Tyrone CS
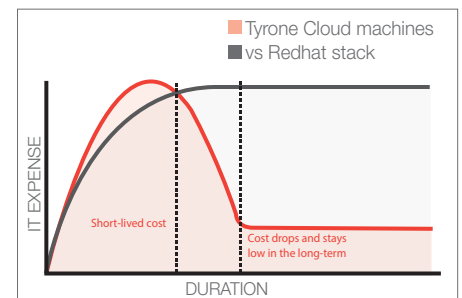
Performance Stack for Tyrone Cloud Suite 7XXCL

A fault tolerant and redundant production cloud suite that offers the lowest turn around time in the industry, implementable on-site with Tyrone's service engineering experts.
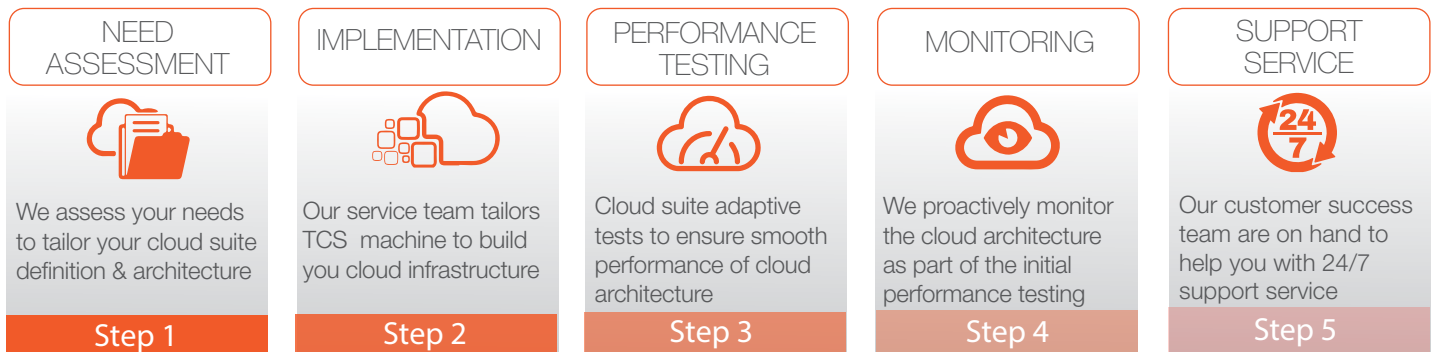
Tyrone Cloud suite helps organisations meet the modern day challenges and unique needs of a data centre. Our tailored-to-build approach while designing a cloud machine keeps sustainabliity, customer's IT information flow and architecture in mind. We can implement and deploy your cloud machines on a variety of technologies.

The Tyrone Cloud Suite machines build the cloud architecture from ground up with absolute ease. They also hand-hold any architectural changes with respect to the existing infrastructure that might require modifications, OS and technology upgrades, and deeper design revisions. Tyrone Cloud Suite is flexible and can be tightly tuned to your unique needs.

Cloud built with a cloud machine is significantly reduced and stays low in the long run.

The 5 Step journey towards Tyrone Performance Stack for Cloud Suite 7XXCL

NEED ASSESSMENT	IMPLEMENTATION	PERFORMANCE TESTING	MONITORING	SUPPORT SERVICE
We assess your needs to tailor your cloud suite definition & architecture	Our service team tailors TCS machine to build you cloud infrastructure	Cloud suite adaptive tests to ensure smooth performance of cloud architecture	We proactively monitor the cloud architecture as part of the initial performance testing	Our customer success team are on hand to help you with 24/7 support service
Step 1	Step 2	Step 3	Step 4	Step 5

INCLUSIONS - What we offer

Tyrone Cloud Stack, offers:
• Ceph block and object storage
• KVM and LXC, LXD hypervisors/containers,Docker
• OpenVSwitch virtual networking

The Tyrone cloud machine
• Automation at machine level
• Service re-modeling
• Containerized controlling approach
• Cloud monitoring with Tyrone LND, Tyrone IC search and nagios
• Resource usage trending and metrics with proficient tools

Tyrone Cloud machines ready H/W
• Approved and tested hardware specs from Tyrone and Supermicro
• Workshops to engineer requirements and a tenant onboarding plan
• Designing, documentation, strategy building for cloud architecture, network & infrastructure

