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Becoming Software Oriented in a Solutions-Centric Industry

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FLEXERA SOFTWARE

Becoming Software Oriented in a Solutions-Centric Industry

- Problem Overview
- Product Attributes
- Implementation Challenges
- Product Composition
- License Models
- Approach
- Conclusion

Tekelec

Tekelec, the session and mobile data management company, enables billions of people and devices to surf, talk, and text. Our solutions allow service providers to dynamically manage network resources and services, while providing end users with a consistent and personalized customer experience. We handle the complexity of today's multi-generational and multi-vendor networks by enabling devices, protocols, services, and databases to securely and efficiently communicate with each other. Tekelec has more than 30 offices around the world serving more than 300 customers in more than 100 countries.

Problem Overview

Telecom systems possess a distinctive set of attributes and challenges. These products fit somewhere between embedded devices and enterprise systems. In particular, we need to address the following:

- High Reliability—five 9's+
  - Less than one hour downtime per year, typically zero
- Operationally live updates, upgrades, and feature activation
- Controlled configuration engineering for any changes
- Pricing that reflects value—not in a commodity space
- Moving from hardware centric to software centric business processes

Product Attributes

Front Loaded Fulfillment

- HW Centric and Sales Driven
  - Product Quality—For a smaller company this is a primary driver
    - In the core of the network
    - Quality metrics are industry reportable
  - Reputation—Outages are FCC reportable. Telecom is a small world
  - Price—Price is negotiated from RFx to quote to contract
  - Capex Cycles—Closely tied to industry buying cycles
  - SOX/RevRec Challenges drive tight quote to delivery coupling

5+ 9's

- Requires Engineering/Dimensioning
  - Every change must evaluate the system as a whole
- Not well suited to a Customer-Pull model
  - Must protect the Customer from engineering/dimensioning errors
- Customer statement example
  - *If a central office switch goes down, we make the local news. If a signaling node goes down we make the national news. We've never made the national news.*

Product Attributes (Continued)

Reluctance of Customers to share revenue

- Infrastructure/table stakes products
- High ROI--recurring benefit from purchase
- Very competitive pricing in Customer's offerings
  - Telecom market is cutthroat especially with all-you-can-eat packages. Customers want maximum benefit and want to keep the profits
- Our products can offer competitive advantages

Want to minimize SKUs

- Complex dimensioning
  - Systems are engineered for each Customer and situation
- Want to simplify guided selling
  - Globally distributed sales force across complex product lines

Want to decouple product structure from licensing platform as much as possible

- Sales fulfillment platform
- Core OS and product platform

Implementation Challenges

- Can be difficult to instrument real-time high performance applications
- Cannot adversely affect performance--Call flow is ALWAYS top priority
- Provisioning can result in major product configuration changes and may be difficult to turn off
- Requires systems level dimensioning and engineering
- All extensions and upgrades must be in-service
- Critical to keep installed base accurate for support and extension quoting
- Functional and Contractual Customers not always the same
- Bringing legacy, new lines, and acquisitions into the fold

Implementation Challenges (Continued)

Entitlement Allocation can be diverse

- Each product line has unique architectural requirements
- Allocation to elements must be defined per product: System vs. Node vs. Site

Virtualization will add to complexity

Distribution is seldom to end node

- Dark Offices
  - Automated activation/registration not always straightforward
  - System Query not always straightforward
- Network firewalls—End systems typically not on the Internet
- Need to distinguish between Allocation and Distribution

Systems not always turned up in timely manner

- Third parties/agents
- Warehousing
- Extended installation windows

Product Composition

Core Legacy Product

- Embedded/monolithic model

Box Servers

- Smaller open-systems based--price point driven

Blades

- Larger systems that justify the entrance point form blade systems
- Multiple products can occupy same physical system spaces
- Shared elements must be allocated to some product

Virtualization

- Take advantage of newer HW
  - Cores vs. threads—minimize application changes
- Minimize footprint and power/heat
- Will need anchor point to protect IP

Product Composition (Continued)

Custom Configurations

- Each system must be custom configured to meet Customer's needs. Not a toaster or consumer model
  - Built from common base system configurations, but …
  - Dimensioning, provisioning, geography are installation dependent

System Identification difficult

- Legacy identification was totally monolithic
  - System=Site=Node entitlement and fulfillment common for SW, HW, Features, Support
- New products very different from legacy and back end systems
  - Complex architectures (not monolithic)
  - Geo-diversity means license serving may vary by installation—Needs a general solution

License Models

Capability

- Core SW
  - Enable IP protection and fraudulent use prevention
  - Support Trials
  - Enable single image distribution with Multiple application by Customer
- On/Off Features—Features often analogous to Products

Capacity

- Incremental
  - Sell capacity in fixed increments
  - Multiples of SKU for feature active at any time—Can be difficult to track
- Aggregate
  - Sell capacity in multiple upper limits
  - Only one aggregate SKU active for any feature at a time
  - Preferred model
    - Preserves value pricing
    - Simplifies site manifesting

Only one capacity model allowed per feature

Approach

Entitlement Determination

- Initial View
  - System
  - Site
  - Node
  - Element/VM
- Now considering entitlement by Customer with fulfillment/distribution solved downstream

Distribution

- By Flexera Account
- Account defined as mapping to sites or systems

Approach (Continued)

Management

- Product architecture dependent
  - Per monolithic system or element
  - Central distribution from a system element
- Implement license management at infrastructure level common across all new product lines
- Applications implement functional restrictions.

Implementation (WIP)

- Entitlement Engine
  - Support Contract Status
  - Line Items
  - “Installed Base” Data
- Maps attributes into business rules
  - Product structure
  - Account structure

Conclusion

- Our challenges are common to companies migrating from HW Centric to SW Centric business models
- Decouple sales, entitlement, and fulfillment wherever possible
- Create an “Entitlement Engine” model to
  - Map to multiple product architectures
    - Provide legacy and acquisition path
  - Decouple as many attributes of the implementation as possible
  - Use the Flexera services
- Complete thorough use case and requirements analysis and modeling
- Get Help

Questions?

Thank you