



MetalSoft Feature Comparison



In Brief

The fundamental difference between MetalSoft and other solutions in this space is that it is designed to manage the entire bare metal stack not just servers. It is able to coordinate switches and storages to offer complete self-service experience to users. It is closer to the entire OpenStack stack in terms of functionalities than to MaaS or Digital Rebar.

It supports complex deployment scenarios, including diskless, image base and unattended installs, firmware upgrades, monitoring and more. It is also more scalable than other solutions out there making use of a unique lightweight agent based deployment model.

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Core Features

MetalSoft is the most scalable, most complete bare metal management solution on the market.

							
Commercial Support	✓	✓	✓	✓	✗	✗	✗
HA Support	✓	✓	✗	✓	✗	✗	✗
Small footprint agent based control plane	✓	✗	✗	✗	✗	✗	✗
Scale to 1000s	✓	✓	✗	✗	✗	✗	✗
Admin Interface	✓	✓	✓	✓	✓	✓	✓
Self service visual infrastructure editor	✓	✗	✗	✗	✗	✗	✗
CLI, API & SDKs	✓	✓	✓	✓	✓	✓	✓
Multi datacenter	✓	✓	✗	✗	✗	✗	✗

Bare Metal Server Automation

MetalSoft is the only solution that offers support for full lifecycle management including automatic firmware upgrade support.

							
Local OS deployment	✓	✓	✓	✓	✓	✓	✓
Diskless operation (w/ instant hardware replace, stop and resume support)	✓	✗	✗	✗	✗	✗	✗
Policy based automatic firmware upgrades	✓	✓	✗	✗	✗	✗	✗
CentOS, RedHat, Ubuntu templates	✓	✓	✓	✓	✓	✓	✓
Windows support	✓	✓	✓	✗	✗	✗	✗
Image based deployment support	✓	✓	✓	✗	✗	✗	✓
Unattended install support	✓	✓	✗	✓	✓	✓	✗
RAID configuration*	✓	✗	✗	✗	✗	✗	✗
BIOS configuration*	✓	✗	✗	✗	✗	✗	✗
BMC/IPMI control	✓	✓	✓	✗	✗	✗	✓
Built-in asset repository	✓	✗	✗	✗	✗	✗	✓
Automatic server cleaning	✓	✓	✗	✗	✗	✗	✗
Multi-server enclosures support	✓	✗	✗	✗	✗	✗	✓
Self-upgrading agents	✓	✓	✗	✗	✗	✗	✗
Embedded Automatic IPAM service	✓	✓	✓	✓	✓	✓	✓

Bare Metal Network Automation

MetalSoft is the only solution that automates switches and builds scalable, low latency, isolated L2 networks for each tenant.

							
Switch imaging and bootstrapping	✓	✗	✗	✗	✗	✗	✗
Multi-tenant L2 network management (VPLS, eVPN, VLAN)	✓	Partial	VLAN only	VLAN only	✗	✗	✗
Multi-tenant L3 network management (IPv4, IPv6)	✓	✓	✓	✓	✗	✓	✓
Enhanced security for SAN network	✓	✗	✗	✗	✗	✗	✗
Automatic DNS service	✓	✗	✗	✗	✗	✗	✗
Stacking & Multi-chassis support	✓	✗	✗	✗	✗	✗	✗
DHCP Security	✓	✗	✗	✗	✗	✗	✗

Bare Metal Network Automation

MetalSoft is the only solution that provides SAN based diskless boot support enabling VM like flexibility, with in-place hardware upgrades and instant server replace.

							
Dynamic block device provisioning (iSCSI)	✓	×	×	×	×	×	×
Live volume resize support	✓	×	×	×	×	×	×
iSCSI volume templates support	✓	×	✓	×	×	×	×
Snapshot support	✓	×	✓	×	×	×	×
Volume migration	✓	×	✓	×	×	×	×
Shared Drive support	✓	×	✓	×	×	×	×
Integrated storage appliance software	✓	×	×	×	×	×	×

Bare Metal Infrastructure Management

MetalSoft includes support for managing equipment at a higher-level logical layer that is comprised of a specific grouping of bare metal servers, storage, network resources and applications.

