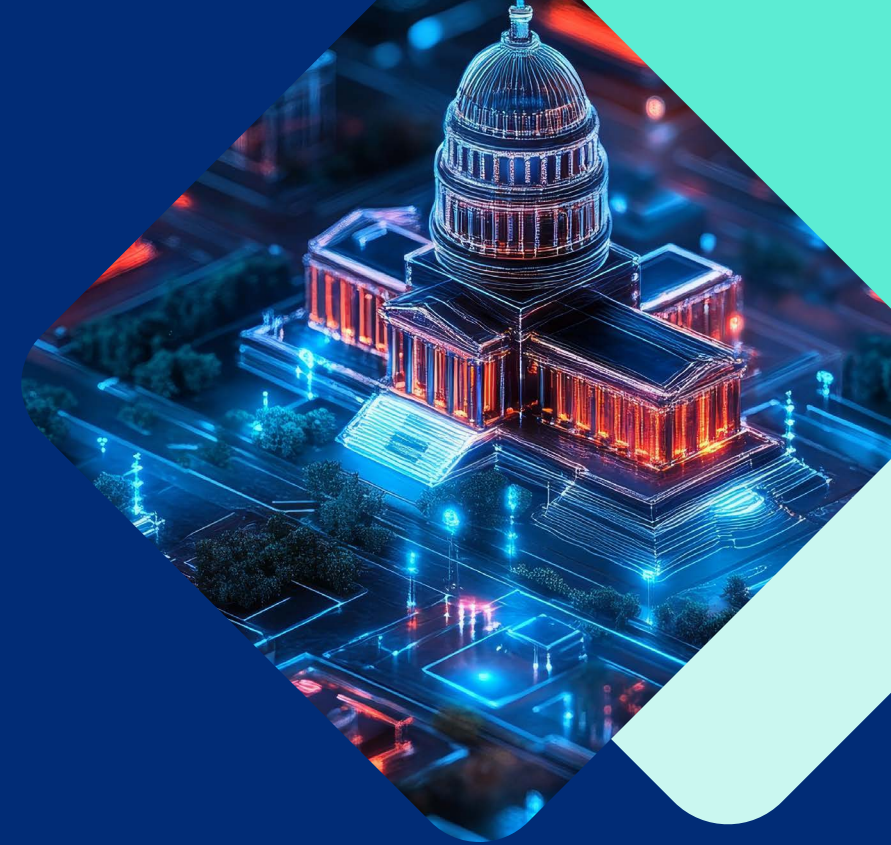




The great CX reset in government

Striking a balance between efficient, secure
AI automation and high-empathy human
support to build public trust.





The AI ROI paradox in government

Government agencies are adopting AI at near-universal rates and getting almost none of the cost relief they were promised. In a benchmark study of 150 CX, contact center, and IT leaders conducted by TTEC Digital and CX Dive, not one government respondent reported that AI investments had reduced their overall CX costs—half (51.5%) reported costs had gone up.

