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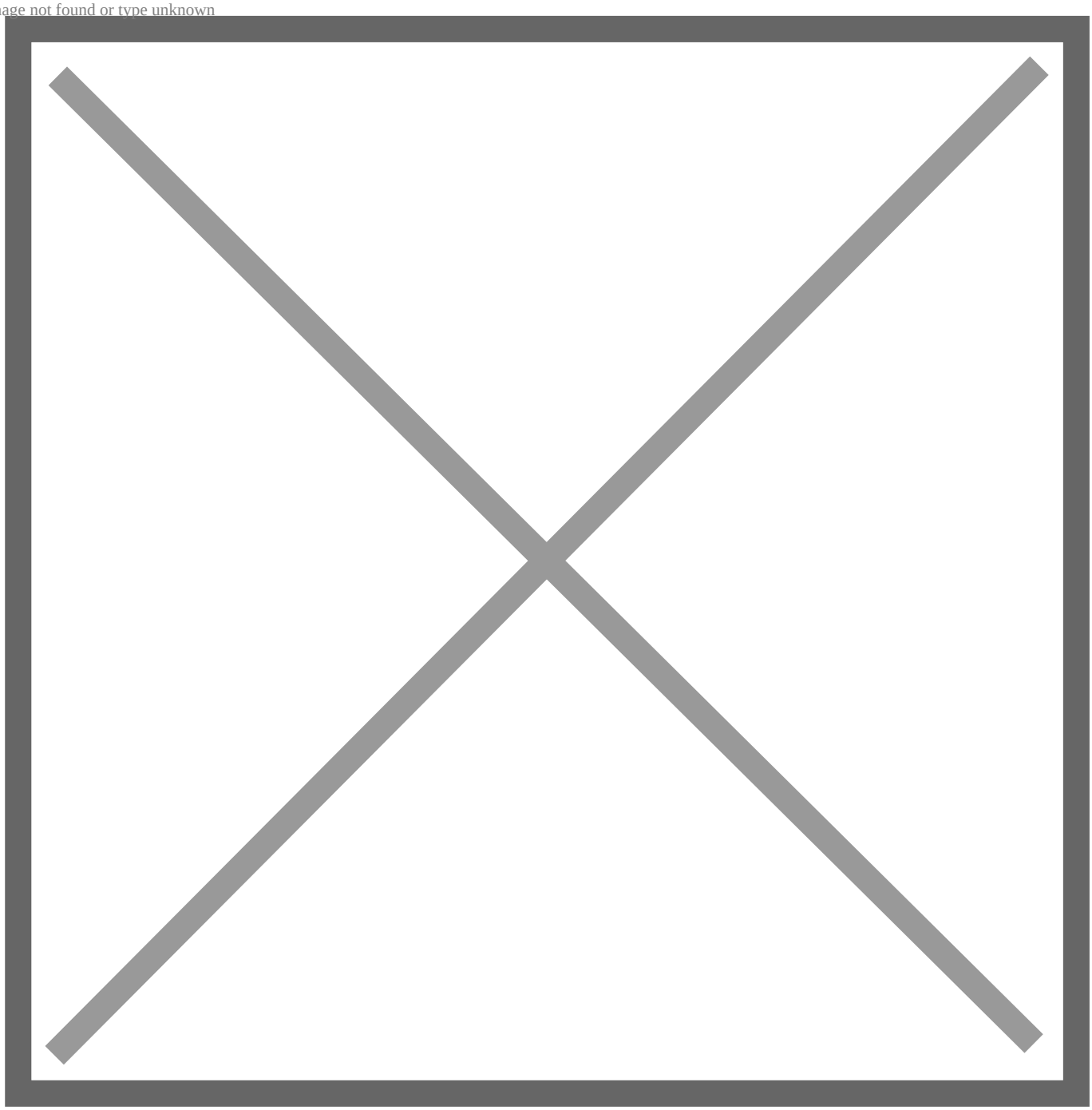

