

Reducing your Total cost of Ownership

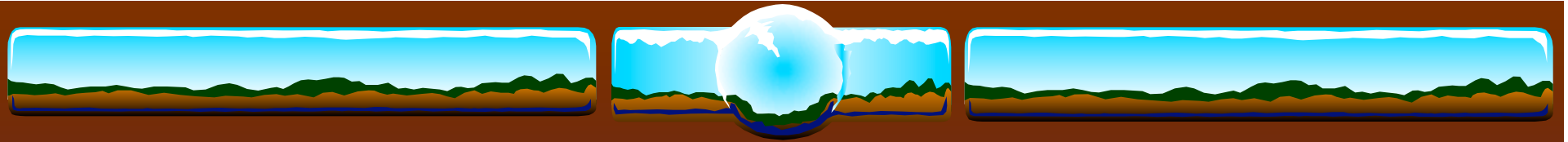
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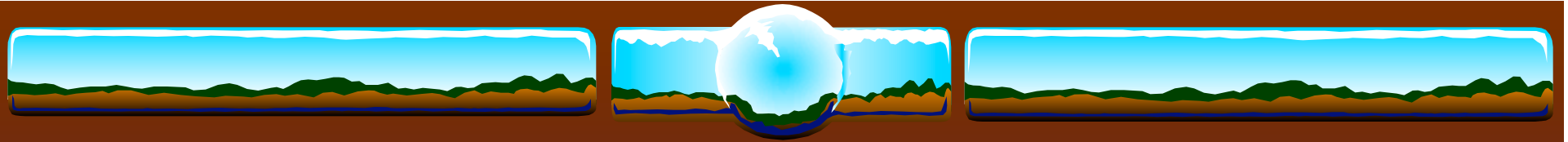
TCO Defined

- ❖ The cost of a computer over its lifetime
- ❖ Gartner Group estimates a single PC costs \$9,000-\$12,000



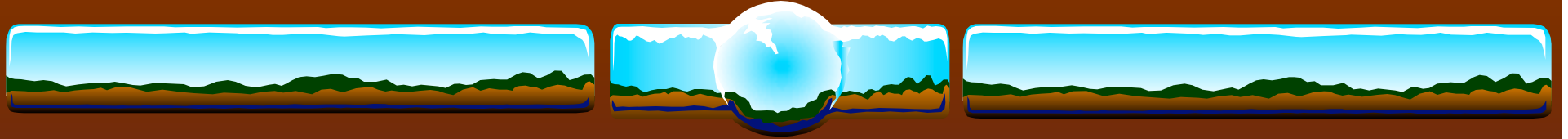
TCO Factors

- ❖ Procurement costs (bids, contracts)
- ❖ Original equipment cost
- ❖ Software
- ❖ Service and Support
- ❖ Upgrade costs
- ❖ Training costs
- ❖ Loss of productivity (down equipment, recreational computing)
- ❖ File Server costs
- ❖ Cabling
- ❖ Internet access
- ❖ Asset tracking



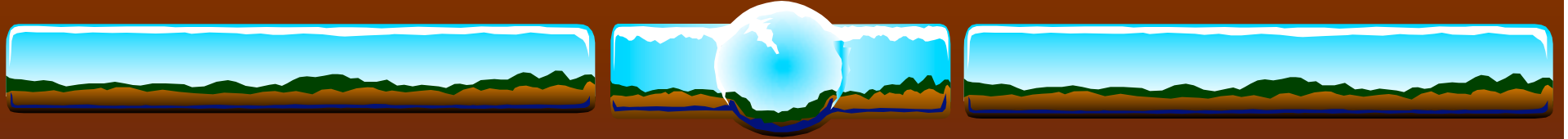
The Expanding Computer Base

- ❖ Trends – computers in classrooms
- ❖ Internet
- ❖ Building wide networks
- ❖ Hundreds of computers



