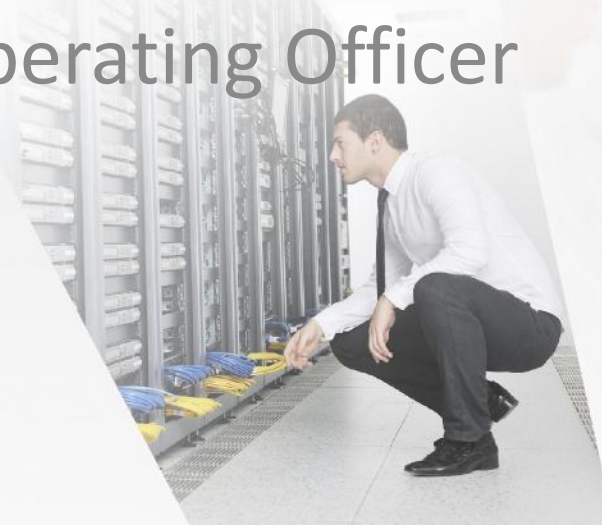




Redefining the Cloud

August 29, 2012

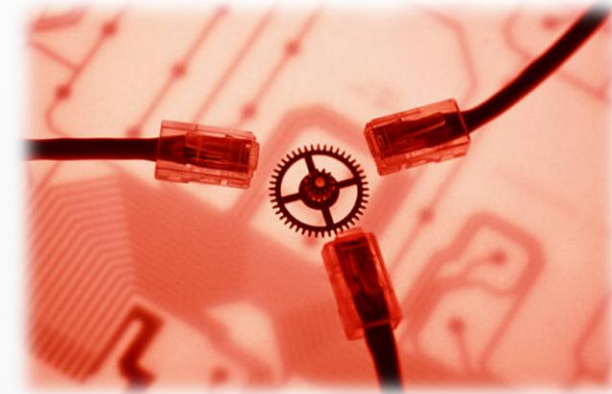
Skip Tappen
NWN Corporation
Chief Operating Officer



NWN proprietary and confidential

NWN Summary

- ▶ NWN helps customers solve business problems through technology
 - ▶ 600 employees
 - ▶ 13 Location across the country
 - ▶ 3 in North Carolina
 - ▶ Our clients
 - ▶ State and local government, K12 and higher education
 - ▶ Commercial businesses
 - ▶ Sophisticated IT needs
 - ▶ Value local service
 - ▶ Both a user and supplier of Cloud Services



NWN Practice Areas

NWorkspace

- Client Computing
Lifecycle Management

NProtect

- Security

NConnect

- Collaboration

NVision

- Business
Applications

NCompute

- Data Center and
Virtualization

NCare

- Support Services

NCore

- Network Infrastructure

NForce

- IT Staffing Services

NCloud

- Cloud Services

The logo for NWN, consisting of the letters 'NWN' in a bold, blue, sans-serif font. The letters are slightly stylized, with the 'N' and 'W' having a unique, angular design.

NWN

A photograph of several young children sitting at a desk, focused on their laptops. The children are diverse in age and ethnicity, and the setting appears to be a classroom or a computer lab.

