

Phoenix Software – Cambridge TechLink – 30/06/21

Empowering Education and Research Institutions with Microsoft Azure

Phoenix Software – who we are

Our mission statement

We empower and inspire our people to fulfil their potential, so they can help our customers make smarter buying decisions and meet their business objectives through technology.

Our values

As the UK's leading 100% Public Sector focused IT Solution and Service Provider, we will continue to deliver the outcomes our customers want and need, while adhering to our core values.

Dedicated to the UK public sector

Our customers are drawn from some of the UK's largest organisations including the NHS, emergency services, housing associations and several large local authorities, as well as many smaller organisations such as schools and charities.

Our partners

At Phoenix, we partner with both world-leading software, hardware and solution partners and technology specific start-ups to ensure we can offer the best solution for our customers strategies and budgets.



What is the OCRE Framework?

The OCRE Framework is an EU-compliant for procurement of cloud infrastructure as a service (IaaS), platform as a service (PaaS), software as a service (SaaS) and associated services.

“The OCRE Cloud Framework and OCRE Cloud Catalogue will support state-of-the-art research and explore new ways forward for procuring, funding and using in-demand digital solutions while benefiting from volume discounts.

In short, this allows Education and research institutions to avoid bureaucratic barriers that prevent researchers from easy access to these cloud services.”

<https://www.ocre-project.eu/news-insights/news/ocre-cloud-framework-catalogue-empowers-european-research>



National research and education network

In the UK the national research and education network (NREN) Jisc will bridge the gap between members and other eligible users of the framework.

In more detail, they provide a range of services including:

- Liaising with education and research institutions on their requirements
- Providing institutions with documentation and guidance prior to them contracting with cloud service resellers
- Liaising with resellers and platform providers, including original cloud providers as well as the hyperscale cloud providers
- Bringing institutions, resellers and providers together via webinars and workshops

Cost recovery fee of 3.5% that Phoenix collect on Jisc's behalf and pass straight on.




Eligibility

In OCRE, customer will be able to purchase EES or SCE enrolments depending on their organisation eligibility.

Qualified Education users can purchase an EES. They must meet the criteria of Section A in the Microsoft QUED.

Accounts not qualified and Education users can purchase Azure on a SCE enrolment.

The NREN for OCRE framework is Jisc and so all customers must be a Jisc member.


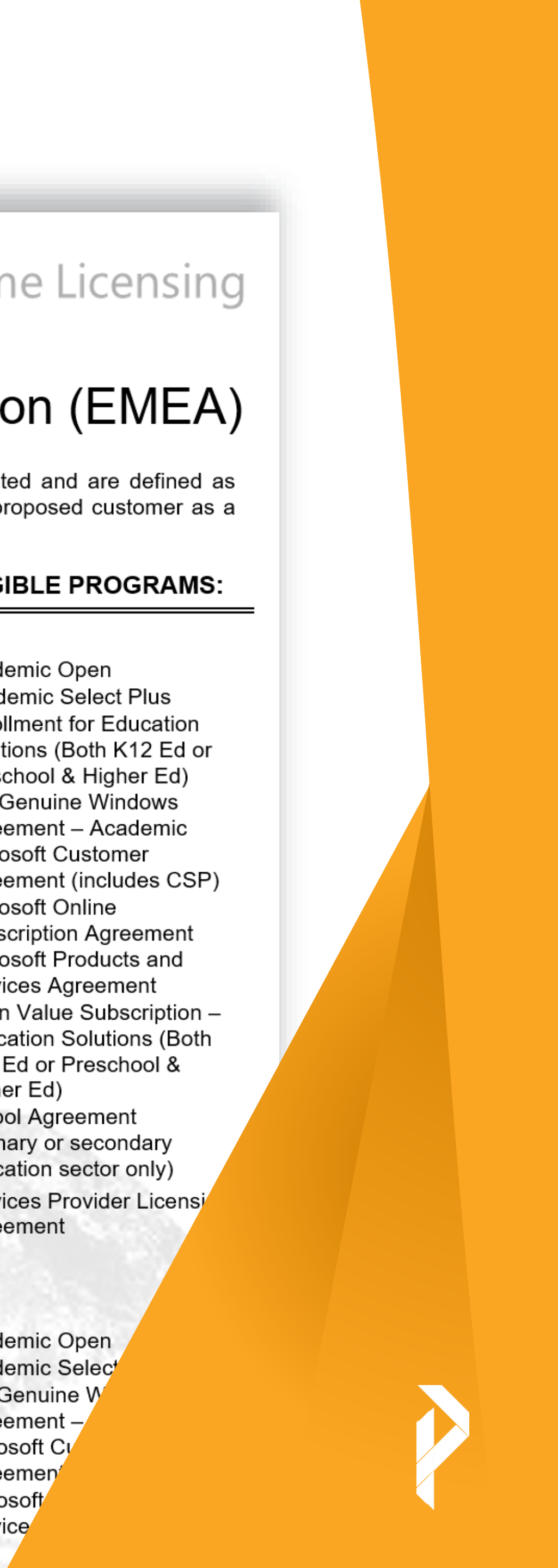



Volume Licensing

Microsoft Qualified Educational User Definition (EMEA)

