

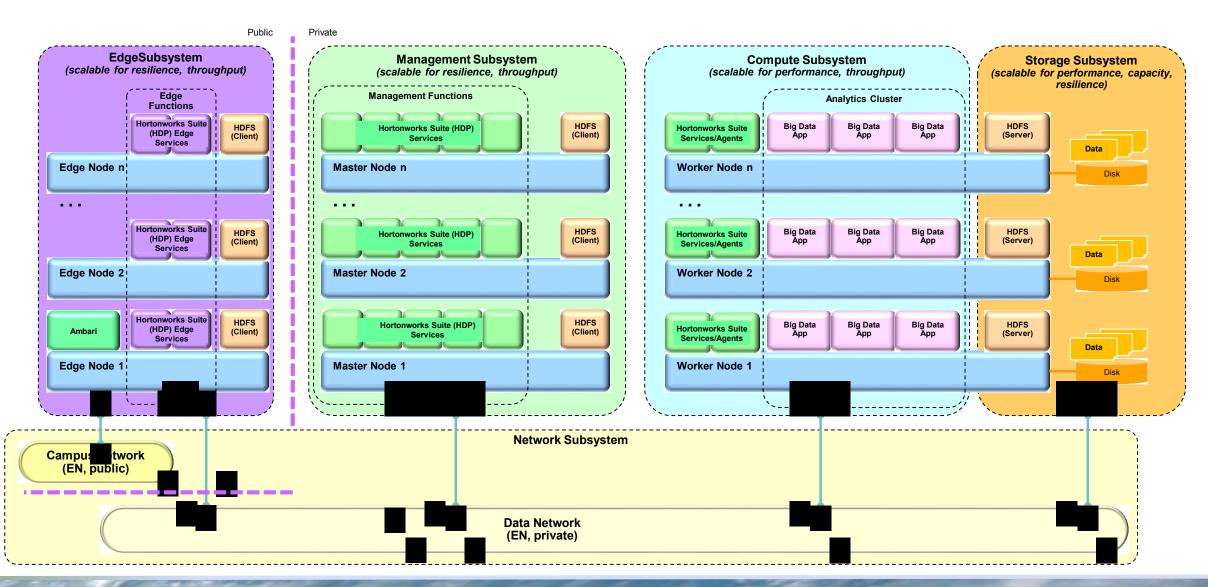
IBM Systems Power Development

Hortonworks Data Platform on IBM Power (HDP on Power)
Deployment Guide

Design Overview

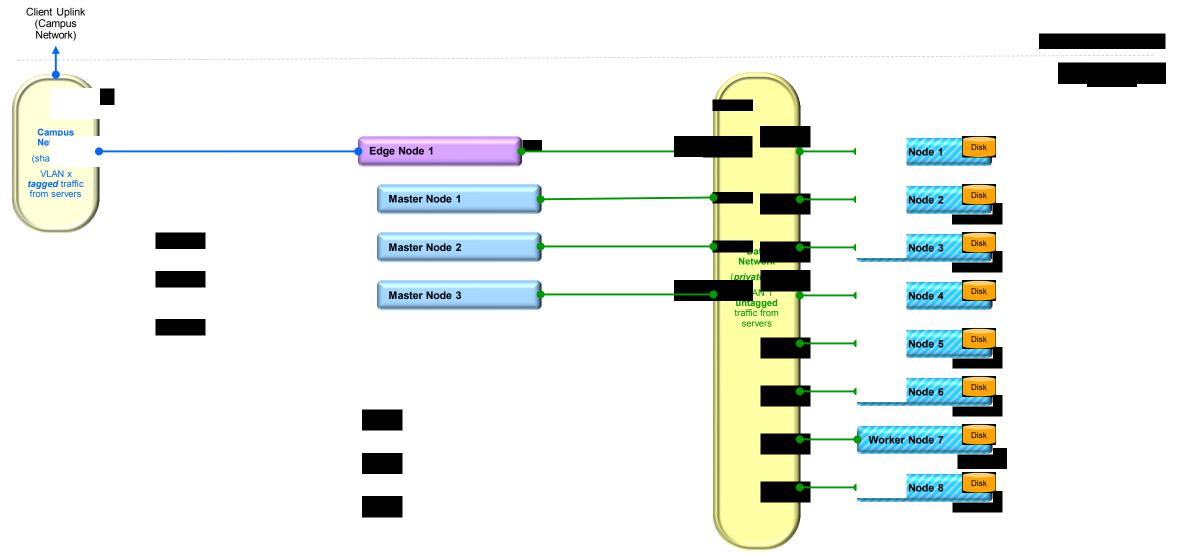


