Destination: Telecom Automation

Map your course to a more innovative telecommunications organization

Get wired in to a smarter way of working

The services that telecoms provide are integrated into the way we live and work. It's hard to imagine life without the connectivity they make possible. But that's not to say that the industry doesn't have challenges to overcome. Big ones.

First off, telecom is a highly competitive and saturated industry. Consumers and businesses have a lot of choices, and the cost and complexity of switching is low. Customers need a reason to stay, and it's tough for providers to build differentiation in a market for services that many see as a commodity.

And that brings us to the customer experience. Today's telecom customers are pretty demanding. And interacting with a telecom isn't always easy. Placing orders, accessing support, resolving billing disputes—they can all be a lot of work for customers. Meanwhile, a revolving door for qualified talent compounds the problem. And within the enterprise, siloed departments, systems, and data sources are a barrier to efficiency and innovation—not to mention their impact on the employee experience. According to UiPath telecom customers, legacy tools make up 60% to 70% of telecom systems. That's a problem.

But automation powered by artificial intelligence (AI) is creating new possibilities for telecoms and their customers. It's improving the customer experience, upgrading the agent's work environment, and cutting out the waste and inefficiencies from back-office processes. In fact, more than 60% of telcos say automation is the most critical driver for their digital transformation journey over the next 5 years.

The bottom line: AI and automation are revolutionizing how telecoms work and how they work with their customers. Here's a quick look at how.

Map your course

Telecom automation

Customers are more demanding, technology is always evolving, the competition is always intensifying—it makes for a challenging industry environment. But today's most innovative telecoms are rising to the challenge, thanks to the new possibilities that AI-powered automation creates.

Customer experience

Telecoms have always been in the experience business. They provide the tools and infrastructure that help people and businesses connect, interact, and share ideas and information. But being a telecom customer isn't always a great experience by itself. Complex ordering and billing processes, long hold times, surprise outages and disruptions—it's no wonder that 40% of telecom customers say that they're dissatisfied with their experience.

But automation can make being a telecom customer a lot less frustrating and a lot more enjoyable. It simplifies getting the answers to customers through AI-powered self-service channels. It helps agents resolve issues faster and personalize support through recommended actions. And it can help telecoms understand the root causes of dissatisfaction and zero in on potential solutions faster.

When customers do have a complaint, AI-powered automation can help identify the underlying issue and sentiment and interpret any supporting documentation. It can then triage and route the issue to the right area for resolution. Instead of taking days, resolution takes a few hours. That's enough to turn a frustrated customer into a lifelong advocate.

63%
faster average handling times with AI-powered automation.

UiPath customer data

Start here
Automation can transform the customer experience by giving agents the tools to better help customers—and customers the tools to help themselves.

Complaints resolution

Resolve simple issues immediately and address more complex complaints in shorter timeframes.

Automated agent support scripts

Empower agents with the information and tools they need to tackle almost any request.

Predictive churn

Mine vast quantities of historical customer data to take a proactive approach to dissatisfied customers.

Discover more automation opportunities →

Service delivery

Great service starts with a smooth ordering process. Sounds simple enough. But there's nothing simple about what goes on behind the scenes with the average telecom order.

Most orders involve accessing half a dozen or more systems. The underlying processes are confusing, overlapping, and disjointed. Error rates can reach up to 40%. And there's usually a glaring lack of alert triggers if an order is missing information—which can bring the whole process to a grinding halt.

With process mining, automation can help leaders zero in on the bottlenecks and roadblocks in a process and adjust them to improve efficiency. Robots can accelerate orders, activations, and provisioning. The resulting efficiencies drive down costs, supercharge customer satisfaction, and accelerate the order-to-cash cycle. That's a great foundation for a long-term customer relationship.

>50%

Of IP orders are prone to errors, due to complex processes and manual hand-offs from order entry to provisioning, activation, and assurance.

UiPath customer data

Start here
Streamline order management, accelerate activation, and improve overall service quality.

Billing inquiries
Take the uncertainty out of the billing process with greater accuracy and cross-system consistency.

