



VALA2010 L Plate



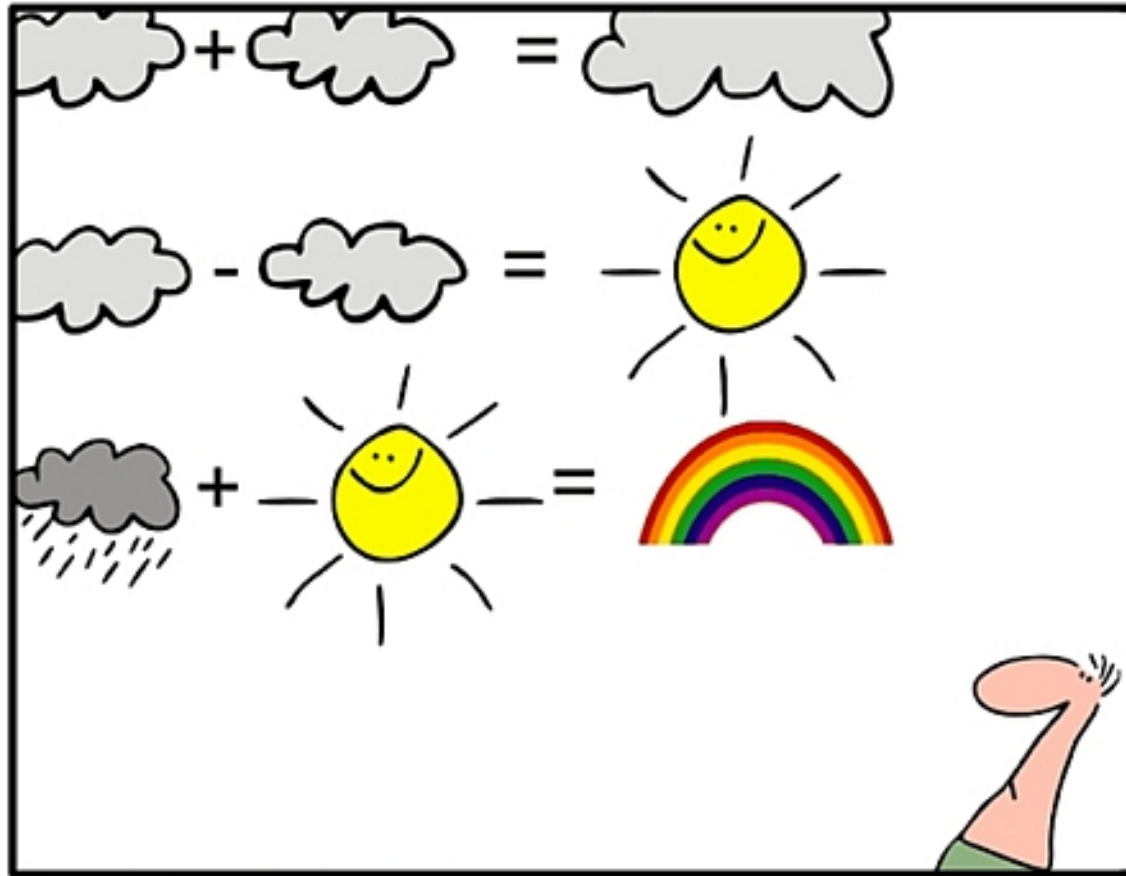
Cloud Computing 101 °

Bart Rutherford

VALA President 2009/2010 &
Electronic Services Librarian
Wesley College, Melbourne

Current Observations

Room Temperature



geek and poke

***SIMPLY EXPLAINED - PART 17:
CLOUD COMPUTING***

Current Observation

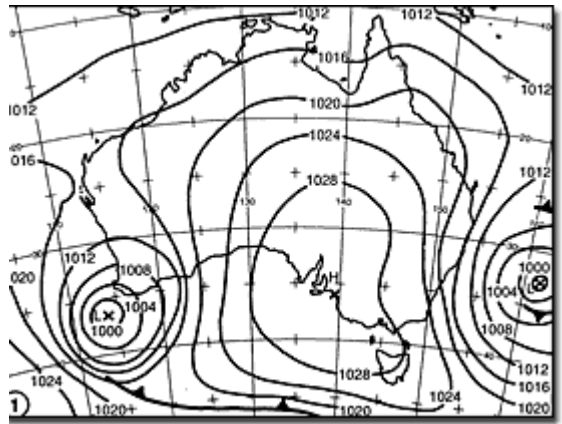
- Definition

- “... outsourced, pay-as-you-go, on-demand, somewhere in the internet” Von Eicken^[i]
- “A style of Computing where scalable and elastic IT capabilities are provided as a service to multiple customers using internet technologies”^[ii]

