



WHITE PAPER

A Better Way to Deploy

Automation solutions to reduce
IP Telephony Deployment Pain
and increase Profit Margins

I. For service providers and system integrators,

migrating customers to IP telephony represents a large business opportunity. Yet the potential risks are also many.

An IP-T migration or deployment is very complex and requires the migration of large volumes of information that are quite sensitive to mistakes and unpredicted obstacles. Changing telephony systems is one of the most complex tasks an organization can undertake.

However, the technology is not always the complicating factor. In a migration, many people are affected who have their own opinions about the migration. Additionally, each individual phone set migration requires many detailed and often times complex steps be completed. These non-technical issues significantly complicate a telephony migration and impact its success or failure.

For example, if one adds to each phone migration an extra step that requires an additional 5 minutes to complete, a project with 10,000 phones will be delayed by more than 20 additional man-weeks. A tool that streamlines and eliminates manual procedures would be beneficial and reduce project times radically.

II. IP Telephony Deployment Risks

Unfortunately, problems can occur when implementing a phone system – problems like voice quality issues, number plan issues, personal features missing (address book, speed dials, etc). These problems may not show up in a pilot or test installation.

In order to manage these risks, organizations request that smaller groups be converted at a time believing this will minimize the disruptions. But often there are limitations to the size of the small groups either by the existing legacy PBX or by the telephony provider's ability to manage small groups of number switching.

Ideally, a multi-component, vendor agnostic solution would coordinate the setup between the PBX, Softswitch, Messaging, and network equipment to minimize errors and reduce risks.

III. The Solution

The Visionael IP Telephony Automation Solution (IP-TAS) overcomes the challenges faced when moving from PBX to IP-PBX environments. It provides MSPs and systems integrators

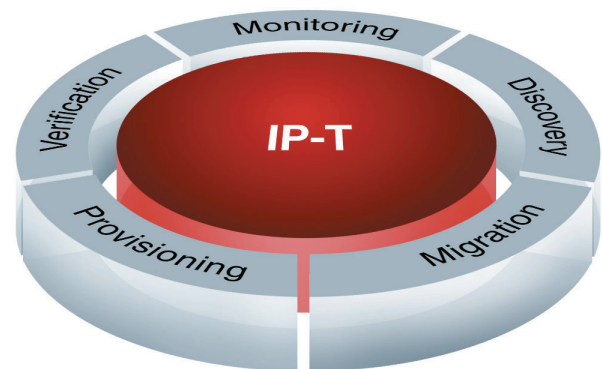
with a scalable, out-of-the-box solution that automates manual processes and eliminates error-prone, human repetitive procedures. Organizations can now benefit from a centralized provisioning and management solution for advanced IP PBX environments. The Visionael solution saves valuable IT staff time and significantly reduces maintenance cost.

The solution leverages the highly scalable Visionael Systems Orchestrator engine for automating workflows. The Visionael IP-TAS enables seamless integration of the IP telephony components with the current PBX, and automates the processes throughout the whole migration process. It imports data from legacy PBX, Directory Service, Flat File or IP-PBX, automatically pre-fills templates when setting up the system, and automatically provisions phones and users while deactivating old phones. The solution supports transitions to both hybrid environments with legacy PBXs and softswitches, as well as environments with all-IP networks including greenfield sites.

IV. Reduces Deployment Pain for Provider and Customer

Using the Visionael IP Telephony Automation Solution can reduce manual processes up to 68% through automation of tasks. Providers can reduce the time spent on low value tasks—improving margins and expediting the roll-out process.

The end customer also benefits greatly as their involvement in the data collection and input process is greatly simplified and streamlined. There is also less on-site time required as IP-TAS enables the provider to do much of the work off-line and at their own location. And finally roll-outs are completed in a more dependable manner as error rates are reduced and deadlines are more consistently met.