Cloud



NWN proprietary and confidential

**Hybrid
Cloud**

SaaS

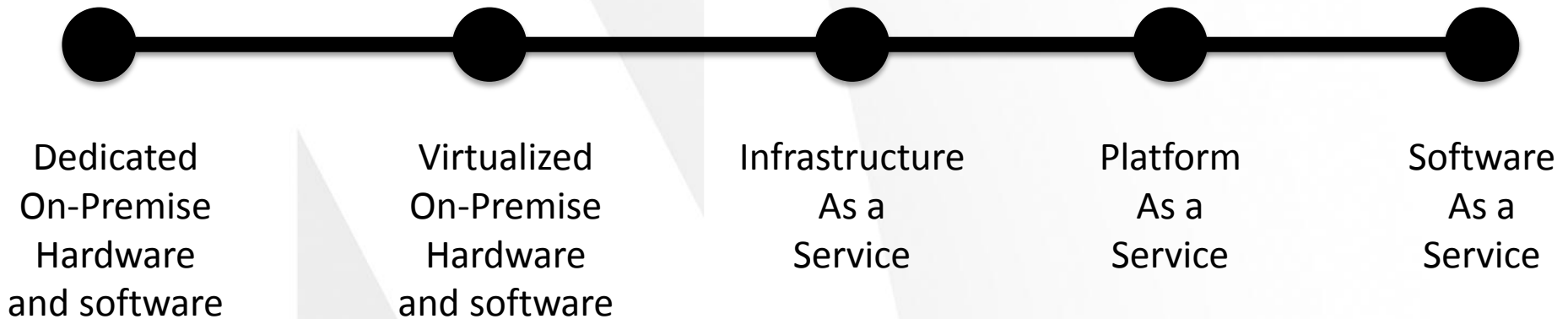
IaaS

**Private
Cloud**

**Public
Cloud**

PaaS

Points on a Continuum



Technology as a Service

