



Starfish Provisioning Solution

Automating Communication Management Workflows

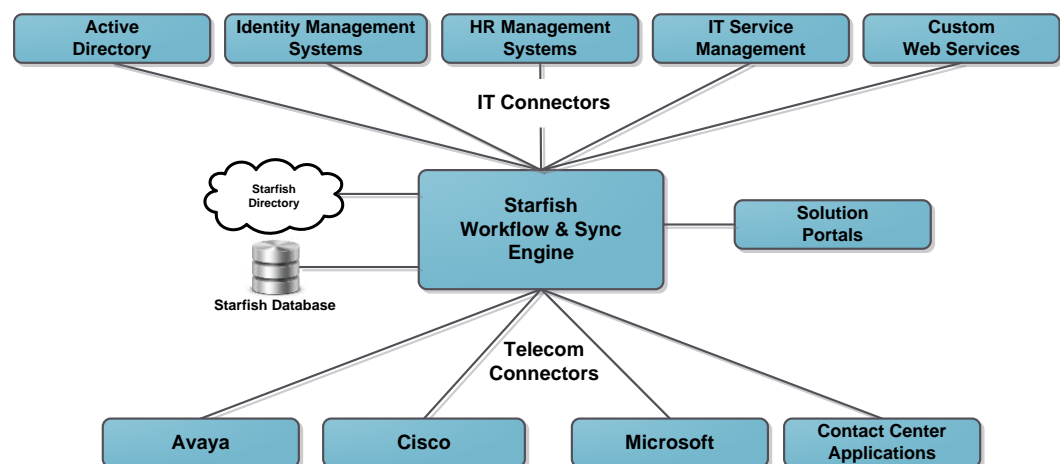
Large enterprises with many locations are faced with unique telecom challenges. One such challenge is determining how to make the labor-intensive & tedious business process of on-boarding and off-boarding new users' telecom resources easier, faster and more efficient. For most enterprises, automating communication management workflows is the answer and is being embraced as a way to respond to constant change and drive operational efficiencies.

When it comes to managing communications for the desktop or contact center, enterprises stand to achieve the most significant benefit of automated provisioning by tightly integrating with IT business applications such as enterprise directories, Identity Management Systems, Human Resources Management Systems, IT Service Management Systems and custom web services.

Solution Overview

Starfish Provisioning Solution automates communication management workflows for users and contact center agents. By integrating with IT applications, telecom resources are automatically provisioned and managed for multi-vendor platforms including Avaya, Cisco and Microsoft Skype for Business.

Provisioning Solution includes an intelligent rules based workflow and synchronization engine surrounded by IT and telecom connectors. IT connectors enable the Provisioning Solution to communicate with IT applications and enterprise directories. Telecom connectors enable the Provisioning Solution to communicate with unified communications platforms and contact center applications.



The sync engine receives event notifications from IT connectors, executes rules based business logic and triggers corresponding transactions to the telecom connectors. The business logic typically tracks lifecycle events of a user entity in the enterprise.

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Solution Benefits

- Substantially reduces administrative overhead and total cost of ownership by automating lifecycle management of phones, voice mailboxes, and contact center agents.
- Consistently and efficiently executes tasks and work orders eliminating the need for re-work caused by human error.
- Eliminates security concerns by automatically disabling users' telecom resources when users leave the organization.
- Facilitates efficient re-use of telecom resources by automatically de-provisioning users' telecom resources when users leave the organization.
- Provides a comprehensive extension management system replacing cumbersome manual processes.

Solution Integrations

Provisioning Solution is tightly integrated with enterprise directories such as Microsoft Active Directory, leading IDM, HR and ITSM systems to streamline on-boarding and off-boarding of telecom resources. It also supports custom web services.

Microsoft Active Directory

Provisioning Solution leverages Active Directory to automate provisioning of telecom resources. When users are added or modified in Active Directory, telecom resources such as phones and voicemail boxes are provisioned and configured based on user attributes such as role, department and location. When users are disabled or deleted from Active Directory, all related telecom resources are automatically de-provisioned, thereby addressing security concerns and facilitating efficient re-use of telecom resources.

Identity Management Systems

Provisioning Solution seamlessly integrates with leading Identity Managers. Starfish management agents snap into standard Identity Management Systems from Microsoft, Oracle, IBM and others effectively extending the reach of those systems to telecom services. As an example:

Microsoft Identity Manager

Provisioning Solution connects to Microsoft Identity Manager & Forefront Identity Manager using a standard Microsoft provided management agent. This integration enables the identity manager to provision and manage telecom services for enterprise users along with other IT services using its workflow and synchronization engine. Since Provisioning Solution maintains the authoritative source of telecom data, the identity manager can synchronize this data back to other IT systems such as HR, enterprise directories and enterprise telephony applications.

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Human Resources Management Systems

Provisioning Solution supports leading HR Systems. Integration with Oracle PeopleSoft, Workday and SAP enables HR Systems to automatically trigger telecom provisioning and de-provisioning transactions throughout the life cycle of an enterprise user. As an example:

Oracle PeopleSoft eProcurement

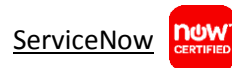
Provisioning Solution integrates with PeopleSoft eProcurement for automatic processing of telephony requests. When a ticket is assigned to Provisioning Solution, the provisioning transaction is executed according to the information in the ticket. Upon completion, notifications are sent to the appropriate parties and the ticket status is updated.

Workday

Provisioning Solution integrates with Workday to maintain accurate phone numbers in user records when changes are made to the phone system. Updates are made in real-time making Workday an authoritative source of user-to-phone number mapping. Workday can then propagate this data to other applications in the enterprise.

IT Service Management Systems

Provisioning Solution supports leading ITSM systems. Integration with ServiceNow enables servicing of telecom tickets, automatically provisioning and de-provisioning the required telecom resources while updating ticket status along the way. As an example:



When ServiceNow service requests for telecom resources are submitted, Provisioning Solution will automatically provision or de-provision telecom resources for users, along with updating the request with the action taken, request status, and detailed information about the telecom resources provisioned. Depending on the type of user (knowledge worker or contact center agent), specific telecom resources for the user will be created or removed.

Custom Web Services

Many HR Systems such as SAP and PeopleSoft provide web services for application integration. Starfish leverages these web services and customizes them to implement specific business provisioning requirements. This includes allocation and configuration of telephony resources for on-boarding, off-boarding and changes in user status such as location or role.

Starfish can also provide custom web services that can be integrated with in-house applications deployed by large enterprises, extending their reach to telecom.

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Supported Platforms & Applications

Unified Communications & Contact Center Platforms

Avaya:

- Communication Manager
- Aura Messaging
- Modular Messaging
- Session Manager
- Aura Call Center Elite
- Aura Conferencing
- CMS

Cisco:

- Unified Communications Manager
- Unity Connection
- Unified Contact Center Enterprise
- Unified Contact Center Express
- WebEx

Microsoft:

- Skype for Business
- Unified Messaging

AVST:

- CX-E (formerly CallXpress)

Applications

Enterprise Directories:

- Microsoft Active Directory
- LDAP

HR Systems:

- Oracle PeopleSoft
- SAP
- Workday

IT Service Management Systems:

- ServiceNow

Identity Management Systems:

- Microsoft Identity Manager
- Oracle Identity Manager
- IBM Security Identity Manager

Contact Center Applications

- Genesys
- NICE/ InContact / Uptivity (formerly CallCopy)
- Verint