ViewDS Cobalt IAM

ViewDS Cobalt IAM allows service providers, integrators and vendors to deliver bespoke IAM solutions that meet a range of customers' needs.

Features include the ability to manage multiple tenants from a single location, irrespective of whether they span multi-cloud, hybrid-cloud, or on-premises infrastructure. Cobalt also ensures customers have full control of their data and the flexibility to tailor access controls, user interfaces, and schema according to their requirements.

Key benefits include the efficiency and risk mitigation that arise when a secure, unified IAM replaces multiple, disparate systems.

Features overview

Cobalt's main features are shown below against three use cases: managed service provider (**MSP**), cloud service provider (**CSP**), and digital identity fail-over (**DIF**). As well as providing a quick overview, the table also shows how different combinations of features can be applied to meet different needs.
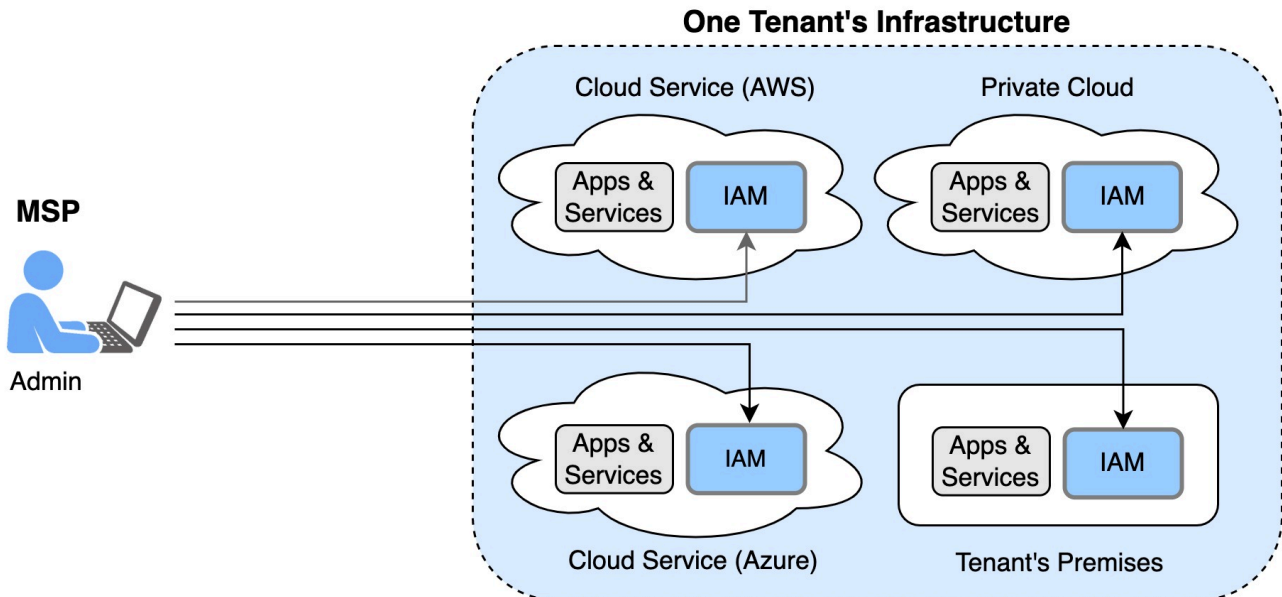
For clarity, the term multi-cloud refers to infrastructure comprising more than one private or public cloud service, such as Amazon Web Services. While hybrid-cloud is infrastructure that combines at least one cloud service with on-premises resources.

