

dynamesh

DYNAMIC COMPUTING
COMPANY





INTRODUCTION

In early 2010, a team of Internet specialists began thinking about how a 100% Australian company could offer scalable, highly redundant dynamic computing infrastructure. Dynomesh™ is the result. We wanted to offer Australian companies the technology, speed and enthusiasm often seen in the large overseas providers; without the inherent network latency of offshore hosting, and legal issues of storing company data & intellectual property in foreign countries.

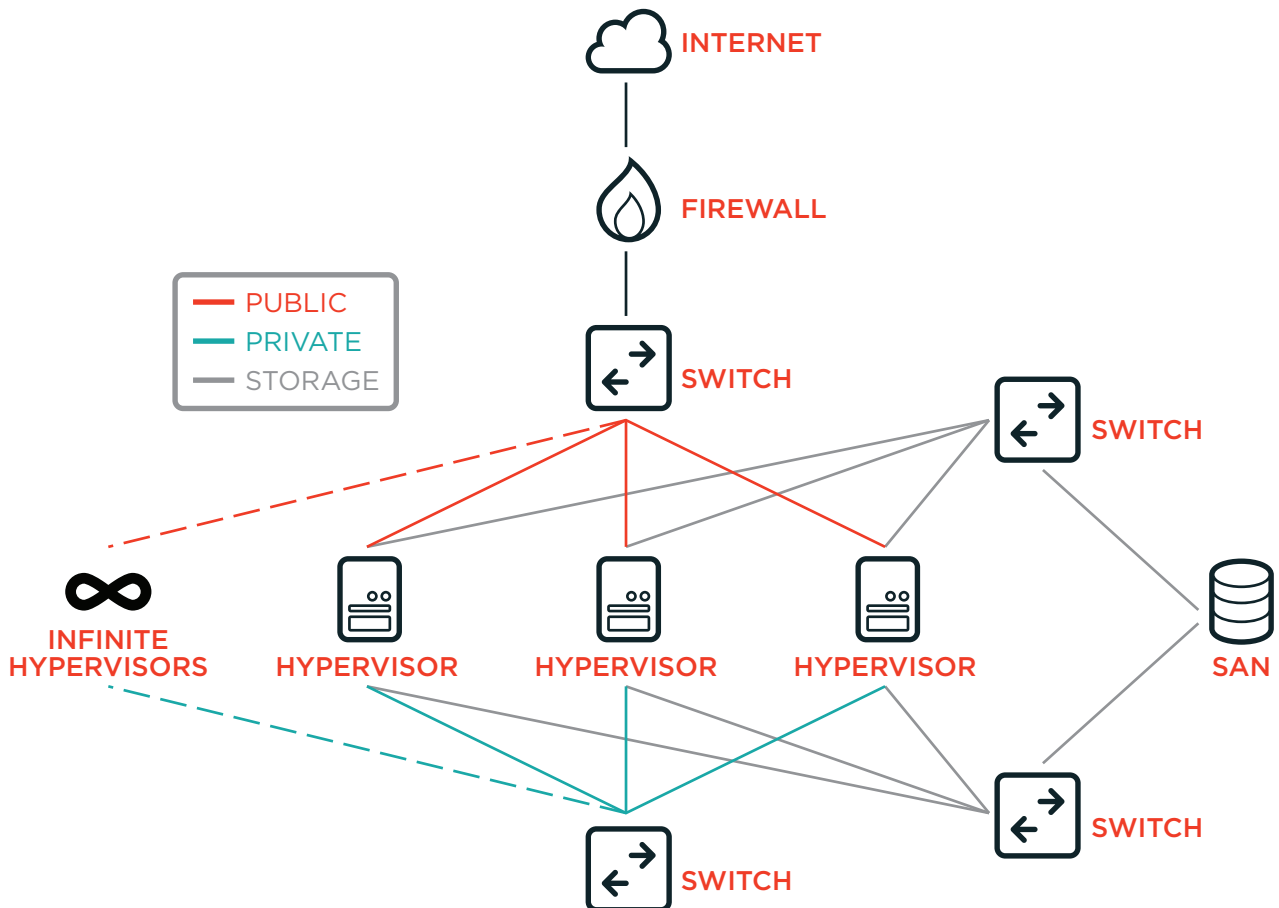
In the middle of 2010, we set about building a new hosting platform, specifically built with the technical people behind your business in mind. We wanted to provide tools and support services to offer self-service cloud virtualisation solutions, in order to solve the seemingly simple problem of building and managing scalable high quality Internet infrastructure.

