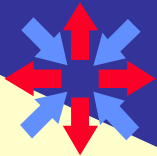


Case Study: Complex Royalty Accounting

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**Digital
Thinking Inc.**



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Who Me ?

- **Does your company license-in software, for further development and inclusion in products, with or without ongoing payment of royalties ?**
- **Does your company license-in software, for further development and inclusion in products, with or without ongoing payment of royalties ?**
- **Do you provide professional services to either of the above ?**

Structure

- Not broad expository
- Focus on issues, decisions, steps, and results
 - Headline item
 - Brief description
 - Apology (major stylistic departure)
 - Discussion as warranted
- **Disclaimers**
 - IANAL (I am not a lawyer)
 - IANAA (I am not an accountant)
 - OVMNBTOM (No longer employee; cannot say that this is current)

Background: Before the Beginning

- Alcatel: multinational telecom hardware manufacturer, based in Paris/Amsterdam
- Acquired several Euro-PTT mfg units and other equipment companies (Rockwell NTSD)
- Very strong hardware/industrial mindsets
- Engineering-dominant culture
- Software was given away to sell hardware
- Acquired software “lost” in Engineering

Background: Organization

- US unit
- Centralized: R&D, Marketing, Sales/Service, Operations/Purchasing, Legal, Finance/Contracts
- De-centralized: Product Line Business Units (Product Management with P/L)
- Product Managers mostly came from R&D
- No location for software business strategy

Background: Products

- Telecom: Digital cross-connects, multiplexers, microwave, switches, access / entering monitor, mediation and management tools development
- Increasing software ‘intelligence’
- “Design Anywhere, Build Anywhere”
- Software a component/engineering matter
 - Given away; little visibility outside Engineering
 - Acquisition driven by engineers; executed by Purchasing

Background:

Emerging Implementation

- Most software in embedded-system boards on highly scalar, highly configurable systems
- Many boards pre-loaded; non-royalty issues
- Application change required HW exchange
- Software versions and changes tracked by R&D - in engineers' context
- Product and delivery strategies did not serve emerging royalty accounting needs

Background: Breakpoint

- Analysis: Almost all software business management and royalty issues arose from innocent circumstances that are very common to similar enterprises
- Software Business Manager appointed to align, modify, and create functions into software business framework for enterprise
- “RoyARP” would be a critical element

Mindset change 1:

Single point of reference needed

- Acquisition and sales/distribution processes
- License-in, license out and *pass-thru* rights
- Enterprise standards (all divisions, all products)
- Long chain processes (Engineering, Release, Manufacturing, Sales, IT, Service, Finance)
- Team: variety of skills; interdisciplinary perspectives
- New productization and delivery strategies linked to RoyARP design; parallel rather than serial changes

Mindset change 2:

Royalty is Good

- Pay-as-you-go; expenditure tied to reality of telecom market
- Lower transaction cost for licensee/licensor
- Real relationship value
- *Good* model would handle unhandled issues
- Had to be ‘sold’ to PdMgrs, Executives; CFO and VPFs *got it*; wanted predictability

Component vs Product

- Despite component mindset; attributed royalty cost to separate *software* products
 - Pattern of sales/service deliveries & changes
 - Boards often provided “naked” to customers and affiliates for different applications
 - Assimilated system software product better reflected nature of product and order-type
 - Overall vastly more trackable through Sales and Service events

Existing Mfg/BOM Tools and Thinking not Usable

- BOM *containment* principle was big issue
- Needed dynamic “as-installed” configuration
- Variable costing due to non-production factors (end-system configuration and order type)
- Traceability to licensor, not “part”, was prime
- Analysis and issues validated by APICS board member

Licensee-driven model

- Developed model for tracking acquired ALL software & royalties and pushed back on various (often poor) licensor terms
- Supported major negotiation points
 - better monitoring/management of compliance
 - wall-to-wall consistency and “conspicuous accountability”
 - created legitimate bases for concessions

Integral Element in Software Business Framework

All blocks in framework must be built upward
and kept integrated in a solid model