^[i] Von Eicken, Thorsten Twenty-One experts define cloud computing, Sys-Con Media Inc. 2008

^[ii] Gartner

Climate History



Charting

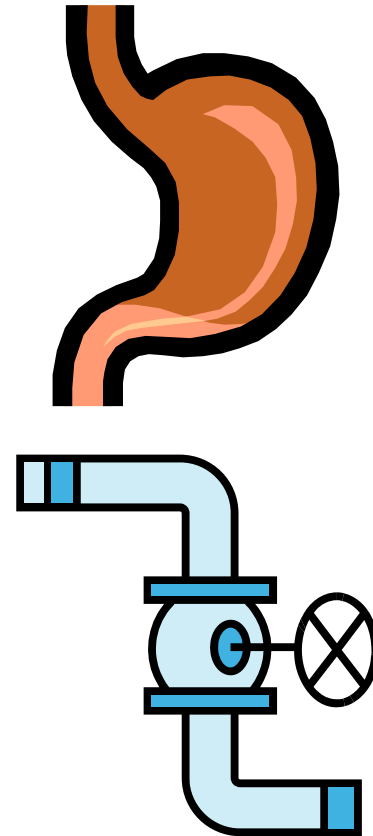
- Isolated Patches
- Input / Processor / Output
 - Terminal / Computer / Printer or CRT
 - Wyse Terminal and Mainframe
 - Client and Server
- Corporate computing
 - Banking and finance
 - Transport - Aviation
 - Exploration – Space and Mining

And now

A word from our sponsors

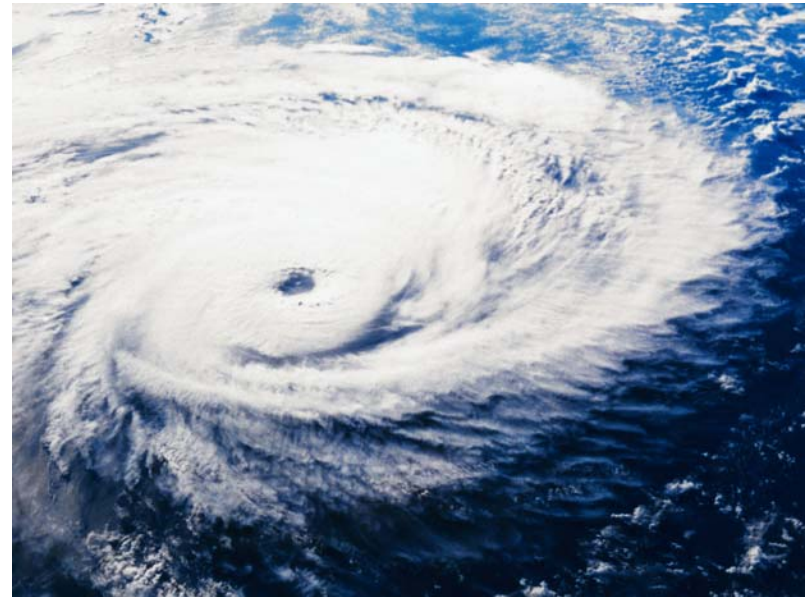
Diet

- Fat client – Capable of processing data
- Thin client – Mirroring the input and output devices
- Desktop computer as client
- Browser as client



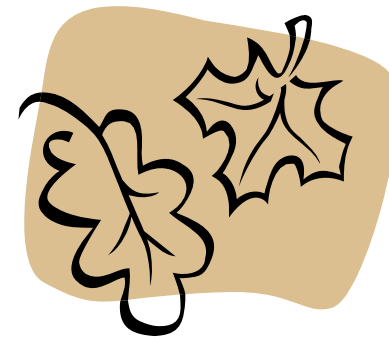
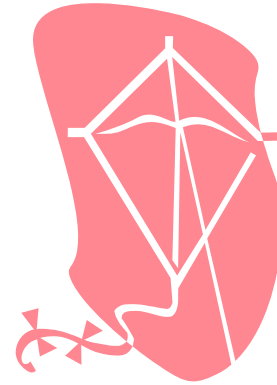
Storm Warning

- Mobile as client
- The Internet
- Cheap storage
- Broadband
- Wi-Fi
- 3G and LTE
- Open Source and Linux
- IPv6 – Millions of addresses



Current Conditions

- High cloud particles
- Types of cloud
 - Public
 - Private
 - Hybrid
- Isobars
 - VPN - Virtual Private Networks
 - Virtualization



