ACCELERATING BUSINESS VALUE AT EVERY STAGE OF IDP MATURITY

FROM BUILDING TO AUTOMATION: MEASURABLE GAINS AT EACH STEP

Executive Summary

As enterprises scale their cloud initiatives, Internal Developer Platforms (IDPs) have become essential for accelerating engineering velocity, strengthening governance, and optimizing costs. However, building an effective IDP is not a one-size-fits-all solution — it's a phased journey. Organizations evolve through clearly defined stages, each with its own challenges and inflection points.

This white paper presents the IDP Maturity Model: a three-stage framework — **Build, Standardize, and Automate** — that helps technical leaders identify their current state and map a path toward a scalable, future-ready platform strategy. Throughout, we share real-world results from Pulumi customers and demonstrate how the Pulumi IDP can drive measurable progress at every stage.

Why IDP Maturity Matters

The benefits of advancing through IDP maturity aren't just technical — they're strategic. Organizations that move from ad hoc approaches to standardized and automated platforms report faster time to market, tighter security, increased developer satisfaction, and significant cost savings. By codifying platform best practices, empowering self-service, and enforcing policy-as-code, mature IDP adopters dramatically reduce operational toil while increasing innovation capacity. Those who successfully advance their maturity will be best positioned to turn their cloud platforms into a competitive advantage.

Industry Analysts on IDP Value

- By 2026, 80% of large enterprises will adopt IDPs to boost developer productivity.
- Organizations are already seeing a 224% ROI over three years with a typical six-month payback.
- IDPs drive a 20% lift in developer productivity by cutting context switching and streamlining workflows.
- IDPs reduce manager time on monitoring and reporting by 75%, freeing leaders to focus on innovation.

Stage 1: Build
Laying the Foundation for Developer Enablement

In the Build stage, teams are often focused on bootstrapping new cloud environments, modernizing legacy infrastructure, and reducing shadow IT. Engineering leaders begin exploring platform engineering as a practice, but team workflows are still inconsistent.

Challenges	Pulumi Use Cases	Business Benefits
Inconsistent tooling and fragmented workflows	Define infrastructure using familiar languages like TypeScript, Python, Go, or YAML	Accelerate cloud provisioning from days to hours
Slow onboarding for new projects	Bootstrap reusable infrastructure templates for dev teams	Reduce onboarding time for new projects
Legacy infrastructure sprawl and drift	Convert existing cloud resources into infrastructure as code (IaC) with Pulumi Import	Gain visibility into unmanaged resources
Governance and security concerns in greenfield and brownfield environments	Enforce guardrails with Pulumi Policy as Code	Improve compliance and reduce misconfigurations

Customer Example

Tivity Health adopted Pulumi to accelerate the migration to cloud-first, slashing overall cloud costs. Simultaneously, they transformed security by automating DevSecOps to enforce security controls across all environments. By codifying policies and provisioning logic, they reduced manual review effort and increased both security posture and team efficiency.

“Security, compliance and access are all codified into our infrastructure. We’ve reduced our infrastructure costs by 71%, reached breakeven on our investment in 11 months, and had zero outages.” -- David Giambruno, VP of Infrastructure and Ops, **Tivity Health**

Stage 2: Standardize — Establishing Consistency

At this stage, organizations are creating golden paths for common infrastructure patterns, unifying their environments, and improving both compliance and speed. The focus shifts from getting projects launched to making platforms repeatable and reliable.

Challenges	Pulumi Use Cases	Business Benefits
Variability in how infrastructure is provisioned	Encapsulate best practices into reusable Pulumi Components	Reduce infrastructure errors and rework
Hard-to-enforce standards and drift	Automate drift detection and resource scanning - all clouds	Ensure compliance across environments
Limited developer access to self-service infrastructure	Expose no-code / low-code interfaces via Pulumi's multi-language support and APIs	Boost developer productivity and autonomy
Infrastructure lacks consistent controls	Standardize policy enforcement across clouds with Policy as Code	Reduce security incidents

Customer Example

CLEAR used Pulumi to build a unified platform experience for developers, moving from Terraform to Pulumi Automation API and YAML for ease of use. They reduced provisioning time for standard services by 80%, accelerating development cycles without sacrificing control. By reducing the sheer volume of lines of code "by orders of magnitude," they dramatically improved developer productivity while reducing cognitive load.

