



# SRS Business Case for the use of Cloud Computing

Tuesday 15<sup>th</sup> October 2019



Delivering Digital Transformation

# Agenda

- SRS Partnership Strategy
- Drivers for Cloud Adoption:
  - Internal
  - External
  - Organisational
- Options Analysis
- Cost Comparison
- Recommendations
- Approach
- Microsoft and Microsoft Partners Assistance
- Questions/Discussion

## SRS Partnership Strategy 2016-20

The “vision for the SRS is to use a single technology platform to consolidate demand and broker supply of all types of resources to Public Service Wales” and “wish to move from being a predominantly on-premise technology provider to be a cloud delivery partner by 2020”

# Drivers for Adoption - Key Internal Drivers

- SRS Tactical Plan to complete Cloud Data Centre Analysis by March 2020

EA Roadmap – 2019/20															
	Jan 19	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 20	Feb	Mar
Strategic Rec 16 (EA - App's/ECB, Server)															
				Cloud Data Centre Analysis – Microsoft Azure data collection exercise for moving systems to cloud (Livingstone / Moveire)					Cloud Data Centre Analysis – Review Livingstone data collected for moving systems to cloud (Red Cortex)						
									Cloud Data Centre Analysis (649 servers across the four LA estates) The preparation of a business case on the options for the future of data centre services. Depending on outcomes - the location to move Newport and Blaenau Gwent data centre services to. Depending on outcomes - assess the future size requirements for the physical space we need.						

- Environmental Maintenance - £350k in 2019, £2.7M in next 6 years
- Newport City Council and Blaenau Gwent services hosted in on-premise server rooms
- Compute Infrastructure and Software Refresh
- Reduction in Costs
- Benefits of Cloud Services – PAYG; Low TCO; reliability, scalability and sustainability; improved disaster recovery services
- Software Licencing – HMG DTA

# Drivers for Adoption - Key External Drivers

- Wellbeing of Future Generations Act
- NIS Directive – EU wide Cyber Security
- Welsh and UK Government – “Cloud First” and “Cloud Native”
- Cyber Threats

# Drivers for Adoption – Organisational Drivers

- Tech Refresh of hardware
- Out of support software
- Supporting the Partnership Strategy
- Increased Resilience
- Predictable Costs
- Agile and Flexible Working
- Reducing Accommodation Footprint
- Demand on Services

.....*some services already moved to Cloud*

# Options Analysis

- Option 1 – Do Nothing

- ✓ No initial costs
- ✓ No initial change/disruption

- ☹ Service increasingly unreliable
- ☹ Increasing operational costs
- ☹ Software platforms out of support

- Option 2 – “Big Bang” Migration

- ✓ Avoids extended support costs
- ✓ Lower TCO when migration completed

- ☹ Investments in current hardware not realized
- ☹ Large scale project with external resource
- ☹ Steep learning curve for staff on new systems

- Option 3 – Hybrid Migration

- ✓ Avoids extended support costs
- ✓ Benefits of cloud technology
- ✓ Path to migrate ageing servers/services
- ✓ Less disruptive migration
- ✓ Allows a plan for decommission of datacentres

- ☹ Some initial costs
- ☹ New technology for staff to learn

# Options Analysis.... continued

- Option 4 – Continue On-Premise Investment




- ✓ Technology stack is known

- ✘ No disaster recovery
  - ✘ Limited high availability capability
  - ✘ Difficult to scale
  - ✘ Extensive costs for environmental upgrades/refresh
  - ✘ Potential Extended Support charges if upgrade not completed



# Cost Comparison

- Current services £489k (£250 per core/per annum)
- Like-for-like Azure TCO £322k per annum ~ **Saving approx. 34%**  
(3 year Reserved Instance, AHB and EA discount 20%)
- SQL current TCO £232k p.a.
- Like-for-like Azure TCO £125k p.a. ~ **Saving approx. 50%**

