Solution Reference Architecture Program

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Storage Group

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Solutions Focus

• Data growth is exploding – so are storage needs

• A solutions approach can help you to address the challenges and issues of this transformation and even capitalize on it
  - Look to emerging technologies like flash, scale-out architectures, object storage, and innovative SW from ISVs
  - Deploy the building blocks of software-defined storage today (scale-out using standard servers) to pave the way for the full SDS vision tomorrow

• Intel delivers the ingredients for innovative storage solutions
  - Processors, chipsets, SSDs, networking, software, white box servers
  - Solutions Reference Architectures (SRAs) with partners to address specific storage workloads and challenges
Solution Reference Architecture Program

WHAT?
• Intel SRA is a 10-15 page written reference architecture document
• Addresses a specific storage use case or challenge in the data center
  • Includes HW/SW BOM and test results

HOW?
• Review the list of storage use cases and challenges addressed, and identify issues facing your data center
• Evaluate the SRA solution and your use case
• Intel can matchmake with solution providers and integration services

WHY SHOULD AN IT PERSON CARE?
• Showcases solutions optimized with Intel technologies - available TODAY
• Reduces time and investment to evaluate and implement a solution or POC
Intel-Cloudian Solution Reference Architecture

Hadoop Big Data Analytics

• Target audience: Large to Mid-market enterprise
• Showcases an efficient and elastic infrastructure for running Big Data analytics on data in place at petabyte scale
  • Uses Cloudian HyperStore object store – available as SW or a turnkey appliance
  • Shows that performing end-to-end analytics on a data set using Hadoop on Cloudian HyperStore reduces the execution time up to 25% vs. just Hadoop
  • Tested config also applicable to file sync-n-share, backup and archive, secondary storage for Citrix* CloudPlatform or OpenStack*
• GTM path: SW or appliance thru Synnex, Colfax (US), NAS UK, Rausch (EMEA), NTTsoft, Hitachi (Japan)
• SRA: posting in process! Watch for it at www.intel.com/storage

* Other names and brands may be claimed as the property of others

Testing data is provided by the software provider and is not verified by Intel, nor does Intel guarantee that the information is error-free. All information is provided for informational purposes only. For more info, see www.cloudian.com and/or contact the software provider for details.
Intel-Fujitsu Solution Reference Architecture
VM Image Hosting using Ceph

- Target audience: Large enterprise and Cloud service providers
- Showcases a highly scalable, unified block and object store
  - Offers Ceph storage as a turnkey appliance in the Fujitsu Eternus CD10000
  - Shows that Ceph can offer highly scalable I/O in a pay-as-you-grow infrastructure
  - Tested config also applicable to cloud storage, block storage within IaaS, archival or cold storage
- GTM path: available through Fujitsu and Red Hat partners worldwide

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<th>Applications</th>
<th>OpenStack Cinder*</th>
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<td><strong>Open source Ceph</strong></td>
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Xeon E5-2640 v2  Intel P3700 SSD  Intel 1Gb & 10GbE

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Intel-Maxta Solution Reference Architecture

Simplified Microsoft Exchange Deployments

• Target audience: Mid-market enterprise
• Showcases a simplified and cost-effective Microsoft Exchange* deployment
  • Utilizes a hyper-converged solution – Maxta Storage Platform
  • Demonstrated 3,642 Exchange I/O transactions per second
  • Tested config also applicable to databases workload
• GTM path: available through solution providers Thinkmate* and Pogo Linux* (US), Core Microsystems (Japan), InfoMacro (Macao), Shenzhen Irigud Technology
• SRA: https://www-ssl.intel.com/content/www/us/en/storage/maxta-storage-white-paper.html

Microsoft Exchange
VMware ESXi
Maxta Storage Platform
Intel S2600WT server board
Xeon E5-2697 v3 Intel P3700 SSD Intel X540 10GbE

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Intel-Maxta Solution Reference Architecture

Virtual Desktop Infrastructure (VDI)

• **Target audience:** Mid-market enterprise
• **Showcases a simplified and cost-effective VDI deployment**
  • Utilizes a hyper-converged solution – Maxta Storage Platform, running on VMware Horizon 6* with View*
  • Demonstrated faster application response times than industry average at 995ms on 456 user sessions
• **GTM path:** available through solution providers Thinkmate* and Pogo Linux* (US), Core Microsystems (Japan), InfoMacro (Macao), Shenzhen Irigud Technology

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Intel-VMware Solution Reference Architecture

Cost-Effective, Scalable Storage for Tier 2 Workloads

• Target audience: Mid-market enterprise

• Showcases a cost-effective and scalable solution for Tier 2 workloads and test/development environments
  • Utilizes a hyper-converged solution – VMware Virtual SAN
  • Maintains linear performance gains, and peaks at over 17,000 IOPS with 64 concurrent VMs
  • Tested config also applicable to VDI
  • GTM path: available through broad set of VMware channel partners or EVO:RAIL appliances
  • SRA: https://www-ssl.intel.com/content/www/us/en/storage/vmware-storage-white-paper.html

Applications
VMware vSphere
VMware Virtual SAN
Intel S2600WT server board
Xeon E5-2699 v3
Intel S3700 SSD
Intel X520 10GbE

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Intel can put you on the path to SDS
Intel’s Storage Assets

Intel® QuickAssist Technology

Intel® Storage Acceleration Library (ISA-L) & Storage DPDK

NETWORKING AND FABRIC

PROCESSOR PLATFORMS

SSDs & NVM

SERVER BOARDS & SYSTEMS

SOFTWARE ECOSYSTEM + SOLUTION REFERENCE ARCHITECTURES