



MASL
WORLD

CASE STUDY

Modernizing **BSNL's** Centralized **Mobile** Billing **System Infrastructure**





THE CLIENT

The client is BSNL, one of India's largest state-run telecom operators, running centralized mobile billing operations across a nationwide subscriber base. The system underpinning this — spanning rating, billing, invoicing, payments, and customer service — needed a full infrastructure overhaul to support next-generation billing capability at scale.



THE CHALLENGE

- Legacy hardware and fragmented applications running billing, provisioning, invoicing, and customer service as disconnected systems rather than one coherent stack
- A backup architecture spanning short-term and long-term data retention that needed to be newly designed and deployed as part of the modernization





- A dual-site requirement — Chandigarh (primary) and Pune (disaster recovery) — demanding identical, synchronized infrastructure built hundreds of kilometres apart
- The upgrade had to happen without disrupting a live, revenue-critical billing operation serving millions of subscribers nationwide
- A complex, multi-vendor environment requiring precise, large-scale execution to bring BSNL's modernization plans to life



THE SEARCH



BSNL needed a partner capable of complete infrastructure delivery — survey, procurement, installation, integration, and commissioning across servers, storage, networking (switching, routing, load balancing), backup, operating systems, and power backup solutions.

The scope demanded proven capability across multiple disciplines at once: enterprise server deployment, unified storage architecture, network and firewall configuration, backup systems, and power infrastructure all delivered to a rigorous, jointly validated design.

MASL World was selected as the execution partner based on its systems integration expertise and track record delivering large-scale infrastructure for government and public-sector telecom operations.





SCOPE OF WORK

Compute & Storage:

- High-performance enterprise servers deployed across five configurations, alongside a unified storage architecture with built-in expansion capacity at both sites.

Backup Infrastructure:

- A new backup solution spanning short-term and long-term object storage, installed with backup hardware and snapshot policies.



Network & Security:

- Enterprise switching, routing, and firewall deployment, with load balancer installation and VLAN configuration across both sites.

Software & OS Layer:

- Enterprise Linux and Windows Server environments, installed and configured, with middleware deployed and database platforms provisioned for the client's separate installation.

Power Infrastructure:

- UPS systems with battery backup at both sites, sized to each site's specific load requirements.





THE SOLUTION

MASL World's approach was built around synchronized dual-site execution and precision engineering — ensuring the Chandigarh and Pune environments were built as coordinated DC-DR sites, aligned to a common design standard.

The solution was structured around three priorities: exact adherence to a jointly validated design, zero disruption to a live, always-on billing operation, and redundancy engineered into the architecture from day one.



Dual-Site Parity:

- *Hardware and software layers deployed at Chandigarh were matched at Pune in line with the validated design — supporting failover readiness that was planned in from day one, not retrofitted later.*

Precision-Aligned Delivery:

- *Every phase was executed against a design signed off jointly with BSNL, ensuring infrastructure was built exactly to specification with no rework or misalignment down the line.*

Layered Backup Architecture:

- *Short-term and long-term object storage backup was designed as a single integrated policy layer, not two disconnected systems — simplifying recovery operations for BSNL's ops team.*

Phased, Low-Disruption Execution:

- *Work was sequenced through site survey, hardware supply, and final installation phases — allowing BSNL's live billing operations to continue uninterrupted throughout.*

THE OUTCOME



The infrastructure overhaul delivered a billing environment re-engineered for both current transaction volume and future subscriber growth — executed to the precise specification BSNL had validated.

Operational Continuity:

- Zero disruption to live billing operations throughout a multi-phase, dual-site hardware transformation.

Disaster Recovery Readiness:

- A dedicated, purpose-built DR environment gives BSNL's billing operations a real failover path — supporting resilience where the corridor previously had a single point of dependency.



