Achieving Optimal Customer Experience Through Legacy Infrastructure

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2010 Was a Year of Transition
The Rules of Engagement are Changing

The User

Device OEMs and OS Providers
(e.g., Apple, RIM, Sony and Microsoft)

Over-the-Top and Content Providers
(e.g., Apple, Amazon, Google and Disney)

Telecom and Cable Providers
(e.g., AT&T, Time Warner Cable, Orange and Verizon)

Infrastructure Providers
(e.g., Ericsson, Juniper, Huawei and Nokia Siemens Networks)

Software Vendors
(e.g., IBM, HP, Amdocs and Oracle)

How can CSPs differentiate and grow?
Internet Access Drives Handset Decisions

Which of the following features are most important if you were to buy a new mobile handset today? (n=936)

- Internet access: 20% (1st), 18% (2nd), 12% (3rd)
- Touch screen: 24% (1st), 8% (2nd), 7% (3rd)
- Built-in camera/camcorder: 11% (1st), 12% (2nd), 11% (3rd)
- E-mail: 4% (1st), 11% (2nd), 13% (3rd)
- Full keyboard (QWERTY): 12% (1st), 10% (2nd), 5% (3rd)
- Wi-Fi access: 5% (1st), 8% (2nd), 7% (3rd)
- Bluetooth: 4% (1st), 5% (2nd), 7% (3rd)
- Music player: 3% (1st), 6% (2nd), 7% (3rd)
- Numeric keypad: 7% (1st), 3% (2nd), 2% (3rd)
- Instant messaging: 5% (1st), 3% (2nd), 3% (3rd)
- Removable memory card: 2% (1st), 3% (2nd), 5% (3rd)
- GPS: 2% (1st), 3% (2nd), 5% (3rd)
- Selection of apps: 2% (1st), 4% (2nd),
- Freesview TV: 0% (1st), 0% (2nd), 0% (3rd)
- NFC (near field communication): 0% (1st), 0% (2nd), 0% (3rd)

Base: U.K. consumers who own a mobile phone or smartphone.
Source: Yankee Group’s European Mobile User Study, 2011
SMS Is More Important Than Voice

How often do you use the following communications services on your mobile phone? (n=936)

- **SMS**: 66% Daily, 22% Weekly, 8% Monthly
- **Voice Calls**: 49% Daily, 32% Weekly, 10% Monthly
- **E-mail**: 27% Daily, 16% Weekly, 8% Monthly
- **MMS**: 4% Daily, 16% Weekly, 26% Monthly
- **Instant messaging**: 16% Daily, 13% Weekly, 7% Monthly

Base: U.K. consumers who own a mobile phone or smartphone.
Social Goes Mobile

How often do you use the following services on your mobile phone? (n=936)

- **Listen to music**: 19% Daily, 19% Weekly, 11% Monthly
- **Access online community or social networking site**: 20% Daily, 13% Weekly, 5% Monthly
- **Share pictures**: 4% Daily, 16% Weekly, 18% Monthly
- **Watch video clips**: 5% Daily, 15% Weekly, 12% Monthly
- **Download music**: 4% Daily, 6% Weekly, 13% Monthly
- **Download games**: 3% Daily, 9% Weekly, 13% Monthly
- **Watch live TV programming**: 3% Daily, 5% Weekly, 5% Monthly
- **Browse the Web**: 2% Daily, 5% Weekly, 5% Monthly

*Base: U.K. consumers who own a mobile phone or smartphone.
Source: Yankee Group's European Mobile User Study, 2011*
Why Does All This Matter?

- Relationships with customers are changing
- Over-the-Top achieving greater position
- Value Chain player confusion
- Competition remains unabated
- Price and Device no longer competitive enablers
Yankee Group believes enhancing the customer experience is service providers’ last remaining opportunity for competitive differentiation.
Operations and Customer Experience Drive Current Investment Priorities

- Reducing opex and creating a better customer experience are critical near-time priorities for service providers.
- Influencers believe customer loyalty is a key priority, but decision-makers see it as less important.
- Personalization and rapid service delivery continue to rate high priority.

Yankee Group believes Customer Experience is the lens through which transformation investments should be measured, because that will ultimately drive reduced opex.

