

# Project Portfolio



*Leave IT to us*

*IT Solutions Company*

# RailTel Railway Wi-Fi Project - One of the largest public Wi-Fi projects in the World

*Swan implements Public Wi-Fi internet connectivity for Railway Stations*

Government | Mumbai, India



## Overview

Contributing towards Digital India initiative, Indian Railways decided to provide Wi-Fi Broadband facility to Rail users at major Railway stations. Swan partnered with Google, RailTel & Tech Mahindra for setting up fast Wi-Fi initially covering 400 stations .

## Objective

Major objective of RailTel was to provide fast Wi-Fi at Railway stations for the passengers at A1, A category Railway stations in India to facilitate viewing of uninterrupted high definition digital content.

## Solution

Swan had to provide Redundant Power and Network Connectivity to huge number of WI-Fi Access Points installed on each railway platform. Project included laying of thousand meters of power cables across the railway station. Power cables were laid overhead as well as underground. Network runs on ring of Fiber optic cables covering entire station. Ring architecture makes network high available and efficient.

## Results

- Swan successfully implemented Wi-Fi at 10 Stations and 56 stations currently under execution across India.
- Implementation Included busiest Chatrapati Shivaji Maharaj Terminus
- Average of 18,000 to 20,000 Wi-Fi user registrations per day.
- 1Gbps Internet backbone consumed by these users.

# Network Infrastructure Upgrade

*Upgrade network infra to 10G*

BFSI



## Objective

Upgrade Data network from 1G to 10 G including redundancy

## Challenges

Mahindra Finance had 1G network infrastructure at their Mumbai data centre. Their network infrastructure was two tier including Core and Access switches. There was no redundancy in uplink due to which legacy network performance was very slow. Lots of outage and very difficult to diagnose network outage.

## Solution

After understanding customer pain points, Swan team designed a new 3 tier network architecture. New architecture included Core, Distribution, and Access switches. The new solution was designed with 10G redundant uplink. We have installed HP 5820 at distribution layer & HP 5510 HI switches at access layer. We have deployed HP IMC network management solution for proactive monitoring and management.

## Results

- Network infrastructure became highly scalable.
- Network infrastructure's performance enhanced by 10 times.
- Due to redundancy deployed at multiple layer network outages reduced drastically.
- Due to NSM solution monitoring management of network became very simple.
- NSM Solutions monitor the entire network proactively. In case of any outage automatic alerts sent to administrators so they can take immediate action to resolve.



# Servers & Network Consolidation Project

*Revamp IT infrastructure*

BFSI

## Objective

IT Infrastructure consolidation

## Challenges

Quant capital had around 80 physical servers at their data centre. Due to huge number of servers it was very difficult to manage entire infrastructure. There was no redundancy for server, storage, and network, leading to outages. Customer was not having DR site for business continuity.

## Solution

Swan's team designed a server consolidation solution based on VMware Virtualization technology. We deployed HP Chassis base servers which include 9 blade servers. EMC unified storage was installed as shared storage. HP 5930 converged redundant core switches were installed. To protect entire IT infrastructure at gateway level Palo Alto PA 3020 Next Generation Firewall was also installed.

We also built a DR site where 6 HP servers deployed and VMware Site recovery management solution deployed for host base replication between DC & DR.

## Results

- Servers consolidate from 80 servers to only 9 servers
- With the help of VMware virtualization redundancy was created for servers.
- HP converged switches provide unmatched network performance.
- With VMware SRM solution at real-time replication happens between DC & DR.
- With help of Palo Alto firewall IT infrastructure became highly secured

 **quant**  
analysis adds up

# Core Switch Deployment Project

*Core Switch Deployment*

Media & Entertainment



## Objectives

Installation of Chassis Base Core Switch

## Challenges

Sony Pictures had a vast network at their Malad office. Sony is into media & entertainment and hence they work on very large media files. This kind of workload requires high performance network infrastructure. Network consists of various connectivity for end users, media storages and servers.

## Solution

Swan deployed HP 5412 Chassis Base switches from HP with redundancy. These Switches are equipped with various line cards like 10G SFP + Ports , 1G SFP Ports , 1G copper Ethernet ports.

## Results

- Various connectivity like 10G SFP+ , 1G SFP , 1G Copper consolidate at two core switches is now possible.
- Redundancy was created at Core switch level.
- Network became highly scalable as additional line cards could be added in switches as and when the customer required additional ports.
- Network became very simple and easy to manage.