Order cycle times
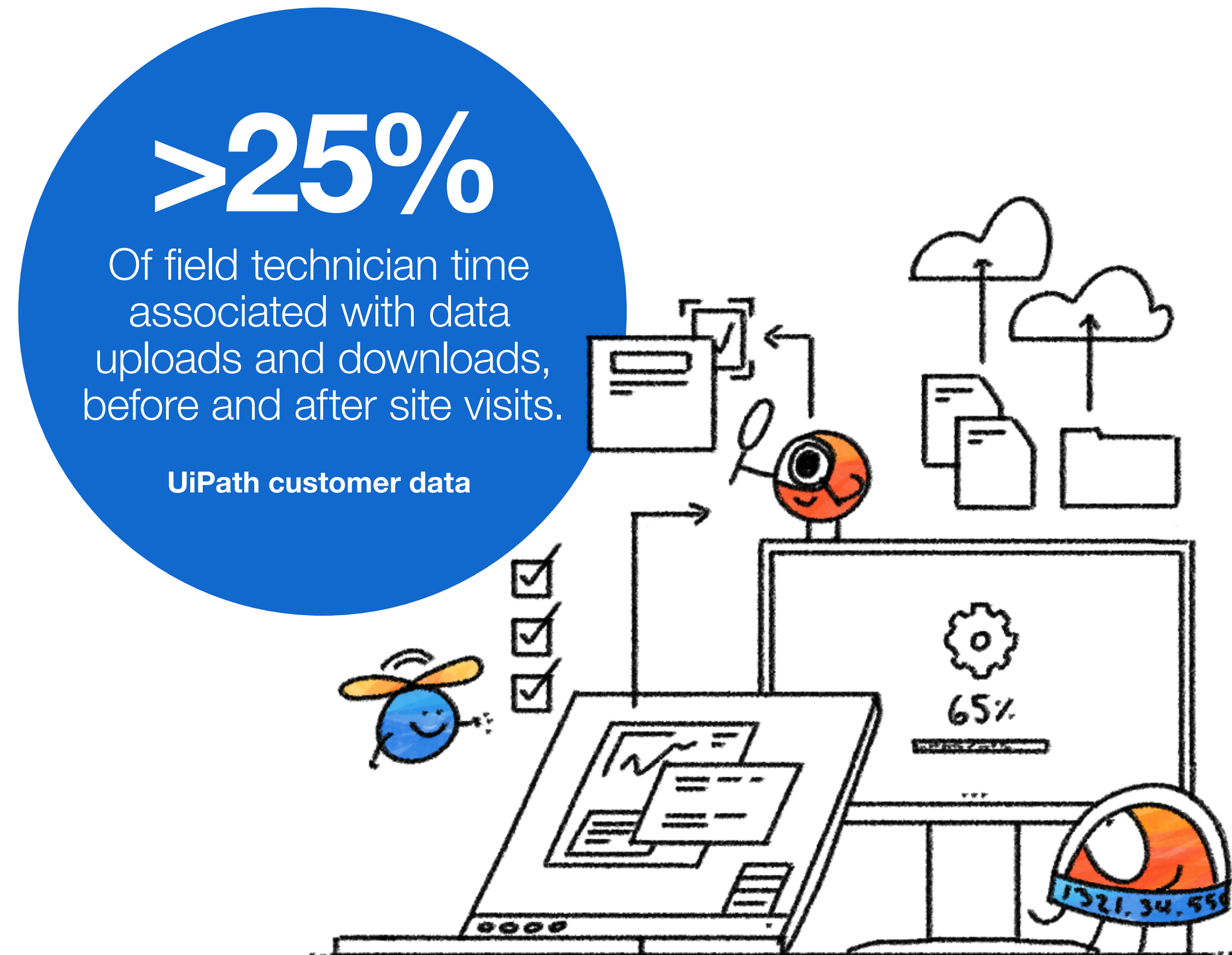Eliminate the roadblocks and miscues in placing orders.

Provisioning
Accelerate access to the services and support needed to fulfill orders and service requests.

Discover more automation opportunities →

Field Technician efficiency

The typical telecom field tech juggles a lot of tasks each day—the kind of tasks that keep them from doing the hands-on work they're trained to do. There's a lot of prep work involved in collecting the customer details needed for installations, repairs, and service.

It's not uncommon for techs to download and upload information from as many as eight systems per customer visit. They can spend as much as one-quarter of their time updating siloed tools. And they're constantly collecting data to track assets that require upgrades or maintenance.

