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Note

It is advisable to use these colourful charts for revision after completion of every chapter These Charts will help you to finish large volume of subject in few hours

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Chapter 1 - Business Process Management & IT (Chart 1.1) **Business Process Management Cycles in Business Process Flow** "The achievement of an organization's objectives through the improvement, management and control of essential business processes" **Principles** Life Cycle Accounting Sales **Purchase Finances Benefits** Practices 1) Purchase 1) Processes 1) Process-oriented 1) Analysis phase 1) Source 1) Customer 1) Financial Planning 1) Effectiveness Order are assets organizational structure Document requisition 2) Request for 2) Distribution of tasks to 2) Value to 2) Resource Allocation 2) Journal 2) Appoint process owners 2) Design phase 2) Recording process participants customers auote 3) Operation & 3) Creation of basic 3) Top-Down Commitment, 3) Implementation 3) Continuous 3) Ledger 3) Pick release 3) Quotation Monitoring operational value proposition **Bottom-Up Execution** improvement phase 4) Evaluation, Analysis 4) Use IT to manage 4) Run & Monitor 4) Purchase order 4) Trial Balance 4) Shipping & Reporting processes phase 5) Collaborate with 5) Adjustments 5) Invoice 5) Receipts 5) Optimize **Business Partners** 6) Adjusted 6) Continuous learning & 6) Receipt 6) Payments Trial balance process improvement 7) Closing 7) Align employee rewards 7) Reconciliation to process performance Entries 8) Utilize BPR, TQM & other 8) Financial process improvement tools statement Designed By: Swapnil Patni Charts can also be



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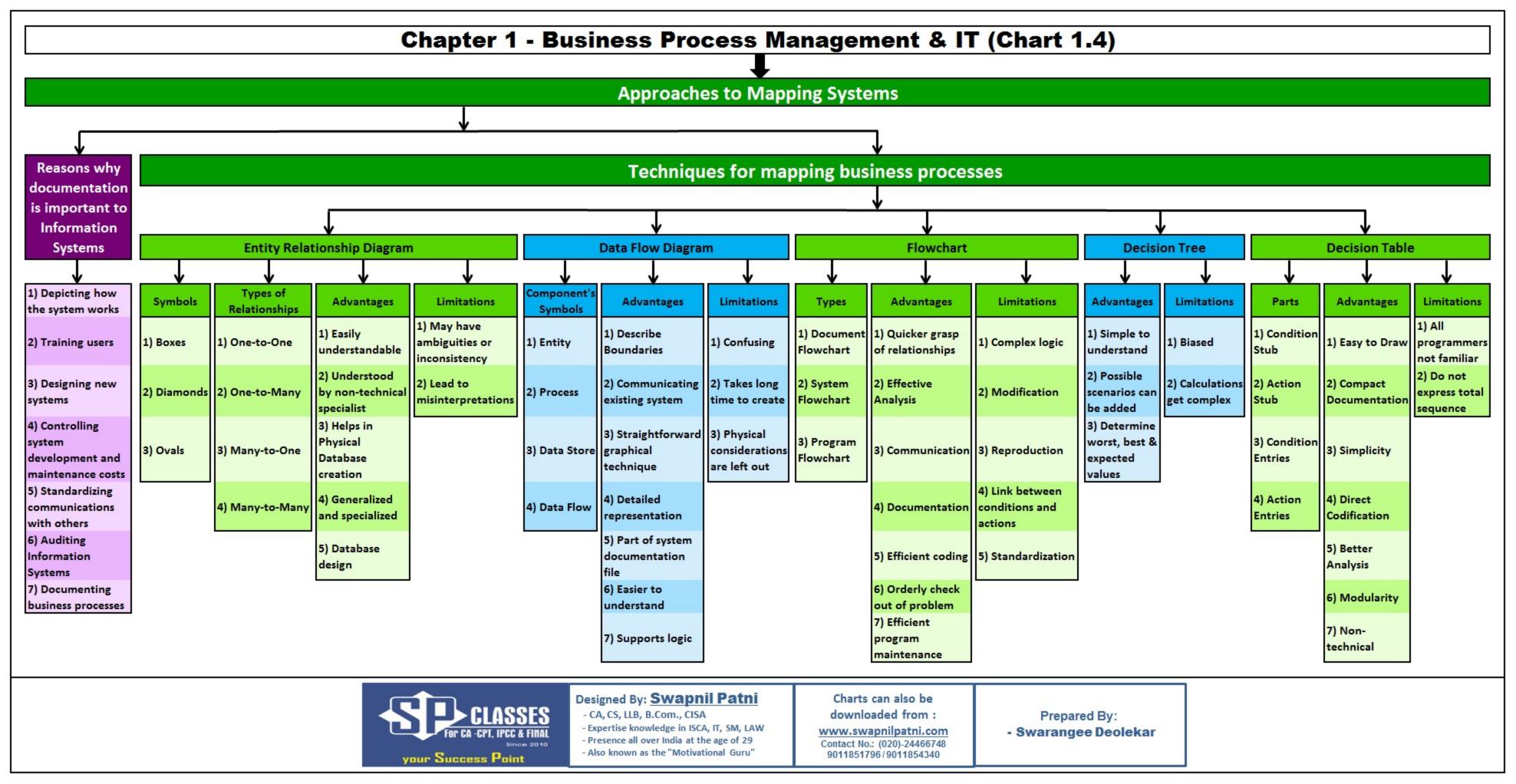
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Chapter 1 - Business Process Management & IT (Chart 1.2) **Theories of Process Management BPM Implementation Business** Automation **Business Total Quality** Six Sigma **Key Factors** of functional Challenges Value Chain Automation Process Process Need Management Reengineering Automation units 1) Create long-Primary Secondary Life Cycle Life Cycle 1) Scope **Success Factors** Benefits 1) Consumer is 1) No. of term future Activities Activities often confronted interfaces with 2) Create short with poor customers is 1) Saving on 1) Inbound 1) Organization 1) Define 1) Plan 2) Goals term cost 1) Procurement wide commitment customer service growing logistics costs effectiveness 3) Initiate 2) Consumer 2) Human 2) Staying ahead 2) Product, service 2) BPR team 3) Methods to continuous demands more 2) Operations 2) Measure Resource composition be used & price options in competition improvement w.r.t. delivery Management have increased time, higher 4) Introduce 3) Fast service to complexity of 4) Skills 3) Outbound Business needs 3) Technology quality of 3) Analyze knowledge of 3) Check Required business logistics analysis customers Development product products 5) Re-engineer 3) Org have whole 3) Product or 4) Marketing 4) Adequate IT 5) Tools to be 4) Infrastructure 4) Out business suite of 'build & 4) Improve service is Risks & Sales Infrastructure used radically buy' systems & becoming more 5) Effective applications, with personalized, 6) Investments 6) Address 5) Control 1) Risk to jobs its own data 5) Services change thus complex, to Make cultural barriers supported by format management increased 6) Ongoing 7) Sponsorship/ 7) Introduce 4) Budgets are 2) False sense of customer continuous **Buy-in Needed** leadership security being cut services improvement