Instead of offering retail cloud services, we opted to deal only with businesses and their technical teams: We offer you direct access to our virtual infrastructure frontend interfaces & APIs; so your people can easily build Internet infrastructure on demand. Our support staff helped build the entire network, and offer phone and ticket support, along with 15minute SLAs to critical issues.

Using our existing operating system and development stack templates, you can easily spin-up virtual machines across a broad range of platforms & specifications: Select RAM, CPU cores and guaranteed performance priorities. Scale RAID10 disk storage space up or down depending on need, with daily, weekly and monthly backup intervals. Easily build Linux based development environments, load balancing appliances, or Microsoft Windows 2008 servers at the click of a button in minutes. We also provide full Microsoft SPLA licensing for all of our Microsoft based platforms and services.

In essence, we are the utility company for your Internet infrastructure requirements: You can sell our services to your client in any way you like - Build out a retail cloud platform and plug into our API to instantly provision; offer cloud services under your own brand with your own pricing and high level support personnel.

ARCHITECTURE OVERVIEW



The Dynamesh™ dynamic computing platform was designed for redundancy and elasticity from the ground up. Instead of physically provisioning machines to power your website or internet application, we've stacked purpose built rack servers on top of each other, to provide a completely virtualised infrastructure provisioning platform. Provision what you need, when you need it: Zeus™ load balancers, web servers, mail hosts, database servers, or anything else you can imagine running as a service on the Internet.

Each server (hypervisor) is connected via separately switched networks to our high performance storage environment. In this configuration, each hypervisor has multiple network interfaces (NICs), running across separate switches, in a multi-path setup in the event of hypervisor NIC failure. The SAN itself contains multiple power supplies and multiple network interfaces for added data security. Our entire network is protected by Juniper firewall hardware, with a dedicated base control server to supply the REST API and provisioning interface attached to our hypervisor farm. Additionally, we have unutilised standby equipment, which allows for complete self-healing of your virtual machines.

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SECURITY & DATA



DATA STORAGE & SECURITY



Dynomesh™ stores all virtual data (machine disks & scratch disks) on a RAID10 SAN. Entire backups of your machines can be scheduled and saved away from the primary data store. We protect our network with Juniper™ firewall hardware.

RAID1+0

This configuration is the most expensive and complex method of storing data for fast & safe retrieval. In this configuration, drives are setup as mirrored pairs, and then striped. Each drive in every mirrored pair can fail, while still maintaining total data integrity.

Backup

Virtual machine instances can be backed up daily, weekly or monthly. Each backup is a complete virtual machine image, meaning you can literally just rollback to the previous backup instance with zero configuration.

Offsite Backup

If you require, we can provide an offsite backup service. Have your images placed onto external drives, which are removed from our data centre for ultimate peace of mind.

Firewalls

Our network is protected by Juniper firewalls. Each virtual machine is by default in deny-all mode, except for standard web & SSH ports; to protect us, and to protect your machines, firewall ports are opened by request. Companies that require regular firewall maintenance can be granted self-catering rule access.