It doesn't have to be that way. Robots can take over a lot of that work, so technicians can start solving problems faster. Robots can update billing apps, to collect the data for end-to-end asset lifecycle visibility. Ultimately, automation shortens the tech's administrative to-do list, so they can do more of what matters.

>25%
Of field technician time associated with data uploads and downloads, before and after site visits.

UiPath customer data

Start here
Empower field technicians to make the most of their expertise by eliminating repetitive, manual tasks.

Pre-job downloads
Assign the job of downloading customer and technical data for jobs to digital assistants.

Automated provisioning
Offload tasks related to provisioning new software updates for networks, deploying configuration files, and updating tests.

Asset lifecycle visibility
Improve access to data on infrastructure assets for improved financial tracking and treatment and asset market valuation.

Migration and testing

Telecoms are under constant pressure to innovate. There's always a new service, a faster network, or a revolutionary technology that's just around the corner. It's critical to launch those innovations quickly, because that's what customers expect. But it's just as critical that the migration process is smooth and seamless. And that takes testing.

But as much as 80% of telecom testing is manual. It takes work to reconcile the output of multiple siloed testing tools. The testing process slows down. Errors can go overlooked. Quality suffers.

Here's the good news: AI-powered testing can dramatically reduce testing build and maintenance times by as much as 75% according to UiPath customers. It can deliver lower testing costs, broader test coverage, and higher test speed and quality. That makes the migration to new technologies and network architectures a lot less risky for telecoms and less disruptive for their customers.

UiPath customers report that estimated 30% to 40% of testing effort is spent on curating and providing test data in the required formats and configuration.

75%
less time to build and maintain tests with UiPath versus other automation test tools.

UiPath customer data

Start here

Improve testing accuracy, efficiency and accelerate time-to-market for new service and technical offerings.

Service and application rollout

Automate testing for catalog and patch updates. Use AI to analyze system requirements and generate test cases.

Testing delivery

Deploy assets, skills across RPA, DPA. Integrate testing into the ALM, CI/CD pipeline.

Synthetic Test Data Management

Create, store, and track dynamic test data using data queues. Use varied sources for data-driven tests.

See more ways to automate →

The big map of telecom use cases

Customer experience

Contact centre
- Open applications, login (start my day)
- Customer verification
- Pre call gathering (start my call)
- Guide my call (automated scripts)
- Call disposition and Notes
- Migration to new plan
- Address change: moves
- Bill inquiry and analysis
- Upsell bundle or package

Customer operations
- Fraud detection, alert, escalation
- Churn analysis and alert
- Predictive churn offers
- Proactive outreach – data over-usage
- Automated complaints management, moves, adds, changes, termination
- Phone number porting

Customer accounts and lifecycle
- Onboarding and account set up
- Billing audits
- Customer insights
- Identifying customers likely to default
- Identifying anomalies for under / over billing
- Bill comparison
- Customer credits and adjustments
- Calculate termination penalties

Growth
- Automated network slicing
- Hyper-personalised offer/bundles
- Dynamic campaigns
- Dynamic pricing
- IOT and 5g managed services
- Managed security services (MSS)

Relationship management
- Automated proposals
- Customer invitation to events
- Customer notifications
- Product exists
- Smart retention
- Customer loyalty promotions
- Customer survey

Service delivery

Order management
- Enter new order
- Validate completeness
- Modify existing order
- Provision and Activate Order
- Send order details to billing system
- Proactive outreach – network outages
- Moves, Adds, Changes, Disconnects, Termination
- Service Scheduling
- Product Upgrade
- Service Inquiry
- Service Troubleshooting
- Activate equipment
- Self-install kit
- Inventory Management
- Return of hardware
- Order Verification and Correction
- End of Life Equipment replacement
- Schedule service call
- Field ticket submission

Risk and compliance
- Reporting Internal / External
- SLA monitoring
- Alerts Management
- Modify existing order
- Service status, SLA, speed test inquiry
- Update Customers during network outages

