Corrigendum

Dated 19/12/2025

(Tender No: GEM/2025/B/6910344 & CDACP/NSM-RACKING-VI/25-26/450 Dated. November 20th, 2025)

Sr No.	Ref. In tender	Clause in Tender	Corrigendum
1.	Bid End Date/Time	**20-12-2025 14:00:00**	**26-12-2025 14:00:00**
2.	Bid Opening Date/Time	**20-12-2025 14:30:00**	**26-12-2025 14:30:00**
3.	2 Section – Eligibility Criteria: 2.3	The bidder must have completed the Racking, Stacking of the Servers (Minimum 100 Servers), and structured cabling for Datacentre anywhere in India, with at least four Racks of HPC Cluster. The documentary evidence such as photographs with structured cabling for the same must be submitted.	a) The bidder must have completed the Racking, Stacking of the Servers (Minimum 100 Servers), and structured cabling for Datacentre anywhere in India, with at least four Racks of HPC Cluster. The documentary evidence such as photographs with structured cabling for the same must be submitted. b) The bidder must have experience of HPC administration and maintenance of minimum 03 nos. of independent HPC Clusters each of minimum 100TFs or at least 75 Nodes (CPU + GPU). Kindly provide Purchase order / Installation Report for supply and maintenance and / or AMC contracts from end user.

Annexure A :Responses to pre bid queries for GeM tender No: GEM/2025/B/6910344 dtd 20 Nov 2025

Name of the bidder		CONCEPT INFOFMATION TECHNOLOGIES (I) Pvt Ltd		
Sl. No.	**Section / Page No.**	**Clause Reference**	**Query / Amendment requested**	**C-DAC Response**
1	ATC page 8, sr 3.6	Connectivity details at (pdf attached separately)	Site related PDFs are not available for download and read	MMG will share all annexures (network diagrams) with you.
2	ATC page 8, sr 3.6	Connectivity details at (pdf attached separately)	Make and model of all the componenets other than servers like switches etc are not available	Infiniband: NVIDIA Ethernet: Edge core
3	ATC page 4, sr 3.1 e	Placement of servers/networks to the data centre (Movement of complete material (Rudra Servers, Switches, and cables) from storeroom to staging area to datacentre).	Pls clarify that material movement scope is within same building or from outside and if CDAC will provide any tools, trolley etc for safe movement of material	Material movement will be within the same building. C-DAC will not provide any tools or trolleys for material movement.
4	ATC page 7, sr 3.4 Sr q . v	Regular Monitoring of system performance	Pls clarify , if CDAC will be providing any H/w & S/w tools, Laotops, desktops, tool kits etc for Installation, monitoring and maintaining the performance on each site.	C-DAC will provide tools for monitoring system performance. Bidder has to provide laptops/desktops to the system administrators.
5	ATC page 4, Sr 3.2	Power-On-Self-Test (POST) of all the commissioned components.	Pls clarify, 1. if the SOW includes racking, stacking, cabling & labeling for Servers, IB as well as Ethernet Switches, Storage etc. 2. if the SOW includes Configuration, Integration & commisioning of Servers, IB as well as Ethernet Switches, Storage etc. pls share the detail scope	Yes, it includes racking, stacking, cabling and labeling, configuration, integration, and commissioning of servers, as well as InfiniBand and Ethernet switches. Storage installation and commissioning will be carried out by the storage vendor. However, all networking activities (cabling, routing, dressing, labeling, etc.) must be done by the bidder.
6	ATC page 4, Sr 3.2 a	a. Installation of C-DAC's HPC software stack	Pls clarify, 1. If the SOW inlcudes installation and confign of clusters etc. 2. if CDAC will be providing training to Bidder for Installation of C-DAC's HPC software stack and also provide support later	Yes, it includes the installation and configuration of clusters. C-DAC will provide training to the bidder for installing C-DAC's HPC software stack and will also provide support later, if required.
7	ATC page 11, Sr 3.8	Project Timeline	Pls share the more details about Project timeline like, 1. Site readiness timelines for each site 2. Space, Power , cooling etc readiness at each site 3. Availability of complete H/w and S/w on each site 3. Installation Schedule for each site	C-DAC will inform the bidder in due course.
7	ATC page 5, Sr 3.3	Networking	Pls clarify, 1. if the SOW includes racking, stacking, cabling & labeling for IB as well as Ethernet Switches, Storage etc. 2. if the SOW includes Configuration, Integration & commisioning of IB as well as Ethernet Switches, Storage etc. pls share the detail scope	Yes, it includes racking, stacking, cabling and labeling, configuration, integration, and commissioning of both InfiniBand and Ethernet switches. Storage installation and commissioning will be carried out by the storage vendor. However, IB networking will be the responsibility of the bidder.
Name of the bidder:		**Meganet Technologies Global Limited**		
Sl. No.	**Section / Page**	**Clause Reference**	**Query from bidder**	**C-DAC Response**
1	Page no 1	Integration & Racking, Stacking of Servers	Will CDAC provide the trolley required for moving the systems?	No.

2	Page no 1	Integration & Racking, Stacking of Servers	Will CDAC provide the necessary HPC cluster-related applications, source codes, and licenses to the bidder during the implementation phase?	Yes.
3	Page No 3	Manpower Services/supply	For monitoring purposes, will CDAC provide a separate system/laptop, or is the bidder required to arrange the same?	C-DAC will provide tools for monitoring system performance. Bidder has to provide laptops/desktops to the system administrators.
4	Page No 3	Manpower Services/supply	What will be the duty hours and working days for the appointed System Administrator?	As defined by host institutions.
6	Page no 5 - page no 7	Connectivity details at (pdf attached separately)	Kindly share Connectivity details at (pdf attached separately)	MMG will share all annexures (network diagrams) with you.
6	Page No 8	Project Timeline	We request that the installation and commissioning timeline be increased from the existing 28 days to at least 2 months.	No change

NATIONAL SUPERCOMPUTING MISSION

INFRASTRUCTURE | APPLICATIONS | R&D | HRD

Centre for Development of Advanced Computing

A Scientific Society of Ministry of Electronics & Information Technology,

Government of India

Innovation Park, Panchavati, Pashan Road, Pune - 411008

Tel: +91-20-25868086 / 25503671-676.

www.cdac.in / mmg@cdac.in

Additional Terms and Conditions & detailed scope etc. to be read with the GeM Bidding Document & will be binding on the prospective bidders.

GeM Bid No & CDACP/NSM-RACKING-VI/25-26/450

CDAC, Pune invites `ONLINE' bids for carrying out the services/job of `Racking, Stacking, and Structured Cabling/Harnessing, etc. for a High-Performance Computing (HPC) Cluster based on `Rudra Servers' and On-site Manpower services/supply for two years' at IISc Bangalore, IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad, IUCAA Pune, IIT Jammu under NSM.

Name of the Institute:	Centre for Development of Advanced Computing, Pune 411008
Pre-Bid Meeting Date / Time (Online)	27 November, 2025,1130 hrs. through link: https://hpct.webex.com/hpct/j.php?MTID=m9adecf7579829d437142b00d4c3a6488
Place of Racking, Stacking, and Cabling, etc. for HPC Cluster and Manpower services at:	1. Indian Institute of Science Bengaluru, Karnataka, India, Pin Code: 560012 2. Indian Institute of Technology Kanpur Kalyanpur, Kanpur Nagar Uttar Pradesh, India Pin Code: 208016 3. Indian Institute of Technology Kharagpur Kharagpur, West Bengal, India, Pin Code: 721302 4. CSIR Fourth Paradigm Institute NAL Belur Campus, Wind Tunnel Road Bengaluru, Karnataka, India, Pin Code: 560037 5. C.R. Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS) University of Hyderabad Campus Prof. C.R. Rao Road, Gachibowli Hyderabad, Telangana, India, Pin Code: 500046 6. Inter-University Centre for Astronomy and Astrophysics (IUCAA) Post Bag 4, Ganeshkhind Pune, Maharashtra, India Pin Code: 411007 7. Indian Institute of Technology Jammu, NH-44, PO Nagrota, Jagti, Jammu and Kashmir 181221

Instruction for Online Bid Submission:

- *The bidders are required to submit soft copies of their bids electronically on the GeM Portal. More information useful for submitting online bids on the GeM Portal may be obtained at: https:// (gem.gov.in). For any queries at: helpdesk-gem[at]gov[dot]in*
  Toll Free Numbers (Inbound): Call 1800-419-3436 / 1800-102-3436(9:00 am - 10:00 pm Mon to Sat) Helpdesk Outbound No's:0755-6681401, 0755-6685120, 011-69095625, 011-69095640 Railway Helpline: 011-44022666 Defense Helpline: 0755-6681450 Helpdesk Walk-In Address: 2nd Floor, Jeevan Tara Building, 5-Sansad Marg, Near Patel Chowk, New Delhi-110001. (9:00 am-06:00 pm Mon to Fri) For Seller related tutorials visit https://gem.gov.in/training/videos/sellers.

- *In case of any doubts and/ or queries about technical solutions, specifications terms, and conditions of the bid document, prospective bidder may send their queries in writing through e-mail (mmg@cdac.in). The queries, requests for clarifications, etc. must be sent a **minimum of one day before the pre-bid meeting date/time**, positively. The bidders are requested to go through the entire document thoroughly, before raising any query. C-DAC, Pune shall address the queries raised by the bidders. The replies to queries will be made available on C-DAC's website in due course of time. All the queries, doubts, clarifications, etc. must be submitted in word format only.*

Name of the bidder:				
Sl. No.	Section / Page No	Clause Reference	Query from bidder	C-DAC Response

1 Section - Invitation of Bids

1.1 Background

Under National Supercomputing Mission (NSM), C-DAC Pune is going to build an HPC facility at IISC Bangalore, IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad IUCAA Pune and IIT Jammu. The HPC facility will be based on Rudra servers with three onsite System administrators at IISC Bangalore and two onsite system administrators at IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad, IUCAA Pune and IIT Jammu, to build the High-Performance Computing (HPC) Cluster, there will be racking, and stacking of these servers including cabling with interconnect networks.

1.2 Introduction

This RFP is being floated to select the most appropriate vendor to do the service such as Racking, Stacking of the Rudra servers, and required cabling with the interconnect networks. The Racking, Stacking, and Cabling/Harnessing for High Performance Computing Cluster based on Rudra Servers and On-site Manpower services/supply for two years. As a part of this project, C-DAC invites online bids from eligible bidders to carry out the services/job of the Racking, Stacking, and Cabling/Harnessing of a High-Performance Computing (HPC) Cluster components and Manpower Services/supply for two years, as per the requirements stipulated in the catalogue/document, at IISC Bangalore, IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad, IUCAA Pune and IIT Jammu.

1.3 Contact information

Materials Management Group (MMG)
Centre for Development of Advanced Computing (C-DAC)
Innovation Park, Panchavati, Pashan Road,
Pune - 411008, Maharashtra India
E-mail: mmg@cdac.in

2 Section – Eligibility Criteria

The bidder must comply with the minimum eligibility criteria stipulated below.

Only the bidders complying with the following eligibility criteria will qualify for the opening of technical/commercial bids and further processing.

The bidder must submit all the documents listed in para below, along with the technical bid.

2.1 The bidder should be an entity registered in India under appropriate Indian Laws. A certificate for the same need is to be submitted along with the bid.

2.2 Bidder should have a minimum average yearly turnover of Rs. 4 crores for the last three financial years.

2.3 The bidder must have completed the Racking, Stacking of the Servers (Minimum 100 Servers), and structured cabling for Datacentre anywhere in India, with at least four Racks of HPC Cluster. The documentary evidence such as photographs with structured cabling for the same must be submitted.

2.4 The bidder should provide the end user certificate (with customer contact number/email ID details) from the customer for the satisfactory racking, stacking of the servers, and cabling work within the servers via interconnect networks (switches).

2.5 The C-DAC officials may visit the site to verify the Racking, Stacking, and Cabling/Harnessing work as mentioned above. The bidder must arrange a visit to the specific site for the same if requested.

2.6 The bidder must not be blacklisted by any Govt. Organizations as on the date of submission of the bids. A certificate or undertaking to this effect must be submitted

2.7 The bidder must comply with the provisions of Office Memorandum: F/No/6/18/2019-PPD dated 23rd July 2020, issued by the Public Procurement Division, Department of Expenditure, Ministry of Finance, GoI or latest Notification

2.8 The solution offered must comply with the provisions of Order No P-45021/2/2017-PP (BE-II), dated 15.06.2017, and subsequent revisions dated 28.05.2018, 29.05.2019, 04.06.2020, and 16.09.2020, issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, GoI, read with order number W43/4/2019-IPHW- MeitY, dated 7th September 2020 issued by IPWH division of MeitY, GoI or latest Notification.

Note: The bidder should provide sufficient documentary evidence to support the eligibility criteria and exemptions mentioned. C-DAC reserves the right to reject any bid not fulfilling the eligibility criteria as well as technical details, especially efficiency.

3 Section - Schedule of requirements

This Section covers the general and technical requirements and scope of work of Racking, stacking, and Cabling/harnessing for High Performance Computing Cluster (physical integration and validation) with 398 numbers of Rudra servers at IISc Bangalore, 382 numbers of Rudra servers at IIT Kanpur,308 numbers of Rudra servers at IIT Kharagpur, 32 numbers of Rudra servers at , CSIR 4PI Bangalore, 98 numbers of Rudra servers CR Rao AIMSCS at Hyderabad, 98 numbers of Rudra servers IUCAA at Pune, 180 numbers of Rudra servers at IIT Jammu including Manpower services/supply for two years at all places.

3.1 Unpacking the material (Rudra Servers, InfiniBand, Ethernet/Management switches, etc.)

a. Keeping the proper inventory records w.r.t. hardware components (Server/nodes/switches etc.) received, in detail.
b. Know the brand of the hardware and the brand of the rack beforehand.
c. Rack and data centre layout design will be provided by C-DAC.
d. Rudra servers, switches, and cables quantity mentioned in table-1.
e. Placement of servers/networks to the data centre (Movement of complete material (Rudra Servers, Switches, and cables) from storeroom to staging area to datacentre).

3.2 Integration & Racking, Stacking of Servers

a. Installation of C-DAC's HPC software stack

b. Understand the Data Centre layout (as per attached fig-1).
c. Contact C-DAC a few days in advance for the on-site visit.
d. The Racks will be provided by C-DAC. These are ORV3compatible racks. The Rudra Servers are also OCP-compliant.
e. The Rudra Servers are connected through a common busbar (no power cables in the Rudra Servers).
f. Understand PDU/bus bar outlets within the Rack.
g. InfiniBand Switches and Ethernet switches are based on normal power (non-OCP) and are connected to a PDU of IEC-13 type socket. The ports of InfiniBand Switches are on the front side of the Racks. The ports of the Ethernet Switches are on the front side of the Racks.
h. InfiniBand and other fibre cables need to be handled with care.
i. Racking and stacking of the Servers (Rudra) and interconnect networks (Switches) as per Annexure-I
j. Integration of Rail kits in Racks for switches
k. Server handling requirement: Mounting of the equipment in the rack should be such that a hazardous condition is not created due to uneven mechanical loading.
l. Power-On-Self-Test (POST) of all the commissioned components.