Chapter 1 - Business Process Management & IT (Chart 1.3) **Accounting Systems Automation** Impact of IT on BPM and Risks of failure of IT Basic Processing Cycles of an Accounts BPM Benefits of BPMS Business Risks of failure of IT **Functions** 1) Collect and 1) Superficial executive 2) Deficient project **General Ledger & Data Processing** 1) Automating repetitive **Processing Cycles** store data Reporting System Cycle - Steps business processes involvement management 2) Works by 'loosely coupling' 2) Record 1) Financing Information processing 3) Breakdown in gap 4) Limited options for 1) Data input operations involved in transaction Cycles with existing applications analysis customization updating general ledger 3) Safeguard 5) Not flexible, too 6) Failure to identify & preparing reports, organisational 2) Revenue Cycle 2) Data storage 3) Operational Savings complicated to be future business needs summarize results of an customized assets organization's 4) Reduction in 3) Expenditure 7) Inadequate 8) Persistent activities. An important 3) Data processing administration involved in Cycle compatibility problems assessment function of AIS is to Compliance & ISO Activities efficiently & effectively 4) Information 9) Resources not 4) Human 5) Freeing-up of employee 10) Software fails to collect & process data Resource Cycle output time available meet business needs about company's 5) Production 11) System may be 12) Technological transactions obsolescence Cycle over-engineered



Chapter 2 - Information Systems and IT Fundamentals (Chart 2.1)

Auditing in IT Environment

Audit Objectives

Differences in Audit Procedures

1) Study Technical

3) Audit Software

2) Use Unique

Techniques

Aspects

Usage

IT Risks & Issues

Risks

Impact of IT on Risks and Controls

Auditors' Concern

- 1) Existence
- 2) Authorization
- 3) Valuation
- 4) Cutoff
- 5) Compliance
- 6) Operational
- 7) Assisting management in implementing Internal Controls
- 8) Participating in designing Computer Control
- Determining efficient use of Computer resources is made
- 10) Determining Computer system accomplishes business objectives

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- 1) Business risks
- 2) Technology risks
- 3) Operational risk
- 4) Other risks

Issues

- 1) What type of process will enterprise use to identify business & technology risks when changes in technology occur
- 2) What are risks faced by enterprise when it makes changes to critical system which cannot afford to fail?

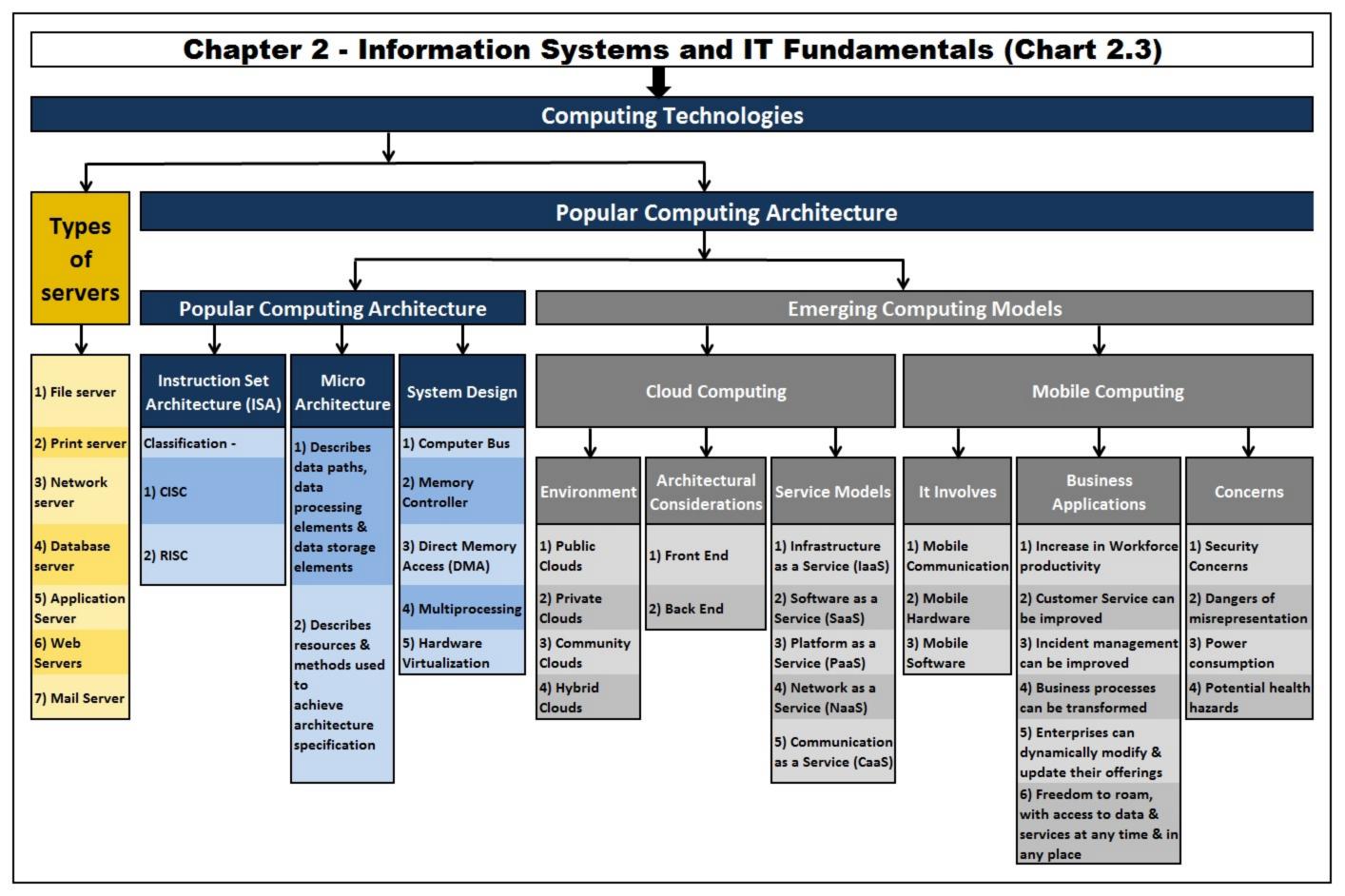
- 1) Ready access to terminals as CIS are highly distributed & leads to ease in perpetration of computer related crimes thereby increasing temptation for abuse
- On-line processing of data & validation checks would help prospective perpetrator in guessing passwords
- 3) If threats are not anticipated & adequate controls not designed to mitigate them, system & its resources will be yulnerable
- 4) Failure to recognize risks or potential impacts of those risks