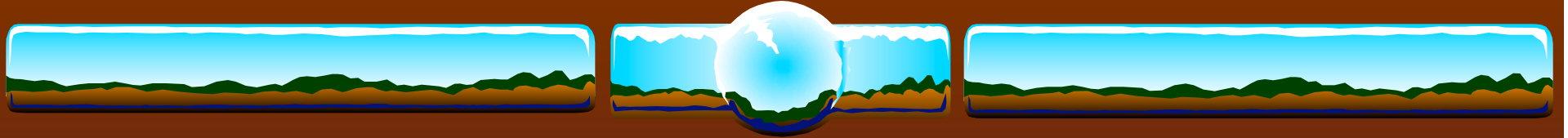
Rethink the model including:

- ❖ Usage of computers
- ❖ Applications
- ❖ Support
- ❖ Purchasing
- ❖ Support



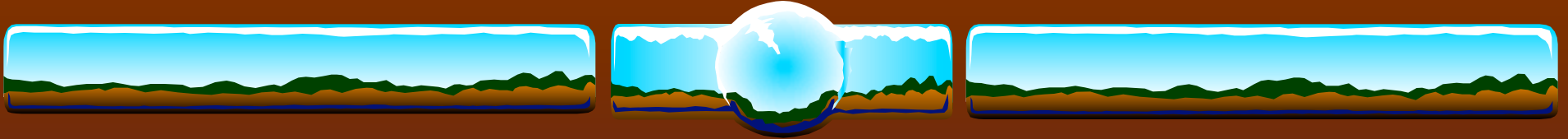
1. Define how you'll use technology in your school or district.

- ❖ Working Technology plan
- ❖ Match hardware to applications
- ❖ Intergraded Learning Systems?
- ❖ Information Literacy?



2. Adopt a uniform standard for equipment.

- ❖ Reduce hardware combinations
- ❖ Train on specific lines of equipment
- ❖ Manufacturer support
- ❖ Easier to service similar brands and platform
- ❖ [Dell Program](#)



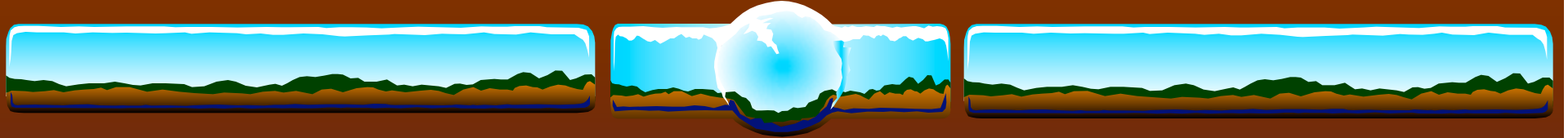
3. Implement terminal servers and consider thin clients

Pros:

- ❖ Substantial savings in desktop support
- ❖ Closed end system
- ❖ Central Management
- ❖ No desktop customization
- ❖ Applications added centrally
- ❖ Inexpensive terminals (under \$1,000)

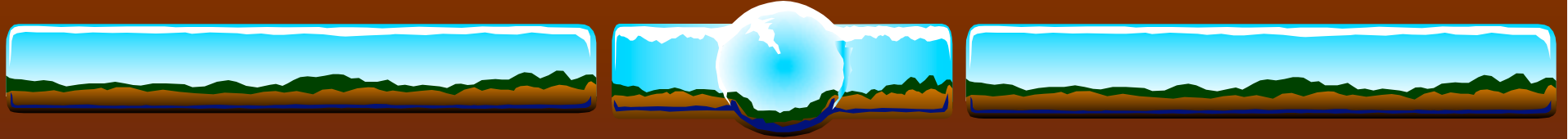
Cons:

- Requires a robust infrastructure
- System software is complex
- Limited uses of computers
- Central point of failure