3.3 Networking

a. To provide the best practice of structured cabling for HPC infrastructure which will make it easy to identify and rectify physical connectivity issues.
b. There will be three types of interconnects per Rudra Server such as InfiniBand, Management (1GigE), and IPMI (1GigE) networks.
c. Network (Ethernet/IPMI and InfiniBand) cables need to be properly connected, and the cables should be cleanly routed (structured, colour-coded, labelled, uniformity, aesthetics).
d. CDAC will provide the Ethernet (CAT cables)/InfiniBand (NDR) cables, length & type of cables, and planning of routing of cables in racks accordingly.
e. Interconnect Networks (switches) Power cables need to be properly connected.
f. Neatly dressing and labelling of cables in such a way that will make the HPC data centre look attractive.
g. Use different colours of cables to distinguish the roles and functions of respective cables.
h. Velcro or plastic cable ties shall be provided by the bidder and will be used to manage and tie off cable in bundles per function. However, velcro is preferable with its unbound and rebound options as and when required; this gives extra leverage to make adjustments without unbinding the whole cable structure, in contrast to plastic cable ties that need to be cut for any modifications.
i. Periodic updates of the work progress till final acceptance.
j. Networking of InfiniBand Cables from the Switch side to the Server side in the same or different racks depending on the architecture (100% Non-Blocking Fat-Tree topology) of the InfiniBand network as per the attached Annexure-II (IB to servers & IB L1 to IB L2)
k. Routing of InfiniBand/Ethernet cables using overhead cable tray depending on the same or different racks.
l. Tie InfiniBand cables in the bunch as per the sequence numbers of servers.
m. Installation of CAT Cables (IPMI and Management networks) from the Switch side to the Server side in the same or different racks based on Annexure-III & Annexure-IV (IPMI/Management to servers). All Ethernet Switches will be connected to the Compute

Rudra servers based on Annexure-III & Annexure-IV. Uplink connectivity from 10G Ethernet to IPMI/Management switches (One port of each 1G Ethernet will be connected to a 10G Ethernet Switch).

n. Tie CAT cables in the bunch as per the sequence numbers of servers.
o. Dressing and labelling on Server Rack, InfiniBand/CAT/other cables as per best practice and in consultation with the C-DAC team not limited to below:
    i. Server Rack label
    ii. Copper cable (IB/CAT) label at both ends
    iii. Fibre cable label at both ends, etc.
p. Testing of every cable along with CDAC/respective OEM team for all the servers, Switches, etc.
q. Rectifying issues in connectivity if any and resolving those issues to get better connectivity.
r. Documentation of the overall project consists of details of cable tracing, photos/diagrams of racking, and stacking of the complete HPC Cluster.
s. Copper cabling handling requirements (Some of the important parameters that need special attention during cable installation are):
    i. Cable installation should not significantly deform the cable jacket.
    ii. Cable ties should be applied loosely to cable bundles and allow sliding of the cable tie across the cable bundle. Tie wraps must not distort the cable jacket.
    iii. When used, cable ties should be hand-tightened to be snug but loose enough to be moved along the cable by hand. Then the excess length of the tie should be cut off to prevent future tightening.
    iv. It is preferred to use Velcro for Network Cable Management, using Velcro cable ties, cables can be properly labelled and arranged.
    v. Avoid excess slack loops. Where slack looping is unavoidable, ensure that the cable is not twisted while creating loops.
    vi. Maintain bend radius and avoid kinks. The minimum bend radius is as per the specification of CAT6 & InfiniBand Copper cables.
    vii. Avoid untwisting and separation of cable pairs. Maintain twists to the point of termination and avoid pair wrapping.
t. Fibre cabling handling requirements (Some of the important parameters that need special attention during cable installation are):
    i. All optical fibre cables are sensitive to damage during internal movement, handling, and installation.
    ii. The cable should never be bent below its minimum bending radius. Doing so can result in bending losses and/or breaks in the cable's fibres.
    iii. Always check the cable specifications for fibre cables before installation or consult C-DAC.
    iv. Fibre optic cables, like all communications cables, are sensitive to compressive or crushing loads. Cable ties used with many cables, especially when tightened with an installation tool, are harmful to fibre optic cables, causing attenuation and potential fibre breakage.

3.4 Manpower Services/supply

a. Three High-Performance Computing (HPC) Onsite System Administrators for two years at IISC Bangalore
b. Two High-Performance Computing (HPC) Onsite System Administrators for two years at IIT Kanpur
c. Two High-Performance Computing (HPC) Onsite System Administrators for two years at IIT Kharagpur
d. Two High-Performance Computing (HPC) Onsite System Administrators for two years at CSIR 4PI Bangalore
e. Two High-Performance Computing (HPC) Onsite System Administrators for two years at CR Rao AIMSCS Hyderabad
f. Two High-Performance Computing (HPC) Onsite System Administrators for two years at IUCAA Pune
g. Two High-Performance Computing (HPC) Onsite System Administrators for two years at IIT Jammu.
h. The onsite engineer should be deputed from day one of installation/unpacking of the material.
i. The onsite engineer deployment is considered from the day of unpacking of the material.
j. The candidate qualification should be a B.E/B. Tech/MCA/M.Sc. in Computer Science/Electrical/Electronics/IT/Electrical & Electronics or equivalent with Linux system administration experience of a minimum of two years.
k. Deployment of HPC engineers at IISC Bangalore, IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad, IUCAA Pune and IIT Jammu.
l. The candidate should know about computer hardware.
m. Onsite System Engineer should provide end-to-end technical support and resolve any software and hardware problems related to servers and storage.
n. Submission of reports of facility management to CDAC on a daily/weekly/monthly basis.
o. The bidder should provide three onsite system administrators at IISc Bangalore and two onsite system administrators for operational support for two years at the remaining 6 sites. The engineer should have experience in Linux/RedHat and technologies such as HPC Interconnect, Scheduler, cluster, and Parallel file system). Submission of certificates will be an added advantage. Details of the proposed manpower are to be submitted in the technical bid. C-DAC reserves the right to review the candidates, if necessary.
p. In case of absence/leave of the regular onsite engineer, a replacement engineer shall be provisioned by the bidder. In case of absenteeism and non-availability of the replacement, C-DAC reserves the right to levy penalty on a pro-rata basis.
q. The primary duties and responsibilities of a System Administrator include and are not limited to:
    i. User administration (setup and maintaining account)
    ii. Maintaining the system and Regular verification of whether the system peripherals are working properly or not
    iii. In case of Hardware/any component failure: Quickly arrange for the repair/replacement of hardware on the occasion of hardware failure (should know the end-to-end process)
    iv. Power-on self-test and BIOS configuration of Rudra Severs at the time of installation. Collection of MAC address of the Rudra servers.
    v. Regular Monitoring of system performance

vi. Create file systems
vii. Install the software using tools such as apt command/apt-get command, dnf command/yum command, zypper command, apk command, and others.
viii. Patching firmware and software
ix. Create a backup and recovery policy (disaster recovery [DR])
x. Monitor network communication
xi. Implement the policies for the use of the computer system and network
xii. Set up security policies for users. A system admin must have a strong grasp of computer security (e.g., firewalls and intrusion detection systems).
xiii. Documentation in the form of an internal wiki and must know how to read manual pages using the man command or help command.
xiv. Password and identity management
xv. Network and Database Administration
xvi. View and troubleshoot with Unix and Linux log files
xvii. Setting up cron jobs on your Unix and Linux system using the crontab command
xviii. Python/shell scripting for system administration/automation.
xix. Onsite engineer shall follow the duty working hours as defined by the institute.
xx. Ability to work flexible hours including on-call and after-hours work for scheduled and unscheduled maintenance.
xxi. Good communication and writing skills and an attitude to learning new concepts in HPC and parallel architecture are highly desirable.
xxii. Onsite engineer should follow the institute discipline and maintain decorum

3.5 Return Merchandise Authorization (RMA) Process/Responsibilities

a. Bidders need to ensure the faulty components of RUDRA Servers are replaced promptly by the server manufacturer.
b. C-DAC will provide some spares at the site and the remaining spares through the central warehouse.
c. For spare replacement from central, Technical Support issues an RMA number to identify and track the return/repair of the product.
d. Bidders need to propose a detailed plan of execution in this regard.

3.6 Connectivity details at (pdf attached separately)

IISC Bangalore

Annexure-I.pdf

Annexure-II.pdf

Annexure-III.pdf


Annexure-IV.pdf

IIT Kanpur


Annexure-I.pdf


Annexure-II.pdf


Annexure-III.pdf


Annexure-IV.pdf

IIT Kharagpur


Annexure-I.pdf


Annexure-II.pdf


Annexure-III.pdf


Annexure-IV.pdf

CISR 4PI Bangalore


Annexure-I.pdf

Annexure-II.pdf

Annexure-III.pdf

Annexure-IV.pdf

CR Rao AIMSCS Hyderabad

Annexure-I.pdf

Annexure-II.pdf

Annexure-III.pdf

Annexure-IV.pdf

IUCAA Pune

Annexure-I.pdf

Annexure-II.pdf

Annexure-III.pdf

Annexure-IV.pdf

IIT Jammu


Annexure-I.pdf


Annexure-II.pdf


Annexure-III.pdf


Annexure-IV.pdf

3.7 (C-DAC will provide the details quantities of Rudra Servers, network switches, and cables – as per attached Table-1)

3.8 Project Timeline

All the items covered in the Schedule of Requirements must be installed and commissioned within 28 days from the date of award of the Contract/placement of the order/commencement of actual work & Manpower services for two years – onsite at IISC Bangalore, IIT Kanpur, IIT Kharagpur, CSIR 4PI Bangalore, CR Rao AIMSCS Hyderabad, IUCAA Pune and IIT Jammu.

3.9 Security Deposit (SD)

The successful bidder will be required to furnish the Security Deposit in INR equivalent to 3% of the Contract/Order value (excluding taxes) within 15 days of the award of the Contract/receipt of Order(s). The Security Deposit should be submitted in the form of a Bank Guarantee in the name of C-DAC, Pune. The Bank Guarantee submitted towards the Security Deposit should be issued by a Scheduled Commercial Bank and must be valid for a period of a minimum of 6 months or till the execution of the order of racking/stacking/harnessing etc. The Security Deposit will be returned within 7-10 days upon completion of installation, and commissioning.

3.10 Payments (In INR only)

a. 90% amount will be released on the entire job of racking, stacking & harnessing etc. of the HPC Cluster with HPC Components at the site(s) against physical verification and acknowledgment by C-DAC and/ or end user – with a 30-day credit period.

b. 10% amount will be released on successful installation and testing of the solution. This portion of payment shall be subject to acceptance and submission of the report to C-DAC.

c. The payment towards the manpower services will be released on a `post quarterly' basis within 7-10 days from the date of invoice and acceptance by C-DAC/End-user after deduction of penalties; if any.

d. The applicable TDS will be deducted.

e. The payments shall be remitted through NEFT/RTGS only.

f. Successful bidder to upload the invoices according to the timelines/services as above, on the GEM portal/to HPC-Tech Group, C-DAC, Pune.

Note: All the payments are subject to submission of the valid and complete tax invoices.

4 Section VI- Unpriced/ Price Bid

Summary Format- Installation, Testing, Manpower Services etc.

Sr. No	Particulars	Unit	Qty	Price Rs.	Total Amount including Applicable GST Rs.
S-I	**Services/Job of integrating 398 Rudra Servers (in HPC Cluster) & Three Manpower services at IISc Bangalore**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing / dressing / wiring etc.	Job	1		
3	Manpower Services for first year (Three High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Three High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components / charges etc. required to complete the solutions at the site	lot	1		
S-II	**Services/Job of integrating 382 Rudra Servers (in HPC Cluster) & Two Manpower service at IIT Kanpur**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing/dressing/wiring etc.	Job	1		
3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components /charges etc. required to complete the solutions at the site	lot	1		

S-III	**Services/Job of integrating 308 Rudra Servers (in HPC Cluster) & Two Manpower service at IIT Kharagpur**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing / dressing / wiring etc.	Job	1		
3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components / charges etc. required to complete the solutions at the site	lot	1		
S-IV	**Services/Job of integrating 32 Rudra Servers (in HPC Cluster) & Two Manpower service at CSIR 4PI Bangalore**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing/dressing/wiring etc.	Job	1		
3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components /charges etc. required to complete the solutions at the site	lot	1		
S-V	**Services/Job of integrating 98 Rudra Servers (in HPC Cluster) & Two Manpower service at CR Rao AIMSCS, Hyderabad**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing/dressing/wiring etc.	Job	1		

3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components / charges etc. required to complete the solutions at the site	lot	1		
S-VI	**Services/Job of integrating 98 Rudra Servers (in HPC Cluster) & Two Manpower service at IUCAA Pune**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing/dressing/wiring etc.	Job	1		
3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
5	Any other items/components / charges etc. required to complete the solutions at the site	lot	1		
S-VII	**Services/Job of integrating 180 Rudra Servers (in HPC Cluster) & Two Manpower service at IIT Jammu**				
1	Racking/Stacking	Job	1		
2	Harnessing Cable routing/dressing/wiring etc.	Job	1		
3	Manpower Services for first year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		
4	Manpower Services for second year (Two High-Performance Computing (HPC) Onsite System Administrators)	Job	1		

5	Any other items/components / charges etc. required to complete the solutions at the site	lot	1		
	Grand Total Rs. (F.O.R. Sites, inclusive of Applicable GST)				

Note: Manpower (HPC System Admin) services may be extended for an additional three years by any or all host instituters, contingent upon requirements from the host institutes, after the initial two-year service period is completed. The bidder must submit **an undertaking** towards the prices for the three-year extension, ensuring the annual cost increase does not exceed 10% per year w.r.t. offered price for the second year to the respective sites. The separate work orders & respective payments may be released by these host institutes /C-DAC as per their internal approval processes.

Detailed Commercial Bid is to be submitted in the format as appearing on the GeM portal.

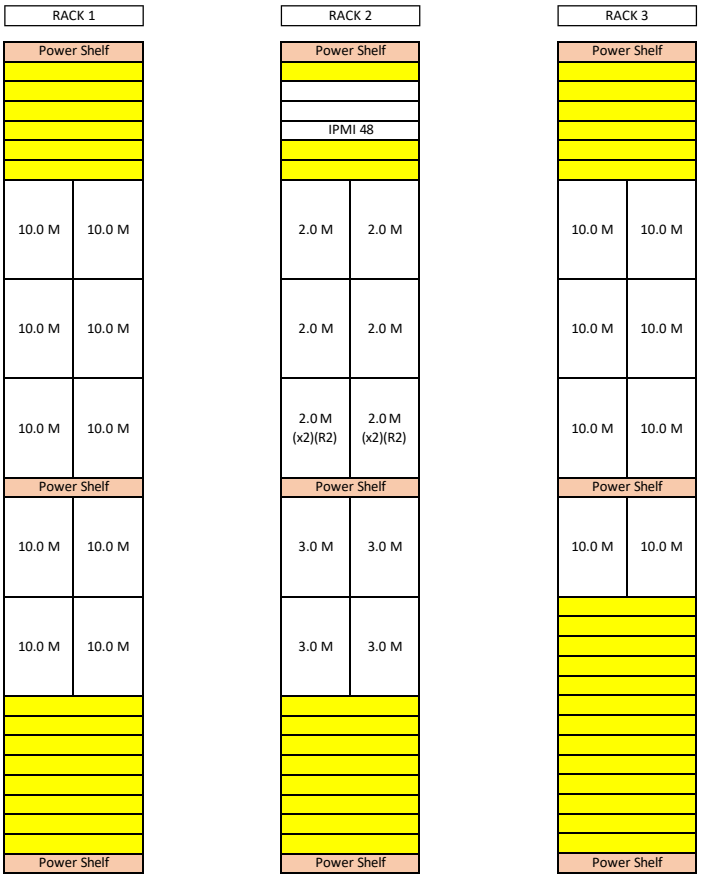
Notes:

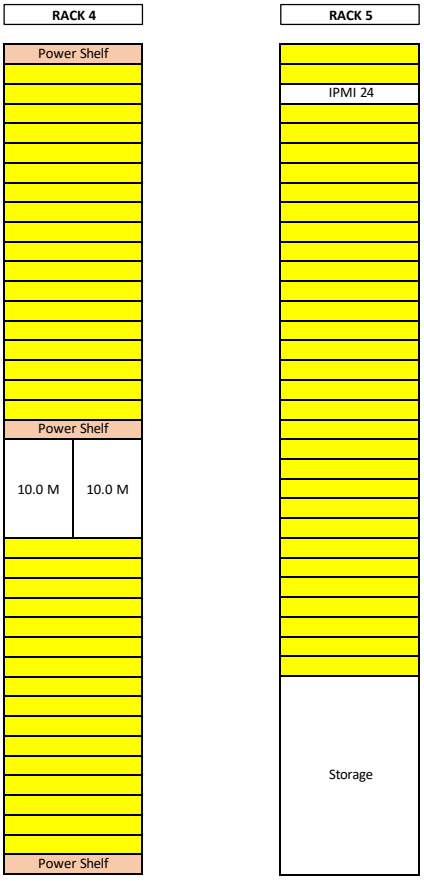
1. Prices for individual line items of the BOQ should be mandatorily submitted. C-DAC reserves the right to reject the bid in case the bidder fails to quote all the required items.
2. The invoice can be raised in compliance with GST requirements.
3. C-DAC / Host Institute(s) reserve the right to either issue or decline the order for the extension of manpower services after the initial two years.