Enterprise-Grade Delivery:

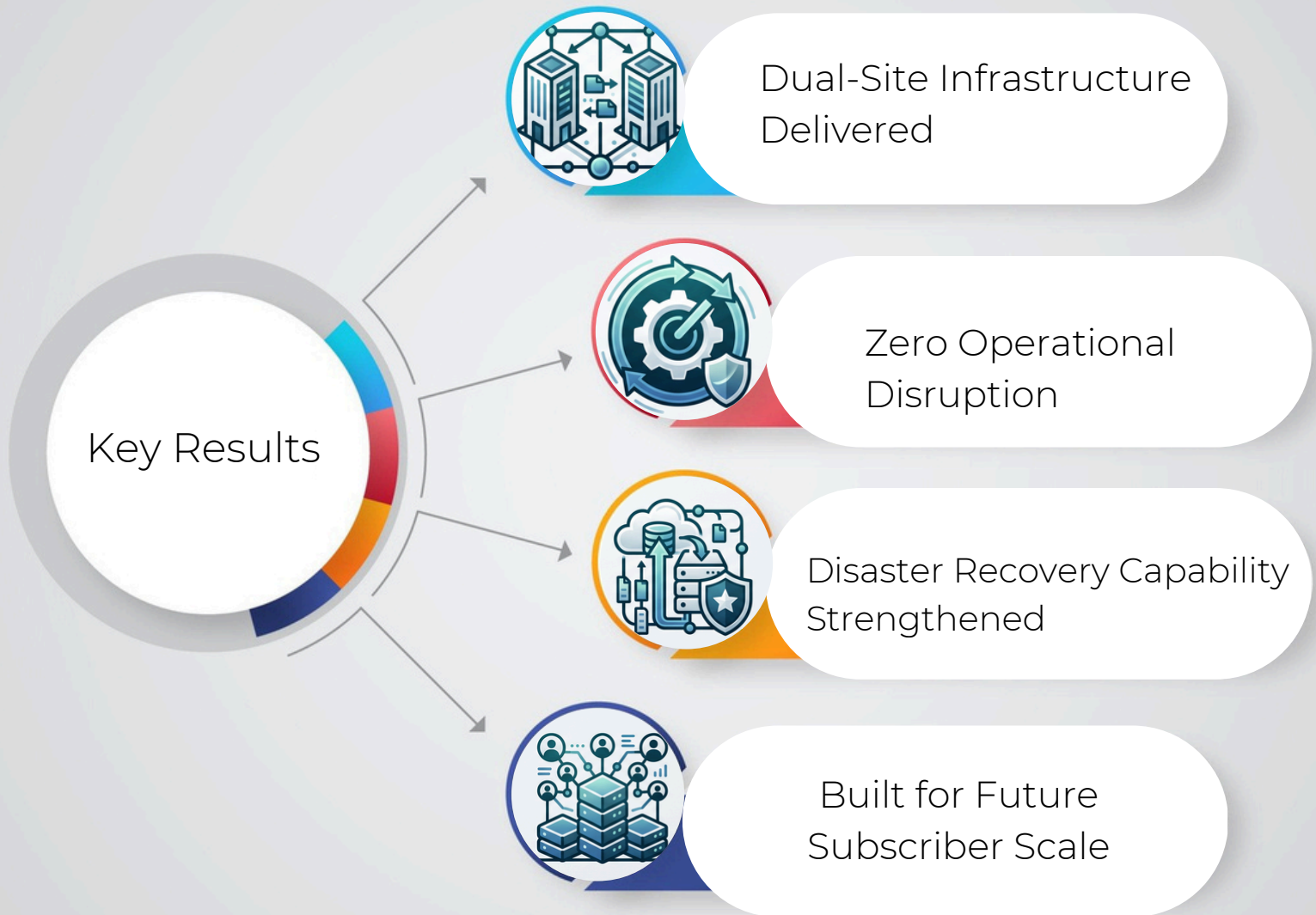
- Hardware and OS layers were delivered fully installed, configured, and validated — built right the first time, with no rework.

Scalable Foundation:

- The environment was sized and architected to absorb future subscriber growth without requiring a ground-up redesign.



THE IMPACT



"This case study reflects MASL World's role in delivering complete infrastructure modernization for BSNL's Centralized Mobile Billing System — executing a synchronized dual-site build to a jointly validated design, without disrupting a live, revenue-critical operation."





MASL
WORLD

“Transform your business with our proven solutions and elevate to new heights”.

GET IN TOUCH !



+91 93112 40651



www.maslworld.com



info@maslworld.com



**E 48/9, Okhla Phase-II
New Delhi 110020**