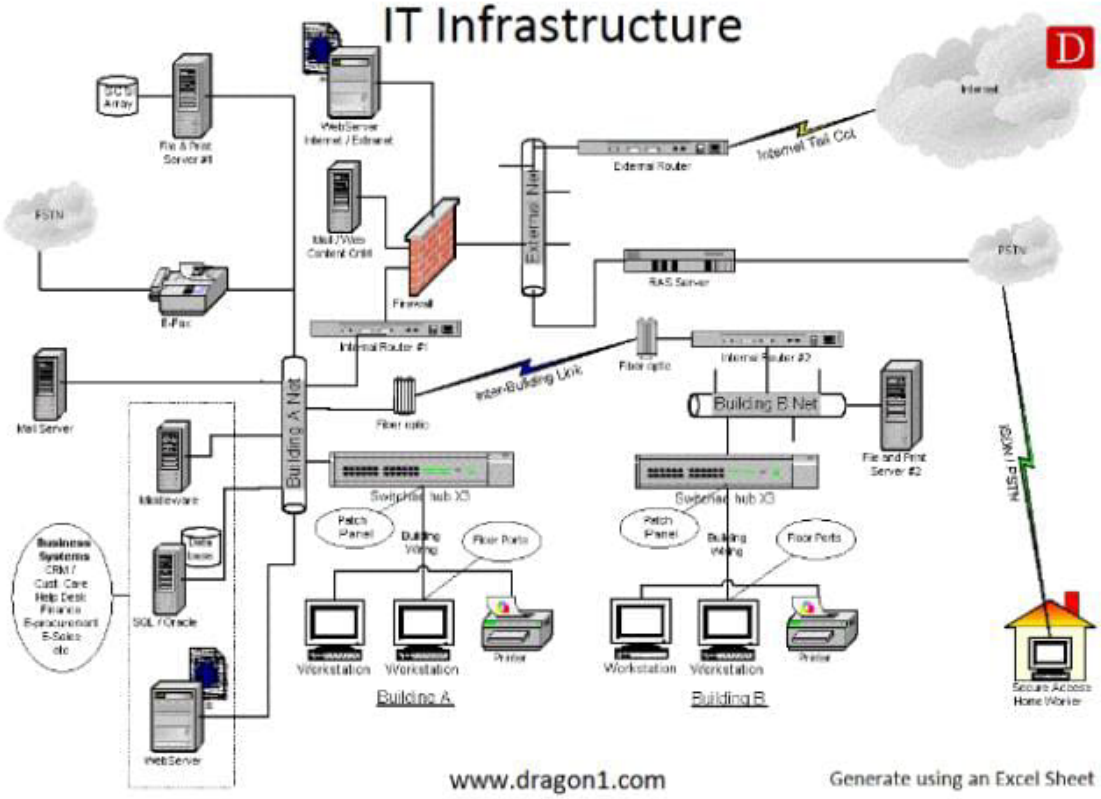
Technical Architecture

Also known as technology architecture or IT infrastructure Architecture.

What is Technical Architecture

Technical Architecture is the name of the total concept that is applied to the IT Infrastructure of an organization. IT Infrastructure is a coherent set of interconnected hardware and software, like networks, clouds, servers, clients, printers, tablet PC, smartphones.



Also, Robots, drones, end-user devices, operating systems, platforms, virtual environments and documents, often within the

Common Concepts

Common Technical Architecture concepts are:

- Open system
- Closed system
- Computing
- Client-Server computing
- Server-based computing
- Client Computing
- Peer-to-peer networking
- Cloud computing
- Grid computing
- Computer Network (Star, Mesh, Tree, etc..
- Networking
- Network environments (OTAP)
- Networking computing
- Device
- Network Device
- Client (Fat, Thin, …)
- Server
- Switch
- (wireless) Router
- Hub
- (wireless) Bridge
- (wireless) Access Point
- (network) Node

- Client virtualization
- Centralized Computing
- Distributed computing
- Collaborative computing
- Consolidation
- LAN
- WAN
- Internet
- Intranet
- Extranet
- Internet of Things
- Sharing files
- Data Center
- Pool
- Shared pool
- Server cluster
- Single source of truth (SSOT)
- Connectivity
- Protocol
- Network Services
- Directory Services
- Printing Services
- Archiving Services
- File Transfer Services
- Application Services
- Messaging Services
- Email server

Technical Architecture Views and Visualizations

Now, we choose a high-level technical architecture (a total IT Infrastructure concept. This high-level model we can have signed off by the owner client, so it can be implemented by projects and payed for by the owner/client.

But an owner/client demands a better looking and more understandable picture to base his decision on. In architecture, we call this a view: a representation of a model customized to stakeholders' viewpoints (their set of concerns).

A common list of technical architecture views are:

- Environments View
- Domains View
- Functions View
- Services View
- Processes View
- Structure Vision (a combination of the five View mentioned before)
- Architecture Vision
- Employees View

Technical Architecture Principles

Every concept consists of elements at the logical level, components and objects at the physical level, and technical products at the implementational level. The way the parts work together (collaborate) and produce results, is called the concept's principle. In Dragon1 a principle is not a normative statement, but a way of working statement.

Every concept that an architect makes part of the architecture need to be implemented at a certain (maturity) level and at a certain measure of rollout (%).

A list of common technical principles (the way technical concepts work) are:

- Loosely coupled applications - ...
- Data Consistency - ...
- Data Ownership - ...
- Buy before build - Before reinventing the wheel, which is often much more expensive than buying, we go and look if someone else already has a wheel we need.

Next to principles and concepts we make use of standards. Common standards for IT Infrastructure are:

- TCPIP
- DNS

Per concept an architect draws a concept design sketch in order to have an owner/client approved of the concept (and IT implementation costs and impact). And also per concept, he draws a principle details diagram. That diagram shows what elements or components should be in place or not.

If many elements or components of a concept are failing, the concept will not work at all or produce results. If all elements or components are available the concept will work optimally and produce the intended results. With diagrams and colors, the architect has to make visible what is and what is not in place.