

Application Delivery from the Data Center:

Juniper Networks DX Application
Acceleration Platform



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NETWORKS

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Trend of Web-enabling Applications is Widespread

"It is difficult to imagine any class of enterprise
application that will NOT be web-enabled"

Mark Fabbi, Gartner Group

Packaged Applications



Custom Developed Applications

- J2EE
- .ASP
- .PHP
- .JSP
- SOAP
- XML
- Web Services

Juniper your Net

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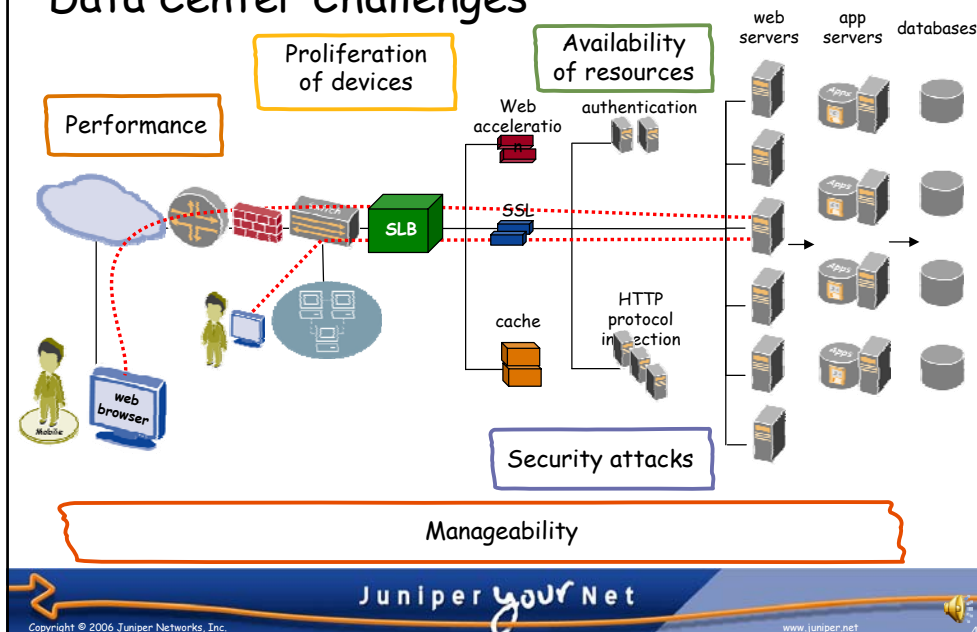
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Key Business Challenges

- Global integration
 - Provide secure access for remote employees to access central resources
- Reduce capital and operational costs
 - High cost of managing client application software
 - Reduce data center infrastructure costs
- Business continuity
 - Disaster recovery
- Result: Existing infrastructure is compromising the business

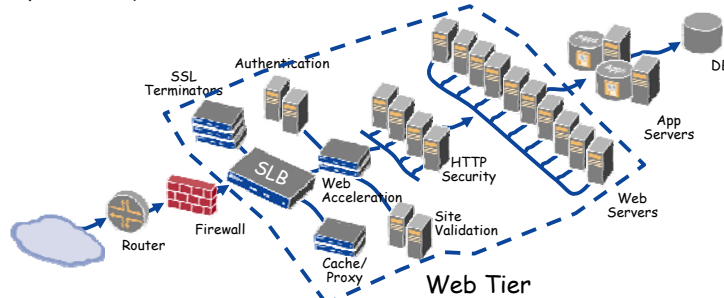


Data Center Challenges



Traditional Point Products Impractical for Data Center Consolidation

- Data center quickly becomes overly complex
 - Problems left unresolved - it's untenable to have so many point products
- Fundamental incompatibilities
 - Security product limits performance, performance product limits availability, etc.
- Too expensive
 - Everyone is required to do more with less