The following are eligible to acquire Microsoft academic edition products in the programs indicated and are defined as qualified educational users. Microsoft reserves the right to review the status of any customer or proposed customer as a qualified educational user.

| QUALIFIED EDUCATIONAL USERS: | ELIGIBLE PROGRAMS: |
|---|--|
| <p>A) Educational Institutions</p> <p>1. An academic or vocational institution accredited by the applicable governmental regulatory agency in the country in which the Educational Institution has its principal offices</p> | <ul style="list-style-type: none">• Academic Open• Academic Select Plus• Enrollment for Education Solutions (Both K12 Ed or Preschool & Higher Ed)• Get Genuine Windows Agreement – Academic• Microsoft Customer Agreement (includes CSP)• Microsoft Online Subscription Agreement• Microsoft Products and Services Agreement• Open Value Subscription – Education Solutions (Both K12 Ed or Preschool & Higher Ed)• School Agreement (primary or secondary education sector only)• Services Provider Licensing Agreement |
| <p>2. A not-for-profit full-time teaching institution/organization, including continuing education, which is non-academic and/or non-government recognized.</p> | <ul style="list-style-type: none">• Academic Open• Academic Select• Get Genuine W• Agreement –• Microsoft C• Agreement• Microsoft• Service |

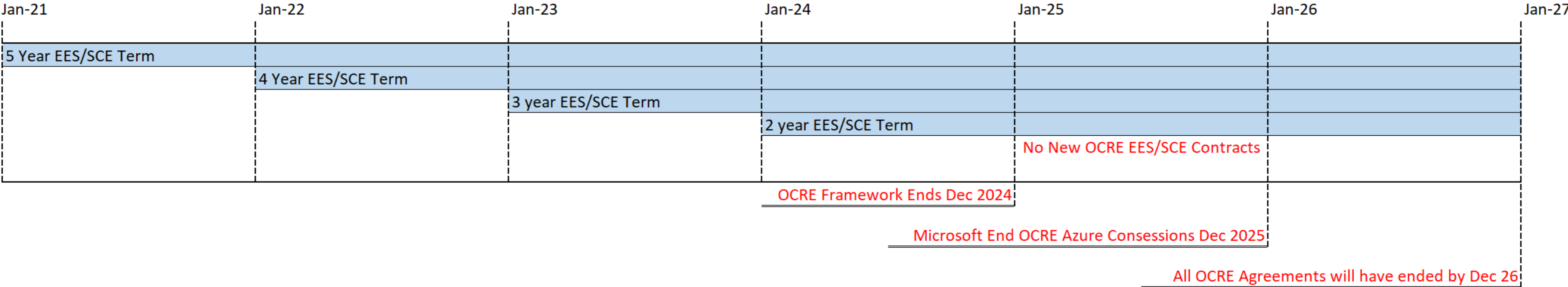


Contract

Agreement and amendment effective date is January 2021

The concessions will be effective immediately upon contract activation until 31 December 2025

EES/SCE contract will be for a period of up to 60 months.



In 2021 start with a minimum Azure prepayment of £4,628.31 (including NREN CRF exc. VAT)

No anniversary payments required for the duration

Consume in overage once prepayment is used



Concessions

As part of the OCRE framework, Microsoft grants education and research institutes discounted prices and reduced network costs as follows:

- 15% discount on all Azure PAYG metered SKU prices
- Phoenix 3% ACR until Dec 2024
- Still receive non-OCRE discounts on Reserved Instances & Hybrid Use Benefit
- Data Egress waiver (capped at 15% total ACR) – zones 1, 2 & 3)
- 65% discount on ExpressRoute Unlimited until 31 December 2021
Thereafter swap to Express Route Direct & benefit from 15% discount