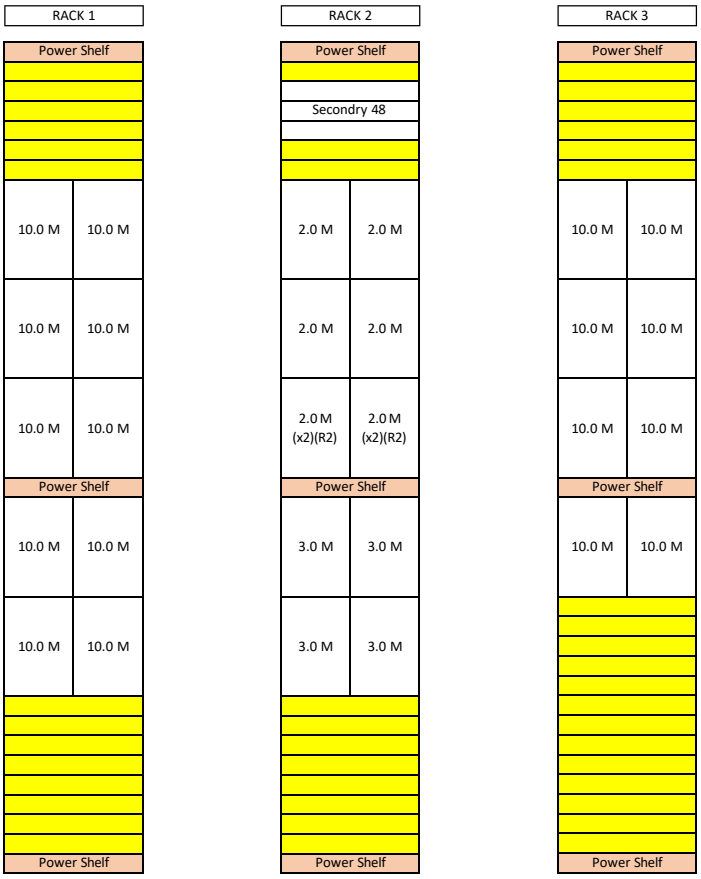
TABLE - 1

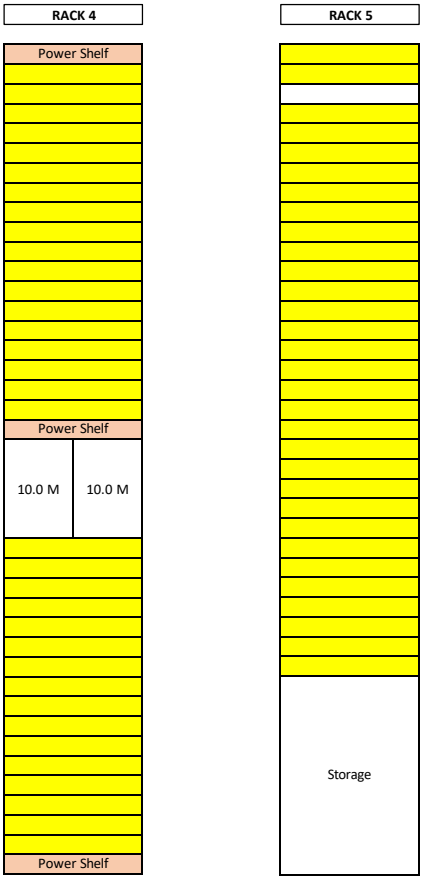
	Items	Qutantity
	SITE 1 IISc Bangalore	
1	Rudra Servers	398
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Un-Managed	11
3	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	2
4	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP	93
5	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP	30
6	InfiniBand active copper cable, IB twin port NDR, up to 800Gb/s, OSFP,5m	34
7	InfiniBand twin port transceiver, 800Gbps,2xNDR, OSFP	200
8	InfiniBand passive fiber cable, MMF, MPO12 APC to MPO12 APC, 10m	200
9	Managed 10G Fibre Switch - 48 Port	1
10	Managed 10G Fibre Switch – 24 Port	1
11	Managed 1G Ethernet Switch – 48 Port	22
12	Managed 1G Ethernet Switch – 24 Port	2
13	10G SFP+ Multimode LC transceivers	50
14	10-meters of LC-to-LC Multimode optical cables	25
15	SFP+ to RJ45 converter	21
16	CAT6A cables	832
Site 2: IIT Kanpur		
1	Rudra Servers	382
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Un-Managed	10
3	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	2
4	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP	84
5	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 4 x 200Gb/s, OSFP to 4 x OSFP	9
6	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP	15
7	InfiniBand active copper cable, IB twin port NDR, up to 800Gb/s,OSFP	34
8	InfiniBand twin port transceiver, 800Gbps,2xNDR, OSFP	184
9	InfiniBand passive fiber cable,MMF, MPO12 APC to MPO12 APC	184
10	Managed 10G Fibre Switch - 48 Port	1
11	Managed 10G Fibre Switch – 24 Port	1
12	Managed 1G Ethernet Switch –48 Port	20
13	Managed 1G Ethernet Switch – 24 Port	2
14	10G SFP+ Multimode LC transceivers	44
15	10-meters of LC-to-LC Multimode optical cables	22
16	SFP+ to RJ45 converter	21
17	CAT6A cables	773
Site 3: IIT Kharagpur		
1	Rudra Servers	308
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Un-Managed	8
3	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	2
4	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP, 1.0 m	66
5	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 4 x 200Gb/s, OSFP to 4 x OSFP, 5.0 M	11
6	InfiniBand passive copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 2.0 M	9
7	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 5.0 M	2
8	InfiniBand active copper cable, IB twin port NDR, up to 800Gb/s, OSFP,5m	34
9	InfiniBand twin port transceiver, 800Gbps,2xNDR, OSFP	168
10	InfiniBand passive fiber cable, MMF, MPO12 APC to MPO12 APC, 10m	168
11	Managed 10G Fibre Switch – 48 Port	1
12	Managed 10G Fibre Switch – 24 Port	1
13	Managed 1G Ethernet Switch – 48 Port	17
14	10G SFP+ Multimode LC transceivers	34
15	10-meters of LC-to-LC Multimode optical cables	17
16	SFP+ to RJ45 converter	21
17	CAT6A cables	649
SITE 4 CR Rao Hyderabad		
1	Rudra Servers	98
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	1
3	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP, 1.0 m	2

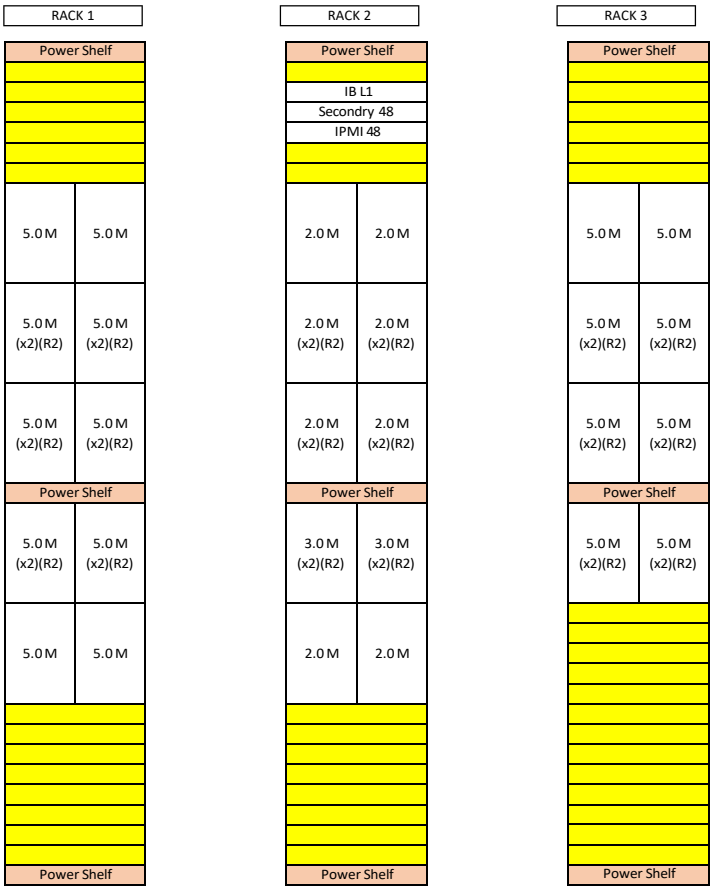
4	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP, 1.5 m	2
5	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP, 2.0 m	7
6	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP, 3.0 m	2
7	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 4 x 200Gb/s, OSFP to 4 x OSFP, 5.0 M	12
8	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 5.0 M	2
9	Managed 10G Fibre Switch – 24 Port	1
10	Managed 1G Ethernet Switch –48 Port	5
11	Managed 1G Ethernet Switch –24 Port	1
12	10G SFP+ Multimode LC transceivers	13
13	10-meters of LC-to-LC Multimode optical cables	7
14	SFP+ to RJ45 converter	10
15	CAT6A cables	212
SITE 5 IUCAA, Pune		
1	Rudra Servers	98
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	1
3	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 4x200Gbps, OSFP to 4xOSFP	13
4	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 4 x 200Gb/s, OSFP to 4 x OSFP, 5.0 M	12
5	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 5.0 M	2
6	Managed 10G Fibre Switch – 24 Port	1
7	Managed 1G Ethernet Switch – 48 Port	5
8	Managed 1G Ethernet Switch – 24 Port	1
9	10G SFP+ Multimode LC transceivers	13
10	10-meters of LC-to-LC Multimode optical cables	7
11	SFP+ to RJ45 converter	10
12	2-meter CAT6A cables	212
Site 6: IIT Jammu		
1	Rudra Servers	180
2	HDR InfiniBand Unmanaged Switch 40 ports	8
3	HDR InfiniBand Managed Switch 40 ports	2
4	Mellanox passive copper hybrid cable, IB HDR 200Gb/s to 2x100Gb/s, QSFP5 56 to 2xQSFP56	107
5	Mellanox® active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56	16
6	Mellanox® active fiber cable, IB HDR, up to 200Gb/s, QSFP56	100
7	1G Ethernet Switch (48+4) ports	11
8	24Port SFP+ Fibre Switch	2
9	SFP+ to RJ45 converter	12
10	CAT 6a Cables	401
11	10-meters of LC to LC Multimode optical cables	11
12	SFP+ Transreceiver	22
Site 7: CSIR- 4PI, Bangalore		
1	Rudra Servers	32
2	NDR InfiniBand Switch, 64 NDR ports, 32 OSFP ports, Managed	1
3	InfiniBand passive copper splitter cable, 800(2x400) Gbpsto 4x200Gbps, OSFP to 4xOSFP,2.0 m	1
4	InfiniBand passive copper splitter cable, 800(2x400) Gbps to 2x400Gbps, OSFP to 2xOSFP	7
5	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 4 x 200Gb/s, OSFP to 4 x OSFP, 5.0 M	2
6	InfiniBand active copper splitter cable, InfiniBand NDR 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 5.0 M	13
7	Managed 1G Ethernet Switch – 48 Port	2
8	InfiniBand AOC splitter, IB twin port NDR, 800Gb/s to 2 x 400Gb/s, OSFP to 2 x OSFP, 10m or the equivalent solution for the same (Transceiver and MPO Cables)	2
9	Managed 10G Fibre Switch – 24 Port	1
10	10G SFP+ Multimode LC transceivers	2
11	10-meters of LC-to-LC Multimode optical cables	1
12	SFP+ to RJ45 converter	11
13	CAT6A cables	70

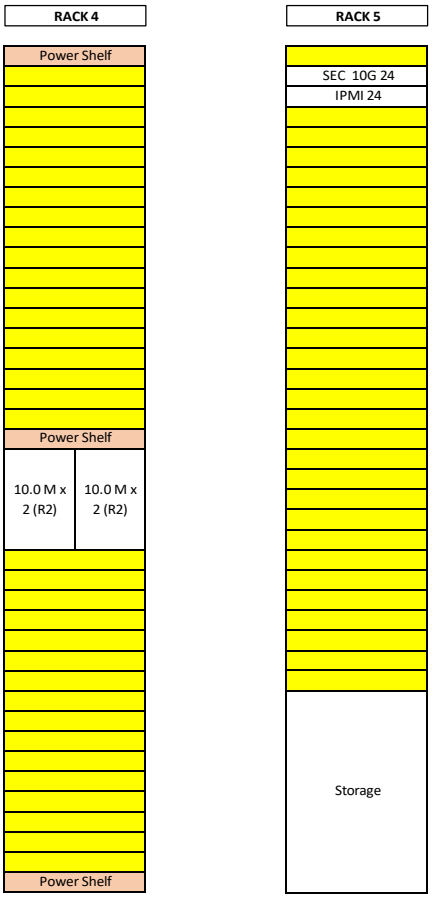

RACK 1
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
RACK 2
Power Shelf
IPMI 48
2.0 M
2.0 M
2.0 M
2.0 M
2.0 M (x2)(R2)
2.0 M (x2)(R2)
Power Shelf
3.0 M
3.0 M
3.0 M
3.0 M
Power Shelf
RACK 3
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
10.0 M
10.0 M
Power Shelf

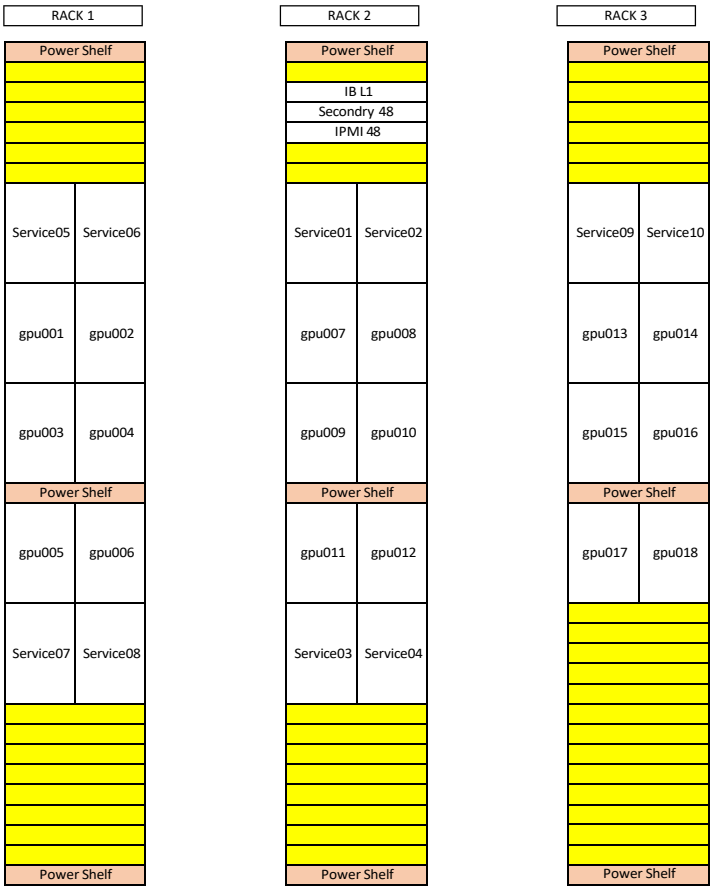

RACK 4
Power Shelf
Power Shelf
10.0 M
10.0 M
Power Shelf
RACK 5
IPMI 24
Storage

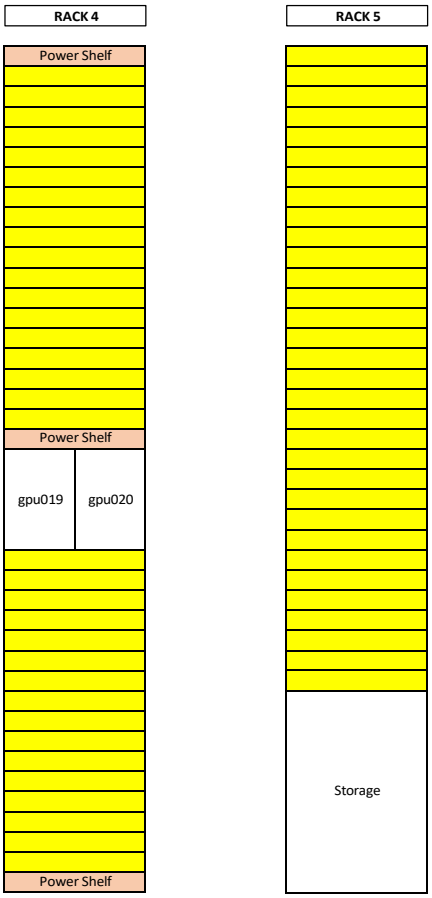

RACK 1
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
RACK 2
Power Shelf
Secondry 48
2.0 M
2.0 M
2.0 M
2.0 M
2.0 M (x2)(R2)
2.0 M (x2)(R2)
Power Shelf
3.0 M
3.0 M
3.0 M
3.0 M
Power Shelf
RACK 3
Power Shelf
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
10.0 M
Power Shelf
10.0 M
10.0 M
Power Shelf