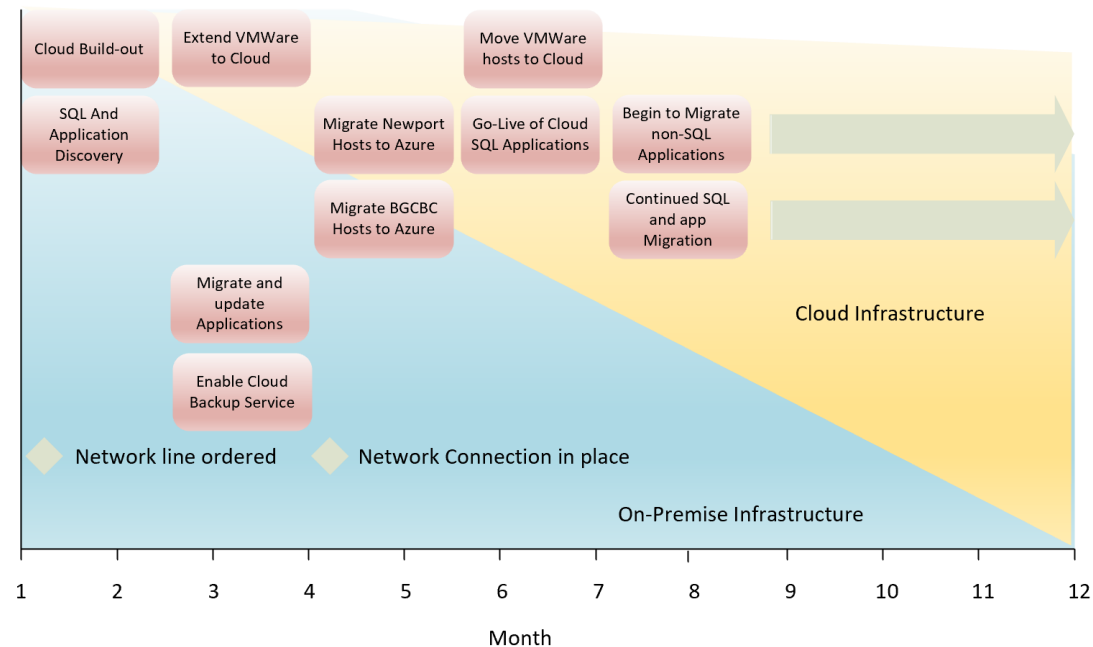
Business Case	Driver	As Built "Lift and Shift" List Cost 3 Year Pricing	Option 1 Azure ARC List Cost 3 Year Pricing *Right Sized	Option 2 Estimated Azure Hybrid Use Benefit Cost 3 Year Pricing *Right Sized	Option 3 Azure Reserved Instance and AHUB Estimate 3 Year Pricing *Right Sized	Estimated Storage Cost 3 Year Pricing
ARC Scan Population 	Migrate all 286 ARC scanned servers into Azure	£3,080,259	£1,403,140	£877,611	£326,335	£401,120
Non Prod 	Migrate all 30 ARC Scanned <i>Assumed</i> Non-Production servers into Azure	£280,770	£133,158	£79,902	£30,379	£30,412
Windows Servers no longer on mainstream support 	Migrate 124 ARC scanned servers without mainstream support into Azure (2008R2 or earlier)	£1,125,844	£624,250	£394,039	£146,649	£273,301

# Recommendations

- Implement Hybrid Cloud approach
- Migrate existing services from SRS Tech Halls to Azure
- Migrate existing services from Newport and BG to Azure
- Review existing firewalls and Internet connections to connect to Azure
- Extend VMWare environment to Azure (when available)
- Use Azure Backup for cloud and on-premise services
- Improve service availability by using resilient and geographically dispersed services
- Regularly review Azure costs
- Regularly review security posture of services in Azure
- Decommission on-premise services when migrated to Azure

