

CA ControlMinder

릴리스 정보

12.7



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본 문서는 CA 에서 제작되었습니다.

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타사 고지 사항

CONTAINS IBM(R) 32-bit Runtime Environment for AIX(TM), Java(TM) 2
Technology Edition, Version 1.4 Modules

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CA Technologies 제품 참조

이 문서는 다음 CA Technologies 제품을 참조합니다 :

- CA ControlMinder
- CA Single Sign-On(CA SSO)
- CA Top Secret®
- CA ACF2™
- CA Audit
- CA NSM(CA Network and Systems Management, 이전의 Unicenter NSM 및 Unicenter TNG)
- CA Software Delivery(이전의 Unicenter Software Delivery)
- CA Service Desk(이전 이름: Unicenter Service Desk)
- CA User Activity Reporting Module (이전 명칭: CA 사용자 활동 보고)
- CA IdentityMinder

설명서 규칙

CA ControlMinder 설명서는 다음과 같은 규칙을 따릅니다.

형식	의미
고정 폭 글꼴	코드 또는 프로그램 출력
기울임꼴	강조 또는 새 용어
굵게	표시된 대로 동일하게 입력해야 하는 텍스트
슬래시(/)	UNIX 및 Windows 경로를 기술하는 데 사용되는 플랫폼 독립적인 디렉터리 구분 기호

이 설명서는 또한 명령 구문과 사용자 입력(고정 폭 글꼴로 표시됨)을 설명할 때 다음과 같은 특별한 규칙을 사용합니다.

형식	의미
<i>기울임꼴</i>	반드시 입력해야 하는 정보
대괄호([]) 사이	선택적 피연산자
중괄호({ }) 사이	필수 피연산자 집합
파이프()로 구분된 선택 사항	대체 피연산자(하나 선택)를 구분합니다. 예를 들어, 다음은 사용자 이름 또는 그룹 이름 중 <i>하나</i> 라는 의미입니다. <code>{username groupname}</code>
...	앞의 항목 또는 항목 그룹이 반복될 수 있음을 나타냅니다.
밑줄	기본값
줄 마지막에 공백 다음의 백슬래시(\)	때때로 이 안내서에서 명령이 한 줄에 모두 표시되지 않는 경우가 있습니다. 이런 경우에는 줄 끝에 공백과 백슬래시(\)를 표시하여 명령이 다음 줄에서 계속됨을 나타냅니다. 참고: 실제 명령을 입력할 때는 이러한 백슬래시를 포함하지 말고 줄바꿈 없이 명령을 한 줄에 입력하십시오. 백슬래시 및 줄바꿈은 실제 명령 구문에 포함되지 않습니다.

예제: 명령 표기 규칙

다음 코드는 이 안내서에서 명령 규칙이 사용되는 방식을 보여 줍니다.

```
ruler className [props({all|{propertyName1[,propertyName2]...})]
```

설명:

- 표시되는 그대로 입력해야 하는 명령 이름(`ruler`)은 일반 고정 폭 글꼴로 표시됩니다.
- `className` 옵션은 클래스 이름(예: `USER`)이 들어갈 자리이므로 기울임꼴로 표시됩니다.

- 대괄호로 묶인 두 번째 부분은 선택적 피연산자를 의미하므로 이 부분 없이 명령을 실행할 수도 있습니다.
- 옵션 매개 변수(props)를 사용할 때 키워드 *all* 을 선택하거나 하나 이상의 속성 이름을 쉼표로 구분하여 지정할 수 있습니다.

파일 위치 규칙

CA ControlMinder 설명서는 다음과 같은 파일 위치 규칙을 따릅니다.

- *ACSharedDir* - UNIX 에서 CA ControlMinder 에 의해 사용되는 기본 디렉터리입니다.
 - UNIX - /opt/CA/AccessControlShared
 - Windows - \ProgramFiles\CA\AccessControlShared
- *ACServerInstallDir* - 기본 CA ControlMinder 엔터프라이즈 관리 설치 디렉터리입니다.
 - UNIX - /opt/CA/AccessControlServer
 - Windows - \ProgramFiles\CA\AccessControlServer
- *DistServerInstallDir* - 기본 배포 서버 설치 디렉터리입니다.
 - UNIX - /opt/CA/DistributionServer
 - Windows - \ProgramFiles\CA\DistributionServer
- *JBoss_HOME* - 기본 JBoss 설치 디렉터리입니다.
 - UNIX - /opt/jboss-4.2.3.GA
 - Windows - \jboss4.2.3.GA

CA 에 문의

기술 지원팀에 문의

온라인 기술 지원 및 지사 목록, 기본 서비스 시간, 전화 번호에 대해서는 <http://www.ca.com/worldwide> 에서 기술 지원팀에 문의하십시오.

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제 1 장: 시작

CA ControlMinder 12.7 을 시작합니다. 이 안내서에서는 새 개선 사항, 기존 기능의 변경 사항, 운영 체제 지원, 시스템 요구 사항, 설명서 정보, 설치 및 일반적인 고려 사항, 게시된 솔루션, CA ControlMinder 의 알려진 문제에 대해 설명합니다.

CA ControlMinder 는 엔터프라이즈 관리 및 보고 기능과 고급 정책 관리 기능을 제공합니다.

용어를 간단히 나타내기 위해 이 안내서에서는 제품을 CA ControlMinder 가라고 합니다.

이 섹션은 다음 항목을 포함하고 있습니다.

[CA ControlMinder 설치 미디어](#) (페이지 11)

[보완 CA User Activity Reporting Module 라이선스](#) (페이지 12)

[단일 설명서 집합](#) (페이지 13)

CA ControlMinder 설치 미디어

CA ControlMinder 구성 요소는 다음과 같은 광 디스크로 제공됩니다.

다음 광학 디스크에는 Windows 용 보고서 포털 구성 요소 및 엔터프라이즈 관리 서버가 들어 있습니다.

- Windows 용 CA ControlMinder 서버 구성 요소

CA ControlMinder 끝점 관리, CA ControlMinder 배포 서버, CA ControlMinder 엔터프라이즈 관리에 대한 설치 파일을 포함되어 있습니다.

CA ControlMinder 엔터프라이즈 관리는 CA ControlMinder 끝점 관리, Windows 용 CA ControlMinder 끝점 구성 요소, CA ControlMinder 배포 서버 구성 요소, DMS(Deployment Map Server)를 포함합니다.

이 광학 디스크에는 또한 CA Business Intelligence 로 가져올 수 있는 보고서 패키지가 포함되어 있습니다.

- Windows 용 CA ControlMinder 타사 구성 요소

Windows 에 필수 타사 소프트웨어(JDK 및 JBoss)를 설치하는 필수 설치 관리자가 포함되어 있습니다. CA ControlMinder 서버 구성 요소를 설치하기 전에 이러한 소프트웨어 응용 프로그램을 설치해야 합니다.

다음 광학 디스크에는 Linux 용 보고서 포털 구성 요소 및 엔터프라이즈 관리 서버가 들어 있습니다.

- Linux 용 CA ControlMinder 서버 구성 요소

CA ControlMinder 끝점 관리, CA ControlMinder 배포 서버, CA ControlMinder 엔터프라이즈 관리에 대한 설치 파일을 포함되어 있습니다.

CA ControlMinder 엔터프라이즈 관리는 CA ControlMinder 끝점 관리, Linux 용 CA ControlMinder 끝점 구성 요소, CA ControlMinder 배포 서버 구성 요소, DMS(Deployment Map Server)를 포함합니다.

이 광학 디스크에는 또한 CA Business Intelligence 로 가져올 수 있는 보고서 패키지가 포함되어 있습니다.

- Linux 용 CA ControlMinder 타사 구성 요소

Linux 를 위한 필수 타사 소프트웨어(JDK 및 JBoss)가 포함되어 있습니다. CA ControlMinder 서버 구성 요소를 설치하기 전에 이러한 소프트웨어 응용 프로그램을 설치해야 합니다.

보완 CA User Activity Reporting Module 라이선스

CA ControlMinder 소유자는 CA User Activity Reporting Module 제품을 통해 CA ControlMinder 감사 로그를 수집, 관리 및 보고하는 제한된 기능을 사용할 수도 있습니다. 먼저 CA ControlMinder 고객에게 상징적 가격으로 제공되는 "CA User Activity Reporting Module Server for CA ControlMinder"(Codes ELMSAC99100/ELMSAC991) 라이선스를 구해야 합니다.

북미에서 CA User Activity Reporting Module 라이선스를 구하려면 해당 지역의 고객 담당자에게 문의하십시오. 북미 이외의 지역에서는 해당 지역의 고객 담당자나 CA Technologies 지사로 문의하십시오. CA 온라인 지원 웹 사이트(<http://ca.com/worldwide>)의 다운로드 센터를 통해 해당 CA ControlMinder 다운로드 링크 아래에서 CA User Activity Reporting Module 를 온라인으로 다운로드할 수 있습니다.

단일 설명서 집합

CA ControlMinder 의 설명서는 다음과 같습니다.

- 릴리스 정보
- 구현 안내서
- 엔터프라이즈 관리 안내서
- 업그레이드 안내서
- 구현 안내서
- Windows 용 끝점 관리 안내서
- UNIX 용 끝점 관리 안내서
- 참조 안내서
- selang 참조 안내서
- 문제 해결 안내서

제 2 장: 새 기능 및 변경된 기능

이 섹션은 다음 항목을 포함하고 있습니다.

[CA ControlMinder 개선된 사항](#) (페이지 15)

[설명서 개선 사항](#) (페이지 16)

[이 릴리스에서 해결된 문제점](#) (페이지 16)

CA ControlMinder 개선된 사항

마지막 릴리스 이후에 다음과 같은 CA ControlMinder 개선 사항 및 픽스가 적용되었습니다.

- 확장성 및 성능

CA ControlMinder 는 이제 일반 작업을 수행할 때 더 적은 시간을 소비합니다. 이 제품은 이제 100,000 개의 끝점 및 계정을 지원합니다. 자세한 내용은 크기 조정 및 성능을 참조하십시오.

- 보고서 개선 사항

CA ControlMinder 는 이제 몇 시간 내로 모든 제품 구성 요소에서 워크로드 파티셔닝 보고서를 생성합니다. 제품에 7 개의 새 보고서가 추가되었습니다. 자세한 내용은 보고서 작성을 참조하십시오.

- 화면 패널 개선 사항

UI 월드 뷰에 호스트, 호스트 그룹, 정책, 공유 계정에 대한 뷰가 추가되었습니다.