Automated Distribution & Configuration

Asset/Cost/Ops Mngmt | Business Intelligence Apps | RoyARP

License-In | “Perfection of Licensure” | PassThru R/O | License-Out

Acquisition | R&D | Engrg Rel | Production | Ordering | Dist & Service

Compliance/Process Education | Release Stream Planning

Grammar of Commercial SW Configuration Mngmt

Software Business Model &
Productization Concepts

Responsibilities in Organization

- SW Biz Mgr had total responsibility for RoyARP; matrix team planned, reviewed, executed and proxied action
- Barring mission failure RoyARP needs = “law”
- Executives sponsors were CFO and GC
- Later *pieces* were undertaken by other units, but never as robust or successful

Plan of Development and Implementation

- Developed RoyARP team and senior contacts
- *After* fundamental cognitive basis laid out, created vision of desired outcome
- Details worked left to right in Framework
- Lead time and flow of acquired software/IP
- Constant communication with internal and external parties

“Conspicuous Accountability”

- Lots of zeroes became meaningful data
 - Every product had list of acquired IP
 - Every acquired IP had royalty-rate matrix
 - Every product had per-unit royalties owed
 - Every product ordered/produced had order type
 - Every software copy had royalty payment hierarchy
 - No opportunities for exclusionary decision
 - No *other* expertise required at any process step
- Became watchword of RoyARP team

Reject Up-front Royalty Buy-outs

- Several software products and features were speculative and would have market collapse
- Negated Suppliers' interest in our success
- Similar to inventory issue for parts and physical goods
- Proving need for adjustments required same processes as actual royalty accounting

NEVER Accept Revenue- Percentage Royalties

- Imposes costs on unrelated improvements
- Limits/complicates inter-unit tech transfer
- Reduces flexibility to bundle/unbundle
- Leads to inappropriate comparisons of value
- Opens door to finance-based negotiations and audits
- Increases negotiation time to define “net revenue”

Modeled System-level Software Products

- Application determined mix of software elements (based on board-types and features)
- Scale, and quantities of copies, were modeled
- Model adjusted for as-ordered and Service data
- Even though working systems varied in size, system-level SW product had fixed royalties
- Process, not system-level royalties, were negotiated and agreed

