

Cloud Services Procurement

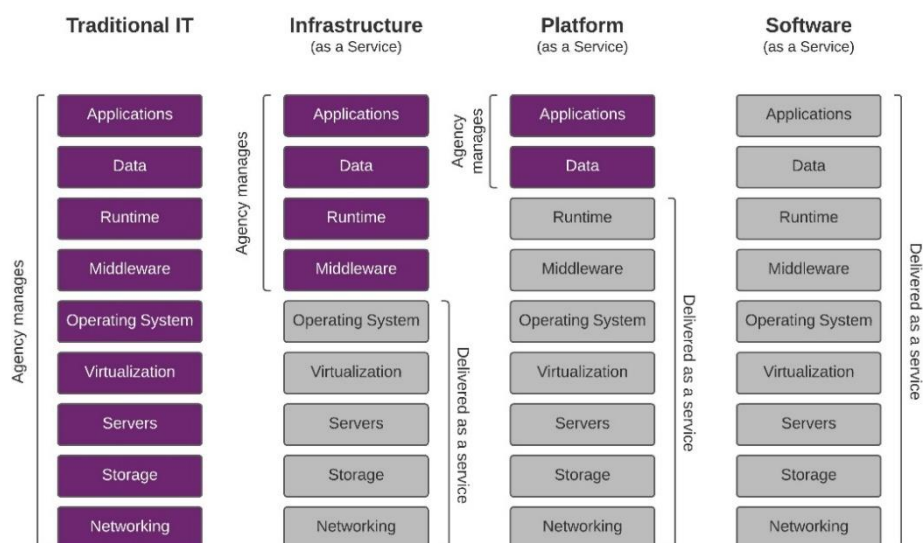
The purpose of this document is to provide Western Australian State agencies (agencies) with clarity on the procurement pathways by which to source cloud and consumption-based Information and Communication Technology (ICT) services. This document is to be used in conjunction with the [Cloud Service Procurement Strategy](#) template and the [Western Australian Procurement Rules](#).

Definitions

1. Cloud Service Models:

- **Infrastructure as a Service (IaaS)** - Consumption of ICT infrastructure (server, storage, network, operating system) from a cloud provider.
- **Platform as a Service (PaaS)** - Consumption of ICT platform to allow for the development, operation, and management of applications without the complexity of building and maintaining infrastructure.
- **Software as a Service (SaaS)** - On demand delivery of software applications, with cloud providers hosting and managing the application and its underlying infrastructure.

The diagram below illustrates the different responsibilities between the agency and the Cloud Service Provider (CSP) for each service model.



2. Cloud Deployment Models:

- **Public Cloud Services** - The cloud infrastructure is provisioned for open use by the general public. Characteristics of public cloud services include:
 - Commodified service offerings – standard service offerings in terms of technical design and service levels offered to all consumers.
 - On-demand self-service – consumer can unilaterally deploy computing capabilities as needed automatically without requiring human interaction with each service provider.

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- Resource pooling – cloud provider’s computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand.
- Rapid elasticity – capabilities that can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.
- Measured service – cloud systems automatically control and optimise resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g. storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilised service.
- No-commitment – consumers can order services with no up-front costs, no long-term contracts, and pay-as-you-go pricing.
- **Private Cloud Services** - The cloud infrastructure is provisioned for exclusive use by a single organisation. Characteristics of private cloud services include:
 - Customised service offerings – customised service offerings in terms of technical design and service levels offered to meet the organisations specific requirements.
 - Dedicated resources – cloud provider’s computing resources are provisioned for exclusive access by a single organisation.
 - Commitment – private cloud services typically require a level of commitment in terms of a term-based contract and minimum volume commitments based on forecasted demand. Pricing is still consumption based in terms of the pricing model and charges for additional capacity beyond the minimum commitment.
- **Hybrid Cloud Services** – The cloud infrastructure combines Private Cloud Services and Public Cloud Services, with orchestration between the various platforms creating a solution that essentially functions as one combined infrastructure. This hybrid cloud definition is to be read as managed hybrid cloud services. Managed means there is a single management layer that combines the use of both Private and Public cloud environments.