# Enterprise Wide Wireless Infrastructure Deployment



*Wireless Infrastructure deployment*

BFSI

## Objectives

Installation of Wireless Infrastructure

## Challenges

Customer wanted to deploy enterprise wide wireless infrastructure for their 40 plus branches

## Solution

Swan deployed HP Aruba instant access points across 40 branches. These access points were integrated with customer's Active Directory (AD) for 802.1x authentication. Two SSIDs were created on access points one for employees secured access and another for Guest restricted access.

## Results

- Highly secured enterprise Wireless infrastructure deployed.
- Entire wireless infrastructure can be managed centrally from Mumbai head office.
- Various security policies for web content filtering & application filtering policies are configured on access points to make infrastructure highly secured.



# Enterprise wide Wireless infrastructure deployment

*Wireless Infrastructure Deployment*

BFSI

## Objective

Installation of Wireless infrastructure

## Challenges

Customer wanted to deploy enterprise wide wireless infrastructure for their 9 plus branches.

## Solution

Swan deployed HP Aruba access points across 9 branches. Redundant Aruba Wireless controller was installed at the Data Centre. Aruba Airwave wireless management software was installed for managing wireless infrastructure.

These access points were integrated with customer's Active Directory (AD) for 802.1x authentication. Two SSIDs were created on access points one for employees secured access and another for Guest restricted access.

## Results

- Highly secured enterprise Wireless infrastructure deployed.
- Entire wireless infrastructure can be managed centrally from Mumbai head office.
- Various security policies for web content filtering and application filtering policies are configured on access points to make infrastructure highly secured.

 HDFC  
ERGO  
GENERAL INSURANCE

# Backup & Recovery Solution

*Backup & Recovery Solution deployment*

Logistics



## Objective

Installation **Backup & Recovery Solution** .

## Challenges

Customer had a Veritas Backup solution which was taking backup on EMC Data domain appliance. There was no data replication happening of EMC Data domain appliance for DR. Veritas Backup license were old and they were not upgraded to latest version.

## Solution

Swan installed Veritas capacity based license at Mumbai data centre. We installed new EMC Data Domain 6800 appliance. Existing EMC data domain appliance was installed at customer's DR site. DC Data Domain appliance backup data gets replicated at DR Data Domain appliance on real-time basis.

## Results

- Latest backup solution with modern data centre features installed.
- Automated data backup.
- Granular data recovery.
- Backup solution efficiently takes backup of various servers on Data Domain.
- Backup data gets replicated on DR for business continuity. Multiple copies of backup maintained at primary site as well at offsite.



# Road Transport Authority of Haryana

*Branch connectivity*

Government



## Objective

Deployment of **Branch-wide connectivity**

## Challenges

Customer wanted to implement internet connectivity for 93 branches to access centralized Road transportation application that would provide various transportation related services to public.

## Solution

Swan deployed 4Mbps OFC internet connectivity via BSNL to 93 branches. At branches Cyberoam CR25ING firewall was installed alongwith HP switches for LAN connectivity. Secured internet connectivity was provided for all branches. Entire infrastructure is managed and monitored from Swan GSDC in Mumbai.

## Results

- Highly Secured and Reliable Internet connectivity
- Complete proactive management done from Swan GSDC (NoC)
- Customer needs to contact Single Number of Swan GSDC for any technical support.
- Customer's issues get resolved within SLA timeline and managed by ITIL based ticketing system.
- Branch network is protected via Next generation firewall. Only selected web sites and internet application allowed.

# M&R Consultant Corporation Addresses Storage Issues with Virtualization



*Swan Solutions helps M&R Consultant Corporation replace aging servers and increase storage capacity without any downtime*

E-learning

## Overview

Due to the nature of critical data stored in structured and unstructured locations, it was necessary to simplify and improve backup and recovery methods.

## Challenges

Ageing servers, Heat Footprint, Need for increase in Storage Capacity, Upgrade requirement without any downtime

## Solution

- Single physical file server with high power and capacity
- Windows Server 2012 R2 and Hyper-V role and configured backups
- Conversions of aging servers and optimized performance

## Results

- Simplified process to restore data
- Reduced heat output and power utilization
- Low operating costs and eliminated expensive licensing

# SBI Addresses Scalability with Virtualization



*Swan Solutions helps SBI digitalise its retail banking experience by upgrading its IT infrastructure*

Finance | Mumbai, India

## Overview

SBI witnessed a surge in the number of users. Though virtualization was already implemented, they required hardware upgrade to handle the rise in the number of users.

## Objective

Scalability - to accommodate a high number of users for the current and future growth, and single-management console to oversee the entire network.