RACK 4
Power Shelf
Power Shelf
10.0 M
10.0 M
Power Shelf
RACK 5
Storage


RACK 1
Power Shelf
5.0 M
5.0 M
5.0 M (x2)(R2)
5.0 M (x2)(R2)
5.0 M (x2)(R2)
5.0 M (x2)(R2)
Power Shelf
5.0 M (x2)(R2)
5.0 M (x2)(R2)
5.0 M
5.0 M
Power Shelf
RACK 2
Power Shelf
IB L1
Secondry 48
IPMI 48
2.0 M
2.0 M
2.0 M (x2)(R2)
2.0 M (x2)(R2)
2.0 M (x2)(R2)
2.0 M (x2)(R2)
Power Shelf
3.0 M (x2)(R2)
3.0 M (x2)(R2)
2.0 M
2.0 M
Power Shelf
RACK 3
Power Shelf
5.0 M
5.0 M
5.0 M (x2)(R2)
5.0 M (x2)(R2)
5.0 M (x2)(R2)
5.0 M (x2)(R2)
Power Shelf
5.0 M (x2)(R2)
5.0 M (x2)(R2)
Power Shelf


RACK 4
Power Shelf
Power Shelf
10.0 M x 2 (R2)
10.0 M x 2 (R2)
Power Shelf
RACK 5
SEC 10G 24
IPMI 24
Storage


RACK 1
Power Shelf
Service05
Service06
gpu001
gpu002
gpu003
gpu004
Power Shelf
gpu005
gpu006
Service07
Service08
Power Shelf
RACK 2
Power Shelf
IB L1
Secondry 48
IPMI 48
Service01
Service02
gpu007
gpu008
gpu009
gpu010
Power Shelf
gpu011
gpu012
Service03
Service04
Power Shelf
RACK 3
Power Shelf
Service09
Service10
gpu013
gpu014
gpu015
gpu016
Power Shelf
gpu017
gpu018
Power Shelf


RACK 4
Power Shelf
Power Shelf
gpu019
gpu020
Power Shelf
RACK 5
Storage

RACK 1

Power Shelf	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 2

Power Shelf	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M (x2)(R3)	3.0 M (x2)(R3)
Power Shelf	

Each switch will have one uplink connected to the 10G secondary uplink switch located in Rack 3.

RACK 4

S
P
A
R
E

RACK 5

1
0
.
0
M
X
8

RACK 6

S
P
A
R
E

RACK 1

Power Shelf	
Secondry 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 2

Power Shelf	
Secondry 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
Secondry 24	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M (x2)(R3)	3.0 M (x2)(R3)
Power Shelf	

Each switch will have one uplink connected to the 10G secondary uplink switch located in Rack 3.

RACK 4

S
P
A
R
E

RACK 5

1
0
.
0

M

X

8

RACK 6

S
P
A
R
E

RACK 1

Power Shelf	
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
Power Shelf	
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
Power Shelf	

RACK 2

Power Shelf	
IB L1	
1.0 M	1.0 M
1.0 M	1.0 M
1.0 M	1.0 M
1.0 M	1.0 M
1.5 M	1.5 M
1.5 M	1.5 M
1.5 M	1.5 M
1.5 M	1.5 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3

Power Shelf	
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
Power Shelf	
5.0 M (x2)(R2)	5.0 M (x2)(R2)
Power Shelf	

There will be three racks and a single InfiniBand (IB) switch, from which all cables will originate. The rack containing the IB switch will be connected using passive copper cables of 1 m, 1.5 m, and 2 m lengths. Servers in the other two racks will be connected using 5 m active copper cables. Each CPU server will have one NDR 200 IB card and will be connected using NDR 200G cables. Each GPU server will have two NDR 400 IB cards, with each card connected via 400G NDR cables.

RACK 4

S P A R E

RACK 5

S T O R A G E

RACK 6

S P A R E

RACK 1

Power Shelf	
Secondry 48	
IPMI 48	
cn001	cn002
cn003	cn004
cn005	cn006
cn007	cn008
cn009	cn010
cn011	cn012
cn013	cn014
cn015	cn016
Power Shelf	
cn017	cn018
cn019	cn020
cn021	cn022
cn023	cn024
cn025	cn026
cn027	cn028
cn029	cn030
cn031	cn032
Power Shelf	

RACK 2

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn033	cn034
cn035	cn036
cn037	cn038
cn039	cn040
cn041	cn042
cn043	cn044
cn045	cn046
cn047	cn048
cn049	cn050
cn051	cn052
cn053	cn054
cn055	cn056
Power Shelf	
cn057	cn058
cn059	cn060
cn061	cn062
cn063	cn064
cn065	cn066
cn067	cn068
cn069	cn070
cn071	cn072
cn073	cn074
cn075	cn076
cn077	cn078
cn079	cn080
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
Secondry 24	
IPMI 48	
Service01	Service02
Service03	Service04
Service05	Service06
Service07	Service08
Service09	Service10
Power Shelf	
gpu001	gpu002
Power Shelf	