3. Common Use Arrangements:

There are multiple Common Use Arrangements (CUA) that cover the procurement of Cloud Services (including associated services such as consultancy, transition and managed services). These are referred to throughout the document by their CUA reference code:

- **CUAAWS2020** – Amazon Web Services
- **CUAGNICT2015** – GovNext-ICT
- **CUAICTS2021**– Information and Communications Technology Services
- **CUAMS2019** – Supply of Microsoft Product Licenses and Licensing Solutions
- **CUA0149312** – Supply of Oracle Products

4. Outcome as a Service (OaaS)

Outcome as a Service (OaaS) refers to situations where contractors, for a fee, are responsible for providing end to end solutions. OaaS solutions can only include elements of cloud services when the solution complies with the following guidelines:

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- All elements of the OaaS solution, including all products and services required to deliver the OaaS, will be the responsibility of the contractor.
- The contractor offering an OaaS must not commit customers to:
 - Owning any proprietary products during or at the end of the contract (for example, ownership of hardware).
 - Signing any proprietary Product and Service licence agreements either before, during or at the end of the contract (for example, hardware maintenance agreements, software licence agreements, public cloud service agreements). This is a point of difference with the more commonly purchased cloud hosting and Software as a Service solutions.
 - Any residual components after the contract ends (for example, a vendor committing to leasing equipment to provide a hosting environment and a cloud service).
- Providing it does not conflict with the conditions above, contractors may:
 - Leverage ICT hardware, cloud services and / or software products to deliver an OaaS.
 - Allow customers to enter into service user agreements that underpin the use of software.

Cloud Service Procurement Strategy Template

When considering a new purchase for Cloud or Data Centre requirements (including purchasing new owned ICT infrastructure) agencies should in the first instance complete the [Cloud Service Procurement Strategy](#) template. The purpose of the template is to:

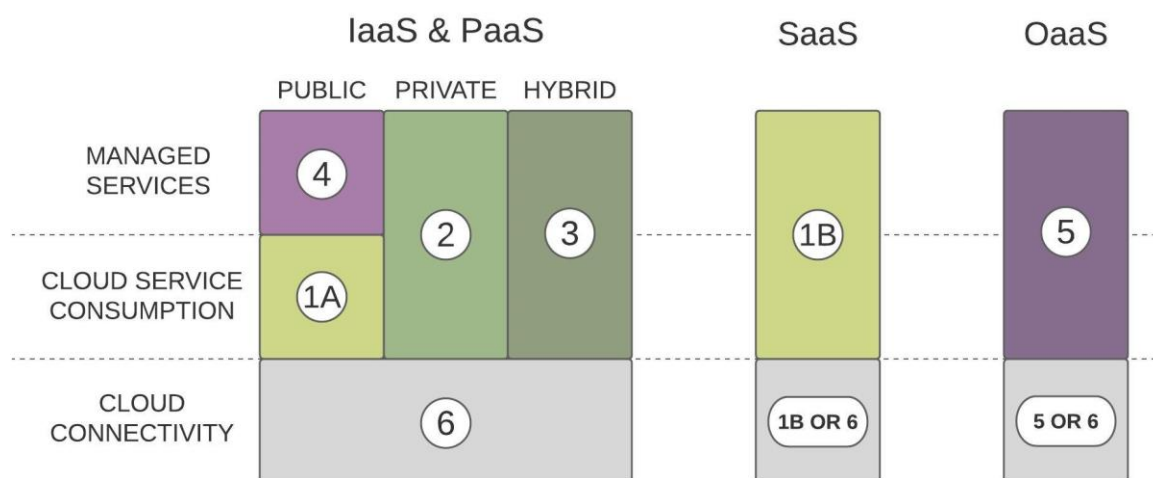
1. Define the scope of the business requirement that requires an ICT infrastructure solution.
2. Classify the data that will be stored within the ICT infrastructure solution for the purposes of informing the data security requirements.
3. Assess the most suitable infrastructure deployment model – Public Cloud; Private Cloud; Hybrid Cloud; or Co-Location / On-Premise.
4. Assess the most suitable Service Provider and/or procurement pathway that will be taken to source the ICT infrastructure solution. The procurement process should be undertaken in accordance with these Cloud Procurement Guidelines and applicable [Western Australian Procurement Rules](#).
5. Document the risk assessment to demonstrate that the agency will implement sufficient controls to manage the risk in terms of the whole project but more specifically protecting the data that will be stored in the ICT infrastructure solution.

