Iskratel Cloud Infrastructure

Iskratel Cloud-Services Platform

Benefits

• Carrier-grade service reliability

• Fast introduction of new services and apps

• Smooth migration to cloud environment

• Full control and management

• Reduced OPEX

• New business models for new revenue

• Scalability and capacity on demand

• Process automation

Telcos are looking for a painless transition to the virtualised and cloudified future. Iskratel Cloud-Services Platform (CSP) takes them there safely.

Cloud services enable Telcos to offer richer managed or over-the-top services, improve responsiveness and flexibility. The cloud infrastructure is an opportunity for Telcos: to implement a private cloud, or to reinvent themselves as a cloud-infrastructure or cloud-services provider.

ISKRATEL'S ELASTIC INFRASTRUCTURE

Iskratel CSP is the foundation for cloud services with a high business value. It is an elastic platform for hosting virtualised network functions (VNFs), virtualised legacy applications, and containers. Able to provide Telco as well as IT/IoT services, the platform is comprised of four building blocks:

• Orchestrator (for service lifecycle and service chaining),
• VNF manager (for VNF lifecycle),
• Virtualised infrastructure manager (VIM),
• NFV infrastructure (NFVI).

Iskratel CSP facilitates a **smooth migration** from traditional to cloud environment. The coexistence of cloud-aware and legacy (non-cloud) applications is assured, along with backward compatibility that enables a non-interrupted and controlled transition.

Iskratel CSP represents the infrastructure for a **carrier-grade cloud**, and includes support for process automation, cloud management with full monitoring and alerting, as well as supervision of apps and system functions. Uniquely, Iskratel CSP excels in guaranteeing **high availability** and **geo-redundancy** of all cloud-based apps and solutions.

Iskratel CSP does not require a lock-in: **vendor independence** is provided with standard open interfaces for an easy integration of 3rd-party VNFs and apps.

Along with the CSP platform, Iskratel also provides complete **integrated solutions** that include Pharos-compliant hardware.

ISKRATEL CSP UNDER THE HOOD

Iskratel CSP fully follows the standard ETSI NFV architecture. The solution uses mature, OPNFV-approved open-source technology, enriched with Iskratel's own extensions that provide high availability and low-latency operation.

The OpenStack-based cloud infrastructure uses hardware layer that follows the Pharos specification. Ceph is used for storage, and Zabbix for diagnostics. The orchestrator employs OpenBaton, augmented for specific needs and purpose of Iskratel CSP.

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Diagram

Value-added applications → **vPBX** **vSIM** **VoLTE** **VoWiFi** **MVNO OTT** **Fixed LTE**

Products and solutions →

| P/SGW MME | NGN SSW | IMS Core | IMS Edge | App Server | Media Server | Border Gateway | NMS/OSS |

NFV MANO

Orchestrator

Virtualised functions →

| EPC | NGN SSW | S/I/P/E-CSCF | AGCF MGCF BGCF | AS | MS | SBC | NMS |

VNF Manager

Iskratel CSP →

NFV Infrastructure

| Virtualisation | | | Virtualisation | | |
| Compute | Storage | Network | Compute | Storage | Network |

Virtualised Infrastructure Manager

Key features

- Carrier-grade reliability

- Coexistence of legacy and cloud-aware apps

- Geo-redundancy of VNFs

- Use of mature open-source technology

- Standard ETSI NFV-based architecture

- Single platform for Telco, IT, IoT and industry verticals

- Pre-integrated solutions

- Scalability and elasticity

- Full control over SLA
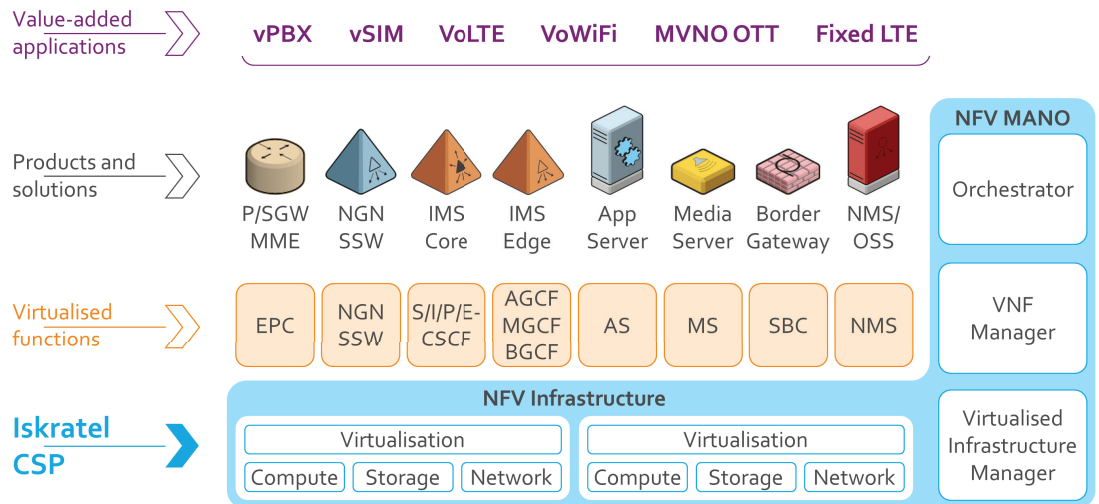
VALUE-ADDED CLOUD SERVICES

Iskratel CSP is the platform for high added-value services that Telcos offer from their clouds to generate revenues. In addition to the elastic infrastructure, Iskratel provides several VNFs and apps that are verified together with Iskratel CSP.

- Virtual IMS comprises of components for Core IMS (S/I/P/E-CSCF), Edge IMS (AGCF, MGCF, BGCF, RGCF), and Applications server (AS). Core entities are implemented as VNFs, with their management playing a special role due to umbrella provisioning and mass operations, while the (v)AS is responsible for telephony services.
- The AS enables Universal communications (UC), a service with high added value that provides users with services anywhere, on any device, in any network.
- Virtual media server (another independent VNF) manages RTP streams, recoding and conferencing.

- Virtual session border controller provides security with control over voice sessions at the domain edges.
- Virtual network management server provides management, monitoring, and integration with OSS/BSS.

Moreover, Iskratel CSP allows hosting of 3rd-party VNFs, including mobile core (vEPC, vPCRF), IoT and NaaS slicing, and others.

BRIDGING THE GAP

The cloud infrastructure provides Telcos with the sustainability of business models: CAPEX optimisation, defence of ARPU, and control over OPEX. Investments in infrastructure only make sense if they return, so Telcos justify them by using the infrastructure also in other industry verticals or segments with a higher business value.

Iskratel CSP enables investment-friendliness by enabling the reuse of infrastructure in several industry segments: for Telco and for IT services in transport, public safety and energy.

Iskratel CSP is a unified cloud platform for all industry verticals, which enables the fusion of services, optimisation of expenses, and a faster time to market of integrated, efficient and attractive services and apps.

ISKRATEL Group