Architecture – Infrastructure/Hosting Overview



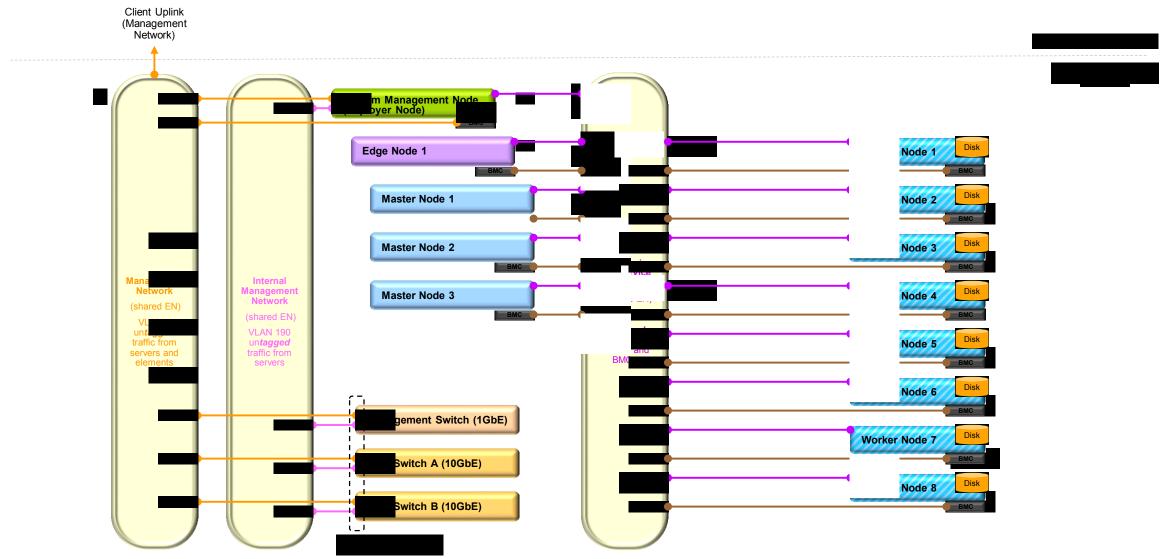


Minimum Production Configuration – Logical Network Topology – Application Level View



