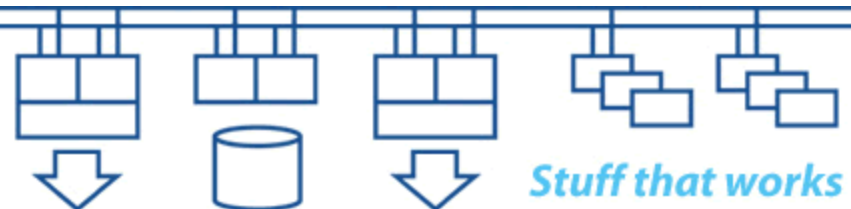


BCS / IoC seminar – 11th July 2013

Technology matters. Ignore it at your peril!

Colin Butcher

www.xdelta.co.uk



Increase your level of understanding about computer systems and communications technology.

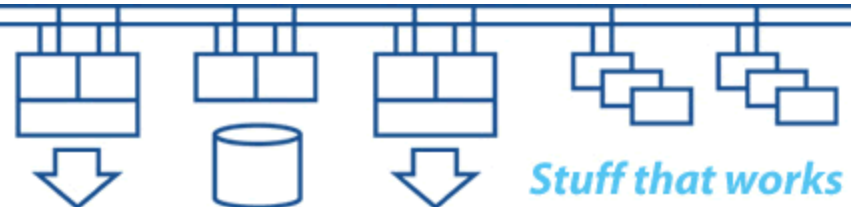
Improve how you work as a professional business.

Provide better advice to clients.

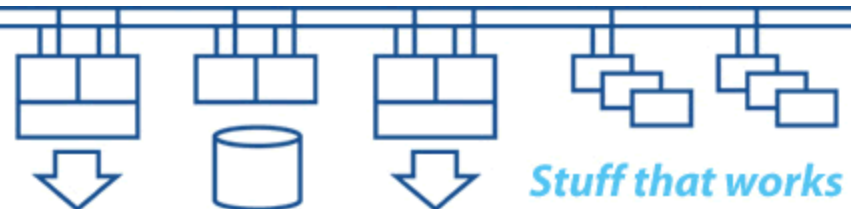
Borrow ideas from other people's experiences.

Please be prepared to contribute and share your knowledge.

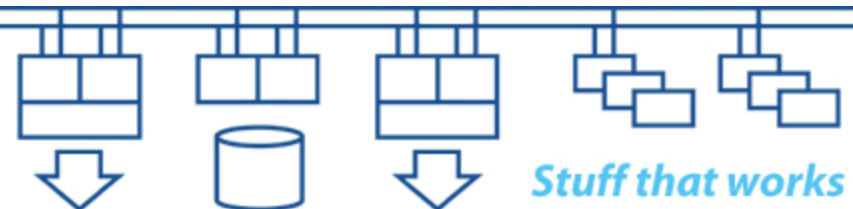
- Think about how you use technology and how dependent you are on it.
- Understand more about the terminology.
- Understand more about how things work.
- Be safe – don't lose data.
- Be secure – don't have unencrypted client data.
- Improve your problem solving capability.
- Know who to ask for help. Give them good information.



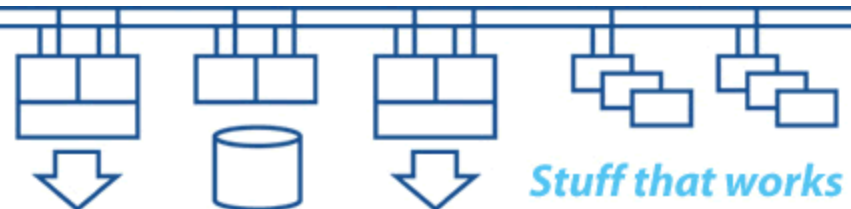
- Appropriate levels of investment (money and effort)
- Minimise risk of loss of service and disruption
- Design, planning, documentation, education, etc.
- Maintenance and support services with appropriate levels of service
- Serious focus on availability and performance



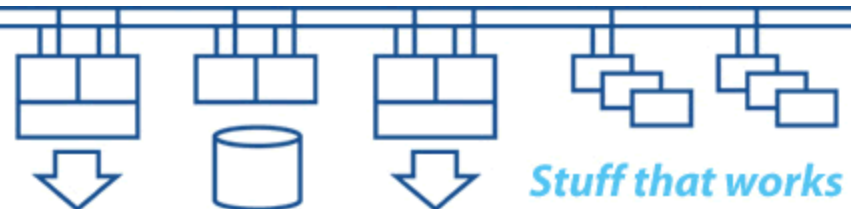
- It's much the same, or it should be!
- Appropriate levels of investment (money and effort)
- Minimise risk of loss of service and disruption
- Design, planning, documentation, education, etc.
- Maintenance and support services with appropriate levels of service



