

# DELL™ FLEXADDRESS POWEREDGE™ M1000e





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Following the highly successful launch of the PowerEdge M Series, Dell continues to add to its blade portfolio by launching a new software tool for chassis-enabled persistent identity called FlexAddress. The launch of Dell's patent-pending FlexAddress technology allows any M-Series blade enclosure to lock the World Wide Name (WWN) of the Fibre Channel controller and Media Access Control (MAC) of the Ethernet and iSCSI controller into a blade slot, instead of to the blade's hardware as was done in the past. By removing the network and storage identity from the server hardware, customers are now able to upgrade and replace components or the entire server without changing the identity on the network.

## EFFICIENT INTEGRATION

Dell's FlexIO blades strategy enables customers with flexibility of choice resulting in a streamlined and simplified infrastructure. FlexAddress simplifies IT environments for customers by abstracting the server's unique hardware identifier (WWN/MAC) from the hardware itself to the chassis slot, while retaining the flexibility and manageability of their existing environments. Simplicity is about delivering business-class features that are easy to implement and deploy while maintaining flexibility and ease of management. By integrating with any network fabric, FlexAddress can save customers time, money, and resources by limiting any downtime caused by maintenance or upgrading. It's the simple, low-cost way to make an IT professional's life easier.

## MANAGEABILITY AND FLEXIBILITY OF CHOICE

Ease of management and IT flexibility are crucial to every company's bottom line. Dell's FlexAddress allows for I/O module-agnostic flexibility while seamlessly integrating into an existing management infrastructure. FlexAddress is enabled through the Chassis Management Controller (CMC) of the PowerEdge M1000e, thus it works with all I/O modules (including Cisco, Brocade, and Dell PowerConnect; it even works with any pass-through module) and IO Mezzanine cards (including Qlogic, Emulex, and Broadcom). Since FlexAddress is controlled by the CMC, it doesn't add a management layer, and seamlessly integrates into the network and server management already used in any data center today. True IT simplification minimizes the tools and resources needed to manage an IT environment without bypassing established network procedures.

## EASE OF IMPLEMENTATION

One of the key tenets of FlexAddress was that it be incredibly simple and easy to implement. Each FlexAddress feature card comes with a completely unique pool of MAC/WWNs, so there is no need for the user to configure which pools are used on a given chassis. This is critical because if duplicate MAC/WWNs are present on the network, users can experience significant issues. The configuration is also extremely simple: Just select the slots and fabrics you want FlexAddress to be enabled on and the CMC handles everything from there. Imagine the possibilities.

## FLEXADDRESS DELIVERS THE ABILITY TO:

- Service a blade or IO mezzanine card, upgrade the IO mezzanine cards to newer technology, or upgrade the entire server with new technology while maintaining the mapping to Ethernet and storage fabrics. This capability allows quick, painless connection and can reduce downtime. This capability is especially powerful when operating in a boot from SAN environment.
- Quickly obtain a list of all MAC/WWNs in the chassis by slot and know these will never change.
- Efficient integration into your existing management and network infrastructure.

FlexAddress delivers persistent network and storage identities, equipping your data center to handle predictable or even unplanned changes — increase, upgrade, or remove servers without affecting the network.

## FLEXADDRESS IMPLEMENTATION: **4 SIMPLE STEPS**

### STEP 1

A Chassis Management Controller (CMC) receives a FlexAddress feature card provisioned with a unique pool of 208 MACs and 64 WWNs.



### STEP 2

The FlexAddress card is inserted at the factory or to an already installed chassis in a customer location.

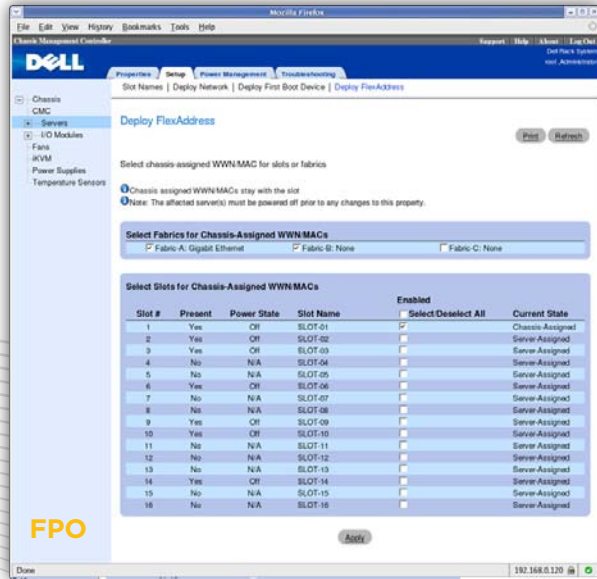
(Note: To enable FlexAddress on an existing chassis, blade BIOS, iDRAC firmware, HBA and Ethernet controller firmware, and CMC firmware must be updated to the latest versions.)



SD Slot on bottom of CMC

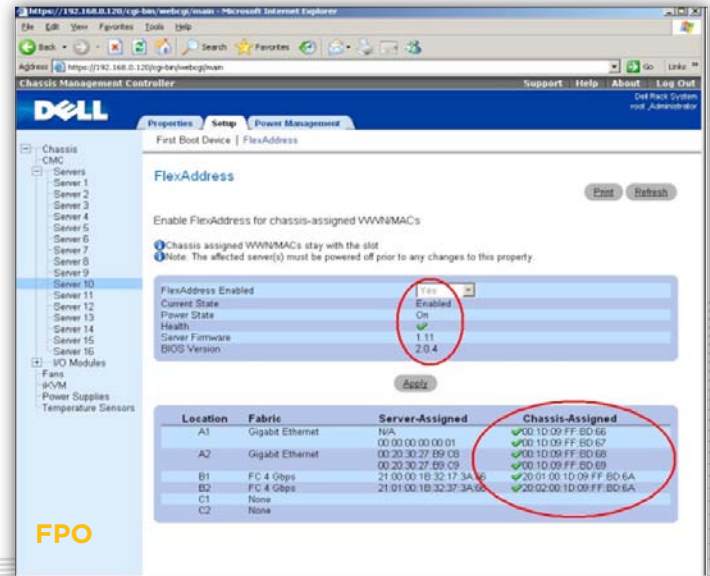
## STEP 3

Select the slots and fabrics you want FlexAddress enabled on.  
 Note: Blades must be powered off and have the latest firmware in order for FlexAddress MAC/WWNs to be deployed to them.



## STEP 4

FlexAddress MAC/WWNs are now deployed. CMC GUI shows users a summary of Server Assigned (hardware-based) and chassis-assigned (FlexAddress) MAC/WWNs for the entire chassis or per slot. Green checkmarks denote which identifier is currently being used.



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