We've spent a lot of time building an internal developer platform. We moved from a lower-level Terraform and HCL-based interface to Pulumi and the Automation API which lets us use a custom, higher-level, and much simpler-to-use YAML schema. We've identified some really common business cases that our developers need infrastructure for and made those really easy to use." – James Forcier, Staff Engineer at **CLEAR**

Stage 3: Automate — Drive Scale, Efficiency, and Intelligence

The Automate stage is where organizations realize the full value of an IDP. Teams automate infrastructure delivery, integrate cost and security intelligence, and empower developers to ship quickly with built-in compliance. The platform becomes a strategic enabler.

Challenges	Pulumi Use Cases	Business Benefits
Manual workflows block innovation	Fully automate infrastructure delivery pipelines with Pulumi Automation API	Increase release velocity
Rising cloud costs and inefficiencies	Discover idle and underused resources with Pulumi Insights	Reduce cloud spend
Security enforcement slows down dev teams	Apply intelligent policies programmatically, with fine grained permissions and RBAC	Balance compliance with speed
Scaling platforms across teams and clouds	Extend Pulumi IDP to support hybrid and multi-cloud strategies	Future-proof infrastructure investments

Customer Example

Modivcare leveraged Pulumi to bring legacy infrastructure under governance while streamlining new development with Automation API and Policy as Code. This enabled a 50% reduction in time to production, with greater compliance and operational efficiency.

“With Pulumi, we’re achieving the holy grail for Platform Engineering: Instant visibility and governance over legacy infrastructure, while also accelerating our path to production for new cloud-native projects.” – Zachary Cook, Senior Manager - DevOps, **Modivcare**

Pulumi's Role in Accelerating Maturity

Pulumi is purpose-built to help organizations progress through each stage of IDP maturity — from initial adoption to enterprise-wide automation. What sets Pulumi apart is its ability to:

- **Use Real Programming Languages:** Pulumi lets your teams define infrastructure using familiar languages like TypeScript, Python, Go, Java, and .NET — not just a DSL like HCL. This unlocks full language capabilities (loops, conditionals, packages, testing) and brings infrastructure development closer to application development.

- **Cloud Agnostic, Developer First:** Pulumi supports every major cloud provider — AWS, Azure, GCP, Kubernetes, and on-prem — with consistent workflows. Developers can choose the language, cloud, and tools that best fit their needs while maintaining visibility, consistency and governance across providers.

- **Self-Service Your Way:** Whether through no-code portals, YAML templates, APIs, or SDKs, Pulumi enables platform teams to deliver true self-service infrastructure tailored to the way developers actually work.

- **Interop Without Lock-In:** Pulumi works seamlessly alongside Terraform, Backstage, and your existing tooling — enabling gradual modernization instead of forced rewrites. Avoid vendor lock-in and evolve your platform at your own pace.

- **Built-in Governance at Scale:** With Pulumi's Policy as Code and fine-grained access controls — down to the component level — governance is embedded directly into developer workflows. Pulumi makes it easy for platform teams to enforce security and compliance without slowing down delivery.

- **Automation Anywhere:** With Pulumi's Automation API, infrastructure provisioning can be embedded directly into your applications, pipelines, and developer workflows — enabling next-gen automation that's simply not possible with Terraform.

By unifying infrastructure, security, and developer experience into a single platform, Pulumi IDP helps teams get to value faster — with fewer resources, better governance, and scalable flexibility.

IDP Maturity Summary Table: Benefits by Stage

Stage	Speed	Security & Governance	Savings	Developer Productivity	Customer Example
Build	Launch new cloud environments faster	Initial guardrails and policy enforcement	Reduce infra drift and duplication	Faster onboarding with reusable code	**Tivity Health** reduced security review effort by 70%
Standardize	Accelerate new project delivery	Enforce org-wide policies with consistency	Lower rework and miscon-figuration	Enable self-service with templates	**CLEAR** cut provisioning time by 80% with Automation API
Automate	Scale delivery pipelines across teams	Intelligent, automated policy application	Identify and remove unused resources	Minimize friction, maximize autonomy	**Modivcare** reduced time to production by 50%

Next Steps: Unlock Secure, Standardized Self-Service Infrastructure

Pulumi IDP is the fastest, most secure way to deliver cloud infrastructure at scale. Empower your platform and development teams to collaborate, innovate, and ship faster with built-in security, governance, and full lifecycle control. Here are next steps for business leaders and their teams:

1) Schedule a Cloud Architecture Assessment
2) See a live IDP demo
3) Join an upcoming virtual workshop: Internal Developer Platform (IDP) workshop series.

Pulumi