V. Improves Visibility

Visionael IP-TAS provides clear visibility into legacy telephony systems so integrators aren't forced to reverse engineer changes to legacy PBX system configurations. Importing data and configurations directly significantly reduces time and errors.

As such, Visionael can provide a direct interface to Nortel PBX systems to provide automated re-routing in hybrid environments. Every time an IP-phone registers, there can be a configuration sent to the Nortel PBX to reroute incoming calls to the IP-PBX.

VI. Shortens Migration and Design Processes through Templates

Gains in process efficiencies come through Visionael's unique template system. Using templates allows migration and design processes to be completed online or offline even before hardware installation. The use of templates shortens the migration and design processes and increases productivity. Tasks that once took 3 - 4 days to complete can now be accomplished in 1 day. Furthermore, the templates are provided to department staffs reducing the need for engineers or highly skilled technicians to implement.

VII. Improves Post Migration Logistics

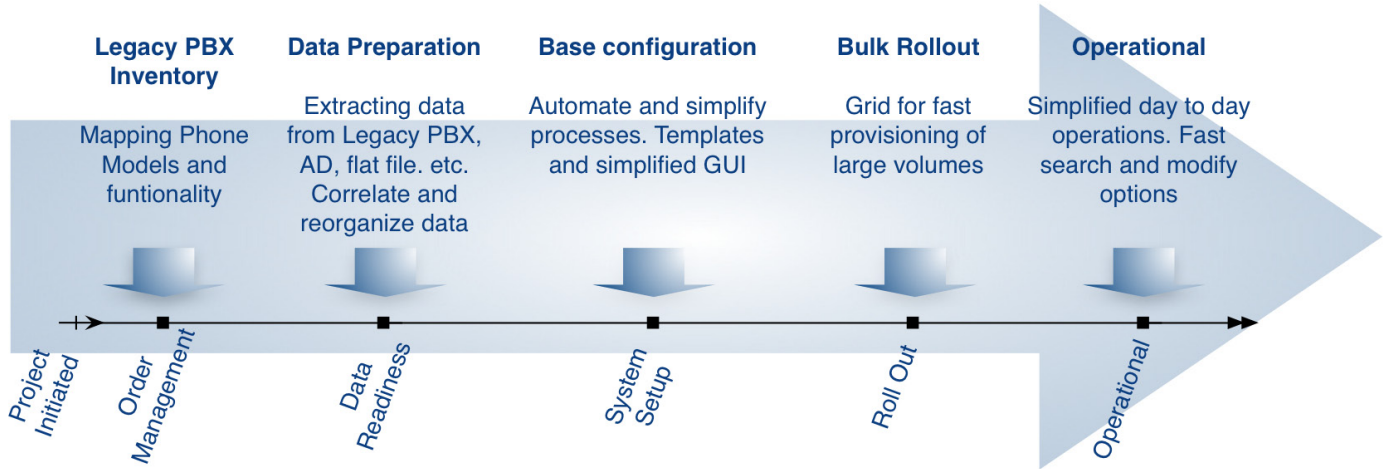
MACD and site splits are simplified and streamlined. When a site grows beyond the capacity of the current Cisco Call Manager, a new Call Manager needs to be added. Historically, this "site split" required significant labor hours to prepare and implement and could only be performed during well coordinated outage windows. Visionael IP-TAS simplifies the process using its advanced user templates to automate the task and allow offline set up.

Additionally, integration with other systems is improved. Migrations don't happen in a vacuum. Other systems and people are part of the process and are affected. For example, when scanning the MAC address of a phone to be delivered, the very instant that the MAC address is scanned, the phone can be provisioned and an address tag for delivery printed along with an email notification created and sent to the receiver about the impending delivery including steps for preparation. Security is improved in the process as only these phones will be allowed to access the network at the new location. Finally, people and systems need to be notified. IP-TAS can send automatic notifications to people based on triggering events. Or IP-TAS can initiate actions like provisioning IP phones and creating work orders to send the phones to a location only after being notified of completion of other tasks like the installation of appropriate ethernet jacks. Or IP-TAS can notify appropriate systems like billing to begin billing customers immediately once IP phones are set up.

