

**Stefano Portelli**

*Project Manager Consulting*

*Cloud & Virtual Data Center*

*EMC Consulting*



**Cloud  
Computing  
BEATS Snow**

Exceptional bad weather can cost companies money. Many workers lack the ability to work when away from the office or with transport systems failing. **There should be a way to allow workers to ply their trade anywhere from accessing emails, workflow and documents, through communicating with colleagues to having the ability to rearrange face to face meeting with online equivalent.**



**97% of business were affected by extreme weather last year.**

**Most of them haven't got an adequate business continuity plan (BCP) in place.**

**The Chartered Management Institute's [1] latest research into the preparedness of organisations for crises – such as IT failure or extreme weather – reveals more than half are pulling themselves at considerable risk by failing to have any sort of plan in place to deal with incidents which impact on their day-to-day work.**

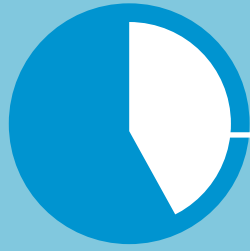
# The Snow Problem

What's  
**the worst**  
that can  
happen?

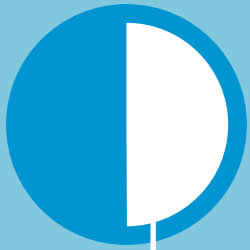
severe snow could cost the ~~UK~~<sup>IT</sup> economy as much as

**€ 1.500.000.000**

a day



**73%** of companies during the snow and ice times suffered staff shortages and only **39%** of those had the ability to work remotely.



**Half** of managers see this (Weather) as a significant threat to business, with IT failure, loss of telecommunications and loss of access to the workplace the three crises they worry about the most.

Each winter the freezing weather conditions and snow have forced millions of people to stay at home, with road and school closures preventing from working.

**Snow**

=

**Travel Chaos**

+

**Problems of Fuel Supplies**

+

**Transport Disruption**



Closed or dangerous roads



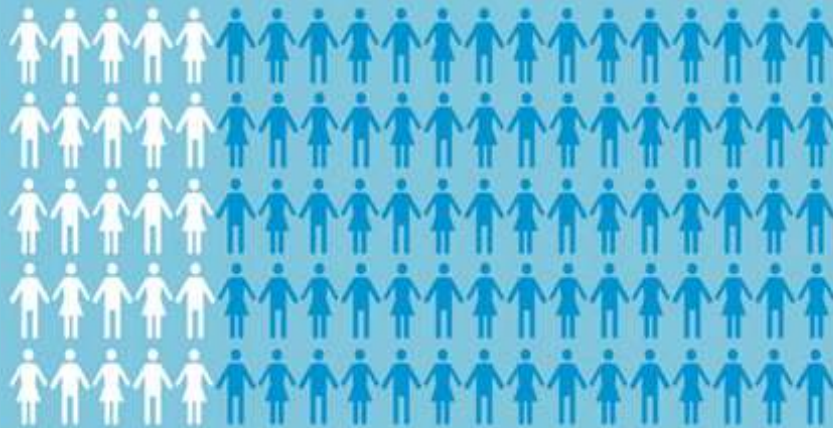
Cancelled, reduced or Revised Services

**20%**

1/5th of workers, 6.4 million people, in the UK unable to get into work this year compared to an all time high of 14% in last years snow.

**£391,000,000**

The amount that small business employers spend per year an absence control and management, more than on any other aspect of employment law.



The Centre for Economic and Business research [2] estimates that 2-3000 small business could fail due to the bad weather this winter. Less than half of companies are protected against the cold weather – this doesn't need to cost more money, in fact it can cost less...

# The Cloud Solution

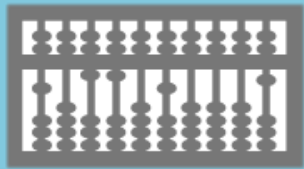
## What is Cloud Computing

*Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. - National Institute of Standard and Technology - NIST*

*The network is the computer.*  
John Burdette Gage

# Quick-est history of Cloud Computing

## (Minimalistic version)



**2000BC**

**Sumerians devise the abacus**



**1967**

**Texas Instruments introduce first hand-held calculator, code named "Cal-Tech".**



**1973**

**Xerox invents "Xerox Alto" the first personal PC that had a graphical operating system (GUI) that later served as inspiration for Apple Computer's Macintosh, and Microsoft's Windows operating system**



**1990**

**Company starts to deliver application through web**

# Quick~~est~~ history of Cloud Computing



1990s

Ian Foster and Carl Kesselman came up with the concept of "The Grid". The analogy used was of the electricity grid where users could plug into the grid and use a metered utility service Plug into a grid of computers and pay for what you use.