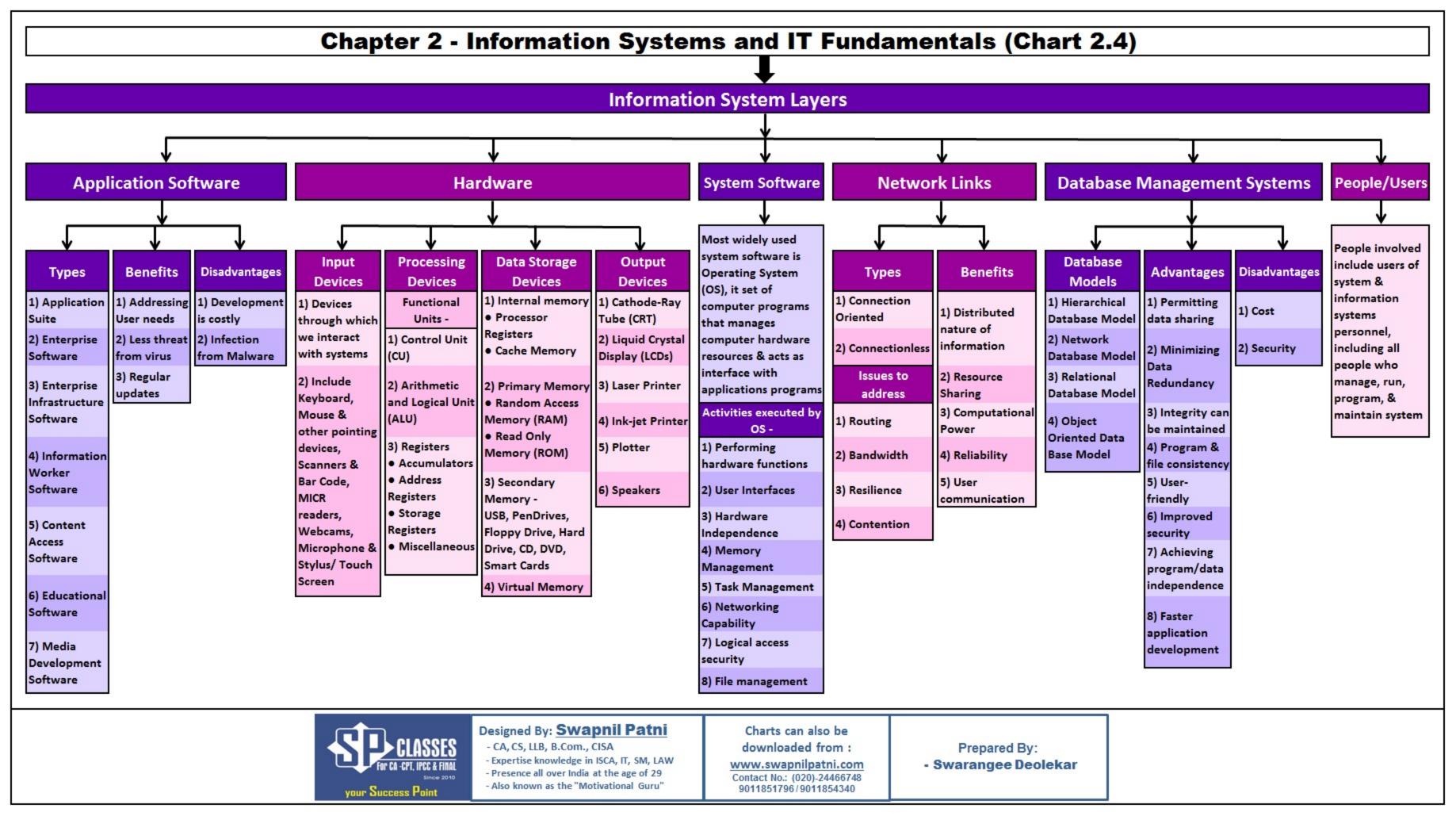
- 1) Develop & apply new criteria in evaluating control weaknesses in CIS 2) Tailor testing
- 2) Tailor testing techniques to CIS under study
- Use computers to perform some portions of audit examination



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Chapter 2 - Information Systems and IT Fundamentals (Chart 2.2) **Business Process Automation** Computing (Sub-disciplines) IT processes Information involved in Three Critical Information Software Computer Computer **Pillars** business Science Engineering Systems Technology Engineering enterprise 1) Database access & Application of 1) Application of 1) Integrates several 1) Integration 1) Study of changes systematic, disciplined, 1) Scientific & fields of electrical computers & complementary 2) File replication & quantifiable practical approach engineering & telecommunications to 2) Orchestration networks of hardware & approach to design, data backup to computation & its computer science store, retrieve, transmit software that development, 3) Systems & event applications required to develop & manipulate data in for 3) Automation enterprises, employees operation, & log monitoring computer hardware & processing of information or individuals use to maintenance of software in enterprises 4) Job scheduling 2) Systematic study collect, process, create, software, & study of 5) Application of feasibility, store & distribute data 2) Focuses not only on 2) Study, design, these approaches, integration structure, how computer development, which is primarily expression, & 2) Aims to support systems work but also application, 6) File transfers application of mechanization of how they integrate & operations, management implementation, support engineering to methodical processes 7) Printing work holistic system & decision making or management of CBIS software





Chapter 2 - Information Systems and IT Fundamentals (Chart 2.5) Information System Life Cycle Recent Technologies Phase 5 - System Phase 3 - System Phase 4 - System Phase 1 - System Phase 2 -Maintenance & Investigation **System Analysis** Implementation Designing Review How will Solution be Evaluates results of 1) Bluetooth 'What is problem & is How will Information What must it worth solving? System do that it must do solution & modifies put into effect? Information System Feasibility study to obtain system to meet changing 2) Wi-Fi do to solve problem? Installation solution to problem? needs **Dimensions** -3) Laptop/ Post implementation Specifies technical aspects 1) Economic feasibility 1) Interviewing staff 1) New Hardware Notebook review done to address of proposed system -4) Tablet 2) Examine current 1) Programming 2) Legal feasibility 1) Hardware platform 2) Training users amendments business 5) Smart Phone 3) Operational 3) Sending out 3) Conversion/ creation 2) Adjustment of clerical 2) Software of new of master files procedures feasibility questionnaires 3) Modification of 4) Observation of 6) Touchpad 4) Schedule feasibility 3) Outputs Conversion current procedures Reports 7) iPad 5) Technical feasibility 4) Inputs 1) Direct Changeover 4) Request for new programs 5) User interface 2) Parallel Conversion 8) iPod 9) Ultra-Mobile PC System maintenance MT: Economical LOST 6) Modular design 3) Phased Conversion objectives 1) Perfective 10) Android 4) Pilot Conversion 7) Test plan Maintenance 2) Adaptive 8) Conversion plan Maintenance 3) Corrective 9) Documentation Maintenance

Chapter 3 - Telecommunication and Networks (Chart 3.1) Trends in Telecommunication Telecommunications Network **Business Value of** Telecommunication Industry **Business application** Strategic Capabilities of Need & Technology Trend Telecommunications Network Model Trend Trend telecommunications & Scope of other IT include -1) Open systems with Networks 1) Trend toward more unrestricted vendors, services, 1) Networks & Telecommunications Telecommunications Telecommunications 1) Overcome Geographic Advantage connectivity, using Terminals Computers services are Internet technologies, Media/Channels **Control Software** Barrires **Processors** of available from Internet networking & open systems, & Telecommunications 1) Starting & Computer Supports data 1) Computers of numerous technologies rapid growth of 2) Overcome Structural network that connects 1) Network stopping points Network transmission & receptio all sizes & types companies are becoming primary Internet, www, Management Barriers message source with in any Org between terminals & are connected technology drivers intranets. message receiver telecommunicati computers by providing extranets, dramatically through media to 1) File 2) Moving towards Data transmitted & on network variety of control & increases no. of feasible perform their 2) Internet & building Client/server 3) Overcome Time Sharing received over channels. environment 2) Traffic Management support functions, they communication telecommunications www has networks Barriers use telecommunications include applications assignments created new based on open system media products, 2) Telecommunications architecture 2) Any input or 1) Modems 3) Security 2) They include -1) Guided Media/Bound networks are playing services & 4) Overcome Cost 3) Change from analog 2) Resource output device 2) Network Interface Host Media vital role in ethat is used to providers Sharing to digital network Barriers 4) Network Monitoring Card (NIC) Computers Twisted pair Wire commerce, enterprise transmit or technologies (mainframes) Coaxial Cable 3) Business firms collaboration, & receive data can 4) Change in 3) Remote • Front-End 3) Multiplexers Fiber Optics have internal business be classified as 5) Capacity Planning Communications Medi Access Processors dramatically applications MT: GST Cost terminals 4) Internetwork 2) Unguided (minicomputers) 4) Shared increased use of 3) These include 3) Telecommunications Media/Unbound Media Network Internet & Web **Databases Processors** Video Terminals, functions have become Switch Terristial Microwave Servers 5) Fault Microcomputers, integral part of local & Router (microcomputers) Radio Waves Tolerance MT: FC Road pe Telephone & global computer • Hub Microwaves Radio sunte huye Transaction networks 6) Internet Bridge Infrared Waves faulty Resources Terminals Access & share karenge Repeater Communication Security Gateway Satellites

