



Enterprise Mobility Management

Managed Mobility Solutions from AT&T

EMM & Collaboration Practice
AT&T Distribution & Channel Marketing



Three of the top five strategic priorities for CIOs in 2015 are security related, according to the WSJ CIO Forum.¹

Make security everyone's business.



Cyber risk = organization risk



Anticipate a "cyber 9/11" event.



Have a organization-centric vision.

Be the change agent.



These priorities are being driven by technology trends.

New endpoints, cloud computing, and advanced attacks are increasing the threat landscape.



As a result of these technology trends, the threat landscape is growing.

Security breaches are becoming more and more common among large enterprises.



10x

10x Increase in DDoS Attacks Since 2013

- Frequency has increased from 14 per month to 150+ per month
- Peak attack size increased from 2 Gbps to 300 Gbps



3.5B

Increasing Security Risks and Threats

- 3.5 Billion Accounts Exposed



9x

9.3x Increase in Mobile Attacks

- 9.3x year over year increase in attacks on mobile devices
- 175K new mobile malware programs detected in 1H2014



1B

1B Digital Records Stolen Last Year

- Average cost of \$3.5M/event, \$145/user

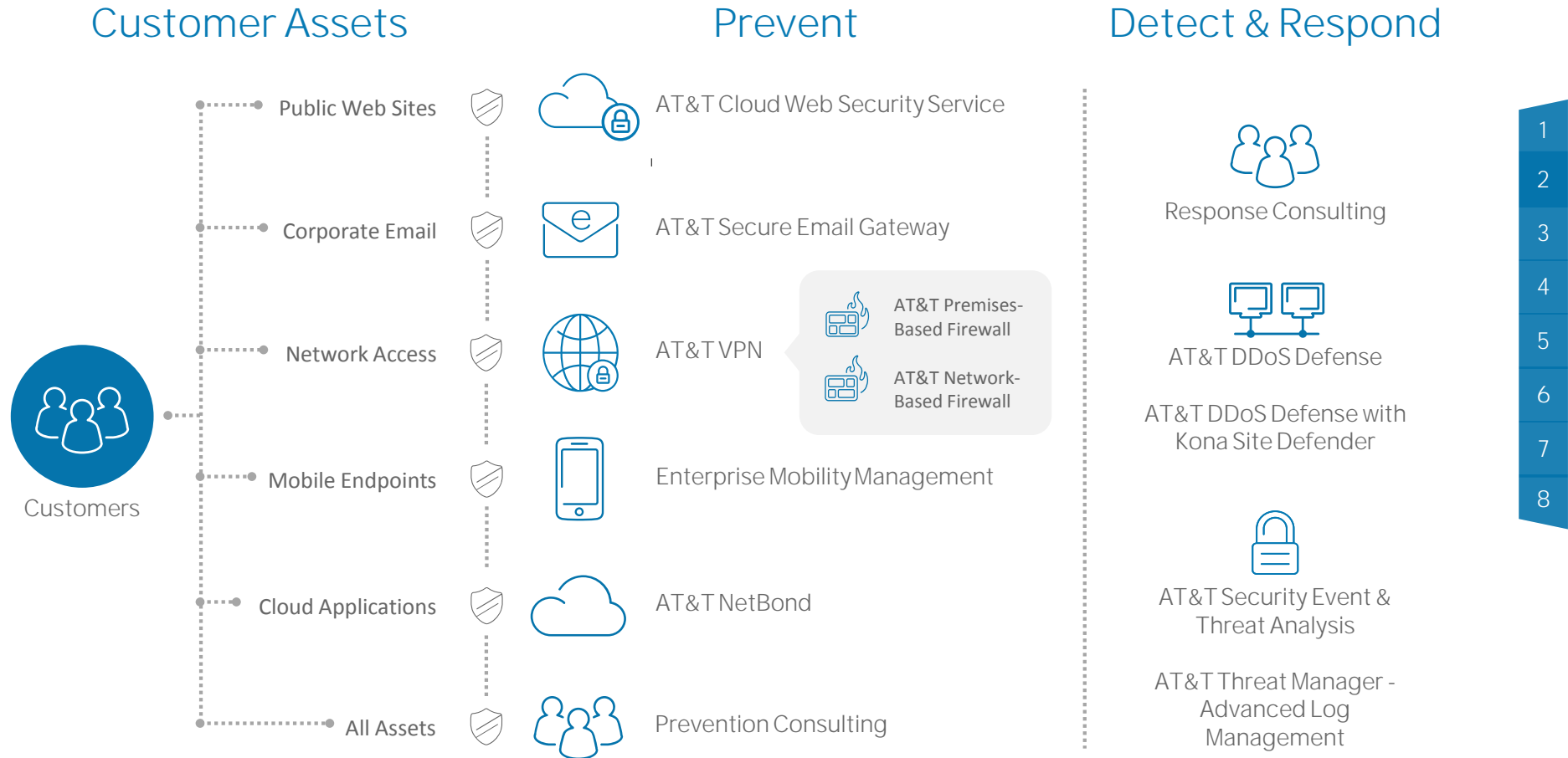
\$445B

annual cost to the
global economy¹



AT&T security solutions help protect our customers' threat points.

Security solutions exist to help prevent, detect, and respond to threats.

