

Switch to NFV/SDN with **A Happy Mind!**

From Concept to Reality!



happiest minds
The Mindful IT Company
Born Digital . Born Agile

Enterprise and service providers are seeking solutions to their networking challenges today and want their networks to adjust and respond dynamically, based on their business policy.

Architectures are required to be robust, flexible and easy to manage while also reducing operational costs. This is imperative as today's applications require high bandwidth and need to be constantly available. An SDN architecture is based on the idea of making a distinction between network control and forwarding functions, which ensures direct control over network programming thereby proving to be just what the doctor ordered to address the network challenges of today.

This is more difficult than it sounds as the main goals are to enable automation to bring down the

manual component of the effort and drastically reduce the maintenance cost of the networks. This enables them to have new applications up and running without disrupting routine operations while being closely aligned to business expectations.




Now this is a tall order and there is no single point solution which can help achieve all of the above.

Here's where Happiest Minds comes in with state of the art Engineering Services revolving around NFV+SDN Technologies and our experts help in simplifying the complexities of these technologies to help you make the complete switch from Concept to Reality. Our aim – Switch over to SDN with a happy Mind.

What we do!

Happiest Minds is committed to support OEMs, ISVs & Service Providers in design, development & deployment of Network Function Virtualization, Traditional, Software-defined and Hybrid networks. Be it a commercial grade solution or implementation of proof of concept for potential use cases, Happiest Minds can be your trusted engineering partner. We provide complete product lifecycle services from concept to deployment and support.

Our services include

-  **System Design**
-  **Software Development**
-  **DevOps**
-  **Testing**
-  **Analytics**

Happiest Minds' SDN/NFV Engineering Service Propositions

Network Function Virtualization (NFV)

- VNF development, porting, testing, deployment and maintenance
- MANO (Management and Orchestration)
- Service Chaining
- Customization of Open source NFV and SDN Solutions
- NFV Orchestration and Integration with OSS/BSS
- Adapters for legacy service management

Software Defined Networking (SDN)

- Commercial and Opensource SDN Controller Engineering, customization and feature enhancements
- South bound provider development for SDN, Legacy and Hybrid switches.
- OpenFlow enablement conformance
- SDN Application development, upgrades and migration across controllers
- SDN controller integration with OpenStack Neutron
- Engineering Services for customization and enhancements of Open Source Solutions like OpenDayLight, ONOS etc.
- SDN- NFV solution integration

Network Stack Engineering

- Switching and Routing protocols, Traffic Engineering
- Security, VPN, Firewalls, DPI & policy enforcement, WAN optimization, server Load balancing, dynamic bandwidth management
- Intel DPDK porting and optimization for high performance
- EMS/NMS frameworks
- UX/ UI Engineering