Chapter 3 - Telecommunication and Networks (Chart 3.2b) Classification of Telecommunication Networks - Functional Based Classification Peer-to-Peer Networking (P2P) Client-Server Networking Multi- Tier Architecture Single Tier Systems/ One-Tier Two Tier Systems/ Two Tier Disadvantag Client Characteristics Issues Meaning **Advantages** Three Tier Architecture Architecture Architecture 1) Mix-and-It consists of client & server. It is Single-user workstation, 1) Server goes 1) Created with 2 1) Easy to set 1) Problem 1) A single computer that contains Client-server architecture in which functional process provides presentation services | Match database & front-end to access database software architecture in which logic, data access, computer data storage & user down or or more PCs up & only in accessing files if not 2) It involves putting all required interface are developed & maintained as independent appropriate computing, crashes, all connected require Hub presentation layer or interface runs on connectivity database services 2) Integrity components for software application or or Switch to client & data layer or together & Share modules on separate platforms computers connected technology on single server or platform connected to it data structure gets stored on server relevant to business need resources without connect properly going through become 2) Does not 3) Transparence 2) Simple & 1) Fat/ Thick Client unavailable to separate server Advantages Disadvantages 3 Tiers Disadvantages Advantages Disadvantages Advantages support of Location cost effective use computer connections It can be used by 1) Performance 2) Simultaneous 2) Prime objective with too It requires only 1 1) System 1) Creates an 4) Shared 1) Presentation 1) Dynamic load access to data 8 goal of P2P is that stand alone only 1 user at a performance is deteriorates if number increased need for 2) Thin Client computer many balancing Resources Tier computer & time so it is higher of users increases network traffic services by user fails to work, computers many computers takes little installation of impractical for come together & all other management, 2) Since 3) Data 2) Restricted flexibility 2) Application 2) Change proprietary software an org which server load more time for pool their 3) Hybrid Client 5) Scalability computers security is processing is & choice of DBMS management which makes it most requires 2 or balancing, & fault server to resources to form connected to shared between very poor in cost effective more users to tolerance process task content it continue to this client & server. 3) Database Server 6) Service 3) Clear interact distribution system work architecture more users Tier separation of could interact One or more multi-user 2) Current tools are user-interfacewith system processors with shared MT: MIT S3 relatively immature control & data memory providing computing, 3) Have simple & complex presentation connectivity & database structure, easy from application-3) Maintenance services & interfaces relevant to setup & ogic tools are currently to business need maintain entire inadequate for system maintaining server smoothly libraries Designed By: Swapnil Patni Charts can also be - CA, CS, LLB, B.Com., CISA downloaded from: Prepared By: - Expertise knowledge in ISCA, IT, SM, LAW



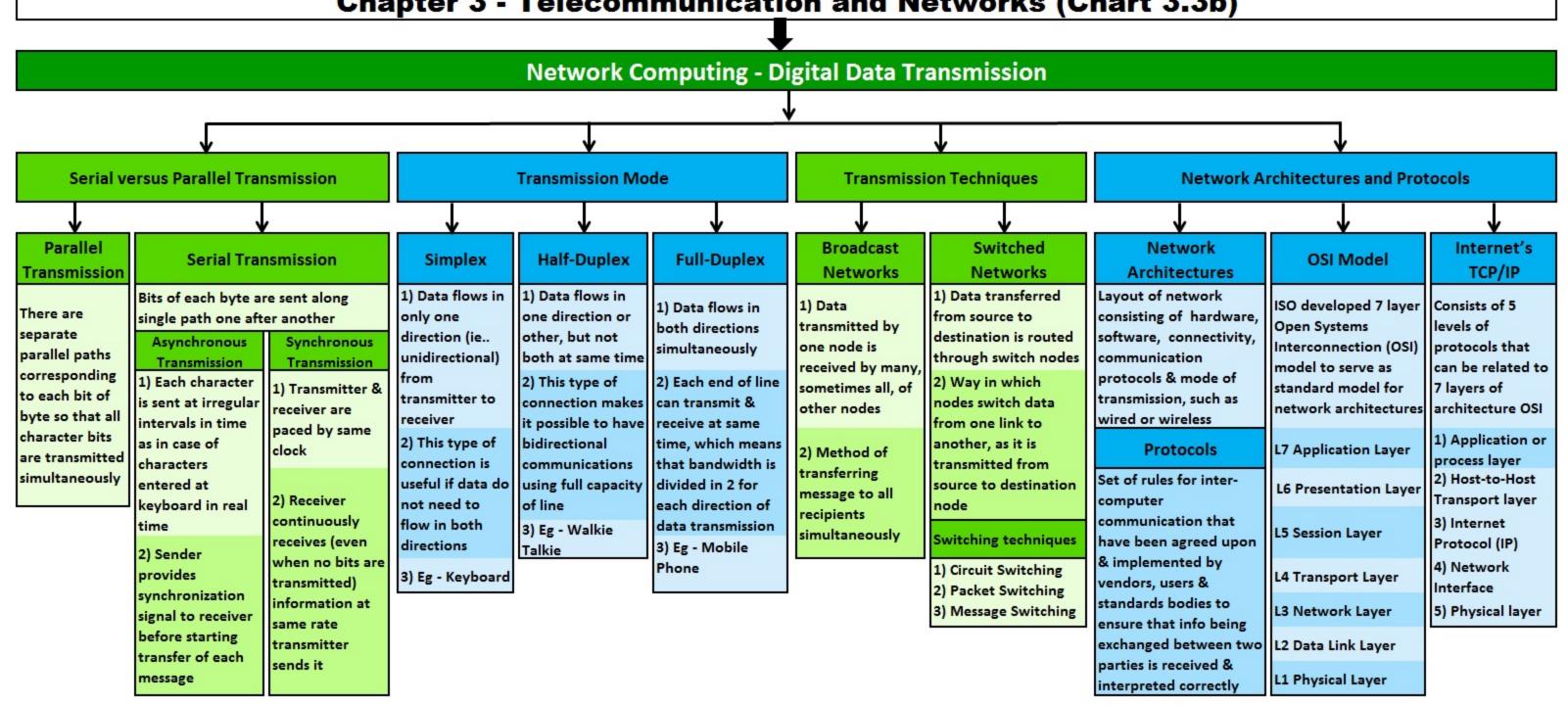
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Chapter 3 - Telecommunication and Networks (Chart 3.3a) **Network Computing Network Topology Centralized Computing** 1) Computing done at central location, using terminals that are attached to central Star Network **Bus Network** Ring Network Mesh Network computer 2) It offers greater security over decentralized systems because all of processing is Disadvantages Advantages Characteristics Advantages **Features** Advantages Disadvantage Characteristics Disadvantages Meaning Advantages controlled in central location 1) Reliable as 1) Ties end user 1) Whole 1) All 1) Heavy 1) Local computer 1) Do not require 1) Random 1) Yields greatest 1) Relatively 1) Several users Decentralized Computing connection of nodes network is communications | well as easy to computers to network processors are central computer amount of redundancy expensive & can use central affected if main travel along this use & tied together central traffic can using if one of nodes fails. 1) Allocation of resources both 2) Direct unit at same time difficult to instal cable called bus sequentially communication links computer unit goes down understand slow network traffic can be hardware and software, to communication 2) Reliability is very 2) Failure of one redirected to another each individualworkstation, or 2) Easy to add 2) Bus networks 2) Each between each 2) One of 2) Central unit 2) Has high as there are new nodes & 2) Considered computer can node office location have connection computer acts as traffic microcomputers decentralized always alternate less reliable decentralized affect whole remove existing between 2 3) Not susceptible 2) Network problems 2) Decentralized systems fails, it will not controller approach paths available if nodes approach network cables to breakdowns enable file sharing & all affect entire are easier to diagnose direct link between weakens 3) Difficult to 3) Well suited 3) Node failure 3) Cost of computers can share network Disadvantages 3) Data is passed 4) Offer high two nodes is down electrical troubleshoot peripherals such printers as & cabling are to companies does not bring or dysfunctional along ring performance signal with one large down entire very high 4) Adding or 3) Requires least scanners as well as modems, amount of cable 3) Bus allowing all computers in data processing network 4) Reliable & less 5) Span longer removing High cost of 3) Military network to connect to 4) Easy to extend configuration computers can installation & facility shared distances installations, which 4) Easier to costly disrupt network maintenance, more internet by number of 5) Repeater can need high degree of can be diagnose network 6) Easily cable is required smaller problems through difficult to redundancy, may be used to extendable departments troubleshoot central hub extend have such networks