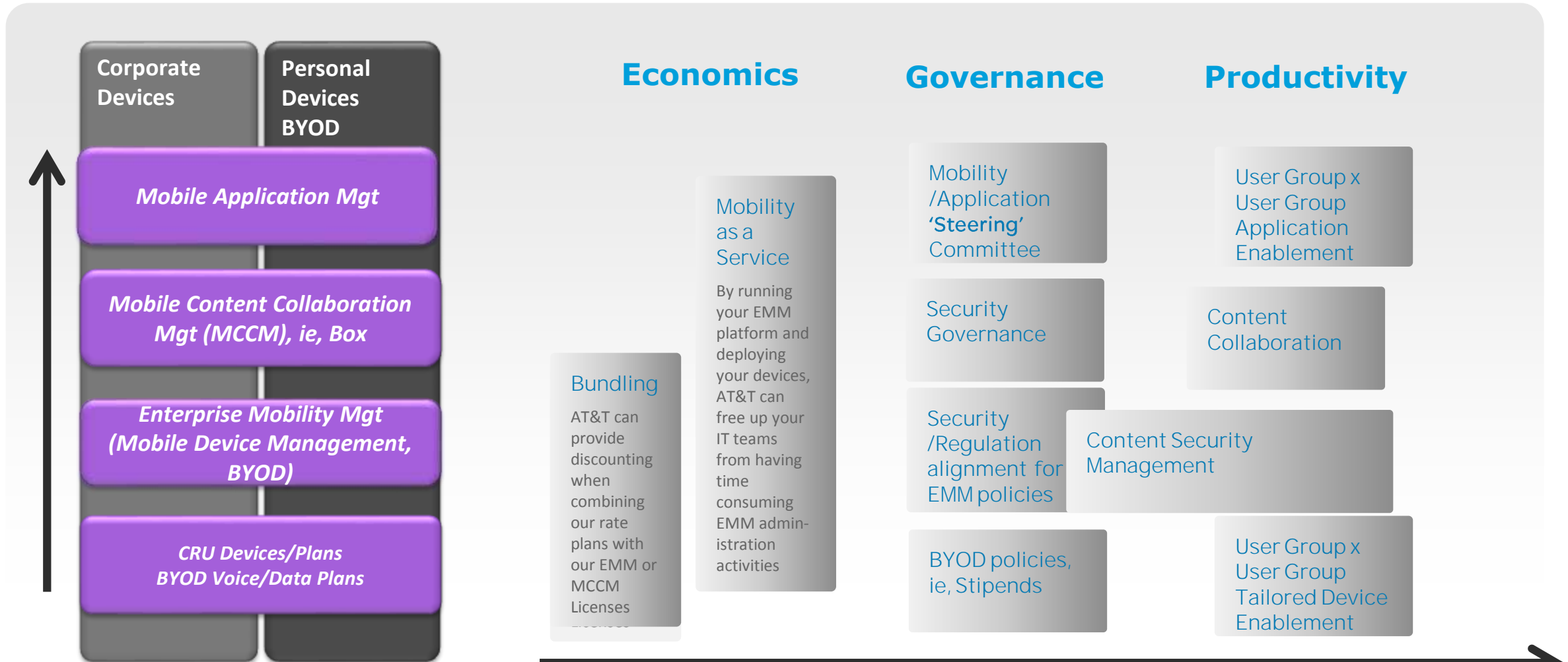


Protect
enterprise
data with
multi-layer
endpoint
strategy.



AT&T Key Differentiators - EMM Platform Strategies

Working up the 'Stack Attack' - Targeting key Mobility Benefit Areas



Enterprise Mobility Management Solutions from AT&T

Maximizing and Cross-Leveraging different Benefit Areas

Security

- Device and User Security
- Content Security
- Email Security
- Application Security
- Network Security
- Certificate / Identity capability

Admin Efficiency

- Automated Compliance
- Federated admin strategies
- Apple DEP
- Lifecycle Mgt
- Remote Admin capabilities
- Application Store / Engagement

End User Productivity

- High admin usability
- Content Collaboration
- Focused Application Roadmaps
 - In-house federated
 - 3rd party
- Mixed-ownership
 - Corporate-owned
 - BYOD

Cost Management

- Telecom Expense Mgt
- BYOD data usage management
- Integrated solution / purchase bundling, ie, integrated security

Security has its own ROI/Benefits but the other Benefit areas can provide further ROI to support Critical/Enhanced security investment



AT&T Mobile Solutions – Value-Add Discussions

Mobile Security – Why is it Necessary?

Advanced Mobility Solutions from AT&T

Enterprise Mobility Management Value

Trusted Advisor: Economics, Governance, and Productivity



Top concerns of IT in mobile environment

58%
Mobile malware

56%
Malicious Apps

70%
Insecure or loosely-
secured privacy setting on
legitimate mobile apps

Source: IDC Whitepaper Sponsored by AT&T
"Building Mobile Security Implementation
at All Levels of the Organization" Doc #248005



Mobile Security Threat Landscape

A recent survey conducted by Enterprise Mobility Exchange found that 82% of companies allow their employees access to enterprise applications and contents – devoid of Mobile Security controls.