							
Clusters support (servers & storage)	✓	✗	✗	✗	✗	✗	✗
Logical level operation	✓	✗	✗	✗	✗	✗	✗
Declarative design	✓	✗	✗	✗	✗	✗	✓

Bare Metal as a Service

MetalSoft allows operators the ability to offer sophisticated on-demand consumption capabilities for servers, storage, network and applications with secure support for multi-tenant scenarios.

							
Self service infrastructure mgmt	✓	✗	✗	✗	✗	✗	✗
Multi-tenancy	✓	✓	✗	✗	✗	✗	✓
On-demand metering	✓	✗	✗	✗	✗	✗	✗
Traffic accounting	✓	✗	✗	✗	✗	✗	✗
Ansible integration	✓	✓	✓	✗	✗	✗	✓
Terraform integration	✓	✓	✓	✗	✗	✗	✓

Integration and Customizability

With MetalSoft, operators can develop a library of reusable tasks and workflows to augment the base functionality of the platform. The library is then used directly by end-users to perform frequent operations such as deploying complex applications or integrating with external systems such as CRMs or ERPs.

							
Workflows	✓	✓	✓	✗	✗	✗	✓
Variables & Secrets	✓	✓	✗	✗	✗	✗	✓
File templating	✓	✓	✗	✗	✗	✗	✓
Boot process customization (OS templates)	✓	✗	✗	✗	✗	✗	✗

Application provisioning

In addition to the hardware devices, the building blocks of MetalSoft Infrastructure include a set of deeply integrated software applications/ frameworks as well, making it quite powerful.

							
Kubernetes integration	✓	✗	✗	via Juju	✗	✗	✗
Hadoop distribution integration (Cloudera, Hortonworks, MapR)	✓	✗	✗	via Juju	✗	✗	✗
Database integration (Cassandra, Elasticsearch Couchbasem MySQL)	✓	✗	✗	via Juju	✗	✗	✗

Bare Metal Network Automation

The platform increases operational efficiency by providing extensive troubleshooting and diagnostic tools such as monitoring of OS/hardware- provided telemetry, automatic policy- driven datacenter-wide firmware updates, health checks, a built-in DHCP traffic logger and an error- recoverable provisioning system.

							
Integrated distributed BMC & OS SNMP monitoring	✓	✗	✗	✗	✗	✗	✗
Profile driven configuration and updates	✓	✓	✓	✗	✗	✗	✓
Automatic discovery & bootstrap	✓	✓	✓	✓	✓	✗	✗
Automatic inventory management	✓	✗	✗	✗	✗	✗	✗
Embedded DHCP Sniffer	✓	✗	✗	✗	✗	✗	✗
Support for recovering from partial deployments	✓	✗	✗	✗	✗	✗	✗

Comparison with Google Anthos, AWS Outpost, Microsoft Azure Stack

MetalSoft focuses on managing the lifecycle and facilitating the consumption of hardware whereas all of the above solutions are focused on upper level services such as VMs or containers. The following comparison highlights some of the differences.

	 metalsoft	 Anthos	 AWS Outposts	 Azure Stack
Bare metal OS provisioning	✓	✗	✗	✗
Firmware upgrade support	✓	✗	✗	✗
Diskless operation	✓	✗	✗	✗
Automatic inventory management	✓	✗	✗	✗
RAID configuration*	✓	✗	✗	✗
BIOS configuration*	✓	✗	✗	✗
Dynamic block device provisioning (iSCSI)	✓	✗	✗	✗
Switch provisioning	✓	✗	✗	✗
Multi-tenant L2 network management (VPLS, eVPN, VLAN)	✓	✗	✗	✗
Multi-tenant L3 network management (IPv4, IPv6)	✓	✓	✓	✓
Multi-vendor hardware support	✓	✓	✗	✓
Kubernetes provisioning	✓	✓	✓	✓



Let's talk!

To find out more about our solution drop us a line at inquiries@metalsoft.io