2016 TFI Valuation Conference

IMPACT OF DATA CENTERS AND COMMUNICATION NETWORKS ON VALUE:

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PHYSICAL: DATA CENTERS ARE THE INFRASTRUCTURE TO SUPPORT THOUSANDS OF COMPUTERS

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PHYSICAL: DATACENTERS REQUIRE ROBUST MECHANICAL AND ELECTRICAL INFRASTRUCTURE TO SUPPORT THE COMPUTERS

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WHAT IS A DATA CENTER? EVERYTHING YOUR PHONE, TABLET, AND COMPUTER TALKS TO

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BILLIONS EACH YEAR ARE SPENT ON DATA CENTER DEVELOPMENT AND EXPANSION

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THIS SPEND SHOULD NOT EQUATE TO $ FOR $ INCREASED VALUES?

Is the cost approach the best way to value high tech property ?

"If you spent it, then it must equal value"!

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VALUATION DISCUSSIONS

Taxpayer
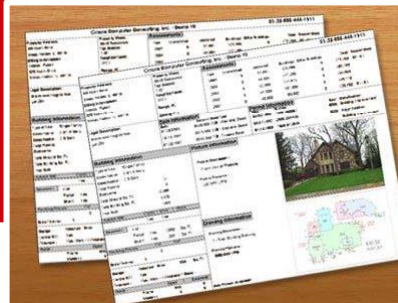- Fee Simple
- Value in Exchange
- Market Value
- Intangible

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VALUATION DISCUSSIONS:

Set the Record Straight

Assessor
- Leased Fee
- Value in Use
- Cost Equals Value
- Everything is Tangible

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FREQUENT VALUATION TENDENCIES

Lack of knowledge with Data Centers may lead to:

- Reliance on publicly information such as:
  - Construction costs
  - Purchase price

- Inability segregate the costs into the appropriate categories of Real, Personal, and Intangible
  - Sizable personal property costs
  - Potential double taxation of real and personal property components
  - Failure to extract intangibles

- Consistent valuation methods

DATA CENTER VALUE

Business Valuation Components
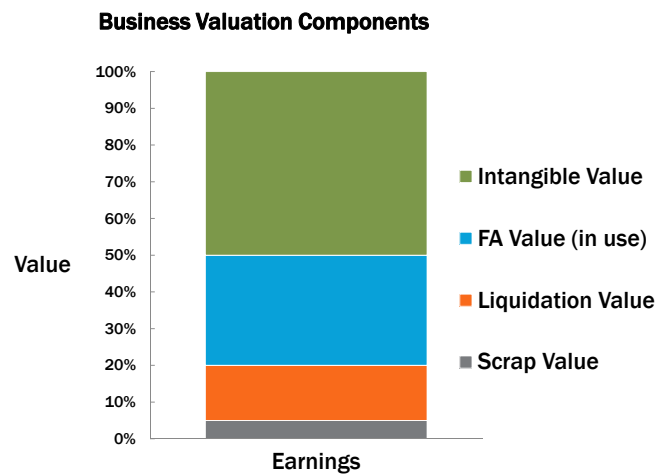
TYPICAL VALUATION DECISION POINTS

Income approach – which income should be used?
- Rent?
- Business Income?

Cost Approach
- Cost ≠ Fair Market Value

Sales Comparison Approach
- Property Type?
  - Industrial, Office, Special Purpose, Real, Personal?
- Units of comparison?
  - Critical load, Density, Efficiency?

TODAY'S TECHNOLOGIES ALLOW FOR PERMANENT DATA STORAGE AND COMPUTING POWER

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*The Era
of Data
is Here!*

1.4GHz, 1 GB RAM, 64GB storage

TRANSFORMING THE CORE NETWORK

VIRTUALIZATION

SOFTWARE-DEFINED NETWORKING
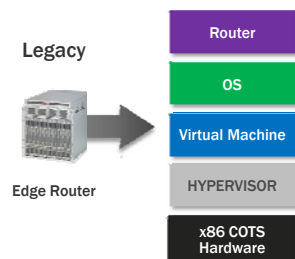
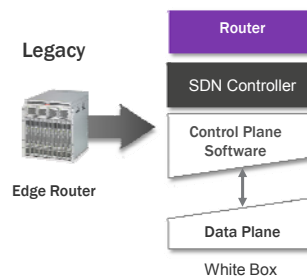**BENEFITS**

- Exploit Multicore Processors
- Lower Cost, Higher Performance
- Existing Software Ported to Virtual Machines

BENEFITS

- Low Cost Merchant Silicon-based WB
- Separate Control and Bearer
- Improved Scaling and Resource Utilization

TREND IS TOWARD OUTSOURCING DATA CENTERS

"You shouldn't have something in your Back Office that exists in someone else's Front Office"
– Jack Welch

Next step is containers???

Modular data centers fall under the umbrella of converged infrastructure, system architecture solutions that can be more easily implemented and removed from scalable IT networks and are optimized for efficient energy usage. They're designed to be deployed quickly and at a fraction of the cost of traditional construction. Modular data centers are also more reliable, with components and connections tested at the factory.
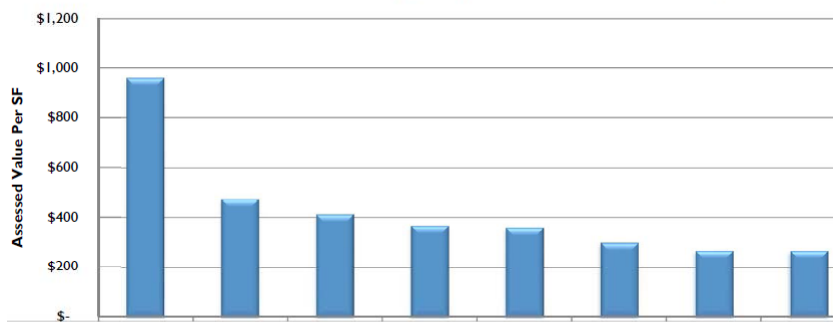
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WHICH OF THESE IS NOT LIKE THE OTHER?

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1/20/2016

CASE STUDY

Real Property Assessment Survey

Inconsistencies arise not only across jurisdiction lines, but within jurisdictions as well

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TAKEAWAYS

Datacenters follow the computer evolutionary trail. Therefore, they face similar valuation and assessment issues
– Rapid change leads to functional obsolescence claims

Educating assessors will be key to a fair assessment

Proper identification and valuation of each component will be critical in establishing a fair assessment (real, personal and intangible property need to be identified)

From new construction to retrofitting an existing property
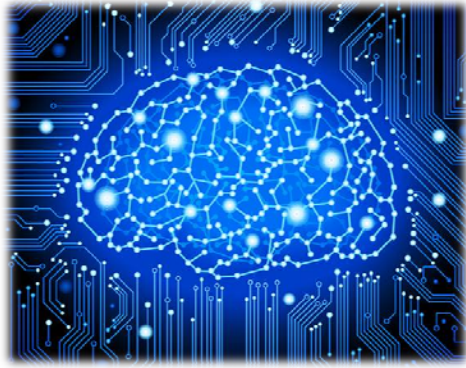– Not all datacenters are treated equally

Current and future trends of data centers
– Efficiency/environmental impact
– Outsourcing seems to be the current trend since that will provide economies of scale

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QUESTIONS?

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