Support

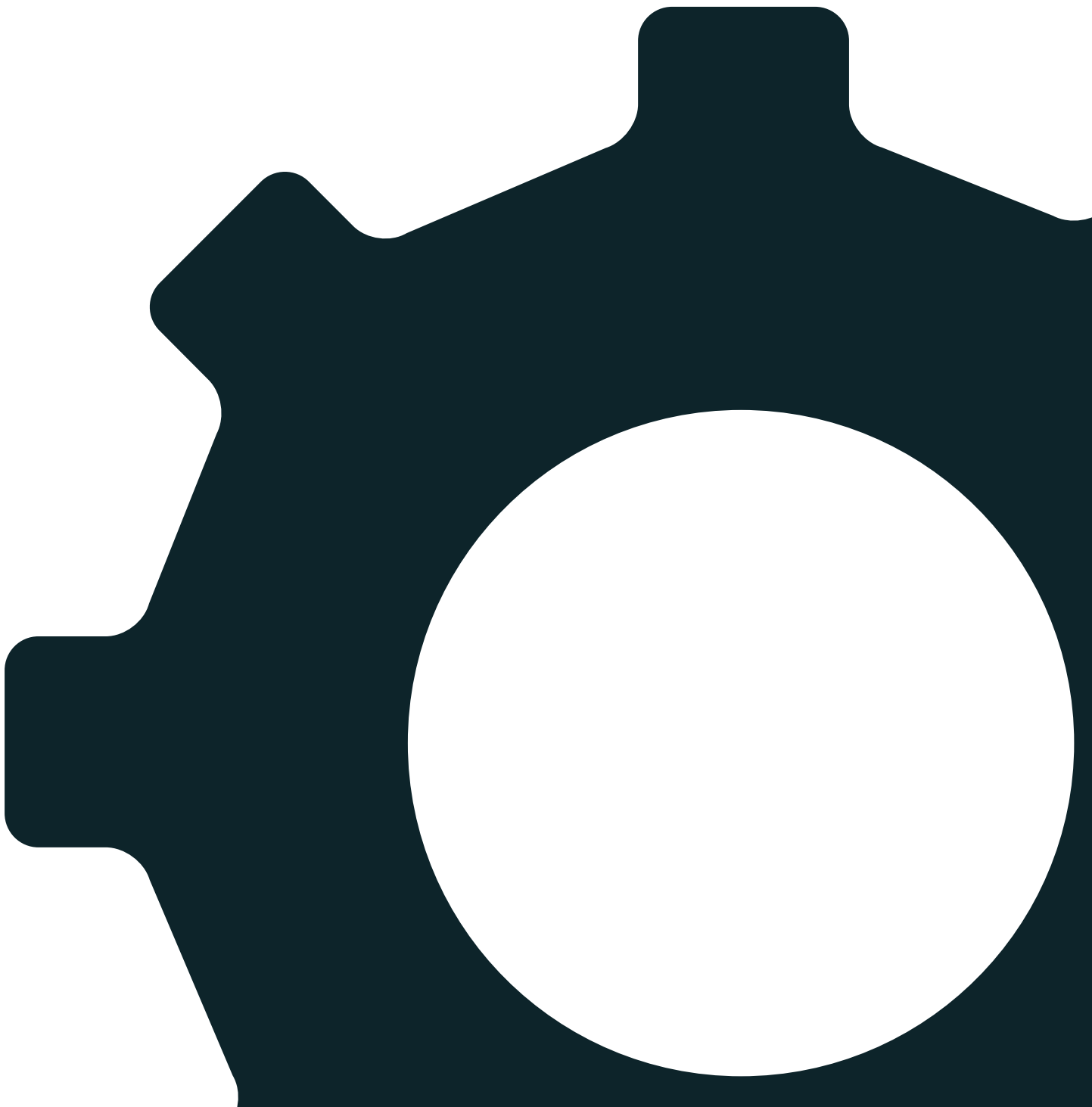
We offer 24/7 support, with 15minute SLAs for critical tickets.

Calls into support will be sent straight to an Australian-based engineer after assessing the type of call (ie. sales or support).

Additionally our SANs are backed by the highest level of manufacturer 24x7x4hr call out warranties.

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OS TEMPLATES



OS & DEV STACK TEMPLATES

When you log into our provisioning interface and start the virtual machine creation process, you are presented with an OS template creation drop down. This part of the provisioning process allows you to select from one of our pre-configured and pre-built templates. Across a range of operating

system types, (Windows, Linux), there are additionally purpose built Virtual Appliances available for services such as VoIP, and Load Balancing. Below is a current list of available templates & stacks. Once you have configured your server, you can save it as a template for future provisioning.