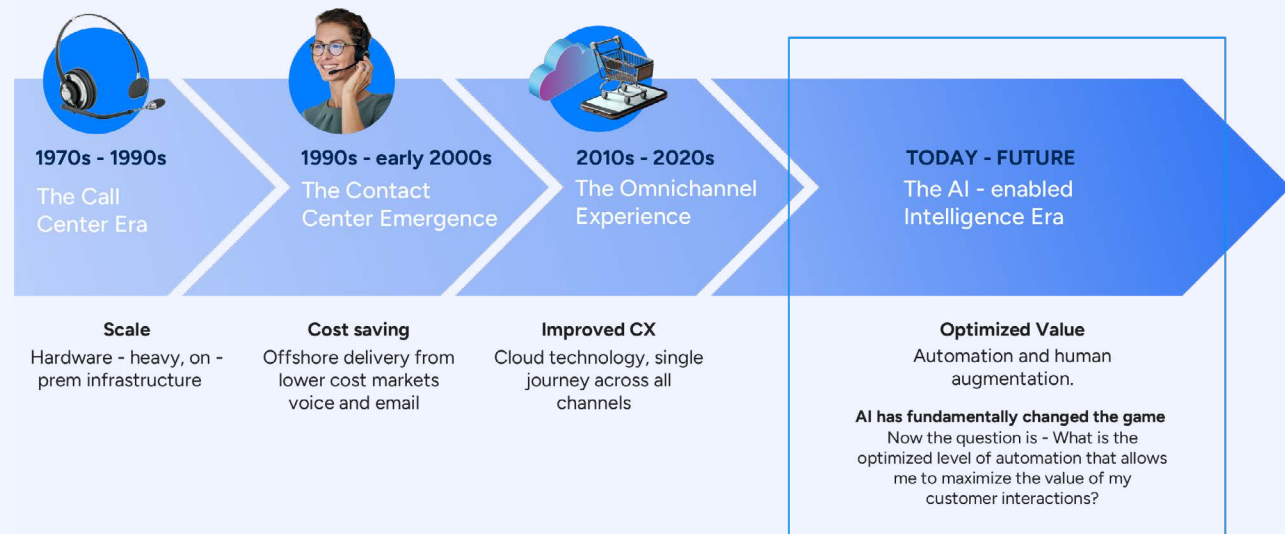
The reason is not the technology. It's where the technology was embedded. Over half of government respondents say their operating model is still built for a pre-AI environment and remains heavily manual; roughly 40% report major operational gaps. Across all industries, only 1% described their operating model as highly adaptive and built for continuous change.

Market pressure pushes organizations to “automate everything,” but the answer isn't more automation — it's better orchestration. Agencies need a dynamic threshold between interactions best handled through AI self-service and those where human judgment, empathy, or accountability creates greater mission value. We call this the Optimal Value Horizon.

“When we say AI is going to change the game, it's not the technology that's changing the game — it's the operating model that's going to make the AI work in a way that optimizes value,” explains Lorelle Polano, Senior Advisor of CX Design at TTEC Digital.

This paper outlines that operating model: setting thresholds, identifying misalignments, and calibrating during operational surges.

Addressing the central question —
What is the optimal level of automation that maximizes interaction value? —
requires looking at how the demand on government services has evolved:



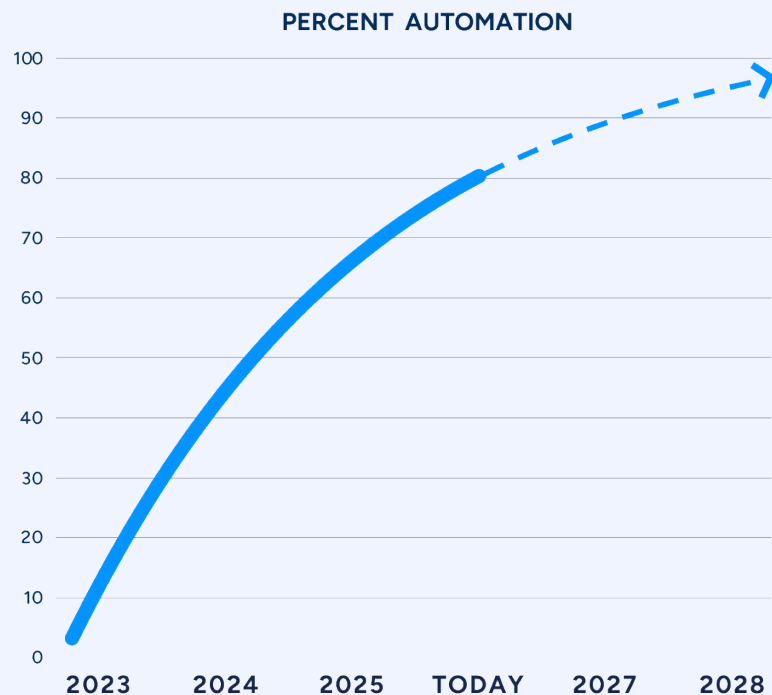
The defining operational pressure now is surge: planned peaks like tax filing season, open enrollment, and census enumeration, alongside unplanned ones like natural disasters or public health emergencies. Surge is where pre-AI operating models break, and where AI either earns its place or compounds failure. It is precisely during these shifts that the Optimal Value Horizon proves its worth — dynamically adjusting the threshold between AI efficiency and human empathy when public trust is most on the line.

