

Open Clouds for Research Environments (OCRE 2024): Exoscale

Service catalogue - September 2026



EXOSCALE
Partner

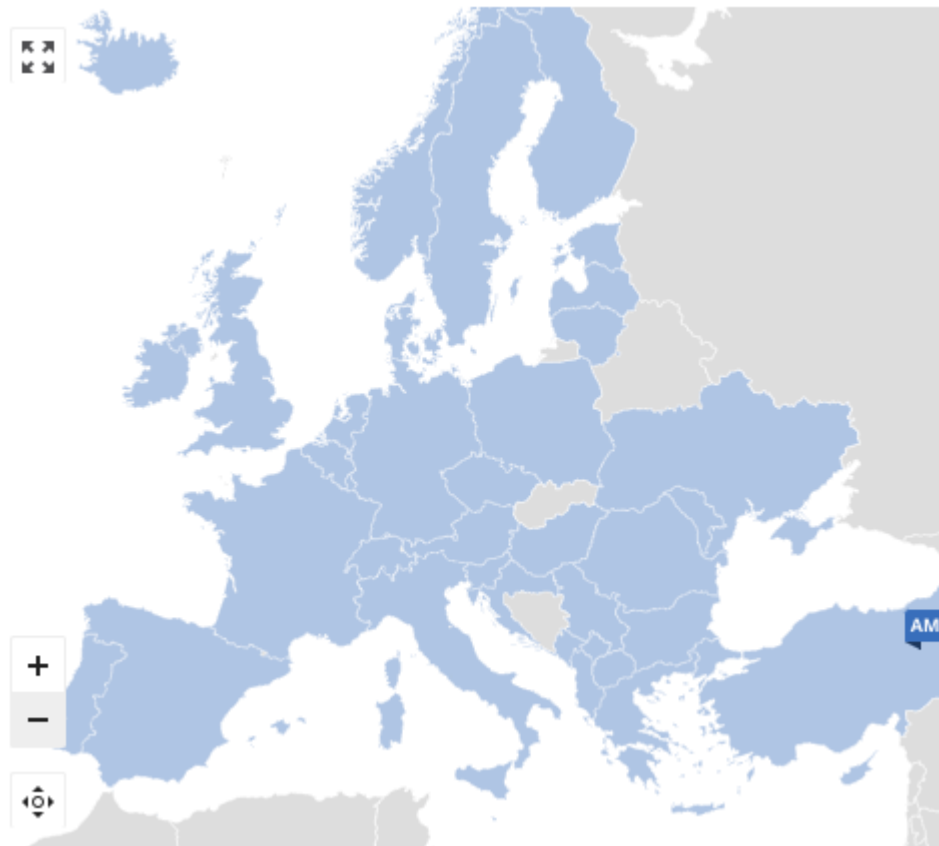
Agenda

- About the OCRE 2024 framework
- Exoscale: the company, its zones and sustainability
- OCRE benefits and how to buy
- Cloud services: compute, GPU and AI
- Cloud services: data, platforms and tooling
- VSHN and Servalia managed services
- Use-cases and examples
- About VSHN

GÉANT OCRE

- "Infrastructure-as-a-Service" was tendered europe-wide
- OCRE 2024 framework runs from 3 February 2025 for five years
- Catalogue: 416 offerings, 17 platforms, 39 countries
 - <https://clouds.geant.org/ocre-2024-catalogue/>
- Benefits compared to regular market conditions:
 - Already publicly tendered - can be procured through a framework contract
 - Direct award via cascade, mini-competition or desktop mini-competition (< EUR 75k)
 - Various discounts with guaranteed minimum discount levels
 - Post-paid invoice instead of (personal) credit card
 - Free data ingress, free/waived data egress towards GÉANT and NRENs
 - Exit support by the suppliers, root access, eduGAIN, BYOL

<https://clouds.geant.org/ocre-2024-catalogue/>



- Founded 2011 in Lausanne (Akenes SA)
- Part of A1 Telekom Austria Group
- ISO 27001:2022, 27017, 27018:2019
- SOC 2 Type II, BSI C5, TISAX, HDS
- GDPR, HIPAA, PCI-DSS, CSA STAR