Chapter 3 - Telecommunication and Networks (Chart 3.3b)



Chapter 3 - Telecommunication and Networks (Chart 3.4) **Network Risks, Controls and Security** Network Network Objective & **Network Security Vulnerabilities** Level of Security Threats Security Security **Techniques** Types (Aspects) Protocols Possible danger that 1) Intrusion Detection System Basic objective for Inherent weakness in Steps of Security 1) Secure 1) Privacy providing network can disrupt operation (IDS) -Program -Shell (SSH) design, configuration, security is two-fold functioning, integrity, Network Intrusion or implementation of or availability of 2) SSH File a) Cryptography Detection (NID) 1) Safeguard assets network or system network or system 1) Preparing project plan b) Encryption: Transfer Host-based Intrusion that renders it Plaintext Protocol 2) Ensure & maintain for enforcing security Detection (HID) susceptible to threat Categories CipherText data integrity (SFTP) Hybrid Intrusion Detection Encryption Facts responsible for 3) Hyper Text 1) Unstructured Two types of Model occurrence of 2) Asset identification 2) Firewall Transfer Systems Security Threats - Methods: vulnerabilities Protocol Secret Key, Secure 1) Physical Security 2) Structured Threats 1) Software Bugs 3) Asset valuation 3) Network Access Control Public Key (HTTPS) - Approaches: Hardware 2) Logical Security 3) External Threats 2) Timing Windows 4) Threat identification 4) Anti - Malware 4) Secure Software Socket Layer 5) Threats probability of 3) Insecure default (SSL) 2) Authentication 5) Site Blocking 4) Internal Threats configurations occurrence assessment 4) Trusting Untrustworthy 6) Exposure analysis 3) Integrity information 4) Non-5) End users 7) Controls adjustment Repudiation 6) Bad Protocol 8) Report generation MT: PANI outlining levels of security to be provided MT: STEP IT for individual systems, end user, etc.

Chapter 3 - Telecommunication and Networks (Chart 3.5) Intranet **Electronic Fund Mobile Commerce** Network **Electronic Commerce** Extranets Network inside organization that Information It is buying & selling of goods & Transfer Internet Administration uses Internet technologies to Network links that use Internet technologies to Process of doing business electronically. It refers to use of technology to enhance processing Systems & services through wireless rovide Internetlike- environmer Global computer network, or information super-high way. interconnect Intranet of business with Intranets of commercial transactions between company, its customers & its business partners. Represents way business car ndheld devices such as cellula for information sharing. It is network that serves as backbone for World Wide Web (WWW) of its customers, suppliers, or other business receive direct deposit It involves automation of variety of B2B & B2C transactions through reliable secure Telecommunication telephone & personal digital Management all payments from financia partners connections assistants (PDAs) support of business processes institution to bank account **Business Value of Five Rules** Provide capability to EFT is fast, safe, & Types of **Business Value of Intranets** Risks involved It includes Internet Applications Benefits Meaning Features move information Extranets of Extranet e-Commerce means that money will rapidly between distant be confirmed in user's 1) Operation 1) E-mail, browsing sites on www 1) Customer & supplier 1) Explosion of application 1) Reduction in costs to buyers 1) Communications & 1) Does not have 1) Be as locations, through bank account quicker 2) Administration 2) Electronic commerce access of intranet & services that are 1) Problem of) Business-tofrom increased competition flexible as central computer collaboration telecommunications. than if he had to wait 3) Maintenance 3) Electronic discussion forums & resources lot easier & Business (B2B) becoming accessible from anonymity 2) Reduction in time to complete 2) Business operations & system business value may be for mail, deposit bulletin board systems faster than previous Internet-enabled devices 4) Provisioning business transactions 2) Does not have management cheque, & wait for 4) Downloading software & business methods 1) Improvements in 2) It involves new Network 3) Reduction in costs to suppliers 2) Repudiation of headquarters 3) Web publishing 2) Business-tofunds to become information files & accessing databases 2) Offer new kinds of effectiveness of technologies, services & Management 2) Deploy i 4) Reduction in errors, time, & 3) Growing rapidly 4) Intranet management contract Consumer (B2C) available 5) Real-time conversations interactive Web-enabled business models **Functions** management "Internet overhead costs 6) Gathering information through services time" 2) Increase in efficiency Industries affected by m-1) Fault Strategic Communications & 5) Creation of new markets 3) Problem of 3) Consumer-to-Examples 3) Enable & improve online services Management Capabilities Collaboration of operations Business (C2B) commerce include 6) Easier entry into new markets piracy collaboration 7) Better quality of goods 1) Send & receive mail,e-2) Configuration 3) Innovations in 4) Data Loss or 1) Automated Teller 1) Overcome 4) Consumer-to-4) Online, interactive **Business Use of Internet** 3) Protect 8) Faster time to market as 1) Financial services, voice mail, paging, & fax marketplace geographic barriers theft or duplication Consumer (C2C) Machines (ATMs) Management product development, includes mobile banking, interests of business processes are linked 2) Improve team & project 1) Strategic business alliances 3) Accounting 2) Overcome time 5) Attack from 5) Business-to-2) Point-of-Sale (PoS) marketing, & customer-Telecommunications data owner 9) Optimization of resource brokerage services collaboration with services 2) customer and vendor support Management barriers hackers Government (B2G) Transactions focused process may provide values selection such as discussion groups, 3) Collaboration through following 4) Performance 3) Overcome cost 10) Reduction in inventories & 5) Business-to-3) Preauthorized chat rooms, & audio & 4) Buying & selling products & services 6) Denial of Service Use of extranet 2) Telecommunications 4) Serve impacts barriers reduction of risk of obsolete Employee (B2E) Transfers Management videoconferencing 5) Marketing, sales, & customer partner as inventories 1) Exchange large 7) Lack of audit 5) Security 4) Overcome Growth of cross-functional business customer Web Publishing 1) Time compression 3) Service/retail 4) Telephone Transfers 11) Reduction in overhead costs volumes of data structural barriers trails Management applications through uniformity, automation, 2) Share product catalogs 7) Enterprise communications Non-recognition Publishing company's 2) Overcoming & largescale - integration of 3) Collaborate with other 5) Drive 4) Information services, 8) Attracting new customers of electronic newsletters, technical geographical dispersion MT: PAP ko Transfer management processes information which include delivery of companies 9) Retaining present customers transactions drawings, product catalogs 12) Reduction in use of to decisionfinancial news, sports 4) Jointly develop & use 10) Developing new web-based markets 3) Restructuring in variety of ways 9) Lack of ecologically damaging materials figures & traffic maker training programs 11) information-based products business relationships hypermedia, web pages, eauthenticity of 13) Reduction in advertising 5) Share news of 12) Generating revenue mail & net broadcasting transactions common interest 13) Electronic commerce MT : Flexible partner ki MT: In new and global market cost nteresting information of ustomer and intelligence of internet pe dekhneko overhead are not considered on time maja aati hai t may create ecological quality error

