

A low-angle, wide shot of a modern, curved glass building. The building's facade is composed of large glass panels and dark metal framing. A prominent curved section of the building is in the foreground, with a glass entrance featuring a cylindrical metal canopy. The sky is clear and blue. The word "NETAS" is overlaid in large, bold, teal letters across the upper part of the image.

NETAS

Energy Metering Management, Centralization and Effectiveness



Company Profile

We Are ...

Global

- Established as Nortel JV in 1967
- 48 year-strong presence in Turkey
- Built Turkey's fixed and wireless voice, data and optical infrastructure
- 1,500+ customers including Turkey's 500
- 'Turkey's fastest growing ICT company' as per 2013 Capital magazine Top 500 survey
- Turkey's #1 converged (carrier and enterprise) Systems Integrator also serving the Region

Innovative

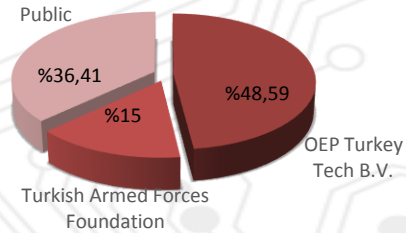
- 42 years of carrier and enterprise; telecoms and IT R&D
- Field proven hardware , software & application development
- Nortel and Genband's R&D Center of Excellence in VoIP and Multimedia applications
- Certified as 'incentivized R&D Center' by Turkish Ministry of Science, Industry & Technology
- Locally developing 4G LTE & Cyber security solutions
- Awarded twice as 'Best R&D Center in Telecoms Business' by Turkish Ministry of Science, Industry & Technology

Financially Solid

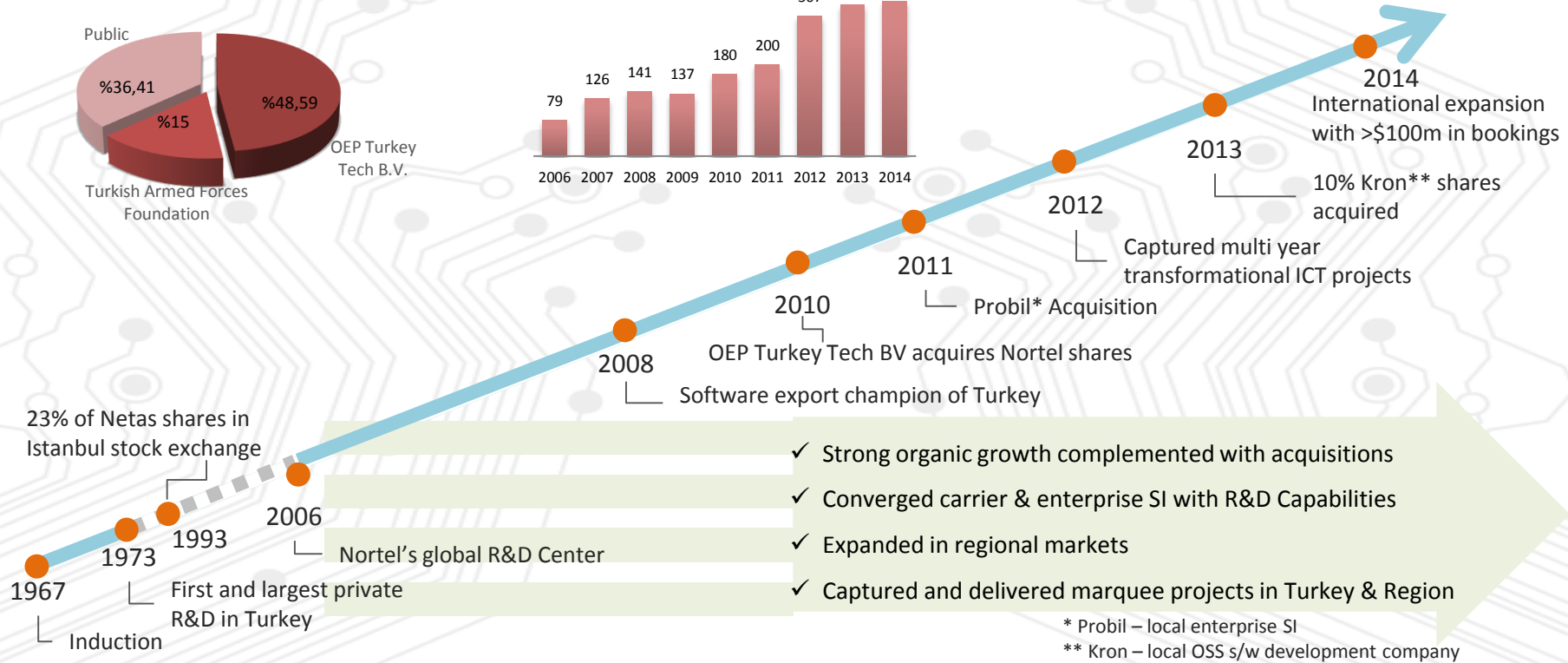
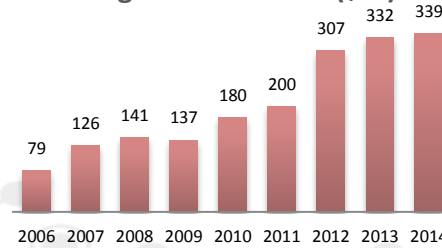
- Overall strong top line growth from both organic and inorganic activities
- 20% CAGR in revenue– from \$79m in 2006 to \$339m in Y2014
- Significant growth in total order booked from \$132m in 2009 to \$382m in Y2014
- Sustainable EBITDA growth – from \$13m in Y2013 to \$18m in Y2014