"Historically, the IP telephony deployment process has been fragmented and manual with a great deal of inconvenience to the end customer. With Visionael's IP-TAS solution providers are finding that they can reduce design time by 10-15%, deployment time by 15-30% and increase their profit margins by 40-60%. In addition, providers are finding that customer satisfaction is greatly improved as projects are completed in a more timely manner and are less intrusive to their customer's organization."

Craig Nichols
President and CEO Visionael Corporation

Support for each Phase in an IP-T Deployment



A. Inventory Phase

The solution can connect to legacy PBX and extract all extension information including a user's phone capability, number of lines, etc. This can provide an accurate inventory and the information captured can be mapped for the new IP PBX environment.

Saves 2 - 5 weeks.

B. Data Preparation Phase

The solution can connect to legacy PBX and extract all user info including name, department, building, extensions, etc. and use this as input to the new IP PBX. It can also collect information from an Active Directory or a flat file and automatically correlate these sources to be as IP-T ready as possible.

Saves 1 - 10 weeks.

C. Base Configuration Phase

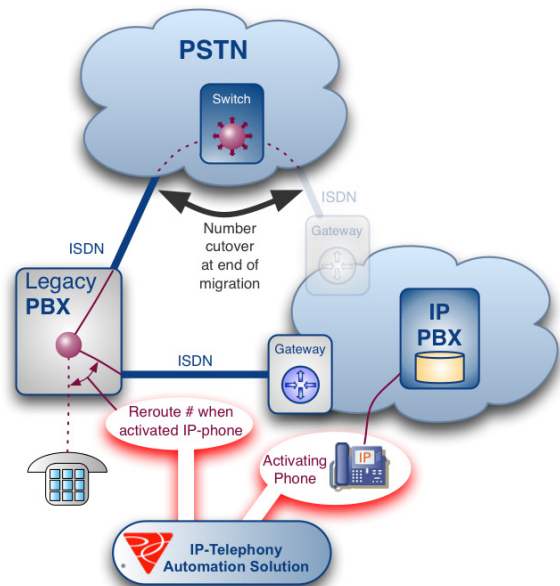
The solution allows the creation of different levels of service offerings once and automatically populated to the new system with minimal manual input for each client installation. A new system can be up and running and ready to add users in less than an hour.

Saves 1 to 5 days.

D. Bulk Rollout Phase

Historically, when rolling out phones, a lot of manual input and delivery tasks for each phone were required. IP-TAS provides unprecedented levels of customization and automation. For example, when scanning the MAC address of a phone to be delivered, the very instant that the MAC address is scanned, the phone can be provisioned and an address tag for delivery printed along with an email notification created and sent to the receiver about the impending delivery including steps for preparation.

Saves 1 - 10 weeks.



E. Operational Phase

For the operational phase, the solution improves efficiency of day-to-day tasks. For a help desk it may be useful to get a list of all network components involved when a user claims an IP call goes badly (poor voice quality, disconnect, etc.) to improve troubleshooting efficiency. Additionally, the process for failed devices can be handled more easily with a defined process that automatically deactivates the device and then automatically creates an order for a new device from spare stock or the vendor. Another key benefit of IP-TAS is that it allows for remote management of the MACD process after deployment saving valuable time and travel costs.

Saves 1 to 12+ months depending on network and operational processes.