Service Option Highlights
• Cloud architecture variations:
Converged and **Hyperconverged**
with Monitoring, Metering & Analytics capabilities
• Active directory and LDAP integration
• Multiple virtual networking designs with OpenVSwitch, DVR, VxLAN/GRE tunnelling and partner SDNs
• Hardware automation options for Performance stack approved and Tyrone Cloud Suite 7XXCL certified hardware.
• Control assigning and empowering users with access rights.
• Multitenancy and Self service provisioning portal. Tyrone IC search provides elasticity spanning the layers.
• SDN, SaaS, IaaS,Storage as a Service configurable package with auto migration service to auxiliary/available resource.

Service Requirements
• At least 10 nodes meeting our documented cloud infrastructure requirements

• Networking configured according to Tyrone Cloud Network Guidelines, including Internet access from all physical nodes in cloud, including MA AS and Tyrone LND

Package	TCS 7XXCL	TCS 7XXCL++	7XXCL Plug-ins
Cost	$1,64,000	$2,85,000	Starting at $95,000
Node count to start off	10 (Hyperconverged) or 15 (Converged) from Certified / Tested BOQ for a Scale out Model	Design-dependent	
Control Plane-Containerized Approach	Included		
Endurance with High availability	TyroneStack HA including MA AS, & Tyrone LND infrastructure is based on Full L2 approach		
Observatory, Monitoring & performance trending	Nagios, and other proficient tools		Integration with custom monitoring systems
Security enhancement	Tyrone LND	Tyrone LND & Offline Updates	
Log Aggregation Layer	Included, powered by Tyrone-ICsearch		Custom log integration (with log model)
Version Upgrades	Guaranteed with Tyrone 7XXCL / 7XXCL++ (optional) with Easy Upgrades		TyroneStack & OS upgrade services available
DR	Assured Control Plane Rebuilds with Tyrone 7XXCL / 7XXCL++ (optional)		Full DR Plan with automation
Workshop	3-day on-site	5-day on-site	
Architecture	Tyrone Hyperconverged or Tyrone Converged	Custom Architecture (standard components only) includes Offline	Custom Bundle with add-on components
Hypervisors	KVM & LXD	KVM, LXD & Hyper-V	
Bare metal instances	Yes (using Exclusive LXD instances)		
Live migration	Yes		
Identity	Keystone	Keystone with LDAP or Active Directory backends	Multiple sources & Federated identity Services
Core Block Storage	Ceph RBD with 3x replication and bcache acceleration		
Additional Storage Options	Basic Tyrone RAD Object Storage**	Swift (replicated and EC)	Other 3rd Party SDS, SAN and NAS integration
Virtual Networking	Neutron/OVS with VxL AN & GRE tunneling	Adds Provider Networks, Neutron BGP	3rd Party SDN Integration
Network Topology	NIC bonding, up to 4 segregated underlay L2 networks	NIC bonding, unlimited underlay L2 network	Complex Network Architecture Design (BGP, MPLS, VPN, etc.)
IPv6 Support	Tenant networks only	Tenant networks only	
Tuning Options	As standard	CPU Pinning, Huge Pages	SR-IOV, DPDK-enabled OVS 6wind plugin, Infiniband (Tyrone Cloud OS only)
Encryption	No encryption	Control Plane & Storage (Ceph, at rest)	HSM support (via TyroneStack Add on)
Security Extensions	MAC-based tools	MAC-based tools	
Handover Documentation	Design Overview, Tenant Onboarding Plan , Deployment Guide	Design Overview, Tenant Onboarding Plan , Deployment Guide	Design Overview, Tenant Onboarding Plan , Deployment Guide
OpenStack Services	KVM/LXD, Neutron Gateway/API, CEPH OSD, Cloud controller, Keystone, Cinder, Glance, Aodh, Heat, MySQL, MongodB, Horizon		

1No additional TyroneStack components or third-party OpenStack components can be integrated in this offering

*Tyrone Stack Add on require licenses and support sold separately

*Tyrone RAD Object Storage is only supported up to 1,000,000 objects; above that customers should purchase and deploy Swift separately