“When you start the mobile security maturity discussion, you have to begin with the entry point – the device.”
-- Information Security Media Group --



Business Challenges

Smartphone user behavior and expectations



SOURCE:

¹ Juniper Networks' Trusted Mobility Index

² Juniper Networks' 3rd Annual Mobile Threat Report



Why consider mobile security?

The Risk

Personal mobile devices have simultaneously brought new productivity options to employees, new security policy decisions to employers, and put sensitive data, processes, and tools at risk.

Security Risks of an Unprotected Mobile Inventory

- Data Loss
- Mobile Threats
- Legal, Regulatory and Compliance Risks



Mobile Security Challenges

Malware

Viruses, Worms, Trojans, Spyware

Loss and Theft

Loss or inappropriate access of sensitive data

Data Communication Interception

Sniffing data as it is transmitted and received

Exploitation and Misconduct

Online predators, inappropriate sites and communications, data leakage

Direct Attacks

Attacking device interfaces, Network DoS, Malicious SMS



Use Case: Managing Your Mobile Security

Advanced Protection Through Your Network

Customer Challenges

- **Sensitive Data** at risk of theft
- **Malware & Viruses** can attack any connected devices
- **Direct Attacks** through **Denial of Service (DoS)** and **Malicious SMS** can impact your business
- **Exploitation and Misconduct** can cause data leakage and access to inappropriate sites
- **Data Communication Intercept** by sniffing data and communicating it to those looking to exploit your business

Customer Focused Security Solutions

A mobile device app that includes network-based, carrier-grade protection even if you aren't an AT&T wireless customer



"The steady double digit growth of threats to smartphones makes security awareness and action imperative. Recognizing the seriousness of these threats and the ubiquitous, business-critical nature of mobile applications used by enterprises today,"

— Ed Amoroso
AT&T Chief Security Officer

Customized

- Designed with the customers' security requirements in mind
- Experts can partner with you to design the right approach
- Will work in any mobile environment

Integrated

- Solution will integrate with your wireline and wireless network
- Web-Based portal will allow you to manage your security policies from anywhere

Managed

- AT&T will manage infrastructure, licenses, patches & support
- You focus on running your business while we focus on your security

Customer Benefits

- **Reduce Risk** of sensitive data getting out in the open
- **Prevent Threats** from multiple sources
- **Centralized Management** of wireline & wireless security policies and enforcement
- **Remote wipe** any device to prevent data theft or loss
- Enables **device management & control** from a remote location



Enterprise Mobility Management Solutions from AT&T

Simplifies the complexity of mobility for customers

MDM



Mobile Device
Management

MWM



Mobile Workspace
Management (BYOD)

