



eMaintenance® by Projotech Description of Environment

Projotech servers are colocated in a state-of-the-art Level(3) Communications facility.

Level (3) Communications operates one of the largest Internet backbones in the world. Nine out of ten of the world's largest telecom carriers all continue to use Level(3) services, as do five of the top six U.S. Internet Service Providers, and nine out of ten of the largest European telecom carriers. Based on the amount of Internet traffic on Level(3)'s IP backbone, Level (3) Communications is among the top three largest Internet carriers in the world.

Colocation provides reliable and secure choices for space and connectivity in a highly controlled environment.

Key Attributes

- ? State-of-the-art and secure
- ? Well-connected
- ? Broad coverage

State-of-the-Art and Secure

- ? Security: Multi-layer security control procedures, biometric palm readers, and closed-circuit video monitoring
- ? Power: Uninterruptible AC and DC power solutions that are flexible and upgradeable — meeting all types of customer needs
- ? Cooling: HVAC redundant design with under-floor air distribution for maximum temperature control
- ? Fire Suppression: Smoke detection system above and below raised floor; double-interlock, pre-action, dry-pipe fire suppression

Monitoring

Comprehensive, pro-active systems monitoring is only the first step in ensuring the ongoing health and availability of a production system. The digitalOps Alert Manager system reconciles more than a dozen independent monitoring and reporting systems into one console and correlates related alerts, surfacing critical root cause issues and giving experts a jump-start on any issue. Complete system reporting and trending is available through digitalOps Customer Console, a window into the same system our Operations team uses to monitor, trend and manage your critical applications.

Monitoring is more than passively waiting for the red light to appear. The SWAT team uses Alert Manager to predict issues, calculate trends and tune the environment to ensure applications are running at peak performance.

digitalOps

digitalOps is an award-winning service delivery platform for operations and systems management. Beginning with systems design, digitalOps puts us in control of the production environment while leveraging the experience and expertise of our operational team. digitalOps is the management platform for the complete managed services lifecycle, from standards-based systems design interfaces to physical infrastructure



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configuration management and a Global Change Management system. digitalOps increases accuracy, efficiency and availability.

Integrated Systems Monitoring

Through the digitalOps Command Center, Projotech has a correlated view of the server, network, and security infrastructure. This includes diagnostics, fault-detection, and availability monitoring. Internally, digitalOps Alert Manager correlates multiple alerts and provides rapid fault analysis, ensuring speedy return-to-service in the event of a problem.

Proactive Threat Prevention

Infrastructure Management includes the following security services:

- ? All-Private network architecture
- ? Global network security
- ? Physical data center security
- ? Security hotfix and patch management
- ? Software VPN access to servers

Additional security features include:

- ? High-availability managed firewalls
- ? Host-based intrusion detection
- ? Virus scanning
- ? Vulnerability assessments
- ? Custom security services

To identify new and unique attacks against systems, the following threat detection products are used:

- ? Managed Firewalls
- ? Realtime Intrusion Detection Services (RIDS)
- ? 24x7 Security Monitoring

When new threats are detected against any managed system, a variety of responses are available:

- ? Automated Defensive Countermeasures
- ? Data Forensics
- ? Intervention by CISSP Certified Security Professionals

Firewall protection

ServiceGuard – Projotech offers a dedicated and fully managed firewall device in its ServiceGuard product, based on the Knightstar from Cyberguard, providing stateful packet inspection and security logging for customer sites. A hardened OS (NSA B2-compliant) running on a hardened device (ITSEC E3-rated), the Knightstar offers superior performance and protection. The device offloads CPU-intensive tasks from the customer's servers, enabling high-performance protection in real-time, up to 70,000 concurrent sessions. A dedicated device means



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dedicated security; eMaintenance® firewalls do not have the risk of being compromised by traffic not intended for the customer's own site.

Projotech Hardware and Software

(Note: the following hardware/software platform and infrastructure is representative of the Projotech eMaintenance® technical configuration. Actual equipment may vary.)

Application Server

1) Hardware and Operating System (minimum specifications)

- ✍ Intel Zeon Processors, 4 GB SDRAM, Multi Drive
- ✍ Server Operating System: Windows 2000 Server Operating System
- ✍ Terminal Server Client Access Licenses as needed

2) Maximo Release 4.1.1, patch 05

- ✍ Maximo for Industry version
- ✍ Crystal reports with licensing to enable custom report creation that can be registered in the Maximo applications

3) Other Integrated Software (Optional)

- ✍ AutoVue for CAD drawings (installed on the Maximo server)
- ✍ Portable, handheld PalmOS- or Pocket PC-based software and devices are available for inventory, work order management, or custom applications

Database Server (Production and Test)

1) Hardware and Operating System (minimum specifications)

- ✍ Intel Zeon, 2GB SDRAM, Multi Drive, mirrored
- ✍ Server Operating System: Windows 2000 Server Operating System
- ✍ Appropriate database backup

2) Database Management System: Microsoft SQL Server 2000

- ✍ Maximo databases are to be created: PROD (production), TEST (for testing)

3) Database backup profile is as follows:

- ✍ Daily DB backup to hard drive
- ✍ Hourly transaction log backups to hard drive.
- ✍ Daily tape backup stored at off site location

4) Physical location

Projotech servers are co-located at Level(3) Communications, Dallas, Texas



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