Chapter 4 - Business Information Systems (Chart 4.1a) **Office Automation Systems Information Systems Transaction Processing System** Information Transactions Information **OA Model** Types Attributes Meaning Meaning System **Processing Qualifiers** 1) Type of information 1) Information & 1) Strategic Amalgamation of 1) Data is raw fact & can take Information 1) Access Control ACID TEST Communication - No system that collects, stores, Level Systems form of number or statement System (IS) is hardware, software, & modifies & retrieves day-to-2) It is necessary for combination of other resources used to 2) Management 2) Equivalence 1) Atomicity 2) Computer & nonday data transactions of businesses to put in place people, smooth progress of **Level Systems** enterprise computer applications procedures to ensure data hardware, communications & 3) Knowledge 3) High 2) Eg - Airline Reservation 3) Other problem 2) Consistency have been processed so that software, augment efficiency Level Systems Rapid Volume Systems, Railway reservation solvers they are meaningful communication Office automation refers Processing 4) Operation System, Banking Systems, or - Internal to use of computer & 3) This requires process that devices. 3) Isolation Level Systems Accounting System - Environmental network & data is used to produce software to digitally Examples of Office information which involves resources that generate, collect, store, Transaction Processing 4) Trustworthiness 4) Durability Automation collecting data & then processes data manipulate & relay office Cycle & information information needed for Applications subjecting them to accomplishing basic tasks 1) Word Processing transformation process in for specific MT: HEAT order to create information & goals purpose 2) Electronic mail 1) Data Entry 3) Voice Mail Components Activities System 4) Electronic 2) Transaction Processing 1) Exchange of Group of mutually related, Calendaring information cooperating elements with 1) People 5) Video Conferencing 3) Database Maintenance 2) Management of defined boundary; working 2) Hardware 6) Desktop Video administrative on reaching common goal by 3) Software Conferencing 4) Document and Report documents taking inputs & producing 4) Data 7) FAX Generation 3) Handling of numerical outputs in organized 5) Network 8) Imaging data transformation process 9) Desktop Publishing 4) Meeting, planning & management of work schedules

Chapter 4 - Business Information Systems (Chart 4.1b) Executive **Knowledge Management Systems Decision Support Systems Management Information System** Information Systems Developing MIS -Why knowledge has Meaning Meaning Meaning Framework Meaning Dos gained so much IT system that stores & 1) Simpler & manageable system 1) Computer-based information 1) Data, equipment & computer 1) Nature of IS used by momentum? 1) Intelligence retrieves knowledge, 2) Develop common system that supports business programs that are used to executives to access & improves collaboration, understanding or organizational decisiondevelop information for administer data they 1) Altering Business 2) Design 3) Involve programmer locates knowledge sources, making activities managerial use entail to make surroundings 4) Customize off-the-shelf mines repositories for 2) Interactive software-based 2) Integrated, user-machine informed business hidden knowledge, software 2) Burgeon Connections system intended to help 3) Choice system for providing information decisions 5) Simple software for users captures & uses knowledge, decision makers compile useful 2) It is not piece of to support operation, 6) Involve users or in some other way information from raw data, management & decision-making hardware or software, 3) Globalization 4) Implementation 7) Adopt modular approach enhances KM process documents, personal functions in organization but an infrastructure 4) Modification in knowledge, and/or business 3) System which provides that supplies to firm's **Developing MIS-**Types of Organizational models to identify & solve accurate, timely & meaningful executives up-to-the-Knowledge Don'ts problems & make decisions composition data for management planning, minute operational analysis & control to optimize 1) Be ambitious data, gathered & sifted Information v/s DSS helps users to 1) Explicit knowledge Components growth of org from various database 2) Be unrealistic Knowledge 3) Delay decisions on hiring 1) User 1) Information is "know 1) engender data 2) Tacit knowledge Examples of MIS Components application developer mode Is and "what what", Knowledge is 1) Hardware 4) Depend heavily on 2) One or more databases "know-how" 1) Airline reservations Consultant 2) Information is "what 2) Bank operations 2) Software 5) Invest heavily in in-house is", knowledge is "what 3) Model Base 3) Integration of department 2) scenarios 6) Let vendors determine works" 4) Logistics management manipulate data 3) User Interface hardware needs for LAN 4) Planning languages -3) Information that helps application directly 7) Go for large applications General-purpose planning achieve action well again 5) Train reservation 4) Telecommunication is knowledge languages 3) premeditated to Special-purpose planning 4) Knowledge based make non-routine decisions information technology is languages enabler which turns knowledge into valuable 4) slot in data from external sources industrial community

