

# IBM® LinuxONE Emperor 4

| IBM LinuxONE Emperor 4 at a glance                              |             |     |      |         |   |         |     |                       |     |        |
|---|-------------|-----|------|---------|---|---------|-----|-----------------------|-----|--------|
| Processor Core Types:   |             |     |      |         |   |         |     |                       |     |        |
| Feature   | Minimum     |     |      |         |   | Maximum |     |                       |     |        |
| Type  | CP          | IFL | IFPs | SAP     | Spares  | CP      | IFL | IFPs                  | SAP | Spares |
| Max39   | 0           | 1†  | 2    | 5       | 0   | 1       | 39  | 2                     | 5   | 2      |
| Max82   | 0           | 1†  | 2    | 10      | 0   | 1       | 82  | 2                     | 10  | 2      |
| Max125  | 0           | 1†  | 2    | 15      | 0   | 1       | 125 | 2                     | 15  | 2      |
| Max168  | 0           | 1†  | 2    | 20      | 0   | 1       | 168 | 2                     | 20  | 2      |
| Max200  | 0           | 1†  | 2    | 24      | 0   | 1       | 200 | 2                     | 24  | 2      |
| Channels – Maximum Adapters                                     |             |     |      |         |   |         |     |                       |     |        |
|   | Adapters    |     |      |         | Ports   |         |     |                       |     |        |
| FICON Express 32S SX/LX   | 1<br>9<br>2 |     |      |         | 384 Ports   |         |     |                       |     |        |
| OSA Express 7S 1.2 (1000BT/1G)                                  | 4<br>8      |     |      |         | 96 Ports  |         |     |                       |     |        |
| OSA Express 7S 1.2 (10G/25G)                                    | 4<br>8      |     |      |         | 48 Ports  |         |     |                       |     |        |
| IBM® Adapter for NVMe 1.1 SSB                                   | 1<br>6      |     |      |         | 1 Slot  |         |     |                       |     |        |
| Inter-LPAR Communications                                       |             |     |      |         |   |         |     |                       |     |        |
| HiperSockets™   |             |     |      |         | Up to 32 high-speed ‘virtual’ Local Area Networks       |         |     |                       |     |        |
| SMC-D   |             |     |      |         | Up to 32 ISM virtual CHPIDs                             |         |     |                       |     |        |
| IBM® zHyperLink™  |             |     |      |         |   |         |     |                       |     |        |
| IBM® zHyperLink Express1.1                                      |             |     |      |         | 16 adapters (32 Ports)- can be shared by multiple LPARs |         |     |                       |     |        |
| Coupling Links  |             |     |      |         |   |         |     |                       |     |        |
| Coupling Express2 LR maximum                                    |             |     |      |         | 32 adapters, 64 Ports                                   |         |     |                       |     |        |
| ICA SR1.1 maximum   |             |     |      |         | 48 adapters, 96 Ports                                   |         |     |                       |     |        |
| Cryptography (60 AP Max)  |             |     |      |         |   |         |     |                       |     |        |
| Crypto Express8S (2-port adapters)                              | 30 adapters |     |      | 60 HSMS |   |         |     |                       |     |        |
| Crypto Express8S (1-port adapter)                               | 16 adapters |     |      | 16 HSMS |   |         |     |                       |     |        |
| Compression Acceleration  |             |     |      |         |   |         |     |                       |     |        |
| Compression capability now on LinuxONE Emperor 4 processor chip |             |     |      |         |   |         |     |                       |     |        |
| RDMA over Converged Ethernet (RoCE) – SMC-R                     |             |     |      |         |   |         |     |                       |     |        |
| 25 GbE RoCE Express3.0, 10 GbE RoCE Express3.0                  |             |     |      |         |   |         |     | 16 adapters, 32 ports |     |        |

| Processor Memory |         |         |
|------------------|---------|---------|
| Feature          | Minimum | Maximum |
| Max39            | 512GB   | 10TB    |
| Max82            | 512GB   | 20TB    |
| Max125           | 512GB   | 30TB    |
| Max168           | 512GB   | 48TB    |
| Max200           | 512GB   | 48TB    |

| IBM® Virtual Flash Memory |  |
|---------------------------|--|
| Min:                      | 0  |
| Max                       | 6TB (ordered 0-12, in increments of 512GB) |
|                           |  |

| Upgradability   |  |
|---|--|
| Upgradeable within the IBM® LinuxONE Emperor 4 family * |  |
| No upgrade into features Max168 or Max200               |  |

| Operating Systems     |   |
|-----------------------|---|
| Linux®                | Canonical, Red Hat® and SUSE with their latest supported releases and versions; for the certified levels please see IBM® tested platforms page: <a href="https://ibm.com/it-infrastructure/z/os/linux-tested-platforms">ibm.com/it-infrastructure/z/os/linux-tested-platforms</a> |
| Supported Hypervisors |   |
| z/VM®                 | z/VM 7.3<br>z/VM 7.2  |
| KVM                   | KVM hypervisor which is offered with the following Linux distributions from Canonical, Red Hat and SUSE, contact your Linux distributor for more information.   |

† There must be at least one IFL ordered on the server.

\* Some restrictions may apply on upgradeability between adapters. No upgrade into the IBM® LinuxONE Emperor 4 from previous generations.

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