CentOS 5.4 x64

CentOS 5.5 cPanel x64

CentOS 5.5 Optimized & Hardened LAMP x64

CentOS 5.5 Optimized & Hardened LLMP x64

CentOS 5.5 Optimized & Hardened LNMP x64

CentOS 5.5 Optimized and Hardened MySQL

CentOS 5.5 Optimized & Hardened x64

CentOS 5.5 x64

CentOS 5.5 x64 Rails3

CentOS 5.5 x64 Apache

CentOS 5.5 x64 GlusterFS

CentOS 5.5 x64 LAMP

CentOS 5.5 x64 MySQL

CentOS 5.5 x64 Plesk

Ubuntu 10.04 LTS x64

Ubuntu 10.04 LTS x64 Apache

Ubuntu 10.04 LTS x64 GlusterFS

Ubuntu 10.04 LTS x64 LAMP

Ubuntu 10.04 LTS x64 MySQL

Ubuntu 10.10 Apache x64

Ubuntu 10.10 LAMP x64

Ubuntu 10.10 MySQL x64

Ubuntu 10.10 x64

Ubuntu 8.04 LTS x64

Windows 2008 x86 Base

Windows 2008 x86 DNP

Windows 2008 x86 IIS & DNS

Windows 2008 x86 IIS, DNS & ISP Manager

Windows 2008 x86 SharePoint

Windows 2008 x86 SQL

Windows 2008 x86 SQL & SharePoint

Windows 2008 x86 Standard

Windows 2008 x86 Web

Windows 2008 x64 Base

Windows 2008 x64 DNP

Windows 2008 x64 IIS & DNS

Windows 2008 x64 IIS, DNS & ISP Manager

Windows 2008 x64 SharePoint

Windows 2008 x64 SQL

Windows 2008 x64 SQL & SharePoint

Windows 2008 x64 Standard

Windows 2008 x64 Web

Windows 2003 x64 Base

Windows 2003 x64 IIS & DNS

Windows 2003 x64 SharePoint

Windows 2003 x64 SQL

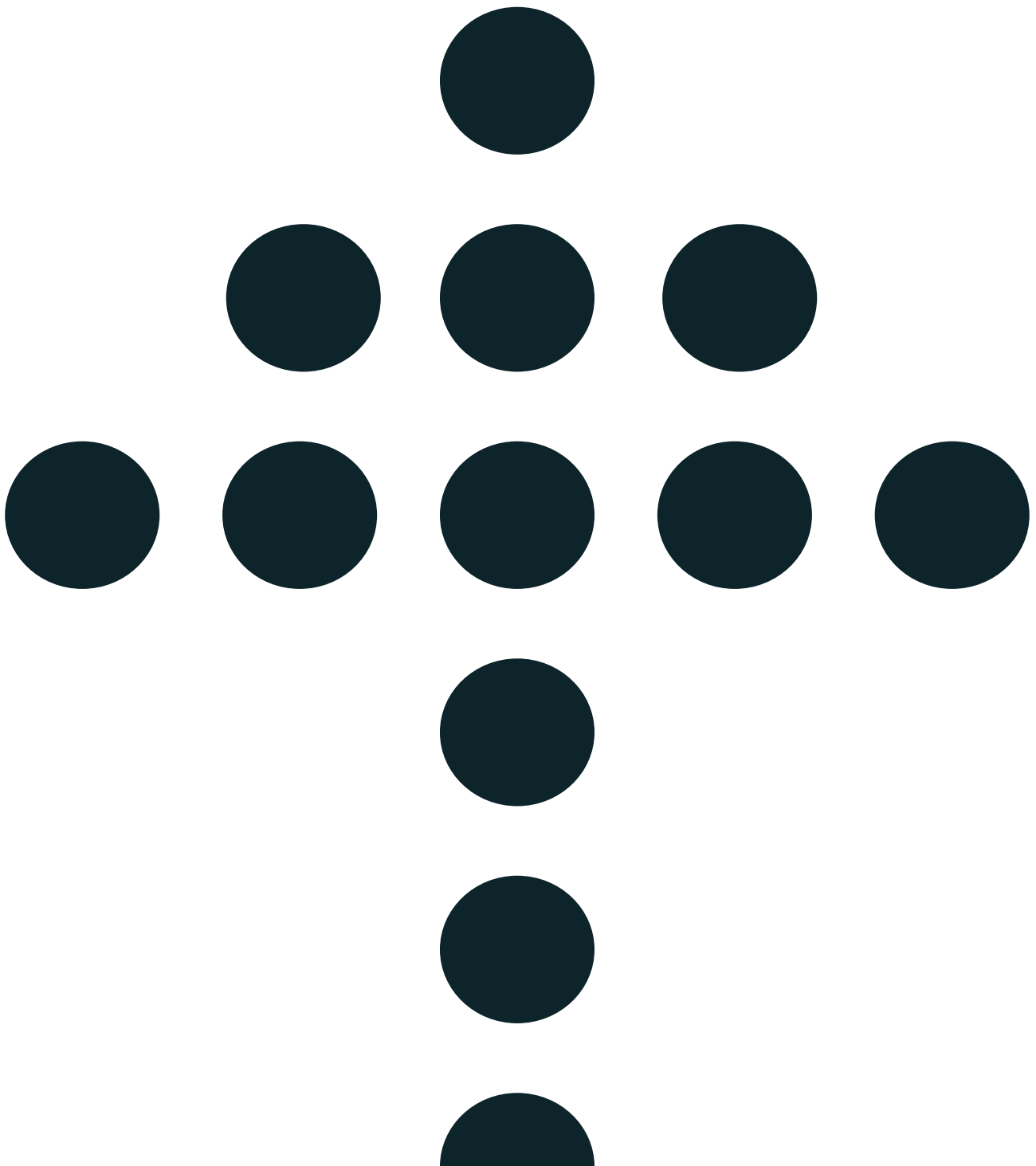
Windows 2003 x64 SQL & SharePoint

Windows 2003 x64 Standard

Elastix 2.0.0 x64

Zeus 7.1 Load Balancer

HIGH AVAILABILITY



HIGH AVAILABILITY & FAILOVER

A decorative horizontal bar with a teal geometric pattern of interconnected lines and dots.

Dynamesh™ offers enterprise-class resilience, at a fraction of the cost, with multi-layered security, self-healing architecture and automatic hypervisor failover. This saves valuable admin time and helps ensure maximum uptime for your customers and applications.

Automatic failover & backup

Dynamesh™ constantly monitors the status of servers in the cloud, and features an extremely valuable automatic failover process if a hypervisor becomes unavailable. Failover is initiated in 15 seconds if Dynamesh™ receives no response from a hypervisor, and the virtual machines it hosts are automatically migrated to another suitable hypervisor in the cloud. Virtual machine backups can also be automated, in addition to manual backup and restore functions.

