Digital Transformation of Telecommunications
with MicroStrategy 10
The challenge
With twelve major providers offering fixed line and/or mobile services, the telecommunications industry is highly competitive. Telecoms face added competition in the form of over-the-top applications that cut into profits. And with consumers in this industry being highly informed, they demand and expect regular service improvements. If unsatisfied, they are willing to switch network providers with little remorse.

To maintain profitability, telecommunications and broadcast network providers must offset substantial infrastructure costs by maximizing network utilization, delivering the highest value-to-service ratio, and retaining/acquiring customers to grow market share.

The solution
Empowered with cutting-edge analytics, telecoms use MicroStrategy 10 in a myriad of ways to run a more data-driven business. To overcome massive infrastructure costs, it’s vital that firms take every opportunity to leverage advantages from this technology. With the ability to view real-time metrics on network operations, services, and capacity, companies can optimize their user experiences to avoid service interruptions, identify fraudulent activity, and reduce customer turnover.

MICROSTRATEGY 10 enables the telecommunications industry to digitally transform their businesses.
With 360-degree visibility, identify problematic areas and proactively deploy telecom field staff to improve network quality and customer satisfaction.

Deliver real-time telecom KPIs to track potential service issues and proactively address them before a disruption occurs.

Applications for Telecommunications:
- Telecommunications Headquarters
- Large Network Infrastructure and Data Warehouse
- Satellite Field Service and Repair Operations
- Telecom Retail Stores
- Global Customer Service Call Center
- Telecom Customer
- Customer Loyalty Card
- Churn Analysis
- Customer Insights
- Employee/Visitor Digital ID Badge
- Usher/Security
- Asset Utilization
- Field Operations Manager
- Staff Safety and Emergency Response
- Field Automation
- Call Center Verification
- Telecom Store Inventory Manager
- Telecom Store Productivity
- Network Analysis
- Capacity Planning
- Service Assurance
- Analytics
- Mobile
ANALYTICS APPLICATION:
CHURN ANALYSIS

The challenge
Customer churn is the single largest revenue risk in telecommunications. Given the industry's competitive landscape and the growing number of mobile subscribers, customer service departments for providers are expected to offer exceptional service. Telecoms are likely to quickly lose unsatisfied customers to a competitor.

The solution
The MicroStrategy platform provides for seamless integration among multiple systems, both internal and external. In combining disparate systems, providers can gain a deeper understanding of their customers and can take proactive steps to refine marketing campaigns, resolve service issues, and mitigate churn.

At the individual level, companies have the ability to access a 360-degree view of each customer. They benefit from real-time insight on exactly how customers are consuming which services. On an aggregate level, companies have the ability to analyze their big data without difficulty — sifting through large volumes to help determine superior strategies to attract and retain targeted customers. In analyzing marketing and sales strategies, organizations can develop an optimized mix of services to attract and retain customers, thereby increasing KPIs of Average Revenue Per User (ARPU) and Customer Lifetime Value (CLV).

With a 360-degree view of customers in real time, identify those most valuable and those likely to churn.
MOBILE APPLICATION: CUSTOMER INSIGHT

The challenge
Telecommunications customers are highly informed about products and services, so it’s only fitting that telecom companies should be as informed about their customers. Without a 360-degree view of those using the network, companies are failing to understand the unique customer preferences that can either drive revenue or lead to churn.

The solution
Using MicroStrategy 10, companies can analyze real-time data from multiple touchpoints across their network. With a 360-degree view of customers, telecom companies have the ability to make more precise and data-driven decisions.

With drag and drop functionality, users can explore customer profile data such as gender, age, and purchase history. With insight gained from the data discovery process, companies can then create targeted marketing campaigns, tailor store displays to clientele, and design a more personalized shopping experience for customers – both online and off.

To track progress, companies can easily generate and share detailed reports and dashboards. And by integrating customized visualizations into dashboards, companies can identify customer trends and take timely action to capitalize on this information.

Data discovery applications provide insight to help better serve customers and drive revenue.
Deploy smartphone-based digital ID badges to help secure logical and physical systems.