2006

Introduction of Amazon's Elastic Compute cloud (EC2) as a commercial web service that allowed small companies and individuals to rent computers on which to run their own computer applications.

2009

The national Science Foundation awarded approx. \$5 million in grants for researching cloud computing.

2002

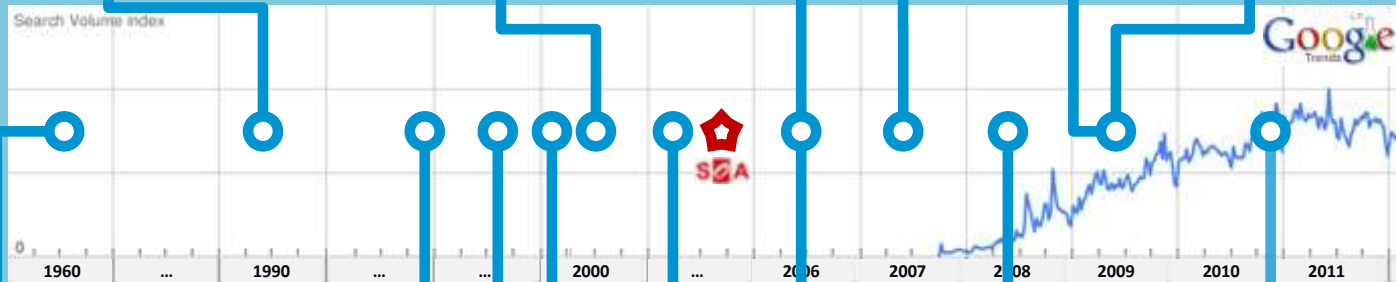
Amazon offered "Amazon Web Service" cloud computing to customers.

2007

Research on cloud computing was undertaken by companies like Google and IBM

2009

Also Microsoft launch his Cloud Computing Platform: Azure



1960s

Ideas about computation as a public utility emerged in public discourse and literature. Mainframe computers first uses by businesses for computation; like census data processing, statistics and financial transaction processing.

1998

Diane Greene, Mendel Rosenblum, Scott Devine, Edward Wang and Edouard Bugnion found Vmware.



2003

Jim Gray published a paper on Distributed Computing Economics

2008

Open source AWS API-compatible platform called Eucalyptus offered private clouds. Packaging of computing resources became a metered service called Utility Computing

201x

Oracle  
Fujitsu  
Teradata  
HP  
EMC

1997

The term "cloud computing" was first used by Information System Professor, Ramnath Chellappa.

1999

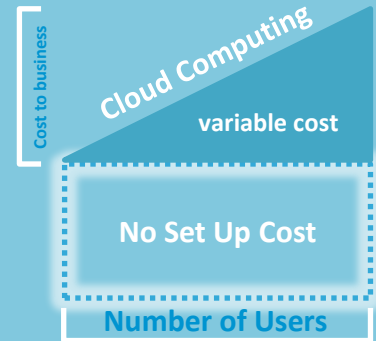
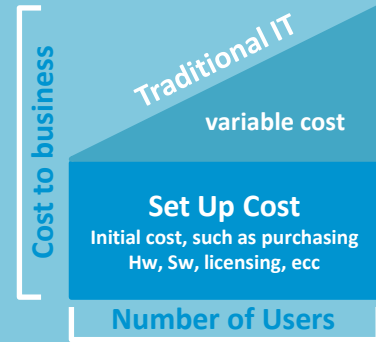
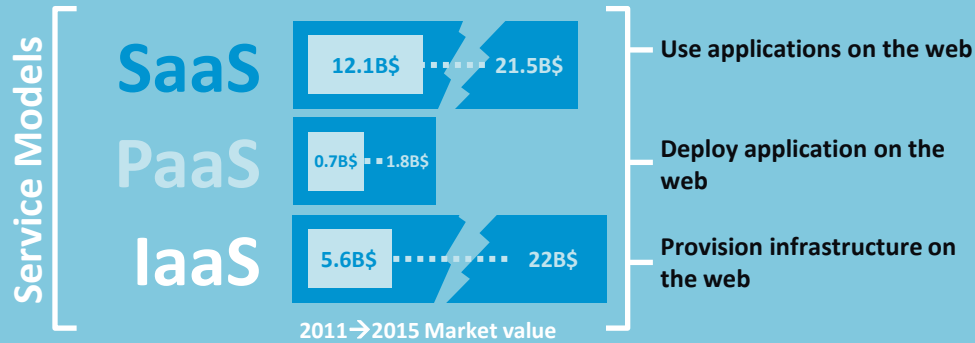
Salesforce.com introduced the concept of delivering enterprise applications via a simple website