- REST API

REST 에 대한 제품 지원이 개선되어 메서드를 추가되었습니다. 이제 REST API 를 사용하여 특정 사용자가 액세스할 수 있는 계정 목록을 가져오거나 계정 및 끝점을 관리하는 등의 작업을 할 수 있습니다. 자세한 내용은 REST API 섹션을 참조하십시오.

- 새 SetPUTTY 옵션

이제 제품을 사용하여 PUTTY 및 텔넷 스크립트를 사용자 지정할 수 있습니다.

- **개선된 로그인 응용 프로그램**
제품은 이제 MS SQL, Oracle, Juniper Netscreen, FTP 로그인 응용 프로그램을 지원합니다.
- **SSH 및 네트워크 장치 XML 파일을 사용한 끝점 유형**
SAM(공유 계정 관리) 끝점 유형이 개선되어 SSH 및 네트워크 장치 XML 파일이 추가되었습니다.
- **Windows 8 지원**
이제 Microsoft Windows 8 을 SAM 끝점으로 구성할 수 있습니다.

설명서 개선 사항

마지막 릴리스 이후에 설명서에서 다음과 같은 사항이 개선되었습니다.

- **시나리오 기반 콘텐츠**
다음 시나리오가 추가되었습니다.
 - **인증서 기반 인증을 구성하는 방법**
인증서 기반 인증 기능이 개선되어 사용자가 로그인할 때마다 로그인 자격 증명을 제공하지 않고 로그인할 수 있게 되었습니다.
 - **통합 Windows 인증을 위한 엔터프라이즈 관리 서버 구성**
통합 Windows 인증(IWA)을 사용하면 사용자가 Windows 세션의 도메인 계정 자격 증명을 사용하여 CA ControlMinder 엔터프라이즈 관리에 로그인할 수 있습니다.
 - **Apache 부하 분산 기능을 구성하는 방법**
부하 분산 기능은 여러 리소스로 작업을 균등하게 분배하여 네트워크 활용도와 신뢰성을 높입니다.

이 릴리스에서 해결된 문제점

이 릴리스에 픽스는 릴리스 수정 목록에 설명되어 있습니다. CA Support 의 [CA ControlMinder Latest Maintenance Release](#) (CA ControlMinder 최신 유지관리 릴리스) 페이지에서 FIXLIST 에 액세스할 수 있습니다.

제 3 장: 시스템 요구 사항

이 섹션은 다음 항목을 포함하고 있습니다.

[운영 체제 지원](#) (페이지 17)

[엔터프라이즈 관리 서버 요구 사항](#) (페이지 17)

[엔터프라이즈 관리 서버 통합 구성 요소](#) (페이지 18)

[CA ControlMinder 끝점 관리 요구 사항](#) (페이지 19)

[엔터프라이즈 보고 요구 사항](#) (페이지 20)

[배포 서버 요구 사항](#) (페이지 20)

[정책 모델 데이터베이스 요구 사항](#) (페이지 21)

운영 체제 지원

지원되는 운영 체제에 대한 목록은 [CA Support](#) 의 CA ControlMinder 제품 페이지에 있는 CA ControlMinder 호환성 표를 참조하십시오.

엔터프라이즈 관리 서버 요구 사항

엔터프라이즈 서버의 최소 요구 사항은 다음과 같습니다.

- 프로세서 - (Windows) Pentium PC 2.66 GHz, (UNIX) SPARC 워크스테이션 440MHz
- 메모리 - 4-GB RAM
- 사용 가능한 디스크 공간 - 설치 디렉터리에 2 GB, %TEMP%(Windows)에 3 GB 또는 /tmp(UNIX)에 3 GB 스왑 파일, JBoss 디렉터리에 1.5 GB

또한 엔터프라이즈 서버에 다음 소프트웨어를 설치하십시오.

- **JDK** - Java Development Kit(JDK) 1.6.30 이상
- **응용 프로그램 서버**-JBoss Application Server 버전 4.2.3.GA
- **중앙 데이터베이스(RDBMS)** - Oracle Database 10g, Oracle Database 11g, Microsoft SQL Server 2005 또는 Microsoft SQL Server 2008

참고: 다른 컴퓨터에 중앙 데이터베이스를 설치할 수 있습니다.

RDBMS 의 시스템 요구 사항에 대한 자세한 내용은 제품의 설명서를 참조하십시오.

최종 사용자의 컴퓨터에서 최소 1024 x 768 의 화면 해상도 및 다음과 같은 웹 브라우저가 필요합니다.

- **Windows** - Microsoft Internet Explorer 6.x 또는 7.x 또는 8.x, 또는 Mozilla Firefox 2.x 또는 3.0 또는 3.5
- **Linux** - Mozilla Firefox 2.x 또는 3.0 또는 3.5

엔터프라이즈 관리 서버 통합 구성 요소

엔터프라이즈 관리 서버는 다음 제품과의 통합을 지원합니다.

- **Active Directory** - (선택 사항) 엔터프라이즈 사용자 저장소
참고: 엔터프라이즈 관리 서버와 동일한 컴퓨터에 사용자 저장소를 설치할 필요는 없습니다.
- **CA Directory** - (선택 사항) CA 독자적 사용자 저장소
- **Sun ONE** - (선택 사항) 엔터프라이즈 사용자 저장소
참고: 엔터프라이즈 관리 서버와 동일한 컴퓨터에 사용자 저장소를 설치할 필요는 없습니다.
- **보고서 포털** - CA Business Intelligence
참고: 엔터프라이즈 관리 서버와 동일한 컴퓨터에 이 소프트웨어를 설치할 필요는 없습니다. 보고서 포털의 시스템 요구 사항에 대한 자세한 내용은 *CA Business Intelligence 설치 안내서*를 참조하십시오.
참고: CA Business Intelligence 에 대한 자세한 내용은 [CA Technologies Support](#) 에 있는 *CA Business Intelligence 설치 안내서*를 참조하십시오.

- **CA User Activity Reporting Module - r12.0**

참고: 엔터프라이즈 관리 서버와 동일한 컴퓨터에 이 소프트웨어를 설치하지 마십시오. CA User Activity Reporting Module 의 시스템 요구 사항에 대한 자세한 내용은 *CA User Activity Reporting Module 릴리스 정보*를 참조하십시오.

- **CA Service Desk - r12.1**

참고: 엔터프라이즈 관리 서버와 동일한 컴퓨터에 이 소프트웨어를 설치할 필요는 없습니다. CA Service Desk 의 시스템 요구 사항에 대한 자세한 내용은 *CA Service Desk 릴리스 정보*를 참조하십시오.

- **CA SiteMinder**

CA SiteMinder 의 시스템 요구 사항에 대한 자세한 내용은 *CA SiteMinder 릴리스 정보*를 참조하십시오.

CA ControlMinder 끝점 관리 요구 사항

CA ControlMinder 끝점 관리 컴퓨터에 대한 최소 요구 사항은 다음과 같습니다.

프로세서 - (Windows) Pentium PC 2.66 GHz

- **메모리** - 2 GB RAM
- **디스크 여유 공간** - 설치 디렉터리에 2 GB, %TEMP%(Windows) 또는 /tmp(UNIX)에 3 GB

또한 CA ControlMinder 끝점 관리 컴퓨터에 다음 소프트웨어를 설치하십시오.

- **JDK** - Java Development Kit(JDK) 1.6.30 이상
- **응용 프로그램 서버** - JBoss Application Server 버전 4.2.3.GA
- **CA ControlMinder**-끝점 설치의 최신 버전

최종 사용자의 컴퓨터에서 최소 1024 x 768 의 화면 해상도 및 다음과 같은 웹 브라우저가 필요합니다.

- **Windows** - Microsoft Internet Explorer 6.x 또는 7.x 또는 8.x, 또는 Mozilla Firefox 2.x 또는 3.0 또는 3.5
- **Linux** - Mozilla Firefox 2.x 또는 3.0 또는 3.5

엔터프라이즈 보고 요구 사항

중앙 데이터베이스(RDBMS)로 Oracle Database 10g 또는 Oracle Database 11g 를 사용하는 경우 CA ControlMinder 엔터프라이즈 관리를 설치하기 전에 다음을 수행하십시오.

- Oracle 호스트와 CA Business Intelligence 호스트가 통신할 수 있는지 확인합니다.
- CA Business Intelligence 호스트에 Oracle 클라이언트 소프트웨어를 설치합니다.
- CA Business Intelligence 호스트에서 Oracle TNS 정의가 중앙 데이터베이스를 가리키는지 확인합니다.

중앙 데이터베이스(RDMBS)로 Microsoft SQL Server 2005 또는 Microsoft SQL Server 2008 을 사용하는 경우 보고서 서버를 설치하기 전에 다음을 수행하십시오.

- MS SQL 호스트와 CA Business Intelligence 호스트가 통신할 수 있는지 확인합니다.

중요! 보고 서버로 Microsoft SQL Server 를 사용하는 경우 지원되는 Windows 운영 체제에 보고서 포털을 설치하십시오.

배포 서버 요구 사항

배포 서버 컴퓨터의 최소 요구 사항은 다음과 같습니다.

- 프로세서 - Pentium PC 266 MHz
- 메모리 - 2 GB RAM
- 디스크 여유 공간 - 설치 디렉터리에 2 GB, %TEMP%(Windows) 또는 /tmp(UNIX)에 1 GB

또한 배포 서버 컴퓨터에 다음 소프트웨어가 설치되어 있어야 합니다.

- JRE - Java Runtime Environment(JRE) 1.5.0_18 이상

정책 모델 데이터베이스 요구 사항

끝점 공간 요구 사항 외에 호스트에 만들 각 정책 모델을 위한 추가 디스크 공간도 필요합니다. 각 정책 모델에는 데이터베이스가 포함되어 있으므로 CA ControlMinder 데이터베이스를 위한 공간을 계산할 때처럼 필요한 디스크 공간을 계산해야 합니다.

업그레이드를 수행하는 경우, 이미 모든 정책 모델 데이터베이스(PMDB)가 있으면 업그레이드를 수행하기 전에

ACInstallDir/policy_model_path/pmdb_name 디렉터리에서 각 PMDB 가 사용하는 공간을 기록하십시오. 아래 계산 방법을 사용하여 각 PMDB 를 업그레이드하는 데 필요한 추가 디스크 공간을 계산하십시오.

- *ACInstallDir/policies/pmdb_name/subscribers.dat*(크기) x 2
- *ACInstallDir/policies/pmdb_name/updates.dat*(크기) x 5 + 100KB

제 4 장: 설명서

이 섹션은 다음 항목을 포함하고 있습니다.

[안내서](#) (페이지 23)

안내서

CA ControlMinder 12.7 용 안내서는 다음과 같습니다.

