



# Iowa State Government Reorganization Commission

Colin Nurse.  
Chief Technology Officer, Microsoft State & Local Government



## Microsoft's Commitment to Iowa Communities

- Microsoft's Partners
  - Microsoft works with more than 780 partner companies that build technology tools and services on the Microsoft Platform, creating jobs and revenue in Iowa.
- Microsoft Office in Des Moines
- West Des Moines Microsoft Data Center Project
- Microsoft's giving programs in Iowa
  - Since 2003, the company has given and matched employee gifts totaling more than \$19.9 million in cash, curriculum, software and Volunteer hours in the State of Iowa
- Workforce Training Programs
  - Unlimited Potential and Elevate America Programs
- Tech Soup, Partner in Learning, Boys and Girls Clubs of America

## Iowa State Government Reorganization Commission

To the credit of your state policymaking leadership, an important decision has already been made. Better use of IT in general will be a major consideration in whatever you do to, in the words of your commission's charge, "improve efficiency, modernize processes, eliminate duplication and outdated processes, reduce costs, and increase accountability."

To Address the Commissions specific charge I will respond to 4 Questions:

- What best practices have other states identified as essential to successful IT consolidation?
- What options are available to reduce the number of servers currently deployed around state government?
- What options are available when considering so-called "Cloud computing"?
- What real difference could IT make in providing better government services while producing savings to the State of Iowa?



## **State Governments Consolidating IT**

### **Status of States IT Consolidation Initiatives**

<b>Initiative</b>	<b>Percent</b>	<b>Count</b>
<b>Completed</b>	<b>14%</b>	<b>4 of 29</b>
<b>In Progress/ Partial</b>	<b>38%</b>	<b>11 of 29</b>
<b>In Planning Phase</b>	<b>24%</b>	<b>7 of 29</b>
<b>Proposed</b>	<b>17%</b>	<b>5 of 29</b>
<b>No Activity</b>	<b>7%</b>	<b>2 of 29</b>

**The overall picture is that States are either Consolidated, Have Consolidation Projects in Progress or planning to consolidate. The level of progress can be measured by the amount of very direct mandated support.**

## Consolidation Positioning



### Cost Savings

- Consolidated Purchasing, Economies of Scale
- De-duplication, Less Staff covering 24x7 (Graying Workforce)
- Better use of assets, Need to Size Servers for Peak time loads, 12 hours per day Servers are idle. Less Servers Overall. 50 trucks Verses 4
- New IT Services Cost less, the costs are per User only
- Definitely Green



### Security

- Greater Control and Policy Management
- Physical Control
- Enterprise Rights Management
- Consistent approach to Retention and Archive
- Faster Response to Virus, Spam threats
- Consistent DR approach



### Agility

- Easier to Change, apply security etc, Manage and Monitor
- Integration
- Supports the deployment of New IT services
- Supports the Consolidation of other Statewide apps, CRM ERP etc.
- Seamless integration across the enterprise



### Performance

- Reliability
- Availability
- Service Consistency
- You actually get to know what the volumes (costs and Usage) are of your State, typically this is not known
- IT becomes more Strategic as Agency Staff focus on Agency Strategy, rather than Infrastructure



## Other Consolidation Project Best Practices

- Ensure strong Leadership, with Support from Elected Officials and Senior Management
- Have an IT strategy agreed with the Leadership
- When recruiting the Infrastructure team, ensure the recruiting process is fair and equitable, the world will know if it is not
- Consolidate hardware and Software platforms down to strategic vendors
- Have an Enterprise Architecture & Standards, Plus a Project Management office
- Recruit experienced staff from the Line of Business to be your eyes and ears of the business, Ideally they should work for IT, Customer Account leads. Ensure customer account leads are a part of the Line of Business management structure
- Introduce IT service performance metrics, that show scale, volume and uptime of IT service provided to date, good and bad, and as the customer sees and experiences it.
- Institute and reward Customer Service culture, IT is only there to enable the business



