Automating Communication Management Workflows

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Learning Objectives

• Learning Objective #1: How to implement automated communication management workflows in a multi-platform environment.

• Learning Objective #2: How large organizations leveraged the Starfish platform to streamline and automated MAC transactions and improve their operations.
Introduction

Starfish is a leading software company providing communication management solutions for unified communication and contact center platforms. Our technology enables large enterprises to transform inefficient manual business processes into automated workflows.

In this session, Starfish will demonstrate how to automate communication management workflows for multi-vendor platforms including Avaya, Skype for Business and Cisco. Through this automation, manual telecom tasks are replaced with streamlined workflows that integrate with IT systems such as Active Directory, Identity Managers, ITSM (such as ServiceNow) and HR applications.

Additionally, Aetna will present a case study on how they streamlined and automated communication management workflows in their enterprise.
Automating Communication Management Workflows

Most large enterprises are looking for ways to manage increasingly complex business communication environments by automating and streamlining their communication management workflows.

“Communications automation can help companies digitize efficiently and realize gains in responsiveness, time, and agility.”

Dave Michels - contributing editor to NoJitter & analyst at TalkingPointz
Automating Communication Management Workflows

Why should you consider automation for your enterprise communication management?

• UC and contact center administration is often overly complex and manually intensive

• Supporting and maintaining multi-vendors systems increases the complexity of managing disparate systems

• Employee churn

• Limited telecom staff to deal with requests and incidents
Automating Communication Management Workflows

• Many processes of IT administration are already integrated and streamlined across multiple systems; like automated account creation using Identity Managers

• Automation typically stops as the gates of telecom administration. A user added to HR database may already trigger an IT workflow to create and AD user, set an email mailbox etc. Then a ticket is created for Telecom Admin for manual processing.

• Extending automation to communication management can have a dramatic impact on the quality of operations.

• Enterprises that automated communication management reduced the number of manually processed tickets/incidents by thousands per month.
Automating Communication Management Workflows

How will my enterprise benefit from automation?

• Significantly reduces operation & administration costs
• Consistent & accurate execution of service requests and work orders
  • Alleviates human error and the need for re-work
• Streamlines on-boarding and the ongoing life cycle management of communication resources
  • Improves efficiencies
• Immediate and accurate off-boarding (or disabling) of communication resources
  • Improves security
  • Frees up licenses
• Extends self-service capabilities to end users
  • Enhances user productivity and satisfaction
  • Real-time response/resolution avoiding help desk tickets

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Automating Communication Management Workflows

Enterprises that streamline their enterprise communication management can achieve optimal business value by focusing on these three areas:

- Automation
- Self-Service
- Monitoring & Optimization
Automating Communication Management Workflows

There are typically 2 types of workflows: user centric and device centric. User centric workflows read the user profile to take appropriate actions. They can be triggered by:

- Monitoring and reacting to life cycle events of a user entity in IT systems:
  - Add User
  - Modify User
  - Delete user
  - Move User
  - Disable User
  - Enable User

- Reading and executing tickets or work orders

- Explicit manual trigger by administrators using a portal
Automating Communication Management Workflows

Device centric. User centric workflows that operate on specified devices, sometimes on many devices in bulk.

For example, a delegated administrator needing to change phone configuration settings for a member of their team, or an end user needing to reset a password for a specific communication application or device.

Those types of workflows can be triggered by:

- Reading and executing tickets or work orders
- End users with self-service portals
- Managers using task specific portals for delegated administrators.
Technology Platform – Architecture

The **Starfish Database** maintains the telephony context: systems, dial plans, ranges, etc.
Technology Platform – Architecture

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Technology Platform – Architecture

The **Starfish Database** also maintains available extensions by ranges.
Technology Platform – Architecture

The **Starfish Directory** maintains the associations of users to telephony resources.
Demo: On-boarding & Off-boarding

Integration with an Active Directory

Active Directory
Identity Management Systems
HR Management Systems
IT Service Management
Custom Web Services

IT Connectors

Starfish Workflow & Sync Engine

Solution Portals

Starfish Directory
Starfish Database

Avaya
Cisco
Microsoft
Contact Center Applications

Telecom Connectors
Demo: On-boarding & Off-boarding

Integration with ServiceNow

- Active Directory
- Identity Management Systems
- HR Management Systems
- IT Service Management
- Custom Web Services
- Solution Portals
- Contact Center Applications
- Telecom Connectors
- Starfish Workflow & Sync Engine
- Starfish Database

Avaya
Cisco
Microsoft
Demo: Migration

Triggering workflows with solution portals
Automating Communication Management Workflows

Where to start?

1. Document use cases that involve communication administration workflows.
2. Document the current sequence of steps used to implement the required workflows.
3. Document any desired improvements of the process (besides the automation aspect).
4. Identify the appropriate trigger, and possibly the IT system that can generate the trigger, for each use case.
5. Identify which use cases are the most conducive for automation: which ones are the most common, or the most time consuming.
Case Study: On-boarding & Off-boarding

One of the nation’s largest mortgage lenders with over 24,000 employees and many lines of business needed to automate their on-boarding & off-boarding workflows due to constant churn.