All you need to know about Cisco Nexus 3000 Series Switches #NB Tech A14

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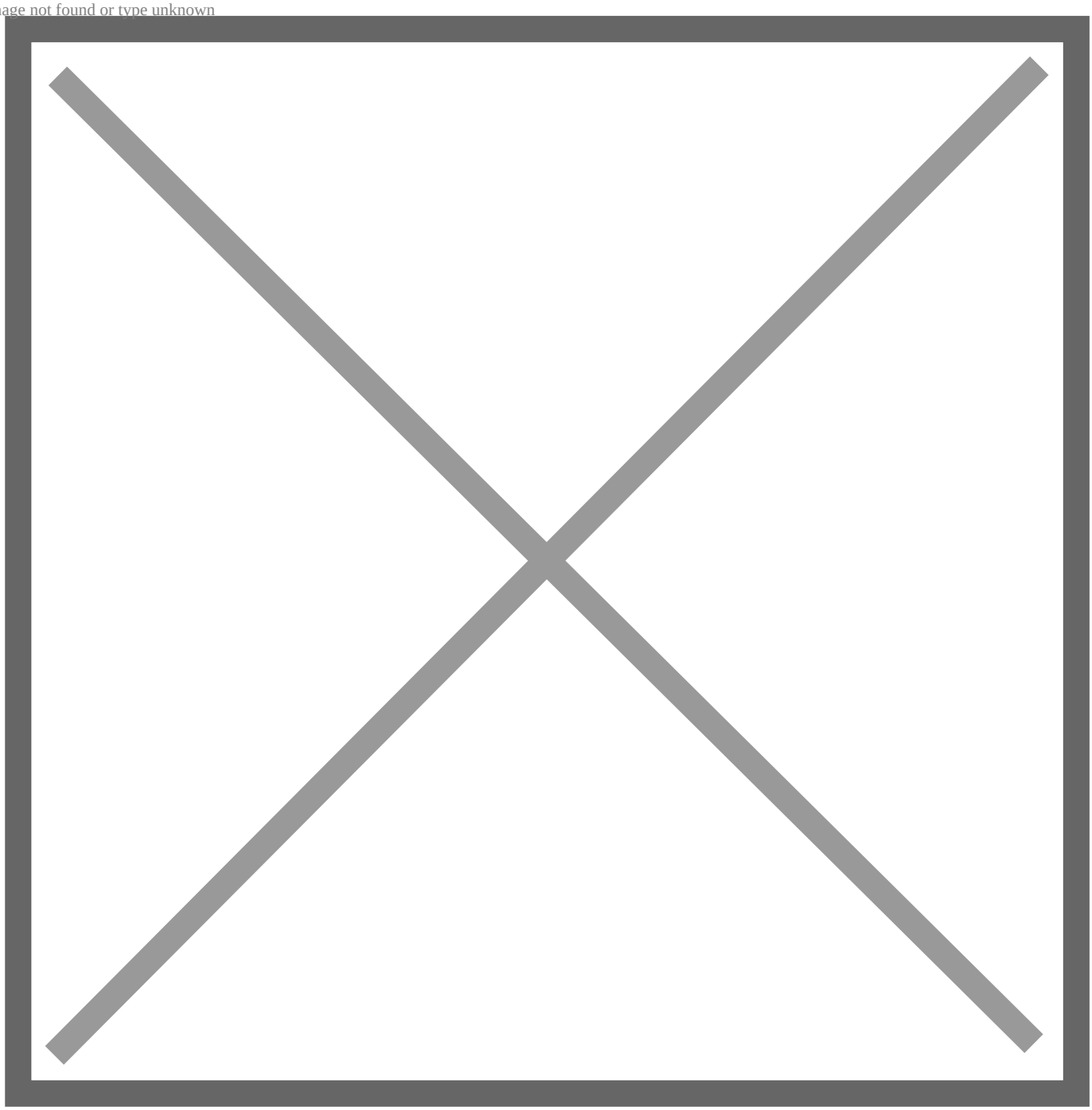