RACK 4

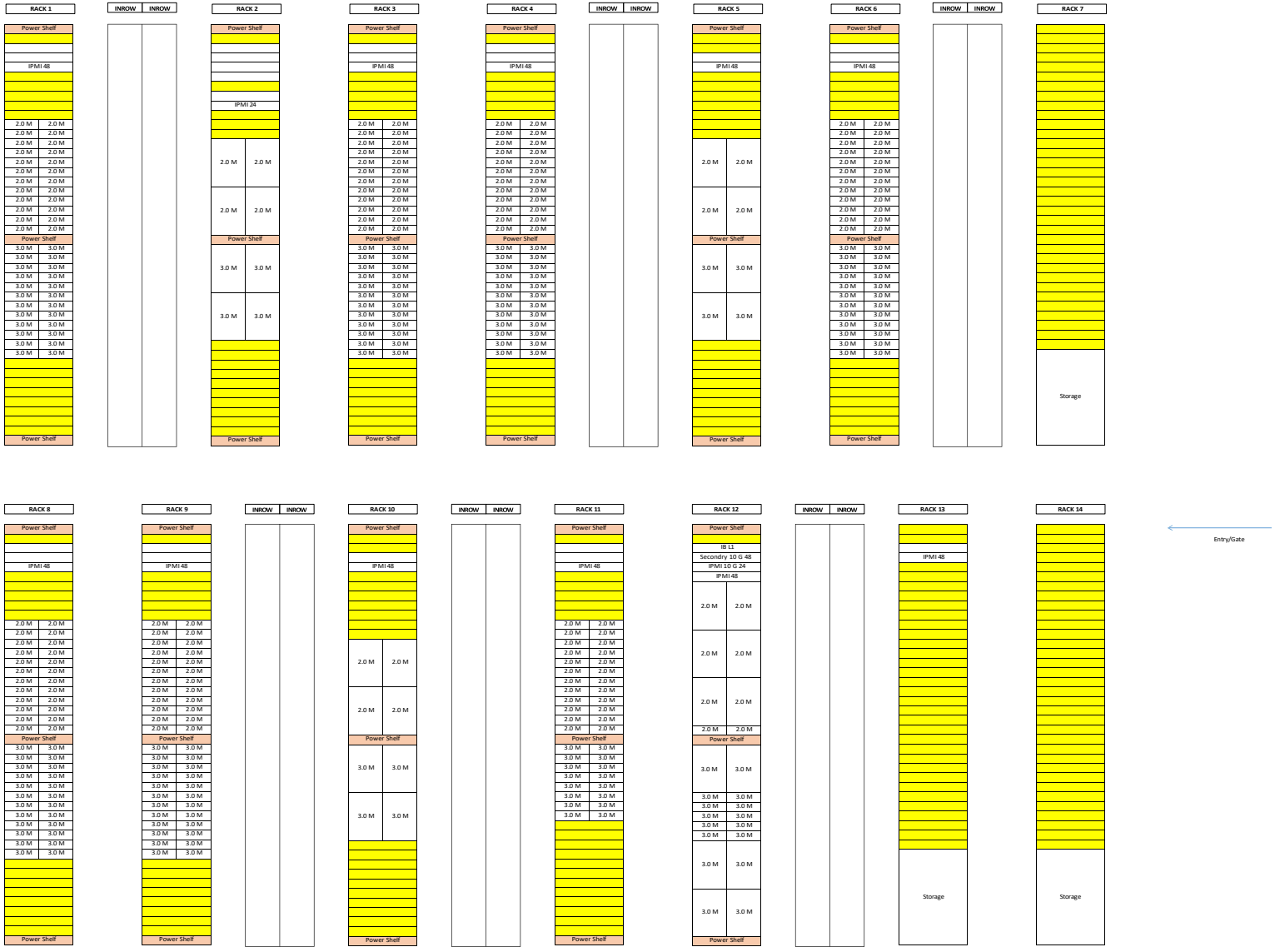
S P A R E

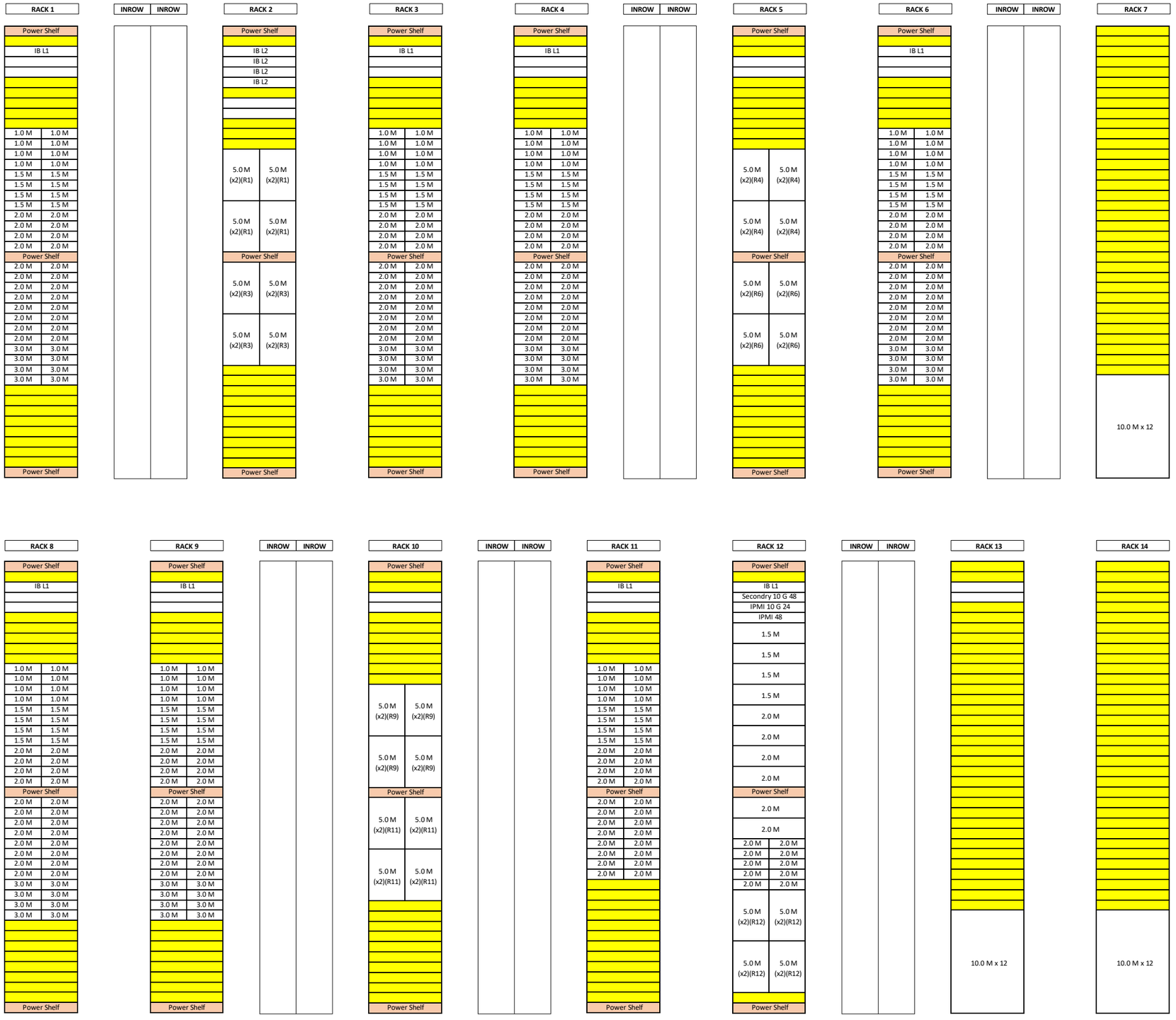
RACK 5

S T O R A G E

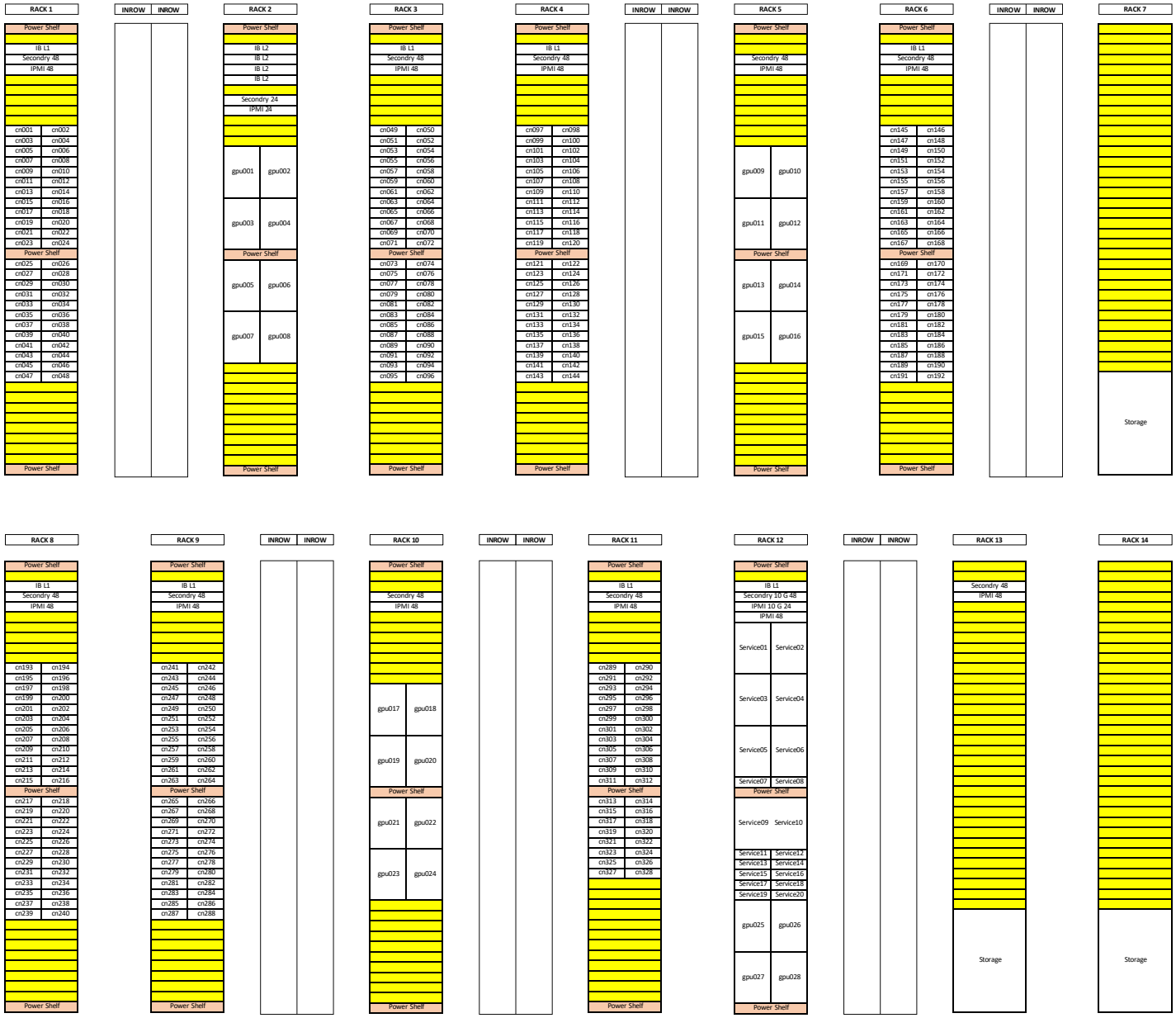
RACK 6

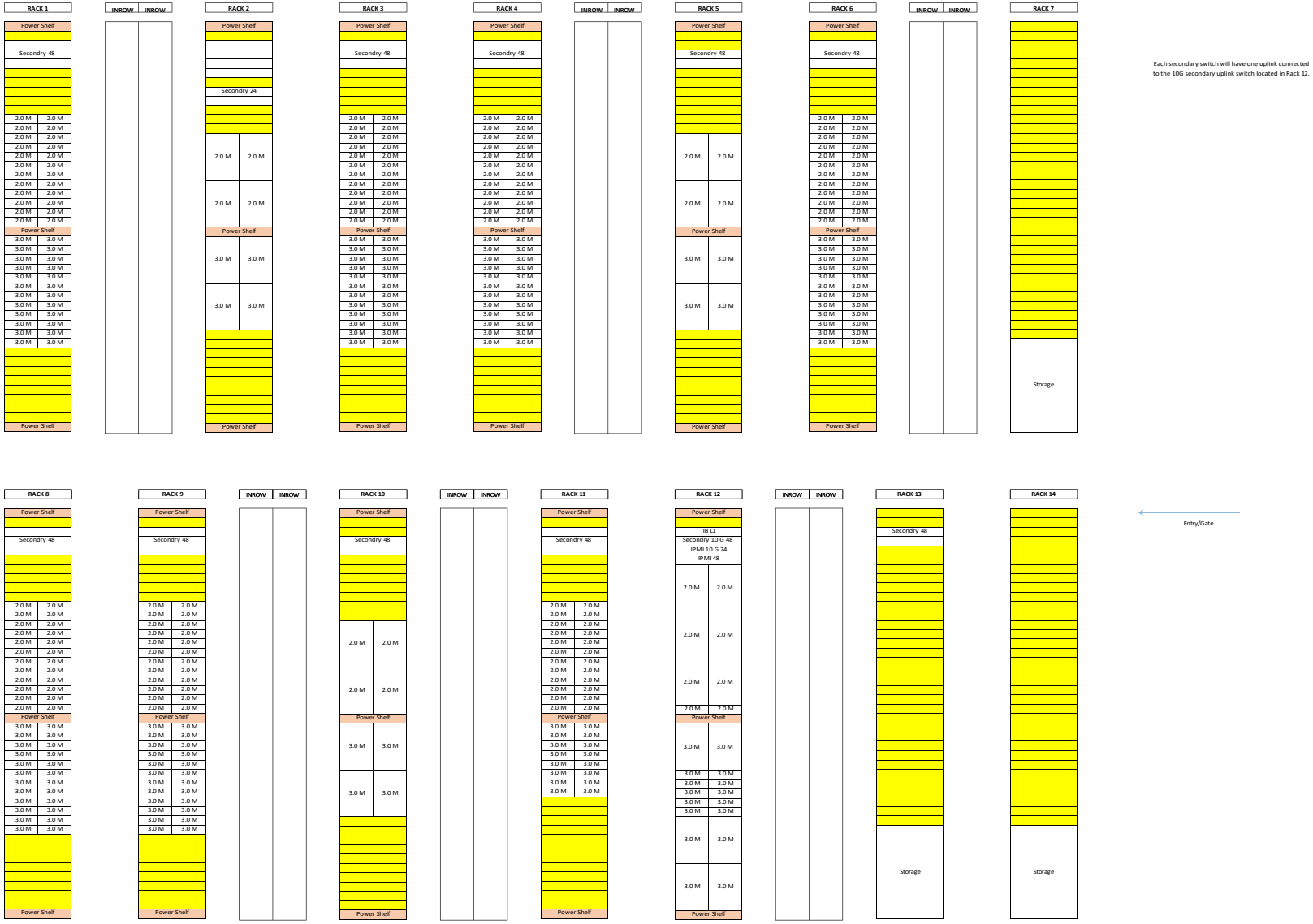
S P A R E


RACK 1
INROW
INROW
RACK 2
RACK 3
RACK 4
INROW
INROW
RACK 5
RACK 6
INROW
INROW
RACK 7
Power Shelf
IPMI 48
IPMI 24
2.0 M
3.0 M
Storage
RACK 8
RACK 9
RACK 10
INROW
INROW
RACK 11
RACK 12
INROW
INROW
RACK 13
RACK 14
IB L1
Secondry 10 G 48
IPMI 10 G 24
Entry/Gate



There will be 8 InfiniBand (IB) L1 switches for node connectivity and 4 L2 IB switches for switch-to-switch interconnection. In racks where an L1 switch is placed, the servers within that rack will be connected to the local switch using passive copper cables of 1 m, 1.5 m, and 2.0 m lengths. For racks without a local L1 switch, connections will be made from the nearest adjacent switch using 5 m active copper cables, as illustrated in the diagram, indicating the source racks from which the cables will be pulled. All L1 switches will be connected to the L2 switches using transceivers and MPO cables. Each CPU server will have one NDR 200 IB card and will be connected using 200G NDR cables. Each GPU server will have two NDR 400 IB cards, with each card connected via 400G NDR cables


RACK 1
Power Shelf
IB L1
Secondry 48
IPMI 48
cn001 cn002
cn003 cn004
cn005 cn006
cn007 cn008
cn009 cn010
cn011 cn012
cn013 cn014
cn015 cn016
cn017 cn018
cn019 cn020
cn021 cn022
cn023 cn024
Power Shelf
cn025 cn026
cn027 cn028
cn029 cn030
cn031 cn032
cn033 cn034
cn035 cn036
cn037 cn038
cn039 cn040
cn041 cn042
cn043 cn044
cn045 cn046
cn047 cn048
Power Shelf
INROW
INROW
RACK 2
Power Shelf
IB L2
IB L2
IB L2
IB L2
Secondry 24
IPMI 24
gpu001 gpu002
gpu003 gpu004
Power Shelf
gpu005 gpu006
gpu007 gpu008
Power Shelf
RACK 3
Power Shelf
IB L1
Secondry 48
IPMI 48
cn049 cn050
cn051 cn052
cn053 cn054
cn055 cn056
cn057 cn058
cn059 cn060
cn061 cn062
cn063 cn064
cn065 cn066
cn067 cn068
cn069 cn070
cn071 cn072
Power Shelf
cn073 cn074
cn075 cn076
cn077 cn078
cn079 cn080
cn081 cn082
cn083 cn084
cn085 cn086
cn087 cn088
cn089 cn090
cn091 cn092
cn093 cn094
cn095 cn096
Power Shelf
RACK 4
Power Shelf
IB L1
Secondry 48
IPMI 48
cn097 cn098
cn099 cn100
cn101 cn102
cn103 cn104
cn105 cn106
cn107 cn108
cn109 cn110
cn111 cn112
cn113 cn114
cn115 cn116
cn117 cn118
cn119 cn120
Power Shelf
cn121 cn122
cn123 cn124
cn125 cn126
cn127 cn128
cn129 cn130
cn131 cn132
cn133 cn134
cn135 cn136
cn137 cn138
cn139 cn140
cn141 cn142
cn143 cn144
Power Shelf
INROW
INROW
RACK 5
Power Shelf
Secondry 48
IPMI 48
gpu009 gpu010
gpu011 gpu012
Power Shelf
gpu013 gpu014
gpu015 gpu016
Power Shelf
RACK 6
Power Shelf
IB L1
Secondry 48
IPMI 48
cn145 cn146
cn147 cn148
cn149 cn150
cn151 cn152
cn153 cn154
cn155 cn156
cn157 cn158
cn159 cn160
cn161 cn162
cn163 cn164
cn165 cn166
cn167 cn168
Power Shelf
cn169 cn170
cn171 cn172
cn173 cn174
cn175 cn176
cn177 cn178
cn179 cn180
cn181 cn182
cn183 cn184
cn185 cn186
cn187 cn188
cn189 cn190
cn191 cn192
Power Shelf
INROW
INROW
RACK 7
Storage
RACK 8
Power Shelf
IB L1
Secondry 48
IPMI 48
cn193 cn194
cn195 cn196
cn197 cn198
cn199 cn200
cn201 cn202
cn203 cn204
cn205 cn206
cn207 cn208
cn209 cn210
cn211 cn212
cn213 cn214
cn215 cn216
Power Shelf
cn217 cn218
cn219 cn220
cn221 cn222
cn223 cn224
cn225 cn226
cn227 cn228
cn229 cn230
cn231 cn232
cn233 cn234
cn235 cn236
cn237 cn238
cn239 cn240
Power Shelf
RACK 9
Power Shelf
IB L1
Secondry 48
IPMI 48
cn241 cn242
cn243 cn244
cn245 cn246
cn247 cn248
cn249 cn250
cn251 cn252
cn253 cn254
cn255 cn256
cn257 cn258
cn259 cn260
cn261 cn262
cn263 cn264
Power Shelf
cn265 cn266
cn267 cn268
cn269 cn270
cn271 cn272
cn273 cn274
cn275 cn276
cn277 cn278
cn279 cn280
cn281 cn282
cn283 cn284
cn285 cn286
cn287 cn288
Power Shelf
INROW
INROW
RACK 10
Power Shelf
Secondry 48
IPMI 48
gpu017 gpu018
gpu019 gpu020
Power Shelf
gpu021 gpu022
gpu023 gpu024
Power Shelf
INROW
INROW
RACK 11
Power Shelf
IB L1
Secondry 48
IPMI 48
cn289 cn290
cn291 cn292
cn293 cn294
cn295 cn296
cn297 cn298
cn299 cn300
cn301 cn302
cn303 cn304
cn305 cn306
cn307 cn308
cn309 cn310
cn311 cn312
Power Shelf
cn313 cn314
cn315 cn316
cn317 cn318
cn319 cn320
cn321 cn322
cn323 cn324
cn325 cn326
cn327 cn328
Power Shelf
RACK 12
Power Shelf
IB L1
Secondry 10 G 48
IPMI 10 G 24
IPMI 48
Service01 Service02
Service03 Service04
Service05 Service06
Service07 Service08
Power Shelf
Service09 Service10
Service11 Service12
Service13 Service14
Service15 Service16
Service17 Service18
Service19 Service20
gpu025 gpu026
gpu027 gpu028
Power Shelf
INROW
INROW
RACK 13
Secondry 48
IPMI 48
Storage
RACK 14
Storage
Entry/Gate


RACK 1
INROW
INROW
RACK 2
RACK 3
RACK 4
INROW
INROW
RACK 5
RACK 6
INROW
INROW
RACK 7
Power Shelf
Secondry 48
Secondry 24
2.0 M
3.0 M
Storage
Each secondary switch will have one uplink connected to the 10G secondary uplink switch located in Rack 12.
RACK 8
RACK 9
INROW
INROW
RACK 10
INROW
INROW
RACK 11
RACK 12
IB L1
Secondry 10 G 48
IPMI 10 G 24
IPMI 48
INROW
INROW
RACK 13
RACK 14
Storage
Entry/Gate

R1	
Power Module	
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
1.5M	1.5M
1.5M	1.5M
IB-L1	
1.5M	1.5M
1.5M	1.5M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
Power Module	

R2	
Power Module	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
1.5M	1.5M
1.5M	1.5M
1.5 M	1.5 M
1.5 M	1.5 M
IB-L1	
IB-L1	
1.5 M	1.5 M
1.5M	1.5M
1.5M	1.5M
1.5M	1.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Module	

R3	
Power Module	
10.0 M	10.0 M
10.0 M	10.0 M
10.0 M	10.0 M
10.0 M	10.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
1.5M	1.5M
1.5M	1.5M
1.5 M	1.5 M
1.5 M	1.5 M
IB-L1	
1.5 M	1.5 M
1.5M	1.5M
1.5M	1.5M
1.5M	1.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
10.0 M	10.0 M
10.0 M	10.0 M
Power Module	

Rack	No.of Cables	Length
R1 to R5	18	10
R2(SW1) to R5	18	10
R2(SW2) to R5	18	10
R3 to R5	18	10
R4 to R5	18	10
R5 to R5	18	2(cooper)

SPARE

R4	
Power Module	
10.0 M	10.0 M
10.0 M	10.0 M
10.0 M	10.0 M
10.0 M	10.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
1.5M	1.5M
1.5M	1.5M
1.5 M	1.5 M
1.5 M	1.5 M
IB-L1	
1.5 M	1.5 M
1.5M	1.5M
1.5M	1.5M
1.5M	1.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
10.0 M	10.0 M
10.0 M	10.0 M
Power Module	

R5
IB L2
IB L2
IB L2
IB L1

R1	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
IPMI n/w Switch-48	
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

R2	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
IPMI n/w Switch-48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