The template is only appropriate for particular cloud, data centre or infrastructure requirements as per the table below:

Requirement	Applicable
Public Cloud (IaaS and PaaS)	Yes
Public Cloud (SaaS)	No
Private Cloud	Yes
Hybrid Cloud	Yes
Co-Location Services	Yes
Purchase of ICT Infrastructure (stored in On-Premise or Co-Located Data Centre)	Yes
Outcome as a Service	No

Cloud Services Procurement Requirements

The diagram illustrates the relevant sections within this document that agencies should refer to when procuring the different cloud service requirements.



1. Public Cloud Services

A. IaaS and PaaS

Agencies should, in the first instance, complete the Cloud Service Procurement Strategy template to document the recommended procurement pathway and rationale.

If the recommendation is to procure from a CUA contractor, the services must be procured in accordance with the relevant CUA buying rules:

CSP	CUA
Amazon Web Services (AWS)	CUAAWS2020
Microsoft	CUAMS2019
Oracle	CUA0149312

Agencies may procure the required services from the relevant CUA:

- up to the value;
- up to the term, which cannot exceed the current expiry date of the relevant CUA; and
- to support only the scoped business requirements, project or applications;

specified by the agency in its Cloud Service Procurement Strategy document.

If the recommendation is not to procure from a CUA contractor, the services must be procured in accordance with the [Western Australian Procurement Rules](#).

Note: Agencies wanting to directly source Public Cloud IaaS or PaaS solutions from a non-CUA CSP must first obtain an exemption from Finance to do so – see the [Western Australian Procurement Rules](#).

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B. SaaS

Agencies must procure Public Cloud SaaS solutions in accordance with the [Western Australian Procurement Rules](#), except for the purchase of the following Goods / Services available under the relevant CUAs in accordance with the CUA buying rules:

CSP	Product / Service	CUA
Microsoft	<ul style="list-style-type: none">• Cloud software licenses and support for the Microsoft Office product suite• Cloud software licenses and support for agencies' existing Microsoft systems	CUAMS2019
Oracle	<ul style="list-style-type: none">• Cloud software licenses and support for agencies' existing Oracle systems	CUA0149312

If the CSP recommended as part of a competitive procurement process is a CUA contractor, the cloud licenses and support must be procured in accordance with the relevant CUA buying rules:

CSP	CUA
Microsoft	CUAMS2019
Oracle	CUA0149312

Note: Agencies wanting to directly source Public Cloud SaaS solutions from a non-CUA CSP must first obtain an exemption from Finance in accordance with the [Western Australian Procurement Rules](#).

2. Private Cloud Services

Agencies should, in the first instance, complete the Cloud Service Procurement Strategy template to document the recommended procurement pathway and rationale.

Private Cloud Services must be purchased through [CUAGNICT2015](#), which is mandatory at all estimated contract values.

Note: Agencies wanting to procure alternative Private Cloud Services from non-CUA contractors must obtain an approval in accordance with the exemption guidelines for [CUAGNICT2015](#) in the first instance.