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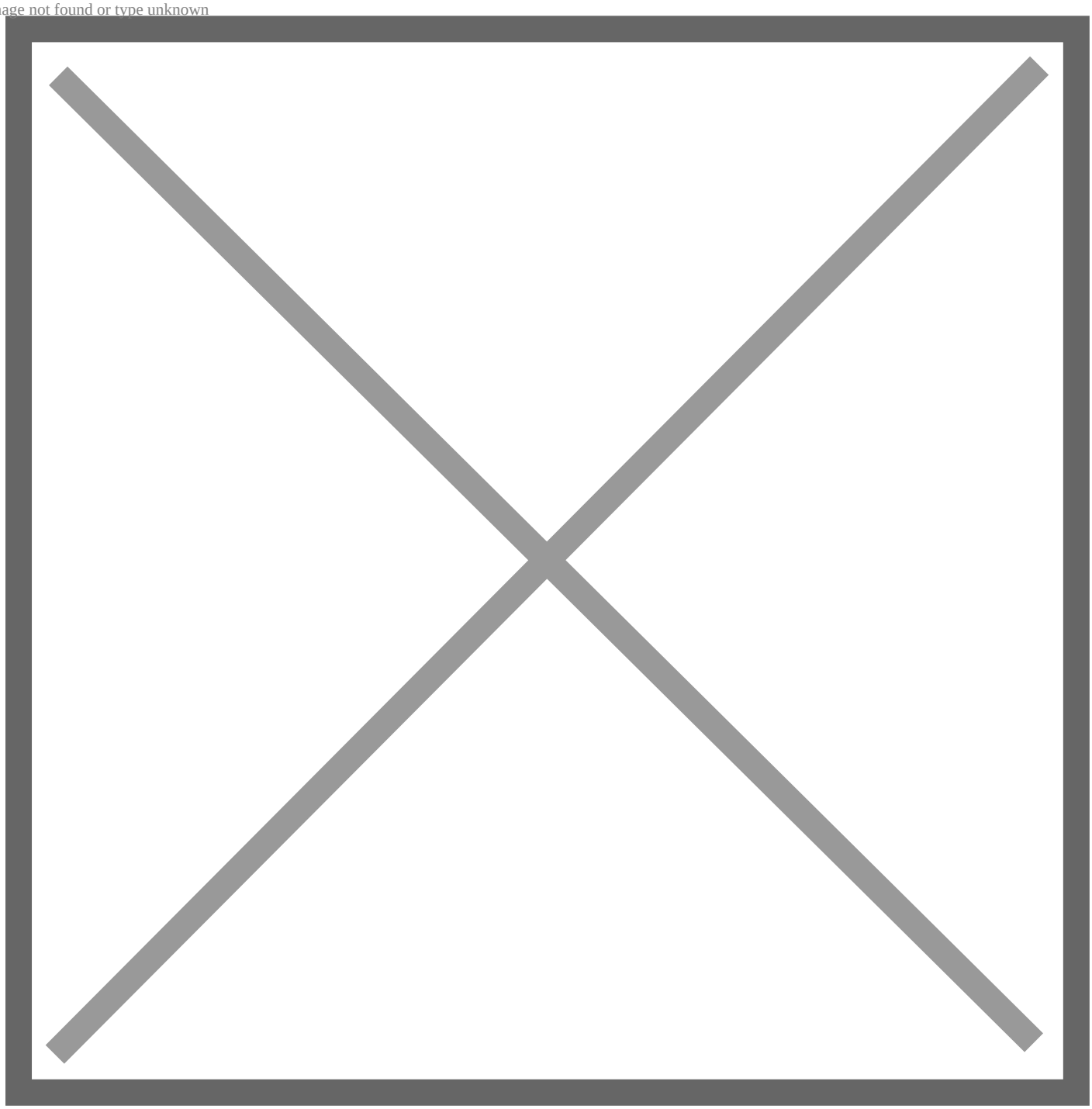

Cisco keeps on launching switches of different series with the unique features and benefits. Cisco 3000 Series switches are one among them. The Cisco 3000 series provides Top-of-rack, flexible as well as layer2 and layer 3 Switching. It **enhances the visibility of the network**, improves monitoring as well as simplifies the management. Cisco 3000 series switches are considered **ideal for high-frequency trading**, high-performance computing, general purpose deployments, cloud networks and **massively scalable Date Center**. These switches are power-efficient and specially designed for meeting the requirement of the data center in today's world. Thus, offers high-performance, flexibility, and low-latency.