15% discount on all Azure PAYG metered SKU prices

PAYG Product Families

App Services

AppFabric Cache

AppFabric Service Bus

Avere HPC Cache

AZ STGE GpV2 ARCHIVE DATA ACCESS

AZ STGE GpV2 ARCHIVE DATA STGE GB

AZ STGE GpV2 FILE SYNC

AZ STGE GpV2 QUEUE DATA ACCESS

AZ STGE GpV2 QUEUE DATA STGE GB

AZ STGE GpV2 STDPGBLB+DISK ACCESS

AZ STGE GpV2 STDPGBLB+DISKSTGE GB

Azure Analysis Services

Azure App Service

Azure Application Insights

Azure Business Analytics

Azure CDN

Azure Cognitive Services

Azure Compute

Azure Container Instances

Azure Container Registry

Azure Data Share

Azure DevOps

Azure ExpressRoute

Azure FHIR

Azure Identity

Azure Integration

Azure Linux Support

Azure Networking

Azure Oracle

Azure Platform Data Transfr

Azure Security Center

Azure Site Recovery

Azure SQL DB

Azure SSD Compute

Azure Stack Consumption

Azure Storage

Cognitive Services

MCA Azure Front Door Service

MCA Azure Sentinel

OpenShift

PowerBI PaaS

Translator API

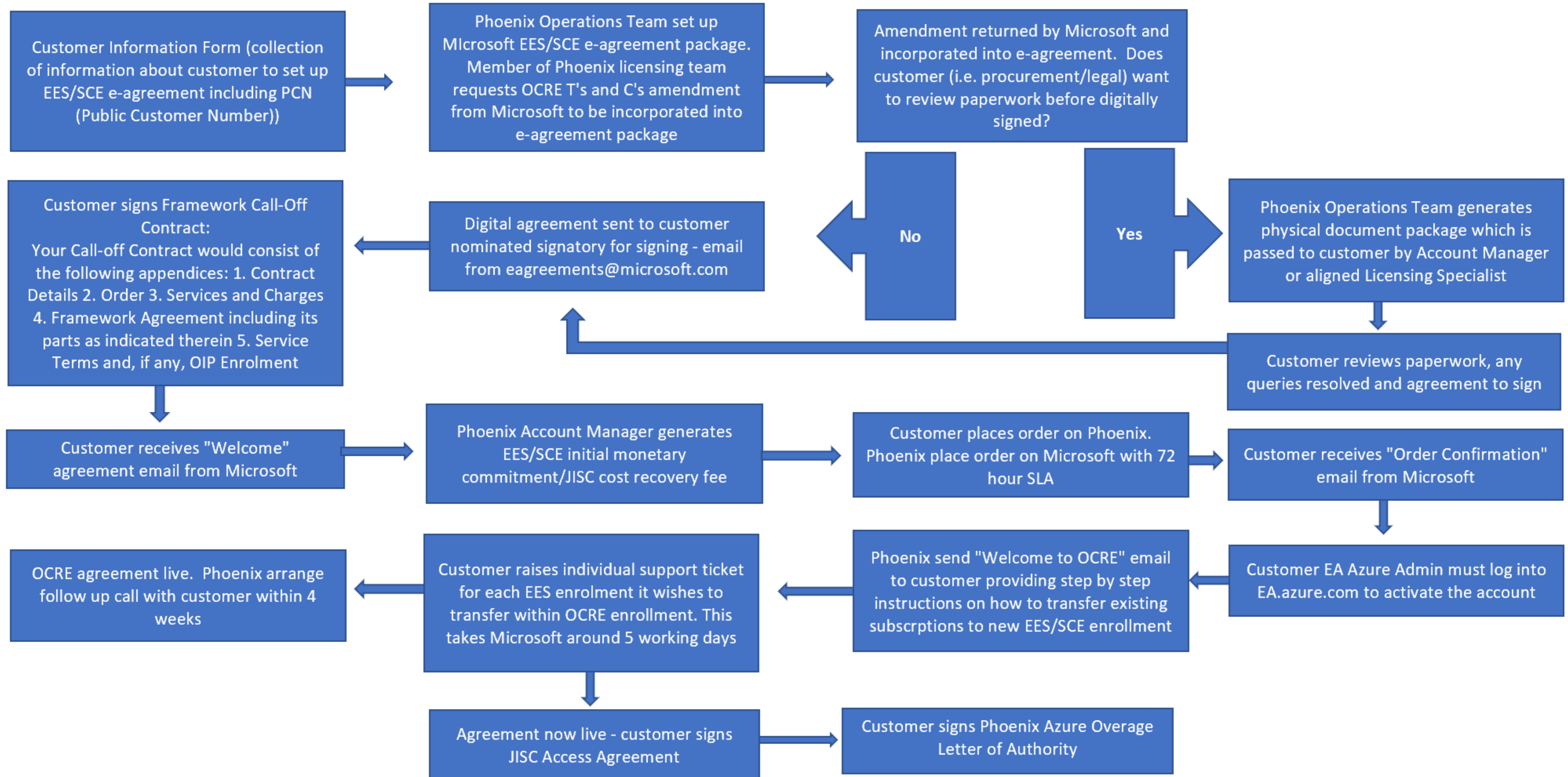


What do I sign?