- 릴리스 정보
- 구현 안내서
- Windows 용 끝점 관리 안내서
- UNIX 용 끝점 관리 안내서
- 엔터프라이즈 관리 안내서
- 통합 안내서
- 업그레이드 안내서
- 참조 안내서
- selang 참조 안내서
- 문제 해결 안내서

참고: PDF 파일을 보려면 PDF(Portable Document Format) Reader 를 다운로드하여 설치해야 합니다. CA ControlMinder 설명서를 보려면 Adobe Reader 7.0.7 이상이 필요합니다. Adobe Reader 가 아직 컴퓨터에 설치되어 있지 않으면 Adobe 웹사이트에서 다운로드할 수 있습니다.

CA ControlMinder 안내서는 PDF 안내서 외에도 HTML 형식으로도 제공되며, 다양한 웹 기반 인터페이스에서 온라인 도움말을 이용할 수 있습니다.

제 5 장: FIPS 준수

이 섹션은 다음 항목을 포함하고 있습니다.

[FIPS 작동 모드](#) (페이지 25)

[FIPS 전용 모드가 지원되지 않는 운영 체제](#) (페이지 25)

[FIPS 암호화 라이브러리](#) (페이지 26)

[사용된 FIPS 알고리즘](#) (페이지 26)

[키 및 인증서의 저장소](#) (페이지 27)

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FIPS 작동 모드

CA ControlMinder에는 FIPS 전용 모드 및 일반 모드의 두 가지 FIPS 작동 모드가 있습니다. FIPS 전용 모드에서 CA ControlMinder은 FIPS 140-2를 준수하는 암호화 기능만 사용합니다. 즉 FIPS 전용 모드에서는 일부 CA ControlMinder 기능이 비활성화됩니다. 일반 모드에서 CA ControlMinder은 FIPS 140-2 암호화 기능 및 FIPS를 준수하지 않는 기능을 모두 사용합니다.

참고: FIPS 전용 모드와 일반 모드 사이에 전환하려면 `crypto` 섹션의 `fips_only` 구성 설정을 사용하십시오.

FIPS 전용 모드가 지원되지 않는 운영 체제

FIPS 전용 모드는 CA ControlMinder이 지원되는 다음 운영 체제 아키텍처에서 지원되지 않습니다.

- Linux s390
- Linux Itanium(IA64)
- Solaris x64
- Windows Itanium(IA64)

FIPS 암호화 라이브러리

FIPS 전용 모드에서 CA ControlMinder 은 CAPKI 암호화 라이브러리를 사용합니다. UNIX 시스템에서는 암호 암호화를 위해 OS 암호화 라이브러리를 사용합니다("crypt" 방법). 일반 모드에서 CA ControlMinder 은 FIPS 암호화 라이브러리 이외의 라이브러리는 물론 CAPKI 4.1.2 암호화 라이브러리도 사용합니다.

사용된 FIPS 알고리즘

CA ControlMinder 구성 요소는 다음의 암호화 알고리즘을 사용합니다. 서로 다른 구성 요소는 서로 다른 알고리즘을 사용합니다.

- FIPS 전용 모드:
 - SSL(TLS 1.0)-클라이언트/서버 통신
 - CBC 모드의 AES-PMD 업데이트 파일의 암호화(Windows), 양방향 암호 기록(Windows)
 - SHA-1-단방향 암호 암호화(Windows), 트러스트된 프로그램, 정책 서명(고급 정책 관리)
- 일반 모드:
 - CA ControlMinder r8 SP1 암호화 라이브러리(DES, Triple DES, AES, MD5 등)
 - SSL(SSL V2, SSL V3 및 TLS 1.0)-클라이언트/서버 통신
 - SHA-1(CAPKI 에서)-트러스트된 프로그램의 서명, 정책의 서명에 사용됨
 - AES(CAPKI 에서)-양방향 암호 기록으로 작업할 때 암호 유효성 확인에 사용됨

키 및 인증서의 저장소

CA ControlMinder 은 키와 인증서를 다음과 같이 저장합니다.

- 대칭 키는 eTrust Access Control r8 SP1 과 같은 방법으로 저장됩니다.
- 인증서(제목 인증서, 개인 키 및 루트 인증서)는 파일 시스템에 저장되며 CA ControlMinder 에 의해 보호됩니다.

참고: CA ControlMinder 은 CA ControlMinder 대칭 키를 사용하는 AES 대칭 암호화(CAPKI 라이브러리에서)를 사용하여 개인 키를 암호화합니다.

영향을 받는 기능(UNIX)

FIPS 작동 모드는 다음과 같은 CA ControlMinder UNIX 기능에 영향을 줄 수 있습니다.

기능	비 FIPS 모드	FIPS 모드
PMD 업데이트 파일 암호화	기본 대칭 키 암호화(양방향)	비활성화됨
트러스트된 프로그램	CAPKI SHA-1 및 MD5	CAPKI SHA-1 만
양방향 암호 암호화	기본 대칭 키 암호화	비활성화됨
단방향 암호 암호화	운영 체제의 crypt/bigcrypt 메서드	운영 체제의 crypt/bigcrypt 메서드
PMD TNG 명령	기본 대칭 키 암호화	비활성화됨
CA ControlMinder TNG 데몬	기본 대칭 키 암호화	비활성화됨
LDAP 암호 암호화 사용(sebuildla -u -n)	기본 대칭 키 암호화	비활성화됨
LDAP 암호 암호화 생성 (seldapcred)	기본 대칭 키 암호화	비활성화됨

기능	비 FIPS 모드	FIPS 모드
TCP 통신	기본 대칭 키 암호화(양방향) 또는 SSL V2, SSL V3 또는 TLS V1 에 대한 CAPKI 소켓	TLS V1 에 대한 CAPKI 소켓
seversion 유틸리티	CAPKI SHA-1	CAPKI SHA-1
트러스트된 프로그램(watchdog 및 seretrust)	CAPKI SHA-1	CAPKI SHA-1
고급 정책 관리 정책 배포	CAPKI SHA-1 서명, 이전 버전과의 호환성, CA ControlMinder 내부 SHA-1 서명	CAPKI SHA-1 서명만
selogrd 암호화	기본 대칭 키 암호화 및 MD5	비활성화됨
sechkey 키 변경	기본 대칭 키 암호화	비활성화됨
iRecorder 로그 파일 서명	MD5 암호화	비활성화됨
보고서 에이전트	사용	비활성화됨
SAM 에이전트	사용	비활성화됨
DMS	사용	UNAB 끝점 관리 사용

참고: FIPS 운영 모드의 결과로 인해 기능이 비활성화된 경우, 해당 프로그램은 오류 메시지를 출력하고 종료되거나 비인터랙티브 프로세스가 발생한 경우 시스템 로그에 오류 메시지를 기록합니다. 예: 보고서 에이전트 또는 SAM 에이전트

영향을 받는 기능(Windows)

FIPS 작동 모드는 다음과 같은 CA ControlMinder Windows 기능에 영향을 줄 수 있습니다.

기능	비 FIPS 모드	FIPS 모드
PMD 업데이트 파일 암호화	기본 대칭 키 암호화(양방향)	CAPKI AES 대칭 키 암호화
암호 기록(비양방향)	CAPKI SHA-1 로 저장됩니다. CAPKI SHA-1 및 fall through to crypt 로 암호 유효성 검사	CAPKI SHA-1 로 저장됩니다. CAPKI SHA-1 로만 암호 유효성 검사
암호 기록(양방향)	기본 대칭 키 암호화. 기본 대칭 키 암호화로 암호 유효성 검사	CAPKI AES 대칭 키 암호화 CAPKI AES 로만 암호 유효성 검사
sechkey 키 변경, 암호 기록	암호 기록의 암호 해독 및 암호화를 위한 기본 대칭 키 암호화	암호 기록의 암호 해독 및 암호화를 위한 CAPKI AES 대칭 키 암호화
sechkey 키 변경, 정책 모델	정책 모델 업데이트 파일의 암호 해독 및 암호화를 위한 기본 대칭 키 암호화	정책 모델 업데이트 파일의 암호 해독 및 암호화를 위한 CAPKI AES 대칭 키 암호화
트러스트된 프로그램	CAPKI SHA-1 및 MD5	CAPKI SHA-1 만
메인프레임 암호 동기화	사용	비활성화됨
iRecorder	사용	비활성화됨
TNG 통합	사용	비활성화됨
고급 정책 관리 정책 배포	CAPKI SHA-1 서명, 이전 버전과의 호환성, CA ControlMinder 내부 SHA-1 서명	CAPKI SHA-1 서명만

기능	비 FIPS 모드	FIPS 모드
보고서 에이전트	사용	비활성화됨
SAM 에이전트	사용	비활성화됨
DMS	사용	UNAB 끝점 관리 사용 안 함

참고: FIPS 운영 모드의 결과로 인해 기능이 비활성화된 경우, 해당 프로그램은 오류 메시지를 출력하고 종료되거나 비인터랙티브 프로세스가 발생한 경우 시스템 로그에 오류 메시지를 기록합니다. 예: 보고서 에이전트 또는 SAM 에이전트

다음 사항도 고려해야 합니다.

- 비 FIPS 에서 FIPS 로 이동하면 정책 모델은 이전 명령을 읽을 수 없습니다.
- FIPS 에서 비 FIPS 로 이동하면 정책 모델은 이전 명령을 읽을 수 있습니다.
- 비양방향 암호 기록의 경우 FIPS 모드에서 crypt 를 사용하지 않으면 아무런 영향도 없습니다. Crypt 는 이전 버전과의 호환성을 위한 것일 뿐입니다.
- 양방향 암호 기록의 경우 비 FIPS 에서 FIPS 로 이동하면 CA ControlMinder 은 이전 암호를 해독할 수 없습니다.

제 6 장: 기능 지원 제한

이 섹션은 다음 항목을 포함하고 있습니다.

[SAM 제한](#) (페이지 31)

SAM 제한

이 섹션은 SAM 끝점 및 서버 구성 요소에 대한 기능 지원 제한을 설명합니다.

SAM 이 FIPS140-2 및 IPV6 과 호환되지 않음

현재 SAM 은 FIPS140-2 및 IPV6 과 호환되지 않습니다.

제 7 장: 설치 고려 사항

이 섹션은 다음 항목을 포함하고 있습니다.

[서버 구성 요소 릴리스만 포함](#) (페이지 33)

[서버 구성 요소 설치 고려 사항](#) (페이지 33)

서버 구성 요소 릴리스만 포함

이 릴리스의 CA ControlMinder 는 엔터프라이즈 관리 서버 구성 요소만 포함합니다.

서버 구성 요소 설치 고려 사항

이 섹션은 서버 구성 요소(엔터프라이즈 관리 서버, CA ControlMinder 끝점 관리, 엔터프라이즈 보고)를 설치할 때 고려해야 할 사항을 설명합니다.