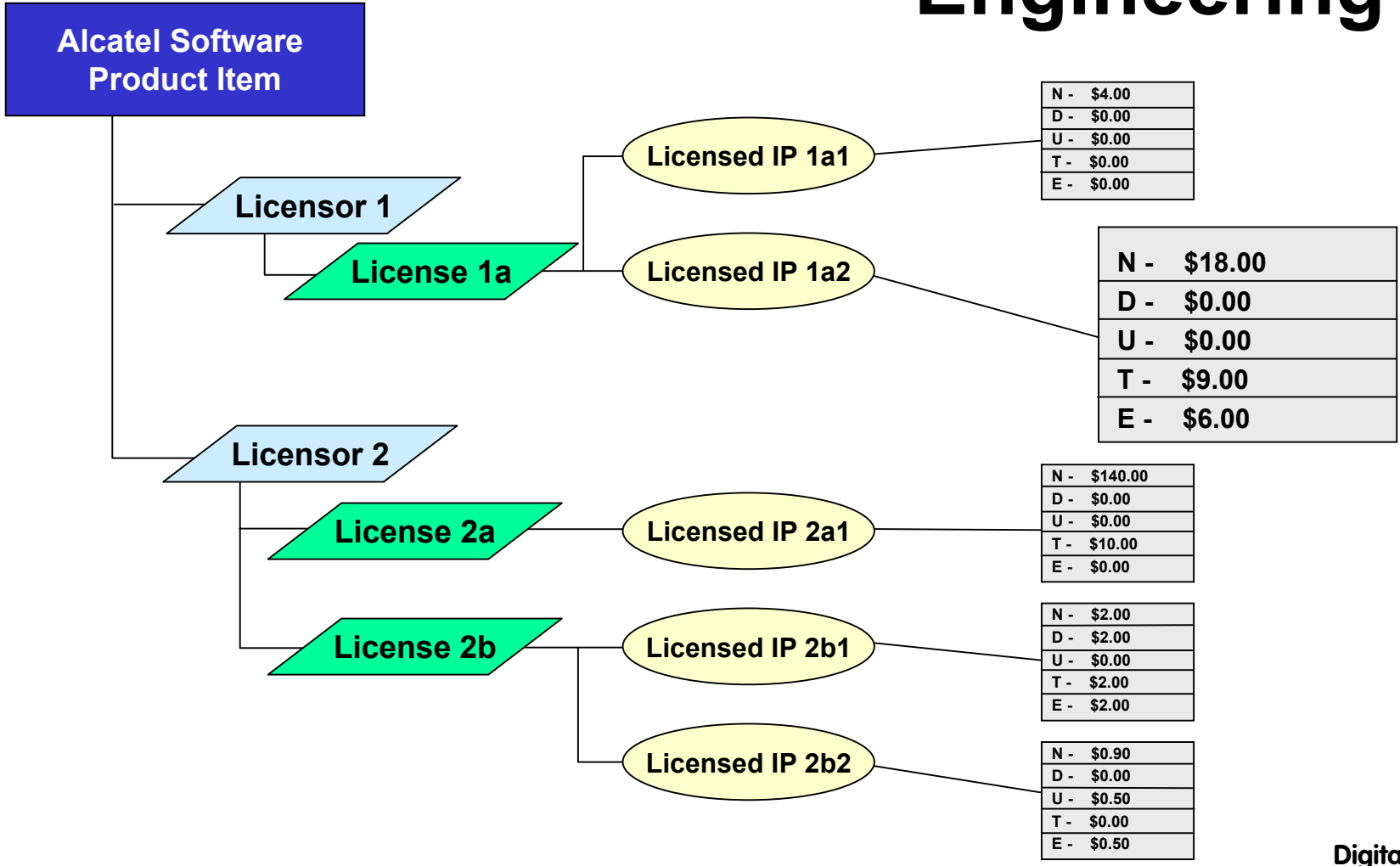
Production-Based Royalty Report

- All royalties were per-copy dollar-figure
- No reason to look at any financial data; audit exposure was more comfortable
- Separated RoyARP from financial rules
- More internationally transportable
- Avoided typical finance organization issues