- EES/SCE eAgreement
 - PCN number
 - Signatory Contact
 - Primary Contact
- Jisc Access Agreement
- Framework Call Off Contract
- Phoenix Azure Overage Letter of Authority
- Master Services Agreement (*only required if purchasing Professional Services from Phoenix*)



Process



A group of people in an office setting looking at a laptop screen. The image is dimly lit and has a dark overlay. The text is white and centered over the image.

Azure Billing Managed Services for Research and Central IT Services

Visibility into Spend and Cost Management

Offering:

- Visibility into spend
- Subscription level management and cost management
- Easily cross charge and track spending across IT and Research Azure usage
- Access to licensing and Azure Technical Specialists for workshops, landing zone deployment, Azure for Research focussed sessions
- Simplify Azure cost management
- Cost optimisation options





Phoenix Support and Service Offerings

Our Credentials



Microsoft Advanced Specializations

- Microsoft Adoption and Change Management Advanced Specialization
- Microsoft Windows Server and SQL Server Migration to Microsoft Azure Advanced Specialization
- Microsoft Windows Virtual Desktop Advanced Specialization

Our Focus Areas



Modern Work & Security



Azure Infrastructure



Azure Windows Virtual Desktop



Azure Sentinel



Azure VMware Solution



Data and Artificial Intelligence (AI)



Power Apps and the Power Platform



BizApps and Dynamics 365



Surface Family of Devices



Adoption & Change Management



Accessibility and Inclusion



Digital Skills & Careers in Technology

Gold

Microsoft Partner

Azure Expert MSP



Phoenix Azure Customer Engagement

Help organisations understand what Azure is, use cases and assess existing infrastructure