MCCM



Mobile Content
Collaboration Management

MAM

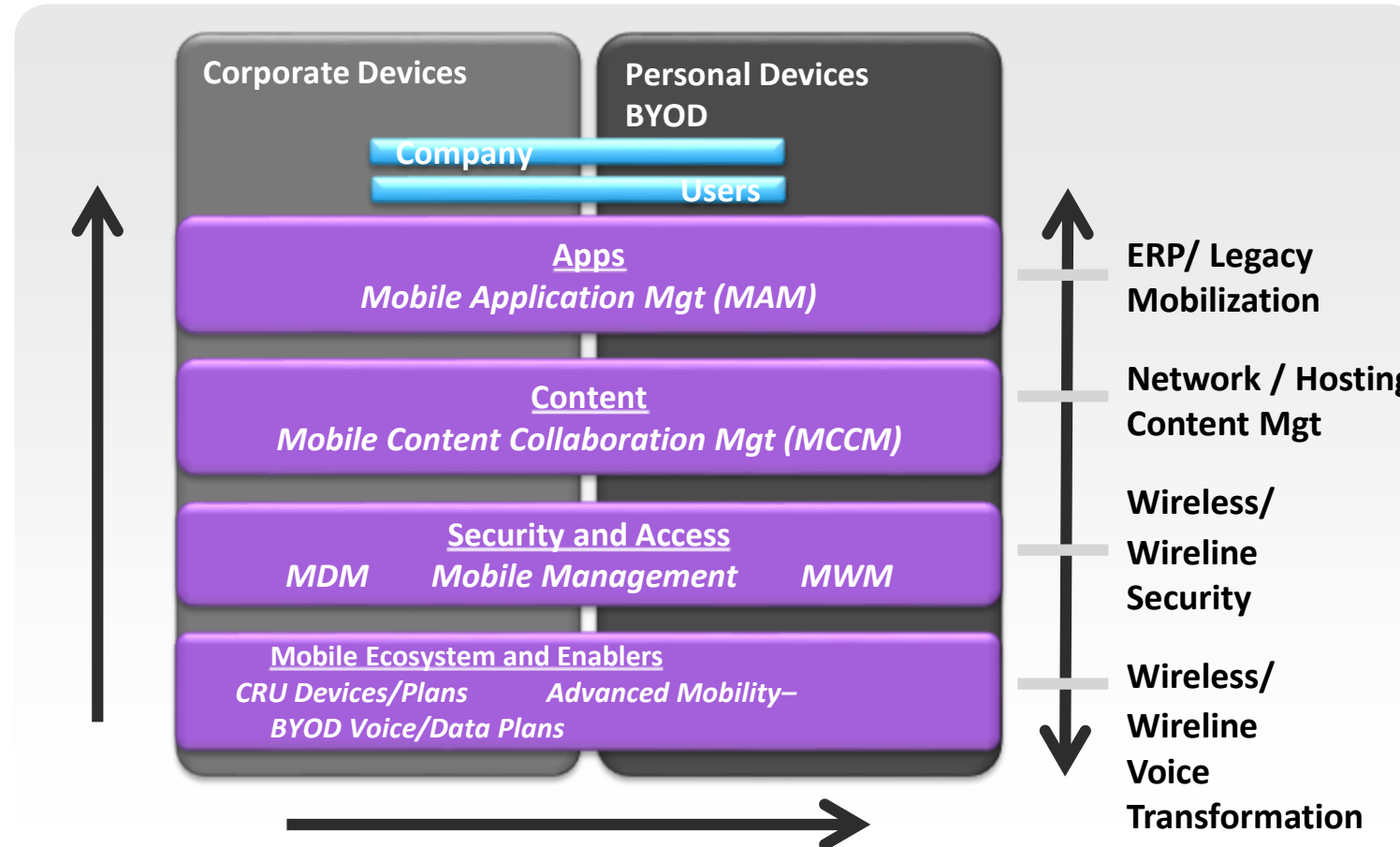


Mobile Application
Management



EMM Platform Strategies - Working the 'Stack Attack'

1- Bring ROI and Productivity beyond Security and Email to fully access value



3- Focus on ROI with 'Wireline' projects

2 – BYOD transitions can be Secure, Productive and minimize Reimbursement headaches



Better secure & control your end-points thru Enterprise Mobility Management



Comprehensive Cross-Platform EMM

Gain better control over your increasingly mobile workforce



End-to-End Security

Protect enterprise data at key endpoints



Mobile Device Management (MDM)

Manage your device inventory regardless of size



Mobile App Management (MAM)

Distribute apps more securely across multiple platforms



Mobile Content Management (MCM)

Connect employees to resources virtually anytime, anywhere



Archiving and Auditing

Ensure sensitive data is handled with strict requirements



Deployment Flexibility

Multiple options including cloud, on-premise & hybrid

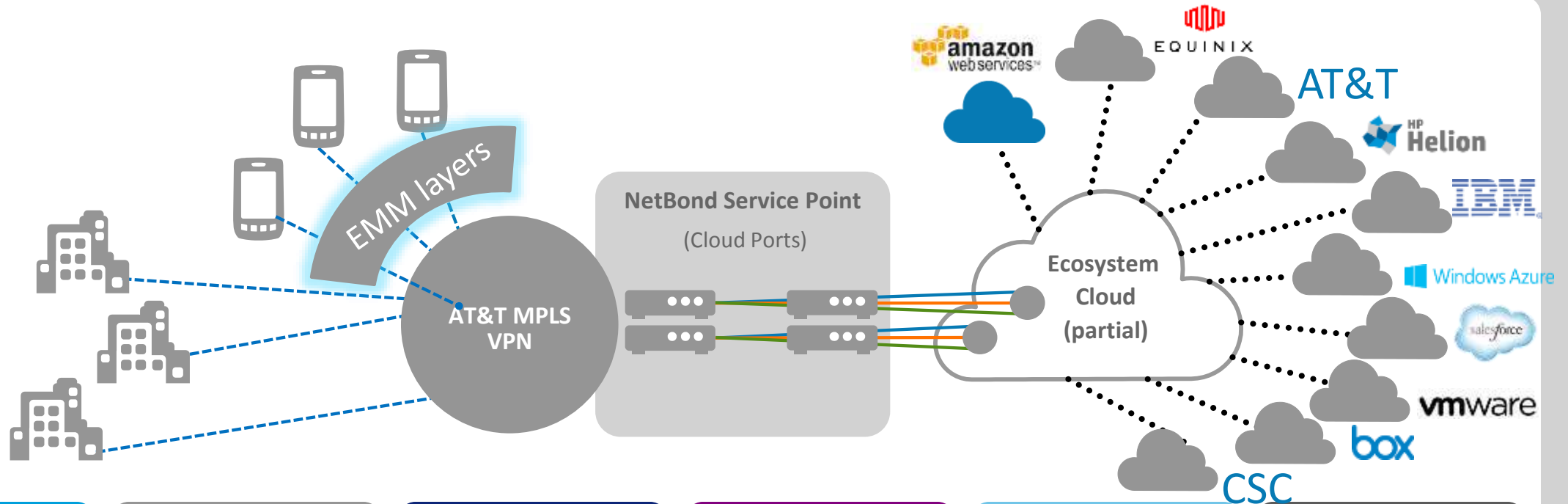


Scalable Architecture

Customizable EMM solutions based on your EMM needs



Fully mobilized endpoints, securely connected to your CSP's



Performance

Low-latency, On-Net

Security

Avoids Internet/DDoS threats

Agility

API controlled

Elasticity

Dynamic capacity

Cost

Baseline commitment with overage charges

Functionality

e.g. the Box platform unchanged



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Enterprise Mobility Challenges

The rapid pace of change poses complex business challenges

How do I support mobile users across the globe, 24x7?

How can I control operational and labor investments related to mobility?