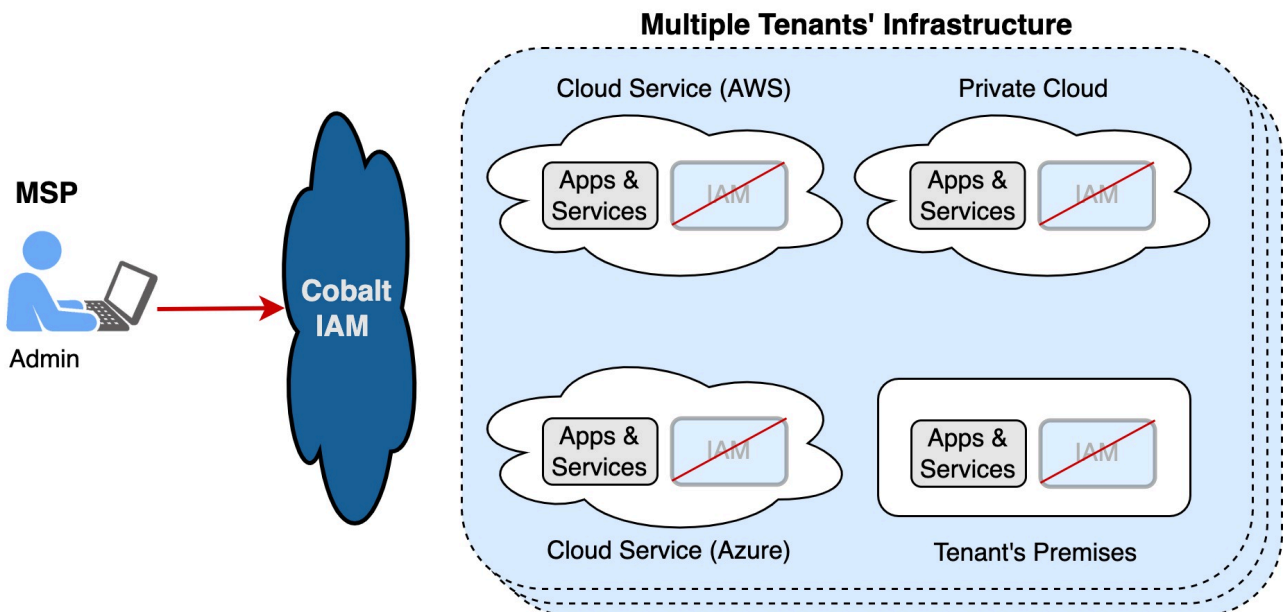| Cobalt feature	MSP	CSP	DIF
Operates across multi-cloud, hybrid-cloud, on-premises	✓	✓	✓
Multi-tenancy architecture	✓	✓	
Option to offer different levels of IAM service to different tenants	✓	✓	
Single sign-on, identity federation, two-factor authentication (OAuth, SAML, OIDC, social)	✓	✓	✓
Role-based and attribute-based access controls	✓	✓	
Extensible access control	✓	✓	
Extensible data model (schema)	✓	✓	
Password policy	✓	✓	
Web interface to manage the above features	✓	✓	✓
Option to delegate help desk and everyday administration to tenants	✓		
Web interfaces for help desk and white pages	✓		
Web interface for single sign-on, reset password, set security question (self-service)	✓	✓	✓
Data synchronisation with other IAM and data sources (LDAP, SQL, AD, custom)	✓		✓
Provisioning and deprovisioning of users	✓	✓	✓
REST API for custom user interfaces		✓	
External authorization for applications and services		✓	

Use case: Managed service provider

Managed service providers (MSP) are third-party companies that remotely manage their customers' IT infrastructure, and end-user applications and services.

A challenge for MSPs is managing IAM for many customers (or 'tenants'), which is compounded when each tenant's infrastructure includes several IAM platforms. The inefficiencies of managing multiple tenants and IAM platforms carries a significant overhead plus an inherent risk to quality of service.

One Tenant's Infrastructure

Cloud Service (AWS)   Private Cloud

MSP

Apps & Services | IAM

Apps & Services | IAM

Admin

Apps & Services | IAM

Apps & Services | IAM

Cloud Service (Azure)   Tenant's Premises

Cobalt solution

Cobalt is deployed through platform-agnostic containers. It overcomes the above issue by delivering a single, centralized platform from which an MSP can manage all aspects of IAM for all their tenants.

