

```
for (var i in objAttrs)
{
  str += i + '=' + objAttrs[i] + " ";
}
str += '>';
for (var i in params)
```

AUTOMATED, FLOW-THROUGH SERVICE ACTIVATION
IN MULTI-VENDOR, MULTI-TECHNOLOGY ENVIRONMENTS

SERVICE ACTIVATION

BUSINESS CHALLENGE

In the competition for happy customers, attractive product offerings, and new revenue streams, Communications Service Providers (CSPs) have created new business models, developed new partnerships, and introduced next-generation, content-rich services. To ensure customer satisfaction and deliver revenue-yielding products, CSPs are looking for ways to facilitate the process of service delivery and ensure its efficiency and reliability.

To deliver high customer value, CSPs are looking to ensure flow-through service delivery and minimize fallouts. To provide the variety of services end users want, CSPs are seeking ways to rapidly introduce new services and rearrange existing bundles to deliver personalized customer experience. Finally, to give end users the degree of freedom and independence they have been increasingly asking for, CSPs are focusing on self-service portal solutions — that indeed give customers the desired level of personalization, but at the same time, require advanced automation capabilities for smooth, error-free, customer-triggered service activation.

All of these factors are forcing CSPs to look for an intelligent service activation solution that will allow them to rapidly deploy new

services while optimizing existing infrastructures, enable activation failure rollbacks, minimize integration time and costs in multi-technology environments, and finally create a single activation platform for the automated delivery of multi-channel, multi-vendor services.

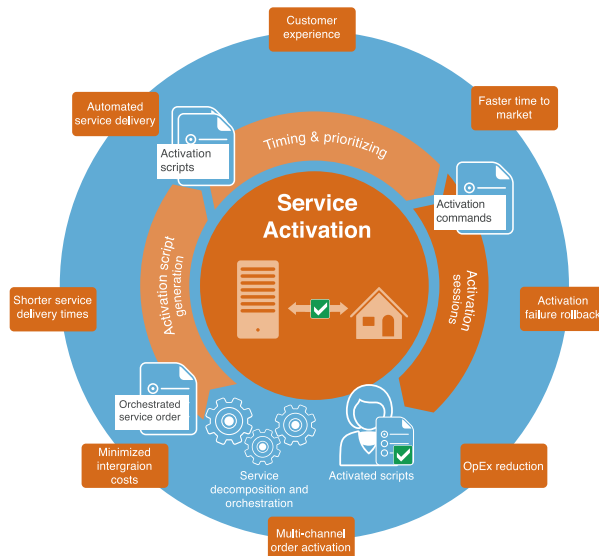
“NetCracker’s solutions have allowed us to

bring services to market more rapidly through streamlined processes, best practices, and improved efficiencies.

NetCracker’s domain and technology expertise, their process-based rapid development environment, and their

ability to deliver as committed have enabled us to meet our evolving — and evermore demanding — customer needs.”

Kathy Walker
Chief Network Officer, Sprint



Service Activation is an integral part of NetCracker’s award-winning, implementation-proven Service Fulfillment & Assurance offering included in the TOMS (Telecom Operations and Management Solutions) Suite. It seamlessly pre-integrates with NetCracker’s Service Order Management, Service Information Management, and Service Inventory, and facilitates end-to-end service provisioning and activation. Service

Activation enables CSPs to automate and centralize multi-vendor service delivery, rapidly introduce new converged services, optimize existing infrastructure usage, and simplify maintenance and extensions for future equipment and technologies.

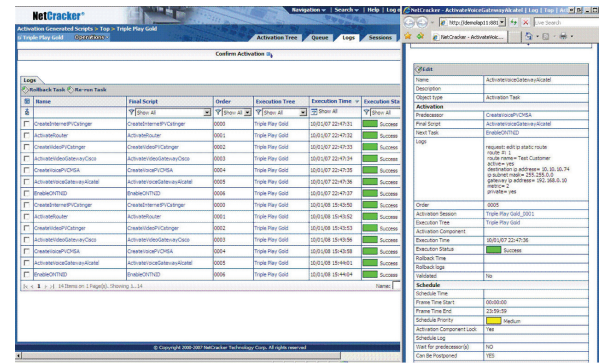
In the long run, NetCracker’s Service Activation helps CSPs to explore new revenue sources, quickly introduce new services, and deliver unmatched customer experience.

DETAILS

NetCracker's Service Activation enables automated service activation, completes the end-to-end service delivery process, and provides a unified approach to service activation regardless of specific vendor-dependent techniques.

Service Activation is based on several levels of abstraction which frame activation processes. General process management is carried out at the workflow level; low-level commands are executed automatically, according to equipment type and resource inventory information.

NetCracker's Service Activation includes Scripting Engine, Activation Engine, and Activation Adapters:



SCRIPTING ENGINE

Scripting Engine allows CSPs to generate activation scripts based on script templates and particular service descriptions. It iteratively processes activation scripts for each managed device and applies a set of validation rules to individual scripts or script groups:

- Catalog of parameterized activation scripts (built-in and user-configurable)
- Script categorization by service type, target company category, etc.
- Service level scripts for definition of activation steps
- Unit level scripts for sending configuration commands to the network

ACTIVATION ENGINE

Activation Engine helps define timing and sequence for command execution according to rank or priority. It allows CSPs to minimize the time required for service activation and optimize infrastructure usage:

- Activation failure recovery and rollback
- Automation of activation scripts and commands
- Activation, deactivation, and testing of physical and logical service components
- GUI for viewing activation status and results at a service or component level
- Automatic or manual creation of activation sessions and time frames

ACTIVATION ADAPTERS

Activation Adapters provide an interface between service activation scripts and transport protocols. They allow interactions between multi-vendor network equipment and the CSP's OSS to be streamlined and facilitate the transmission of activation commands via network management protocols such as SNMP, TL1, CLI, Telnet, SSH, and FTP:

- A unified approach to accessing any vendor-specific system
- An extensive library of predefined adapters
- Support of Java Connection Architecture (JCA) for easy integration with JCA-compliant systems

BENEFITS

The NetCracker Service Activation offering enables CSPs to:

- Reduce time to market for new services through reusability and configurability of activation templates
- Create targeted offerings through architectural agility and extensibility
- Minimize time and cost of the integration of new equipment
- Optimize infrastructure usage and build new services on top of existing equipment
- Reduce TCO through centralization of multi-channel, multi-technology service activation
- Improve customer experience with self-service capabilities
- Reduce OpEx through minimization of costly manual intervention