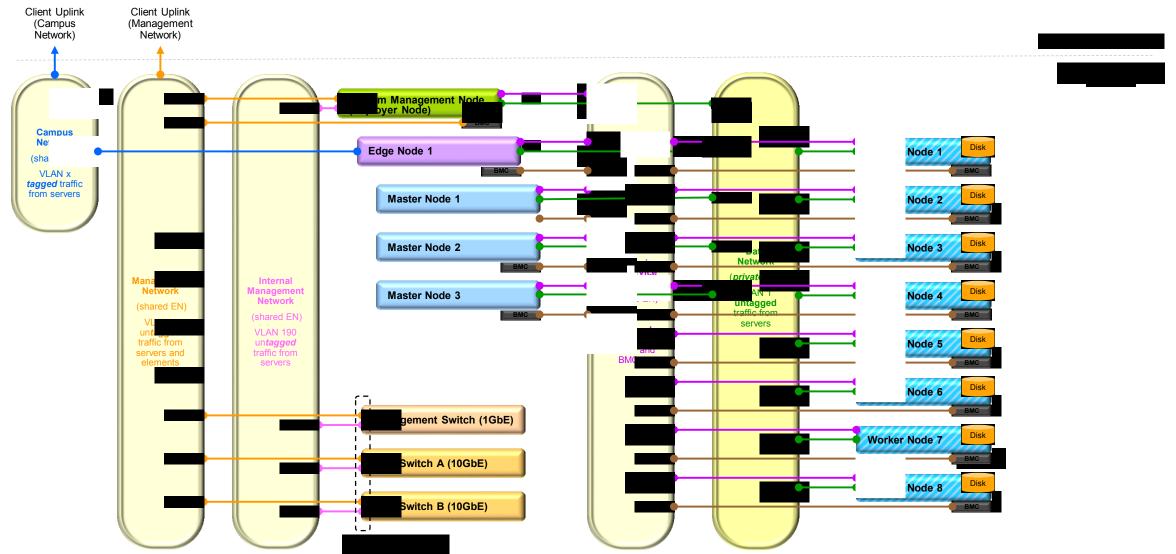


Minimum Production Configuration – Logical Network Topology – Infrastructure Level View



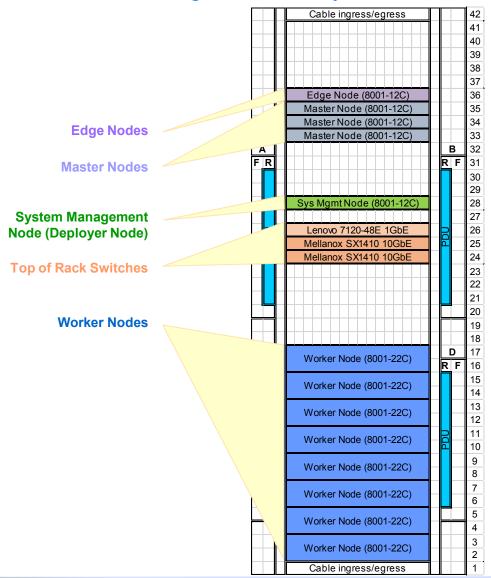


Minimum Production Configuration – Logical Network Topology – All Networks





Minimum Production Configuration – Physical View – Rack Layout



System Management Node

Quantity: 1

Power 821LC (Stratton) 8001-12C 1x POWER8 CPUs, 8 Cores 32GB Memory

2x 4TB HDDs

1x 2-port SPF+ Ethernet Adapter

Master Node

Quantity: 3

Power 821LC (Stratton) 8001-12C 2x POWER8 CPUs, 20 Cores 256GB Memory

4x 4TB HDDs

1x 2-port SPF+ Ethernet Adapter

Edge Node

Quantity: 1

Power 821LC (Stratton) 8001-12C 2x POWER8 CPUs, 20 Cores 256GB Memory

4x 4TB HDDs

2x 2-port SPF+ Ethernet Adapter

Worker Node

Quantity: 8

Power 822LC (Briggs) 8001-22C 2x POWER8 CPUs, 22 Cores 256GB Memory

256GB Memory 12x 4TB HDDs

1x 2-port SPF+ Ethernet Adapter

Management Switch

Quantity: 1

Lenovo G8052 7120-48E, 1GbE

Data Switch

Quantity: 2

Mellanox SX1410, 10GbE

Rack

Quantity: 1

42U 7965-94Y + PDUs



Minimum Production Configuration – Component Specifications

	System Mgmt Node	Master Node	Edge Node	Worker Node
Server Type	1U S821LC (Stratton) 8001-12C	1U S821LC (Stratton) 8001-12C	1U S821LC (Stratton) 8001-12C	2U S822LC (Briggs) 8001-22C
Quantity	1	3	1	8
Cores	8	20	20	22
Memory	32GB	256GB	256GB	256GB
Storage - HDD	2x 4TB HDD	4x 4TB HDD	4x 4TB HDD	12x 4TB HDD
Storage Controller	Marvell (internal)	LSI MegaRAID 9361-8i (2GB cache)	LSI MegaRAID 9361-8i (2GB cache)	LSI MegaRAID 9361-8i (2GB cache)
Network - 1GbE	4 ports (internal)	4 ports (internal)	4 ports (internal)	4 ports (internal)
Network - 10GbE	1x 2-port SPF+ adapter	1x 2-port SPF+ adapter	2x 2-port SPF+ adapter	1x 2-port SPF+ adapter

	Management Switch	Data Switch	Rack
Туре	Lenovo G8052 7120-48E	Mellanox SX1410 8831-S48	42U Rack 7965-94Y
Quantity	1	2	1