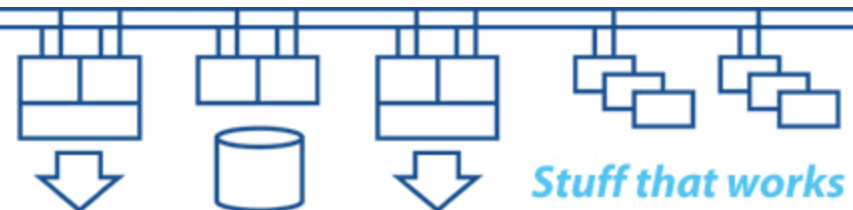
- If it doesn't make your life easier, don't do it!
- What you have and how adept you are at using it is part of your professional appearance.
- Your data and your systems are your responsibility. You have no-one else to blame.
- Your ability to function depends on your equipment being fully functional when you need it.



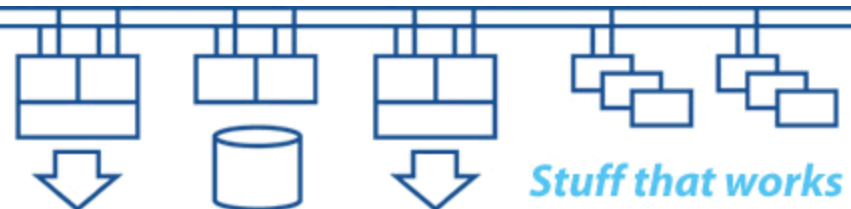
- Your ability to operate as if you're part of your client's organisation is essential.
- Data interchange and compatibility in whatever form the clients needs or provides is essential.
- Think about security and confidentiality. Never make assumptions - ask first.
- Encrypt and secure your data and e-mail appropriately.



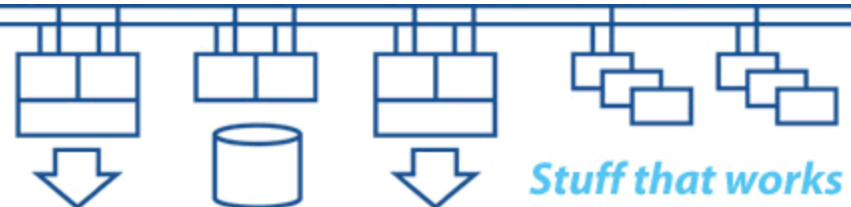
- Things will fail. It will never be convenient. Be prepared. Murphy was an optimist.
- Minimalism is good. Unnecessary complexity is the enemy. Be effective.
- Know how to set your systems up. Know how to recreate them from scratch. Know how to back them up and how to restore them.
- Know who to ask for help when it all goes wrong.



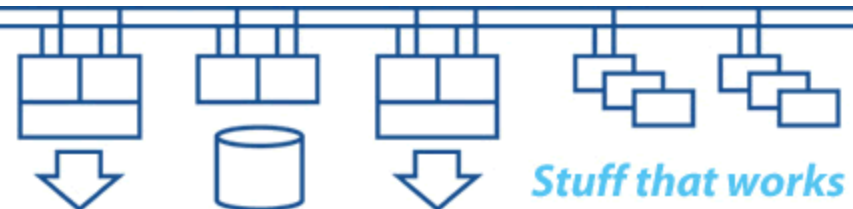
- Systems and equipment have a finite operational life. Plan accordingly.
- You generally get what you pay for. Budget accordingly.
- Invest wisely in your own technology infrastructure. Make the effort to understand it.
- Make the effort to understand more and thus improve your ability to describe a problem.



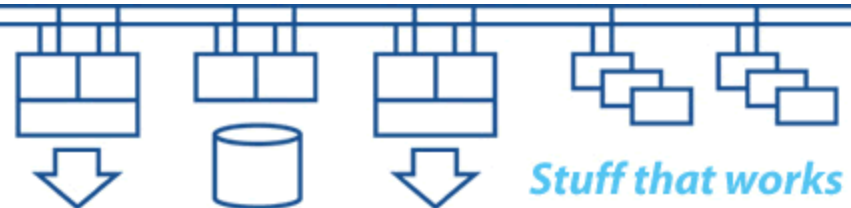
- Even with a support contract – have enough alternatives to survive and be able to meet your client's expectations.
- Stay current with hardware and software, even for 'simple stuff' such as cellphones.
- Hassle can damage a smaller business or independent professional far more than it may hurt a bigger business. Minimise the risk of disruption.