“CX is not just CX when it comes to building trust. It is the entire foundation. Trust in government interactions is a culmination of a thousand good experiences versus a single bad interaction.

Brittany Erskine
Executive Director, Managed Services, TTEC Digital

SECTION 1

The government value equation



Market obsession pushes organizations toward automating 100% of contact center interactions. However, analyst projections for 80% or higher automation apply strictly to routine, transactional tasks, not complex public service touchpoints. Focusing solely on bot containment overlooks the primary driver of government mission performance: maximizing value across interactions that dictate response rates, data accuracy, and citizen trust. In government programs, net value is generated across four core dimensions:

- Care quality: Delivering accessible, respectful, and high-empathy care.
- Data accuracy: Achieving complete and correct data entries on first contact.
- Coverage and enumeration: Maximizing response rates across hard-to-count or underserved populations.
- Risk and compliance: Managing data stewardship under statutory privacy protections—such as Title 13 (census enumeration privacy) and Title 26 (tax information privacy).

“There really has to be an empathy element in your contact center implementation. There are just times where the customer calling in could be so frustrated or dealing with the loss of a loved one, and they really just want to talk to a human being. At TTEC, we don’t recommend taking the human out of the loop.

Teresa Sabol

Vice President of Account Management at TTEC Digital and former IRS and Census Bureau executive.

Defining the net value rule

Every interaction presents an opportunity to optimize or erode value. Rather than measuring a contact center solely on handling cost, agencies must evaluate the Net Value Creation (NVC) of each interaction.



Government Net Value Creation (NVC) formula

Government NVC = Mission value realized + Public trust impact - Initial handling cost - Risk-adjusted downside

Core decision rule: Automate an interaction only when $NVC(AI) \geq NVC(Human)$

When an agency pushes automation into high-stakes or emotionally charged interactions, net value drops into negative territory. Channel users get trapped in automated loops, fail to complete forms, and escalate to live representatives in a state of frustration — forcing the agency to pay twice while increasing operational risk.



The NVC formula in practice

To see how the formula works in reality, consider an applicant calling to resolve a complex benefit dispute.

Note: The following model metrics are adapted from [Gartner's industry benchmarks](#), adjusted conservatively for federal operational baselines (\$10.00 average live interaction cost, \$2.00 self-service bot cost).

Traditional contact center metrics focus almost exclusively on initial handling cost. They aim to replace a \$10 live representative call with a \$2 automated bot. But when a bot fails on a complex inquiry, the hidden downstream costs of rework, compliance penalties, and lost public trust far outweigh those initial savings.

By evaluating the complete equation rather than handling cost alone, Scenario B turns a \$26.50 net loss into a \$20.00 net gain — delivering a \$46.50 total value swing per interaction while protecting public trust. The agency didn't save money because the representative was cheaper; they saved money because they stopped paying for failed automation, transfers, repeat calls, and administrative rework.

A. Forced automation

The agency routes the call to an automated voice bot to save on upfront labor:

- **Mission value realized: \$0**
The applicant gets stuck in a self-service loop and cannot complete intake.
- **Public trust impact: -\$10**
Frustration leads to missed deadlines, compliance failures and eroded public trust.
- **Initial handling cost: -\$12**
\$2 failed bot attempt + \$10 live representative escalation cost.
- **Risk-adjusted downside: -\$4.50**
Cost of administrative rework to re-verify misrouted applicant data and process manual overrides.

