

# Qatar Telecommunications Case Study

(July 2006)

The Kingdom of Qatar, with a population of 800,000 and situated in the Arabian Gulf, is one of the wealthiest countries in the world, based on GDP per head of population. Qatar Telecom (QTel) is the incumbent telecommunications carrier for Qatar.

QTel purchased the Cisco H/M-UCS platform, including VisionOSS' BVSM management system, in October 2005, with the platform going live in early January 2006. This Case Study outlines the rationale for QTel acquiring H/M-UCS-BVSM and the subsequent business benefits after 6 months of roll-out.

## QTel Background

QTel ([www.qtel.com.qa](http://www.qtel.com.qa)) is the monopoly telecommunications provider in Qatar and is one of the largest public companies in the country, with around 1,900 employees.

QTel provides a range of telecommunications products including national and international, wireline and mobile telephony. It also offers broadband Internet as well as Cable television services.

QTel is a major customer of Cisco in the region and they have implemented a Cisco IP core MPLS backbone for their IP services.

QTel's strategic priority is to provide the best communications technology and superior customer service to its customer. It prides itself on being the first company in the Gulf to launch new products and services, demanded by the rapidly growing and modern Qatari economy.

QTel is constantly undergoing extensive transformation programme to improve its already advanced telecommunications network, to achieve world-class operational efficiency. So when QTel selects a new technology, it looks for the best of class.

## The QTel Challenge

In early 2005 QTel issued an RFP for a Managed IP Telephony service platform. Their objective was to be able to offer Qatari businesses the opportunity to replace their traditional PBX hardware with an advanced featured, IP-based telephony service that could be provided for a single monthly fee.

QTel wanted customers to be able to manage their own services, through a simple, web-based, administration GUI. They also wanted multiple small to medium customers to be able to share a single IP-PBX platform in order to keep the capital costs down.

In order to deliver upon their promise, QTel needed a provisioning and service management product which was going to meet their needs today and into the future. This has resulted in a number of key high level objectives for QTel:

1. Advanced IP Telephony feature set, including both traditional voice features, plus the latest IP productivity tools, including:
  - Unified Messaging
  - Video Telephony
  - Wireless Phone Integration
  - Conferencing
  - Auto Attendant
  - IP Contact Centre
2. Offer IP Telephony services from a common platform to both large and small enterprises on a hosted and managed basis
3. Ability to scale the platform to meet future growth
4. Additional Phone-based XML applications + Application Roadmap
5. Ability to offer a price per-seat “rental” model
6. Variety of office/location sizes and topologies
7. No Flash-cuts or Forced forklifts
8. Rapid, automated rollouts
9. Segmented, devolved administration & control – centrally manageable but still available to end-users
10. Unified, flexible & easily manageable dial plan, allowing customers to keep existing DIDs
11. Meet Emergency Services (E911) requirements
12. Highly Available, Reliable, meets SLAs
13. Working design avail for Voice-enabled IP Network (QoS, FW/NAT issues solved)
14. Proven Solution Architecture
15. Secure design built into the architecture

### ***The Cisco/VisionOSS Solution***

In July 2005 Mannai Trading (local Qatari Systems Integrator) won the QTel RFP having bid the Cisco H/M-UCS architecture.

The platform was stage-built at the Cisco NSITE facility in Reading UK and QTel engineers visited Reading to participate in initial training and the stage testing. Deployment at QTel’s Doha KTC Data Centre took place during October 2005, with the field trials and training held during November.

Cisco Advanced Services and VisionOSS worked together with Mannai trading to install and commission the H/M-UCS platform. The deployment process went smoothly, and KTC test phones were activated within 8 hours of the deployment team being on the ground.

The photo below shows the twin H/M-UCS racks leaving NSITE prior to shipment to QTel.



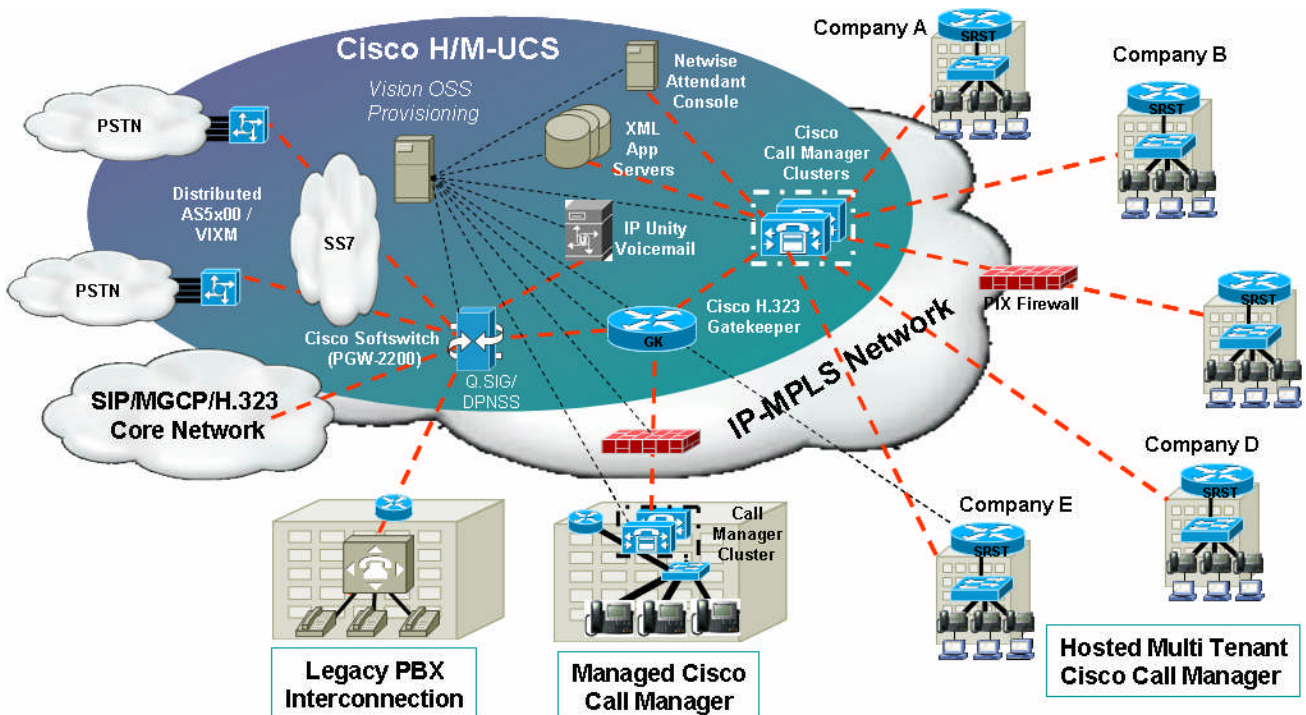
The key rationale for QTel selecting Cisco H/M-UCS included:

1. Full PBX feature set while allowing multi-tenant sharing of common network elements
2. Multi-Tenant packaged “rental model” based on a monthly per-seat cost
3. Provides multi-level, secure, web-based administration GUI, including down to end-user self management
4. Unified & network-integrated (multi-region/customer) dial plan
5. Simplified – template-based and scheduled – configuration management of multiple network elements by non-CCIEs
6. Flexibility between hosted and managed deployment model offering
7. Several PSTN interconnection options
8. Highly available architecture design

9. Ability to scale the network & rapidly add additional components (e.g. add more CCM clusters)
10. Allows customer configurations to expand seamlessly beyond 1 cluster (cross-cluster extension mobility, multi-cluster customers within the unified dial plan)
11. Leverage-able Network Elements (eg common soft-switch and gateways for multiple Call Managers)
12. Meet regulatory requirements: Lawful Intercept, Local Number Portability, Emergency Services (E911)
13. Easier legacy TDM PBX migration/evolution plan
14. Enables offering of XML phone-based apps tailored per customer
15. Architecture makes it easier to “bolt on” & provision hosted applications
16. Lower cost to build, deploy & operate
17. Faster customer connection through automated provisioning and registration of Phones
18. Cisco roadmap of Unified Communication features and application

At high level, the Cisco H/M-UCS system architecture shown below has been deployed at QTel, including VisionOSS BVSM management system, Netwise Attendant Console (hosted switchboard) and IPUnity Unified Messaging and Auto Attendant.

QTel Architecture Diagram



## ***The Benefits to QTel***

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| <p><b>Key Statistics</b></p> <p><b>Initial Size</b><br/>The QTel Platform was sized for 15,000 end-user devices, but licensed to only 1,000 on day one</p> <p><b>Planned Size</b><br/>Expected size will grow to 35,000 devices over 2-3 years.</p> <p>Platform upgraded to 5,000 devices after 6 months.</p> <p><b>Service Statistics</b><br/>Up-Time of 99.99% over first 6 months</p> <p>Dial Plan was modified 5 times in the first 6 months due to Change Requests</p> <p><b>QTel Environment Statistics</b><br/>2 non-CCIE operators currently manage the platform for all NOC requirements</p> <p><b>Total Project Spend</b><br/>Not for publication</p> | <p><b>Key Customer Results</b></p> <p>QTel are extremely pleased with the H/M-UCS platform and have provided a number of referrals to Cisco prospects in the Gulf region and other continents.</p> <p>The level of professional support provided by VisionOSS has received special mention on a number of occasions by QTel engineering management.</p> <p>To date the following key benefits have been confirmed by QTel:</p> <p><b><i>Rapid time to market for adding new Customers</i></b><br/>New customer added in 1 hour<br/>QTel has used the H/M-UCS platform to support a number of Qatar conferences due to the speed of set-up and strip-down</p> <p><b><i>Lower NOC engineering costs</i></b><br/>QTel has confirmed that only two operators are required to manage the H/M-UCS platform</p> <p><b><i>Ease of Use</i></b><br/>QTel operations staff were productive after 4 days of onsite training, connecting friendly customers without assistance.</p> <p><b><i>Upgraded Applications</i></b><br/>The IPUnity and Netwise applications were added to the core platform in a second phase without loss of service and without any requirement to re-configure the customer data</p> <p><b><i>Dial Plan Modifications</i></b><br/>Several Dial Plan changes were requested by QTel to accommodate new QTel services and changes to business offerings. In each case, the Dial Plan was upgraded remotely without loss of service to end users</p> <p><b><i>End-Customer Feedback</i></b><br/>QTel customers have provided positive feedback to QTel with the service quality and feature set. The ability to self-administer day-to-day moves, adds and changes in real time has been very well received, especially given their historical experience with legacy platforms that required 5 days notice for MACs.</p> |
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