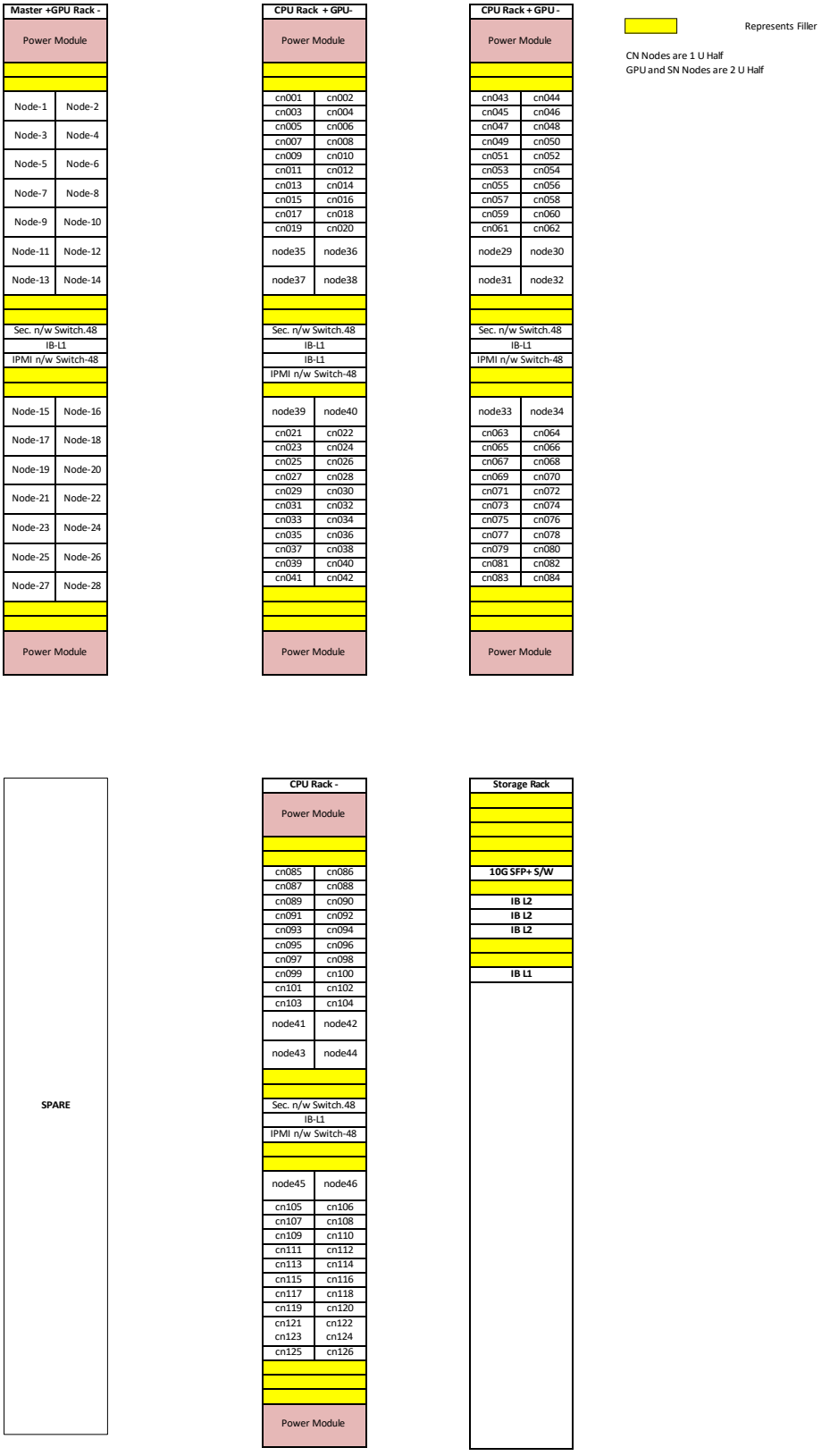
R3	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
IPMI n/w Switch-48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

Note : ALL the switches will be connected to the uplink switch placed at Storage Rack

SPARE

R4	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
IPMI n/w Switch-48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

R5
10G SFP+ S/W
IB L2
IB L2
IB L2
IPMI n/w Switch-48
IB L1


Master +GPU Rack -
Power Module
Node-1
Node-2
Node-3
Node-4
Node-5
Node-6
Node-7
Node-8
Node-9
Node-10
Node-11
Node-12
Node-13
Node-14
Sec. n/w Switch.48
IB-L1
IPMI n/w Switch-48
Node-15
Node-16
Node-17
Node-18
Node-19
Node-20
Node-21
Node-22
Node-23
Node-24
Node-25
Node-26
Node-27
Node-28
Power Module
CPU Rack + GPU-
Power Module
cn001
cn002
cn003
cn004
cn005
cn006
cn007
cn008
cn009
cn010
cn011
cn012
cn013
cn014
cn015
cn016
cn017
cn018
cn019
cn020
node35
node36
node37
node38
Sec. n/w Switch.48
IB-L1
IB-L1
IPMI n/w Switch-48
node39
node40
cn021
cn022
cn023
cn024
cn025
cn026
cn027
cn028
cn029
cn030
cn031
cn032
cn033
cn034
cn035
cn036
cn037
cn038
cn039
cn040
cn041
cn042
Power Module
CPU Rack + GPU -
Power Module
cn043
cn044
cn045
cn046
cn047
cn048
cn049
cn050
cn051
cn052
cn053
cn054
cn055
cn056
cn057
cn058
cn059
cn060
cn061
cn062
node29
node30
node31
node32
Sec. n/w Switch.48
IB-L1
IPMI n/w Switch-48
node33
node34
cn063
cn064
cn065
cn066
cn067
cn068
cn069
cn070
cn071
cn072
cn073
cn074
cn075
cn076
cn077
cn078
cn079
cn080
cn081
cn082
cn083
cn084
Power Module
Represents Filler
CN Nodes are 1 U Half
GPU and SN Nodes are 2 U Half
SPARE
CPU Rack -
Power Module
cn085
cn086
cn087
cn088
cn089
cn090
cn091
cn092
cn093
cn094
cn095
cn096
cn097
cn098
cn099
cn100
cn101
cn102
cn103
cn104
node41
node42
node43
node44
Sec. n/w Switch.48
IB-L1
IPMI n/w Switch-48
node45
node46
cn105
cn106
cn107
cn108
cn109
cn110
cn111
cn112
cn113
cn114
cn115
cn116
cn117
cn118
cn119
cn120
cn121
cn122
cn123
cn124
cn125
cn126
Power Module
Storage Rack
10G SFP+ S/W
IB L2
IB L2
IB L2
IB L1

R1	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
Sec. n/w Switch.48	
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.0M	2.0M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

R2	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Sec. n/w Switch.48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

R3	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Sec. n/w Switch.48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

Note : ALL the switches will be connected to the uplink switch placed at Storage Rack

SPARE

R4	
Power Module	
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Sec. n/w Switch.48	
IB-L1	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
2.5M	2.5M
Power Module	

R5
10G SFP+ S/W
IB L2
IB L2
IB L2
*Sec. n/w Switch.48
IB L1

* coz other rack switches are running cut to cut

RACK 1

Power Shelf	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 2

Power Shelf	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
IPMI 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M (x2)(R3)	3.0 M (x2)(R3)
Power Shelf	

RACK 4

10.0 M x 8

RACK 5

Each switch will have one uplink connected to the 10G secondary uplink switch located in Rack 3.

RACK 1	
Power Shelf	
Secondry 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 2	
Power Shelf	
Secondry 48	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3	
Power Shelf	
SEC + IPMI 10G 24	
Secondry 24	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
3.0 M (x2)(R3)	3.0 M (x2)(R3)
Power Shelf	

RACK 4
10.0 M x 8

RACK 5

Each switch will have one uplink connected to the 10G secondary uplink switch located in Rack 3.

RACK 1

Power Shelf	
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
Power Shelf	
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
5.0 M(R2)	5.0 M(R2)
Power Shelf	

RACK 2

Power Shelf	
IB L1	
1.0 M	1.0 M
1.0 M	1.0 M
1.0 M	1.0 M
1.0 M	1.0 M
1.5 M	1.5 M
1.5 M	1.5 M
1.5 M	1.5 M
1.5 M	1.5 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
Power Shelf	
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
2.0 M	2.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
3.0 M	3.0 M
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
Secondry 24	
IPMI 48	
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
5.0 M	5.0 M
Power Shelf	
5.0 M (x2)(R3)	5.0 M (x2)(R3)
Power Shelf	

RACK 4

10.0M x 8

RACK 5

RACK 1

Power Shelf	
Secondry 48	
IPMI 48	
cn001	cn002
cn003	cn004
cn005	cn006
cn007	cn008
cn009	cn010
cn011	cn012
cn013	cn014
cn015	cn016
Power Shelf	
cn017	cn018
cn019	cn020
cn021	cn022
cn023	cn024
cn025	cn026
cn027	cn028
cn029	cn030
cn031	cn032
Power Shelf	

RACK 2

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn033	cn034
cn035	cn036
cn037	cn038
cn039	cn040
cn041	cn042
cn043	cn044
cn045	cn046
cn047	cn048
cn049	cn050
cn051	cn052
cn053	cn054
cn055	cn056
Power Shelf	
cn057	cn058
cn059	cn060
cn061	cn062
cn063	cn064
cn065	cn066
cn067	cn068
cn069	cn070
cn071	cn072
cn073	cn074
cn075	cn076
cn077	cn078
cn079	cn080
Power Shelf	

RACK 3

Power Shelf	
SEC + IPMI 10G 24	
Secondry 24	
IPMI 48	
Service01	Service02
Service03	Service04
Service05	Service06
Service07	Service08
Service09	Service10
Power Shelf	
gpu001	gpu002
Power Shelf	

RACK 4

(34 empty slots)
Storage

RACK 5

(34 empty slots)
Storage

RACK 1

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn001	cn002
cn003	cn004
cn005	cn006
cn007	cn008
cn009	cn010
cn011	cn012
cn013	cn014
cn015	cn016
cn017	cn018
cn019	cn020
cn021	cn022
cn023	cn024
Power Shelf	
cn025	cn026
cn027	cn028
cn029	cn030
cn031	cn032
cn033	cn034
cn035	cn036
cn037	cn038
cn039	cn040
cn041	cn042
cn043	cn044
cn045	cn046
cn047	cn048
Power Shelf	

RACK 2

Power Shelf	
IB L2	
IB L2	
IB L2	
IB L2	
Secondry 48	
IPMI 48	
gpu001	gpu002
gpu003	gpu004
Power Shelf	
gpu005	gpu006
gpu007	gpu008
Power Shelf	

RACK 3

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn049	cn050
cn051	cn052
cn053	cn054
cn055	cn056
cn057	cn058
cn059	cn060
cn061	cn062
cn063	cn064
cn065	cn066
cn067	cn068
cn069	cn070
cn071	cn072
Power Shelf	
cn073	cn074
cn075	cn076
cn077	cn078
cn079	cn080
cn081	cn082
cn083	cn084
cn085	cn086
cn087	cn088
cn089	cn090
cn091	cn092
cn093	cn094
cn095	cn096
Power Shelf	

RACK 4

Power Shelf	
Secondry 24	
IPMI 24	
gpu009	gpu010
Power Shelf	
gpu011	gpu012
Power Shelf	

RACK 5

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn097	cn098
cn099	cn100
cn101	cn102
cn103	cn104
cn105	cn106
cn107	cn108
cn109	cn110
cn111	cn112
cn113	cn114
cn115	cn116
cn117	cn118
cn119	cn120
Power Shelf	
cn121	cn122
cn123	cn124
cn125	cn126
cn127	cn128
cn129	cn130
cn131	cn132
cn133	cn134
cn135	cn136
cn137	cn138
cn139	cn140
cn141	cn142
cn143	cn144
Power Shelf	

RACK 6

Storage

RACK 7

Storage

RACK 8

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn145	cn146
cn147	cn148
cn149	cn150
cn151	cn152
cn153	cn154
cn155	cn156
cn157	cn158
cn159	cn160
cn161	cn162
cn163	cn164
cn165	cn166
cn167	cn168
Power Shelf	
cn169	cn170
cn171	cn172
cn173	cn174
cn175	cn176
cn177	cn178
cn179	cn180
cn181	cn182
cn183	cn184
cn185	cn186
cn187	cn188
cn189	cn190
cn191	cn192
Power Shelf	

RACK 9

Power Shelf	
Secondry 48	
IPMI 48	
cn193	cn194
cn195	cn196
cn197	cn198
cn199	cn200
cn201	cn202
cn203	cn204
cn205	cn206
cn207	cn208
Power Shelf	
cn209	cn210
cn211	cn212
cn213	cn214
cn215	cn216
cn217	cn218
cn219	cn220
cn221	cn222
cn223	cn224
Power Shelf	

RACK 10

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn225	cn226
cn227	cn228
cn229	cn230
cn231	cn232
cn233	cn234
cn235	cn236
cn237	cn238
cn239	cn240
cn241	cn242
cn243	cn244
cn245	cn246
cn247	cn248
Power Shelf	
cn249	cn250
cn251	cn252
cn253	cn254
cn255	cn256
cn257	cn258
cn259	cn260
cn261	cn262
cn263	cn264
cn265	cn266
cn267	cn268
cn269	cn270
cn271	cn272
Power Shelf	

RACK 11

Power Shelf	
IB L1	
Secondry 48	
IPMI 48	
cn273	cn274
cn275	cn276
cn277	cn278
cn279	cn280
cn281	cn282
cn283	cn284
cn285	cn286
cn287	cn288
cn289	cn290
cn291	cn292
cn293	cn294
cn295	cn296
Power Shelf	
cn297	cn298
cn299	cn300
cn301	cn302
cn303	cn304
cn305	cn306
cn307	cn308
cn309	cn310
cn311	cn312
cn313	cn314
cn315	cn316
cn317	cn318
cn319	cn320
Power Shelf	

RACK 12

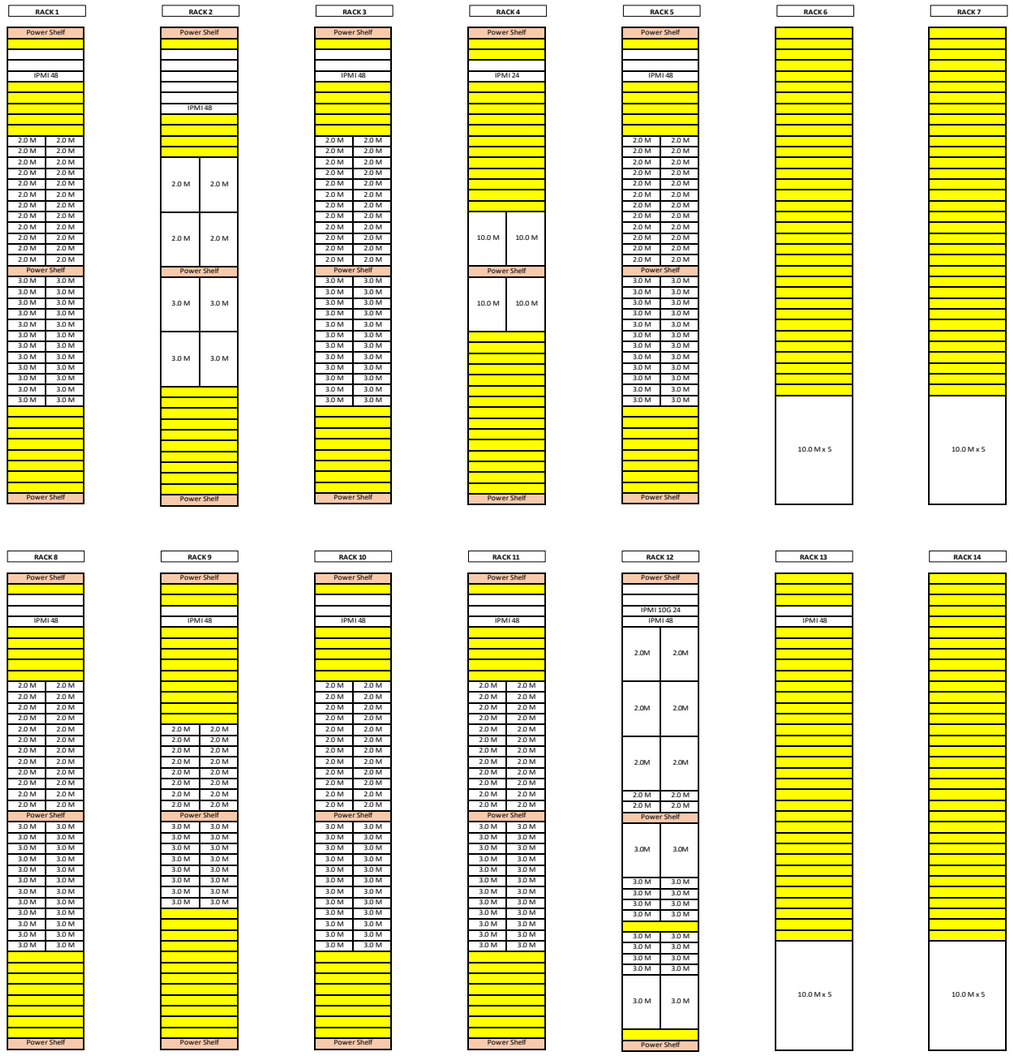
Power Shelf	
IB L1	
Service01	Service02
Service03	Service04
Service05	Service06
Service07	Service08
Service09	Service10
Power Shelf	
Service11	Service12
service13	Service14
Service15	Service16
service17	Service18
service19	Service20
cn321	cn322
cn323	cn324
cn325	cn326
cn327	cn328
gpu013	gpu014
Power Shelf	