History

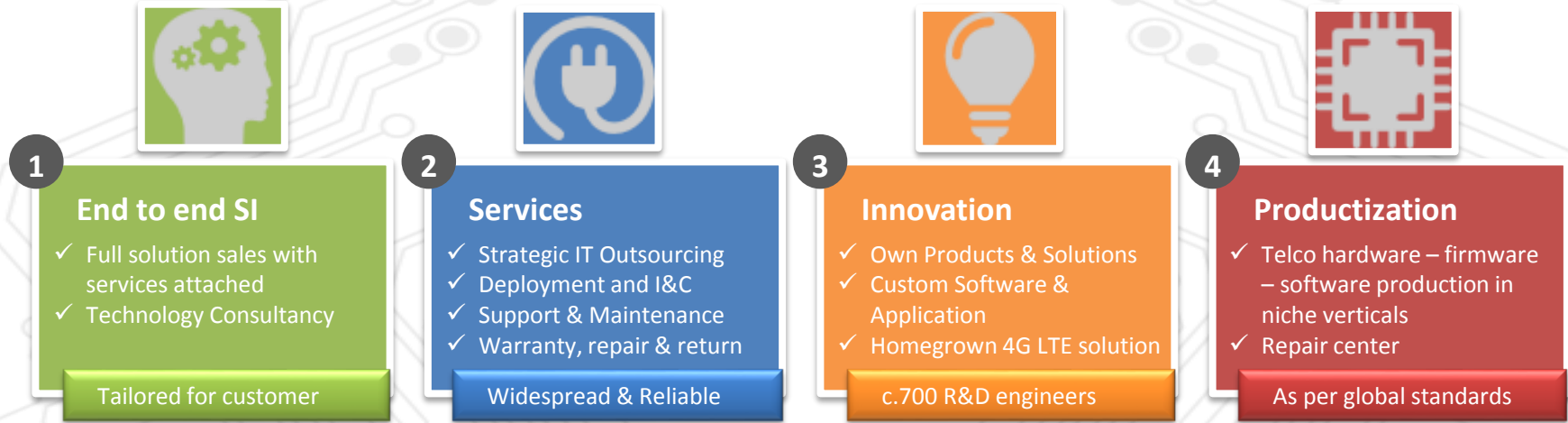
Current shareholder status



Strong financial clout (\$m)



