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**CNCA Implementation Strategy and
Business Case (Deliverable 6D)**

Executive Summary - Preliminary

June 21, 2004

Recap of Approach

- Perform assessment of two Data Center Computing and Network Consolidation Alternatives (CNCAs)
- Focus on cost savings and efficiency goals
- State conducted inventory and provided the data and criteria for the business case
- Accenture analyzed/modeled data using benchmarks, toolkits and private and public sector experience to assess CNCA alternatives

Findings

- A compelling business case exists to meet cost saving and efficiency objectives
- Discovered two other important factors:
 - Risks in the current environment
 - Inadequate Business Continuity/Disaster Recovery
 - Inadequate Security
 - Inadequate Facilities
 - Equipment reaching end-of-life
 - Inability to support future needs
 - eGovernment and citizen-centric initiatives
 - 24/7 offerings
 - Enterprise Administrative Systems: ERP, eProcurement, email, etc.

Maintaining the status quo is not an option as the current environment is very risky and will not support future needs

CNCA Business Case Summary

Business Case Evaluation Criteria	State of Oregon's Requirements	CNCA Business Case Results*	Does CNCA Meet Oregon's Requirements?
Reduction in "current state" data center operating budget (while maintaining or improving existing Service Levels)	15-30% Reduction	Reduction: 22% (w/o debt service) 16% (incl. debt service)	✓
"One-time" costs must be recovered in a short period of time.	24-36 Months	Months: 48 (w/o debt service) 55 (incl. debt service)	X
Strategy for minimizing risks	Should be credible, together with risk mitigation	Identifies a comprehensive set of risks, and includes costs of mitigation	✓

*See CNIC Business Case Evaluation Report

The State of Oregon has a compelling business case to move forward with consolidation of its IT infrastructure

Comparison of Consolidation Options

Components of Business Case	CNCA1 Baseline	Sub-Committee Updates*	Sub-Committee Results
Annual Recurring Operating Savings	\$10.0M	3.2M – FTE Reductions	\$6.8M
Annual Recurring Facility Debt Service Cost	\$1.8M	No Change	\$1.8M
One-Time Transition Costs (includes cost avoidance)	\$11.8M – \$15.3M	5.05M Additional costs**	\$16.85M – \$20.35M
Payback Period (w/o debt service)	27 - 31 Months		44 – 48 Months
Payback Period (w/ Debt Service)	33 - 38 Months		50 – 55 Months

*See CNIC Business Case Evaluation Report

** 1.7M – Accenture Contract, .4M – Federal Funding Issues, .5M – Project QA, .25M – External Resources, 2.2M Additional Resources to back fill

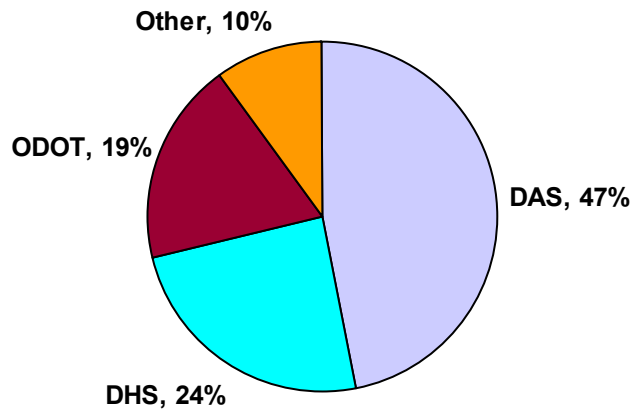
Range Costs Estimates for unresolved issues

HR Transition Costs	\$0.0 - \$2.0M		\$0.0 - \$2.0M
Variable Facility Costs	\$0.0- \$1.5M		\$0.0 - \$1.5M