Their communication infrastructure was comprised of multiple Avaya CMs, Avaya CMSs, AVST voicemail and NICE call recording. Their objective was to automate their workflows through their corporate Identity Management system (Microsoft Identity Manager).

• Microsoft Identity Manager reads an HR database and synchronizes the data to Starfish Provisioning Solution.

• Starfish Provisioning Solution then determines the new user’s role in order to provision or de-provision the appropriate resources.
Case Study: On-boarding & Off-boarding

Integration with an Identity Manager
Case Study: On-boarding & Off-boarding

If the new user is a contact center agent:

- Allocate a station extension and login ID extension from ranges corresponding to the line of business and location.
- Create a station on CM with the LOB template.
- Create an AVST mailbox.
- Create an agent login ID and skill it based on the agent role.
- Create user and configure settings on the NICE call recording server.
- Send a Welcome Aboard message to the user and notification to the administrator.

If the new user is not a contact center agent:

- Allocate an extension from a range corresponding to the line of business and location.
- Determine which PBX and voicemail system to use.
- Create a station on CM with the LOB template.
- Create an AVST mailbox.
- Send a Welcome Aboard message to the user and notification to the administrator.
Case Study: On-boarding Workflow

1. Microsoft FIM
2. Starfish Provisioning Solution
3. User
4. Create CM Station
5. Create AVST mailbox
6. Send Notifications
7. Agent
8. Create CM Station
9. Create AVST mailbox
10. Configure Call Recording
11. Send Notifications

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Starfish Self Service Manager
Case Study & Demo
Founded in 1853 in Hartford, CT, Aetna is committed to providing individuals, employers, health care professionals, producers and others with innovative benefits, products and services.

• Technical Landscape
  • 48,000 Users
  • 15 Avaya CMs
  • 7 Avaya AAMs
  • Avaya Elite – 50% call center agents
    • 5 CMS servers
    • Verint
    • Aspect
    • Call Accounting
  • Microsoft Skype for Business
    • Some UC communities migrating to Skype
Communication Administration Challenge: How to streamline and automate labor-intensive, time-consuming process of on-boarding and off-boarding in a dynamic multi-vendor telephony environment, with increasing business growth yet the same level of admin resources.

We decided to work with Starfish to achieve the following goals:

- Streamline Contact Center agents on-boarding and off-boarding process in a location independent configuration, which is currently prohibitively slow, cumbersome and error-prone.
- Automate de-provisioning of telephony resources to maintain a clean environment and optimize use of licenses
- Reduce telephony help desk admin burden by delegating specific tasks to end users using self service portal.
- Manage the migration of knowledge workers from Avaya to Skype (in progress)
- Integrate MACD automation with the enterprise ServiceNow implementation. (in progress)
Streamlining Provisioning

- Engaged Starfish to design desired work flows, and portal look and feel
- Deployed a Provisioning Portal to streamline on-boarding and off-boarding
- Simple dialog box for provisioning resources across multiple systems:
Case Study:

Streamlining Provisioning

• Simple dialog box for de-provisioning resources across multiple systems:
Case Study:

Automating De-Provisioning

- Terminated employees often leave without follow-up by the managers to submit requests to de-provisioning associated resources.

- Deployed Starfish Active Directory Connector to trigger resource removal workflows for when AD users are disabled and deleted.

- Removal potential for non-ticketed requests via auto de-provisioning based on internal projections could double the removal transactions.
Delegate specific functions to end users:
- Engaged Starfish to design desired self service function
- Deployed a Self Service Portal that empowers end-users to manage some of their telephony options
- Deployed a Self Service Portal for help desk staff to allow them to act on behalf of end-users
Case Study:

Integrating Telephony MACD with ServiceNow:

- Aetna IT has deployed ServiceNow as the infrastructure for Service Management.
- To align with the strategy
  - Link Self Service Portal to ServiceNow service catalog
  - Working with Starfish to automatically process telephony provisioning requests.
Case Study:

Automating migration to Skype for Business

• Some UC user communities are migrating to Skype
• Workflow definition of Skype user provisioning
  • Enable for voice
  • Allocate next available phone number and set URI
  • Configure policies based on user profiles
• Workflow definition for migrated user de-provisioning
  • Change the display name
  • Change station COR to a configurable value
  • Put the extension in a marked for deletion table for removal in a configuration number of days
• Use portals to execute migration workflows
Case Study:

Streamlining Provisioning expected results and impact:

• 73,353 yearly programming transactions
• 59,513 (81%) potential based on transactions related to:
  • Add agent login id
  • Add station
  • Add voicemail
  • Remove agent login id
  • Remove station
  • Remove voicemail
• Adds account for 35,275 (48%) of ticketed transactions
• Removals account for 24,239 (33%) of ticketed transactions
• Removal potential for non-ticketed requests via auto de-provisioning based on internal projections could double the removal transactions
• Impact in terms of ROI given the charge-back model
Case Study:

Next Steps:

What else can we streamline and automate; Other manual administration processes:
- De-provisioning resources on Verint Impact360
- De-provisioning extensions on e911
- Managing Aspect accounts
Questions?
Thank You for Attending!
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