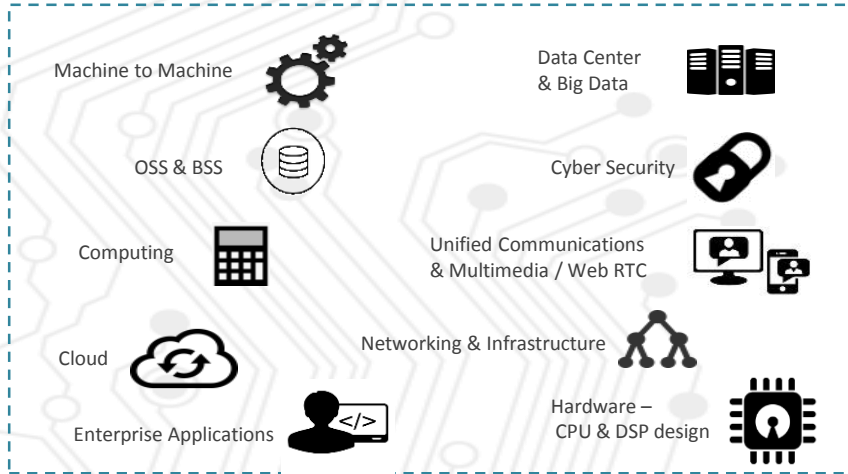
Business Focus



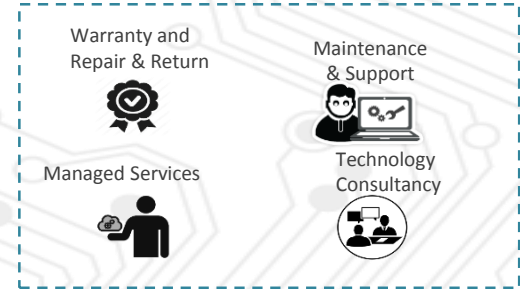
- Complex multi-year multi-million dollar transformation projects delivery in carrier & enterprise domains
- Servicing customers nationwide as per SLA's and high quality standards
- Constant innovation & championship in patent applications – applied for c.70 patents in the last 2 years
- Hardware & software development and custom productization in 10K sqm facility

Operational Competencies

Netas Technology Competencies



Netas Services Capabilities



Netas Strategic Technology Partners

Vertical sector and customer focus

Technology partner of blue chip customers in Turkey and the Region

Vertical Sector Focus



Finance

- **ICT presence within 95% of all banks operating in Turkey**
- **Serving 11K branches nationwide**



Energy & Utilities

- **ICT solutions top energy companies of Turkey, enabling them serve to 24 million subscribers**



Sports & Entertainment

- **Undertaken the first smart stadium project of Turkey**
- **e-ticket infrastructure of 33 stadiums in operations**
- **More than 5,000 cameras installed for surveillance systems**



Retail and FMCG

- **60% of the top Turkish retail companies provide premium service experience over Netas-delivered ICT infrastructure**



Public

- **Technology partner of the Ministry of Education** – Delivering ICT infrastructure to 9K schools within FATİH project
- **Interconnecting c.3K courts and c.550 penitentiaries via unified communications for Ministry of Justice**
- **Single platform development for Disaster & Emergency Management, Ministry of Premiership**
- **IP Transformation project with Ministry of Defense in Algeria**
- **Local 4G LTE development for Turkish Undersecretariat of Defense Industries**



Telecom Service Providers

- **Providing services to all operators in Turkey** that cover 72 million subscribers
- **IP migration & network services to TeliaSonera companies in the Region** (eg KCell, NCell, UCell, etc)
- **Network optimization services to Mobilis Algeria**

International Markets Expansion



- Objective is to replicate successful vertical SI projects in Turkey in focus territories
- Focus in North Africa, CIS and Asia-Pacific
 - Substantial business in Algeria with government and mobile operator
 - IP infrastructure solutions within operators in Kazakhstan & Uzbekistan
 - Optical backbone in Bangladesh
- Netas brand in the Region well known and reputable
- c.\$30m annual multimedia VoIP software sales