VIII. The Visionael Advantage

The Visionael IP Telephony Automation Solution supports service providers who are conducting IP Telephony migrations or deployments and who are looking to improve customer satisfaction and reduce costs through automation. Visionael's unique capabilities include:

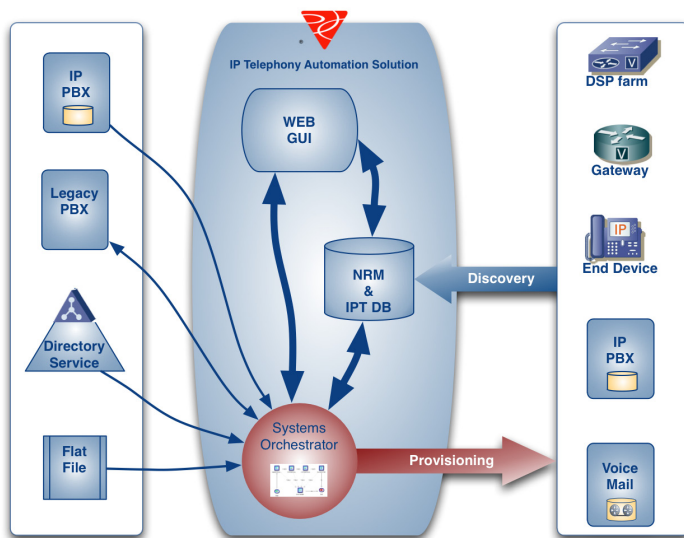
- Environment set-up in advance (offline), even before hardware is in place
- Simple, web-based GUI based on templated operational flows and not technical, vendor specific interfaces
- Enhanced communications through integrations with other systems
- Automation that drives significant cost reduction. An example of the amount of financial benefit you can expect to find from IP-TAS is listed below:

Typical Financial Benefit from IP-TAS

Case: 1,000 Phone Deployment					
PHASES	Present Process (Man Days)	IPTAS Reduction	Time Savings (Man Days)	Manpower Benefits	Travel Benefit
DESIGN					
Working Days Calculation					
Analysis Documentation	4.5	0%	0.0	\$0	\$0
Assessment Documentation	2.3	0%	0.0	\$0	\$0
Design Documentation	5.5	15%	0.8	\$990	\$0
Test Documentation	1.0	0%	0.0	\$0	\$0
User Data Preparation	2.0	60%	1.2	\$1,440	\$0
Total DESIGN	15.3				
DEPLOYMENT					
Pre-Staging Preparation	1.0	0%	0.0	\$0	\$0
Pre-Stage Build	10.0	30%	3.0	\$3,600	\$0
Ship to Site	1.0	0%	0.0	\$0	\$0
On-Site Deployment					
Un-Pack & Re-Rack	2.0	0%	0.0	\$0	\$0
Phone Deployment	25.0	0%	0.0	\$0	\$0
Flow Deployment	22.0	50%	11.0	\$13,200	\$2,200
PBX Migration	6.0	80%	4.8	\$5,760	\$960
User Data Entry	1.0	34%	0.3	\$408	\$0
User Data Changes	3.0	71%	2.1	\$2,556	\$0
UAT	3.5	0%	0.0	\$0	\$0
Total DEPLOYMENT	74.5				
PROJECT MANAGEMENT	15.0				
TOTAL	104.8		23.3	\$27,954	\$3,160

We work with each of our customers to estimate and verify the financial benefit that they receive from IP-TAS. The example shown illustrates a customer case where their average deployment is 1,000 phones. In this case the financial benefit that they receive by using IP-TAS is over \$31,000 per project. When this is applied over the 48 projects that they perform in a year it equates to over \$1.4 million dollars annually.

RESULTS:	
Average Project Benefit	\$31,114
Average Benefit Per Phone	\$31
Total Annual Benefit	\$1,493,472



Visionael Corporation provides best of-breed software and services that allow telecommunications service providers, network outsourcers, enterprises and government organizations to automate the rollout of network services over IP networks and to accelerate time-to-revenue or productivity. With Visionael software, network operators can more quickly design, provision and activate next-generation services—including voice, data, mobile and video offerings—all while reducing the complexities of managing large, advanced networks.

Visionael IP-T Automation Solution coordinates interactions among legacy PBX and IP PBX as well as other surrounding unified communications related systems.

For more information, please visit www.visionael.com, or call +1 650-963-0960.