## Consolidation Benefits

- It is a less expensive to run, Less Staff, Supports the ageing workforce crisis
- Greater economies of scale
- More efficient use of the Server assets, 24 hours per day, Less Servers, through Virtualization
- Improved Scalability & Performance, Greater use of High Availability technologies
- Consistency of service levels and management
- It is more secure, Faster security Patching and Management of risk
- Less internet exposed access points
- Enterprise Wide view with consistent security, Privacy and data retention
- Control, Secure and consistent access to the State data
- It is very green
- One face for State email [john.doe@State.gov](mailto:john.doe@State.gov)
- Better Use of Real Estate
- Better Support for New Business Applications
- Improved Business Continuity Protection

## Lessons Learned

- Bench mark the existing Service, The good old days!
- Don't take on the biggest Applications, User groups or departments first.
- Help the small Departments first, as this is where the quick wins will be, and they will be your greatest voices going forward.
- Be creative, consistent and very persistent with your communication.
- Plan and manage for the staff affected by the change. IMPORTANT
- Change is not always seen as positive by departments or staff involved.
- Involve the business in the IT change process, even have them approve the change.
- The business actually sees the strategic value of IT
- Private Sector – Public Sector – Issues = Same. Its not Technical
- Strategic IT gets the budget that it needs





**When the foundation is solid,  
the rebuilding can start.**

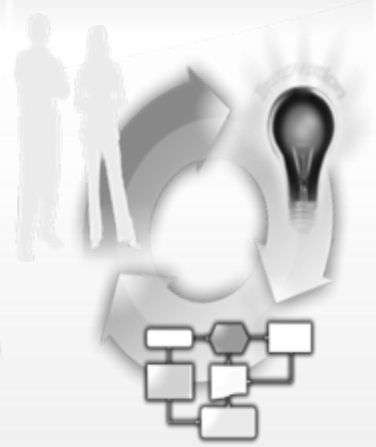
## **Cloud Computing**



# Evolution of Computing

1970s      1980s      1990s      Today      2009+

Monolithic	Client-Server	Web	Service Oriented Architecture	Cloud Services Enablement