Strategy Planning Offerings

- Azure 101
- Data 101
- AI 101
- Azure for Research
- Power Platform Workshop

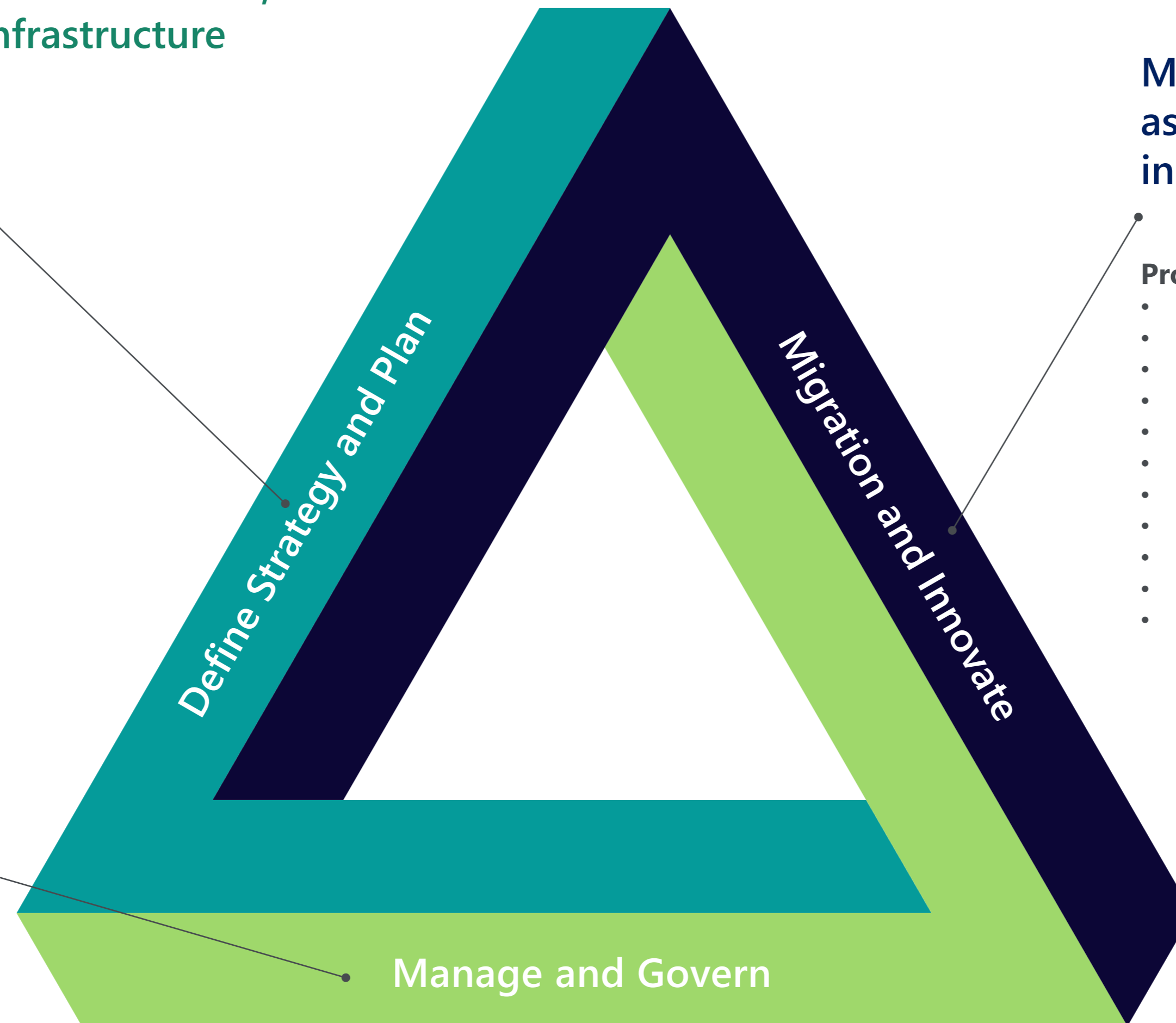
Assessment

- Surveyor 360
- Azure Fundamentals
- Azure Security Assessment
- Microsoft Solution Assessments
- Azure Essentials Managed Service

Managed Service, cost optimisation and training - enable customers for successful and effective Azure usage

Managed Services & Project Services

- Azure Essentials Managed Service
- Azure Cost Optimisation
- Health Check & Governance Assessment
- Azure Training & Adoption Support
- Data Managed Service