Net Value Creation:

$\$0 - \$10 - \$12 - \$4.50 = \textbf{-\$26.50}$
(Net Value Loss)

B. Optimal Value Horizon routing

The system recognizes complex intent upfront and routes the caller directly to an AI-augmented representative:

- **Mission value realized: +\$25**
Complete, accurate first-contact resolution of the claim.
- **Public trust impact: +\$5**
High-empathy handling reinforces trust in agency delivery.
- **Initial handling cost: -\$10.00**
Single-contact resolution led by an AI-assisted representative.
- **Risk-adjusted downside: \$0**
Zero re-work or compliance penalties.

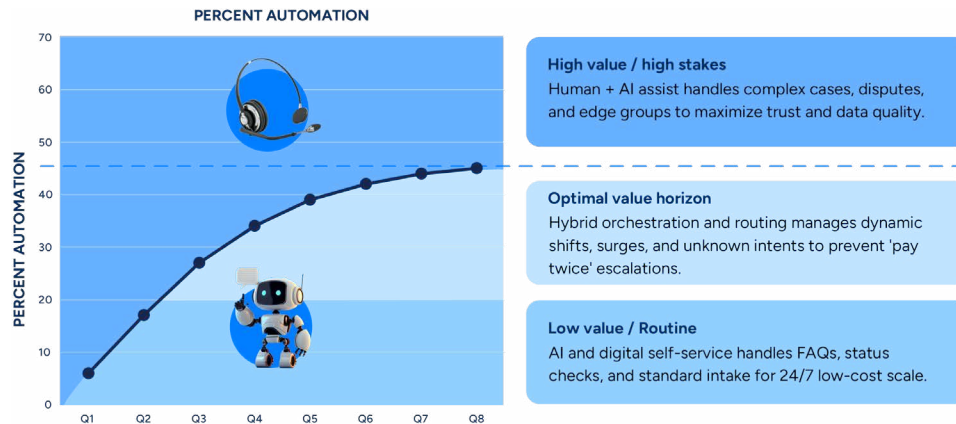
Net Value Creation:

$\$25 + \$5 - \$10 - \$0 = \textbf{+\$20.00}$
(Net Value Created)

SECTION 2

Why structural incentives inflate or drag the horizon line — and what holds it steady

Setting the service orchestration line between self-service and human support depends directly on operational objectives, data accuracy requirements, and mission mandates. Every delivery model carries an underlying economic incentive that exerts structural force on where this line lands:



Technology-centric models (Over-automation risk)

Integrators built on consumption licensing can unintentionally prioritize automation utilization. This can push self service deep into complex interactions, leading to broken form completions and frustration.

Labor-centric models (Over-staffing risk)

Traditional contact centers built on billable seat count can unintentionally prioritize staffed capacity, which may suppress self-service to maintain headcount and drive-up program costs.

What holds it steady? Outcome-centric governance, not goodwill

TTEC operates across both sides of the horizon line to deliver end-to-end technology orchestration alongside managed human delivery. Because our delivery model encompasses both domains, we hold no economic incentive toward pushing the threshold artificially in either direction.

Instead, we use outcome-centric governance to measure both automated tools and human representatives against mission value — calibrating technology and human delivery in tandem to ensure agencies achieve sustainable AI ROI while protecting public trust.

SECTION 3

The horizon moves: Designing for surge & change

The Optimal Value Horizon line is never static. To capture sustainable AI ROI and avoid value erosion, government contact centers must dynamically recalibrate where AI self-service ends and human intervention begins.