SECURITY APPLICATION:
EMPLOYEE/VENDOR DIGITAL ID BADGES

The challenge
Managing employee and vendor access to telecommunications systems, offices, and facilities is a challenge. Traditional forms of identification including access cards, passwords, and hardware tokens are relied on to govern access, but these authentication systems are far from ideal. They are cumbersome to personalize, issue, manage, and revoke. They risk security breaches, and they lack an audit trail to ensure compliance.

The solution
MicroStrategy provides a comprehensive solution to manage employee and vendor identity: Usher. This solution enables telecom organizations to seamlessly and digitally control access to physical locations (offices, warehouses, and factories) as well as digital information (internal systems). Using this smartphone-based application, users can unlock doors and gates simply by walking up to them or tapping a digital key on their smartphone. Usher provides telecom organizations with highly configurable and convenient multifactor authentication including push notifications, biometrics, one-time passwords, face-to-face validation, and Bluetooth proximity. It’s compatible with existing facilities’ systems and integrates with mobile applications using APIs.

Functionality provided:
- Connect to workstations/enterprise applications
- Access sensitive digital and physical assets
- Entry into MicroStrategy Desktop
- Access to corporate executive lounge

Corporate employee/Manager

Functionality provided:
- Unlock workstations/enterprise applications
- Enter facilities/garage
- Peer-to-peer authentication
- Access to inventory
- Time keeping

Satellite office manager

Functionality provided:
- Access vendor/supplier portal
- Instant authentication of vendor/supplier identity
- Security entry

Vendor/supplier
The challenge
Operations and facilities managers at telecom organizations are continually looking for ways to reconfigure workflow to increase efficiency and optimize investments in assets.

The solution
Telecom organizations use MicroStrategy dashboards to effectively monitor, analyze, and manage workspace and resource utilization. Interactive data discovery applications enable telecom operations managers to track the utilization of cubes, offices, and parking spaces within enterprises. With comprehensive insight into what assets are used, decision-makers can view peak, average, and total usage of assets.

The dashboard can also show the total number of phone lines that are not being used, so that managers can cut costs and control unnecessary expenses. These dashboards can be automatically updated and tied to corporate employee directories to help ensure consistent updates delivering current information.

Empower telecom operations managers to analyze workspace resources for asset optimization.
The challenge
Enterprise managers face increasing demands for more effective asset utilization such as software licenses to optimize investments and avoid waste while increasing productivity across the enterprise.

The solution
Telecoms can use Usher dashboards to analyze and monitor utilization of software licenses by desktop. Usher dashboard can be automatically updated and integrated with corporate employee directories. They provide users with a 360-degree view to easily track underutilized enterprise licenses to identify areas of overspending and waste.

Cost savings could prove to be significant considering that the average cost of waste per enterprise desktop software license is $259; the average number of enterprise SaaS applications is 16 for large enterprises with 2,000 desktops; and a total of 28% of enterprise software is unused or rarely used.

Given these statistics, the estimated savings for an enterprise of this size totals $8,288,000. This amount is calculated by multiplying (16 apps per desktop) x (2,000 desktops per enterprise) x ($259 cost of waste/desktop).

Leverage access intelligence using Usher dashboards to help optimize software assets to avoid waste.

ANALYTICS APPLICATION:
CAPACITY PLANNING

The challenge
Telecommunications equipment cannot be stored in inventory or back-ordered – having the proper capacity to meet demand is critical to success. This requires well-designed planning and a sound expansion strategy. While existing infrastructure is adequate to deliver voice and text applications, demand for broadband and streaming services is accelerating. The internet has created a huge, volatile demand for new capacity, making network planning even more of a challenge.

The solution
With an in-depth understanding of granular performance data on the network, MicroStrategy enables telecoms to optimize their capacity planning and service deployment decisions. Advanced analytics and forecasting tools can be used to gain a comprehensive view of the network as it is, and as it is projected to be in the short-run. With this detailed level of understanding, network upgrades, capacity planning, and service deployments can be managed with a higher degree of precision.

Leverage granular performance data to help optimize capacity planning and service deployment decisions.
The challenge
To effectively manage network performance, a telecom company must have real-time visibility into key data to proactively handle outages and/or quality issues before it disrupts service. This data includes insights into coverage, bandwidth, dropped calls, product adoption, and time-of-day analysis.