Exoscale data centre zones

- 8 zones in 7 cities across 5 European countries, all data stays inside Europe
 - ch-gva-2 Geneva, Switzerland
 - ch-dk-2 Zürich, Switzerland
 - de-fra-1 Frankfurt, Germany
 - de-muc-1 Munich, Germany
 - at-vie-1 Vienna, Austria
 - at-vie-2 Vienna, Austria
 - bg-sof-1 Sofia, Bulgaria
 - hr-zag-1 Zagreb, Croatia
- Customer chooses the zone per service; compliance scope documented per zone

Exoscale sustainability

- Sustainability carries 10% weight (AC8) in the GÉANT OCRE evaluation
- Renewable electricity by zone:
 - 100% in Switzerland (hydro), Germany and Austria
 - 91% in Zagreb, 75% in Sofia, around 90% across all zones
- Liquid cooling in Vienna cuts power use by 50% and recovers 98% of waste heat
 - GPU servers are 100% liquid cooled
- CloudAssess: automated monthly life cycle assessment on the ADEME standard
 - verified impact data for CSRD reporting (institutions of 1000+ employees)

Exoscale OCRE benefits

- 10% discount on Exoscale compute and storage services
- 5-10% on database services, depending on the engine
- No discount on licenses and marketplace items
- 100% data egress waiver to GÉANT and NRENs (framework minimum: 15%)
- Postpaid invoicing in EUR or CHF, hourly billing, monthly invoice
- No minimum order quantity, no turnover commitment, no minimum contract length

Exoscale list prices are shown in EUR; identical figures apply in CHF and USD. VSHN Managed OpenShift is priced in CHF.

How to buy through OCRE 2024

- Who is eligible - three groups of institutions:
 - A: the NREN and its members with a research or education focus
 - B: research and education institutions that are not NREN members
 - C: NREN-affiliated non-profits without a research focus, e.g. government bodies
- Three award methods, your choice:
 - Direct award via cascade: no competition round; VSHN is the preferred Exoscale provider
 - Desktop mini-competition: call-offs up to EUR 75,000 excl. VAT, via the GÉANT spreadsheet
 - Mini-competition: re-open competition among all providers in the Lot
- Then sign the call-off contract, get admin accounts and self-serve
 - source: GÉANT OCRE 2024 Institution Guide; your NREN advises on eligibility

Cloud services: IaaS

- IaaS: virtual servers, billed per second
 - 0.5 - 225 GB RAM, 1 - 40 vCPU, 10 GB - 15 TB SSD/NVMe
 - Standard, CPU-, memory- and storage-optimized families
 - AES-256-XTS encryption at rest by default, TPM 2.0
 - Traffic from & to GÉANT free of charge

<https://www.exoscale.com/compute/>

	RAM	CPU Cores	Min Local Storage	Max Local Storage	Price / Hour (EUR)
MICRO	512 MB	1 Cores	10 GB	200 GB	0.00729000
TINY	1 GB	1 Cores	10 GB	400 GB	0.01458000
SMALL	2 GB	2 Cores	10 GB	400 GB	0.02333000
MEDIUM	4 GB	2 Cores	10 GB	400 GB	0.04666000
LARGE	8 GB	4 Cores	10 GB	400 GB	0.09333000
EXTRA-LARGE	16 GB	4 Cores	10 GB	800 GB	0.18667000
HUGE	32 GB	8 Cores	10 GB	800 GB	0.37334000
MEGA	64 GB	12 Cores	10 GB	800 GB	0.74667000
TITAN	128 GB	16 Cores	10 GB	1.6 TB	1.49333000
JUMBO	225 GB	24 Cores	10 GB	1.6 TB	2.24000000

Instance Family

Standard

Instance type

LARGE (8 GB - 4 CORES)

Local Storage

50
(min 10 GB - max 400 GB)

Windows license

☐

0.10 EUR / Hour
 72.24 EUR / Month (720 hours)
[DEPLOY YOUR INSTANCE NOW](#)

Cloud services: GPU

- RTX Pro 6000 (Blackwell): 96 GB, 1-8 cards - FRA, ZRH, ZAG
- A40 (GPU3): 48 GB, 10752 CUDA cores, 1-8 cards - FRA
- A30: 24 GB, 1-4 cards - GVA
- RTX A5000: 24 GB, 1-4 cards, liquid-cooled - VIE
- Tesla V100 (GPU2): 16 GB HBM2, 1-4 cards - VIE
- RTX 3080 Ti: 12 GB, liquid-cooled with heat reuse - VIE
- B300 HGX (Blackwell Ultra): 8x 288 GB, NVSwitch - GVA, on request
- Per-second billing, NGC containers, Terraform, SKS GPU node pools