Multiple Tenants' Infrastructure

Cloud Service (AWS)   Private Cloud

MSP

Cobalt IAM

Apps & Services | IAM

Apps & Services | IAM

Admin

Apps & Services | IAM

Apps & Services | IAM

Cloud Service (Azure)   Tenant's Premises

Cobalt allows the MSP to:

➢ Manage IAM for multiple tenants from a single, secure application

➢ Retain full control of all IAM data

➢ Offer different levels of IAM service to different tenants

➢ Synchronize with proprietary IAMs and other systems

➢ Provision and deprovision users across each tenant's infrastructure

➢ Provide single sign-on, identity federation, and two-factor authentication

➢ Provide role-based and attribute-based authorization

Optionally, the MSP can delegate everyday administration to a tenant:

➢ Manage password policy

➢ Manage users' access to applications and services

➢ Extend the IAM data model to store, for example, additional information for each user

Cobalt provides web applications for help desk and white pages, plus an identity provider (IdP) interface. The MSP has the option to integrate a tenant's logos and branding into their individual set of user interfaces.

Identity provider

The IdP allows a tenant's users to perform single sign-on and two-factor authentication. A user can also set a security question and change their own password.

Help desk and white pages

The MSP also has the option to delegate the help-desk application and services to a tenant administrator. The application allows help-desk staff to verify an end user's identity through either email or SMS, or by asking the user their security question.

The white-pages application allows a tenant's users to search the identity directory for users and resources. As users are often imprecise when searching – they might, for example, misspell or mistype names, or use acronyms or abbreviations – Cobalt employs several approximate-matching techniques to enhance the user experience.

Approximate matching ensures, for example, that a search on:

➢ 'pane' would phonetically match 'payne'

➢ 'dircetor' would be corrected to 'director'

➢ 'optics' would match words with the same stem such as 'optical'

➢ 'road' would synonym match 'street'
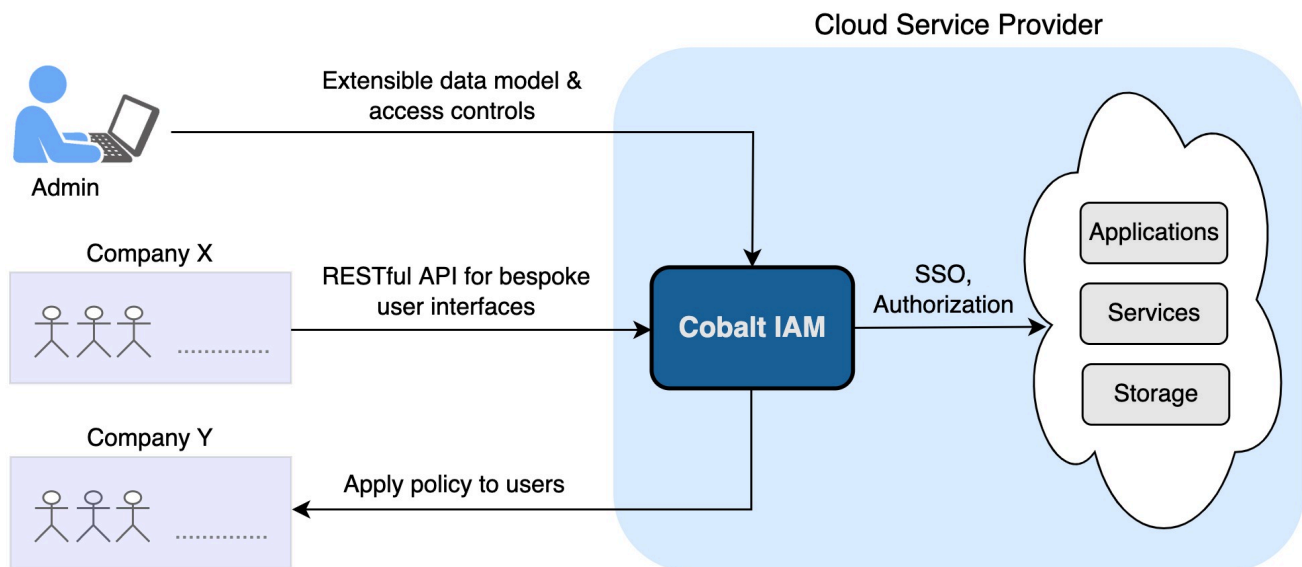
➢ 'NSW' would abbreviation match 'New South Wales'

Use case: Cloud service provider

A cloud service provider (CSP) offers cloud-based applications or services to their customers (tenants).