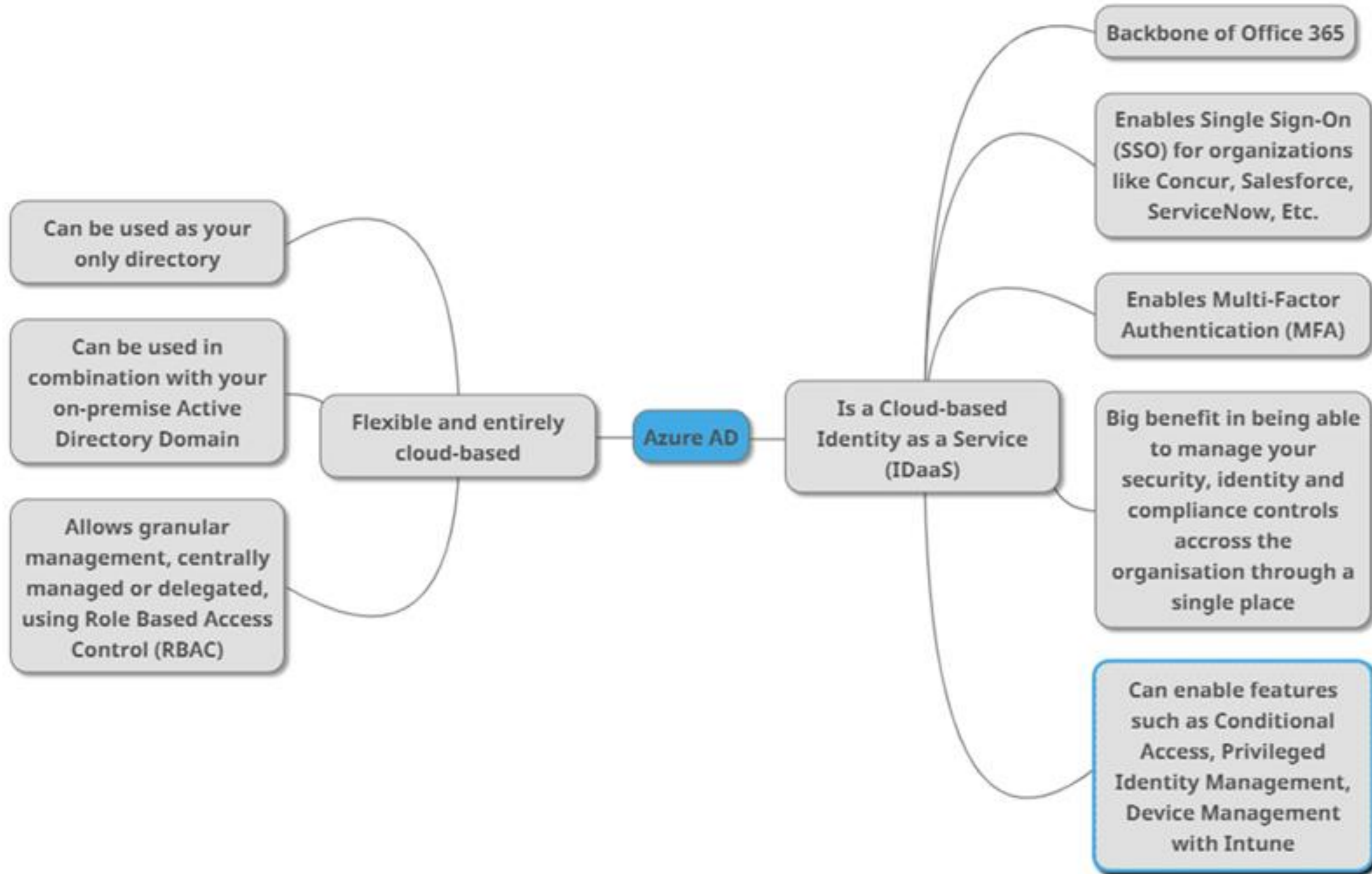


Migrate organisations to Azure after assessment, strategy defined and innovate with new workloads

Project Services

- Azure Migration Programme (AMP)
- Sentinel
- HPC & Research
- Landing Zone Deployment
- Windows Virtual Desktop (WVD)
- Azure Stack HCI
- Data Warehousing in Azure
- AI & IoT Workloads in Azure
- Azure VMware Solution (AVS)
- Power Platform Deployment
- Onboarding to Azure Essentials





| | Azure Active Directory | Windows Active Directory |
|------------------------|--|---|
| Communication | Representational State Transfer (REST APIs) | Lightweight Directory Access Protocol (LDAP) |
| Authentication | All protocols are cloud-based | Kerberos and NTLM |
| Network Organization | Users and groups follow a flat structure | organizational units, domains, and forests |
| Entitlement Management | Admin can organize the users into different groups | Data owners or admins can assign the users to groups |
| Devices | Support for mobile device management | No support for mobile device management |
| Desktops | Can collaborate with Microsoft Intune | Group Policy (GPOs) govern the desktops |
| Servers | Domain services manage the servers | Either GPOs or different on-site server management system manages the servers |



A woman with curly hair and glasses is sitting at a desk in a dimly lit room, looking at a large monitor displaying code. She is wearing a denim jacket. The desk has a laptop, a small potted plant, and a desk lamp. The background shows a wall with a plant.

Phoenix Windows Virtual Desktop (WVD) Offering

WVD Deployment – Phoenix Approach

There are two Windows Virtual Desktop (WVD) deployment options from Phoenix ...

Express Plus

- Production deployment – simplified and streamlined
- Ideal for burst capacity of existing solutions given need for Remote Learning
- Does NOT require any Microsoft Cloud footprint at all as a pre-requisite
- POC/Pilot and full rollout potential
- Easy upgrade at a later date to 'Full Install'

Full Install

- Potential to be part funded by ECIF – will require customer commitment
- Production deployment – Increased customisation
- Ideal replacement of existing VDI deployment – VMware Horizon / Citrix
- Does NOT require any Microsoft Cloud footprint at all as a pre-req

When combined with the Phoenix WVD Essentials Managed service, you require zero in house skills for either Azure or WVD – Applicable to both options above



WVD Cost Calculator

Things to consider...

- PAYG / 1YR / 3YR
- User profile size
- Peak and Off Peak Usage
- Days per month, hours per day
- Azure Files / Netapp Files / File Servers / BLOB – User profile storage
- User type – Multi session / 1-2-1 / GPU based
- Includes costs for various supporting services such as Azure Domain Services, DCs, Egress etc
- WVD Essentials Managed service