Chapter 4 - Business Information Systems (Chart 4.2) **Specialized Systems Enterprise** Accounting **Human Resource Supply Chain Core Banking System** Customer Relationship Management (CRM) Resource Management Systems Information Management (SCM) (CBS) Planning (ERP) (HRMS) System (AIS) **Definitions Benefits** Meaning Meaning Meaning Meaning Meaning Meaning 1) Analytical CRM Definition -Business process in 1) SCM is chain that starts 1) It is software application 1) Banks use core banking 1) Enterprise 1) Generating 1) System of Resource Planning which client a) CRM Equation: with customers & ends with that combines many human applications to sustain their customer loyalty, collection, storage (ERP) systems relationships; CRM = Customer customers resources functions, together operations where CORE stands raising market & processing of customer loyalty & Understanding + Relationship 2) It is process of planning, with benefits administration, for "Centralized Online Real-time integrate internal intelligence enterprise financial & & external brand value are built Management implementing & controlling payroll, recruiting & training, Environment" & integrated accounting data b) Customer Understanding: 2) It is set of basic software management through marketing operations of supply chain & performance analysis & relationship that is used by information across strategies & activities Analysis of customer data to with purpose of satisfying assessment into one parcel components that manage decision makers entire organization gain deep understanding down 2) Developing customer's requirement as 2) It refers to systems & services provided by bank to its CRM Mechanisms 2) Computer-based to level of individual customer connection & efficiently as possible processes at intersection customers through its branches taking on method for tracking finance/accounting c) Relationship Management: affiliation with between human resource Customer: He is accounting activity Components Elements manufacturing, source of company's Interaction with customer customer & supervising management (HRM) & in conjunction with sales & service, through various channels for it professionally & Information Technology profit & future 1) Procurement/Purchasing 1) Making & servicing loans information various purposes effectively so that it is customer growth 2) Operations 2) Opening new accounts technology relationship d) Analytical CRM: advantageous to both 3) Distribution Relationship: 3) Processing cash deposits & resources **Key Modules** customer & business management Use customer understanding to 4) Integration Between company & withdrawals 2) Rationale of ERP perform effective relationship 3) CRM applications 1) Workforce Management its customers involves Relationship between 4) Processing payments & Key Components is to make easy Management continuous bismoothen progress to 2) Time & Attendance cheques ERP, CRM & SCM flow of information directional capture, consolidate, Management 5) Calculating interest Primary goal of ERP is to 1) People between all 2) Greenberg's definition of analysis, & enterprise-3) Payroll Management communication & 6) Customer relationship improve & streamline 2) Procedure & business functions CRM wide dissemination of 4) Training Management interaction management (CRM) activities internal business processes, Instructions in interior This states that CRM must data from existing & 5) Compensation Managemen 7) Managing customer accounts Management: CRM CRM attempts to enhance 3) Data boundaries of establish with business potential customers 6) Recruitment Management 8) Establishing criteria for s not only an activity relationship with customers 4) Software organization & strategy, which drives 7) Personnel Management minimum balances, interest of marketing & SCM aims to facilitate 5) Information control transformation in the business 8) Organizational rates, no. of withdrawals allowed department; rather it collaboration between org, Technology connections to and influences work processes. Management 9) Establishing interest rates involves continuous

its suppliers,

& partners

manufacturers, distributors



corporate change in

culture & process

These processes are enabled by

information technology (IT)

exterior

stakeholders

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- Expertise knowledge in ISCA, IT, SM, LAW
- Presence all over India at the age of 29
- Also known as the "Motivational Guru"

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Prepared By:

9) Employee Self Service (ESS)