AI services: Dedicated Inference

- Run any Hugging Face model on dedicated European GPUs
 - Apertus, Llama, Mistral, Qwen, DeepSeek, Gemma and Whisper all deploy the same way
 - OpenAI-compatible API - drop-in for existing tooling and SDKs
 - Public, gated or private models; weights cached in Exoscale object storage
 - Exoscale operates the GPUs, Kubernetes, load balancers and model serving
 - Manual replica scaling and scale-to-zero; autoscaling announced
- Billed per GPU-second by GPU model, no per-token charge, no upfront fee
 - plus model storage; current list prices on [exoscale.com](https://www.exoscale.com), OCRE discount applies
- 99.95% monthly endpoint availability SLA with service credits
- Available in at-vie-2, ch-dk-2, de-fra-1, hr-zag-1

AI services: inference and vector DBs

- Managed Inference - announced, waitlist open
 - Curated catalogue of production-ready models behind a managed API
 - Pay per token (input + output), no GPUs to size, no idle cost
 - Planned: assistants, coding, small models, embeddings, OCR, speech
 - To be deployed in Europe and Switzerland
- Managed vector databases - available today
 - Managed PostgreSQL with pgvector, all zones, included in the plan price
 - Managed OpenSearch vector search for semantic search at scale
- Use: RAG pipelines, embeddings, agent workloads on sovereign infrastructure

Cloud services: dedicated hypervisors

- Dedicated hypervisors: your workloads alone on physical hardware
 - Licensing, isolation and compliance use-cases
- Standard dedicated hypervisor: 448 GB usable RAM, 96 CPU, 5.2 TB fast SSD
- Storage-optimized dedicated hypervisor: 448 GB usable RAM, 96 CPU, 27 TB SSD
- GPU dedicated hypervisors: required for A40 Large/Huge and RTX Pro 6000 Huge

Cloud services: Databases

- Database as a Service - dedicated VMs, never shared, per-second billing
 - PostgreSQL (incl. pgvector), MySQL, Valkey (replaces Redis)
 - Apache Kafka, OpenSearch (incl. vector search), ClickHouse
 - Grafana, Thanos (long-term Prometheus metrics, new in 2026)
- Hobbyist, Startup, Business & Premium plans - 2 GB to 320 GB RAM
 - Encryption, easy scaling and updates, backups, up to 99.99% SLA

Cloud services: S3

- S3-compatible object storage in all 8 zones, 99.95% SLA
 - versioning, object lock & legal hold, bucket replication, lifecycle rules
 - server-side (SSE-SOS / SSE-C) or client-side encryption; free traffic to GÉANT
 - Archival class on request: free retrieval, no minimum duration, 99.85% SLA

Storage volume	List price	OCRE price (10% discount)
below 512 TiB	0.0184 EUR/GB/month	0.01656 EUR/GB/month
512 TiB - 1 PiB	0.0126 EUR/GB/month	0.01134 EUR/GB/month
above 1 PiB	0.0093 EUR/GB/month	0.00837 EUR/GB/month
Archival (10 TB min./bucket)	0.0042 EUR/GB/month	0.00378 EUR/GB/month

Cloud services: Kubernetes

	SKS starter	SKS pro
Cost	free	EUR 0.055/hour (~EUR 40/month)
Intended use	development, proof of concept	production needing flexibility and protection
High availability of control plane	no	yes
etcd backup	no	daily, etcd
SLA	no	99.95%
Surcharge on worker nodes instance price	no surcharge	no surcharge

