

# Wiwynn's Intel® Select Solution for NFVI with Red Hat® for Business Operations



## Simplifying and accelerating network function virtualization infrastructure deployment.

Rather than procuring hardware as components and building the system from scratch, partners can use Wiwynn's verified Intel® Select Solution for NFVI with Red Hat® to minimize the complexity in selecting and validating optimal configurations.

### Challenges

Most of the network service providers have differing ideas on what constitutes a network functions virtualization infrastructure (NFVI), which makes them difficult to know how to invest. Wiwynn now offers a verified Intel® Select Solution for NFVI that addresses the complexity providers face and helps them to accelerate NFV deployments. Wiwynn utilizes Intel® Xeon® Scalable processors and additional Intel® technologies to provide a tested and verified Intel® Select Solution for NFVI with Red Hat® to accelerate infrastructure deployment.

### Wiwynn's Verified Intel® Select Solution for NFVI with Red Hat®

With the global network functions virtualization (NFV) market projected to grow rapidly, many system builders do not have deep experience in designing for the unique requirements of multi-function systems, and they are looking for a way to address the complexity they face in selecting and validating optimal configurations. Wiwynn's verified Intel® Select Solution for NFVI with Red Hat® can help minimize the time, cost, and complexity required for the enterprise to evaluate hardware and network integration. With this solution, data center customers can now accelerate time to market with workload-optimized solutions.

## What Are Intel® Select Solutions?

Intel® Select Solutions are verified hardware and software stacks that are optimized for specific software workloads across compute, storage, and network. The solutions are developed from deep Intel experience with industry solution providers, in addition to extensive collaboration with the world's leading data center and service providers.

To qualify as an Intel® Select Solution, solution providers must:

1. Follow the software and hardware stack requirements outlined by Intel.
2. Replicate or exceed Intel's reference benchmark-performance threshold.
3. Publish a detailed implementation guide to facilitate customer deployment.

Solution providers can develop their own optimizations to add further value to their solutions.



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## Wiwynn's Server

Wiwynn's Intel® Select Solution for NFVI with Red Hat® features Wiwynn® SV300G3 Series, an 1U multi-purpose Server for multi-purpose applications at low power consumption. This solution features Intel® Xeon® Scalable processors. This new architecture delivers impressive performance gains of up to 4.2x more virtual machines versus a 4-year-old system,\* allowing customers to run a more diverse variety of workloads on each system. Configured with Intel® Xeon® Scalable processors, Wiwynn SV300G3 Series has passed the Intel® Select Solutions for NFVI with Red Hat® verification, which include stress test and configuration tuning. This solution is poised for Taiwan market to help enterprises receive their needed performance.

## Intel® Select Solutions and Test Tools

| Server Name | Function    | BIOS     | OS  | Driver  |
|-------------|-------------|----------|---|---|
| SV300G3     | NFVI Server | STTG3P01 | Red Hat Enterprise Linux Server release 7.3 | Intel® QuickAssist Technology Driver for Linux – HW version 1.7 |

## Hardware Configuration for Wiwynn's Intel Select Solution for NFVI with Red Hat®

|               | Item  | Quantity |
|---------------|---|----------|
| Model         | Wiwynn SV300G3                                    | 1        |
| Processor     | Intel® Xeon® Platinum CPU 8176 (2.1 GHz\28 cores) | 2        |
| Memory        | Micron 32GB DDR4 2666 MHz                         | 24       |
| PCIe NVMe SSD | Intel® Solid State Drive Data Center P4608 6.4TB  | 1        |
| PCIe Card     | Intel® QuickAssist Adapter 8970                   | 1        |
| Network       | Intel® Ethernet Controller I210                   | 1        |
|               | Intel® Ethernet Controller XXV710-DA2 for OCP     | 2        |

## Key Software Components for Wiwynn's Intel Select Solution for NFVI with Red Hat®

| Items     | Versions             |
|-----------|----------------------|
| BIOS      | STTG3P01             |
| XXV710_FW | 6.01                 |
| RHEL OS   | 7.3 (3.10.0-514.e17) |
| DPDK      | 18.02.1              |
| Libvirt   | 2.0.0                |
| QEMU      | 2.12.1               |
| OpenSSL   | 1.0.1e               |
| Intel QAT | 4.2.0                |
| I40e      | 2.4.10               |

For further detailed information, please refer to the Installation Guide.



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## Conclusion

The key to success in today's fast-moving marketplace is the ability to bring new applications and services to market. Therefore, a much faster and more reliable infrastructure deployment is crucial to business development. Intel® Select Solutions offer a fast path for IT leaders to consolidate their infrastructure. Through Intel® Select Solutions, Intel and Wiwynn empower network service providers to build an optimized agile NFVI, and help organizations and businesses achieve their needed performance.

## Learn More

[www.intel.com/selectsolutions](http://www.intel.com/selectsolutions)

<http://www.wiwynn.com/english/product/type/details/63?ptype=27>

<https://www.redhat.com/blog/verticalindustries/tag/nfvi/>

<https://www.intel.com/xeonscalable>

## Need Additional Information?

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\* Based on Intel® internal estimates 1-Node, 2 x Intel® Xeon® processor E5-2690 on Romley-EP with 256 GB Total Memory on VMware ESXi\* 6.0 GA using Guest OS RHEL6.4, glassfish3.1.2.2, postgresql\* 9.2. Data Source: Request Number: 1718, Benchmark: server virtualization workload, Score: 377.6 @ 21 VMs Higher is better vs. 1-Node, 2 x Intel® Xeon® Platinum 8180 processor on Wolf Pass SKX with 768 GB Total Memory on VMware ESXi 6.0 U3 GA using Guest VM's utilize RHEL 6 64 bit OS. Data Source: Request Number: 2563, Benchmark: server virtualization workload, Score: 1580 @ 90 VMs Higher is better.