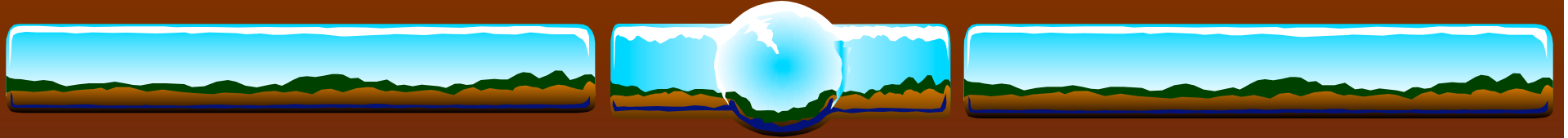
4. Set a life cycle for new computers —and plan accordingly

- ❖ Older hardware become costly to maintain
- ❖ Plan to replace hardware
- ❖ Build in a five year plan
- ❖ Be careful of software upgrades



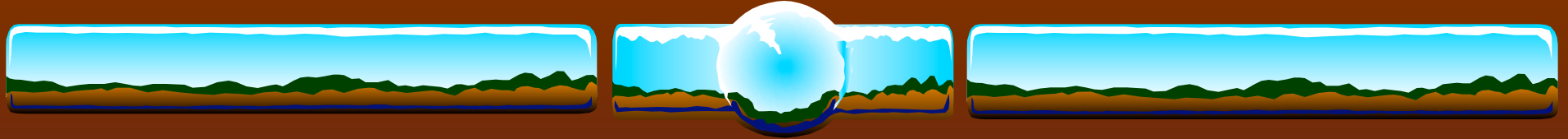
5. Consider leasing as an option.

- ❖ New computers every 36 months
- ❖ Payments built in the budget
- ❖ More computers initially
- ❖ Current technologies
- ❖ Save on staff development costs, training greater numbers of staff at once



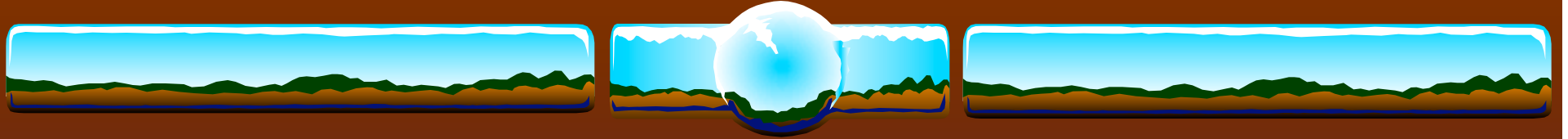
6. Purchase new computers “cloned

- ❖ Clone all hard drives
- ❖ Dell and Gateway will do this at the factory for minimal costs (\$15-30 per system)
- ❖ Symantec’s “Ghost” utility



7. Buy the extended warranty.

- ❖ Paid at initial purchase
- ❖ Extends standard 1 year to 5 year on-site
- ❖ Minimal Cost
- ❖ 24 hour turnaround time
- ❖ Reduces down time and service expenses
- ❖ *Example – 5 year on-site service from Gateway - \$170*



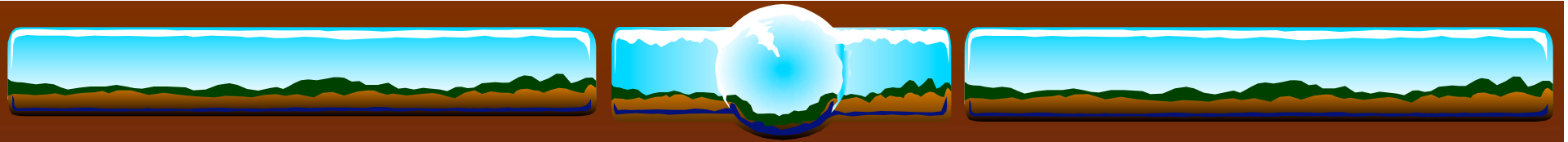
8. Provide adequate support.