# Approach

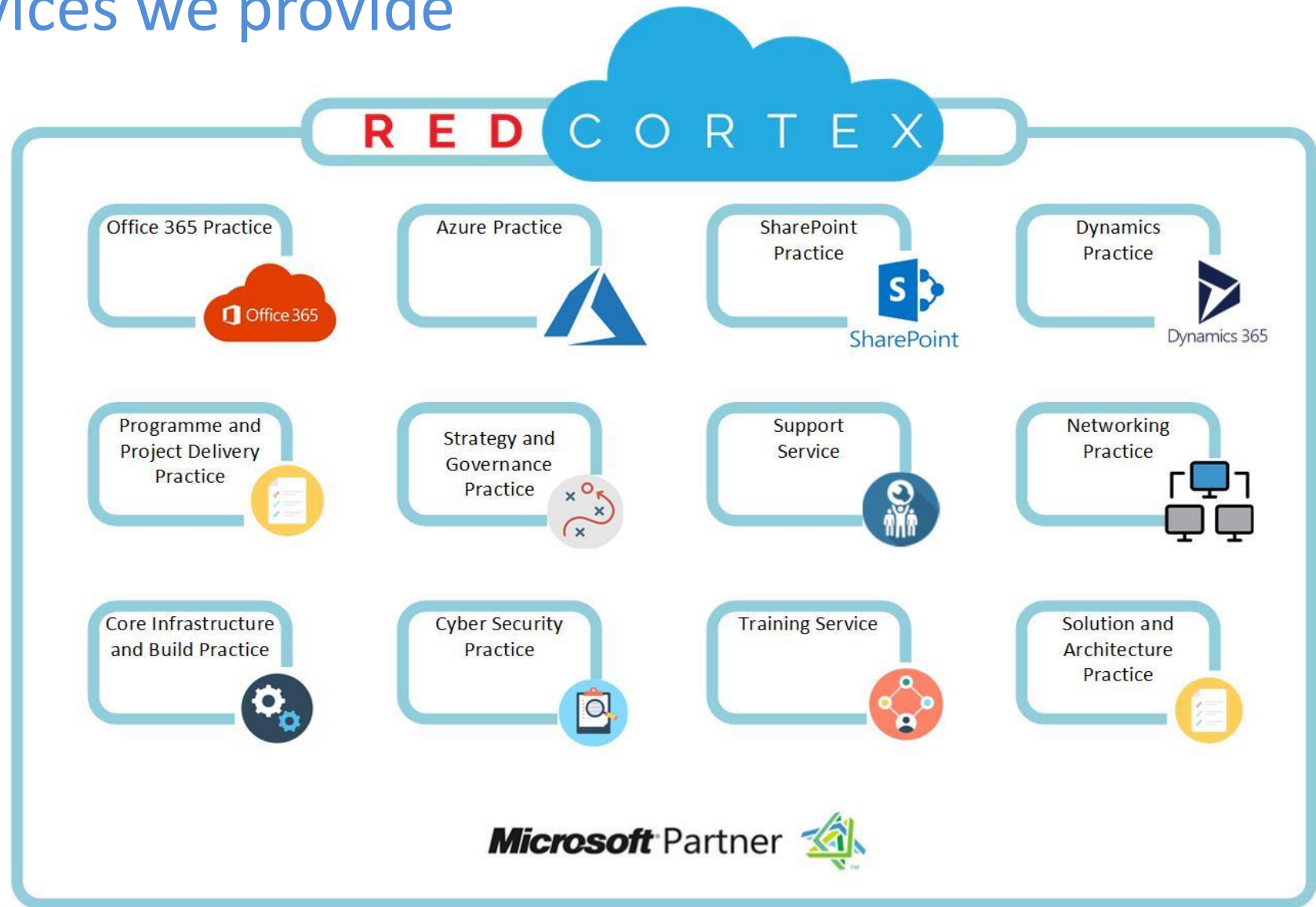
- Initial 12 month migration programme
- 5 Year Vision to Transform Services
  - Cloud First
  - Cloud Native
  - Flexible Working
  - Migrate Shared Drives
  - Deploy Software Defined WAN
  - Big Data Analysis
  - Automated Intelligence



# Microsoft and Microsoft Partners Assistance

- Microsoft can provide assistance for organisations to migrate to Azure:
  - Cloud Services Architect
  - Enterprise skills initiative
- Microsoft Partners can help plan and migrate services
- RedCortex has extensive experience of delivering cloud migration projects

# Services we provide



# Current Client base



- Questions/Discussion
-