2006

Google Docs brought cloud computing to the forefront of public consciousness



# What are the key type of Cloud?



## And... what are the reasons?

top  
5  
reasons to  
use cloud  
computing

Pay for what you use

Easy and fast to deploy

Montly payment plan

Encourage standards

Require less in-house staff



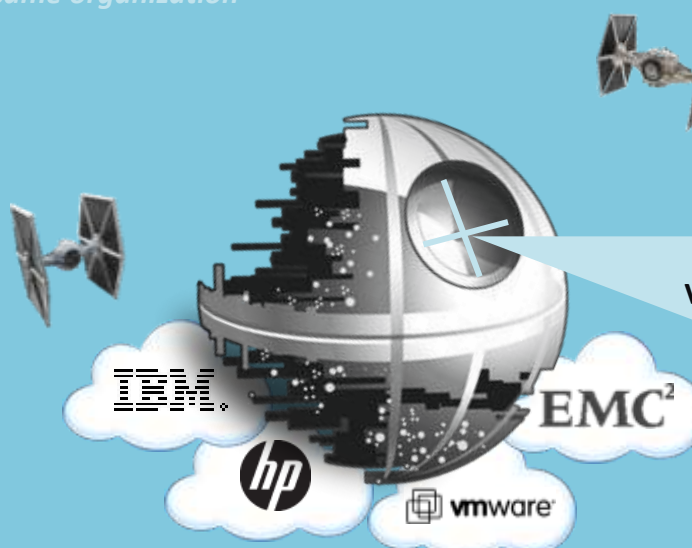
**10%** was the used server resources just before Amazon.com started their journey to the cloud, the remaining 90% just "going to waste" waiting for the occasional service spikes.

# Private vs Public (Deployment Model)?

Data and applications are only stored on the enterprise's own servers. IT resources are pooled and shared between different business units in the same organization

## Private Cloud

Recommended for Business over \$1 Billion



**Never**

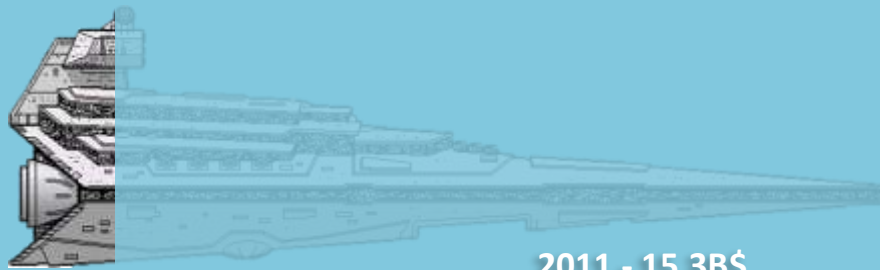
underestimate the power (and cost) of Private Cloud.

### Costs

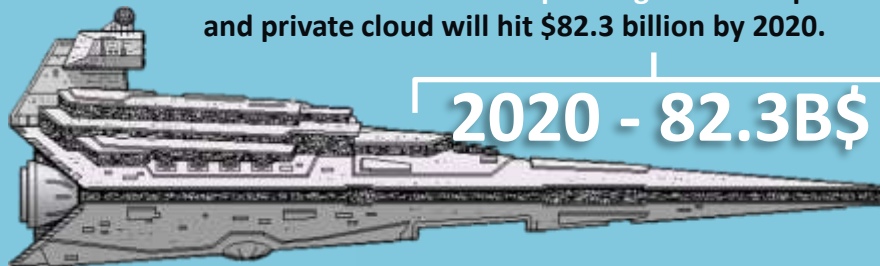
- Equipment/ Hardware
- Virtualization Hypervisor
- Data Center
- Personnel

### Benefits

- Mission Critical Applications
- Security & Trust
- Simplification
- SLA Management



It is forecasted that business spending on virtual private and private cloud will hit \$82.3 billion by 2020.