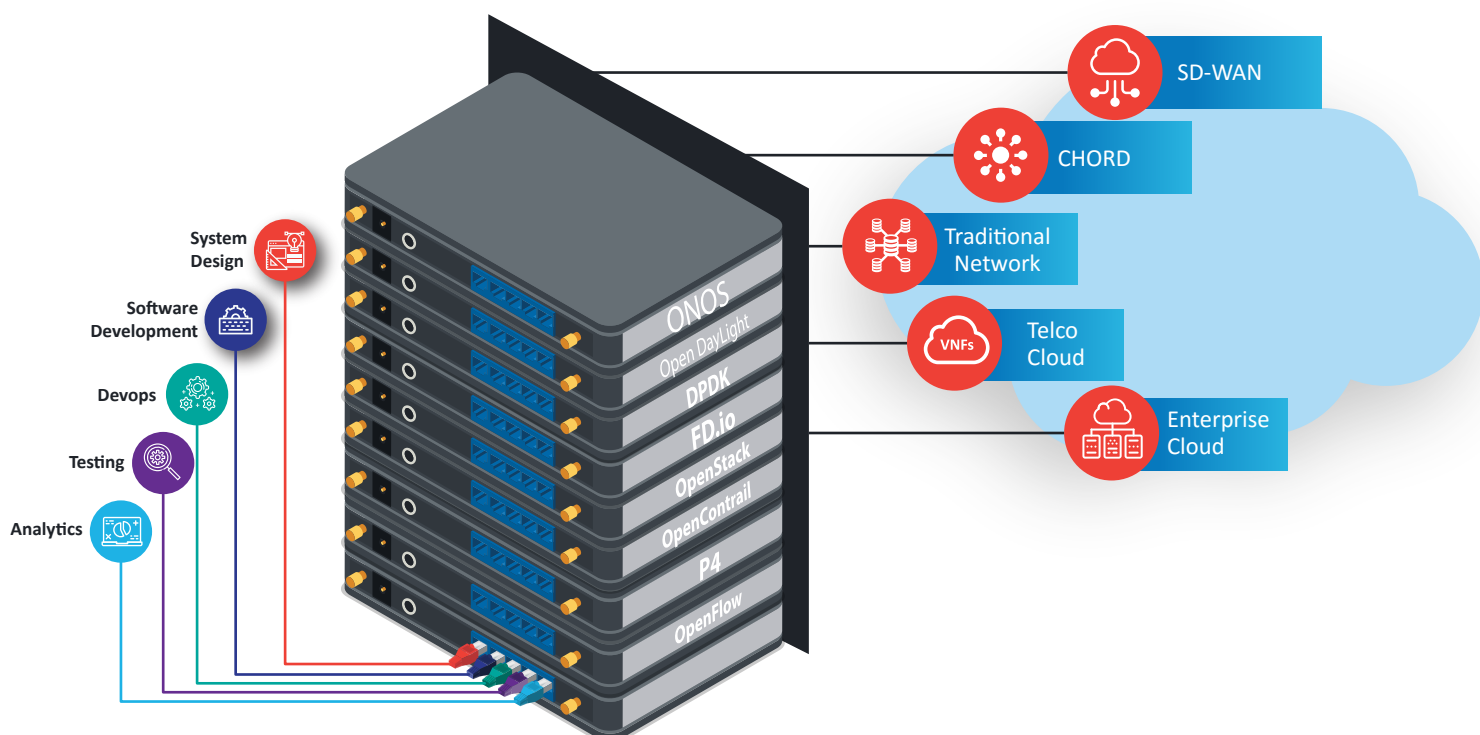
SDN/NFV Testing

Happiest Minds help platform and solution vendors address scenario-based testing challenges of NFV implementations and SDN applications.

We offer,







- Testing & Validation of NFV & SDN Deployments
 - Network simulation and testing
 - Complete conformance and validation
 - Stress and Performance testing
 - Lab Testing & Field Trials
 - Tools, Test automation and scripting
- System Testing & Validation of OpenFlow Protocol, Controllers & Devices
 - Network and test bed design
 - Test pattern generation
 - Complete functional testing, Capacity / Performance testing
 - Tools, methodology and automation

Expertise Stack



Significant **Achievements**

We have helped several Tier 1/ Tier 2 NEMs, Service providers and SDN platform vendors. Our recent projects include,

-  SDN transformation services to a leading Packet Monitoring Systems OEM for entry to new markets , 50% faster.
-  Real-Time, Scalable and Precise Network Visibility for an emerging provider of Network performance analytics, transforming the network for perhaps the largest food chain of the world
-  Virtual Network Packet Broker using Intel DPDK for a leading global Packet monitoring systems vendor
-  NetConf South Bound plugin contribution to ONOS, one of the most promising controllers designed for scalability & performance needs of the service providers.
-  Intel based Micro-Server (Xeon) – Hardware design based on Open Compute Platform Standards.
-  Engineering Services around Central Office Re-Architected as Data Centre (CORD) including creation of CORD POD and development of Networking Service Applications enabling new revenue streams for a Tier-1 Telco.

Alliances



About Happiest Minds

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transformation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as “Born Digital . Born Agile”, our capabilities spans across product engineering, [digital business solutions](#), [infrastructure management](#) and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/ transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

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