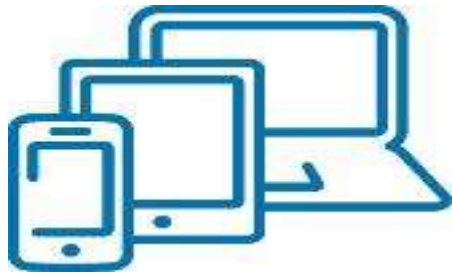
How do I manage changes to my organization's Mobile Device Management environment?

How do I quickly gain the expertise and infrastructure needed to support and manage mobility?



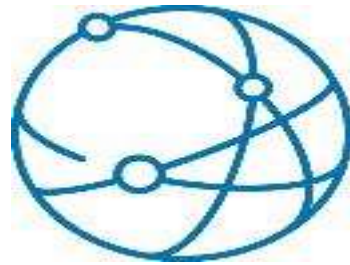
Managed Mobility Services

Mobile Device



- Feature Phones, Smart Phones or Tablets
- Premium Device Deployment & Extended Warranty Service

Voice & Data Plan



- AT&T Mobile Select or your pre-negotiated rate plan

EMM Deployment and Support



Deployment - AMLS

- Mobile Device Selection & Configuration
- Stage, Kit, Provision & Ship at Scale
- Advanced Exchange & Extended Warranty
- Legacy Device Salvage & Recycle

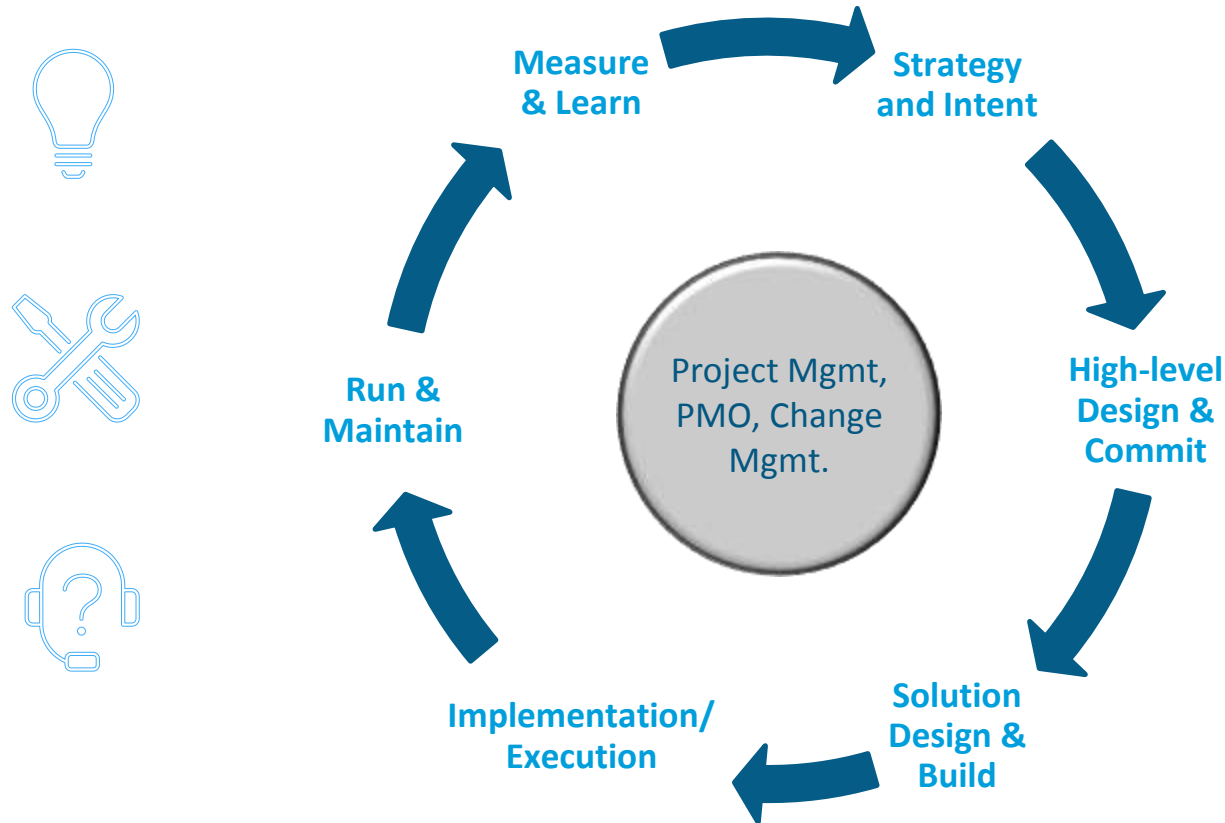
Tailored Support

- Configuration
- Training
- 24x7 Support
- Remote Admin Adv.

