Figure 1. Companies typically advance through several stages of IT growth on the path to optimization

01 Standup and stabilization

02 Status quo

03 Marginalized

04 Optimized

Business needs

01
- Basic IT services and hosting
- Support of critical business functions and reporting
- Access to technical talent
- Secure applications

02
- Efficient delivery of core IT services
- Scalable services and platforms
- Improved speed of delivery
- Clearly defined service line agreements
- Increased technical skills and solutions

03
- Standardized business operations
- Support organic and inorganic growth
- Operational and information integration across fragmented systems
- Fit-for-purpose supply chain applications
- Access to business and customer insights
- IT spend aligned with industry benchmarks

04
- Digitally enabled business operations across all functions
- Drive growth through market expansion and data insights
- Data-as-a-product mindset
- Optimized internal and external data integration
- Integrated customer and supply chain applications

Digital capabilities

01
- IT designed for specific functional needs
- Basic data integration
- Low-tech, cobbled approach
- Spreadsheets, fragmented and custom databases

02
- Incremental functional improvement
- Formalized IT standards and processes
- Support individual customer needs
- Point-to-point integration
- Ad hoc integration of data and subsystems
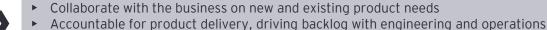- Strong cybersecurity to protect critical assets

03
- Continued incremental improvements
- Functional areas remain isolated
- New data and process functionalities that are difficult and time consuming to integrate
- Many point-to-point integrations across ERP systems
- Resources focused on "running the business"

04
- Transparent digital strategy optimized to enable the business strategy
- Digital innovation partner with the business
- Established and scalable cloud-based architectures
- Clear direction on IT portfolio and needed future capabilities
- Fully integrated processes and data across operational and financial systems
- Proactive and predictive analytics

Figure 2. New roles for IT product teams

Technical product lead(s)
- ‣ Collaborate with the business on new and existing product needs
- ‣ Accountable for product delivery, driving backlog with engineering and operations
- ‣ Prioritize features for releases based upon expected ROI

Product manager(s)
- ‣ Work with leadership to define and manage scope and benefits
- ‣ Make tradeoff decisions between scope and schedule
- ‣ Maintain that new products and features in development are desirable, viable and functional

Product engineer(s)
- ‣ Work with the architect and team to check technical integrity
- ‣ Complete works-in-progress (WIP)
- ‣ Understand the process of product creation

DevOps engineer(s)
- ‣ Knowledgeable of system options, risk, impact and costs vs. benefits
- ‣ Create and implement software systems, hardware configurations, security and monitoring
- ‣ Set up staging, production, QA, postproduction monitoring and troubleshooting environments

Developer(s)
- ‣ Create the technical product
- ‣ Translate and implement backlog items into engineering design and tasks
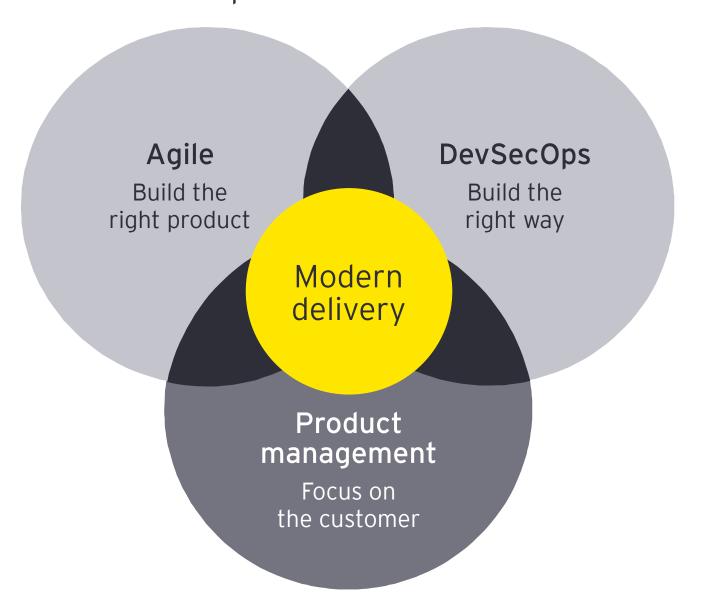
Solution architect
- ‣ Lead the technical direction of the overall product
- ‣ Responsible for end-to-end cross-functional system design and communication

Figure 3. IT core services and capabilities

Business customer interface	Service delivery	IT capabilities and services	Application management	Data management	Infrastructure management
Intake and demand management	Service management	Innovation management	Business app and portfolio architecture	Data governance, quality, master data management (MDM)	IT asset management
Business architecture	Training	Partner vendor management	Application development	Advanced analytics and data science	Data network and telecom services
Business analytics	Program management	Technical architecture	Testing, QA, SDLC	Enterprise application integration and middleware	Operations and data center support
End-user computing and help desk	Financial management	Security and risk management	Application management support	Cloud and on-prem storage	Compute and storage
	Capacity management	Talent management	Desktop and devices	Database services	
	Service continuity management		Release management		

Critical
Direct driver of innovation and competitive advantage

Commodity
Critical function but not a key competitive differentiator

Figure 4. Modern delivery methods integrate product management with agile and DevSecOps

The intersection of these three disciplines adopts key benefits from each into a reimagined delivery model.

- **Product management** focuses on understanding market needs, streamlining the customer experience, continuously monitoring product usage and managing the product business case from concept to retirement.

- **Agile** focuses on how market needs are captured, prioritized, consumed and delivered by one or more product teams.

- **DevSecOps** focuses on enabling a team with engineering practices, automation and integration across development, security and operations.