- ❖ Computer to Technician Ratio:

- ❖ Business Settings: 1-50

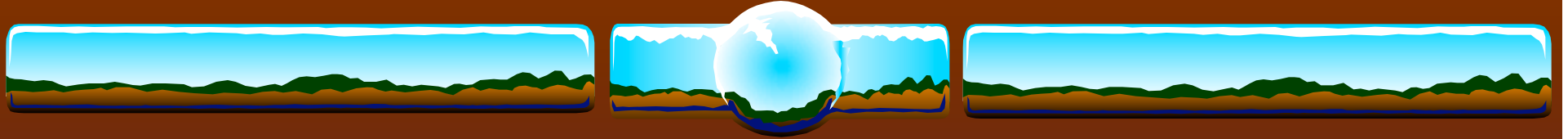
- ❖ Education 1-500

(Source: IDC)



Outsourcing vs. in-house support

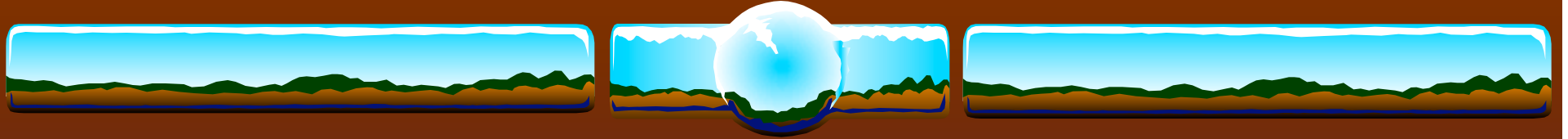
- ❖ Think through support costs
- ❖ Know when to bring in experts
- ❖ Use existing staff wisely
- ❖ Mix and match



Should Teachers do Tech Support?

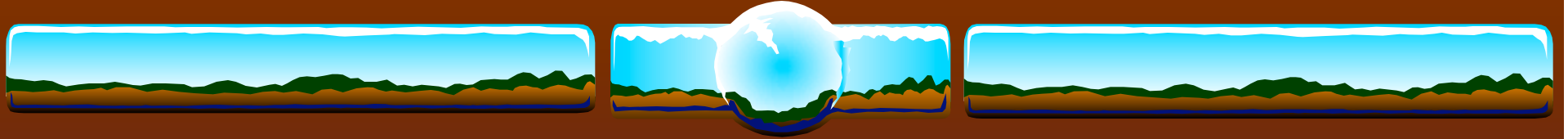
Commercial Support rates: \$45 - \$75 per hr.

(bulk rates)



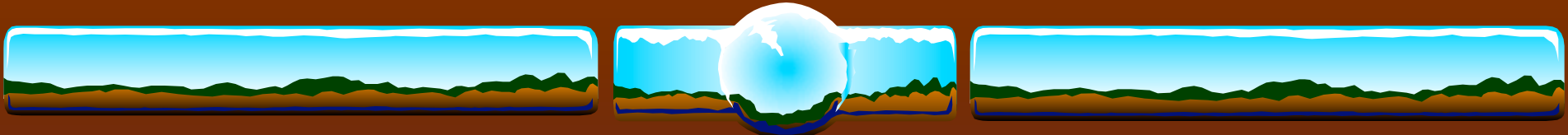
9. Establish a help desk

- ❖ Call Volume
- ❖ Too many applications?
- ❖ Infrastructure problems
- ❖ Analysis of problems
- ❖ Cheaper to replace then to continue to service?
- ❖ Software Issues?
- ❖ Inform users when calls are addressed