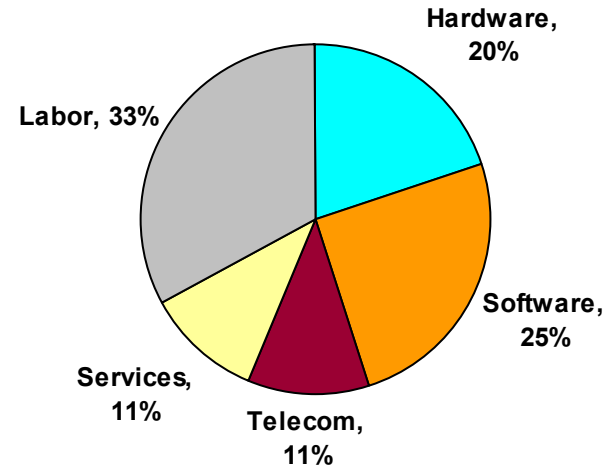
Current Infrastructure Spend

Total for the 12 Agencies: \$34M (Annual)

By Agency



By Category



Source: Agency reports, Accenture analysis

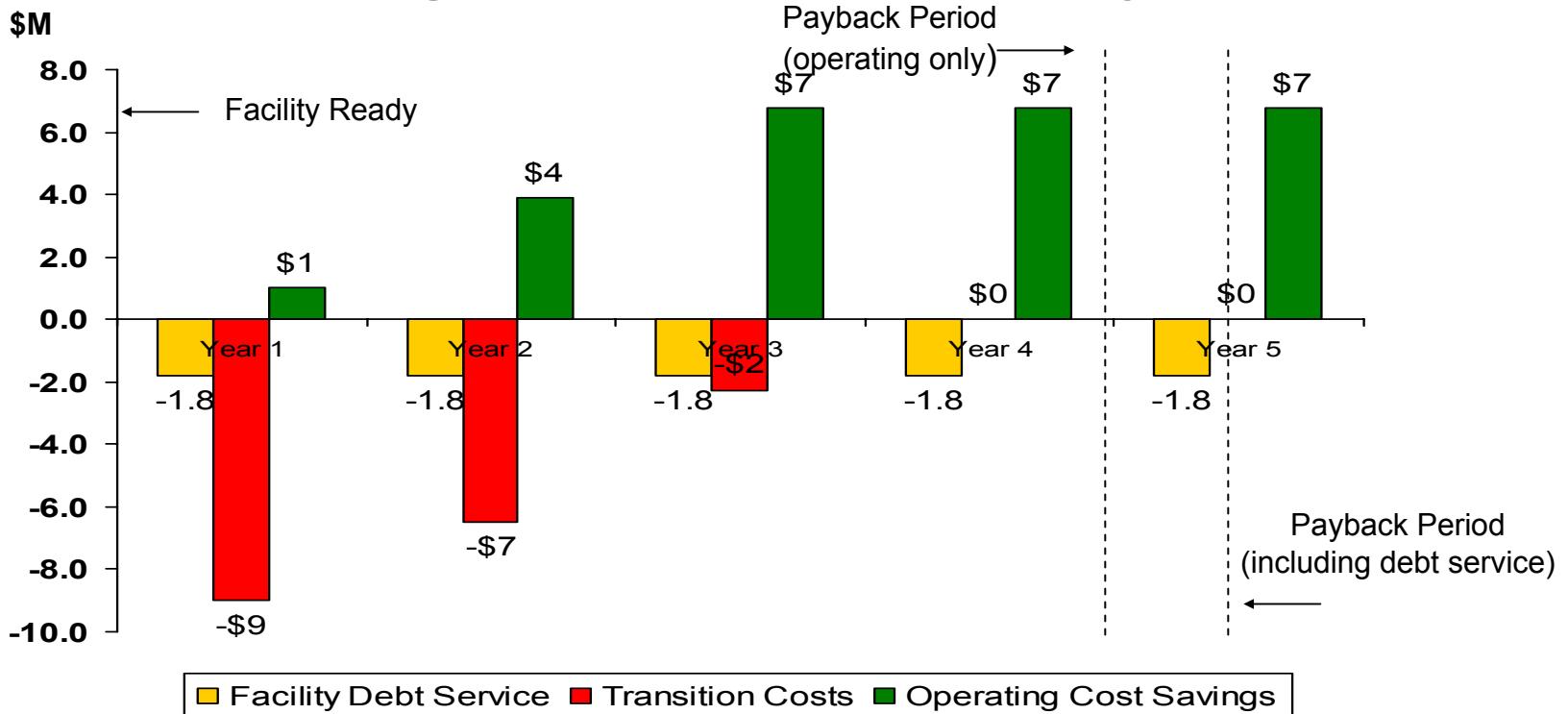
Current Environment is Fragmented

- The three largest data centers (ODOT, DHS, DAS) combined equate to 60% of a medium size data center
- Other nine 'in scope' agencies combined equate to 16% of a medium size data center
- Twelve 'in scope' agencies combined equate to just over 75% of a medium data center
- All Oregon state agencies combined equate to approximately one medium size data center