The solution
With the proven ability to work with complex datasets, MicroStrategy is suited for the rigors of large network analysis. MicroStrategy helps maximize network efficiency to increase retention, improve service levels, reduce costs, and optimize network performance. By providing a plethora of real-time information in a central location, MicroStrategy dashboards inform users with pertinent data on network reliability, dropped calls, customer behaviors, operational performance metrics, bandwidth, product adoption, time-of-day analysis, and activation/deactivation process performance data.
The challenge

Telecoms are challenged to ensure that services offered over their networks always meet a minimum standard of quality for customers. To maintain this standard, field technicians require real-time visibility into KPIs such as usage, capacity, and service quality metrics. It’s critical that they leverage these metrics to ensure network stability and maintain an optimal customer experience.

The solution

MicroStrategy enables telecoms to deliver real-time KPIs across multiple network levels and delivery systems. Field technicians can receive instant alerts if service levels drop below designated thresholds. And by leveraging predictive analytics, field techs can identify likely performance issues and take proactive measures before they occur.

The proven ability to work with complex datasets makes MicroStrategy suited for the complexities involved in managing a telecommunications network. MicroStrategy can help wireless carriers measure and maximize network efficiency to boost service assurance and the overall customer experience.

Put powerful service-enablement tools directly in the hands of field technicians.
ANALYTICS APPLICATION:
STORE INVENTORY MANAGEMENT

The challenge
Having access to real-time inventory data is highly valuable for telecom store managers. In such a competitive industry, if inventory is not optimized, stores risk underperforming and missing out on sales opportunities.

The solution
MicroStrategy provides telecom retail store employees with real-time inventory management data. This includes replenishment device returns, warranties, replacements and repairs (process, cost, time), SIM provisions (activation, stock, OSS activity), and supplier analysis (ordering, price control, discounts, distribution, returns).

With access to detailed information, managers are able to effectively control inventory to better serve customers. They can easily track products across location and time, monitor costs and profits through multiple layers of information, and identify slow-moving items. Equipped with this information, telecom providers can utilize just-in-time inventory practices to help optimize inventory levels, increase service levels, improve the customer experience, maximize warehouse storage efficiency, and reduce costs.

Provide real-time inventory metrics to telecom store management to better serve customers.
MOBILE APPLICATION:
TELECOM STORE PRODUCTIVITY

The challenge
Only 19% of retailers report using up-to-date technology for real-time monitoring of store KPIs. In such a competitive marketplace, store managers may be missing out on potential sales due to lack of timely, pertinent information.

The solution
MicroStrategy helps telecom retail store managers quickly access real-time sales, inventory, and customer information. This information empowers them to analyze buying trends, evaluate promotional campaigns, and benchmark store performance against peer locations. These apps provide managers with a comprehensive overview -- providing access to information on trainings, corporate communications, visual update documents, sales best practices, and more.

Data-driven ‘smart alerts’ help ensure that store personnel are focused on addressing high-priority issues such as out-of-stock merchandise or workflow bottlenecks. Transactional functionality enables app users to take immediate action based on the insight they receive directly from the selling floor. These comprehensive, user-friendly apps empower managers to make better decisions, improve productivity, and increase their focus on serving customers, coaching associates, and driving sales.

*Source: RIS/Gartner 2016 Retail Technology Study
The challenge

The more devoted customers are to a particular brand, the more they come to expect a higher level of service. Telecoms are challenged to capitalize on this opportunity and reward/engage their most loyal customers before they are lost to the competition. In an industry prone to high churn, fostering a sense of company loyalty can have a real impact on the bottom line.

The solution

MicroStrategy’s Usher provides telecoms with a unified, singular view of each customer’s identity – integrating data from sales, service, and marketing channels. With this ability, telecom retailers can prioritize services, putting the most important customers at the front of the line.

Rental car agencies are an excellent example of this concept, offering “premier gold” level service for their most valued customers. These individuals do not have to wait in line – they receive complimentary vehicle upgrades and special discounts.