Anti-Spoofing, anti-sniffing

Dynamesh™ features multi-layered security. In addition to hypervisor security features, we implement an anti-spoof/anti-sniff firewall on hypervisor servers. This ensures that only authorized traffic is sent to/from virtual machines, keeping your customer's data and applications safer.

Hot migration

Dynamesh™ lets you migrate virtual machines between hypervisor servers at will, or migrate all virtual machines hosted by one hypervisor to another.

Support

We offer 24/7 support, with 15minute SLAs for critical tickets.

Calls into support will be sent straight to an Australian-based engineer after assessing the type of call (sales or support).

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NETWORK



THE DYNOMESH™ NETWORK

A decorative horizontal bar with a dark blue background and a network of light blue lines forming a mesh pattern.

Dynomesh™ is connected to the Internet via a redundant core network and multiple concurrently connected carriers, ensuring there is no single point of failure. Our SLA agreements state that once our links reach 70% capacity, they will be upgraded.

- PCI DSS Level 1 Compliant Facility
- Intrusion Detection Systems
- 24/7 Temperature and Humidity Monitoring
- 24/7 Strict Physical Security Access
- 24/7 Support and Network Monitoring
- 24/7 Full PTZ Camera Monitoring
- Multiple Redundant UPS Systems
- Multiple Redundant Air-Conditioners
- Onsite diesel generator 750L of diesel on site - 24 hour refueling contract
- Licensed Carrier Grade Microwave for network media independent redundancy
- A/B/C/D Power feeds per rack

Every Dynomesh™ virtual machine is connected to the Internet on a 100 megabit fibre-optic link & protected by Juniper™ firewall hardware.

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LOAD BALANCING



LOAD BALANCING WITH ZEUS™



The Zeus™ Simple Load Balancer allows you to load balance critical applications in the cloud. Manage your balancer through a web-based administration interface, providing full configuration management and activity reporting. Instantly deploy in the Dynamesh™ cloud.