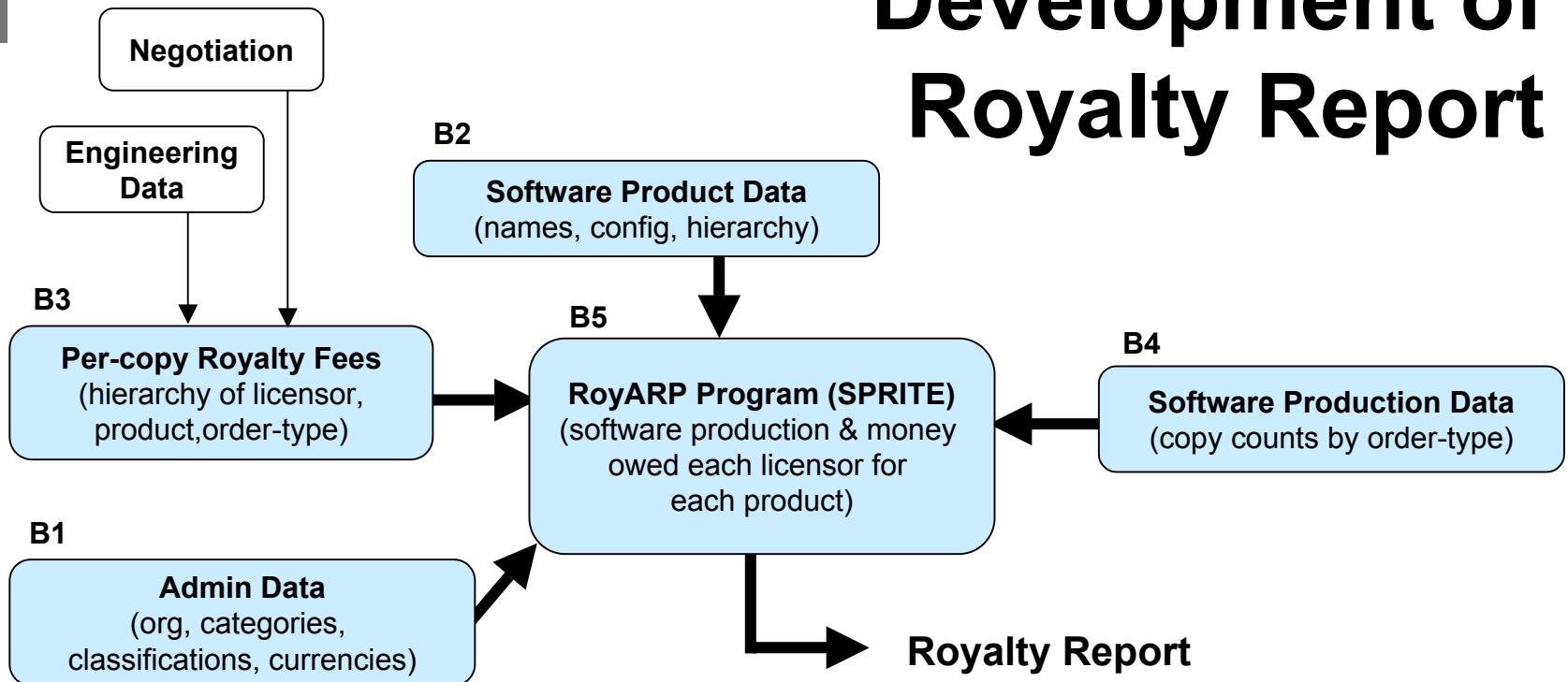
Order-Type Critical

- Every software product order given a *type*
 - New, upgrade, test, demo, training
- Royalty rate for each type negotiated and plugged into RoyARP data and calculation
- Many non-revenue copies; \$0 royalty due
- Analysis showed savings of \$4.4M one year

Information Engineering



Development of Royalty Report



These sub-process blocks are performed:

- B1** Whenever organization or structure changes
- B2** Whenever new software is defined
- B3** Following identification of new software products
- B4** Starting 1st day of quarter, for previous quarter
- B5** When all inputs have been screened, entered and rechecked.

RoyARP served & tied A, R and P

- Necessary tight integration of 3 functions traditional “org” thinking separated
- More teeth to influence other processes
- Licensors recognized unprecedented accountability
- Really wrinkled the payment process

Payment: Surprisingly Tough Issue

- Did not have Accounting's 3-point proof
 - Purchase Order, Receiver, Invoice
 - Supplier could not confirm amount of payment
- Authority level was Controller or CFO
- Quarterly hand-carried “Casual Check Requests”; some were millions of dollars
- Radical resolution was formal DoA to audited RoyARP process

Financial Outcomes

Ad hoc analyses

- Avoided \$6M in unnecessary U.S. buys in 2 years
- Saved \$5.5M multi-year on 1 contract vs std terms
- Avoided \$12M license for European unit
- Avoided \$2M pre-payment on product that died
- Eliminated ‘risk money’ in over 20 licenses
- Reduced liability insurance
- Never paid penalties or audit costs in 7 years
- Never lost money on sunk royalty “inventory”
- Most not trackable in organization

Non-Financial Outcomes

- No audits; 6 “standard” audits nixed in ~ 1 hour
- FAR better inputs/results in make/buy decisions
- Disclaimed Consequential Damages (et al) in 100% of licenses-in for 6 years
- Eleven licensors adjusted their royalty process to match/accommodate RoyARP
- Helped develop *IP culture*

Questions: pointed -or- broad

Thank you.

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