Cloud services: Red Hat OpenShift

	APPUiO	VSHN Managed OpenShift
cluster type	shared	dedicated
cost model	pay per effective resource usage	monthly cluster fee by SLA + worker capacity (BCU)
price indication	CHF 0.001135 / GiB RAM / min (~CHF 49 / GiB / 30 days) SSD CHF 3.50 / GiB / 30 days	Monthly cluster fee on CSP, incl. Red Hat subscriptions: Baseline 4,900 99.9% BH 5,700 99.9% 24x7 7,500 99.99% 24x7 10,100 (CHF) plus worker capacity (BCU), setup CHF 250/h
Create a new namespace within an existing cluster	self-service	self-service
Deploy your own operators	not possible in the shared environment	possible
federated authentication	not yet possible	possible
minimum contract length	1 hour	none
Availability	selected regions	all regions

Cloud services: DNS

- Anycast DNS in partnership with DNSimple, 40+ servers world-wide
- Small: 1 zone: 1 EUR/month
- Medium: 10 zones: 5 EUR/month
- Large: 50 zones: 23 EUR/month
- no additional costs for DNS requests, 99.95% SLA
- ALIAS/MX/TXT/SRV/URL records, Let's Encrypt integration, full API & CLI

Cloud services: CDN

- Akamai CDN service, present in 134 countries world-wide
 - ~4,170 locations, ~1,400 networks, HTTP/2, IPv6, QUIC
 - deploys in front of Exoscale object storage buckets from the same portal
- Volume tiers, no fixed fee and no commitment:
 - Tier 1, 0 to 25 TB: 0.0715 EUR / GiB
 - Tier 2, next 25 to 100 TB: 0.0637 EUR / GiB
 - Tier 3, next 100 to 250 TB: 0.0455 EUR / GiB
 - above 250 TB: on request

Cloud services: storage & networking

- Block storage: NVMe, 1 GiB - 10 TiB per volume, up to 5 per instance
 - 5,000 IOPS per volume read and write, no IOPS charge
 - AES-256-XTS encryption at rest by default, at least 2 replicas
 - Incremental snapshots, 99.95% SLA, available in all zones
- Private networks / VPC: managed and unmanaged, free, dual 25 Gbps
- Security groups (L2/L3), elastic IPs, free IPv4 and IPv6
- Network load balancer: L4 TCP/UDP, health checks, 99.95% SLA
- Private Connect: dedicated 10G or via Equinix Fabric

Cloud services: security and keys

- Key Management Service (KMS)
 - Control Your Own Key: KMS keys wrap data encryption keys via envelope encryption
 - One organisation key free, additional customer-managed keys 1 EUR/month
 - All lifecycle and cryptographic operations free of charge; rotation and replication
- Encryption at rest enabled by default for compute and block storage (AES-256-XTS)
- Object storage: SSE-SOS, SSE-C or client-side encryption, object lock and legal hold
- IAM with organisation policies and role policies, API keys scoped per service
- Single sign-on available to all organisations

SLA, data protection and exit

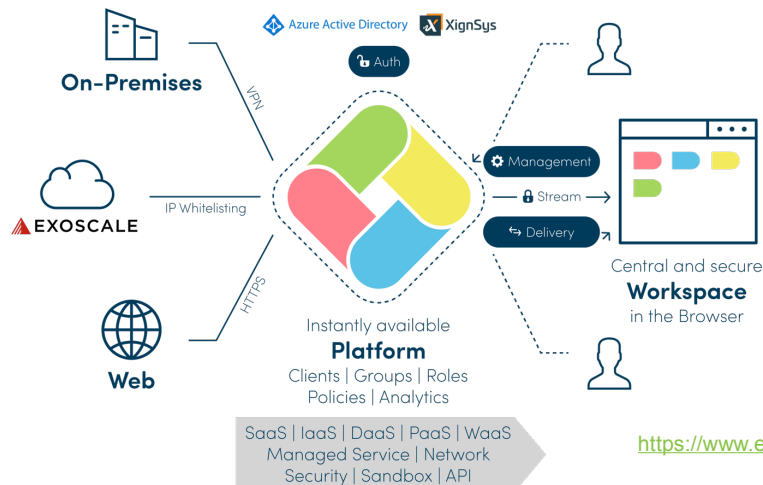
- Service levels:
 - 99.95% on compute, block storage, object storage, DNS, NLB and SKS Pro control plane
 - up to 99.99% on Exoscale DBaaS and on VSHN managed services
 - 99.85% on the object storage Archival class
- Data protection:
 - GDPR data processing agreement, free of charge
 - data stays in the zone you choose; no US CLOUD Act exposure
- Exit support is a framework obligation of every OCRE supplier
 - open APIs, Terraform and S3 compatibility mean no proprietary export step