10) Analytics

- Swarangee Deolekar

10) Maintaining records for all

bank's transactions

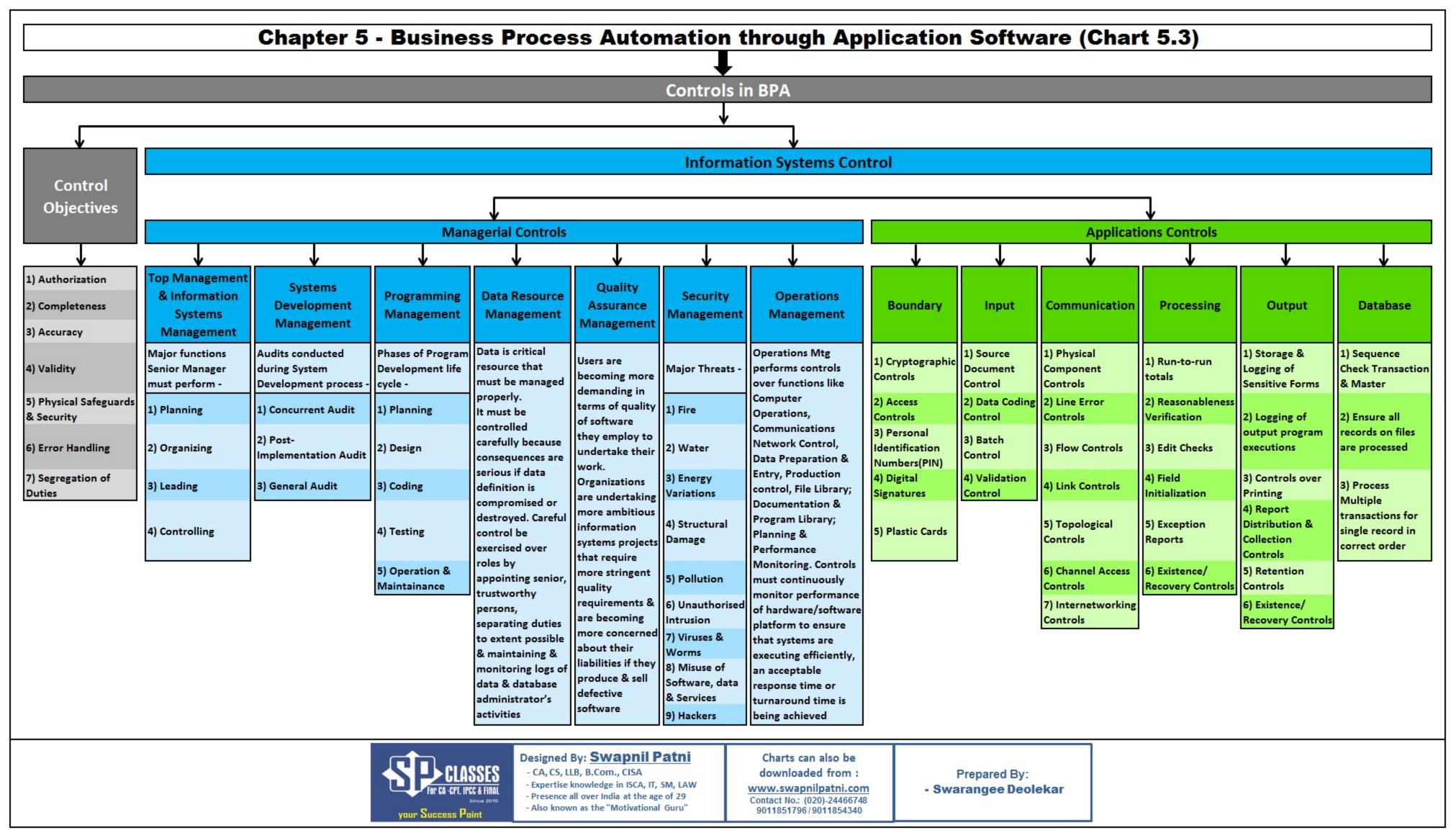
Infrastructure

6) Internal Controls

Chapter 4 - Business Information Systems (Chart 4.3) Importance of **Artificial** Payment Mechanisms -**Expert Systems Business Intelligence Access & Privilege** Intelligence Major types of Electronic Payments Controls Types of Expert **Credit Cards Smart Cards** Meaning Meaning Meaning Benefits for micro-Access Control System problem 1) Al is vicinity of 1) It is essentially timely, They have an How Credit Card is 1) ES is computerized businesses & small to **Functions** accurate, high-value, & computer science domains embedded microchip processed? information system that medium enterprises actionable business insights, instead of magnetic focusing on creating 1) Designed to deal with 1) Identity Management allows non-experts to make Step 1: machines that can fit into & work processes & strip imprecise data or 2) Authentication 1) Paperless lodgment decisions comparable to technologies used to obtain Authorization Types place on behaviors that problems that have more 3) Authorization 2) Electronic record keeping those of expert Step 2: Batching 1) Contact Cards humans regard as them than one solution 3) Pre-filled forms 4) Accountability 2) Expert Systems are used Step 3: Clearing 2) It is delivery of accurate, 2) Contactless Cards intelligent 2) Can deal with Approaches to 4) Ease of sharing for complex or ill-structured Step 4: Funding 2) It is research field that 3) Combi/Hybrid Cards useful information to imprecise data by asking tasks that require 5) Secure AUSkey **Access Control** studies how to appropriate decision makers for level of confidence, experience & specialized authentication 1) Role-based Access Electronic comprehend intelligent within necessary time frame **Electronic Purses** using technique called knowledge in narrow, 6) Same-time validation Control (RBAC) Cheques human behaviors on to support effective decision Fuzzy Logic specific subject areas 2) Rules-based Access making for business processes computer Benefits for large Following 2 1) Another way to 3) Neural network uses 3) Aim is to have team of Control (RAC) 3) Decisive objective of Al systems have make payments over computer circuitry to business seasoned specialists holding is to make computer that been developed simulate way in which industry-wide experience **Business Intelligence** 1) Single reporting language Principle of Least can discover, sketch, & 2) It is similar to preto let consumers brain might process who further spread across to report to government Tools Privilege crack problems in parallel use electronic paid card information implementations 2) Reduce costs This is fundamental 1) Simple Reporting & cheques to pay 3) Streamline process of principle of information Querying Commercial Typical On-line Web merchants ES can be aggregating data Components 2) Business Analysis security, which refers to directly applications transaction 4) Increased access to 3) Dashboards give only those 1) By Financial 1) Advertising comparable performance privileges to a user 4) Scorecards 1) Knowledge Base Services 2) Selling 1) Decision Support information 5) Data Mining or Statistical account, which are 2) Inference Engine 1) Example-based Technology 3) Paying 2) Information Retrieval 5) Secure AUSkey Analysis essential to that user's 3) User Interface 2) Rule-based 4) Matching Corporation 3) Virtual Reality authentication work 4) Explanation facility 3) Frame-based (FSTC) 5) Delivering 4) Robotics 6) Same-time validation 5) Database of Facts 2) By CyberCash 6) Resolving

Chapter 5 - Business Process Automation through Application Software (Chart 5.1) **Classification of Business Applications Business Process Automation Applications** Size of Complexity Steps in Nature of Nature of Source of Objectives Why BPA? that help Entity **Processing** Application Application Implementing BPA of Business to achieve BPA 1) Custom-built 1) Small & Medium 1) Accounting 1) Define why we plan to 1) Batch 1) Reducing Impact of 1) Confidentiality 1) TALLY Processing Application Enterprise (SME) Business Applications **Human Error** implement BPA? 2) Packaged 2) Online 2) Office Management 2) Transforming Data 2) Understand 2) SAP R/3 2) Large Business 2) Integrity Software Processing Software into Information rules/regulations under 3) Real-time 3) Leased 3) Compliance which enterprise needs to 3) MS Office 3) Availability 3) Improving Applications comply with? Applications Processing application Performance & 4) Customer Relationship 3) Document process, we 4) Attendance 4) Timeliness Process Effectiveness **Management Software** wish to automate Systems 4) Define objectives/goals 4) Making Users more 5) Management Support 5) Vehicle Tracking MT: CIAT to be achieved by Efficient & Effective software System implementing BPA 5) Engage business process 5) Making Business 6) Automated Toll 6) ERP Software more Responsive consultant Collection Systems 6) Improving 7) Product Lifecycle 7) Department 6) Calculate Rol for project Collaboration & Management Software Stores Systems Information Sharing 8) Travel 8) Logistics Management 7) Developing the BPA 7) Cost Saving Management Software Systems 9) Legal Management 8) To remain 9) File Management 8) Testing the BPA Software Competitive Systems 10) Industry Specific 9) Fast Service to 10) Other Systems Applications Customers

Chapter 5 - Business Process Automation through Application Software (Chart 5.2) Information Processing **Delivery Channels Manual Information Processing** Computerized Information **Delivery Channels for Information Delivery Channels for Products** Cvcle **Processing Cycle** Systems where level of manual Systems where computers are used at every stage of transaction processing intervention is very high It includes How to choose It includes How to choose Components Components 1) Traditional Models, 1) More than just 1) Customer response is **Process** Output 1) Intranet Input Brick & Mortar type the Intranet changing the way business operates 2) Email 2) Understand staff 2) Buying from shop Output Process Input 3) Internal Newsletter needs & 3) Home delivery of 2) While going for online Storage environment & magazines Products shopping they find wide range of products 3) Traditional 4) Notice boards 4) Buying from Channel need to be 5) Staff briefing, Feedback **Departmental Store** 3) Key words are formalized Manual, guides "convincing" & 6) Hand held devices "capturing" customer, so, 5) Buying online, any delivery channel shall 7) Social Networking getting home delivery, work till it convinces them sites like Facebook Cash payment on 4) Customers moved from delivery physical books to e-books purchase. This forced business to strategize their delivery channels



Chapter 5 - Business Process Automation through Application Software (Chart 5.4) **Emerging Technologies** Virtualization **Cloud Computing Grid Computing** Using a Grid: Using a Grid: Major Common **Grid Computing** Types of Meaning Benefits User's Administrative Characteristics Advantages Disadvantages Applications Security Types Resources Perspective Purpose 1) Making use of 1) Enrolling & 1) Planning 1) Virtualization 1) Technical 1) Elasticity & 1) Cost 1) Server 1) Hardware Underutilized 1) Computation Installing Grid Security 1) Single Sign-on means to create efficient Consolidation Virtualization Scalability Issues Software virtual version of Resources Organization 2) Almost device or resource. 2) Disaster 2) Network 2) Security in the 2) Logging onto the 2) Protection of 2) Resource 2) Installation 2) Storage 2) Pay-Per-Use Unlimited such as server, Virtualization balancing Grid Credentials Cloud Recovery storage device, storage network or even 3) Managing 3) Interoperability 3) Parallel CPU 3) Prone to 3) Testing & 3) Storage 3) Queries 3) Backup & 3) Communications enrollment of with Local Security 3) On-demand operating system Submitting Jobs Recovery Attack Training Virtualization Capacity where framework **Donors & Users** Solutions divides resource 4) Virtual Resources 4) Automatic 4) Software & 4) Data into one or more 4) Portable & Virtual 4) Certificate 4) Exportability 4) Resiliency Software Authority execution Organizations for Applications Licenses Configuration Integration Collaboration environments 2) It refers to 5) Special 5) Access to 5) Portable 5) Monitoring 5) Resource 5) Support for Secure 5) Easy Access technologies Additional 5) Multi-Tenancy Equipment, Progress & Recovery **Group Communication** to Information Management Workspaces designed to provide Resources Capacities, layer of abstraction Architectures & 6) Reserving 6) Support for Multiple 6) Workload 6) Quick 6) Data Sharing 6) Reliability between computer Policies Deployment Resources Implmentations Movement hardware systems & 7) Management software running on them