PHOENIX
Windows Virtual Desktop Cost Calculator v1.8

| Parameters | Values | Hours | Notes |
|---------------------------------------|----------------------------|-------|-------------------------------------|
| Service Payment Method | PAYG | | PAYG, RI1, RI3 |
| Implementation Type | Express | | Express / Full |
| Total Users (Requiring Profile Disks) | 500 | | Total Possible Users |
| Users not Requiring Profile Disks | 0 | | Typically Students |
| Estimated Profile Size | 20 | | Typically 10GB to 20GB |
| Peak Desktop Concurrency | 100% | 220 | 90% - 100% During Peak Usually |
| Off Peak Desktop Concurrency | 30% | 510 | 10% - 20% During Off Peak Usually |
| Days Per Month Usage | 22 | | (Mon to Fri = 22 Days Typically) |
| Hours Per Day | 10 | | 10 Hours - 08:00 to 20:00 |
| Days Per Week | 5 | | 5 Days Typically (M-F) |
| Monthly Hours | 730 | | Total Possible Monthly Hours |
| Months per Year to Run Service | 12 | | Typically 12 Months, Edu 9 |
| Max CCU Users per GPU VM | 12 | | Max 25 (Recommend 8 to 12) |
| Azure Domain Services Required | N | | Y/N - File Storage (Std / Prem) = Y |
| Windows File Servers Profile Storage | N | Type | D4 v3 - 4vCPU - 16GB RAM |
| Storage Type for User Profiles | File Storage (Premium SSD) | | |

| Desktop Choices | Type | Cost per Hour (PAYG) |
|---------------------------------|---|----------------------|
| Multi Session Desktop (M, H, P) | D4s v3 4 vCPU(s) 16GB RAM (Hourly Cost) | £0.1729 |
| 1 to 1 Desktops | D2 v3 2 vCPU(s) 8GB RAM (Hourly Cost) | £0.0865 |
| GPU Desktops | NV6 6 Cores 56GB RAM (Hourly Cost) | £1.1195 |

| Apps Concurrent Users | 100% | | 30% | |
|-----------------------|-------|---------|-------|---------|
| | Usage | % Usage | Usage | % Usage |
| | | | | |

| Desktop Sizes (Multi Session) | Peak Instances | | Off Peak Users | |
|-------------------------------------|----------------|-----------|----------------|-----------|
| | Users | Instances | Users | Instances |
| Medium (4 users per vCPU) | 500 | 32 | 150 | 10 |
| Heavy (2 Users Per vCPU) | 0 | 0 | 0 | 0 |
| Power (1 Users per vCPU) | 0 | 0 | 0 | 0 |
| Multi Session Desktop Totals | 500 | 32 | 150 | 10 |
| 1 to 1 Desktops / VMs if GPU Users | 0 | 0 | 0 | 0 |
| GPU Based Desktop Users (Apps Only) | 0 | 0 | 0 | 0 |
| Grand Totals | 500 | 32 | 150 | 10 |

User Profile Storage: 10,000 GB

| Summary of Costs | Cost Per User Managed Desktop | | | |
|---|-------------------------------|-------------------|---------------------------------|----------------|
| | Monthly | Yearly | Monthly | Yearly |
| Win 10 Multi Session - Compute (CCU) | £2,667.65 | £32,011.75 | £5.34 | £64.02 |
| Win 10 - 1 to 1 - Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| GPU Based Users / Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| Supporting Compute Services - 500 Users | £586.67 | £7,040.04 | £1.17 | £14.08 |
| User Profile Storage - 500 Users | £1,967.58 | £23,610.94 | £3.94 | £47.22 |
| Managed Service Base Cost | £950.00 | £11,400.00 | £1.90 | £22.80 |
| Cloud Management Fee | £104.44 | £1,253.25 | £0.21 | £2.51 |
| Per Desktop Management Fee (CCU) | £500.00 | £6,000.00 | £1.00 | £12.00 |
| Totals | £6,776.33 | £81,315.98 | £13.55 | £162.63 |
| | | | Cost per CCU - 500 Desktops | |
| | | | £13.55 | £162.63 |
| | | | Cost Per User - 500 Total Users | |

Term of Contract: 1 Year
Total Estimated Costs*: £81,315.98

| Summary of Costs | Monthly | | Yearly | |
|---|------------------|-------------------|---------------|----------------|
| | Monthly | Yearly | Monthly | Yearly |
| Win 10 Multi Session - Compute (CCU) | £567.01 | £6,804.17 | £5.67 | £68.04 |
| Win 10 - 1 to 1 - Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| GPU Based Users / Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| Supporting Compute Services - 100 Users | £586.67 | £7,040.04 | £5.87 | £70.40 |
| User Profile Storage - 100 Users | £393.52 | £4,722.19 | £3.94 | £47.22 |
| Managed Service Base Cost | £950.00 | £11,400.00 | £9.50 | £114.00 |
| Cloud Management Fee | £30.94 | £371.33 | £0.31 | £3.71 |
| Per Desktop Management Fee (CCU) | £100.00 | £1,200.00 | £1.00 | £12.00 |
| Totals | £2,628.14 | £31,537.72 | £26.28 | £315.37 |

| | |
|---------------------------------|----------------|
| Cost per CCU - 100 Desktops | |
| £26.28 | £315.37 |
| Cost Per User - 100 Total Users | |