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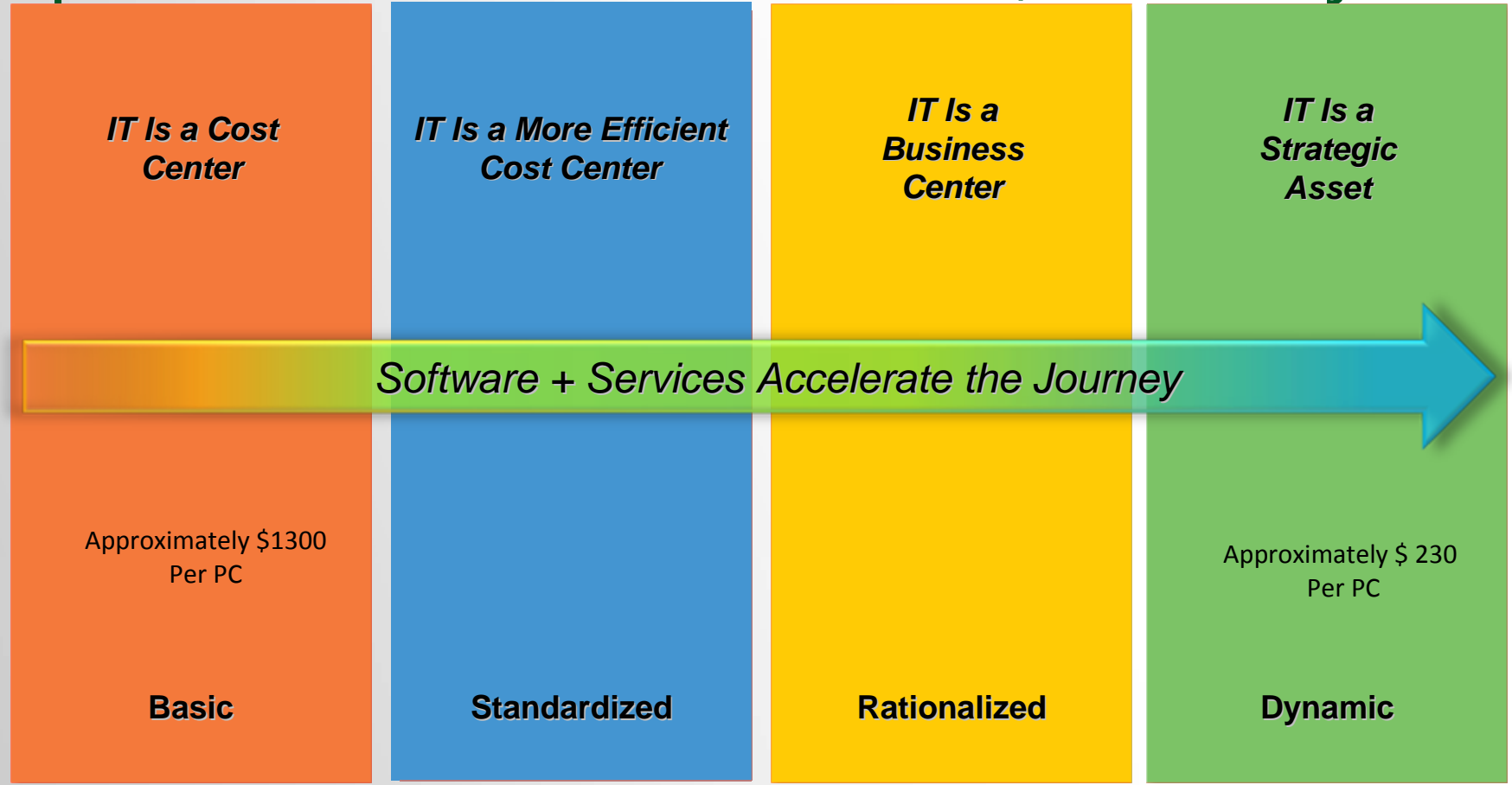


“Cloud Computing refers to both the applications delivered as services over the Internet and the hardware and systems software in the datacenters that provide those services.”

- UC Berkeley Reliable Adaptive Distributed Systems Laboratory



## Optimized Platform and Infrastructure, where are you?



## Why are State Governments looking at the Cloud Services?

Inexpensive  
Technology

Inexpensive  
Storage

The Internet

Emerging  
Consumerism

(almost)  
Ubiquitous  
Connectivity

Distributed Talent  
Pools



### A need to evolve with the times

- 23% - 50% of workforce will be at retirement age within 10 years
- Modernization of legacy systems

### A need to be more cost effective

- Decreasing budgets
- Outdated infrastructure requirements to stay current while budgets decrease
- Integration and interoperability

### A need to be more convenient and accessible

- Gov 2.0 - Increasing citizen participation
- Transparency - Citizens are demanding more information sharing
- Accessibility

# Microsoft Strategy - Software + Services

On-Premises

Cloud-Hosted

Freedom to **Choose** the right mix of On-Premise and Cloud-Hosted Services for your Mission. With consistent, integrated and secure user experiences across multiple clients.

PC

WEB

PHONE

# Scenario – Disaster Response

On-Premises

Discreet On-Premise Communications and Collaboration services in multiple independent Agencies. Supporting each Agency's unique mission.

Cloud-Hosted

Disaster occurs. Cloud-Hosted Email, Team Spaces, and Conferencing services provisioned to broad community of First Responders. Integrating national and local agencies.

Immediate deployment of consistent services to a heterogeneous and dynamic community. Integration of services between First Responders and Core Agencies.