동일한 시간대에서 주 및 부하 분산 엔터프라이즈 관리 서버 설치

고가용성을 위해 엔터프라이즈 관리 서버를 구성할 때는 주 및 부하 분산 서버가 모두 동일한 시간대에 설치되도록 하십시오.

64 비트 Linux 에 끝점 관리 설치

64 비트 Linux 서버에 끝점 관리를 설치하려면 CA ControlMinder 끝점 관리 32 비트 버전을 설치하십시오. 끝점 관리가 32 비트 웹 서비스를 설치하므로 32 버전이 필요합니다.

관리자 이름의 특수 문자

Windows 에 해당

관리자 계정 사용자 이름은 특수 문자를 포함할 수 없습니다. 예: '.' 문자

지원되는 JDK 및 JBoss 버전

지원되는 JDK 및 JBoss 버전은 CA ControlMinder 타사 구성 요소 DVD 에 있습니다.

필수 구성 요소 키트 설치 관리자 고려 사항

필수 구성 요소 키트 설치 관리자 유틸리티를 사용하여 미디어에서 CA ControlMinder 엔터프라이즈 관리를 설치하는 경우, CA ControlMinder 엔터프라이즈 관리 DVD 를 넣으라는 요청이 표시된 후 "완료"를 선택하여 계속해야 합니다. 또한 DVD 를 넣으면 표시되는 ProductExplorer 창도 닫아야 합니다.

서버 구성 요소를 설치하기 위해 슈퍼 사용자 계정이 필요함

CA ControlMinder 서버 구성 요소(예: 끝점 관리 및 엔터프라이즈 관리)를 설치하려면 슈퍼 사용자(UNIX 의 경우 root, Windows 의 경우 Administrators 그룹의 구성원)로 로그인해야 합니다.

Java 를 찾을 수 없는 경우 설치 중 RDBMS 연결이 실패함

CA ControlMinder 엔터프라이즈 관리 설치 중 RDBMS 에 연결하려고 시도할 때 연결에 실패하면 java.exe 를 찾을 수 없다는 메시지가 나타날 수 있습니다.

java.exe 에 대한 전체 경로가 시스템의 PATH 환경 변수에 있는지 확인하십시오.

엔터프라이즈 관리 서버 설치가 설치 경로의 공백을 지원하지 않음

UNIX 에 해당

엔터프라이즈 관리 서버를 설치할 때 설치 경로에 공백을 입력하지 마십시오.

다른 도메인에 있는 Active Directory 와 작업하도록 CA ControlMinder 엔터프라이즈 관리 설정

CA ControlMinder 엔터프라이즈 관리가 설치된 도메인 외부에 있는 Active Directory 와 작업하려면 호스트 TCP/IP 설정을 변경해야 합니다.

다른 도메인에 있는 Active Directory 와 작업하도록 CA ControlMinder 엔터프라이즈 관리를 설정하려면

Windows

1. "시작", "제어판", "네트워크 연결"을 클릭합니다.
"네트워크 연결" 창이 나타납니다.
2. 활성 네트워크를 마우스 오른쪽 단추로 클릭한 다음 "속성"을
클릭합니다.
"연결 속성" 대화 상자가 나타나고 "일반" 탭이 열립니다.
3. "인터넷 프로토콜(TCP/IP)"를 선택한 다음 "속성"을 클릭합니다.
"인터넷 프로토콜(TCP/IP) 속성" 일반 탭이 나타납니다.
4. "고급"을 클릭한 다음 열린 대화 상자에서 "DNS" 탭을 클릭합니다.
"고급 TCP/IP 설정" DNS 탭이 나타납니다.
5. "추가"를 클릭하고 Active Directory 가 있는 도메인의 DNS 서버에 대한 IP
주소를 입력합니다.
6. "다음 DNS 접미사 추가(순서대로)"를 선택한 다음 "추가"를 클릭하여
접미사를 추가합니다.
"TCP/IP 도메인 접미사" 대화 상자가 나타납니다.
7. 도메인 접미사를 입력합니다.
예: *company.com*
8. 모든 열린 대화 상자에서 "확인"을 클릭하여 변경 내용을 승인한 다음
종료합니다.

UNIX 의 경우

Active Directory 가 있는 도메인의 DNS 서버 이름이 올바른 값으로 설정되었는지 확인하십시오.

DNS 도메인 이름을 확인하려면 /etc/resolv.conf 파일을 열고 도메인이 올바른 값으로 설정되어 있는지 확인하십시오.

CA ControlMinder 끝점 관리 설치 지침이 CA ControlMinder 의 두 버전을 참조함

구현 안내서의 CA ControlMinder 끝점 관리 설치 장에 설명된 CA ControlMinder 끝점 관리 설치 지침은 CA ControlMinder 및 CA ControlMinder 모두에 적용됩니다. CA ControlMinder 끝점 관리를 설치하려는 비 CA ControlMinder 사용자는 이러한 지침을 따르고 Premium Server 가 아닌 다른 DVD 를 사용해야 합니다.

CA ControlMinder 끝점 관리 바로 가기가 포트 번호 8080 을 가리킴

기본적으로 CA ControlMinder 끝점 관리 설치 관리자는 바로 가기를 포트 번호 8080 으로 설정합니다. 이 기본 설정을 변경하려면 CA ControlMinder 끝점 관리 설치 관리자를 ProductExplorer 가 아닌 CA ControlMinder DVD 에서 직접 실행해야 합니다.

다음 명령줄을 사용하여 CA ControlMinder 끝점 관리를 설치할 때 사용할 포트를 정의하십시오.

```
install_EM.exe -DJB055_PORT=<18080>
```

또는 설치 후 다른 포트를 가리키도록 CA ControlMinder 끝점 관리 바로 가기를 편집할 수 있습니다.

CA User Activity Reporting Module 가 트러스트된 SSL 통신만 지원함

CA User Activity Reporting Module 서버에 대한 연결 설정을 정의할 때 SSL 연결 설정을 정의하십시오. CA User Activity Reporting Module 는 SSL 연결만 지원합니다.

참고: CA User Activity Reporting Module 와의 통합에 대한 자세한 내용은 *구현 안내서*를 참조하십시오.

CA ControlMinder 엔터프라이즈 관리에서 CA User Activity Reporting Module 보고서를 보려면 특수 구독이 필요함

CA ControlMinder 엔터프라이즈 관리 인터페이스에서 CA User Activity Reporting Module 보고서를 보려면 CA User Activity Reporting Module 서버에 특수 구독 업데이트를 적용하십시오.

구독 업데이트를 적용하려면

1. CA User Activity Reporting Module 에서 "관리" 탭, "서비스" 하위 탭을 클릭한 다음 "구독 모듈"을 선택합니다.
2. 다음 RSS 피드 URL 을 제공합니다.

<http://securityupdates.ca.com/CA-ELM/r12/OpenAPI/RSSFeed.xml>

3. 모듈을 모두 다운로드하여 CA User Activity Reporting Module 에 적용합니다.

이제 CA ControlMinder 엔터프라이즈 관리에서 CA User Activity Reporting Module 보고서를 볼 수 있습니다.

CA ControlMinder 엔터프라이즈 관리와 보고서 포털 컴퓨터의 시스템 시간 동기화

CA ControlMinder 엔터프라이즈 관리와 다른 컴퓨터에 보고서 포털을 설치하는 경우 두 컴퓨터의 시스템 시간을 동기화해야 합니다. 시스템 시간을 동기화하지 않으면 CA ControlMinder 엔터프라이즈 관리가 생성하는 보고서가 보류 또는 되풀이 상태로 유지됩니다.

슈퍼 사용자가 아닌 경우 제거가 실패함

CA ControlMinder 서버 구성 요소(예: 끝점 관리 및 엔터프라이즈 관리)를 제거하려면 슈퍼 사용자(UNIX 의 경우 root, Windows 의 경우 Administrator)로 로그인해야 합니다. 슈퍼 사용자로 로그인하지 않으면 제거에 실패합니다.

제 8 장: 업그레이드 고려 사항

이 섹션은 다음 항목을 포함하고 있습니다.

[서버 구성 요소 업그레이드 고려 사항](#) (페이지 39)

서버 구성 요소 업그레이드 고려 사항

이 섹션은 서버 구성 요소(엔터프라이즈 관리 서버, CA ControlMinder 끝점 관리, 엔터프라이즈 보고)를 업그레이드할 때 고려해야 할 사항을 설명합니다.

엔터프라이즈 관리 서버를 r12.7 로 업그레이드하면 역할과 태스크가 보존되지 않음

엔터프라이즈 관리 서버를 12.7 로 업그레이드하는 경우 업그레이드 전에 생성된 역할 및 작업이 보존되지 않습니다.

엔터프라이즈 관리 서버는 구성원 자격 정책만 보존합니다.

CA ControlMinder r12.6.01 은 CA ControlMinder r12.5 및 r12.0.01 에서 정책 모델을 관리하기 위해 핫픽스가 필요합니다.

CA ControlMinder 12.7 서버를 사용하여 CA ControlMinder r12.5 또는 r12.0.01 끝점에서 정책 모델을 관리하는 경우 다음 핫 픽스를 설치하십시오.

- r12.5 끝점의 경우 핫픽스 T537526 을 설치하십시오.
- r12.0.01 끝점의 경우 핫픽스 T537569 를 설치하십시오.

참고: 자세한 내용은 <http://ca.com/support> 에서 CA Support 에 문의하십시오.

끝점에 정책을 배포하려면 소프트웨어 패치가 필요함

CA ControlMinder 엔터프라이즈 관리 r12.6 으로부터 CA ControlMinder r12.6 에 정책을 배포하려면 엔터프라이즈 관리 서버에 T537526 패치를 설치해야 합니다.

이 패치는 [CA Support 웹 사이트](#)에서 다운로드할 수 있습니다.

제 9 장: 일반 고려 사항

이 섹션은 다음 항목을 포함하고 있습니다.

[서버 구성 요소 고려 사항 \(페이지 41\)](#)

서버 구성 요소 고려 사항

이 섹션은 CA ControlMinder 서버 구성 요소(CA ControlMinder 끝점 관리, CA ControlMinder 엔터프라이즈 관리, 엔터프라이즈 보고)를 사용할 때 고려해야 할 항목을 설명합니다.

CA ControlMinder 구성 요소와 CA ControlMinder 메시지 큐 사이의 통신 문제

다음 CA ControlMinder 구성 요소의 일부 기능은 작동하기 위해 CA ControlMinder 메시지 큐와 통신해야 합니다.