Particles

- SaaS
 - Software as a Service
- IaaS
 - Infrastructure as a Service
- PaaS
 - Platform as a Service



SaaS - Software as a Service

- Vendor provides hardware infrastructure and software the user interacts through a frontend.
- JavaScript – Platform independence
- One application delivered to the browser

SaaS - Software as a Service

- Shared services
- Mail Services
 - Hotmail
 - Gmail
- Office Applications
 - Google Docs
 - Microsoft Live
- Online Storage
 - DropBox
- Distribution
 - BitTorrent
 - Akamai
- Mobile
 - Apples App store
 - Nokia Ovi
- Social
 - Facebook
 - Twitter

IaaS - Infrastructure as a Service

- *E.g. Amazon Web Services –*
 - *Virtual Servers*
 - *IP addresses*
 - *Storage on demand*
- *Microsoft Azure*
- *Rackspace - <http://www.rackspace.com/>*

IaaS - Infrastructure as a Service

- *Amazon EC2*
 - *Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-scale computing elastic.*
 - <http://aws.amazon.com/ec2/>



IaaS - Infrastructure as a Service

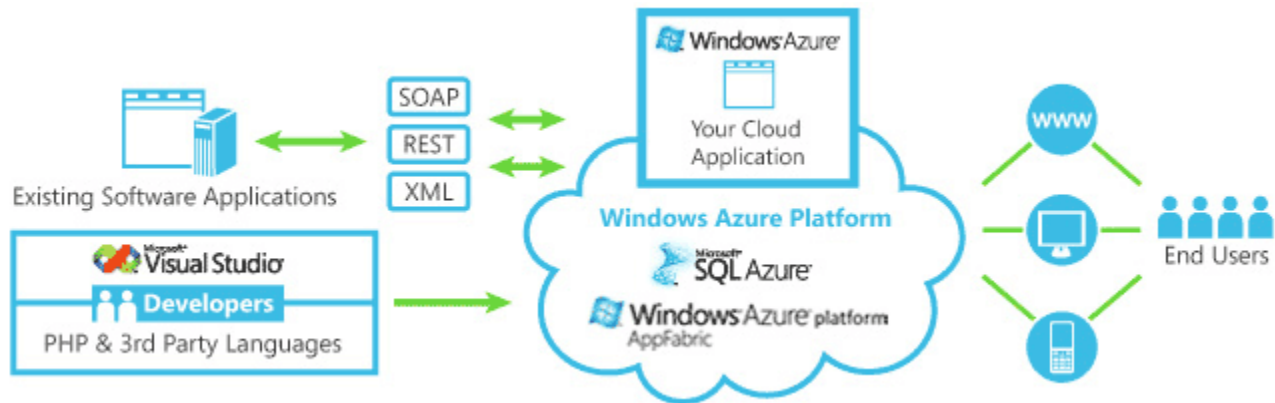


Rackspace

- *<http://www.rackspace.com/>*

IaaS - Infrastructure as a Service

- *Microsoft Azure*



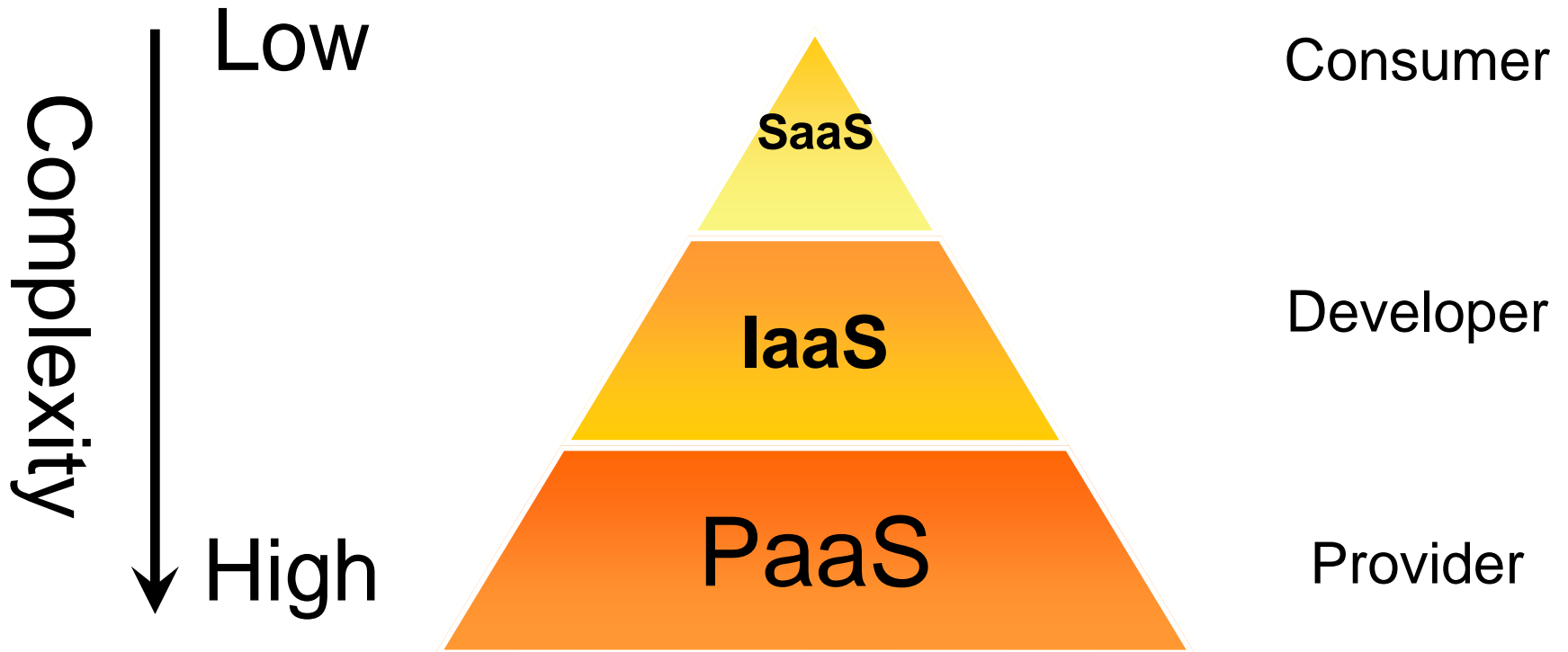
PaaS - Platform as a Service

- *Software and development tools hosted on the provider's infrastructure*
 - *Developer environment*
 - *Build your own*
- *Access and Delivery*
 - *API - Application Programming Interface*

