Technical Roundtable

Building a Data Center

Up Next:
Sales & Marketing Summit:
Put Your Lost Ball Into Play

INDATEL

HOSTED BY: IRIS NETWORKS

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Questions for Aaron?

18TH ANNUAL INDATEL BUSINESS SYMPOSIUM NASHVILLE

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Building a Data Center

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Agenda

Data Center Basics

Why Now?

Buildout / Operational Considerations

Financial Factors

Q&A

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What is a data center?

Tier Levels

- Tier I
- Tier II
- Tier III
- Tier IV
- Tier X+

Tier I

An uninterruptible power supply (UPS) for power sags, outages, and spikes

An area for IT systems

Dedicated cooling equipment that runs outside office hours

An engine generator for power outages

No redundancy

99.671% uptime (28.8 hours downtime per year)

Clients: cost conscious, disaster recovery (DR)

Tier II

All the features of Tier I

Some cooling and power redundancies

99.741% uptime (22 hours of downtime per year)

Clients: established SMB, DR sites

Tier III

All the features of previous tiers

N+1 redundancy / fault tolerance

99.982% uptime (≤ 1.6 hours of downtime per year)

Clients: large business, advanced enterprise, government

Tier IV

All the features of previous tiers

2N or 2N+1 redundancy / fault tolerance

99.995% uptime (≤ 26.3 minutes of downtime per year)

Clients: government, international businesses

Why Now?

Bandwidth Needs

Cloud compute costs on the rise

Waitlists in existing data centers

AI!

Buildout / Operational Considerations

- Power, power, power (AC or DC?)
- CRAC / CRAH
- Location
- Carrier Connections
- Expansion capabilities / modular campus
- Bandwidth in and out of the data center
- Security / biometrics
- Smart hands and staffing

Financial Factors

- Rack density: 42U
- Power budgeting
  - Low: 0-4kW
  - Medium: 4-12kW
  - High: 12kW
  - GPU/A: 40-120kW!!!
- Staffing
- Land acquisition
- Preventative maintenance
- Chosen tier level

Financial Savings and Revenue Opportunities

"Data center in a box" vs full buildout

Aisle containment

Sell more than colocation

Become the IX