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Mihaela Sokić  
T-Com Croatia

## Preparing for Full Market Deregulation with Unified Network and Service Inventory

### THE CHALLENGE

► Market liberalization was advancing quickly in Croatia’s telecom industry around 2002. The national telecom company, T-Com Croatia (Hrvatski Telekom), facing both deregulation and privatization, was under enormous pressure to modernize. To meet the expectations of its new investors and prepare for a more competitive landscape, it had to reengineer its operations infrastructure, become more efficient, and reorient its business toward the customer.

### Embedded systems inadequate

T-Com Croatia had been providing a complete portfolio of business and residential services supported by copper and fiber access. However, its existing Operations Support Systems (OSSs) lacked the capabilities to support new technologies required to launch advanced mass-market services, such as high-speed broadband access, and the type of efficient fulfillment processes needed by a competitive, profit-driven business. The OSSs also lacked the functionality to “describe” optical, transmission, and broadband networks and services.

The company’s OSSs ran on a first generation platform, with much of the data for advanced services recorded on spreadsheets and paper. And the company was having trouble finding developers who could support the older computing platform and expand inflexible data models to support the new technologies and services.

The goal of the transformation project was, first and foremost, to establish a modular BSS and OSS infrastructure that could encompass workforce management, order management, logical and service inventory, physical plant layout, network management, CRM, billing and activation. At the heart of its new OSS infrastructure, the company envisioned a single, federated inventory system that could migrate and

consolidate all of the existing data for its fixed and PSTN services, and add the missing data components for its next-generation services and network technologies, including its optical transmission and broadband access networks.

### Building the new foundation

To achieve the goal of modeling, loading, consolidating, and correlating all of this network and services data, T-Com Croatia turned to Telcordia and selected the Telcordia® Granite Inventory system.

The decision was driven by the system's extensive functionality and its ability to integrate easily into the planned OSS environment and new CRM system to support the entire flow of provisioning processes.

Along with the core system, T-Com Croatia selected a number of Granite Inventory modules to enable automation of its business processes, ease integration with the other transformation components, facilitate data access, and promote data quality.

"Granite Inventory was chosen as the single inventory system for all of our fixed line equipment and services," noted Mihaela Sokić, head of the Service Management Center of OSS Network Production Development at T-Com Croatia. "Granite Inventory is at the center of our OSS transformation architecture."

## THE TELCORDIA RESPONSE

► To launch this pivotal deployment, a Telcordia consulting team performed an initial project impact assessment to help T-Com Croatia understand not only the scope of the project, but also the impact that the change would have on business processes, data flows, and technical procedures.

Following the assessment, a Telcordia Education & Training Services team worked with T-Com Croatia personnel to teach them about the operation of the Granite Inventory system and prepare them to train and support the in-house team of developers, integrators, system administrators, and end users. This extensive training effort addressed the company's main requirements for the new system:

- **Data accuracy** – The Telcordia trainers demonstrated how to use Granite Inventory to migrate, model, and store all current and new inventory and services information, and support evolving data requirements into the future.
- **Easy integration** – T-Com developers learned to integrate Granite Inventory into the transformed OSS architecture, and build their own provisioning engine and flows, using Telcordia tools and open, well-documented APIs.
- **End-to-end automation and ease of use** – Telcordia demonstrated how the system could be used to automate the entire chain of provisioning processes, and greatly simplify ongoing data access. The system's navigation module allows users to drill down for views of any network location or equipment, and a query module would ultimately allow some 2,000 users across T-Com Croatia to access the system and create queries anywhere, anytime, using a standard web browser.

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After this initial training, a small team of T-Com staff managed the entire project, including data modeling, configuration, integration with the other OSS and BSS applications, testing, and migration.

Granite Inventory is the center of the OSS architecture and has been integrated to a number of external applications: CRM, fraud management, outside plant management, network management, and order and workflow management.

The initial deployment of Granite Inventory took only six months, and, after this first phase, in 2005, T-Com Croatia decided to deploy the product's Activation module to further automate the provisioning of DSL service with activation of DSL equipment and circuits.

The expert project advice, activation work, and training support that Telcordia provided was aimed at one objective — to make T-Com Croatia self-sufficient. Mihaela Sokić confirmed, “Thanks to Telcordia Education & Training Services, we were able to quickly get up to speed on how to configure, integrate, and use the product. Our own staff was able to build a provisioning engine and all of the process flows, handle the data modeling and migration, and deploy and maintain the entire system.”

Sokić added, “Systems were delivered on time and on budget. Installation, customization, and integration with our other OSSs were remarkably easy, proving that we really chose proven and reliable components.”

## THE RESULTS

▶ Granite Inventory is now facilitating a full range of business processes at T-Com Croatia including automated pre-provisioning, fulfillment, and fault repair. It supports the company's entire portfolio of services and equipment — DSL, IPTV, VPNs, and IP Centrex; older technologies such as switched voice, frame relay, ATM, and X.25; and planned services such as Metro Ethernet. It also supports all Layer 1 sites, equipment, ports, and paths, and the Layer 2/3 MPLS core.

As the foundation for this flowthrough infrastructure, the system has been instrumental in achieving:

- Significantly reduced total provisioning time
- Reduced average time from days to hours for reconnections, suspensions, or change orders
- Reduced time from days to minutes to determine the best technical solution for connecting mass market customers
- Efficient capacity utilization with just-in-time inventory
- Consistent data quality managing 50 million telecom infrastructure objects
- The ability to offer and support SLAs
- Automation of tasks, which has made the provisioning process more productive and continues to offer opportunities for greater efficiency.

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“Telcordia and Granite Inventory have played a key role in enabling major improvements in efficiency, automation, and employee productivity,” said Sokić. “It has been a combination of good software, good quality data, good processes, and good telecom and IT knowledge.”

T-Com Croatia is now confident that it can compete in a liberalized market. As a leaner, more efficient, automated operation, it plans to expand into new market sectors, offer a growing array of services, and deliver a whole new customer experience.

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*T-Com Croatia*

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