Too many agencies treat AI as a “set and forget” deployment. True AI value realization requires embedded controls that continuously measure and adjust performance in real time. TTEC relies on four core operational mechanisms, driven directly by enterprise AI, to keep the horizon line calibrated:

- **AI-driven mis-set line detection:** Real-time AI observability tracks intent drop-offs, repeated transfers, and caller and chat user sentiment spikes — flagging exactly where automated AI self-service is failing before costs cascade.
- **Unified AI & human accountability:** The CX delivery team holds single-threaded accountability for maintaining Net Value Creation (NVC) across both AI agent workflows and human representative queues, ensuring AI usage directly serves the agency’s mission.
- **Weekly AI ROI calibration cadence:** Operational leadership conducts weekly reviews comparing NVC metrics against target cost and quality outcomes, ensuring AI deployments remain measurably cost-effective and aligned with service benchmarks.
- **No-code AI threshold adjustment:** Routing parameters are adjusted dynamically in the orchestration engine, allowing teams to shift traffic between AI agents and human representatives in real time without multi-week development cycles or change orders.

This dynamic calibration is what transforms AI from an unpredictable operational expense into a dependable value driver. It’s a requirement for large-scale federal initiatives like Census Questionnaire Assistance (CQA) program models, where agencies must deliver complete, accurate population engagement while maximizing ROI.

CQA HIGHLIGHT

See the Optimal Value Horizon line in action across the lifecycle

Large-scale federal initiatives, like the Census Questionnaire Assistance (CQA) program, demonstrate how dynamic calibration unlocks measurable AI ROI. Rather than treating AI as a fixed deployment, the Optimal Value Horizon line adapts across four operational phases to maximize net value at every stage:

01

Program launch & digital front door

The primary focus is scaling self-service access to handle initial mass volume. The horizon line shifts upward to maximize AI web and voice bot containment for routine inquiries (e.g., verifying address eligibility or requesting replacement IDs).

02

Peak surge management

During milestone deadline spikes, AI-driven intent classification balances live help-desk queues by solving standard requests instantly, reserving live representative seats for complex cases.

03

High-empathy & hard-to-reach resolution

In later campaign stages, emphasis shifts to non-response mitigation and complex case resolution. The horizon line dynamically shifts downward: human representatives lead interactions, powered by AI agent assist tools pulling statutory rules and real-time translations in 12+ languages.

04

Post-peak recovery & rapid correction

When unexpected events or policy shifts occur, AI observability isolates intent failures within hours — instantly updating generative AI knowledge bases or re-routing complex topics directly to trained specialists.

Cross-government application

This dynamic calibration model applies across all major government operational clocks, ensuring maximum value from both AI and human-delivery investments.



Medicaid renewal & redetermination

Following unwinding events where millions face procedural coverage loss, conversational AI self-service handles routine eligibility checks before transferring complex paperwork barriers to targeted human representatives — maximizing AI ROI while preventing procedural coverage drops.



Marketplace open enrollment

Early enrollment windows leverage automated AI voice and web bots for routine renewals; closing weeks deploy AI-powered agent assist tools to guide live representatives through complex subsidy determinations.



Tax filing season

Initial filing weeks route simple refund status inquiries to conversational AI channels; late-season contacts automatically escalate balance-due and hardship disputes directly to specialized representatives.



Disaster assistance

Emergency declaration surges leverage generative AI digital intake to register victims instantly at scale, freeing high-empathy human specialists to handle complex eligibility appeals and housing disputes.

SECTION 4

Four operating model shifts to capture real AI ROI

To overcome the AI ROI paradox and eliminate the “pay twice” cost trap, government leaders must modernize their underlying operating model. Four structural shifts ensure AI deployments remain secure, compliant, and continuously calibrated:

Shift 1:

Programmatic, near-real-time observability

SURVEY INSIGHT

54.5%

of government respondents report connecting customer data to CX outcomes and ROI is their #1 data challenge; 33.3% cite unclear data stewardship as a major barrier.

OPERATIONAL CHALLENGE

Legacy operations rely on traditional after-the-fact sampling (evaluating 2% to 5% of calls), creating massive operational blind spots. A major industry lesson from large-scale programs like the 2020 census cycle is that manual sampling often led to providers evaluating hand-selected calls, meaning scorecards reflected the sample chosen rather than actual work performed.