- 엔터프라이즈 관리 서버
- 보고서 에이전트
- DMS
- DH
- UNAB
- SAM 암호 소비자
- 에이전트 관리자

이러한 구성 요소는 메시지 큐가 실행되고 있지 않거나, 구성 옵션이 메시지 큐 호스트 또는 큐에 대해 올바르게 설정되지 않았거나, 일반 네트워크 오류가 있는 경우 메시지 큐와 통신할 수 없습니다.

이러한 구성 요소와 메시지 큐 사이의 통신이 연결되지 않거나 중단되면 문제가 해결될 때까지 통신이 자동으로 다시 시작되지 않습니다. 이 문제를 해결하려면 통신 문제를 해결한 다음 CA ControlMinder 구성 요소를 다시 시작해야 합니다.

Oracle 에서 업그레이드

Oracle 데이터베이스에서 업그레이드를 수행하기 전에 다음 단계를 수행하고 Oracle 에서 설명된 명령을 실행하십시오.

1. 명령줄에서 SQLPLUS 를 엽니다.
2. 데이터베이스에 연결합니다.
3. system 또는 sysdba 사용자로 로그인합니다.
4. 다음 명령을 실행합니다.

```
GRANT EXECUTE ON SYS.DBMS_CRYPTO TO vpm20;  
GRANT UNLIMITED TABLESPACE TO vpm20;  
ALTER SYSTEM SET transactions=275 SCOPE=SPFILE;  
ALTER SYSTEM SET sessions=250 SCOPE=SPFILE;  
ALTER SYSTEM SET processes=200 SCOPE=SPFILE;
```

CA ControlMinder 호스트 이름 제한

CA ControlMinder 끝점의 호스트 이름은 15 자 이하여야 합니다. CA ControlMinder 컴퓨터의 호스트 이름이 15 자를 초과하면 CA ControlMinder 끝점 관리를 사용하여 끝점에 로그인할 수 없습니다.

정책 배포 취소 스크립트의 자동 생성

연결된 배포 취소 스크립트를 가지고 있지 않은 정책을 배포 취소하면 CA ControlMinder 은 정책을 제거하기 위해 필요한 스크립트를 자동으로 생성합니다. 이 스크립트는 배포 스크립트를 기반으로 합니다.

정책은 제거하고 정책 규칙은 유지하려는 경우(배포 스크립트로부터) 배포 취소 스크립트에 아무것도 수정하지 않는 규칙을 제공하십시오(예: GPOLICY *policyName*).

DNS 도메인 이름이 아닌 SAM 끝점 NETBIOS 이름 지정

CA ControlMinder 엔터프라이즈 관리에 SAM 끝점을 만들 때는 "이름" 필드에 지정하는 호스트 이름은 월드 뷰에 나타나는 호스트 이름과 일치해야 합니다.

끝점이 Active Directory 끝점인 경우 "호스트 도메인" 필드에 NETBIOS 도메인 이름을 지정하십시오. 끝점이 Active Directory 끝점이 아닌 경우 "호스트 도메인" 필드에 DNS 도메인 이름이 아닌 NETBIOS 호스트 이름을 지정하십시오. 예를 들어, 끝점이 Active Directory 끝점이 아닌 경우 호스트 도메인 필드에 끝점 DNS 도메인 이름(acserver.company.com)이 아닌 NETBIOS 호스트 이름(ACSERVER)을 지정하십시오.

DNS 도메인 이름을 지정하는 경우 SAM 자동 로그인과 같은 고급 기능이 실패합니다.

로그인 응용 프로그램 스크립트를 사용하여 도메인의 구성원에 로그인

증상

CA ControlMinder 끝점 관리 로그인 응용 프로그램 스크립트를 사용하여 도메인의 구성원인 서버에 로그인하는 경우 FTP 에는 로그인할 수 있지만 FTP 사용자 명령이 “연결되지 않음”을 표시합니다.

해결 방법

FTP 및 PuTTY 는 도메인 사용자를 지원하지 않습니다. 자동 로그인 응용 프로그램 스크립트를 사용하여 도메인 구성원인 서버에 대한 FTP 및 PuTTY 자동 사용자 로그인을 활성화할 수 없습니다. FTP 또는 PuTTY 를 사용하여 도메인 구성원 서버에 로그인하도록 암호를 체크 아웃하려면 새 자동 로그인 스크립트를 만드십시오.

다음 단계를 수행하십시오.

1. 서버에서 FTP 또는 PuTTY 스크립트를 찾습니다.
2. FTP 또는 PuTTY 스크립트를 복사합니다.
3. 기존 스크립트에 기반한 다른 로그인 응용 프로그램 스크립트를 만듭니다.
4. 다음과 같이 전체 사용자 이름과 도메인 특성으로 스크립트를 수정합니다.

```
userName = "#userName#"
```

```
userDomain = "#userDomain#"
```

```
password = "#password#"
```

```
serverName = "#host#"
```

```
fullUserName = userDomain & "\" & username
```

```
Set pupmObj = CreateObject("ACLauncher.ACWebLauncher")
```

```
hwnd = pupmObj.LaunchPUTTY(serverName, fullUserName, password)
```

5. 끝점에 새 로그인 응용 프로그램을 할당합니다.

자동 로그인 응용 프로그램 스크립트에 대한 자세한 내용은 SAM 자동 로그인 응용 프로그램 Visual Basic 스크립트를 참조하십시오.

여러 CA IdentityMinder 프로비저닝 커넥터 서버를 구성할 수 없음

CA ControlMinder 엔터프라이즈 관리에서 여러 CA IdentityMinder 프로비저닝 커넥터 서버를 구성하지 마십시오.

SSL 포트를 사용하여 CA IdentityMinder 프로비저닝 커넥터 서버를 구성할 수 없음

CA IdentityMinder 프로비저닝 커넥터 서버를 구성할 때는 CA IdentityMinder 프로비저닝 서버 SSL 포트(20390)를 지정하지 마십시오. 커넥터 서버 SSL 포트를 지정하는 경우 커넥터 서버에 대한 연결이 실패합니다.

SAM 을 사용하여 전문가 계정에 대한 암호를 변경할 수 없음

SSH 끝점에서 Check Point Firewall 을 사용하는 경우 SAM 을 사용하여 끝점의 전문가 계정에 대한 암호를 변경할 수 없습니다. 즉, 전문가 계정은 SAM 에서 연결이 해제된 계정이어야 합니다.

SQLCMD 유틸리티가 공백 암호를 지원하지 않음

SQL Server 에 해당

SQL Server 명령 유틸리티 sqlcmd 는 공백 암호를 지원하지 않습니다. CA ControlMinder 엔터프라이즈 관리에서 SQL Server 끝점을 암호 소비자로 정의했고 SAM 에서 암호를 체크 아웃하는 경우 암호 필드를 공백으로 두지 마십시오. 계정 암호 또는 기타 다른 문자열을 암호로 지정할 수 있습니다.

Oracle11g 서버 인증서가 필요함

Oracle 11g 서버에 연결하려면 끝점에 서버 인증서를 설치해야 합니다.

참고: Oracle 서버에서 SSL 제한을 제거하면 SSL 을 사용하지 않고 서버에 연결할 수 있습니다.

제 10 장: 알려진 문제

이 섹션은 다음 항목을 포함하고 있습니다.

[설치 알려진 문제점](#) (페이지 47)

[업그레이드 알려진 문제점](#) (페이지 47)

[일반 알려진 문제점](#) (페이지 47)

설치 알려진 문제점

이 섹션에서는 CA ControlMinder 구성 요소의 설치 알려진 문제점에 대해 설명합니다.

업그레이드 알려진 문제점

이 섹션에서는 CA ControlMinder 구성 요소의 업그레이드 알려진 문제점에 대해 설명합니다.

일반 알려진 문제점

이 섹션에서는 CA ControlMinder 구성 요소의 일반 알려진 문제점에 대해 설명합니다.

서버 구성 요소의 알려진 문제점

이 섹션은 CA ControlMinder 서버 구성 요소(CA ControlMinder 끝점 관리, CA ControlMinder 엔터프라이즈 관리, 엔터프라이즈 보고)에 대한 알려진 문제점을 설명합니다.

권한 있는 계정 및 일광 절약 시간제(DST)

엔터프라이즈 관리 서버 또는 요청자가 일광 절약 시간제의 적용을 받는 경우 권한 있는 계정 요청을 제출할 때 다음과 같은 일이 발생합니다.

- 엔터프라이즈 관리 서버가 일광 절약 시간제의 적용을 받고 요청자는 그렇지 않은 경우, 요청한 시간 간격이 원래 요청보다 한 시간 더 늦습니다.
- 엔터프라이즈 관리 서버가 일광 절약 시간제의 적용을 받지 않고 요청자는 이 시간제의 적용을 받는 경우, 요청한 간격은 원래 요청보다 한 시간 더 빠릅니다.

기록된 세션 보기에서 검색

CA ControlMinder 끝점 관리 "기록된 세션" 탭에서 "기록된 세션 보기"를 검색하기 위해 "보기"를 클릭할 때 다음과 같은 알려진 문제점이 있습니다.

- "활동 로그 포함"(기본값)을 검색할 때 결과 또는 메시지가 표시되지 않습니다.
- UserID 또는 LoginID 를 검색할 때 UserName 필드가 n/a/n/a 로 표시됩니다.

iOS 5 에서 열린 세션이 동작하지 않음

iOS 의 문제로 인해 iOS 5 에서 열린 세션이 동작하지 않습니다. iOS 에서 열린 세션을 선택하기 위한 명령은 종료된 세션도 함께 반환합니다.

PMDB 이름이 25 자를 초과할 경우 PMDB 구독자가 나열되지 않음

증상

25 자를 초과하여 PMDB 를 만들면 끝점 관리 사용자 인터페이스를 사용하여 볼 때 해당 구독자가 나열되지 않습니다.

해결 방법

이것은 엔터프라이즈 관리 사용자 인터페이스의 알려진 문제점입니다. 구독자의 목록을 보려면 `sepmdb` 유틸리티를 사용하십시오. 명령의 형식은 다음과 같습니다.

```
sepmdb -l pmd
```

-l

정책 모델의 구독자를 나열합니다.

pmd

정책 모델의 이름을 지정합니다.

텔넷 세션이 열린 세션에서 지원되지 않음

Windows 에 해당

열린 세션은 텔넷 세션을 로그인으로서 감지하고 인식하지 않습니다. 텔넷 세션은 Windows 의 열린 세션에서 지원되지 않습니다.

기본 요청 승인자가 구성되지 않음

SunOne 및 CA Directory 에 해당

SunOne 또는 CA Directory 사용자 디렉터리를 사용하는 경우 기본 요청 승인자를 구성하십시오. 모든 권한 있는 계정 암호 요청이 제출되는 기본 요청 승인자를 정의합니다.