Fragmented data centers result in excess redundancy, lower economies of scale, and poor efficiencies

CNCA1 Baseline Financial Summary

CNCA1 Recurring and Transition Cost Impacts by Year



A consolidation will save \$6.8M per year and has a payback period of 48 - 55 months

Baseline Sources of Recurring Savings

- **Mainframes (\$2.0M)**

- Consolidation of mainframes on a newer mainframe replacing one older mainframe (existing logical partitions will be preserved as part of the consolidation)
- Consolidation of three older tape units into a single newer device
- Rationalization of systems/utility software licensing
- Rationalization of data center personnel

- **Servers (\$3.0M)**

- Consolidation of many underutilized servers onto fewer highly utilized servers, potentially on newer blade servers with better price-performance characteristics
- Elimination of high maintenance costs on older technology servers
- Increasing servers to systems administrator ratios based on industry benchmarks

- **Network (\$1.8M)**

- Consolidation of redundant circuits
- Rationalization of network equipment and personnel
- Stringent management of telecom expenses

DAS, DHS and ODOT should be consolidated as quickly as possible to realize the majority of the recurring cost savings

Consolidation Solves Other Critical Problems Faced By All Agencies

- Poor economies of scale due to fragmentation in acquisition and asset utilization
- Inefficient data center, server and network administration due to lack of robust and standard governance and operating processes
- Less than desirable access to information by not operating a full 24x7 operation
- High risk exposure from inadequate quality floor space on the upper floors of office buildings
- Difficulty in leveraging newer technologies
- High risk exposure due to inadequate cyber-security architecture
- No available capacity for:
 - Organic or consolidated growth
 - Measured and Managed Service Levels
 - Tested Disaster Recovery Capability

Consolidating the remaining nine data centers allows the state to correct these problems, even if CNCA benefits were cost neutral

Overall Recommendation

- After assessing the business cases for one (CNCA1) and two (CNCA2) data center alternatives, it is clear that the one data center option provides greater financial benefits, recovers costs faster, and meets approved Business Case criteria
- None of the existing sites have the capacity to operate as a consolidated, mission-critical data center
 - The existing sites do not have enough combined floor space to house Oregon's consolidated infrastructure
 - The existing facilities cannot meet the engineering (structural, electrical, etc.) and security requirements to support one or two mission critical data centers
- The recommendation yields annual recurring cost savings of 16% and a payback period of 48-55 months
 - These savings fall within typical benchmarks of 10-25% for such undertakings
- The current model is far riskier than either CNCA1 or CNCA2

Consolidating into one data center overcomes efficiency, risk, and scalability problems while creating a 16% cost savings for Oregon

Next Steps

- During Implementation Planning
 - State to:
 - Resolve open Human Resource Issues
 - Resolve Facility Siting
 - Accenture and State to:
 - Resolve other major open issues
 - Define Baseline Service Levels
 - Address Funding Stream Implications
 - Develop Charge Back Model
 - Determine IT Governance Model
- Establish Disaster Recovery / Business Continuity Plan (Recommended)

Other Cost Savings Opportunities

Opportunity	Typical Range of Savings
■ Platform & Operating System Standardization	15 - 25%
■ Email and Directory Services Rationalization	20 -35%
■ Application Server Consolidation	15 - 25%
■ Web Server Consolidation	15 - 25%
■ Database Server Consolidation	20 - 35%
■ Help Desk Consolidation	15 – 25%
■ Voice over IP	20 – 30%
■ Identity & Access Management / Security	5 – 10%

Consolidation enables the State of Oregon to pursue a number of additional cost saving IT initiatives