IoT/EDGE CLOUDS

IoT is a massive change for the industry – creating new needs and new opportunities. A smart hospital can generate 3TB per day, while a connected factory can produce more than 1PB per day. The volume of data is not the only hurdle: latency and growth can also be barriers to new IoT applications – a staggering 26 Billion units are expected to be part of the IoT "cloud" by 2020, and growing at a staggering pace. This will make scalability, fault management and data control some of the management hurdles that all companies interested in deploying IoT solutions will face. NodeWeaver is the ideal solution for edge processing – our hyperconverged platform can run from the smallest Intel Atom C2xxx/3xxx processors, up to the newest Intel and AMD processor lines.

Lower resource requirements

NodeWeaver was designed from the start to work with limited resources. Our exclusive "version vector" technology avoids the substantial requirements of quorum-based systems, and maintains full fault-tolerance even with only two nodes. The platform memory requirements are as low as 4GB of memory and 32GB of disk.

Integrated High Availability

NodeWeaver integrates a complete high availability and fault management engine. Virtual Machines are automatically restarted, and the NodeWeaver Flow service handles dependencies between VMs and autoscaling without the need for user intervention.

Resource partitioning and ACLs

Limit what VMs can see and take – through IOPS and bandwidth limits, using the integrated quota, accounting and chargeback services. Assign CPU allocations, with CPU commitment, priority and the ability to control resource over- or under-subscribing, depending on your needs. Control who can do what, on any virtual resource through our Access Control List service.

Wide software support

Run Windows and Linux VMs, with full driver support. You can import VMware VMs as well, and thanks to our native driver support there is no need for internal modifications. Run Docker container through our integrated docker-machine support, or take advantage of our reservation mechanism to run a full fledged container orchestrator like OpenShift, Kubernetes or DC/OS with the full scalability of an hyperconverged system.

Remote Cluster fleet management

View and manage all your clusters centrally, through our my.nodeweaver service. View and manage alerts, monitoring information, activate and deactivate nodes and licenses from a single pane of glass. Connect to each cluster, even through firewalls, without the need of additional software.

No need for on-site IT support

NodeWeaver's autonomic management engine handles any management task in an automated way – be it balancing after the addition or removal of a node, disks failing or being added, even full power shutdowns. If a component needs to be swapped, just connect it and power it on – no configuration is necessary.

Any hardware combination

You can use any combination of components without having to worry about balancing or compatibility issues. NodeWeaver adapts itself to the individual node capabilities, and can balance resources across the cluster without user intervention. Replace your aging hardware piecewise, with no service interruption, thanks to live VM and data migration. Replace disks live, add new storage, replace rotational disks with SSDs - all without configurations or the need for software changes.

Full API control

All the components of NodeWeaver are controlled through our extensive APIs. Manage VMs, users and virtual networks from the command line or remote API; list resources, check the hardware status and individual node properties with full programmatic control.