Enterprise Mobility Management



Enterprise Managed Mobility Lifecycle



& Mobility Consulting

& Enterprise Mobility Management

& Mobile Deployment, Support Solutions

EMM Implementation Services
EMM Remote Administration
EMM Application Service Desk
Project Management
Gold Image Creation
Tier 1 Help Desk

& Advanced Mobile Lifecycle Services

Custom Configuration
ACAP Self Service Client Asset Portal
System Administration, Asset Tagging
Platform Consulting



EMM Support and Remote Administration

A full set of solutions that provide resources to help customers design, install, configure and run their EMM infrastructure



Hosted EMM
Instance

EMM Platform Technical Support

- Single Point of Contact to resolve service issues and support requests
- Addresses interoperability between multi-carrier mobile devices, network, platform, mobile applications and hosted infrastructure
- 9x5 business hours or 24x7 options

EMM Platform Remote Administration

- Full platform administration and release change management.
- Implements on going security policies and user group administration for platform as well as day to day MACD activities
- Consults on release feature enhancements

Service is designed in modular increments allowing customers to select the amount of support that best fits their needs



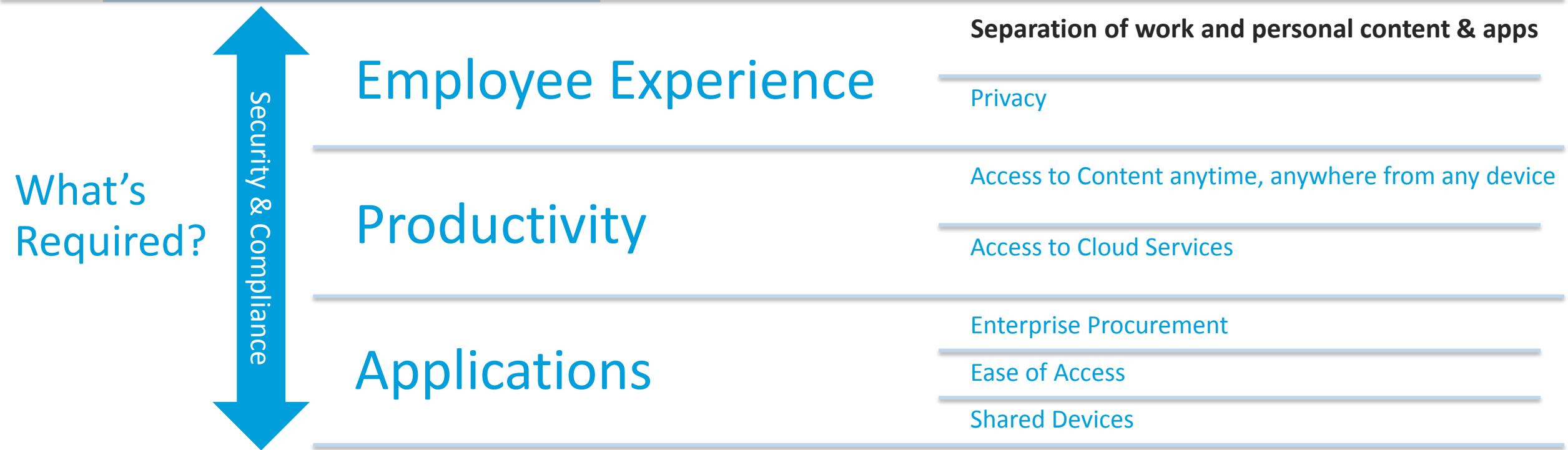
Mobile Device Deployment and Physical Management

Save time, scale resources, and increase productivity by offloading the full scope of mobile device deployment and lifecycle support to AT&T's world-class delivery team



Mobile Security & Compliance – Becoming Mobile First

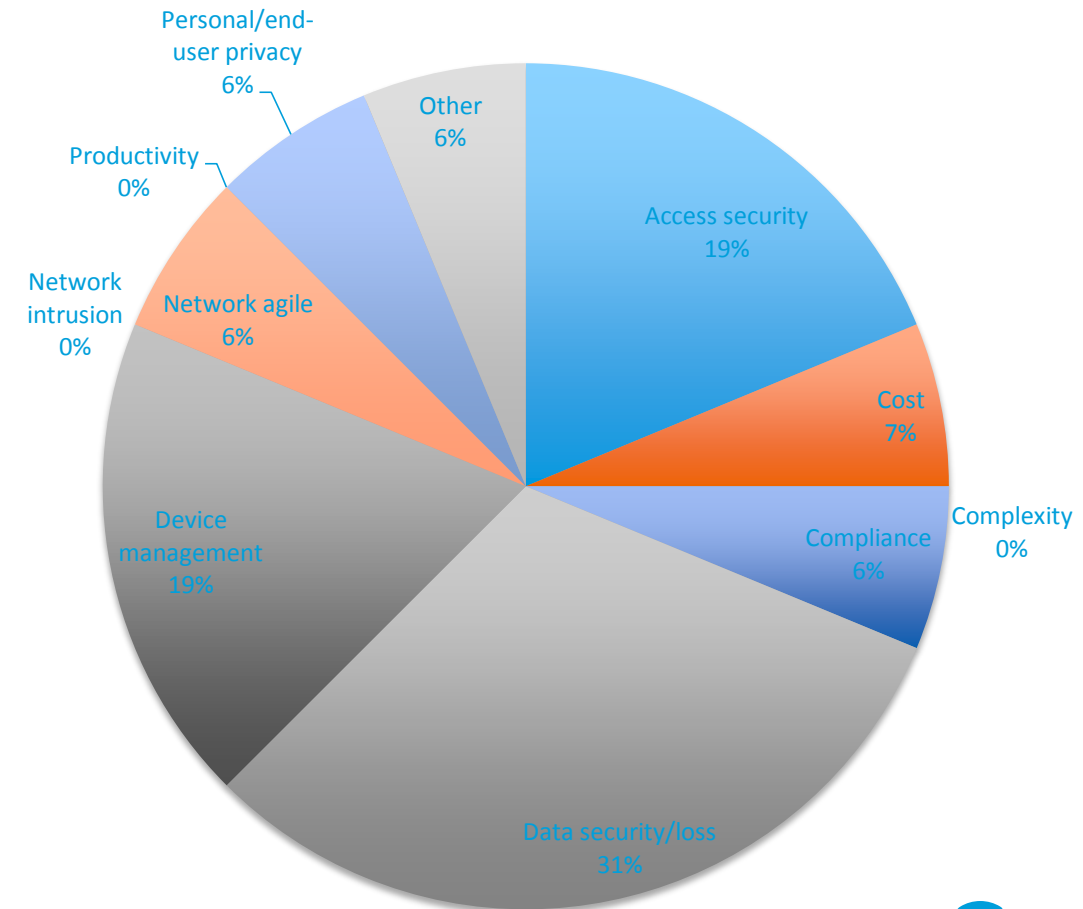
Increasing device value-add in corporate environments