## Solution

Multiple vLANs, Uplink Ports, HP Virtual Connect

## Results

- Single console to manage the VMware environment
- On-demand hardware availability
- Scalable to accommodate up to 500 virtual machines



# Reliance Securities Turns To Virtualization for Minimal Downtime

 **RELIANCE** Securities  
Anil Dhirubhai Ambani Group

*A financial services provider with over 1,700 branches sought to reduce costs through better use of processes, tools and people.*

Financial Products and Services | Bengaluru, India

## Description

Reliance Securities, an online brokering arm of Reliance Capital, is a leading provider of offline trading products including Call and Trade, Branch Dealing Desks and network of affiliates. It has over 7 lakh customers and a pan-India presence in more than 1,700 locations.

## Objectives

Network Manageability, Reduce Hardware Downtime, Cost Cutting, Scalability

## Solution

HP BladeSystem c7000, VMware's Hypervisor 5.5 Update 1, VMware vCenter management server, VMotion, HP Virtual Connect, VMware Clusters.

## Results

- Single Point Management
- Easy Maintenance
- Reduced Downtime
- Minimized Hardware Infrastructure
- Lower Running Costs
- Unified Solution to Manage Entire Network Remotely
- Business Continuity
- Redundancy
- Threat Detection

# SBI Targets Gen-Y with Real-Time Digital Banking Solutions



*Swan Solutions helps SBI digitalize its retail banking experience by upgrading its IT infrastructure*

Banking | Mumbai, India

## Description

SBI is one of India's leading banking and financial services.

## Objective

Reduce the time taken for processing requests – i.e. from receiving a request for a loan, new account, debit/credit card, until the documents/ card get delivered to a customer.

## Solution

HP Blade System c7000 Enclosure, HP MSA 2040 SAN Storage, VMware Hypervisor 5.0 update 1, VMware vCenter Server, HP Virtual Connect, VMware Clusters, VMware vCenter management, Microsoft cluster-mode configuration for SQL database, HP's MSL Tape Library 4042

## Results

- Reduced network manageability
- Application and data base server available 24x7
- Single console to manage the VMware environment
- Single console to manage the complete hardware environment

# Centrum Capital attains zero-downtime and high data-availability by migrating servers to a virtual environment

 CENTRUM

*A Financial Services Enterprise Ensures 24/7 Data Availability with Virtualization*

Financial Services | Mumbai, India

## Description

Centrum is one of the leading financial companies in the country that offers innovative, customized and integrated financial solutions. They provide uniquely tailored solutions for the financial service needs of both corporate and individual.

## Objective

To increase availability and 24/7 uptime.  
Reduce costs associated with DCIM

## Solution

HP BladeSystem c7000 Enclosure, VMware, Hypervisor 5.0 update 1, VMware vCenter, Server, HP Virtual Connect, VMware Clusters, VMware vCenter management

## Results

- No server downtime
- Low maintenance costs for servers
- Centralized network management
- Business Continuity
- Redundancy in Switching
- Faster processing power and memory on-demand



# Crompton Greaves Implements Unified Management Solution to Handle Network Infrastructure



*A Manufacturing Giant Ensures Business Continuity with Single-Point Network Monitoring*

Manufacturing | Mumbai, India

## Description

Avantha Group Company Crompton Greaves is a global leader in the management and application of electrical energy. It has over 15,000 employees across its operations in around 85 countries. Crompton Greaves provides electrical products, systems and services for utilities, power generation, industries, and consumers.

## Objective

To enhance performance of end users, increase scalability, monitor enterprise network Solution,

## Solution

HP Switches, L3 Routes,  
IMC Network Management Platform,  
N:1 Virtualization for IRF Stack

## Results

- Unified Solution to Manage Entire Network Remotely
- Business Continuity
- Redundancy in Switching
- Increased Productivity in End-User
- Threat Detection

# Network Infrastructure Upgrade helps Government Entity Address Speed, Security and Manageability



*Swan upgrades Network Infrastructure of The office of the Principal Account General to make it highly scalable & Secure*

Government | Mumbai, India

## Overview

The Office of the Principal Accountant General required a network infrastructure upgrade to accommodate its growing number of apps and users.

## Objective

Upgrade its network infrastructure to make it highly scalable and secure.

## Solution

CyberOam 200iNG Firewall, HP 5500 Series, Fully Managed L3 Switches, HP 2530 Fully, Managed L2 Switches

## Results

- State of the art network infrastructure
- Highly scalable and secure
- Easy to administrate
- Complete visibility of Internet access across organization
- Business continuity is ensured
- Firewall to protect from data breaches
- 23 departments connected over a single network

Thank you



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