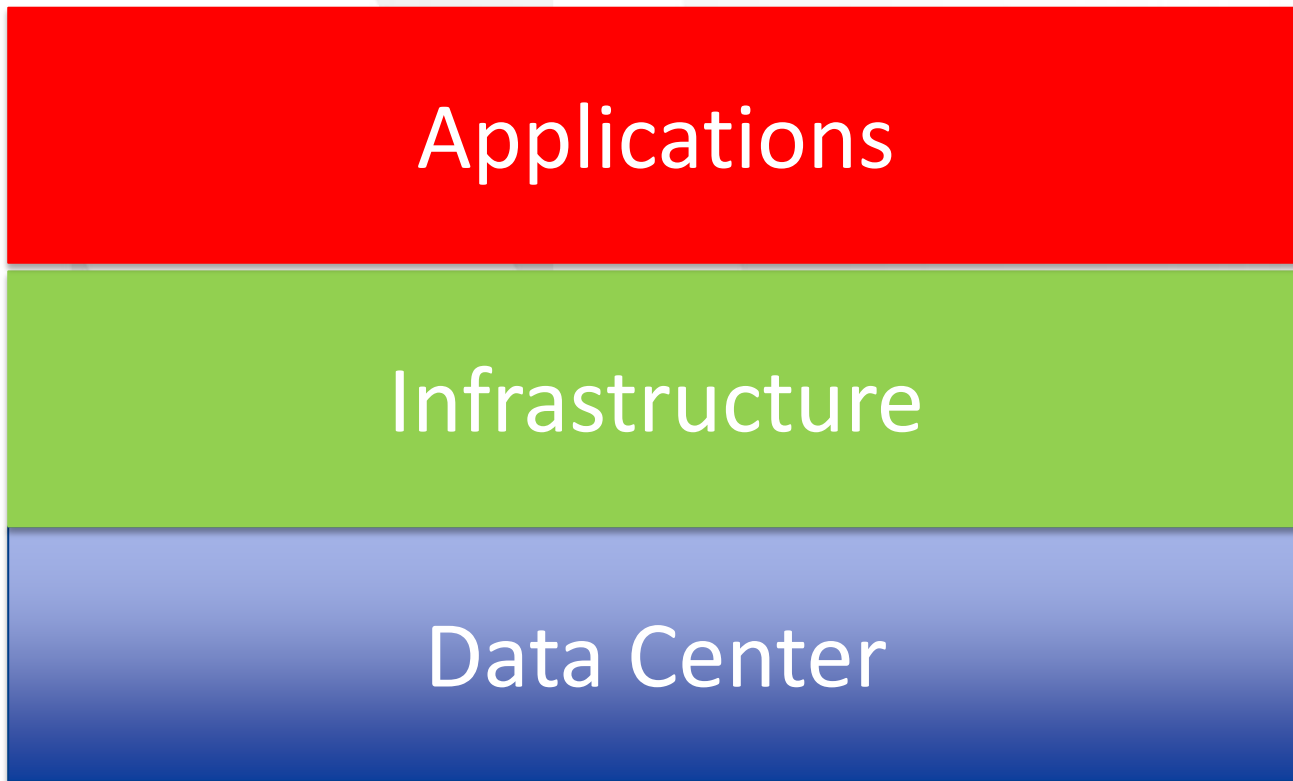
TaaS Continuum

The Question

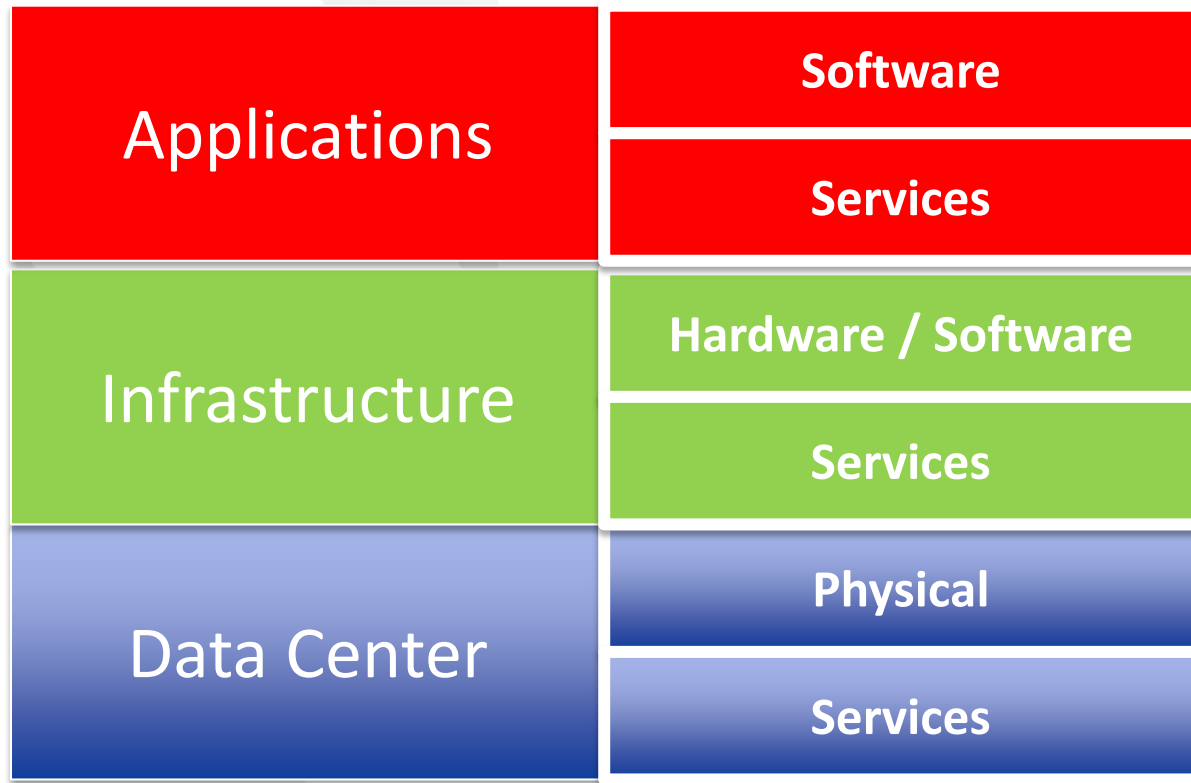
How does “Cloud” fit into your organization’s technology roadmap and how do you get started?