CSPs require an IAM platform to manage their customers' access to their applications or services. However, due to the disparate nature of the services provided by CSPs, sourcing an 'off the peg' solution that meets all requirements is frequently unrealistic. This leads many CSPs to go down the expensive and time-consuming path of developing an IAM system from scratch.

Cobalt solution

The Cobalt IAM platform delivers a suite of features designed with CSPs in mind.

Cloud Service Provider

Extensible data model & access controls

Admin

Company X

RESTful API for bespoke user interfaces

Cobalt IAM

SSO, Authorization

Applications

Services

Storage

Company Y

Apply policy to users

Features include:

Multi-tenancy for simpler deployment and administration, and for more efficient operation. Cobalt allows the CSP to manage many tenants from a single, secure web application.

Extensible schema (data model) and access controls, and custom password policy. The CSP has the option to delegate administration of these areas to tenants. (The CSP can also apply such modifications to their own internal users.)

Externalized authorization offers the convenience and flexibility of role-based and attribute-based access control (RBAC and ABAC) to the CSP's applications and services. Cobalt's implementation of ABAC also supports a zero-trust approach to security – it provides the ability to easily express least-privilege access controls at any level of granularity.

Single sign-on and **multi-factor authentication** are available to users through Cobalt's identity provider (IdP) to enhance security and the user experience.

Container-based deployment is platform agnostic as well as rapid, robust and scalable.

REST API provides CSPs with the option to develop bespoke and secure user interfaces, or to integrate Cobalt features into their applications and services.

Use case: Digital identity failover

Despite offering service level agreements with guarantees of very high 'uptime', the potential for outages can still pose an unacceptable level of risk to some organisations.

For example, the following shows an organisation's hybrid-cloud infrastructure with single sign-on (SSO). After completing their single sign-on through a nominated identity provider (IdP), which in this case is Microsoft Azure, users have access to all cloud-based and on-premises applications.
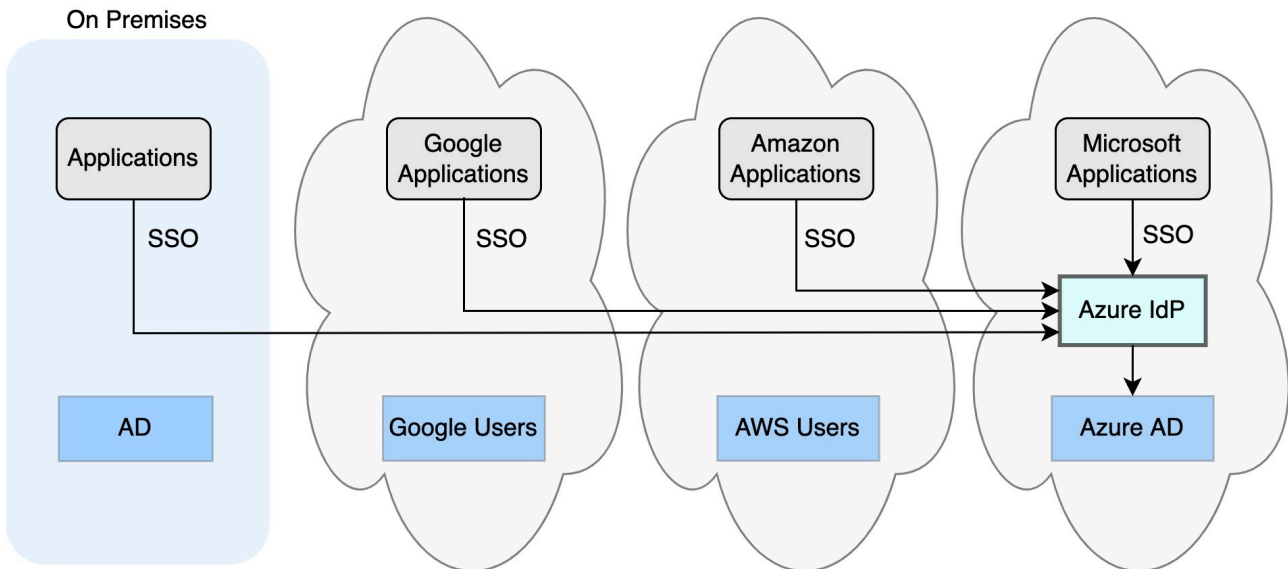
However, there's a major issue here when Microsoft Azure is unavailable. Users are left without access to any of the applications within the entire infrastructure.