PaaS – Platform as a Service

- *Web Services – Why build your own?*
 - *Google Apps*
 - *Yahoo Pipes*
- *Mashup*
- *Salesforce*
- *E.g. Google Maps*
- *Sugar CRM <http://www.sugarcrm.com/>*
- *Finance*
 - *Credit card processing*
 - *Micropayment – PayPal*
 - *Bloomberg*
 - *Xignite – On Demand Financial Market - <http://www.xignite.com/>*

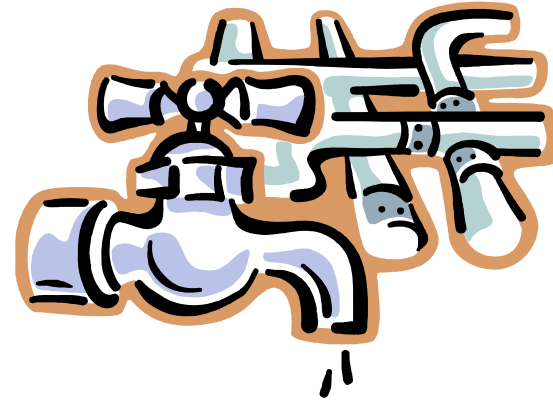
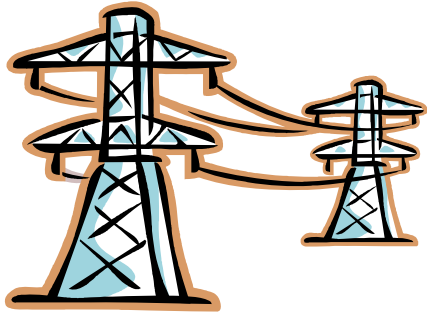
Barometer



And now

A word from our sponsors

Utility



- A word from your local utility supplier
- Utility – billed as consumed

Professor John McCarthy

Emeritus of Computer Science at Stanford University

1961

... computer time-sharing might lead to a future in which computing power and even specific applications could be sold through the utility business model (like water and electricity)





Local Forecast

- ***Scalable***
 - *Increase storage and computing power as required*
- ***Cost effective***
 - *Pay As You Go*
 - *Low technical*
- ***Secure and automated***
- ***Mobility***
 - *Location independent*



24°



26°

Wind Warnings

- *Network Connection*
 - *Offline no cloud*
- *Storage*
 - *No local storage no local data*
- *High wind required*
 - *Slow connections no good*
- *Provider guarantee*
 - *What if your provider is destroyed by a hurricane?*



10°



6°

Tomorrows Outlook





EASE

Everything as a Service
Everywhere

