 SEMINAR

**TRANSFORMING YOUR DATA CENTER**  
THE PROS AND CONS OF 3 DATA CENTER PATHS: CLOUD, CO-LOCATION OR NEW CONSTRUCTION

## Server Architecture – Building a Comprehensive Upgrade Plan and Roadmap to Future Proof Your Data Center

**New technologies are transforming the data center, forcing managers to evolve their planning and assessment process**

Frank Ohlhorst | fohlhorst@gmail.com

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## New Technologies = New Choices

- **Disruptive technologies will drive choices**
  - Appliances offering consolidation
  - Blade technology increases density
  - Virtualization maximizes CPU utilization
  - Multicore CPUs condense servers
  - The cloud removes physical barriers
  - Application Load balancing decentralizes processing
  - Cheap broadband drives expanded capacity

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## CPU Vendors Will Change the Game

- **Intel and AMD set to battle in the data center**
  - Both are increasing core counts, impacting OSes and Apps
  - More cores will equal less servers
  - Multiple cores will impact blade density
  - Enhanced efficiency will lower power and cooling requirements
  - Increased density will impact rack capacities
  - Integrated management will reduce operational costs

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### Large Vendors will drive change

- **The big names will have a big impact**
  - Vendors HP, IBM, Cisco and others will look to leverage the managed services model to increase billable support
  - Vendor management platforms will incorporate new capabilities for managing green initiatives, virtualization and continuity
  - Vendors will re-engineer blades, appliances and infrastructure equipment to meet increased bandwidth and CPU Utilization
  - Component improvements will drive new product launches

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### Storage set for change

- **Storage solutions are rapidly evolving**
  - Consolidated storage increases density
  - Lower costs will drive increased capacities
  - Virtualization will level the storage playing field
  - Business Continuity solutions increase storage utilization
  - Three tiers will emerge – online, near online and offline
  - Compliance complicates archiving
  - eDiscovery will become more common place

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### Virtualization will Drive Choices

- **Virtualization's impact will drive growth**
  - Desktop virtualization to replace server based computing
  - Server virtualization will impact server & blade design
  - Storage virtualization will simplify storage management
  - Data Center managers will need to think virtualization first
  - Virtual appliances will change the hardware footprint
  - New management tools and skills will be needed

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### Maximizing existing investments

- **Using yesterday's technology to build tomorrow's data center**
  - SDLC concepts are still valid for upgrade planning
  - Newer applications and Oses operate fine on older technology
  - Determine a measurable benefit before a rip and replace
  - Legacy systems may meet disaster recovery needs
  - Upgrade or replace – balance the benefits
  - Determine the true costs of upgrades

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### Unified solutions build value

- **The Unification concept crosses many technologies**
  - Unified communications – impacts all aspects of the data center
  - Unified security – changes how security traverses the network
  - Unified Access – changes the end user relationship with IT
  - Unified Management – enhances the administrators role
  - Unified services – rolls up security, applications, hardware, Oses and infrastructure into a single management platform

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### The Truth About ROI

- **Many IT decisions are driven by ROI**
  - ROI is an imperfect science – elements are often overlooked
  - ROI calculations must include the loaded support costs
  - ROI should encompass all aspects of a solution
  - Increased ROI = Reduced TCO
  - ROI should incorporate productivity gains
  - ROI can be driven by SDLC concepts

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## TCO – The language of the CTO

- **Total Cost of Ownership (TCO) is a powerful bargaining chip for acquiring funding**
  - TCO offers a real world number that incorporates all costs associated with deploying a technology
  - TCO includes equipment costs and software costs
  - TCO includes Deployment, Staffing and operational costs
  - TCO can be calculated over traditional time periods

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## Take-Aways

- **Lessons learned**
  - SDLC is still a valid concept
  - New technologies may decrease operational costs
  - Technologies impact on the end user is a critical consideration
  - The very nature of the data center is poised for change
  - Vendors are headed in the same direction
  - ROI and TCO are critical for budgetary considerations
  - Never overlook associated costs, such as support, facility, education and service

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