Cloud services: infrastructure as code

- Terraform / OpenTofu
- Ansible
- "exo" command line interface tool
- Web-based portal
- OpenAPI documented API
- Integrated with GitHub Actions and GitLab CI
- Both VSHN and Exoscale are open source companies (500+ / 275+ public repos)
- Open source and open standards -> no vendor lock-in

Cloud services: desktop as a service

- oneclick web-based VDI / Desktop as a service
 - Stream a Windows desktop and applications to any device (Windows, Mac, Linux, phone, tablet, etc)
 - VPN for devices (printers, facilities, etc)



Cloud services: marketplace

- Firewalls & networking: Check Point CloudGuard, Cisco ASA, F5 BIG-IP, F5 Distributed Cloud, Fortinet FortiGate, VeloCloud SD-WAN, VyOS, IPFire, BunkerWeb, Anapaya EDGE (SCION)
- Operating systems & databases: SUSE Linux Enterprise Server, Microsoft SQL Server, Windows Server 2025
- Appliances & tooling: QNAP QuTScloud NAS, Icinga2 monitoring, backup, snapshots, registry
- Managed services from partners incl. VSHN, Glasskube, Elastisys

VSHN managed services

- Databases & messaging:
 - PostgreSQL
 - MariaDB
 - Redis
 - Apache Kafka
- Developer tooling:
 - GitLab, Forgejo
 - Keycloak, OpenBao
 - Nextcloud
- Platforms & subscriptions:
 - VSHN Managed OpenShift
 - APPUIO Kubernetes namespace-as-a-service
 - SUSE Rancher Kubernetes
 - Red Hat Enterprise Linux & Middleware
 - SUSE Linux Enterprise Server
 - NGINX Plus, WAF, Ingress

Servalia services on Exoscale

- servala.com - open-source app store for managed services, run 24x7 by VSHN
 - self-service ordering and billing via the Exoscale Marketplace
- On the Exoscale Marketplace today:
 - PostgreSQL Enterprise, Redis
 - GitLab Enterprise, Forgejo, Keycloak, Nextcloud
 - APPUiO Managed OpenShift, APPUiO Cloud (namespace-as-a-service)
 - on request: MariaDB, Apache Kafka, OpenBao
- Provisioning, patching, backups, monitoring and logging included
 - SLA up to 99.99%, 24x7 support, ISO 27001 and ISAE 3402 Type II from VSHN, BSI C5 Testat from Exoscale
 - same catalogue on cloudscale, SWITCH and on-premises - no lock-in

GitLab Select Partner



GitLab

- GitLab: SCM, planning, CI/CD, security testing, monitoring
- Integration in VSHN Application Operations 24x7 services
- GitLab as a Service: on-premises, private & public cloud (CH, DE, AT)
- GitLab for Education: Ultimate + 50,000 compute minutes/month for qualifying non-profit institutions
 - instructional use or non-commercial academic research



F5 & NGINX



- NGINX open source
 - World's #1 web server, focused on performance
- NGINX Plus
 - Integration for special proxying needs
 - Security features (authentication, OpenID, JWT)
 - License & support compliance for FSI
- NGINX Plus ingress controller
 - Integration with OpenShift, on-prem and cloud Kubernetes
- NGINX Plus AppProtect Web Application Firewall
 - Integration in development processes
 - Automation of Git-based configuration management
 - Deployment on and integration with Kubernetes & OpenShift



Cloud services: additional discount

- Attractive volume discounts on commitment for 12 months
- Available on all infrastructure services (excluding Marketplace, licenses)

Committed volume	Additional discount
3k - 10k EUR per month for 12 months	5%
10k - 25k EUR per month for 12 months	10%
25k - 100k EUR per month for 12 months	15%
100k+ EUR per month for 12 months	20%

Exoscale OCRE benefits

- 10% OCRE discount on Exoscale compute and storage list prices
- Free traffic to and from GÉANT and connected NRENs
- No minimum order quantity, purchase or contract length - most services billed hourly or per second
- Transparent, published pricing with an online cost calculator
- Postpaid invoicing in EUR or CHF
- After call-off contract: complete self-service (create accounts, users, services)
- VSHN is ranked the #1 Exoscale provider in all countries it serves