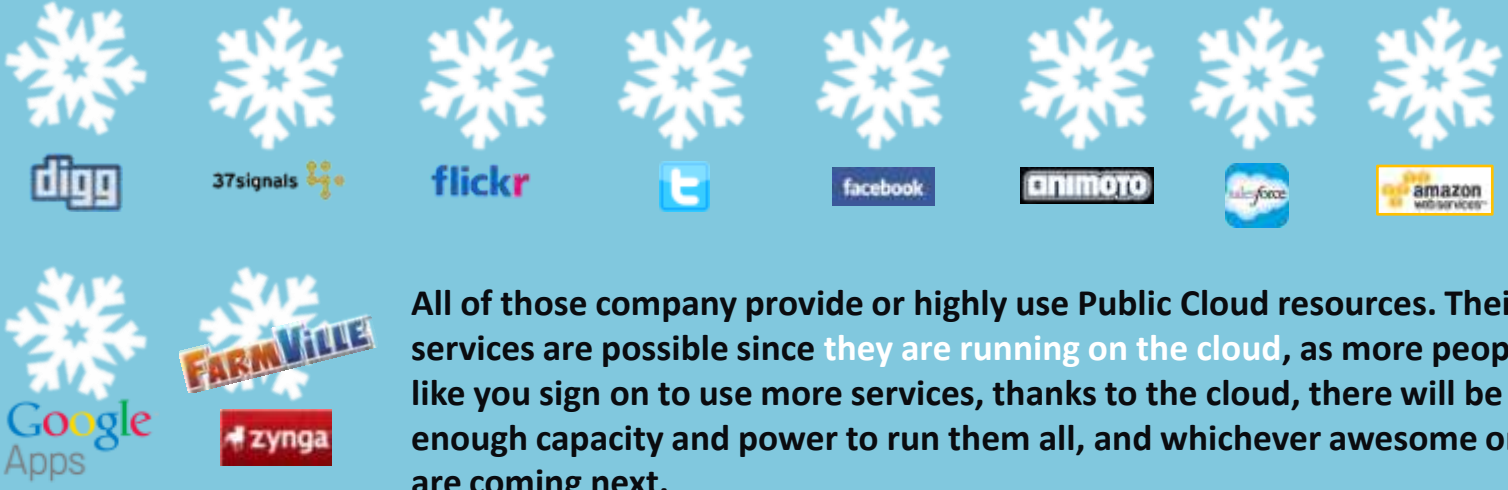
**60%**  
of private  
cloud cost  
is personnel

# Private vs Public (Deployment)

Data and applications are only stored on a third-party servers.  
IT resources are delivered through specialist providers.

```
If ($CompanyWorth >= 1 billion dollars) {
  $PrivateCloud = "Yes"
} else {
  $PrivateCloud = "Try the public cloud"
}
//end cloud computing evaluation
```

## Do you know those?



All of those company provide or highly use Public Cloud resources. Their services are possible since they are running on the cloud, as more people just like you sign on to use more services, thanks to the cloud, there will be enough capacity and power to run them all, and whichever awesome ones are coming next.

### Costs Benefits

Costs	Benefits
Loss of Control	Increase utilization
Montly Fee	Simplification – Do more with less
Increase Support Cost	Pay as you go
Professional Services	Time to Provision
	SaaS capabilities



Ads for full-time IT jobs focused on cloud computing grew between Nov 2009 – Nov 2010

Recommended for Business under \$1 Billion

# Public Cloud

# With any type of Deployment Model even small business (SME) can leverage Cloud Computing

## BACKUP

With storage demand expected to triple in the next 5 years, cloud offers unlimited scale at fixed cost.

## SOFTWARE ACCESS

Turns popular but expensive software like Office, Exchange, and Quickbooks into monthly fee instead of a major investment in licensing and supporting hardware.

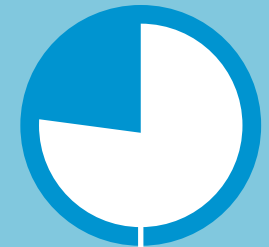
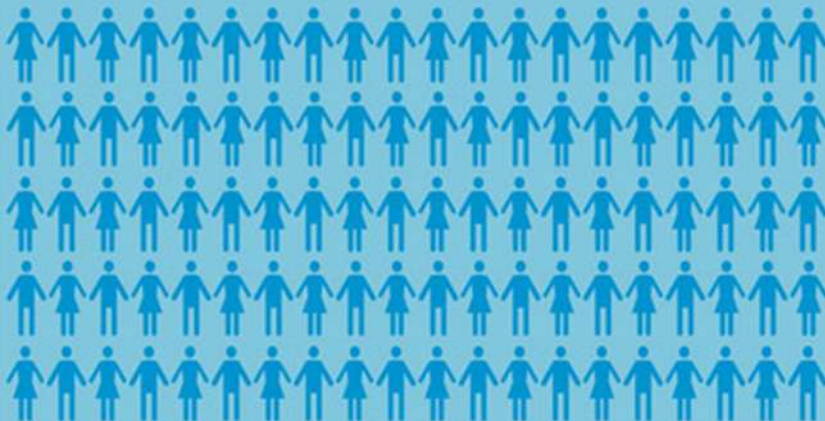
## FILE SHARING

Users can remotely access and collaborate on digitally stored resources in the office, on the road. From desktops, laptops and mobile devices.

## CRM

CRM provides small business a great cost-effective tool to manage client lifecycle, track leads and store marketing docs.

With IT in the cloud, **100%** of employees could access their work system from home with 99.9% guarantee uptime.



**76%** of mobile workers feels that the ability to work outside the office, yet remain in constant contact, has been a **positive development**, even though almost a third are now working longer hours.

# References

## Info Source:

[1] <http://www.managers.org.uk>

[2] <http://www.cebr.com>

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