## Cloud Consideration



- Security & Privacy
- Customizability
  - Visibility & Control
    - Accessibility 508c
    - Availability, Enterprise Track Record
    - Document Fidelity
    - Data Accessibility

- Global Reach
  - Ease of Provisioning
    - Business Agility
      - Deployability & Manageability





# **Significant Opportunities - Sustainability**





## Approach For Sustainable IT – Facilities = Savings

### Reduce



- Built in energy efficiency
- Resource optimization
- Guidance & education

### Manage



- Centralize control
- Analyze operations & monitor goals

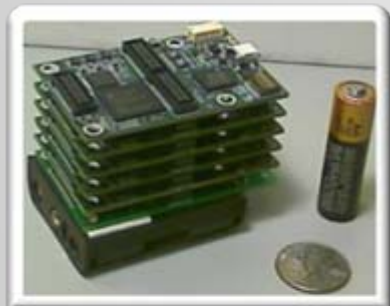
### Rethink



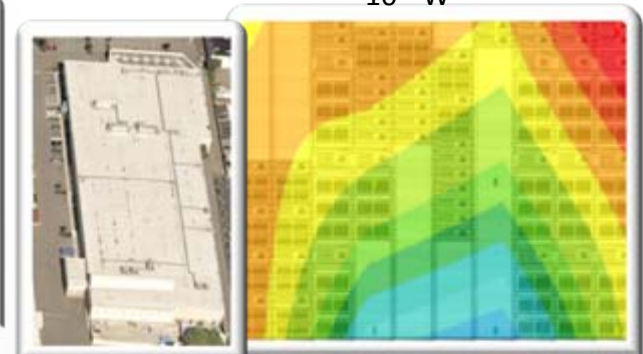
- Reduce travel and commuting
- Paperless Office
- Hosted offerings

# Microsoft Research - Energy Efficient Computing

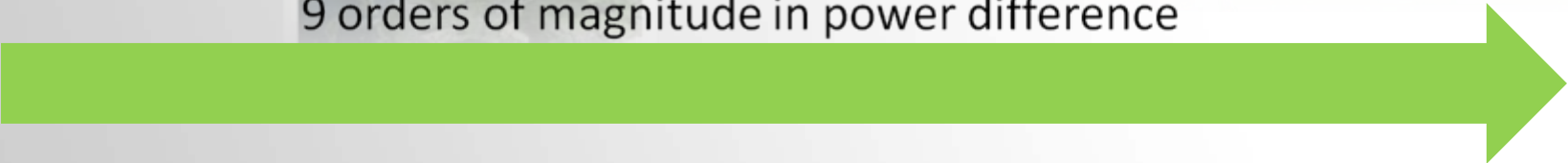
Computing on a dime  
 $10^{-2}$  W



Computing in a warehouse  
 $10^7$  W



9 orders of magnitude in power difference



Tradeoffs in energy and performance across the scale



## IT Opportunities to save Money

### Unifying Communications

- Consider Video Conferencing, Desk to Desk, Voicemail to your Inbox – What does VM cost today?
- Wyoming Case Study.
- Disaster or Pandemic Situation – What happens to Government
- Less Energy

### Virtualization

- The ability to share multiple Server loads Virtually on a single server, Consolidation support this technology = Reduction in Servers , Reduction in Real Estate, Less Energy.
- Typically servers run significantly under capacity

### Application Replacement

- Where the real savings can be made, Collaborate with other states, Share the development. The saving are huge, ERP, Medicare/Medicaid,JPS

## IT Opportunities to save Money

### Legacy Server Migration

- Significant saving can be made on Mainframe migration, there are issues however customers are using modern tools to transfer the old to the new. Marin County Case Study