- A new approach and platform is required to create successful new data centers



Requirements for End-to-End Web App Delivery

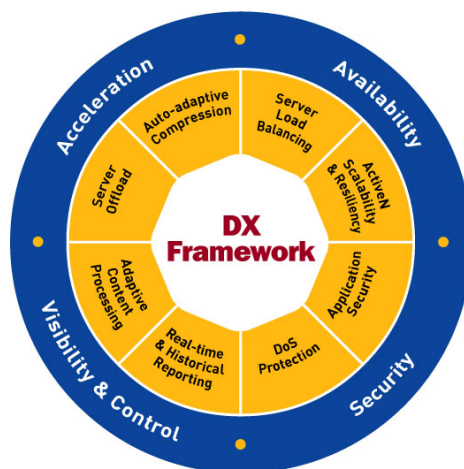
- Accelerate all Web-based applications and sites
- Boost productivity - employees, customers, partners
- Increase efficiency of existing resources
- Secure application traffic
- Tailor solution to business needs



Solving the Data Center Performance Problem

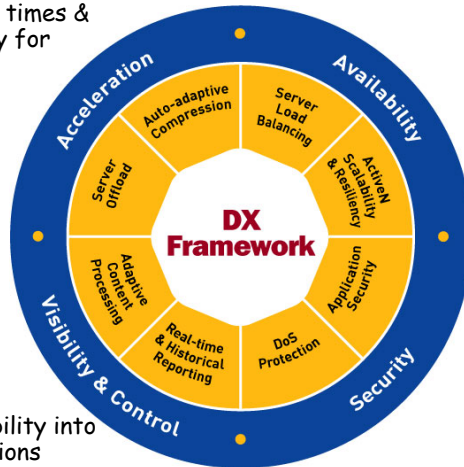


The Value of an Integrated Architecture



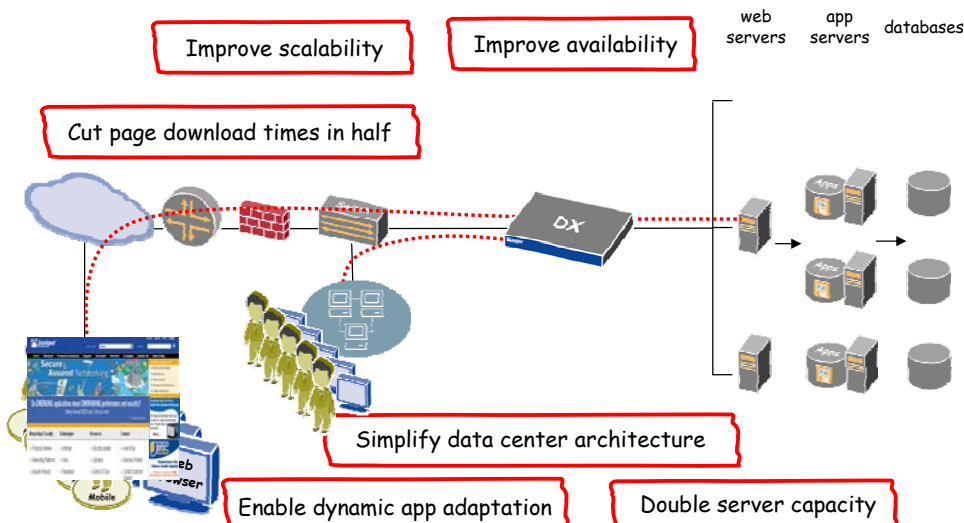
Key Business Initiatives: Cut Costs; Improve Performance

- Improve response times & transaction quality for users
- Increase server capacity by 3x-4x
- Reduce server costs up to 80%
- Modify app behavior "on the fly," in real-time
- Instantly correct application code deficiencies
- Gain detailed visibility into all HTTP transactions



- Increase uptime & user productivity
- Distribute load more evenly to maintain performance
- Scale incrementally up to 64 GB as demands grow
- Protect data center from DDoS attacks
- Protect applications at Layer 7
- Protect session data

Web/Data Center Acceleration - DX Benefits



Acceleration

- Speed performance of web-based apps through server offload and compression
- Improve response times by increasing browser cache to locally store & serve pages
- Persistent "connection keep-alive" ensures immediate response for returning visitors



Server Offload

- Multiplex hundreds of client connections into one
- Offload administrative tasks such as encryption
- Serve pages from onboard cache to relieve servers

Auto-adaptive Compression

- Full client, object & server awareness delivers industry-leading compression
- Compress multi-megabyte MS Office documents
- No restriction on compression ratios