Context – Components of Technology



Context – Components of Technology



Deployment Options

- ▶ Private – Customer Premise
 - ▶ Dedicated: Hardware dedicated to a single business application
 - ▶ Virtualized: Hardware virtualized to support multiple applications
- ▶ Public – Off Premise
 - ▶ Dedicated: Hardware and applications dedicated to a specific customer
 - ▶ Shared: Hardware and applications shared across customers



Framework

Private - Customer Premise		Public	
Dedicated	Virtual	Dedicated	Shared

Application
Software

Application Services

Infrastructure
Hardware / Software

Infrastructure Services

Data Center
Physical

Data Center Services

Choices along the TaaS Continuum

- ▶ Represents additional options to most effectively deliver solutions to the user community
- ▶ Are just as much business decisions as technology decisions
- ▶ SO . . .
- ▶ Why choose one choice over another?



Pure Customer Deployment

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software	●			
Application Services	●			
Infrastructure Hardware / Software	●			
Infrastructure Services	●			
Data Center Physical	●			
Data Center Services	●			



- Customer



- Partner

Pure Customer Deployment

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software		●		
Application Services		●		
Infrastructure Hardware / Software		●		
Infrastructure Services		●		
Data Center Physical		●		
Data Center Services		●		



- Customer



- Partner

Infrastructure Management

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software		●		
Application Services		●		
Infrastructure Hardware / Software		●		
Infrastructure Services		○		
Data Center Physical		●		
Data Center Services		●		



- Customer



- Partner

IaaS - Private

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software		●		
Application Services		●		
Infrastructure Hardware / Software		○		
Infrastructure Services		○		
Data Center Physical		●		
Data Center Services		●		



- Customer



- Partner

Software Management

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software		●		
Application Services		○		
Infrastructure Hardware / Software		●		
Infrastructure Services		●		
Data Center Physical		●		
Data Center Services		●		



- Customer



- Partner

SaaS - Private

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software		○		
Application Services		○		
Infrastructure Hardware / Software		○		
Infrastructure Services		○		
Data Center Physical		●		
Data Center Services		●		



- Customer



- Partner

Data Center Hosting

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software			●	
Application Services			●	
Infrastructure Hardware / Software			●	
Infrastructure Services			●	
Data Center Physical			○	
Data Center Services			○	



- Customer



- Partner

IaaS – Public Dedicated

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software			●	
Application Services			●	
Infrastructure Hardware / Software			○	
Infrastructure Services			○	
Data Center Physical			○	
Data Center Services			○	



- Customer



- Partner

IaaS – Public Shared

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software				●
Application Services				●
Infrastructure Hardware / Software				○
Infrastructure Services				○
Data Center Physical				○
Data Center Services				○



- Customer



- Partner

SaaS – Public Dedicated

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software			○	
Application Services			○	
Infrastructure Hardware / Software			○	
Infrastructure Services			○	
Data Center Physical			○	
Data Center Services			○	



- Customer



- Partner

SaaS – Public Shared

	Private - Customer Premise		Public	
	Dedicated	Virtual	Dedicated	Shared
Application Software				○
Application Services				○
Infrastructure Hardware / Software				○
Infrastructure Services				○
Data Center Physical				○
Data Center Services				○



- Customer



- Partner

TaaS - Implications

- ▶ More choices
 - ▶ Own it
 - ▶ Consume it
- ▶ Integration
- ▶ Partner management
- ▶ Security
- ▶ Data Control
- ▶ Op Ex versus Cap Ex
- ▶ Less importance put on what it is and more on what it does
- ▶ TaaS is all about the service



Conclusions

- ▶ There are many options
- ▶ There are partners willing to offer all aspects of the model
- ▶ It does not have to be all or nothing. Different choices for different applications
- ▶ It is as much a business decision as a technical decision



Getting Started

- ▶ Understand where you are today
- ▶ Identify what challenges you are facing
- ▶ Determine which of these new choices may help you better overcome these challenges and achieve your objectives