Next steps

- Ask us for a trial voucher, a cost estimate, or a call-off agreement
- VSHN is ranked #1 for Exoscale in the OCRE 2024 catalogue
 - direct award via the cascade, no competition round needed
 - under EUR 75,000: desktop mini-competition with GÉANT pre-scored evaluations
 - emergency call-off (disaster recovery, ransomware) in two working days
- Master contract, admin accounts, then full self-service
 - web console, API, Terraform, Ansible

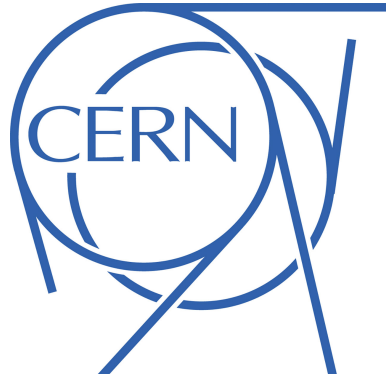


ocre.vshn.ch

Scan or click to get in touch

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References

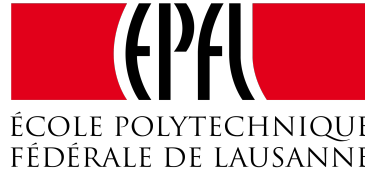


SWITCH



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Schweizerisches Bundesarchiv BAR
Archives fédérales suisses AFS
Archivio federale svizzero AFS



Utrecht
University

ETH zürich



TECHNISCHE
UNIVERSITÄT
WIEN

University of Utrecht: ASReview

- Open source ML-aided meta-research tool
 - Assists scholars and practitioners to find the most relevant studies and publications
- Using VSHN and Exoscale for
 - Training the available deep learning models
 - running large-scale simulation studies to investigate the performance of available and newly developed models
 - Future: provide “ASReview cloud” service

Our focus

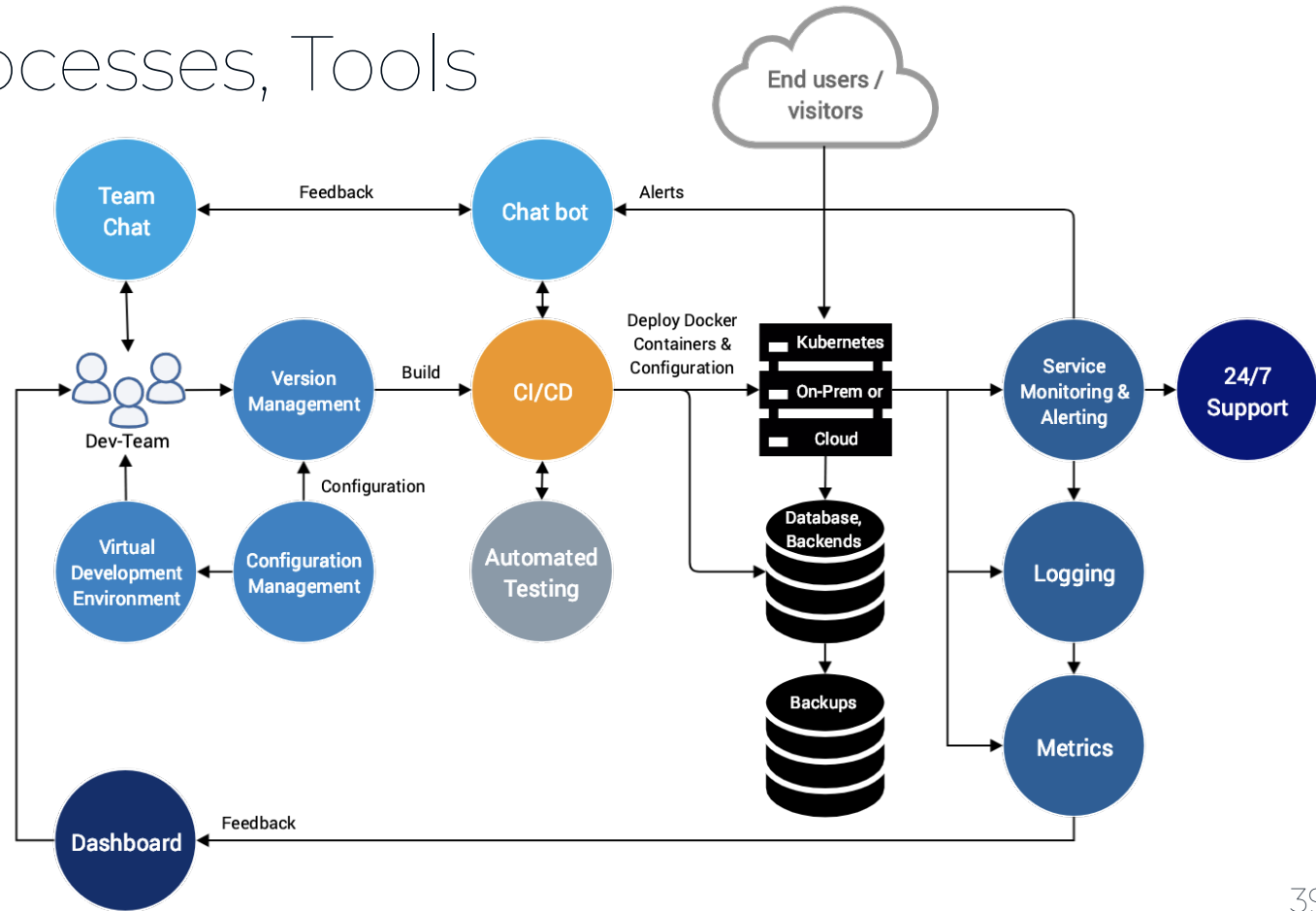
- Application Operations
- Kubernetes platforms
- Software as a Service