10. Take advantage of remote management tools

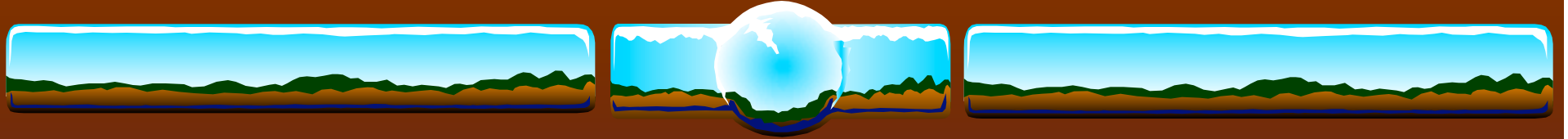
- ❖ Manage resources centrally
- ❖ Know when problems occur
- ❖ “Push down” applications
- ❖ Plan for upgrades, monitoring bandwidth and network traffic



11. Consider outsourcing functions as necessary.

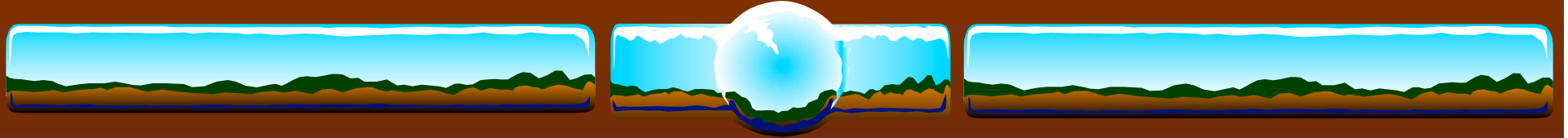
Should Teachers do Tech Support?

- ❖ Teacher Annual Salary: \$50,000
- ❖ Benefits (30%) \$15,000
- ❖ Total cost to District: \$65,000
- ❖ Daily Rate (186 days) \$350
- ❖ Hourly rate (7 hours) \$50 per hr.



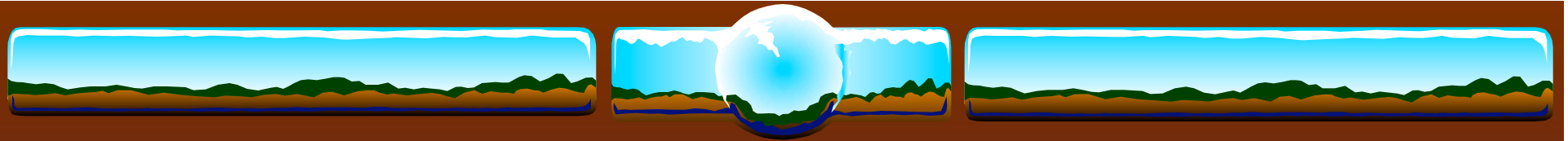
Outsourcing software with ASP's

- ❖ Application Service Providers
- ❖ Software runs remotely
- ❖ Maintenance and upgrades handled remotely
- ❖ Only requires Internet browser



12. Invest in professional development.

- ❖ Train support staff on basics
 - ❖ Printer jams
 - ❖ Power up and boot routines
 - ❖ Changing toner and ink cartridges
 - ❖ Adding users



Look to run Applications from the Net

- ❖ Two requirements: Good bandwidth and Browser software
- ❖ Web enabled software is the future
- ❖ Student Systems, helpdesk, data analysis, reference databases, more

APPLICATION SERVICE PROVIDERS

PC World.com | Application Service Providers - Microsoft Internet Explorer



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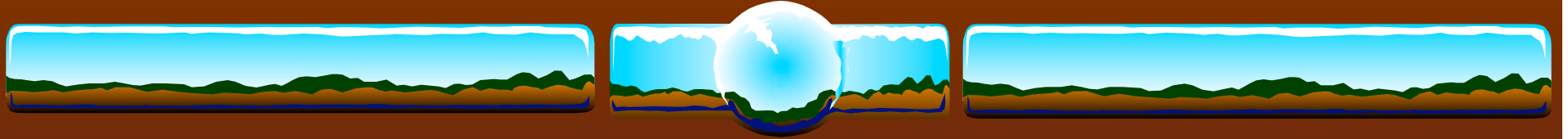
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Solutions

- ❖ Know your costs
- ❖ Know your commitments
- ❖ Develop a long range plan