Network and field operations

Network management
- Automated functional and regression testing
- Network monitoring
- Network testing
- Automated weekly, monthly reporting
- Fault detection and resolution
- Managed network reporting
- Network planning
- Network optimization
- Network update automation
- Proactive monitoring outages
- Network failure resolution
- Alarm aggregation, routing and filtering
- Configuration management and compliance
- Network asset managment
- Predictive maintenance
- Security compliance checks

Field operations
- Dynamic dispatch
- Automate collection of troubleshooting data from multiple apps
- Scheduling and dispatch
- Field ticket submission
- On-site service configuration changes
- Check agreement with contractor to validate payments
- Check completion of supporting documents submitted by contractors
- Work order management

The big map of telecom use cases

HR

Benefits
- Answer employee benefits inquiries
- Process FMLA and other medical leaves
- Tuition reimbursement
- Timesheet payroll processing
- Annual enterprise W2 distribution
- Performance incentives (RR, bonuses, etc.)

Learning and development
- Design learning content
- Develop train strategy, processes, and policies
- Content matching of trainings and employee needs
- Creates a more inclusive training
- Evaluate and update training materials
- Maintains attendance records

HR shared services
- Generate employment letters
- Manage employee probation period
- Manage system access and permissions
- Process system change and notify stakeholders
- Exit checklist tracking
- ID and system deactivation
- Process new hire paperwork
- Employee records centralized
- Review and save new hire paperwork
- Update internal databases with new hire info

IT

Application development
- Reporting
- DevOps integration
- Scalability configuration
- Code remediation
- Mapping of business objects (e.g. account mapping, cost center mapping)
- Server migrations
- Integration testing
- Regression testing
- Test management
- Process mining to identify key processes

End-user services
- Asset Utilization Monitoring
- Installed Software Audits
- Incident Management
- License management - upgrade / downgrade licenses
- Onboarding / offboarding
- Reset password
- Ticket creation / routing
- Triage and resolution
- Unlocking locked user accounts

IT operations
- Configuration management
- Continuous delivery
- Provisioning
- Patch management
- Suspicious user activity
- Triage potential threats
- Trigger remediation flows upon discovery

The big map of telecom use cases

Supply chain

Supplier management

- Supplier onboarding
- Supplier verification process
- Expense audit
- Maintain source data
- Manage supplier agreements
- Match needs to supply capabilities
- Run spend analysis and variance management
- Manage supplier and vendor relationships
- Manage vendor master data

Procurement

- Approve requisitions
- Create and distribute purchase orders
- Manage purchase order approvals
- Expedite orders and satisfy inquiries
- Submit purchase orders to vendors
- Reconcile purchase orders with goods receipts and invoices
- PO update and cancellation
- PR update or cancellation
- Create, process and review requisitions
- Manage requisition approvals
- Research and resolve order exceptions

Forecast and demand planning

- Develop baseline demand forecasts
- Monitor activity against demand forecast and revise forecast
- Develop fiber build plan
- Balance supply chain resources with supply chain and delivery requirements
- Establish and communicate supply

Finance

FP&A

- Financial analysis
- Internal control checklists
- Post close financial analysis
- Post close reporting

Tax

- Maintain tax master data
- Account for taxes
- Address tax inquiries
- Calculate deferred taxes
- Monitor tax compliance
- Performa tax planning/strategy
- Prepare foreign taxes
- Prepare tax returns

General accounting

- Measure financial returns on completed capital projects
- Monitor and track capital projects and budget spend
- Perform BU reporting/review management reports
- Prepare business unit financials
- Prepare consolidated financials
- Prepare statements for board review
- General Accounting (continued)
- Reconcile general ledger accounts
- Manage payment exceptions
- Run payment process

Record to report

- Perform capital planning and project approval
- Perform capital project accounting
- Manage GA policies and procedures

Next steps

You've reached the end of this automation atlas. And we hope you found inspiration for creating a successful path to telecom transformation.

The destination is totally worth the journey – and it's likely much closer than you think. UiPath is ready to lend the expertise you need to get going and help you create innovative solutions to your biggest telecom challenges.

Start your telecom automation journey today →

What does success look like?

- Automation helped **Orange Spain** achieve best-in-class customer service—while saving €34 million in just 2 years.

- **Elisa** eliminated 3,500 hours of manual work each month—giving agents more time to help customers.

- **NTT Docomo** accelerated the release cycle 16x with automated testing.

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