- Keeping in touch with other people
- Document writing and exchange
- Finding and carrying information
- Software tools to help us do our work, for example:
 - Finance and accounting
 - Graphics design, photography and video
 - Data network trouble-shooting
 - Modelling and Data Analysis
 - Writing software
 - etc.
- Business administration (invoicing, banking, etc.)
- and so on ...

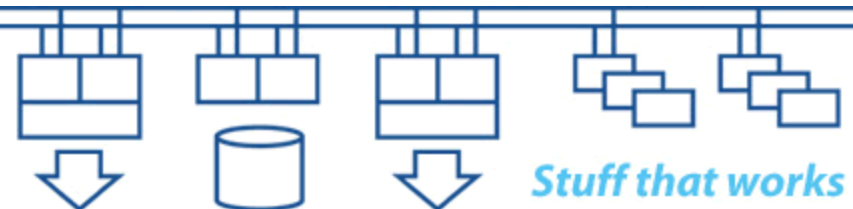


| Types of Outage: | Planned (Maintenance) | Unplanned (Failure) |
|-------------------------------|------------------------------|----------------------------|
| Hardware | ? | ? |
| Operating System | ? | ? |
| Application Software | ? | ? |
| Data | ? | ? |
| Connectivity | ? | ? |
| Upgrades & Updates | ? | ? |
| Users | ? | ? |
| Environment | ? | ? |



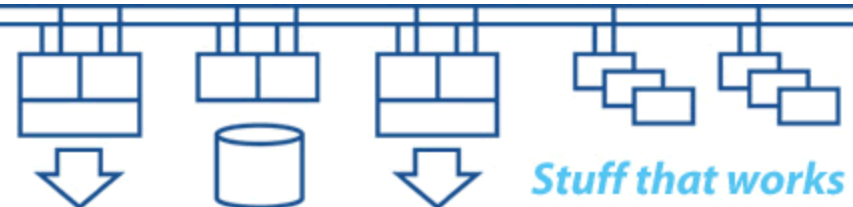
- How much capacity do you need ?
- What kind of performance do you need ?
- What connectivity do you need ?
- Most machines are slow because they have a slow storage subsystem (discs).
- Increase memory to minimise the need to go to disc (4GB maximum for 32bit).
- Solid-state disc has no moving parts = fast and reliable.
- Disc controller with RAID and BBWBC = fast and reliable with a lot of storage.

- The whole purpose of a backup is to be able to restore the data and the system quickly.
- Practice your recovery procedures.
- The two key components to consider:
 - System (difficult and time-consuming to recreate);
 - Data (sometimes impossible to recreate).
- Archives are useful for long term storage of data.
- You need to keep the software that wrote the data in order to be able to read it one day.
- Make two copies and keep one off-site.



- Authentication – prove that you are who you are.
- Encryption – protect access to sensitive information.
- Strong passwords
- Digital certificates
- RSA fobs
- Web site transactions (HTTPS)
- E-mail
- Files (eg: PDFs)
- Whole disc encryption / container file encryption
- Portable storage encryption

- Think big, implement small.
- Buy on functionality and reliability, not price.
- Buy carefully from reputable suppliers. You need to minimise hassle if there are problems.
- Invest in things that make your life easier.
- Take frequent backups of both your data and your system. The objective is minimal restore time.
- Regularly prove that your backups work.
- Avoid single points of failure wherever possible.
- Carry copies of your data separately.
- Don't be 100% dependent on technology.
- Document it!



- Truecrypt – free encryption software (whole disc, container files, portable devices, etc.).
- Open Sankore – free whiteboard software (import slides, use with graphics tablet, eg: Wacom Bamboo).
- Digital signatures for e-mail – provides authentication of sender and encryption between sender and recipient.
- Solid State discs (Intel 520 series, also Crucial, OCZ and several others). Will need “disc imaging” software to clone old drive (eg: Acronis TrueImage, Paragon and several others) to new SSD. Should “boot and go”.
- Portable USB powered monitors using Displaylink software, eg: Lenovo LT1421, HP U160, etc.

Thank you for your participation

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