RACK 13

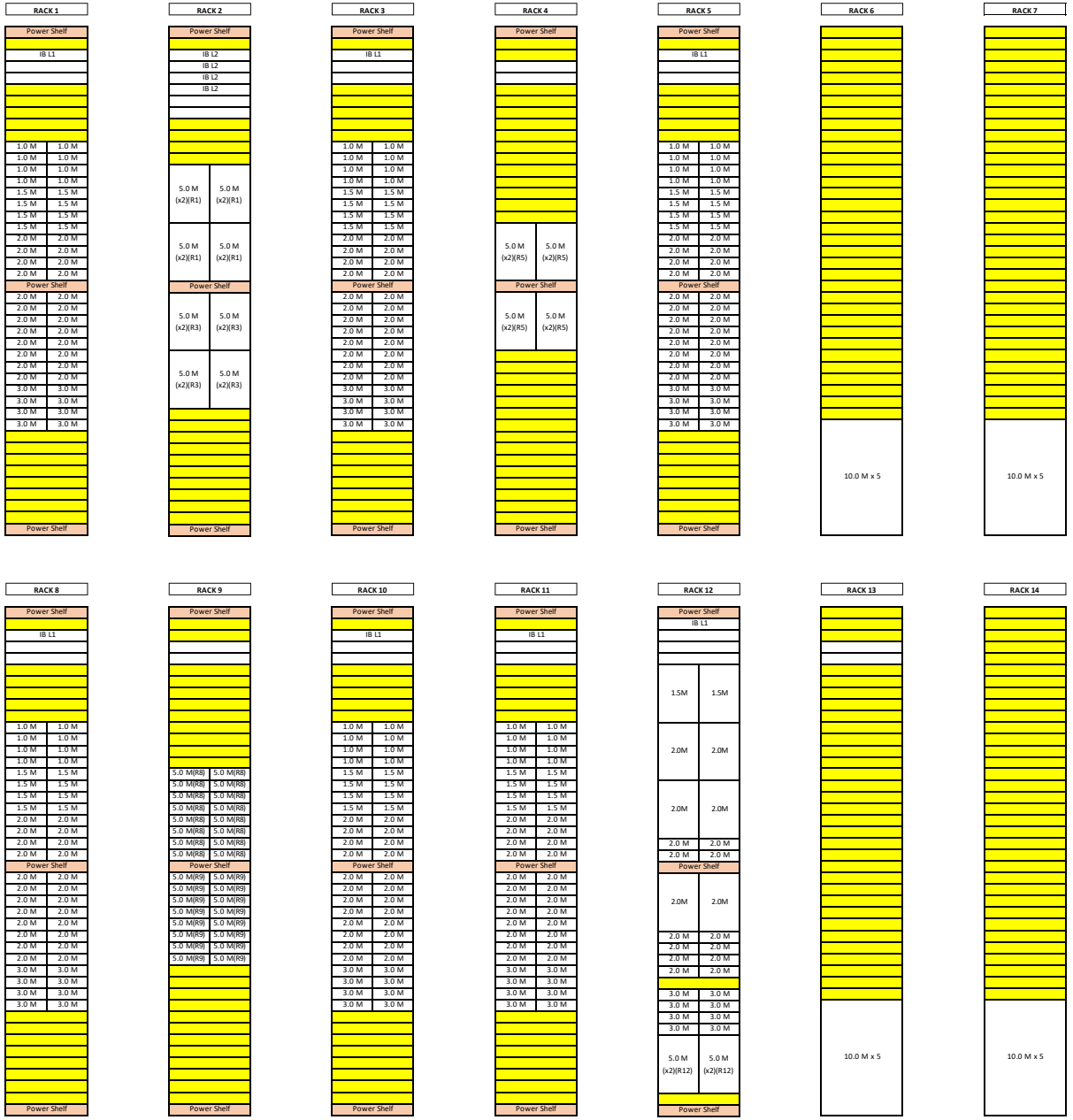
Secondry 48
IPMI 48
Storage

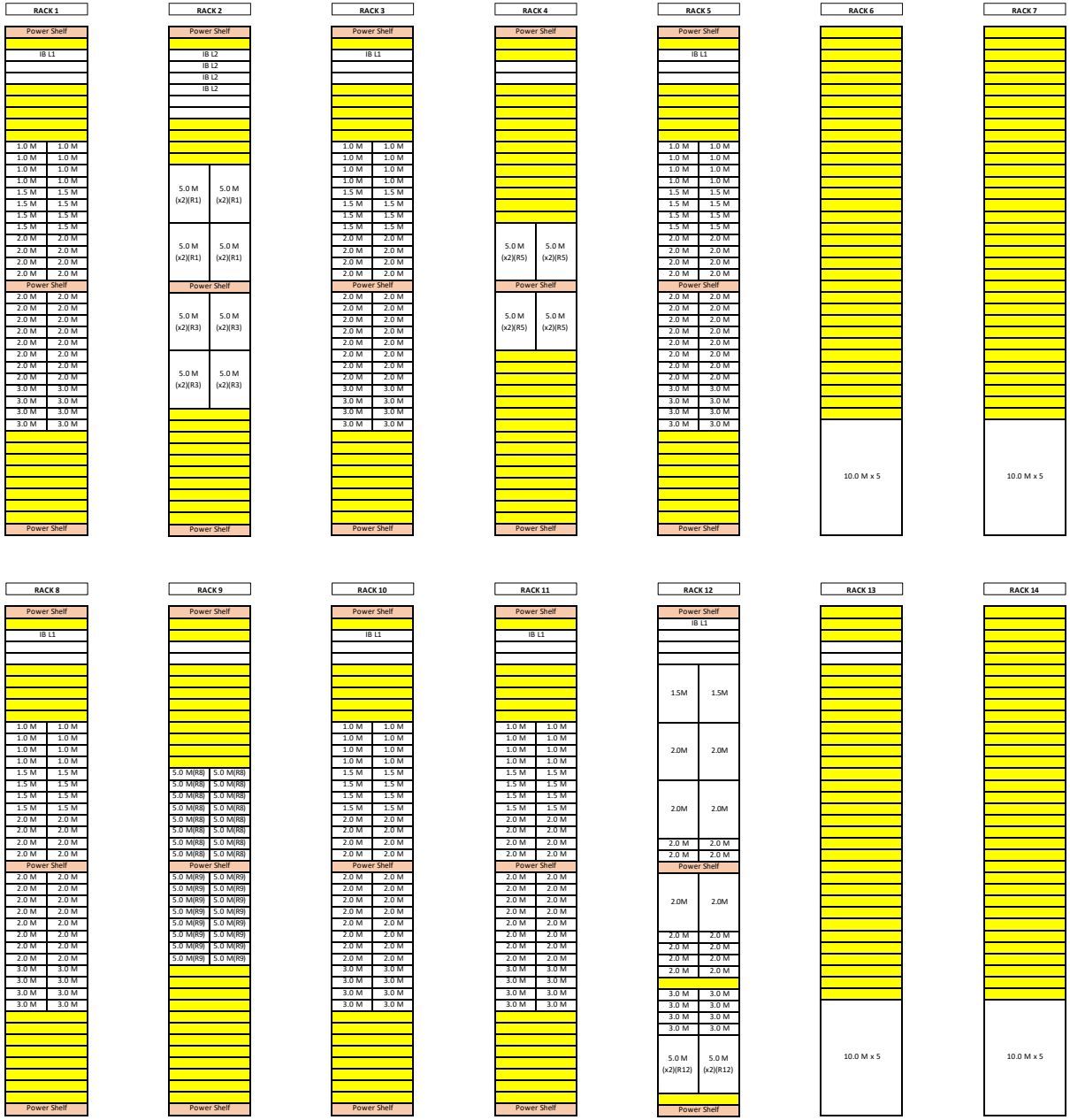
RACK 14

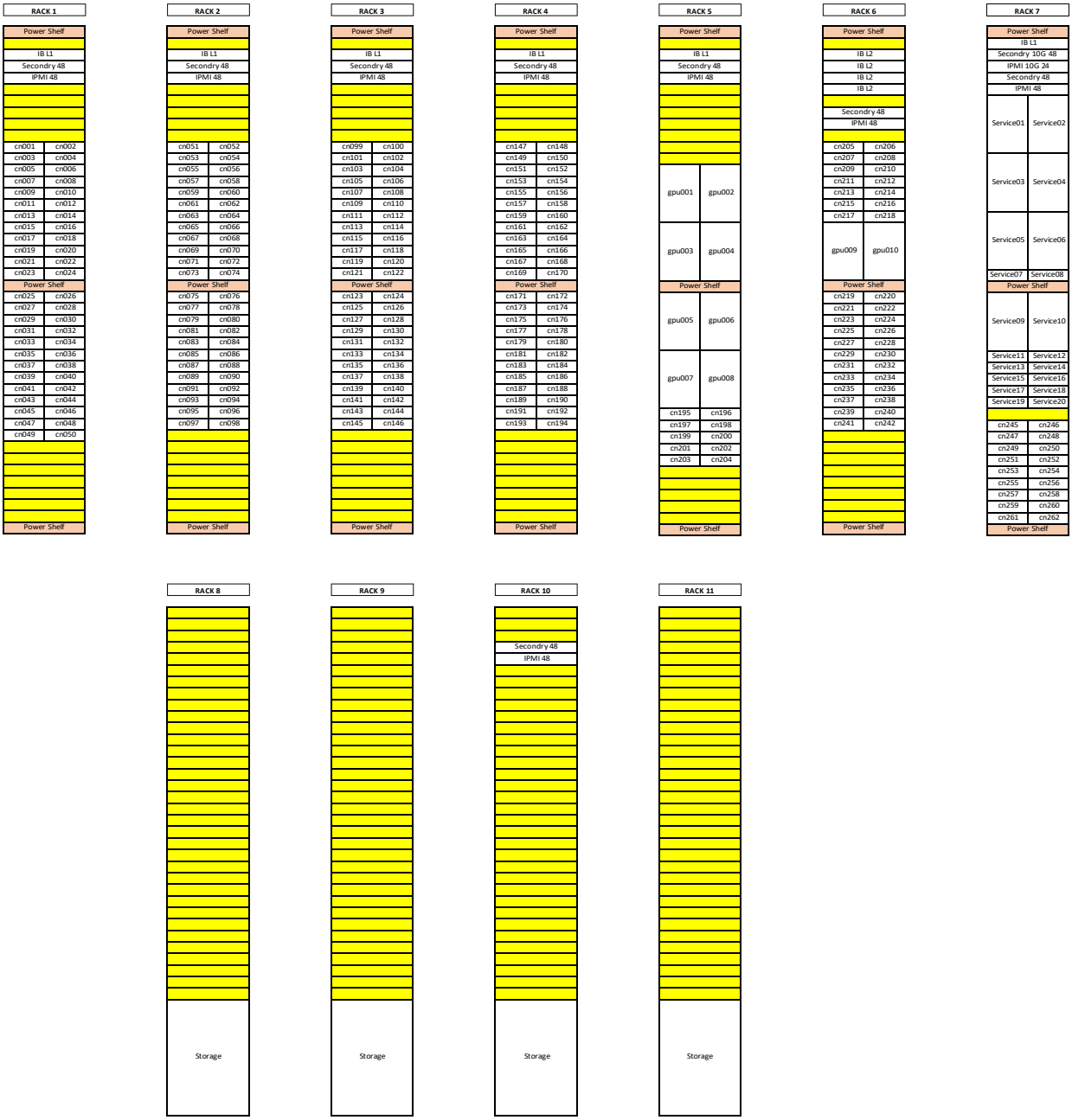
Storage

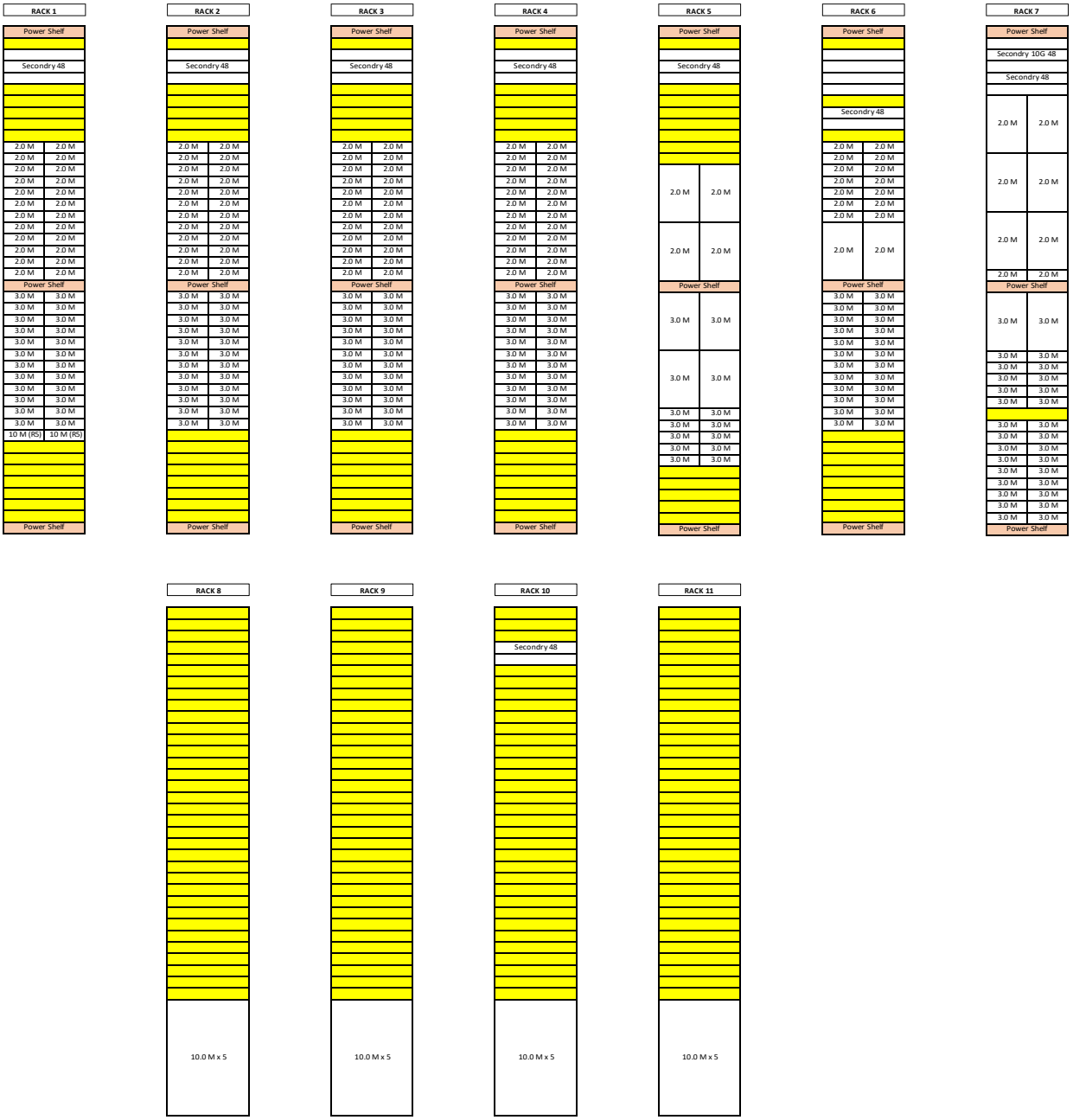


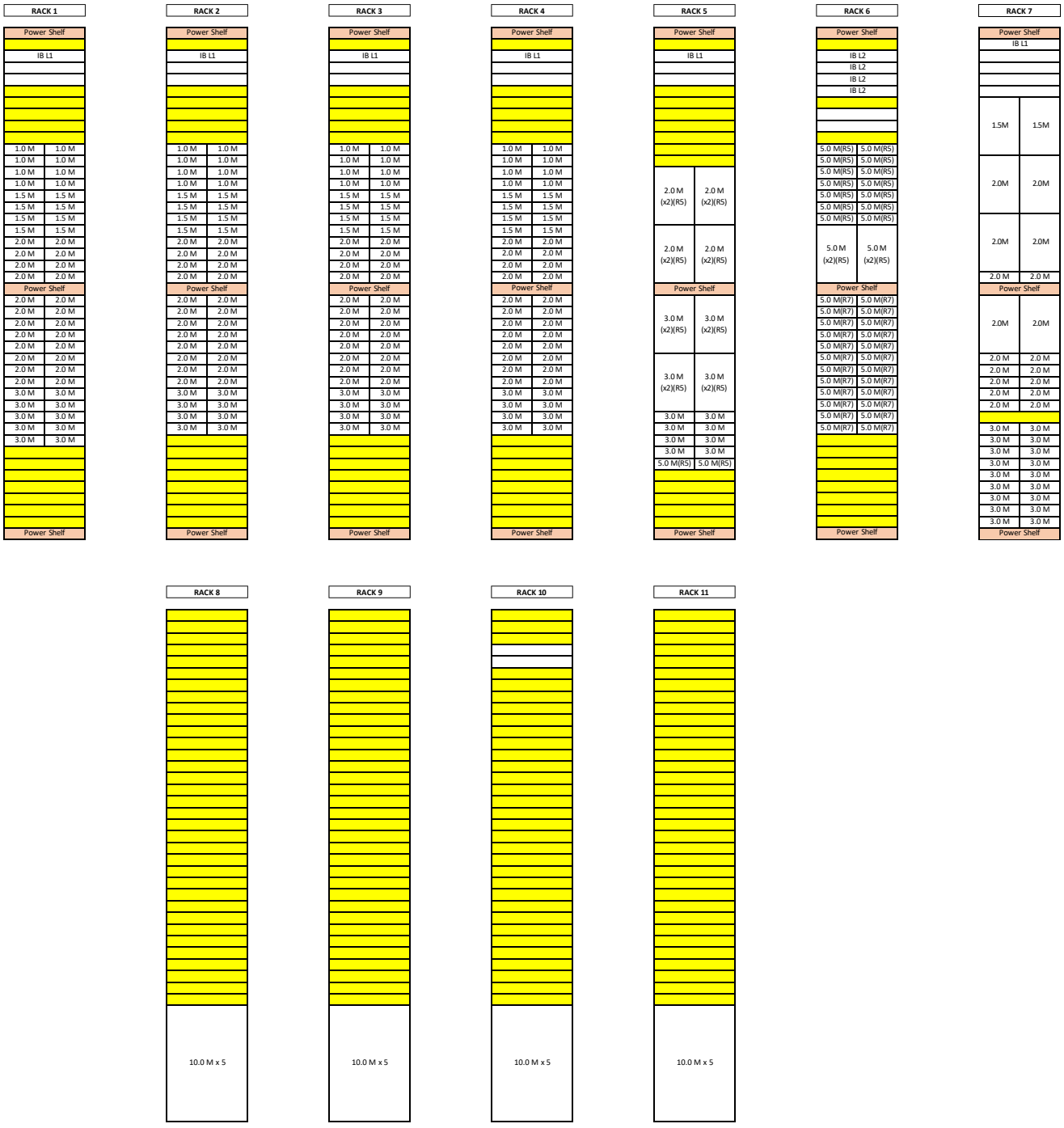
Each IPMI switch will have one uplink connected to the 10G IPMI uplink switch located in Rack 11.

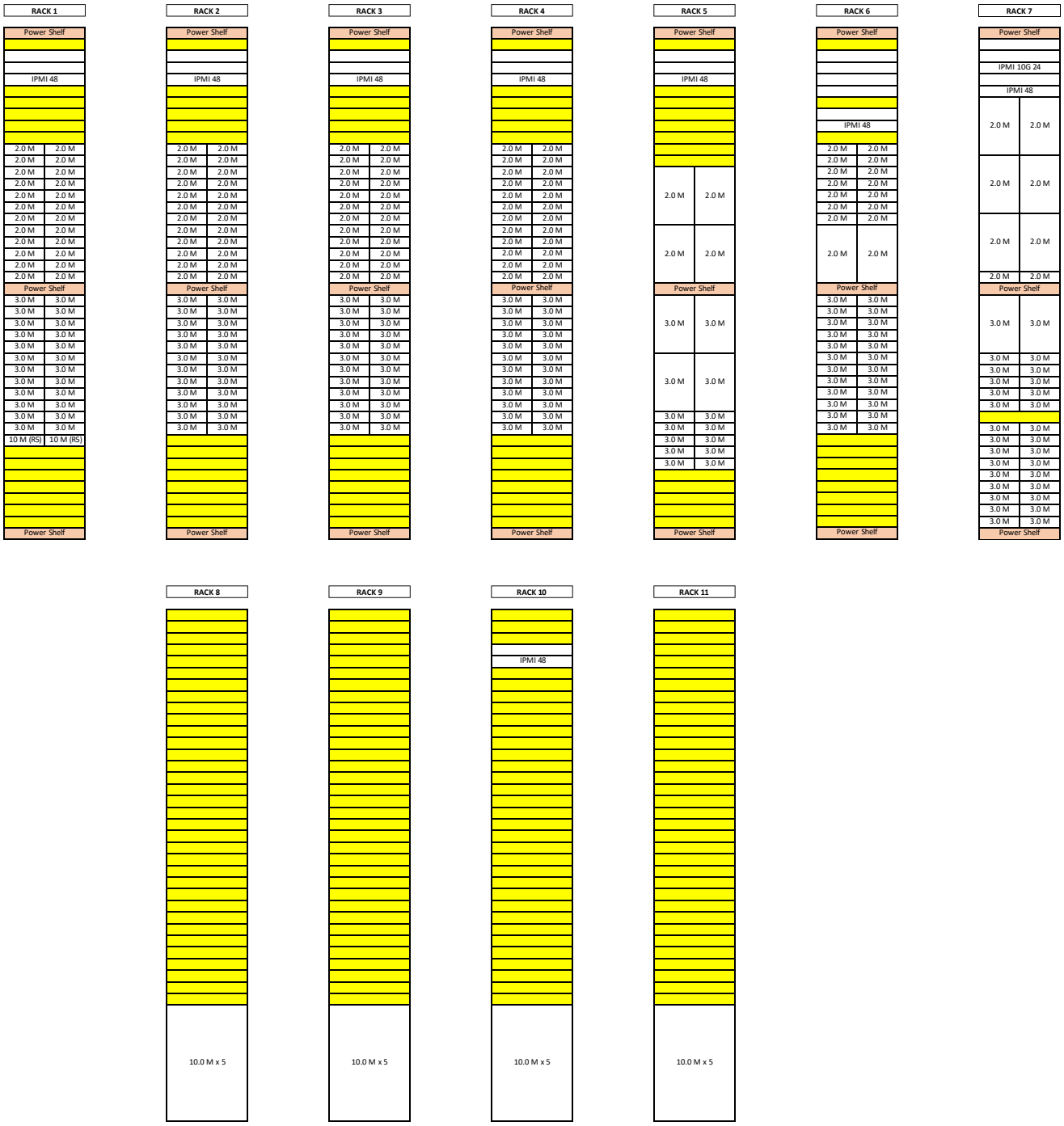

RACK 1
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 2
Power Shelf
IB L2
IB L2
IB L2
IB L2
5.0 M (x2)(R1)
5.0 M (x2)(R1)
5.0 M (x2)(R1)
5.0 M (x2)(R1)
Power Shelf
5.0 M (x2)(R3)
5.0 M (x2)(R3)
5.0 M (x2)(R3)
5.0 M (x2)(R3)
Power Shelf
RACK 3
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 4
Power Shelf
5.0 M (x2)(R5)
5.0 M (x2)(R5)
5.0 M (x2)(R5)
5.0 M (x2)(R5)
Power Shelf
Power Shelf
RACK 5
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 6
10.0 M x 5
RACK 7
10.0 M x 5
RACK 8
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 9
Power Shelf
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
Power Shelf
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
Power Shelf
RACK 10
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 11
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 12
Power Shelf
IB L1
1.5M 1.5M
2.0M 2.0M
2.0M 2.0M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0M 2.0M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
5.0 M (x2)(R12)
5.0 M (x2)(R12)
Power Shelf
RACK 13
10.0 M x 5
RACK 14
10.0 M x 5


RACK 1
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 2
Power Shelf
IB L2
IB L2
IB L2
IB L2
5.0 M (x2)(R1)
5.0 M (x2)(R1)
5.0 M (x2)(R1)
5.0 M (x2)(R1)
Power Shelf
5.0 M (x2)(R3)
5.0 M (x2)(R3)
5.0 M (x2)(R3)
5.0 M (x2)(R3)
Power Shelf
RACK 3
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 4
Power Shelf
5.0 M (x2)(R5)
5.0 M (x2)(R5)
5.0 M (x2)(R5)
5.0 M (x2)(R5)
Power Shelf
Power Shelf
RACK 5
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 6
10.0 M x 5
RACK 7
10.0 M x 5
RACK 8
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 9
Power Shelf
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
5.0 M(R8) 5.0 M(R8)
Power Shelf
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
5.0 M(R9) 5.0 M(R9)
Power Shelf
RACK 10
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 11
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 12
Power Shelf
IB L1
1.5M 1.5M
2.0M 2.0M
2.0M 2.0M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0M 2.0M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
5.0 M (x2)(R12)
5.0 M (x2)(R12)
Power Shelf
RACK 13
10.0 M x 5
RACK 14
10.0 M x 5


RACK 1
Power Shelf
IB L1
Secondry 48
IPMI 48
cn001 cn002
cn003 cn004
cn005 cn006
cn007 cn008
cn009 cn010
cn011 cn012
cn013 cn014
cn015 cn016
cn017 cn018
cn019 cn020
cn021 cn022
cn023 cn024
Power Shelf
cn025 cn026
cn027 cn028
cn029 cn030
cn031 cn032
cn033 cn034
cn035 cn036
cn037 cn038
cn039 cn040
cn041 cn042
cn043 cn044
cn045 cn046
cn047 cn048
cn049 cn050
Power Shelf
RACK 2
Power Shelf
IB L1
Secondry 48
IPMI 48
cn051 cn052
cn053 cn054
cn055 cn056
cn057 cn058
cn059 cn060
cn061 cn062
cn063 cn064
cn065 cn066
cn067 cn068
cn069 cn070
cn071 cn072
cn073 cn074
Power Shelf
cn075 cn076
cn077 cn078
cn079 cn080
cn081 cn082
cn083 cn084
cn085 cn086
cn087 cn088
cn089 cn090
cn091 cn092
cn093 cn094
cn095 cn096
cn097 cn098
Power Shelf
RACK 3
Power Shelf
IB L1
Secondry 48
IPMI 48
cn099 cn100
cn101 cn102
cn103 cn104
cn105 cn106
cn107 cn108
cn109 cn110
cn111 cn112
cn113 cn114
cn115 cn116
cn117 cn118
cn119 cn120
cn121 cn122
Power Shelf
cn123 cn124
cn125 cn126
cn127 cn128
cn129 cn130
cn131 cn132
cn133 cn134
cn135 cn136
cn137 cn138
cn139 cn140
cn141 cn142