Survey for AT&T Education Executive Advisory Council

- Top 3 BYOD Concerns
 1. Data Security/Loss – 33%
 2. Access Security – 20%
 3. Device Management – 20%
- Other Concerns
 1. How can BYOD work without a solid VDI or virtual infrastructure behind it. Don't currently have the resources to build and support our workforce.
- Top Applications/Types to Enable
 1. ERP
 2. Degree Audit

Higher Ed
Top BYOD Concerns



“Bring Your Own Device” Drivers in Higher Education



Faculty and staff are increasingly using their own devices for work related activities

IT leaders predict that in 2014 about 60% of faculty, staff and administrators will use their own device for work related purposes¹



Students grew up with technology and demand anytime, anywhere access

According to EDUCAUSE Center for Analysis and Research, the top student requests are “accessing course websites or syllabi” (66%) and “using course or learning management systems” (64%)



Mobile Device and OS proliferation is constraining campus resources

Administrators need a secure method to consolidate a variety of different mobile services. Device and operating system proliferation is driving high administrative, infrastructure and cost burdens

Discussion Question

How has BYOD manifested in your institution?

¹The Consumerization of Technology and the Bring-Your-Own-Everything Era of Higher Education (Research Report). EDUCAUSE Center for Applied Research, March 25, 2013



Value of Advanced Mobility for Students

User Story

As a student I need access to course websites and syllabi – on the go

Value of Advanced Mobility

Access university websites and content on mobile devices through Advanced Mobility Secure Browsers

As a university student I want to be able use my mobile device but not my personal data allotment on school related applications

Send rich content to devices and provide faculty, staff and students data subsidies for school related activities

As a college student I want access to mobile applications both for fun and for school work without having to worry about personal privacy

Maintain personal privacy and ensure network security through personal and school profile segregation – all on one device

As a student I work with my classmates on group projects and need to communicate with my professors using email and other collaboration tools

Collaborate with other students and teachers using permitted mobile collaboration tools that allow you to easily create, edit and share



Value of Advanced Mobility for Faculty and Staff

User Story

As a faculty member I use my personal device to distribute content and to communicate with students by voice and email outside of office hours

Value of Advanced Mobility

Email, call and distribute content to students on both personal and university owned devices in a secure and consistent manner

As a university professor I collaborate with grad/post-grad students and my constituents on R&D projects both on and off campus

Collaborate with trusted colleagues by leveraging applications that are secured through app level VPN over secure or public Wi-Fi and cellular

As a mobile admissions officer I want access to university resources on both my personal tablet as well as my university issued smartphone

Use secured productivity and collaboration tools to manage a busy schedule, store and share prospective student information

As a university CIO I need to ensure the integrity of the school network while allowing use by a growing number of devices and applications

Provide highly secure access to university resources using Secure Browser, unique policy settings and app level VPN



How does your organization distribute information?

Cloud or on-premise model?



Deliver apps or content?



Work or personal devices?



Domestic or international?