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3. Hybrid Cloud Services

Agencies should, in the first instance, complete the Cloud Service Procurement Strategy template to document the recommended procurement pathway and rationale.

If agencies wish to procure a Hybrid Cloud Solution, there are two options.

Option 1

Hybrid Cloud Component	Procurement Pathway
Private Cloud IaaS / PaaS + Private and Public Cloud Managed Services	CUAGNICT2015
Public Cloud IaaS / PaaS	As per Section 1A.

Option 2

Hybrid Cloud Component	Procurement Pathway
Private Cloud IaaS / PaaS + Private Cloud Managed Services	CUAGNICT2015
Public Cloud IaaS / PaaS	As per Section 1A.
Public Cloud Managed Services	As per Section 4.

Note: Option 2 requires having two managed service providers working together to deliver a hybrid cloud solution.

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4. Managed Services

Agencies can procure managed services through the following options:

Total Contract Value Threshold	Procurement Pathway
Up to \$50,000	CUAICTS2021 or In accordance with the Western Australian Procurement Rules.
\$50,000 to \$10M	CUAICTS2021
Above \$10M	Procure in accordance with the Western Australian Procurement Rules.

Note: Agencies wanting to directly source Managed Services from a supplier with a value greater than \$50,000, agencies must first obtain an exemption from the following:

Total Contract Value Threshold	Exemption Requirement
\$50,000 to \$10M	CUA contractor – Exemption from the CUAICTS2021 Buying Rules Non-CUA contractor – Exemption from CUAICTS2021 and exemption from Finance in accordance with the Western Australian Procurement Rules
Above \$10M	Exemption from Finance in accordance with the Western Australian Procurement Rules.

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5. Outcome as a Service (OaaS)

Agencies can procure OaaS solutions through the following options:

Total Contract Value Threshold	Procurement Pathway
Up to \$50,000	CUAICTS2021 or Procure in accordance with the Western Australian Procurement Rules
\$50,000 to \$10M	CUAICTS2021
Above \$10M	Open tender in accordance with the Western Australian Procurement Rules

Note: Agencies wanting to directly source an OaaS solution from a supplier with a value greater than \$50,000, agencies must first obtain an exemption from the following:

Total Contract Value Threshold	Exemption Requirement
\$50,000 to \$10M	CUA contractor – Exemption from the CUAICTS2021 Buying Rules Non-CUA contractor – Exemption from CUAICTS2021 and exemption from Finance in accordance with the Western Australian Procurement Rules
Above \$10M	Exemption from Finance in accordance with the Western Australian Procurement Rules

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6. Cloud Service Connectivity

A. Direct Connectivity to Cloud Services

Agencies can procure Cloud Direct Connectivity Services through the following options:

Cloud Deployment Model	Connectivity Service	CUA
Public	AWS Direct Connect *	CUAAWS2020
Public	Microsoft Express Route *	CUAMS2019
Public	Oracle Fast Connect *	CUA0149312
Public	3 rd Party Public Cloud Connectivity Service (i.e. Megaport) *	In accordance with the Western Australian Procurement Rules or CUAGNICT2015 (non-mandatory)
Public	Connect via the internet	CUAGNICT2015 – Internet Gateway Service Tower (mandatory)
Private	GovNext Cloud Connectivity Services	CUAGNICT2015 (GovNext Core Network) (mandatory)

* Agencies will also have to procure a last mile connection between the agency's network and the CSP Point of Presence (POP). Refer to Section 6B below for how to procure this service connection.

B. Connection to CSP Point of Presence

If agencies wish to procure connection from the CSPs Point of Presence (POP) (i.e. AWS Direct Connect, Microsoft Express Route and Oracle Fast Connect) to their existing GovNext environment, this must be procured through [CUAGNICT2015](#) as per the method below.

Method	CUAGNICT2015 Service Tower
Dedicated agency cross connect from the CSP POP and terminating in the GovNext Core	Network Connectivity Services (Data Centre)