An SBM Case Study
Innovation and Implementation of state-of-the-art IT infrastructure.

Judicial System is at the heart of guarding national progress in economic, technological and social domains. The Ministry of Justice in the Kingdom of Saudi Arabia took concrete steps in securing a state-of-the-art IT infrastructure on priority basis to ensure efficient working of judicial machinery. With the expertise of Saudi Business Machines, the Ministry of Justice upgraded its entire technology architecture to enhance its network, communications, data center and support systems. These advancements will effectively deliver mission-critical services and access to all citizens, businesses and government departments/partners in the Kingdom.

> While designing a comprehensive solution for Ministry of Justice SBM carefully studied total cost of ownership and engineered a solution that will be most reliable and cost effective to the Ministry. SBM has always been on the industry forefront in providing most effective solutions with its know how and expertise in technology integration.
>
> **Essam Alshiha**
> VP Sales, SBM

1 Business Needs

Ministry of Justice had an urgent need to enhance its availability to citizens across the kingdom and simplify public access to the Ministry. To achieve this was necessary to expedite the process to deliver judicial service and improve the service standards to all parties.

To deliver high standard of services, it became incumbent on the Ministry to address the impending need to upgrade the legacy systems, remove the technical constraints and limitations; enhance security, minimize cost, propagate ubiquitous reach and provide state-of-art services to citizens, employees and government/partners.

Ministry of Justice assigned SBM to a lead a complete technological transformation in its IT infrastructure with an added requirement to deploy several new internet-based services:

- **A website as an information and interaction tool for the Ministry to keep public informed and updated with news, processes, content, regulations and services.**
- **A public-facing Domain Name System (DNS) server that helps Internet clients to find the website of MOJ.**
- **Active Directory domain controllers and DNS servers for name resolution within the Ministry.**

- **A database server running client applications for the internal use of Ministry employees.**

> The solutions we have received from SBM were exceptionally well planned and addressed not only our current requirements but also envisioned our long-term operational needs. With layered system architecture deployed by SBM we are ready to serve with the highest level of operational efficiencies and prepared to cater to future system expansions and technology upgrades. Working with Saudi Business Machines was an exceptional experience, one that has forged a reliable partnership.
>
> Mr. Ali Al Ghurman
> Head of Networking Department,
> Ministry of Justice.

2 Business Challenge

The IT infrastructure of the Ministry was being over burdened with an ever-increasing demand to register and service new cases in thousands of hearing rooms across the Kingdom.

Saudi Business Machines was required to look at this issue from a long-term perspective and ensure that scalability of the solution will be able to cope up with the needs of the future.

Existent system was built on multiple technologies at different locations, adding to the cost of maintenance, complexity and hindrance in delivering standard services to the entire organization.

Data centers were also limited in their capacity, facilitating only the regional and local offices of the Ministry in the Kingdom, some of which were running on outdated networks while remote locations remained untapped.

Security practices remained fragmented owing to rapid growth and changing technologies within the network. With plans to introduce new internet-based services to Ministry employees and citizens added to the challenge.

3   The Solution

Saudi Business Machines took a comprehensive approach in designing the data center environment for the Ministry; one that answers immediate needs but also anticipate future needs by employing a layered approach in architecture design.

Layered approach is amongst the best practices used in some of the largest data center implementations in the world. Its seeks to improve scalability, modularity, security, robustness, network resilience, stability, manageability, total cost of ownership and after-sale support & maintenance.

While designing the architecture of data center we kept flexibility on the forefront of design to ensure deployment of new services and applications in the shortest time frame that can result in a significant competitive advantage. Such a design required SBM to put its best minds in solid initial planning and thoughtful consideration in the areas of port density, access layer uplink bandwidth, true server capacity, and oversubscription, to name just a few.

- DC Intrusion Prevention system
- WAN Router
- Internet router
- Internet firewall & IPS
- Web Cache & Security
- Email Security
- Data Correlation
- Blade Servers and Blade distribution switches
- SAN Switches Upgrade

B. Unified Communications System

- UC Manager
- Voicemail Server
- Presence Server
- FAX Server
- Voice Gateway
- IP Phones

C. IP Contact Center

D. Telepresence Systems

E. Wireless LAN Solution

F. Network Management Systems

- LAN Management System
- Security Management Solution
- Unified Communication Management Suite

Key Solution Components:

A. Data Center Network and Security Infrastructure

- DC Core Switches
- DC Access Switches
- On top of Rack Extenders
- Datacenter Firewall
- Load Balancer

‘ At Saudi Business Machines we deliver solutions that enable organizations to achieve their full potential and set new benchmark in the industry. Ministry of Justice, with the advance data center and network solutions, is a leading governmental body in IT infrastructure and operational capability. SBM is honoured to have equipped Ministry of Justice with the state-of-the-art technology, so it can actively participate in the socio-economic growth and development of the Kingdom of Saudi Arabia.