	Description	Features	Sales	Marketing	HR	IT	Legal	R&D/Engineering	Finance	Executive/Board
 Basic Sync & Share	Use Box for content storage and sharing (replacing a personal/corporate drive), accessible on any device	<ul style="list-style-type: none"> Mac & Windows Sync 10GB Upload Size Preview Full Document Search Groups 	<ul style="list-style-type: none"> Centralized Content Repository Asset Distribution Contract Template Repository 	<ul style="list-style-type: none"> Centralized Content Repository Asset Distribution 	<ul style="list-style-type: none"> Centralized Employee Record Repository Distribute Onboarding Materials 	<ul style="list-style-type: none"> Corporate User Drive PC Backup 	<ul style="list-style-type: none"> Store and Share Contracts 	<ul style="list-style-type: none"> Store and Share Product Specs and Information 	<ul style="list-style-type: none"> Store and Share Financial Documents 	<ul style="list-style-type: none"> Access Meeting Notes, Financial and Company Information
 Mobile Productivity	Use Box to access corporate content from a mobile device	<ul style="list-style-type: none"> Native Apps on all Platforms Mobile Preview Device Pinning Mobile Security Controls Box for EMM 	<ul style="list-style-type: none"> Field Sales Activities 	<ul style="list-style-type: none"> Virtual Binder for Events 	<ul style="list-style-type: none"> Approve Offer Letters from Mobile Devices 	<ul style="list-style-type: none"> Enterprise Mobility Management BYOD and Remote Work Solution 	<ul style="list-style-type: none"> Mobile Access to Legal Documents Mobile Redlining and Annotations of Legal Documents 	<ul style="list-style-type: none"> Field Engineering Activities Mobile Viewing of Product Specs/ Renderings 	<ul style="list-style-type: none"> View and Approval Financial Statements from Mobile Devices 	<ul style="list-style-type: none"> Virtual Board Packets Mobile Access to Confidential and Sensitive Information
 Team Collaboration & Project Management	Use Box to store, share and collaborate on documents and critical projects with team members	<ul style="list-style-type: none"> Box Notes Comments Tasks Annotations Granular Permissions Version History 	<ul style="list-style-type: none"> Rep Training & Onboarding 	<ul style="list-style-type: none"> Event Planning & Binders Asset Creation Marketing Campaign Execution 	<ul style="list-style-type: none"> Manage Hiring Process & Feedback Loop 	<ul style="list-style-type: none"> Disaster Recovery Communication Log Secure Internal File Sharing Tool 	<ul style="list-style-type: none"> Internal Legal Projects 	<ul style="list-style-type: none"> Product Design & Development Code Sharing Standup Meeting Notes 	<ul style="list-style-type: none"> Audit Testing Activities 	<ul style="list-style-type: none"> Executive Meeting Content
 Cross-Department Collaboration	Use Box share documents between different internal teams	<ul style="list-style-type: none"> Granular Permissions Shared Links Access Statistics Box Notes 	<ul style="list-style-type: none"> Sales Proposal Creation Internal Sales Portal 	<ul style="list-style-type: none"> Sales Enablement Sales/Marketing Alignment Coordinate Product Launches Budget Planning 	<ul style="list-style-type: none"> HR Portal Performance Reviews Headcount Planning Internal Job-Board 	<ul style="list-style-type: none"> IT Resource Repository Secure Internal Collaboration Tool 	<ul style="list-style-type: none"> Contract & Proposal Creation 	<ul style="list-style-type: none"> Coordinate Product Launches Collaboration with Design Teams 	<ul style="list-style-type: none"> Contract Management with Internal Teams 	<ul style="list-style-type: none"> Collaboration between Executive Team and Board Members
 External Collaboration	Use Box to store and manage the transfer of content with external parties	<ul style="list-style-type: none"> Managed External Collaborators Usage Logs Granular Permissions Restricted Downloads 	<ul style="list-style-type: none"> Virtual Deal Room Partner/Vendor Portal 	<ul style="list-style-type: none"> Agency/Vendor Collaboration Event Coordination & Management Collaboration with Design Agencies 	<ul style="list-style-type: none"> Recruiting Event Coordination & Management Collaboration with Recruiting Agencies 	<ul style="list-style-type: none"> External Software Distribution External File Sharing & Collaboration Tool 	<ul style="list-style-type: none"> Collaboration with Outside Council Virtual Deal Room 	<ul style="list-style-type: none"> Collaboration with Manufacturers/ External Review Procurement Supplier Management 	<ul style="list-style-type: none"> SOX Compliance Virtual Deal Room Analyst/Investor Relations Collaboration with External Auditors Procurement Activities 	<ul style="list-style-type: none"> Virtual Deal Room Mergers & Acquisitions Activities
 Process Management	Use Box to transfer information between parties to achieve a desired business objective as part of critical business processes	<ul style="list-style-type: none"> Metadata Automations Tasks Governance 	<ul style="list-style-type: none"> Sales Contract Management 	<ul style="list-style-type: none"> Digital Asset Management 	<ul style="list-style-type: none"> Automated Onboarding Process Offer Letter Review and Approval Process 		<ul style="list-style-type: none"> Contract Management Contract and Proposal Review Process Sales Contract Management 	<ul style="list-style-type: none"> Automated Product Development Workflow 	<ul style="list-style-type: none"> Contract Management Invoice Processing Order Management Automatic Renewal Notifications 	
 Platform	Use the Box platform to build custom apps for internal business processes, integrate with existing business applications, or to sell as independent app	<ul style="list-style-type: none"> Box Embed Content API View API Developer Edition Partners and Integration Ecosystem 	<ul style="list-style-type: none"> Custom portal supporting internal and channel access to marketing assets stored on Box 	<ul style="list-style-type: none"> Embed marketing assets directly on corporate websites 	<ul style="list-style-type: none"> Integrate HR paperwork and company files into corporate intranet 	<ul style="list-style-type: none"> Build internal or external software distribution tool on top of Box 			<ul style="list-style-type: none"> Build a custom investor, analyst, or customer portal using content stored on Box 	

VMO (Value Management Office) Model Assumptions

Staff – 250 users



Field staff – 50 users
le, maintenance



Students – 1000 users



Faculty – 200 users



