra secure links with No EMI, RFI
- Create Optimal Hybrid Cloud/ User Experience

FIBER POWER

- 100W PoE++HP spec allows for the Elimination of local Power Conversion
- Hybrid Fiber/Copper creates long run, low loss powering
 - AFE Technology provides bonded channels to over 500W
- UL low voltage allows for powering to be run without expensive installation

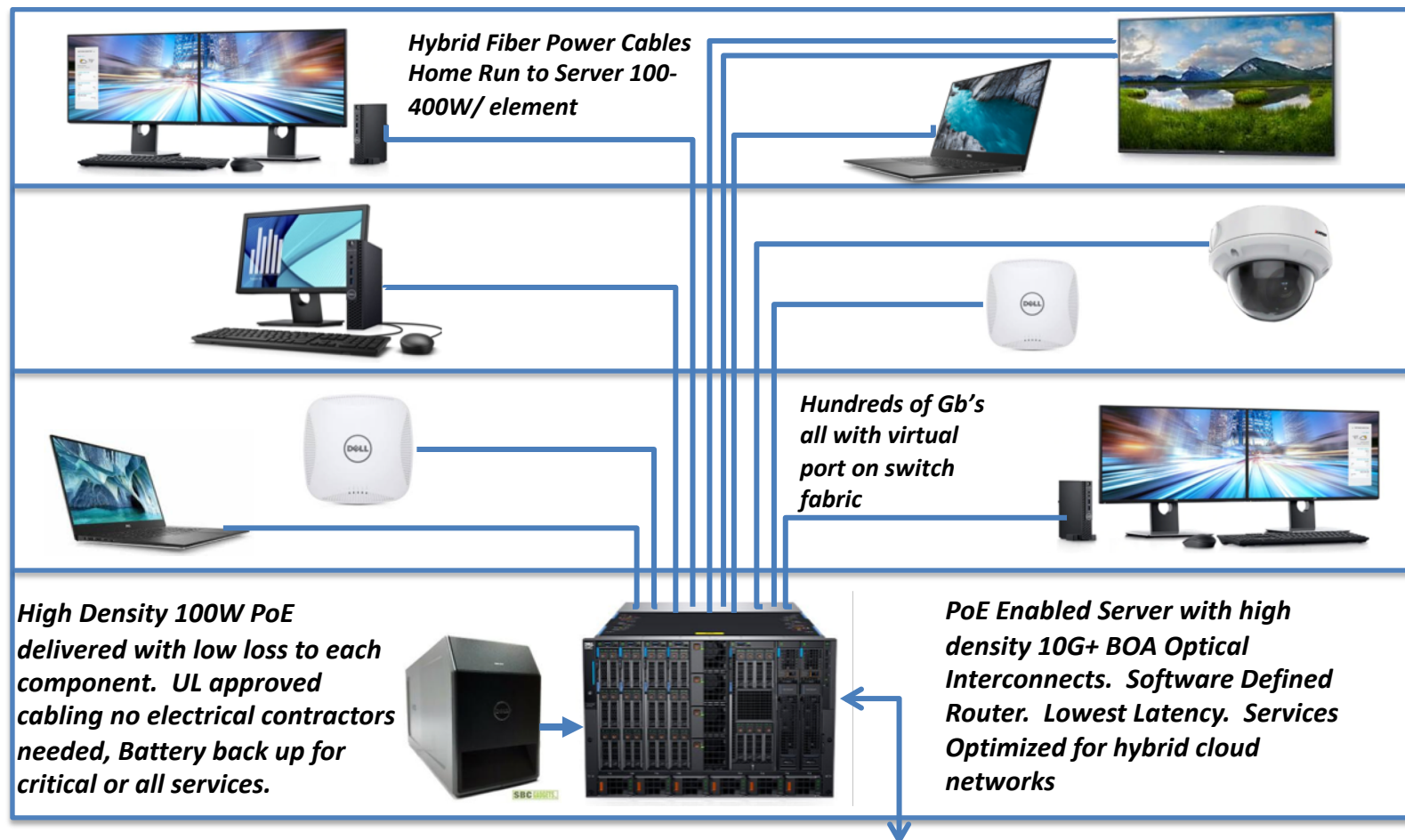
Radius Universal is an LLC holding the IP, Technology, and Products for these two components

Existing Networks



- **High Latency Networks, excess power conversion, commodified products**

AFE Networks



- **Building for a Cloud Driven World with a Future Proofed Technology**

The AFE is NOW



AFE 1010
24 channel power distribution unit



AFE 3030
1G 100W Ethernet to USB

AFE 2020
1G 100W PoE Conversion Unit

AFE 4040 (SKU4)
Radius Workspaces Coming Soon

AFE Product Roadmap



**AFE 1G and 10G 100W
Reference Design for
Embedded Designs**



AFE Enabled TV's and Monitors



**AFE 3030 1GE to USB with
100W USB Power Delivery**



**AFE 3030 10GE to USB with
100W USB Power Delivery**



**Fiber to USB Micro
Dongle**



AFE Enabled Servers



**AFE 2020 and 4040 200W Ethernet
And Workspace 2 monitor Support**



**Upgrade to 10G, Hybrid
Connector**



**10G-25G, 200W Integrated/ Laptop
Docking Station/ TC / Pico Computer with
3+ Monitor Support**



**AFE 1010 1200W and 2400W
24x Power distribution Unit**

**Add Home Plug connectivity
For Bldg and Lighting Control**

**Add Battery Backup for Critical
Service Powering**

2020

2021

2022

IP Profile



- **Basic Architecture, Universal Client**
 - **Low Cost Hybrid Cabling**
 - **Connector less Client Termination**
 - **Hybrid Connector**
 - **Specific Device Powering**
 - **Network Powered USB type C**
 - **Unified Power and Data Architectures**
- US Patent # 9,882,656 B2 Issued Jan. 30, 2018
 - US Patent # 10,014,958 B2 Issued Jul. 03, 2018
 - US Patent # 10,088,635 B2 Issued Oct. 02, 2018
 - US Patent # 10,139,569 B2 Issued Nov. 27, 2018
 - US Patent # 10,151,886 B2 Issued Dec. 11, 2018
 - US Patent # 10,171,180 B2 Issued Jan. 01, 2019
 - US Patent # 10,277,330 B2 Issued Apr. 30, 2019
 - US Patent # 10,379,295 B2 Issued August 13, 2019
 - US Patent # 10,663,672 issued May 26, 2020
 - US Patent # 10,855,381 Issued Dec 15, 2020
 - EU Patent # 3 047 492 Issued 2019
 - Six other Patent applications pending
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