Mr. Ali Al Dulaim
CEO, SBM

4 Benefits

Ministry of Justice received a combination of strategic benefits in the domains of business, architecture and management of the new system.

Saudi Business Machines enhanced the business domain with its sound strategy, planning and implementation to provide end-to-end system that achieved location independence, multi-site optimization, converged network, multi-channel support (web & email), rapid application development, self-service & call treatment capabilities.
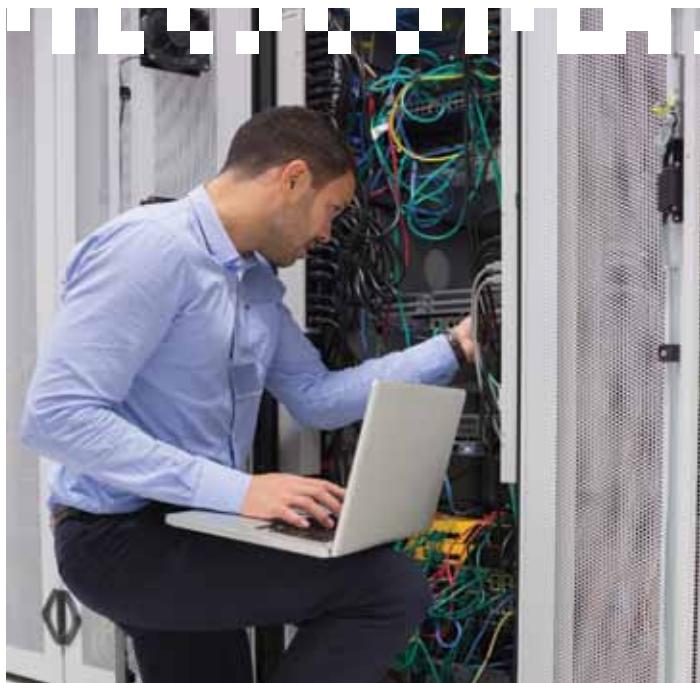
• These advancements increased the productivity of the whole organization as the communications amongst local and regional offices improved.

• Ministry was now able to provide quicker and flexible services for a lot less cost to the citizens.

• Higher uptime of data center providing uninterrupted services increasing staff productivity.

In the architectural domain Saudi Business Machines equipped the IT infrastructure of Ministry with the benefits of open system, scalability, distributed fault tolerance with increase redundancies and security systems that go beyond the conventional endpoint security solutions.

• Added capability of re-routing new cases to offices and notaries with lower case load has increased the efficiencies in operations.

• With Telepresence solution judge could consult and communicate real-time with colleagues, prospects, and partners irrespective of their

locations. Resulted in decreased business travel costs and empowerment of team to collaborate better.

The advancement in infrastructure increased the management capabilities of the Ministry to administrate & supervise the staff remotely.

• **Reporting, remote agent support, computer telephony integration, voice & screen recording, universal queue, unified a strong system to the operations.**

• **Training & skill development programs for staff became more cost-effective.**

• **With unified communications system hundreds of private exchange and local data centers were integrated to eliminate individual support system, resulting simplified management and cost savings.**

> SBM has truly proven to be a strategic partner for the critical IT infrastructure of Ministry of Justice. The meticulous planning and excellence in execution made the transition from legacy system to new generation data center and networking technologies, a seamless transformation.
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> **Mr. Majed Al Odwan**
> CEO and Project Director,
> Ministry of Justice.

5 Results

Ministry of Justice transformed into a more unified, efficient and innovative public entity that is capable of attending to citizen needs immediately, address the cases more closely and collaboratively and serve the nation more efficiently than ever before.

Employees of the Ministry felt the great technological transformation in their day-to-day work. Saudi Business Machines network architecture and data center solutions support staff to deliver on their responsibilities in a more effective and timely fashion –making Ministry of Justice an excellent place to work.

The economic and energy footprint of the Ministry of Justice became more sustainable with state-of-the-art technology that Saudi Business Machines used in data centers, key infrastructural components and operations support system.

> Our solution to Ministry of Justice contained a vision that is based on four mission critical milestones that we successfully delivered: 1- Reliability of the data centers and network infrastructure, 2 – Scalability for future expansion and technological upgrade in equipment and applications, 3 – Security and 4 – Manageability & maintenance.
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> **Mahmoud Alhusseini**
> VP of NSS (Network Services & Solutions)