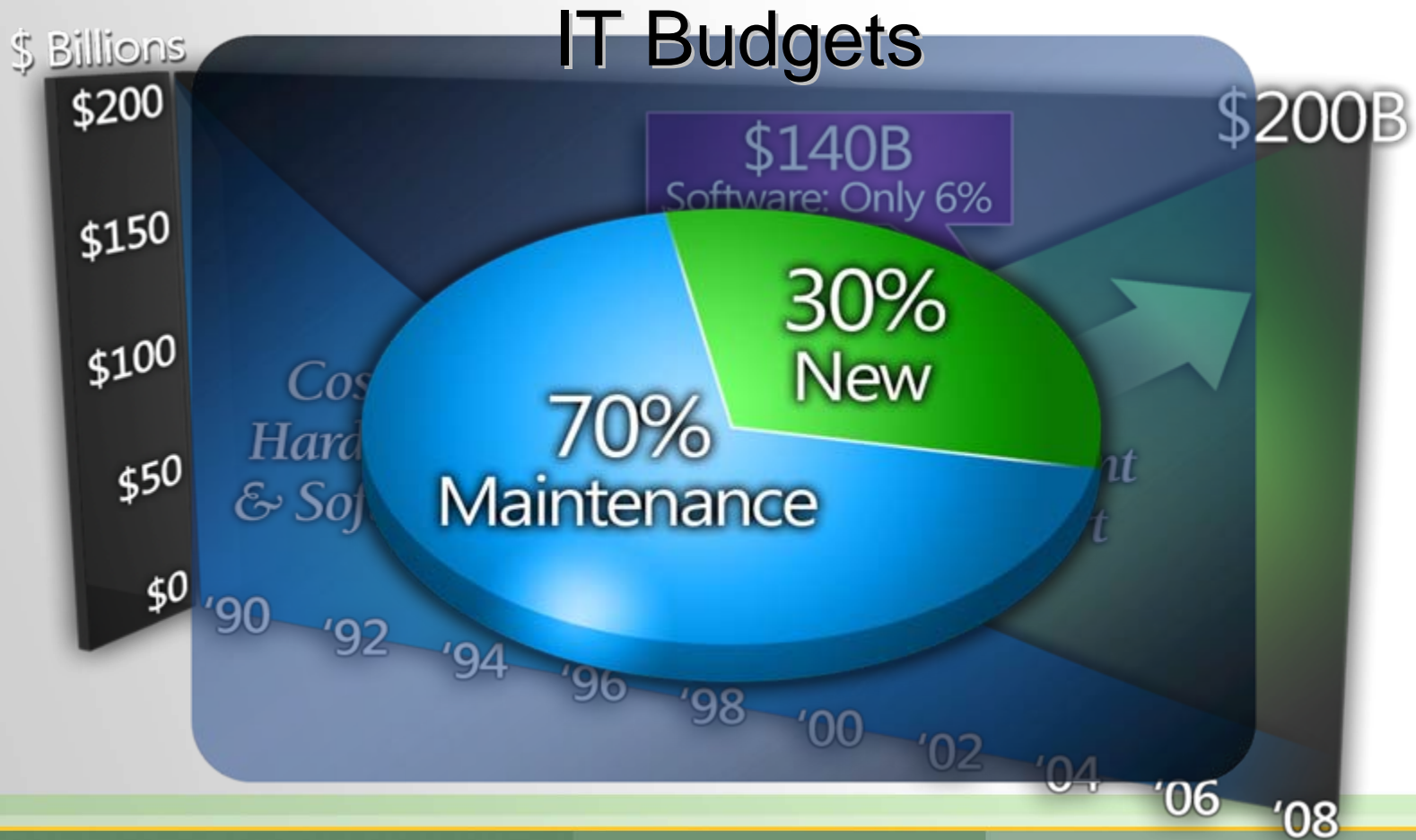
### Area Re-Vitalization

- Rural or Urban job creation, Virginia and the Furniture Manufacturing industry

### Transparency

- Hot Topic today across the US, Stimulus etc. Follow on benefits with regard to tools for the future management of Tax dollars

# Challenges to Adoption



# Questions and Thank you

Colin.nurse@microsoft.com