VSHN AppOps

- 24x7 cloud-native application operations
- Cloud and software architecture engineering support
- DevOps, containerization, delivery automation (CI/CD, GitOps) support
- monitoring, alerting, run-books, incident handling, data protection, security engineering, maintenance and 24x7 operations support

DevOps: People, Processes, Tools



VSHN Kubernetes platforms

- Kubernetes platforms for on-premises, private & public clouds
 - Red Hat OpenShift
 - Cloud provider native Kubernetes Services (SKS, etc)
 - Other Kubernetes Services (e.g. VMware Tanzu)
- 24x7 support for Kubernetes platforms and the applications running on it



VSHN operates APPUiO.ch
Red Hat OpenShift as a Service

On-premises, private & public clouds



Red Hat

Premier

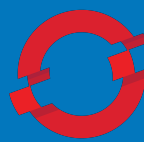
Business Partner

Certified Cloud and
Service Provider

Software as a Service

- Managing standard backends of modern applications
 - Self-service brokering of Exoscale cloud services (DBaaS, S3, etc)
 - Serval: open-source "app store" for managed services on Kubernetes & OpenShift
 - Databases we operate ourselves, on the infrastructure of your choice including on-premises
 - MySQL/MariaDB/Galera, PostgreSQL, MongoDB, Redis, etc
 - MongoDB is a VSHN managed service; it is not part of Exoscale DBaaS
- Standard tools for DevOps teams
 - GitLab and Forgejo as a Service
 - Keycloak, OpenBao, Nextcloud
 - NGINX Plus (Kubernetes ingress controller, AppProtect web application firewall)