Usher’s analytics capabilities, armed with a pre-integrated identity schema, makes it simple for telecoms to build dashboards to gain insight into user preferences from anywhere, in real time. By leveraging Bluetooth technology, Usher enables sales associates to deliver an even more personalized user experience when engaging with valued, loyal customers to provide a customized VIP in-store experience.

SECURITY APPLICATION: CUSTOMER LOYALTY CARD

Reward customers while transforming and personalizing their user experience across channels.
SECURITY APPLICATION: CALL CENTER AUTHENTICATION

Usher’s remote identity authentication capabilities help prevent identity theft and reduce call center costs.

**Usher code**
User/customer verbally gives a one-time passcode from their Usher app to the call center representative who enters it into a portal for confirmation.

**Remote application integration**
A telecom call center representative sends the user/customer a push notification to their Usher app. The user confirms their identity by tapping the button displayed on their smartphone.

**Additional services:**
- Secure telecom transactions through customer verification
- Personalized telecom customer services

**The challenge**
It’s critical for telecom call centers to validate an incoming customer’s identity as accurately and rapidly as possible. This works to minimize time and costs while improving the caller experience. Just a few security-related questions can add precious seconds or even minutes to the average handling time of each call – an unnecessary and avoidable expense for call center operations.

**The solution**
MicroStrategy’s Usher provides telecoms with highly configurable and convenient multifactor authentication that can be deployed in a call center environment. Call center employees can authenticate a customer’s identity over the phone using one-time Usher codes or push notifications via the smartphone app.

By reducing time spent on the identification process, call centers can shave precious seconds off, and depending on a call center’s annual volume, this cost-savings measure can easily add up.
MOBILE APPLICATION: FIELD AUTOMATION

The challenge
Telecom field technicians are responsible for maintaining documentation on site status, work orders, and incident reports. Without the data generated by this documentation, analysis and future assessment would be exceptionally challenging.

In addition to the need to capture this information, techs require the ability to effectively communicate with others in the field to resolve complicated issues or repairs. But sometimes communicating via phone, text, or email is challenging in the field.

The solution
MicroStrategy helps organizations equip technicians in the field with apps that help automate the troubleshooting and repair process. By providing technicians with essential data on a customer’s account — their current equipment, latest software versions, crash reports, past service issues, contract status, and more — providers can streamline and improve service visits.

In addition, applications can deliver step-by-step repair guidance or remotely reset software and equipment, helping to reduce resolution times and boost customer satisfaction. They can also provide two-way communication with other field technicians in the area, should a repair require a degree of collaboration.

Real-time visibility into key locations plus the ability to communicate in the field.
SECURITY APPLICATION:

STAFF SAFETY AND EMERGENCY RESPONSE

The challenge
In the event of an emergency of any kind, it is critical for an organization to have visibility into the location and safety of its employees. With a dispersed workforce across a region, and multiple facility locations and technicians on the road, telecoms are faced with challenges to effectively locate and communicate with employees no matter their locale.

The solution
Usher Professional gives telecom managers at industrial warehouses, factories, offices, and other facilities the ability to take fast, targeted action during emergencies. If offices are evacuated, the entire workforce can instantly receive push notification alerts. People who are still inside an evacuated building can be quickly identified, located, and rescued. Regardless of the type of incident, Usher’s instant visibility into the employee location helps increase the effectiveness of emergency response teams.

Gain visibility into staff location to instantly communicate in the event of an emergency.

Interactive maps display a real-time view of staff location

Instantly communicate with digital badge users via push notification, text, phone, or email

Combine CAD files, Bluetooth beacons, and Usher badges to see who is in the building

Use real-time visibility of users’ location to get headcounts
**SECURITY APPLICATION:**

**FIELD OPERATIONS MANAGER**

**The challenge**
With a dispersed workforce across a region, telecommunications organizations are challenged to identify in real time exactly how field service technicians are conducting company business.

**The solution**
MicroStrategy enables field operations managers to obtain instant visibility into work locations, employee activities, resource utilization, and digital systems accessed to obtain a more complete view of field operations.

With a comprehensive understanding of transpiring operations, managers can receive dynamic service requests, communicate effectively with techs in the field, and reduce issue resolution times – helping to optimize productivity and reduce expenses.