According to YG survey data, the top priorities for businesses are:

- Reducing opex
- Customer loyalty
- Customer experience
- Simplifying business operations
Four Dimensions of Customer Experience

- **Do I get the same quality of service every time?** Does the network recognize ALL devices in my account to foster a unified ‘n-screen’ experience?
- **Are the website, call center and retail store all going to give me the same answer?** Can I start my purchase on the web and finish at the store?
- **“Do I trust this provider?** I don’t want to worry about the ‘fine print’.
- **Can I get the right combinations of products and services at a competitive price?**

**DELIVERY AND OPERATIONS**
- Fulfills and maintains

**COMPANY AND BRAND**
- Designs and develops

**THE CUSTOMER**

**CHANNEL**
- Sells to and through

**PRODUCTS AND SERVICES**
- Manufactures and assembles
“How important are these **capabilities** when you call the customer contact center?”

Agent has the authority to fix my problems or can get quick approval  
87%

Immediate access to information about the status of my network connection and any problems I’m having  
85%

Agent can remotely diagnose and troubleshoot my problems  
84%

*Percentage ranking “high” are shown  
n=1,278  
Base: Asked everybody  
Asked in waves 1, 4, 7 and 10*
“How willing are you to pay an extra 10% per month for the following?”

- No surprise charges for roaming or downloads: 54%
- Higher speed automatically provided based on the use: 46%

Percentage ranking “very willing” are shown
n = 1,278
Base: Asked everybody
Asked in waves 1, 4, 7 and 10
Legacy Systems Not Ready to Optimize the Experience
Transformation: No More ‘Big Bang’ Programs

• Integrated order orchestration
• Move to real-time
• Constant inter-process feedback
• Reuse and adaptation
• Customer experience measurement driven
Achieving Optimal Customer Experience Through Legacy Infrastructure

Sanjay Kumar
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Progress Software
Challenging Market Drivers

**Evolution of Technology driving Industry Growth**
- Investment in new Network and Infrastructure technology
- Introduction of new bundled products and services with tech evolution
- Partners in Ecosystem for delivery of Value Added Service to customers

**Competition across Industries**
- Telecom companies introducing IPTV to compete with cable
- Cable Companies introduce VoIP to compete with Telcos
- Content Providers delivery of service through mobile, internet, cable/IPTV, etc
- Telcos providing data center services through Cloud/Managed Services

**Higher Customer Expectations**
- Social Networking and gaming Society has driven much greater demand for instant customer response
- As different industries have been driving greater customer experience, expectations for greater responsiveness from CSP has increased

**Social Impact of Mobile Technology**
- Introduction of Apple iTunes, iPhone, iPad and Google mobile apps
- Location based services to drive new customer value propositions and partner channels
- Mobile Infrastructure bypassing Fixed line infrastructure in many parts of the world
Communications Service Providers Focusing on End-to-End Customer Experience Management as the Competitive Differentiator

**Build Customer Loyalty**
- Gain real visibility into Customers’ Experiences
- Time to market of New Product & Services
- Identify and respond quickly to customer impacting problems
- Perfect Customer Order

**Increase Profitability**
- Enablement of OSS/BSS infrastructure across lines of business
- Revenue Assurance across OSS/BSS
- Minimize ‘Truck-Roll’ or Customer Site visits
- Normalize Network Technology to limit investment

**Focused Strategies for Strong Customer Ownership**
Pressure from All Angles Facing Rapid Change

Increasing IT complexity and order volume

“Fully 77% of telcos admit that ‘delivering bundled products and services’ has increased IT complexity.”

(Vanson and Bourne)

Understanding end-to-end customer experience

“57% of the customers surveyed rated overall service from average to ‘not meeting expectations’.”

(Stratecast)
Progress Delivers Operational Responsiveness

Visibility across the order fulfillment stream across all order management & provisioning platforms

Identify and resolve order exceptions and fallout through rule-based jeopardy tracking and exception resolution

Modify business milestones and SLAs independently of system to optimize customer experience

Real-time Business Visibility

Immediate Sense-and-Respond

Continuous Business Process Improvement
Progress Solutions for Communications

Solution Category | Product / Solution Offering
--- | ---
Category 3: Business Transformation Solution | End-to-end Customer Experience Management

Category 2: B/OSS Solutions & Accelerators
- Communications Order Management (COM)
- Order Visibility & Assurance (OVA)
- Integrated Trouble Management (ITM)
- Situation Based Promotions
- Network Order Management
- Non-standard Deal Proposals
- Content to Media
- Billing Stability
- NPI
- Partner On-boarding

Category 1: Infrastructure Component

Service
- Business Consulting & Architecture
- OSS/BSS Deployment
- Technical Support

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Successful Customer Experience Management Spans Fulfillment, Assurance and Billing Functions

End-to-end Customer Experience Management

Customer Acquisition & Service

Service Assurance Day 2

Service To Cash

Revenue Recognized

Event Processing

Error Resolution

Billing Dispute

Bill Calculation

Bill Generation & Delivery

Account Receivable

Payment & Lockbox Processing

Collections & Treatment

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Operational Responsiveness to Enhance Customer Experience