| Summary of Costs | Monthly | | Yearly | |
|---|------------------|-------------------|---------------|----------------|
| | Monthly | Yearly | Monthly | Yearly |
| Win 10 Multi Session - Compute (CCU) | £2,667.65 | £32,011.75 | £5.34 | £64.02 |
| Win 10 - 1 to 1 - Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| GPU Based Users / Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| Supporting Compute Services - 500 Users | £586.67 | £7,040.04 | £1.17 | £14.08 |
| User Profile Storage - 500 Users | £1,967.58 | £23,610.94 | £3.94 | £47.22 |
| Managed Service Base Cost | £950.00 | £11,400.00 | £1.90 | £22.80 |
| Cloud Management Fee | £104.44 | £1,253.25 | £0.21 | £2.51 |
| Per Desktop Management Fee (CCU) | £500.00 | £6,000.00 | £1.00 | £12.00 |
| Totals | £6,776.33 | £81,315.98 | £13.55 | £162.63 |

| Summary of Costs | Monthly | | Yearly | |
|--|-------------------|--------------------|---------------|----------------|
| | Monthly | Yearly | Monthly | Yearly |
| Win 10 Multi Session - Compute (CCU) | £5,191.31 | £62,295.72 | £5.34 | £64.02 |
| Win 10 - 1 to 1 - Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| GPU Based Users / Compute (CCU) | £0.00 | £0.00 | £0.00 | £0.00 |
| Supporting Compute Services - 1000 Users | £586.67 | £7,040.04 | £1.17 | £14.08 |
| User Profile Storage - 1000 Users | £3,935.16 | £47,221.88 | £3.94 | £47.22 |
| Managed Service Base Cost | £950.00 | £11,400.00 | £1.90 | £22.80 |
| Cloud Management Fee | £194.26 | £2,331.12 | £0.21 | £2.51 |
| Per Desktop Management Fee (CCU) | £1,000.00 | £12,000.00 | £1.00 | £12.00 |
| Totals | £11,857.39 | £142,287.76 | £11.86 | £142.29 |



Ongoing Management

Phoenix WVD Essentials Managed Service

- 10 years experience of managing customers VDI environments
- Ensures Azure costs are kept low and to anticipated levels
- Constant security reviews
- Proactive management of Azure Infrastructure and Networking
- Incident Management
- 24/7/365 Support

| Managed Service | WVD |
|---|------------------------|
| Support hours | 24 x 7 x 365 |
| Reporting dashboard | ✓ |
| SLA Agreement | ✓ |
| Subscription Cost and Billing Management | ✓ |
| Technical support by phone, email or portal | ✓ |
| Access to Azure 3rd line Tech Support Specialists | ✓ |
| Incident Management | ✓ |
| Event Management | ✓ |
| Problem Management | ✓ |
| Security Incident Management | ✓ |
| Basic Monitoring, Logging & Alerts | - Azure Infrastructure |
| | - Azure Security |
| | - Azure Network |
| Health and performance monitoring | ✓ |
| Performance and Capacity Optimisation - Advice | ✓ |
| Cost Optimisation - Advice | ✓ |
| Quarterly Service Reviews | ✓ |
| Operational Best Practice | - Windows 10 Patching |
| | - Backup Verification |
| Proactive Management | - Azure Infrastructure |
| | - Azure Network |
| | - Pool Size Management |
| | - Diurnal Optimisation |





Security, Governance,
Risk and Compliance

Governance, Risk & Compliance Practice

Cyber Security & Resiliency

ISO Standards
9001; 27001; 20000; 14001; 22201;
31000; BS10008

PCI – DSS Audit & Advisory Services

Penetration Testing & Vulnerability
Scanning

Cyber Security Incident Response Planning

Cyber Security Breach Management
(Crisis Support)

Licence and Software Services

Governance, Risk and Compliance Services

Cloud Security Posture Assessment

Digital Forensics and Incident Management Services

Cyber & GRC Resiliency and Strategic Reviews

ISF Security Health Checks and Benchmarking*

Cyber Essentials and Cyber Essentials Plus

Risk Assessment Reviews and Build

Data Protection Services – UK-GDPR/DPA; Virtual CISO and others

BCP/DR and CSIRP Review and Build Services incl Tabletop exercises



Next Steps

Simple joint engagement process with Microsoft and Phoenix

- Microsoft funded pilots/POCs available via Microsoft and Phoenix. Contact your Microsoft account team or Phoenix for more information on this.
- Pilot offering for Azure Research Billing Essentials
- Set up 1:1 call to discuss how OCRE Framework applies to you
- Email us today at OCRE@phoenixs.co.uk