다음 단계를 수행하십시오.

1. 시스템 관리자로 CA ControlMinder 엔터프라이즈 관리에 로그인합니다.
2. "사용자 및 그룹", "작업", "관리 작업 수정"을 선택합니다.
"관리 작업 수정: 관리 작업 검색" 창이 열립니다.
3. "이름" 필드에 권한 있는 계정 요청을 입력하고 "검색"을 클릭합니다.
CA ControlMinder 엔터프라이즈 관리가 검색 조건에 일치하는 결과를 표시합니다.
4. 권한 있는 계정 요청을 선택하고 "선택"을 클릭합니다.
"관리 작업 수정: 권한 있는 계정 요청" 창이 열립니다.
5. "이벤트" 탭으로 이동하여 워크플로 프로세스를 선택합니다.
"워크플로 프로세스" 화면이 열립니다.
6. "기본 승인자" 섹션에서 "사용자 추가"를 선택합니다.
"사용자 선택" 화면이 열립니다.
7. 기본 승인자로 할당할 사용자의 이름을 입력하고 "검색"을 선택합니다.
CA ControlMinder 엔터프라이즈 관리가 검색 조건에 일치하는 결과를 표시합니다.
8. "선택"을 클릭합니다.
선택한 사용자가 기본 요청 승인자로 추가됩니다.
9. "확인"을 클릭하여 종료합니다.

참고: 정의한 기본 요청 승인자는 엔터프라이즈 관리 서버를 설치하기 전에 만든 사용자에 적용되지 않습니다. 이전에 사용자 디렉터리에 있었던 사용자에 대한 기본 요청 승인자는 superamdin 입니다.

일괄 처리 작업을 실행할 때 "구성된 차단 시간 만료 내 관리되는 연결이 없음" 오류 메시지가 표시됨

일괄 처리 작업을 실행할 때 "구성된 차단 시간 만료 내 관리되는 연결이 없음" 오류 메시지가 표시됩니다. 예를 들어, 큰 그룹 또는 계정에 대해 자동 암호 재설정 작업을 실행하려고 합니다. 오류 메시지는 JBoss Application Server 가 사용 가능한 모든 연결을 사용했고 작업을 완료할 수 없음을 나타냅니다.

이 문제를 해결하려면 풀에서 사용 가능한 연결 수를 늘려야 합니다.

1. JBoss Application Server 를 중지합니다.
2. 다음 디렉터리로 이동합니다. 여기서 *JBoss_HOME* 은 JBoss 를 설치한 디렉터리를 나타냅니다.

```
JBoss_HOME/server/default/deploy/
```

3. 편집을 위해 `imtaskpersistencedb-ds.xml` 파일을 엽니다.
4. `<max-pool-size>` 태그를 찾아 값을 40 으로 설정합니다.
5. `<idle-timeout-minutes>` 태그를 찾아 값을 1 로 설정합니다.
6. 다음과 같이 `<blocking-timout-millis>` 태그를 주석 처리(<!--)합니다.

```
<!--blocking-timeout-millis>5000</blocking-timeout-millis-->
```
7. 파일을 저장한 후 닫습니다.
8. JBoss Application Server 를 시작합니다.

풀에서 사용 가능한 연결 수를 늘렸습니다. 이제 작업을 실행할 수 있습니다.

Windows 용 JBoss 샘플 정책을 배포할 수 없음

끝점에서 Windows 용 JBoss 샘플 정책을 배포할 수 없습니다. 정책 배포 프로세스는 PROGRAM 리소스가 이미 존재한다는 내부 오류 메시지를 표시하고 종료됩니다.

이 문제를 해결하려면 PROGRAM 리소스를 명시적으로 만들기 위해 배포하기 전에 JBoss 샘플 정책을 사용하여 정책을 수정하십시오.

CA ControlMinder 엔터프라이즈 관리에서 정책 관리 보고서를 볼 때 오류 메시지가 표시됨

CA ControlMinder 엔터프라이즈 관리는 정책 관리 보고서를 보려고 할 때 작업이 실패했다는 메시지를 표시합니다.

이 문제를 해결하려면 JBoss Application Server 와 CA Business Intelligence 서버(보고서 포털)를 다시 시작하십시오.

암호가 정의되지 않은 CA ControlMinder 사용자가 CA ControlMinder 엔터프라이즈 관리 서버에 로그인할 수 없음

암호가 없는 CA ControlMinder 사용자 계정은 CA ControlMinder 엔터프라이즈 관리 서버에 로그인할 수 없습니다.

CA ControlMinder 엔터프라이즈 관리에서 액세스 역할이 지원되지 않음

관리 역할 규칙을 정의할 때 관리자 역할의 구성원인 사용자를 선택하십시오. CA ControlMinder 엔터프라이즈 관리에서는 액세스 역할을 지원하지 않습니다. 액세스 역할 옵션이 인터페이스에 나타나지 않습니다.

UNAB 호스트 또는 호스트 그룹을 수정할 때 "필요한 작업 없음" 메시지가 표시됨

UNAB 호스트 또는 호스트 그룹 설정을 수정하면 CA ControlMinder 엔터프라이즈 관리는 "작업이 필요 없습니다"란 메시지를 표시합니다. 이 메시지는 수행된 작업이 없음을 나타내지만 실제로는 UNAB 호스트 또는 호스트 그룹에 대해 수행한 변경 사항이 적용되었습니다.

컨트롤 문자로 인해 응용 프로그램 예외가 발생할 수 있음

CA ControlMinder 데이터베이스에 제어 문자가 있으면 응용 프로그램 예외가 발생하거나 CA ControlMinder 끝점 관리 및 CA ControlMinder 엔터프라이즈 관리에서 제대로 렌더링되지 않을 수 있습니다.

사용자 인터페이스의 이해할 수 없는 문자

증상

CA ControlMinder 엔터프라이즈 관리 사용자 인터페이스에 로그인하면 알 수 없는 문자가 표시됩니다.

해결 방법

이 문제는 사용하는 데이터베이스 인스턴스가 UTF8 국제 문자 세트를 완전하게 지원하지 않기 때문입니다. 이 문제를 해결하려면 완전히 국제화된 데이터베이스 인스턴스에 CA ControlMinder 엔터프라이즈 관리를 다시 설치해야 합니다.

모니터링되는 파일의 트러스트 속성을 변경할 수 없음

CA ControlMinder 끝점 관리에서, 변경 사항을 저장하려고 할 때 모니터링된 파일(SECFILE) 리소스의 감사 탭에서 트러스트 확인란을 지울 수 없습니다.

이 문제를 해결하고 이 리소스 특성을 변경하려면 `selang` 을 사용하십시오.

크기가 큰 정책을 만들 때 CA ControlMinder 엔터프라이즈 관리가 만료됨

6000 개를 초과하는 명령을 수록하는 정책을 만들 때 CA ControlMinder 엔터프라이즈 관리 사용자 인터페이스가 만료됩니다. CA ControlMinder 엔터프라이즈 관리가 정책을 만들 때까지 사용자 인터페이스에서 작업을 계속할 수 없습니다. 이 문제를 해결하려면 새 브라우저에서 CA ControlMinder 엔터프라이즈 관리에 로그인하여 새 세션을 여십시오.

뒤에 백슬래시가 포함된 정책을 배포할 수 없음

`selang` 규칙에서는 한 줄의 마지막 문자로 백슬래시 문자(`\`)를 사용하여 다음 줄에서 명령이 계속됨을 나타낼 수 있습니다. 고급 정책 관리에서는 이 기능이 지원되지 않습니다. 정책 명령이 여러 줄로 이루어져 있지 않은지 확인합니다.

참고: CA ControlMinder 에서 제공하는 샘플 정책 `_AC_WEBSERVICE`, `_APACHE`, `_JBOSS`, `_MS_SQL_SERVER` 및 `_ORACLE` 에는 후행 백슬래시가 포함되어 있습니다.

정책 스크립트 유효성 검사 오류 메시지가 다른 언어로 표시됨

CA ControlMinder 엔터프라이즈 관리에 해당

정책 배포 시 오류가 발생하는 경우 CA ControlMinder 엔터프라이즈 관리에 표시되는 selang 결과 메시지는 CA ControlMinder 엔터프라이즈 관리 설치 언어가 아니라 엔터프라이즈 관리 서버에 있는 CA ControlMinder 끝점의 설치 언어로 표시됩니다.

이러한 메시지를 지역화된 언어로 보려면 CA ControlMinder 엔터프라이즈 관리를 설치하기 전에 엔터프라이즈 관리 컴퓨터에 CA ControlMinder 끝점을 원하는 지역화된 언어로 설치해야 합니다.

이름이 30 자보다 긴 터미널에 대한 감사 레코드를 볼 수 없음

터미널 이름의 길이가 30 보다 길면 감사 레코드를 볼 수 없습니다. 이는 Windows 컴퓨터에서 실행되고 있는 CA ControlMinder 끝점 관리가 UNIX 끝점을 관리할 때 발생합니다.

PMDB 를 관리할 때 PMDB 감사 레코드가 표시되지 않음

CA ControlMinder 끝점 관리를 사용하여 PMDB 를 관리할 때 PMDB 의 감사 레코드를 볼 수 없습니다.

이 문제를 해결하고 PMDB 에 대한 감사 레코드를 보려면 PMDB 가 있는 호스트에 연결하십시오.

네트워크 장치에 대한 열린 세션 실패

권한 있는 계정 이름에 10 개보다 많은 문자가 포함된 경우 네트워크 장치에 대한 열린 세션이 실패합니다.

SAM 용 Access Control 끝점 유형에 대해 "해당 메서드가 없습니다" 또는 "암호를 다시 설정하지 못했습니다" 오류 메시지가 표시됨

Linux 에 해당

Linux 컴퓨터에 엔터프라이즈 관리 서버를 설치하면 SAM 용 Access Control 끝점을 정의할 때 다음과 같은 오류 메시지가 표시됩니다: "해당 메서드가 없습니다."

체크 인 시 CA ControlMinder 엔터프라이즈 관리가 권한 있는 계정 암호를 다시 설정하도록 지정하면 SAM 용 Access Control 끝점에서 사용자가 권한 있는 계정을 체크 인할 때 다음과 같은 오류 메시지가 표시됩니다: "암호를 다시 설정하지 못했습니다."

다음 단계를 수행하십시오.

1. Java Connector Server 를 중지합니다. 다음 작업을 수행하십시오.

- a. 다음 디렉터리로 이동합니다. 여기서 *ACServerInstallDir* 는 엔터프라이즈 관리 서버가 설치된 디렉터리를 나타냅니다.

```
ACServerInstallDir/Connector_Server/bin
```

- b. 다음 명령을 실행합니다.

```
./im_jcs stop
```

Java Connector Server 가 중지됩니다.