Order Fulfillment

- Shadow Process over legacy products OM systems
- Order Management for new product offerings

Service Assurance

- Integrated Trouble Mgmt to preemptively resolve Customer Service Issues
- Mediation & Billing
  - Real-time Interaction with Customers
How Progress OVA Is Different

End-to-end visibility across entire value chains lets service providers see what’s happening now:

- Visibility into all order capture, provisioning, and fulfillment systems
- Non-intrusive integration to existing OSS/BSS infrastructure and multiple order management systems
- Business-level shadow processes of system orders

Ability to sense and Respond Proactively:

- Real-time health-check / Surface order fallout
- Business level rules to initiate jeopardy & exception resolution

Continuous business process improvement:

- Business-level process configuration
- Table-driven SLA & KPI
- User-configurable metrics
How Progress OVA Is Different
Order Visibility & Assurance
Process Monitoring and Exception Handling

- **Challenge**
  - Multiple order systems integrated with regular problems for voice services
  - No visibility to problems with customer orders until customer complains

- **Progress OVA Solution**
  - Progress OVA across end-to-end order systems to monitor milestones
  - Exception handling initiated by business rules and managing of service representatives

- **Project results**
  - End-to-end order visibility to business
  - Business updates exception rules for ongoing changes
  - Problems resolved before customer knows of problem with increased customer retention
How Progress COM Is Different

- **End-to-end visibility across entire order Lifecycle**
  - Visibility into all process task across all service orders
  - Business orchestration across multiple OSS/BSS infrastructure and multiple product catalogs
  - End-to-end metrics and PKI across orders
  - Warning and alerts when SLAs are exceeded or rules are violated

- **Ability to sense and Respond Proactively**
  - Business-level rules to initiate jeopardy & exceptions
  - Predefined and dynamically created exception processes
  - Rules-based revision order management
  - Rules-based dependency & synchronization across processes and services

- **Continuous business process improvement**
  - Rules engine to manage MACD, revision, jeopardy & exceptions, synchronization across services
  - Rapid service changes through process updates
  - Recommendations on process improvements
How Progress COM Is Different

1. Order Decomposition
2. Business Orchestration
3. Visibility & Status

- New & MACD Order for bundled services with dependencies across services
- Supplement/Revision Orders
- Jeopardy and Exception Handling
Order Management Solution
Transport, IP, Content, & Voice Services

• Progress team help determine end-to-end integration, leveraging telecom best practices. Progress integrated in OSS with CRM, billing, network inventory, and other activation and provisioning systems.

• Progress order management solution orchestrates all system and user activities to provision a customer order. Solution includes new and MACD orders, Supplement orders (in-flight changes), exception handling, and dependencies across processes.

• Managing activities for groups like field services that can be commonly used across other solutions such as network provisioning and trouble ticketing. When used across customer order management, network order, and trouble ticketing, a common work order process covers 100% of field services tasks.

• Customer orders can auto-trigger network orders for network build-outs. Network orders can be associated to multiple customer orders.
# How Progress ITM is Different

## Real-time visibility to end-trouble case and service assurance processes
- End-to-end visibility across service assurance and trouble capture, analysis and resolution processes – across systems, partners, services and processes
- Extend process and task visibility to customers, suppliers and partners

## Ability to sense and respond proactively to service issues
- Proactively identify issues and initiate resolution before customer knows they exist
- Initiate intelligent workflow routing issues based on priority, region, and skills.

## Continuous business process improvement
- Support both predefined processes for preemptive action against expected issues and dynamically created processes to handle unexpected events.
- Rules-based analyst and resolution process decision routing
- Business owner definable business rules and routing
How Progress ITM Is Different
How Progress SBP is Different

- **End-to-end visibility across customer mobile call patterns**
  - Visibility into customer calling patterns, locations preferences
  - Mobile traffic, time of day/weekly call patterns, customer churn

- **Ability to sense and respond to call pattern and promotional criteria**
  - Real-time event correlation of customer patterns for promotions, recognizing customer churn indicators, and location based value added promotional offerings
  - Business users define business rules and criteria for promotions

- **Continuous business process improvement**
  - Evolving promotional plans for targeted offerings
  - Enhanced customer experience through customized offerings to strengthen relationship with customer
How Progress SBP is Different

Connect OSS through FTP, DB-access, WS and JMS, key MSISDN

RTM DWH dedicated for enrichment (memorystore)
Production and DWH to feed Memorystore