**Provide field operations managers with real-time visibility into workforce productivity and resource utilization.**

Interactive maps display a real-time view of telecom staff in the field

Instant communication with digital badge users via push notification, text, phone, or email
Customer case studies

Learn how our customers are using MicroStrategy to digitally transform their business.

CUSTOMER AND CALL CENTER ANALYSIS

CUSTOMER RETENTION AND SUPPLY CHAIN MANAGEMENT

EMPLOYEE KPIs
A world-wide leader in voice and data communications offers residential and commercial services in the Middle East, Africa, Asia, Pacific, and the United States. Expanding business requirements and an explosive growth in data made it necessary to deploy a dedicated business intelligence platform at this organization. A comprehensive assessment of the market’s leading BI solutions resulted in this company’s selection of MicroStrategy.

This organization leverages MicroStrategy to introduce proactive reporting to its user communities. They have developed and deployed “Customer Knowledge Management” — a BI application that analyzes data and provides insight on customer profiles. With this application, the marketing department can easily sift through huge volumes of client information and calculate more than 800 indicators for a subscriber identity module (SIM) and customer. Users analyze profiles of business customers, clients registering online, and interactions with the sales force.

The organization also developed and introduced a series of business performance management applications scorecards to different departments across the enterprise. Applications monitor call center activity, vendor relations and procurement processes, and track customer profitability to quantify the value that each customer brings to the organization.

PROFILE

Industry Specifics: Retail - Miscellaneous retail stories
Location: United Kingdom
Products: Architect, Mobile, Server, Web
Core Capabilities: Enterprise Analytics, Mobile Analytics
Application

With nearly 2,000 store locations, this UK-based independent mobile phone retailer is the largest in Europe. Customer retention is vital to the organization’s business model, and with this industry prone to high churn rates, maintaining excellent customer relations is a top priority.

The MicroStrategy customer marketing dashboard allows this organization to analyze customer retention in detail, revealing trends such as whether customers are moving to a particular network or which sales channels have lower retention rates. This informs the company’s marketing department, which can then create target campaigns designed to mitigate churn. “The MicroStrategy customer retention dashboard has allowed us to have a deeper understanding of our customers’ behavior,” says the Head of European Customer Marketing. “It has also helped our negotiations with the networks as we can now prove that we know our customers, and we are well-suited to manage a relationship with them.”

This company also needed to centralize its supply chain management at a group level as opposed to the nine different markets that were managed separately. By consolidating this workflow, the company can better negotiate with suppliers, passing savings along directly to customers. Inventories were also managed locally in the past. Now, MicroStrategy supply chain reports allow the company to analyze and manage operations at a group level, helping to increase efficiency and drive revenue across its markets.

PROFILE

Industry Specifics: Telecommunications - All other miscellaneous store retailers (except tobacco stores)

Location: United Kingdom

Products: Architect, Mobile, Server, Web

Core Capabilities: Enterprise Analytics, Enterprise Data Discovery
RETAIN TELECOMMUNICATIONS:
EMPLOYEE KPIs

PROFILE
Industry Specifics: Telecommunications - All other miscellaneous store retailers (except tobacco stores)
Location: United Kingdom
Products: Architect, Mobile, Server, Web
Core Capabilities: Enterprise Analytics, Enterprise Data Discovery

Application
This mobile phone company is the largest independent telecommunications retailer in Europe with nearly 2,000 stores. Branch managers used to access vital statistics on store performance through reporting tools on the company’s intranet. These legacy platforms were prone to inaccuracies – information was not standardized across the enterprise. As a result, employees did not have confidence in these figures and could not be sure that they were on track to meet goals.

It was also difficult for managers to improve branch performance without having detailed sales statistics that were regularly updated. The company needed a reporting solution that would provide fast, precise figures that would be trusted across the company. They chose MicroStrategy to deploy an analytics solution to 900 store locations over a three-month period.

MicroStrategy provides these 900 users with a web-based Key Performance Indicator (KPI) dashboard that is updated daily. This tool helps branch managers supervise performance at their store by offering accurate, up-to-date information on critical figures such as prospect conversion. The dashboard’s home page shows the branch’s headline performance against weekly targets, and managers are now equipped to drill down to granular data such as employee-level figures.