In the Future, adding Compute Express Link CXL 3.0 based on PCIe 6 or CXL 4.0 based on PCIe 7 to the Spectrum Scale to integrate it with Nvidia DGX (when it enabled the CXL 3.0 or CXL 4.0 [GPFS-I-936]

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

Idea forStorage Scale (formerly known as GPFS)

This is a necessary idea to develop a new version of Basic POD or SuperPOD which can use Nvidia DGX, Nvidia DPUs, Intel IPU, Intel FPGA, Xilinx FPGA and other CXL enabled Accelerators.

We can use this super POD for advanced Cyber security solutions based on IBM and Nvidia Solution.

CXL3 or CXL 4 already will work better than than the Nvidia Melanox Infiniband RDMA.

Created on 25 Feb 2023

Adding application Management Functionalities to the Edge Application Manager to manage the resources and applications in the Intel IPU and Nvidia DPU [EDGEAMIP-I-20]

Planned for future release This idea is a candidate for inclusion in a future release of the product. Intel IPU and Nvidia DPU will be wide used in the future to push the processing from the cloud computing to the edge computing, our idea is to satisfy the needs of the Edge Data Fabric.

Idea for Edge Application Manager

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Created on 23 Feb 2023

<u>Compute Express Link CXL 3.0 or CXL 4.0 Virtual Hierarchical</u> <u>Switching Fabric [IBMI-I-3551]</u>

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

CXL 3.0 is built upon the IBM OpenCAPI, but CXL3 and CXL 4 have more speeds and will achieve the following: 1- Enabling the Interconnection between the next version Power System (may be IBM Power 11 or Later) and Exa scale AI Data Centers based on N Idea for Power Systems Design

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Created on 23 Feb 2023

Adding Compute Express Link CXL Interconnection, CXL 3.0 based on PCIe6 and CXL 4.0 based on PCIe7 [IBMI-I-3536]

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

CXL 3.0 is built upon the IBM OpenCAPI, but CXL3 and CXL 4 have more speeds and will achieve the following: 1- Enabling the Interconnection between IBM LinuxONE and Exa scale AI Data Centers based on Nvidia DGX H100 based on Nvidia H100 GPUs and Inte Idea forPower Systems Design

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Created on 4 Feb 2023

Adding QRadar Integration for the Compute Express Link Devices attached to the future IBM Systems. [QDSM-I-1876]

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

In the near future we will see Compute Express Link for AI Data Centers, which will include the CXL Switches and CXL Devices (FPGA Devices, Memory Devices, Cache Coherency and Storage Devices), Definitely will need to expand the QRadar functionalities Idea for QRadar Integration (DSM, Scanners, Rules, Reports)

Created on 4 Feb 2023

This idea is visible only to you and IBMIBM Watson driven Rational for

Traditional and Customized Firmware Development. [RADC-I-539]

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

- 1- Enabling the Artificial Intelligence Driven Firmware Orchestration, Debugging and Testing
- . 2- Achieving advanced level of Firmware Back doors Threats Detection and taking the right decision
- . 3- Unification of the SIEM, SOAR and XDR events for all devices inside the enterprise.
- 4- Analyzing the Firmware code (BIOS, Open Firmware, UEFI, Coreboot, U-Boot and other firmware and Boot Loaders).
- 5- Extending the Firmware functions including the User Defined Functions for Customized Firmware Debugging and Firmware Data Analytics 6- Achieving the distributed Real Time

IBM z SDN and SD-WAN with 5G Networking and Slicing traffic [ZL1S-I-403]

Future consideration This idea has been reviewed by IBM and is a possible candidate for a future release of the product, though implementation cannot be committed to at this time.

1- Adding SD-WAN to IBM Z Networking 2- Adding 5G Networking with Slicing Traffic 3- Adding NVMe over TCP/IP connectivity 4- Adding AI in Edge Computing based on Intel IPU (Infrastructure Processing Unit) and Nvidia DPU (Data Processing Unit) 5- Upgrading the PCle3 to PCle5 to satisfy the needs of 5G Enterprise Application

Idea for IBM Z and Linux ONE Systems Hardware

(Category: <u>I/O and Networking</u>)
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Created on 22 Jul 2022

Enabling Watson Orchestrate to analyse, optimizing the decision making, and perform the the optimized Parallel Processing [LSABER-I-35]

Under review This idea is being reviewed by IBM and should be completed within 90 days from submission. Further information for this idea may be requested.

Enabling Watson Orchestrate to analyse, optimizing the decision making, and perform the optimized parallel processing, Let us call it "Watson Orchestrate for Parallel Processing " or " Watson Orchestrate Symphony" for Heterogeneous Computing by using Int Idea for Watson Orchestrate

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Created on 28 Feb 2023

Enabling Watson Orchestrate to analyse, optimizing the decision making, and perform the optimized parallel processing, Let us call it "Watson Orchestrate for Parallel Processing " or " Watson Orchestrate Symphony" for Heterogeneous Computing by using Intel oneAPI for programming single

code C/C++ file which include the DPC++ for programming the CPUs, GPUs and FPGAs, which will be the Evolution of the Spectrum Symphony, Sooner or later, Cognitive computing will optimize the operations and resource management of the Parallel processing resources and MPI, Watson Orchestrate Symphony will analyse the transferred data, understand the meaning and take the right decision to allocate the resources depending on the importance of the Tasks or Transactions,

Watson Orchestrate Symphony will analyze the following data:



9- Debugging the Heterogeneous computing of CPUs, GPUs and FPGAs