OPERATING MODEL SHIFT

Use programmatic, randomized QA to analyze 100% of interactions in real time. Speech-to-text engines can match spoken dialogue directly to form entries, surfacing discrepancies to supervisors for immediate correction before unvalidated data flows upstream. This observability mechanism is the engine that makes the immediate operational recovery loop possible — providing the empirical trigger required to dynamically recalibrate the value horizon line.

Shift 2:

Statute-safe data by design

SURVEY INSIGHT

48.5%

of government leaders rank security as their top tool evaluation factor; 33.3% cite compliance concerns as their biggest barrier to AI value.

OPERATIONAL CHALLENGE

Sensitive PII and protected individual data must never traverse unsecure channels or train public LLM models.

OPERATING MODEL SHIFT

Operate all AI orchestration within FedRAMP-certified and StateRAMP/IL4-compliant architectures. Automated data masking redacts sensitive attributes at the ingestion layer, ensuring AI agent assist tools guide representatives safely without violating Title 13 or Title 26 statutory protections.

Shift 3:

Preserved context across channel-hopping

SURVEY INSIGHT

87.9%

of government organizations manage CX across 7 to 10 distinct software tools and point solutions.

OPERATIONAL CHALLENGE

Disconnected point solutions force inquirers to repeat information when escalating from web portals or chatbots to live representatives, driving up handling costs and user frustration.

OPERATING MODEL SHIFT

Use a unified-state management layer to track interaction context across all agency software tools. When a caller or chat user escalates, the system delivers a real-time summary of the bot conversation directly to the live representative's desktop so the conversation picks up seamlessly where the bot left off. Carrying this complete context acts as the operational buffer that prevents a mis-set horizon line from becoming a "pay twice" economic failure.

Shift 4:

Modular, swappable architecture

SURVEY INSIGHT

81.8%

of government leaders evaluate tools based on total cost of ownership (TCO); 51.5% face severe budget constraints.

OPERATIONAL CHALLENGE

Strict security frameworks (FedRAMP, IL4) make “modular” tech swaps impractical, while standing up and down thousands of surge seats risks severe quality drops if speed-to-proficiency lags.

OPERATING MODEL SHIFT

Choose operating partners that bring pre-certified technology architectures to augment existing agency systems during major surge events. AI-driven customer simulations like TTEC’s RealSkill allow thousands of newly hired representatives to practice complex, Title 13-bound interactions in a risk-free environment before going live, while real-time desktop AI coaching, such as TTEC Perform, closes skill gaps continuously on the job.

CONCLUSION

Build for value, not automation

Layering AI on top of disconnected tools and messy data won’t fix a contact center: it just makes existing problems happen faster. Real progress in government CX comes from getting the basics right: reliable data, well-trained teams, clear oversight, and complete visibility into every interaction. Long-term success relies on knowing where automation creates value, where human expertise creates more, and how quickly to shift between the two as public needs change.

When an agency dynamically calibrates automated self-service with human support through the Optimal Value Horizon, the operational shift is immediate. Automated loops stop failing, which means callers stop calling back out of frustration. Supervisors catch unexpected inquiry surges or misrouted calls within minutes or hours instead of weeks later. Temporary surge staff get up to speed in days through realistic simulations rather than taking weeks to reach compliance. Most importantly, every piece of sensitive data stays protected, verified, and fully compliant across every channel.

Achieving this level of agility relies on full operational observability to track performance and drive continuous improvement. As Dr. Sam Coy, Principal Senior Solution Architect at TTEC Digital, reminds us:

“If you can ask it, you can track it. If you can track it, you can measure it. If you can measure it, you can see change. And if you can see change, you can change the world.”

Find your Optimal Value Horizon

See where automation is creating value, where it may be creating hidden costs, and how to build an operating model that continuously balances AI efficiency with human expertise.

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