cn143 cn144
cn145 cn146
Power Shelf
RACK 4
Power Shelf
IB L1
Secondry 48
IPMI 48
cn147 cn148
cn149 cn150
cn151 cn152
cn153 cn154
cn155 cn156
cn157 cn158
cn159 cn160
cn161 cn162
cn163 cn164
cn165 cn166
cn167 cn168
cn169 cn170
Power Shelf
cn171 cn172
cn173 cn174
cn175 cn176
cn177 cn178
cn179 cn180
cn181 cn182
cn183 cn184
cn185 cn186
cn187 cn188
cn189 cn190
cn191 cn192
cn193 cn194
Power Shelf
RACK 5
Power Shelf
IB L1
Secondry 48
IPMI 48
gpu001 gpu002
gpu003 gpu004
Power Shelf
gpu005 gpu006
gpu007 gpu008
cn195 cn196
cn197 cn198
cn199 cn200
cn201 cn202
cn203 cn204
Power Shelf
RACK 6
Power Shelf
IB L2
IB L2
IB L2
IB L2
Secondry 48
IPMI 48
cn205 cn206
cn207 cn208
cn209 cn210
cn211 cn212
cn213 cn214
cn215 cn216
cn217 cn218
gpu009 gpu010
Power Shelf
cn219 cn220
cn221 cn222
cn223 cn224
cn225 cn226
cn227 cn228
cn229 cn230
cn231 cn232
cn233 cn234
cn235 cn236
cn237 cn238
cn239 cn240
cn241 cn242
Power Shelf
RACK 7
Power Shelf
IB L1
Secondry 10G 48
IPMI 10G 24
Secondry 48
IPMI 48
Service01 Service02
Service03 Service04
Service05 Service06
Service07 Service08
Power Shelf
Service09 Service10
Service11 Service12
Service13 Service14
Service15 Service16
Service17 Service18
Service19 Service20
cn245 cn246
cn247 cn248
cn249 cn250
cn251 cn252
cn253 cn254
cn255 cn256
cn257 cn258
cn259 cn260
cn261 cn262
Power Shelf
RACK 8
Storage
RACK 9
Storage
RACK 10
Secondry 48
IPMI 48
Storage
RACK 11
Storage


RACK 1
Power Shelf
Secondry 48
2.0 M
3.0 M
10 M (RS)
Power Shelf
RACK 2
Power Shelf
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 3
Power Shelf
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 4
Power Shelf
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 5
Power Shelf
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 6
Power Shelf
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 7
Power Shelf
Secondry 10G 48
Secondry 48
2.0 M
3.0 M
Power Shelf
RACK 8
10.0 M x 5
RACK 9
10.0 M x 5
RACK 10
Secondry 48
10.0 M x 5
RACK 11
10.0 M x 5


RACK 1
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 2
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 3
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 4
Power Shelf
IB L1
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.0 M 1.0 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
1.5 M 1.5 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
Power Shelf
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 5
Power Shelf
IB L1
2.0 M (x2)(RS) 2.0 M (x2)(RS)
2.0 M (x2)(RS) 2.0 M (x2)(RS)
Power Shelf
3.0 M (x2)(RS) 3.0 M (x2)(RS)
3.0 M (x2)(RS) 3.0 M (x2)(RS)
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
5.0 M(RS) 5.0 M(RS)
Power Shelf
RACK 6
Power Shelf
IB L2
IB L2
IB L2
IB L2
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M(RS) 5.0 M(RS)
5.0 M (x2)(RS) 5.0 M (x2)(RS)
Power Shelf
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
5.0 M(R7) 5.0 M(R7)
Power Shelf
RACK 7
Power Shelf
IB L1
1.5M 1.5M
2.0M 2.0M
2.0M 2.0M
2.0 M 2.0 M
Power Shelf
2.0M 2.0M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
2.0 M 2.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
3.0 M 3.0 M
Power Shelf
RACK 8
10.0 M x 5
RACK 9
10.0 M x 5
RACK 10
10.0 M x 5
RACK 11
10.0 M x 5


RACK 1
Power Shelf
IPMI 48
2.0 M
3.0 M
10 M (RS)
Power Shelf
RACK 2
Power Shelf
IPMI 48
2.0 M
3.0 M
Power Shelf
RACK 3
Power Shelf
IPMI 48
2.0 M
3.0 M
Power Shelf
RACK 4
Power Shelf
IPMI 48
2.0 M
3.0 M
Power Shelf
RACK 5
Power Shelf
IPMI 48
2.0 M
3.0 M
Power Shelf
RACK 6
Power Shelf
IPMI 48
2.0 M
Power Shelf
RACK 7
Power Shelf
IPMI 10G 24
IPMI 48
2.0 M
3.0 M
Power Shelf
RACK 8
10.0 M x 5
RACK 9
10.0 M x 5
RACK 10
IPMI 48
10.0 M x 5
RACK 11
10.0 M x 5