

MIS: Information Technology Infrastructure

DTSL B-2, S-3

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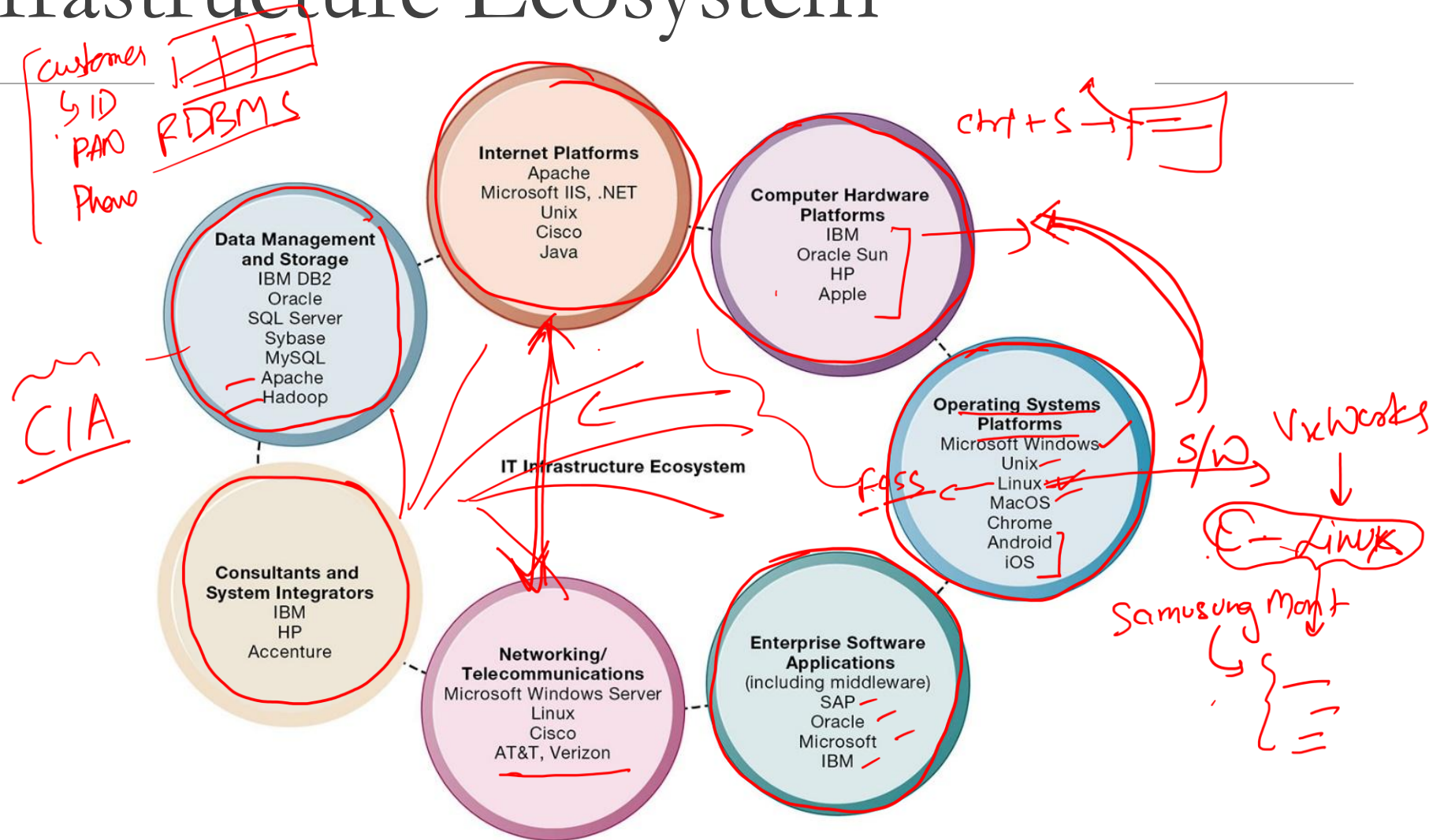
What is IT Infrastructure?

- Shared technology resources that provide the platform for the firm's specific information system application
 - Set of physical devices and software required to operate an enterprise
- Service platform perspective – easier to understand the business value provided by infrastructure investments
 - Computing platforms to provide computing services
 - Telecommunication services, Data management services
 - Application software services, IT management services
 - IT research and development services

IT Infrastructure Decisions

- IT Infrastructure Questions: Business Needs
 - What business needs have to be met with the infrastructure components ?
 - How does the technology help the organization compete ?
 - Is the technology appropriate for the task ?
 - Is the technology the best in its class?
- IT Infrastructure Questions: Technology Issues
 - Is the technology scalable ?
 - Is the technology interoperable ?
 - What is the technology roadmap ?
 - What is the renewal cycle ?
 - Is there vendor support ?
 - What will be the nature of the technology lock in ?
 - Make or Buy ?

The IT Infrastructure Ecosystem



Current Trend in Computer H/w Platforms

- Quantum Computing
- Virtualization
 - One physical machine to multiple systems; multiple physical resources to one logical one (software define storage)
- Cloud Computing
- Edge computing; Green Computing

Management Problems

- Dealing with Platform and Infrastructure change
 - Scalability
- Management & Governance
 - Who take decisions? Centralized/Decentralized? Business units?
- Making wise infrastructure investments – Rent/Buy
- Total Cost of Ownership (TCO)

TCO of Technology Assets

- Hardware acquisition cost
- Software acquisition
- Installation
- Training
- Support
- Maintenance (Upgrades, if any)
- Downtime
- Space & Energy