Cobalt solution

The Cobalt platform can provide an alternative to the above that includes a level of fail-over.
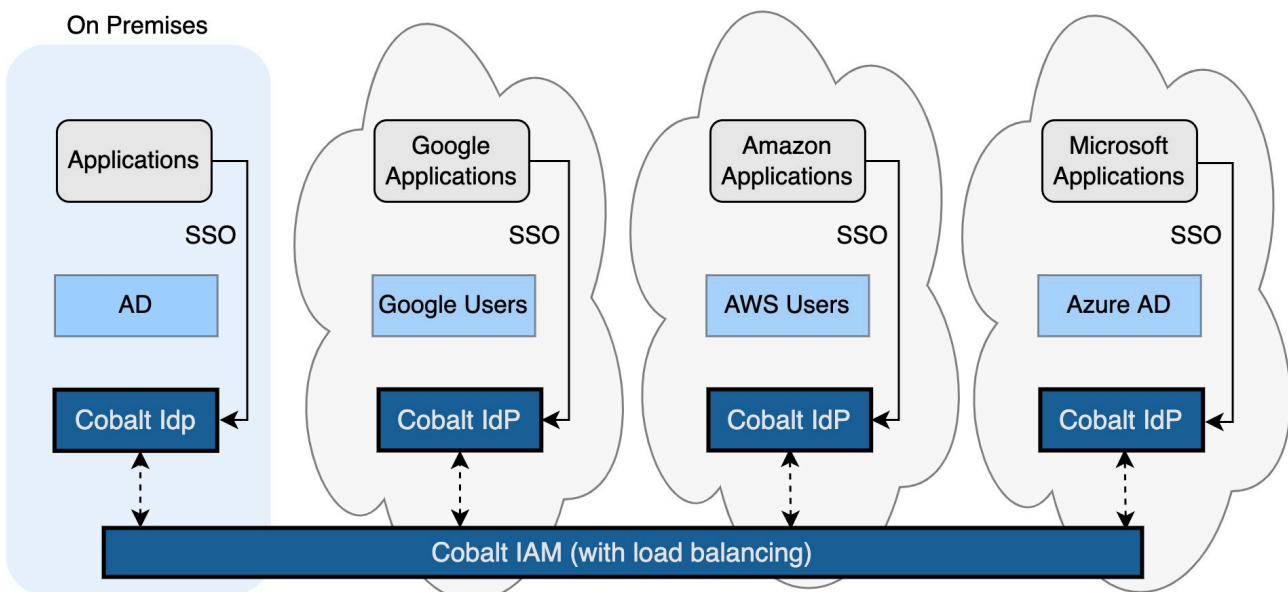
Credentials are synchronized across instances of Cobalt on each cloud platform and on-premises, which allows a user to perform single sign-on from any Cobalt IdP. This ensures that if one platform has an outage, then applications hosted by the remaining platforms are unaffected and remain available to users.

Summary

In summary, Cobalt provides IAM solutions that deliver greater efficiency and flexibility while reducing risk and costs.

Efficiency…

- ➢ Manage multiple tenants from a single platform
- ➢ One IAM system to navigate and support
- ➢ Option to delegate IAM tasks to tenants

Flexibility…

- ➢ Full and secure control of data
- ➢ Ability to tailor and scale according to requirements
- ➢ Option to offer different levels of IAM service

Risk mitigation…

- ➢ Option to mix and match RBAC and ABAC offers greater control, and Cobalt's implementation of ABAC provides the ability to apply a zero-trust approach
- ➢ Container-based deployment is rapid, robust and scalable
- ➢ Designed and developed by a proven software innovator