Availability

- Relieves servers of non-web-related processing chores, letting them focus on serving content
- Increases transaction success rates by transparently intercepting and retrying failed requests



Server Load Balancing

- Global SLB ensures more resilient disaster recovery
- Patented Fewest Outstanding Requests algorithm ensures most efficient HTTP balancing
- Supports full app-aware server health checking

ActiveN Scaling

- Clusters up to 64 units as a single device for maximum throughput
- Delivers industry-leading resiliency, scalability & performance
- Cascading failover ensures superior disaster recovery

Security

- Provides Layer 3-7 security for data center
- Protects user sessions through full SSL encryption (FIPS L3 option available)
- "Auto SSL" automatically secures non-secure applications



Application Security

- Full proxy buffers servers from clients
- HTTP protocol scrubbing blocks application attacks
- Flexible Request Sentry rules protect connections from attacks

DoS Protection

- Network Layer security defends against SYN floods
- Non-blocking security means legitimate traffic gets through when data center is attacked
- Secure outbound access protects servers

Visibility & Control

- Manipulate applications "on the fly" to improve agility & response
- Complete visibility into HTTP provides granular statistics on each transaction



Adaptive Content Processing

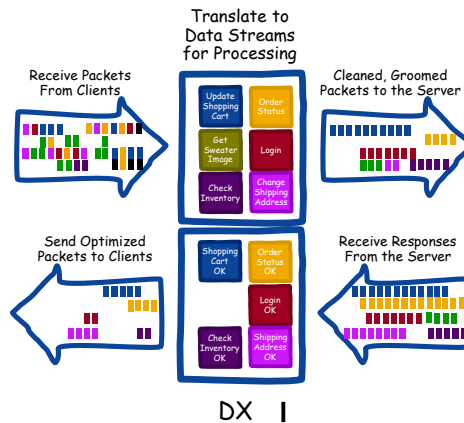
- Corrects application code errors & inefficiencies in real-time to improve performance
- Application-centric rules improve all major web apps (SAP, Oracle, owa, Sharepoint, etc.)
- High-level scripts allow optimization of custom web apps

Reporting

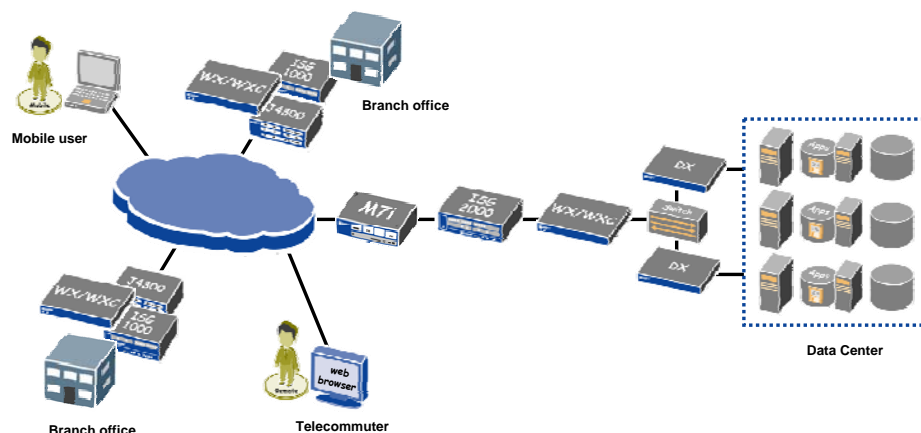
- Dashboard provides at-a-glance visibility into health of data center
- Exportable performance statistics viewable via web interface
- Complete visibility into servers & transactions

How the DX Platform is Different

- DX advantage
 - Core architecture is data-stream based rather than packet based
- Knows of full transaction context
 - Ties "request" to "response"
- Adaptive Content Processing
 - Modify
 - Retry failed transactions
 - Fix errors
 - Extend possible actions
 - Can read, understand, and rewrite data streams in real time, whether inbound or outbound



Part of a Broad Product Portfolio



Why Companies Have Deployed Juniper Data Center Acceleration

- Reduce data center infrastructure costs by 40-60%
- Accelerate Web-based applications by 50%
- Consolidate data centers
- Secure application traffic
- Avoid application rewrites
- Leverage broad Juniper product portfolio