Features of Cisco Nexus 3000 Series Switches

Cisco 3000 series switches is a standalone Cisco switch series due to its different features and advantages. This series switches provide around 24 to 128 ports with high performance, flexible connectivity as well as comprehensive features for meeting the numerous requirements of the data center. Below listed are the different features of offered by the 3000 series switches –

Simplifies the operation

- For switch configuration and touchless bootup, it has PreBoot eXecution Environment (PXE) and PowerOn Auto Provisioning (POAP).
- Enhanced monitoring and the visibility are supported by the Cisco Nexus Data Broker.
- It also offers advanced rebooting capabilities including cold and hot patching along with fast rebooting capabilities.

Open Programmability

- Various DevOps automation tools are present as a built-in feature in the switches such as Ansible, chef and Puppet.
- Customer application support is also provided via Linux containers, Bash Shell and Python Scripting.
- Open flow and Open Stack support for (SDN) software-defined networking.

High Performance and Scalability

- Cisco bi-directional support is available for the purpose of simplified migration to 40GE.
- Cisco 3500 series switches have Wrap mode and Algoboost with lowest latency.
- Multi-tenant scalability is available along with the VXLAN support

Efficiency and High Availability

- For the purpose of fault isolation, it has a modular operating software NX-OS.
- For allowing regular data traffic flow, microbursts as well as jitter with an increased network efficiency; these switches allow shared buffer architecture.

Benefits of Cisco Nexus 3000 Series Switches to business

As stated above Cisco Nexus 3000 series switches are specially designed for meeting data center requirements of today's world, thus they offer numerous benefits to the business. Below listed are the advantages offered by Cisco Nexus 3000 Series Switches to business –

- Switches have single architecture across data center with supporting speeds of 1 Gbps, 10 Gbps, 25 Gbps, 40 Gbps, 50 Gbps, 100 Gbps and 100Mbps.
- Supports both overlay as well as underlay technologies such as Virtual Extensible LAN.
- Provides Low latency platform for High-Frequency Trading (HFT) environment and High-Performance computing (HPC).
- Provides a platform for the object model programming as well as Support for server tools and Linux including Chef and Puppet, Linux Guest Shell, and Wireshark TShark.

Different Models of Cisco 3000 Series Switches

In every series of Cisco Nexus Switches, there are different models available and similar is the scenario with Cisco 3000 Series Switches. Below listed are the different models available in Cisco 3000 Series Switches –

> Cisco Nexus 3048 Series Switches

Cisco Nexus 3048 Series Switches are the first generation of Cisco 3000 series switches. It is a general purpose switch which supports 48 x 100-Mbps, 1-Gbps as well as 4 x 10-Gbps connectivity. It also supports Layer2 and Layer 3 switching as well as Top of the Rack deployment.

> Cisco Nexus 3100 Series Switches

They are second generation Cisco 3000 series switches. These switches are highly programmable for 1 GE, 10 GE, and 40 GE connectivity. Cisco Nexus 3100 Series Switches supports the speed of 1Gbps, 10 Gbps, and 40 Gbps. The port count of this model is 32 x10 Gbps to 32 x 40 Gbps.

> Cisco Nexus 3100-V Series Switches

These switches are enhancement of the Cisco Nexus 3100 series model. It is a general purpose switch which supports the speed of 1Gbps, 10 Gbps, 40 Gbps and 100 Gbps. It provides high scalability, high performance, VXLAN routing as well as enhanced buffer space of 16MB.

> Cisco Nexus 3200 Series Switches

These switches are the third generation of 3200 Series Switches. These switches have comprehensive features, large buffers, low latency as well as table sizes for 10GE, 25GE, 40GE, 50GE, and 100GE connectivity. These switches are best suitable for High-Frequency Trading and High-Performance Computing Environments.

> Cisco Nexus 3500 Series Switches

These switches support the speed of 1 Gbps, 10 Gbps, and 40 Gbps with latency ranging amid 50 to 290 nanoseconds. Cisco Nexus 3500 Series Switches are also well suited for High-Frequency Trading and High-Performance Computing Environments. These series provide for 1 GE, 10 GE and 40 GE port as well as comprehensive features which include Algo Boost technology.

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