GUI Wizards & the RuleBuilder™

The Graphical User Interface (GUI) RuleBuilder™ makes it very easy to create load balancing policies to identify different types of traffic and handle them accordingly.

Wizards facilitate common administration tasks, such as creating services and draining groups of servers.

Manage your services

The Zeus™ Load Balancer is deployed close to the servers it manages, making sophisticated load balancing decisions and closely monitoring the hosted services.

It can balance any User Datagram Protocol (UDP) or Transmission Control Protocol (TCP), including web, DNS, mail (SMTP/IMAP/POP), FTP and streaming media. The load balancing decisions maximize the responsiveness of the service and prevent any one application or server node becoming overloaded.

By working seamlessly with any networked application service, Zeus™ Load Balancer avoids expensive and complex integration and enhances existing infrastructure.

Content caching

The optional Content Caching module reduces server load and improves end-user performance by caching common web pages and content on the load balancer and responding directly when that content is requested.

Orbitec Pty Ltd

Through our partnership with Orbitec Pty Ltd in Sydney, we offer full Zeus™ support and SPLA licensing. Orbitec are the licensees and distributors for Zeus™ technology in Australia.

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UTILITY BILLING



UTILITY BILLING & PRICING

A horizontal bar with a dark teal background and a pattern of light teal geometric shapes, including triangles and lines.

Utility billing in the cloud means you only pay for what you use. We set wholesale prices for RAM, CPU, disk and IP resources, with custom pricing models available.

Enterprise Customer

Enterprise customers receive the full treatment, with direct access to an engineer 24 hours a day, 7 days a week. Spin up virtual machines for clients, and if something isn't working the way it's supposed to be, call us. Enterprise customers pay for dedicated engineer and account support within their resource pricing, meaning there is nothing additional to pay for this level of support.

Self-managed Reseller

Designed for technical teams who are reselling our cloud product and can generally self-manage all their own customers and virtual infrastructure. Support from Dynamesh™ does not extend past maintaining the core network. Individual machine troubleshooting is the responsibility of the self-managed reseller technician.

API Integrated Reseller

Customers that choose to resell our services via our API, via our WHMCS plugin will receive full API support and core platform support. Individual machine support is the responsibility of your reseller technician.

Custom

We can work with you depending on your requirements to develop a billing strategy that works best for you. Call us to discuss your particular requirements.

API ACCESS



THE API INTERFACE

A decorative horizontal bar with a teal geometric pattern of interconnected lines and triangles.

The Dynomesh™ API gives you full integration for billing, CRM and other systems. We're even flexible enough to discuss API changes to make your life easier.

RESTful API

Log into the control panel, grab your API key, and gain programmatic access to your virtual machines.

Manage VM's

Manage your hypervisors, virtual machines, networking, disks, backups and more.

JSON or XML

All function calls respond via XML or JSON. Simply authenticate over basic HTTP with your key and login information.

Talk with our developers more about how you can tightly integrate your existing systems using the Dynomesh™ API.

SPLA LICENSING



MICROSOFT SPLA LICENSING

A decorative horizontal bar with a teal geometric pattern of interconnected lines on a dark background.

The SPLA licensing model allows you to run Microsoft™ applications in the cloud. Run Windows Server 2008, Exchange™, SharePoint™ and many other popular suites.

Costs

The costs within the Microsoft™ SPLA licensing scheme are most often dependent on the number of users who will be using the application. For accurate quoting, please contact us with the proposed number of users and other relevant application information.

Pre-built Templates

Dynamesh™ comes with a number of pre-configured Microsoft™ based templates which include such applications as SharePoint, Microsoft™ SQL Server™, Exchange™, IIS, and others. Simply build the required virtual machine, and contact us for licensing details.

The Microsoft™ SPLA licensing model means there are no up front costs or volume license requirements - You only pay for what you use.



GET A LIVE DEMO

Contact us for a live demo of Dynamesh™ in action, and talk to us about how we can help you.

WHO ARE WE?

We're an agile dynamic computing company based in inner-city Melbourne. We have decades of Internet experience across a broad range of technologies and platforms.

We were founded under the Arktisma™ umbrella: A multi-disciplinary group of entrepreneurs and Internet developers, working together to build great ideas.

INFO@DYNOMESH.COM.AU