2. 편집을 위해 im_jcs 스크립트를 엽니다.

3. 스크립트에서 다음 줄을 찾아 제거합니다.

```
PREJAR="$FULLBASEPATH/bin/jcs-bootstrap.jar:$FULLBASEPATH/
conf:$FULLBASEPATH/lib/jcs.jar:"`echo $FULLBASEPATH/
lib/apacheds-server-main-*-app.jar`
```

4. 다음 줄을 복사하여 스크립트에 붙여넣습니다.

```
PREJAR="$FULLBASEPATH/bin/jcs-bootstrap.jar:$FULLBASEPATH/
conf:$FULLBASEPATH/lib/jcs.jar:$FULLBASEPATH/
lib/nlog4j_V1.2.25.jar:"`echo
$FULLBASEPATH/lib/apacheds-server-main-*-app.jar`
```

중요! 스크립트에 붙여넣은 다음 줄에 있는 캐리지 리턴을 삭제합니다.

5. 파일을 저장합니다.
6. Java Connector Server 를 시작합니다.

```
./im_jcs start
```

Java Connector Server 가 시작됩니다. 이제 SAM 용 Access Control 끝점을 구성할 수 있습니다.

업그레이드 후 Solaris 에서 텔넷 자동 로그인 이 지원되지 않음

Solaris 에 해당

텔넷 자동 로그인 은 CA ControlMinder 12.7 로 업그레이드 한 이후에 Solaris 에서 지원되지 않습니다.

Windows 서비스 및 예약된 작업에 대한 변경 사항이 검색되지 않음

Windows Server 2003 에 해당

증상

Windows 서비스 또는 Windows 예약된 작업을 변경하는 경우 이 변경 내용이 검색되지 않습니다.

해결 방법

이것은 알려진 Microsoft 버그입니다. 끝점에서 서비스나 작업을 변경한 다음에는 기존 암호 소비자를 삭제하십시오. 암호 소비자를 만들려면 서비스 계정 검색 마법사를 사용하십시오.

서비스 계정 암호 요청의 승인이 실패함

서비스 계정 암호에 요청을 제출한 이후에 이 요청이 요청 승인자에게 전달되지 않고 서비스 계정 암호를 체크 아웃할 수 없습니다.

JDBC 암호 소비자에 의한 암호 가져오기에 대한 감사 레코드가 없음

엔터프라이즈 관리 서버는 JDBC 암호 소비자가 CA ControlMinder 엔터프라이즈 관리에서 암호를 가져올 때 감사 레코드를 작성하지 않습니다.

자동 로그인을 사용하여 Oracle Enterprise Manager 에 로그인할 때 오류 메시지가 표시됨

Oracle 에 해당

관리자 계정 암호를 체크 아웃한 이후에 자동 로그인 옵션을 사용하여 Oracle Enterprise Manager 에 로그인하면 오류 메시지가 표시됩니다. 로그 오프하지 않고 브라우저 창을 닫아 마지막 세션을 종료한 경우 이 오류 메시지가 표시됩니다.

끝점이 암호를 물을 때 원격 데스크톱 연결이 실패함

Windows 에 해당

끝점 터미널 서비스 설정이 로그인 시 항상 암호를 묻도록 구성되면 Windows 원격 데스크톱 자동 로그인 스크립트가 끝점에 로그인할 수 없습니다.

SAM 이 종결된 CA Service Desk 티켓에 대한 티켓 번호를 허용함

CA Service Desk 와의 통합에 해당

권한 있는 계정에 대한 액세스를 요청할 때 종결된 CA Service Desk 문제 또는 요청 티켓(티켓 유형=iss 또는 cr)에 대한 번호를 지정하면 CA ControlMinder 엔터프라이즈 관리가 이 요청을 승인자에게 전달합니다.

CA Service Desk 주문 변경 티켓 번호를 지정할 수 없음

CA Service Desk 와의 통합에 해당

권한 있는 계정에 대한 액세스를 요청할 때 CA Service Desk 주문 변경 티켓(티켓 유형=ch)에 대한 번호를 지정하면 CA ControlMinder 엔터프라이즈 관리가 이 요청을 승인자에게 전달하지 않습니다.

설명서의 알려진 문제점

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CA ControlMinder 의 설명서를 인쇄 형식(PDF 파일)으로 읽으려면 Adobe Acrobat Reader 7.0.7 이상을 설치해야 합니다. Adobe Reader 가 아직 컴퓨터에 설치되어 있지 않으면 Adobe 웹사이트에서 다운로드할 수 있습니다.

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- Axis 1.4
- Axis2 1.1.1
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- Commons BeanUtils 1.7
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- Commons Lang 2.1
- Commons Logging 1.0.4
- Commons Logging 1.04
- Commons Pool 1.3
- Commons Validator 1.2
- HTTP Web Server 2.0.54
- HTTP Web Server 2.2.3
- JSTL 1.0.6
- Log4j 1.2.8
- myfaces 1.1.4

- ORO 2.0.8
- Slide 2.1
- Struts 1.2.9
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- Tomcat 5.0.28
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- Xalan-J 2.6.0
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```
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```
* Rob Siemborski
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*/
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```
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```

```
*/
```

```
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Rivest

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RFC 1321

MD5 Message-Digest Algorithm

April 1992

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MIT Kerberos v5 r1.5

이 제품은 Kerberos 가 표준 Kerberos 5 배포에 포함하도록 MIT 에 기증한 OpenVision Kerberos Administration System 을 제외한 MIT Kerberos v5 r1.5 를 포함하고 있습니다.

Kerberos 버전 5, 릴리스 1.5.3

릴리스 정보

The MIT Kerberos Team

Unpacking the Source Distribution

The source distribution of Kerberos 5 comes in a gzipped tarfile, krb5-1.5.3.tar.gz. Instructions on how to extract the entire distribution follow.

If you have the GNU tar program and gzip installed, you can simply do:

```
gtar xzpf krb5-1.5.3.tar.gz
```

If you don't have GNU tar, you will need to get the FSF gzip distribution and use gzcac:

```
gzcat krb5-1.5.3.tar.gz | tar xpf -
```

Both of these methods will extract the sources into `krb5-1.5.3/src` and the documentation into `krb5-1.5.3/doc`.

Building and Installing Kerberos 5

The first file you should look at is `doc/install-guide.ps`; it contains the notes for building and installing Kerberos 5. The info file `krb5-install.info` has the same information in info file format. You can view this using the GNU emacs info-mode, or by using the standalone info file viewer from the Free Software Foundation. This is also available as an HTML file, `install.html`.

Other good files to look at are `admin-guide.ps` and `user-guide.ps`, which contain the system administrator's guide, and the user's guide, respectively. They are also available as info files `kerberos-admin.info` and `krb5-user.info`, respectively. These files are also available as HTML files.

If you are attempting to build under Windows, please see the `src/windows/README` file. Note that this release might not build under Windows currently.

Reporting Bugs

Please report any problems/bugs/comments using the krb5-send-pr program. The krb5-send-pr program will be installed in the sbin directory once you have successfully compiled and installed Kerberos V5 (or if you have installed one of our binary distributions).

If you are not able to use krb5-send-pr because you haven't been able to compile and install Kerberos V5 on any platform, you may send mail to krb5-bugs@mit.edu.

You may view bug reports by visiting

<http://krbdev.mit.edu/rt/>

and logging in as "guest" with password "guest".

Major changes in krb5-1.5.3

[5512] Fix MITKRB5-SA-2007-001: telnetd allows login as arbitrary user

[CVE-2007-0956, VU#220816]

[5513] Fix MITKRB5-SA-2007-002: buffer overflow in krb5_klog_syslog
[CVE-2007-0957, VU#704024]

[5520] Fix MITKRB5-SA-2007-003: double-free in kadmind - the RPC
library could perform a double-free due to a GSS-API library
bug [CVE-2007-1216, VU#419344]

krb5-1.5.3 changes by ticket ID

5512 (krb5-1.5.x) MITKRB5-SA-2007-001: telnetd allows login as
arbitrary user

5513 (krb5-1.5.x) MITKRB5-SA-2007-002: buffer overflow in
krb5_klog_syslog

5520 (krb5-1.5.x) MITKRB5-SA-2007-003: double-free in kadmind

Major changes in krb5-1.5.2

* Fix for MITKRB5-SA-2006-002: the RPC library could call an
uninitialized function pointer, which created a security
vulnerability for kadmind.

* Fix for MITKRB5-SA-2006-003: the GSS-API mechglue layer could fail to initialize some output pointers, causing callers to attempt to free uninitialized pointers. This caused a security vulnerability in kadmind.

Major known bugs in krb5-1.5.2

5293 crash creating db2 database in non-existent directory

Attempting to create a KDB in a non-existent directory using the Berkeley DB back end may cause a crash resulting from a null pointer dereference. If a core dump occurs, this may cause a local exposure of sensitive information such a master key password. This will be fixed in an upcoming patch release.

krb5-1.5.2 changes by ticket ID

Listed below are the RT tickets of bugs fixed in krb5-1.5.2. Please see

<http://krbdev.mit.edu/rt/NoAuth/krb5-1.5/fixes-1.5.2.html>

for a current listing with links to the complete tickets.

- 3965 Autoconf 2.60 datarootdir issue
- 4237 windows ccache and keytab file paths without a prefix
- 4305 windows thread support frees thread local storage after TlsSetValue
- 4309 wix installer - win2k compatibility for netidmgr
- 4310 NSIS installer - update for Win2K NetIDMgr
- 4312 KFW 3.1 Beta 2 NetIDMgr Changes
- 4354 db2 policy database loading broken
- 4355 test policy dump/load in make check
- 4368 kdc: make_toolong_error does not initialize all fields for
krb5_mk_error
- 4407 final commits for KFW 3.1 Beta 2
- 4499 Document prerequisites for make check
- 4500 Initialize buffer before calling res_ninit
- 5307 fix MITKRB5-SA-2006-002 for 1.5-branch
- 5308 fix MITKRB5-SA-2006-003 for 1.5-branch

Major changes in 1.5.1

The only significant change in krb5-1.5.1 is to fix the security vulnerabilities described in MITKRB5-SA-2006-001, which are local privilege escalation vulnerabilities in applications running on Linux and AIX.

krb5-1.5.1 changes by ticket ID

Listed below are the RT tickets of bugs fixed in krb5-1.5.1. Please see

<http://krbdev.mit.edu/rt/NoAuth/krb5-1.5/fixed-1.5.1.html>

for a current listing with links to the complete tickets.

- 3904 fix uninitialized vars
- 3956 gssapi compilation errors on Windows
- 3971 broken configure test for dlopen
- 3998 Document add_entry in ktutil man page
- 4012 reverse test for copy_oid_set in lib/gssapi/krb5/indicate_mechs.c
- 4036 reject configure option for static libraries
- 4037 respect LDFLAGS in NetBSD build
- 4063 gss mech glue implementation should validate opaque pointer types
- 4088 gss_import_name can fail to call gssint_initialize_library()
- 4125 fix MITKRB5-SA-2006-001: multiple local privilege escalation vulnerabilities
- 4137 ksu spuriously fails when exiting shell when ksu-ing to non-root
- 4168 clean up mkrel patchlevel.h editing etc.

Major changes in 1.5

Kerberos 5 Release 1.5 includes many significant changes to the Kerberos build system, to GSS-API, and to the Kerberos KDC and administration system. These changes build up infrastructure as part of our efforts to make Kerberos more extensible and flexible. While we are confident that these changes will improve Kerberos in the long run, significant code restructuring may introduce portability problems or change behavior in ways that break applications. It is always important to test a new version of critical security software like Kerberos before deploying it in your environment to confirm that the new version meets your environment's requirements. Because of the significant restructuring, it is more important than usual to perform this testing and to report problems you find.

Highlights of major changes include:

- * KDB abstraction layer, donated by Novell.

- * plug-in architecture, allowing for extension modules to be loaded at run-time.

- * multi-mechanism GSS-API implementation ("mechglue"), donated by

Sun Microsystems

* Simple and Protected GSS-API negotiation mechanism ("SPNEGO")
implementation, donated by Sun Microsystems

* Per-directory ChangeLog files have been deleted. Releases now
include auto-generated revision history logs in the combined file
doc/CHANGES.

Changes by ticket ID

Listed below are the RT tickets of bugs fixed in krb5-1.5. Please see

<http://krbdev.mit.edu/rt/NoAuth/krb5-1.5/fixes-1.5.html>

for a current listing with links to the complete tickets.

581 verify_krb_v4_tgt is not 64-bit clean

856 patch to add shared library support for BSD/OS 4

1245 source tree not 64-bit clean

1288 v4 ticket file format incompatibilities

1431 fix errno.h references for cygwin

1434 use win32 rename solution in rcache for cygwin

- 1988 profile library fails to handle space in front of comments
- 2577 [Russ Allbery] Bug#250966: /usr/sbin/klogind: Authorization behavior not fully documented
- 2615 Fwd: Patch for telnet / telnetd to avoid crashes when used with MS kdc and PAC field
- 2628 Cygwin build patches
- 2648 [Russ Allbery] Bug#262192: libkrb53: krb_get_pw_in_tkt problems with AFS keys
- 2712 whitespace patch for src/kdc/kerberos_v4.c
- 2759 fake-getaddrinfo.h incorrectly checks for gethostbyname_r errors
- 2761 move getaddrinfo hacks into support lib for easier maintenance
- 2763 file ccache should be held open while scanning for credentials
- 2786 dead code in init_common() causes malloc(0)
- 2791 hooks for recording statistics on locking behavior
- 2807 Add VERSIONRC branding to krb5 support dll
- 2855 Possible thread safety issue in lib/krb5/os/def_realm.c
- 2856 Need a function to clone krb5_context structs for thread safe apps
- 2863 windows klist won't link
- 2880 fix calling convention for thread support fns
- 2882 Windows 2003 SP1 ktpass.exe generate keytab files fail to load with 1.4
- 2886 krb5_do_preauth could attempt to free NULL pointer
- 2931 implement SPNEGO
- 2932 implement multi-mech GSSAPI
- 2933 plug-in architecture

- 2936 supplementary error strings
- 2959 profile library should check high-resolution timestamps if available
- 2979 threaded test program built even with thread support disabled
- 3008 Incorrect cross-references in man pages
- 3010 Minor path and service man page fixes
- 3011 krb5-config should never return -l/usr/include
- 3013 Man pages for fakeka and krb524init
- 3014 texinfo variable fixes, info dir entries
- 3030 Bug report: Kinit has no support for addresses in
credentials. Kinit -a is not enabled.
- 3065 Implement RFC 3961 PRF
- 3086 [Sergio Gelato] Bug#311977: libkrb53: gss_init_sec_context
sometimes fails to initialise output_token
- 3088 don't always require support library when building with sun cc
- 3122 fixes for AIX 5.2 select() and IPv4/IPv6 issues
- 3129 shlib build problems on HP-UX 10.20 with gcc-3.4.3
- 3233 kuserok needs to check for uid 99 on Mac OS X
- 3252 Tru64 compilation fails after k5-int.h/krb5.h changes
- 3266 Include errno.h in kdc/kerberos_v4.c
- 3268 kprop should fall back on port 754 rather than failing
- 3269 telnet help should connect to a host named help
- 3308 kadmin.local is killed due to segmentation fault when
principal name argument is missing.
- 3332 don't destroy uninitialized rcache mutex in error cases

- 3358 krb5 doesn't build when pthread_mutexattr_setrobust_np is defined but not declared
- 3364 plugins should be thread-safe
- 3415 Windows 64-bit support
- 3416 tweak kdb interface for thread safety
- 3417 move/add thread support to support lib
- 3423 Add support for utmps interface on HPUX 11.23
- 3426 trunk builds without thread support are not working
- 3434 sizeof type should be checked at compile time, not configure time
- 3438 enhancement: report errno when generic I/O errors happen in kinit
- 3445 args to ctype.h macros should be cast to unsigned char, not int
- 3466 ioctl header portability fixes for telnet on GNU/kFreeBSD
- 3467 Allow GSS_C_NO_OID in krb5_gss_canon_name
- 3468 udp_preference_limit typo in krb5.conf man page
- 3490 getpwnam_r status checked incorrectly
- 3502 Cannot acquire initiator cred using gss_acquire_cred with explicit name on Windows
- 3512 updates to NSIS installer for KFW
- 3521 Add configurable Build value to File and Product versions for Windows
- 3549 library double-free with an empty keytab
- 3607 clients/ksu/setenv.c doesn't build on Solaris
- 3620 use strerror_r
- 3668 Prototype for krb5_c_prf missing const
- 3671 shsUpdate should take an unsigned int for length

- 3675 unsigned/signed int warnings in krb5_context variables.
- 3687 initialize cc_version to 0 not NULL
- 3688 Added CoreFoundation bundle plugin support
- 3689 build kadm5 headers in generate-files-mac target
- 3690 build rpc includes in generate-files-mac target.
- 3697 kadmin hangs indefinitely when admin princ has escaped chars
- 3706 ipv4+ipv6 messages can trip up KDC replay detection
- 3714 fix incorrect padata memory allocation in send_tgs.c
- 3716 Plugin search algorithm should take lists of name and directories
- 3719 fix bug in flag checking in libdb2 mpool code
- 3724 need to export kadm5_set_use_password_server
- 3736 Cleanup a number of cast away from const warnings in gssapi
- 3739 vsnprintf not present on windows
- 3746 krb5_cc_gen_new memory implementation doesn't create a new ccache
- 3761 combine kdc.conf, krb5.conf data in KDC programs
- 3783 install headers into include/krb5
- 3790 memory leak in GSSAPI credential releasing code
- 3791 memory leak in gss_krb5_set_allowable_enctypes error path
- 3825 krb5int_get_plugin_dir_data() uses + instead of * in realloc
- 3826 memory leaks in krb5kdc due to not freeing error messages
- 3854 CCAPI krb4int_save_credentials_addr should match prototype
- 3866 gld --as-needed not portable enough
- 3879 Update texinfo.tex
- 3888 ftpd's getline conflicts with current glibc headers

- 3898 Export gss_inquire_mechs_for_name for KFW
- 3899 Export krb5_gss_register_acceptor_identity in KFW
- 3900 update config.guess and config.sub
- 3902 g_userok.c has implicit declaration of strlen
- 3903 various kadm5 files need string.h
- 3905 warning fixes for spnego
- 3909 Plugins need to use RTLD_GROUP when available, but definitely
not RTLD_GLOBAL
- 3910 fix parallel builds for libgss
- 3911 getaddrinfo code uses vars outside of storage duration
- 3918 fix warnings for lib/gssapi/mechglue/g_initialize.c
- 3920 cease export of krb5_gss_*
- 3921 remove unimplemented/unused mechglue functions
- 3922 mkrel should update patchlevel.h prior to reconf
- 3923 implement RFC4120 behavior on TCP requests with high bit set in length
- 3924 the krb5_get_server_rcache routine frees already freed memory
in error path
- 3925 krb5_get_profile should reflect profile in the supplied context
- 3927 fix signedness warnings in spnego_mech.c
- 3928 fix typo in MS_BUG_TEST case in krb5_gss_glue.c
- 3940 Disable MSLSA: ccache in WOW64 on pre-Vista Beta 2 systems
- 3942 make gssint_get_mechanism match prototype
- 3944 write svn log output when building release
- 3945 mkrel should only generate doc/CHANGES for checkouts

- 3948 Windows: fix krb5.h generation
- 3949 fix plugin.c to compile on Windows
- 3950 autoconf 2.60 compatibility
- 3951 remove unused dlopen code in lib/gssapi/mechglue/g_initialize.c
- 3952 fix calling convention for krb5 error-message routines,
document usage of krb5_get_error_message
- 3953 t_std_conf references private function due to explicit linking
of init_os_ctx.o
- 3954 remove mechglue gss_config's gssint_userok and pname_to_uid
- 3957 remove unused lib/gssapi/mechglue/g_utils.c
- 3959 re-order inclusions in spnego_mech.c to avoid breaking system headers
- 3962 krb5_get_server_rcache double free
- 3964 "kdb5_util load" to existing db doesn't work, needed for kpropd
- 3968 fix memory leak in mechglue/g_init_sec_ctx.c
- 3970 test kdb5_util dump/load functionality in dejagnu
- 3972 make gss_unwrap match prototype
- 3974 work around failure to load into nonexistent db

Known bugs by ticket ID:

Listed below are the RT tickets for known bugs in krb5-1.5. Please
see

<http://krbdev.mit.edu/rt/NoAuth/krb5-1.5/bugs-1.5.html>

for an up-to-date list, including links to the complete tickets.

3947 allow multiple calls to `krb5_get_error_message` to retrieve message

3956 gssapi compilation errors on Windows

3973 `kdb5_util` load now fails if db doesn't exist [workaround]

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`lib/gssapi/mechglue/g_canon_name.c`

`lib/gssapi/mechglue/g_compare_name.c`

lib/gssapi/mechglue/g_context_time.c
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lib/gssapi/mechglue/gssd_pname_to_uid.c
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lib/kdb/kdb_convert.c
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