Collaboration with Exoscale

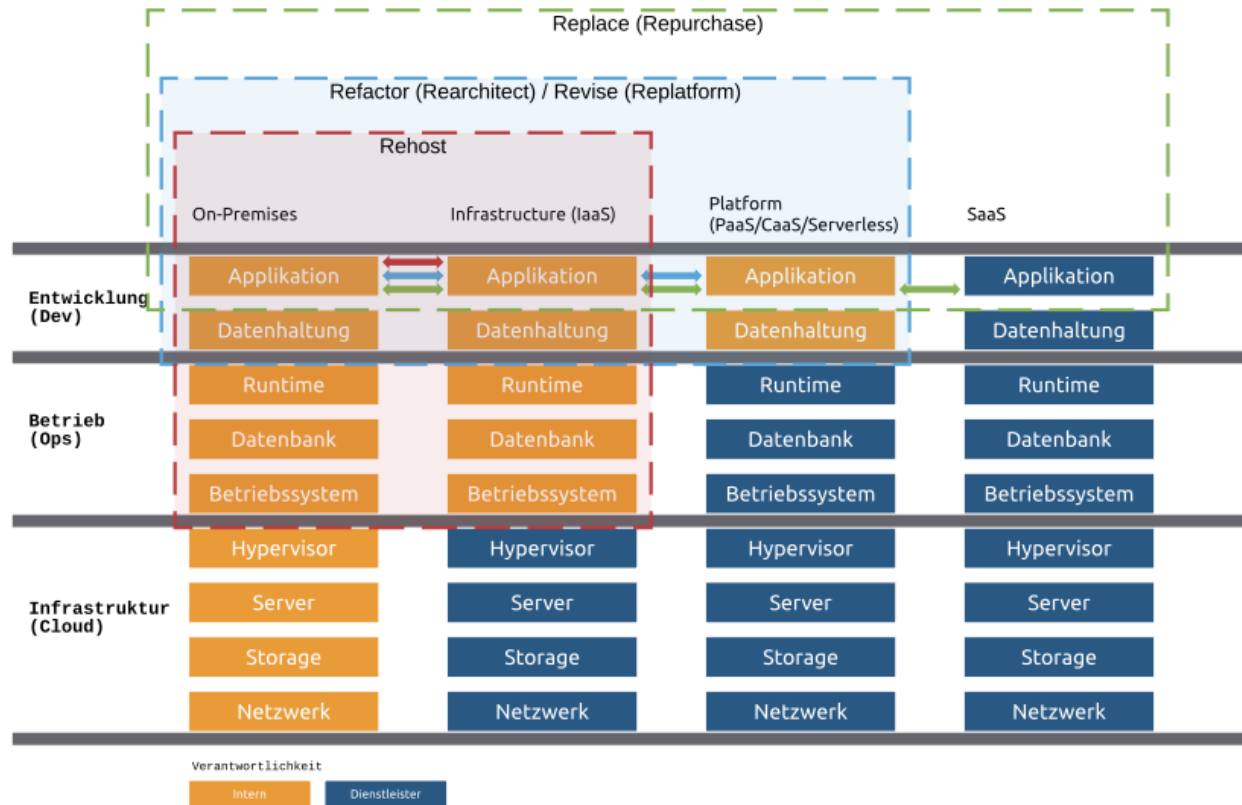
Application	Docker Container
Application Server	
Service discovery & Load balancing	Kubernetes  OPENSIFT 
Operating System	
Hardware	Cloud/On-premises 

Migrations

Do not just lift and shift.

Outsourcing the infrastructure alone still leaves you the craft of Ops.

Re-platform onto a service that takes care of the middle layer too: much less to transfer, and much less to keep up with.





VSHN is the winner of the Swiss Digital Economy Award 2019

VSHN is the first Swiss
Kubernetes Certified Service Provider
(KCSP), ISO 27001 and ISAE 3402 Type I &
II. C5 requirements are met with
Exoscale's PSI C5 Testat.



Our Business

- Operation of software on any infrastructure - whether cloud or in-house
- Collaboration with software developers - stability despite agility
- Automation of DevOps processes
- First Kubernetes Certified Service Provider in Switzerland
- ISO 27001 certified, ISAE 3402 Report Type I & II and FINMA audited Business & Operations processes; BSI C5 covered by Exoscale's Testat
- Big partner landscape

Our Company

- 45 employees
- Owner-managed, no external investors
- Offices in Zürich (CH) and Vancouver (CA)
- Founded 2014, profitable since 2015

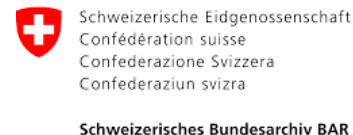
Our Values

- Take responsibility and guarantee 100% reliability
- Expert knowledge and Swiss quality in all work steps
- Cost savings through automation and standardization

Our happy customer list



acreviis



CreditGate24

comerge

gbanga

ginetta



esurance



Skribble



HRM SYSTEMS



pistor



Thank you.

VSHN is the leading Swiss partner for
DevOps, Kubernetes & Cloud Operations.

How can we help you?

ocre.vshn.ch