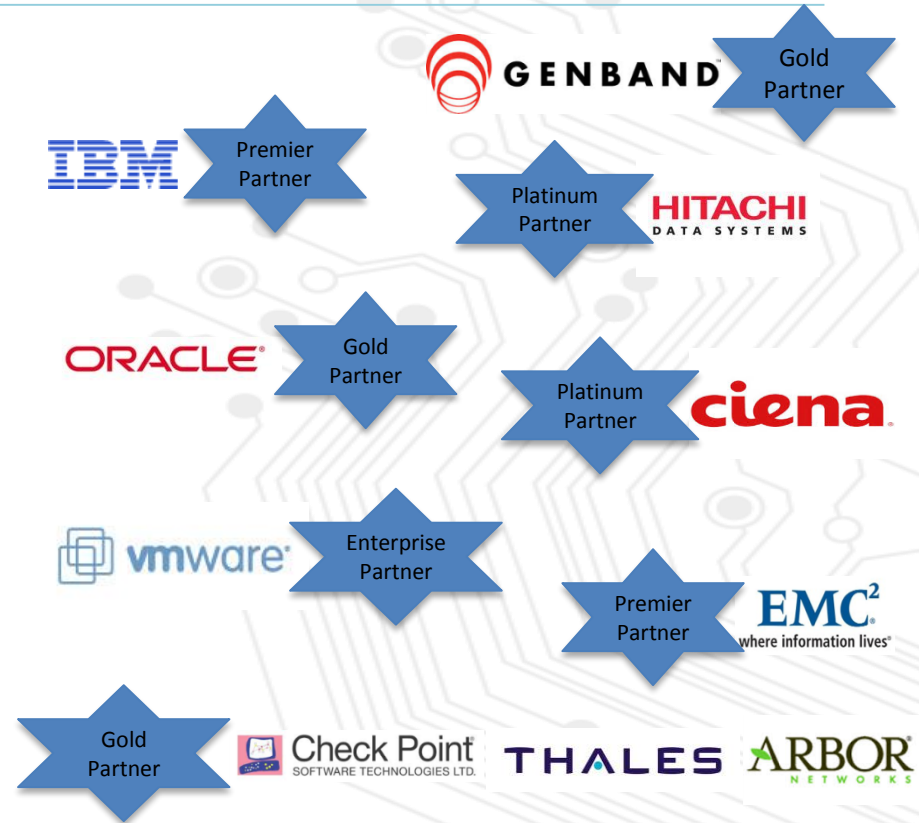
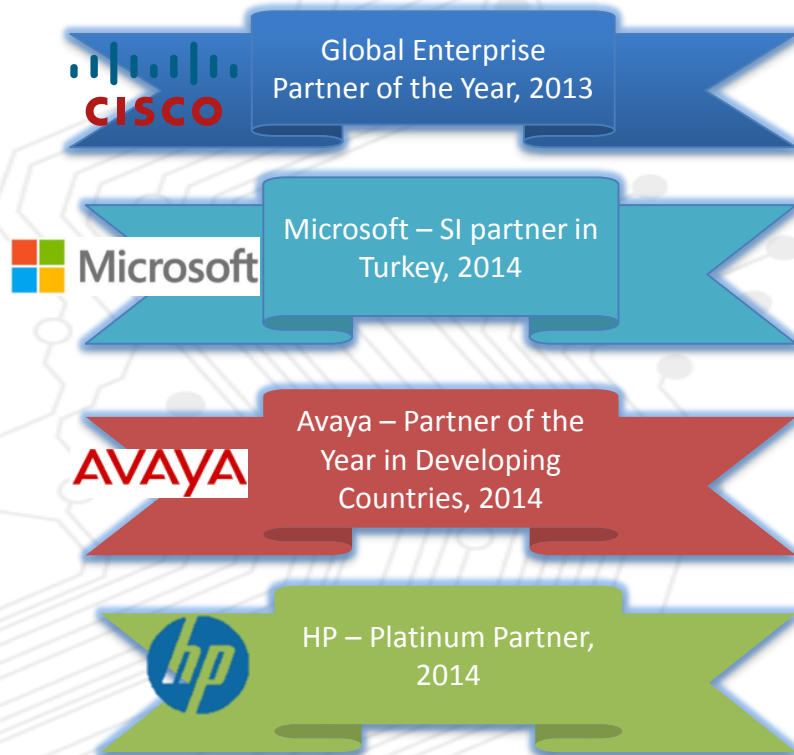
110% growth in revenue, 260% growth in orders
(Y2013 to Y2014) – in TL terms

Customers

- Focus on Top 500 of Turkey
- Marquee customers in the Region
- 1,500+ businesses

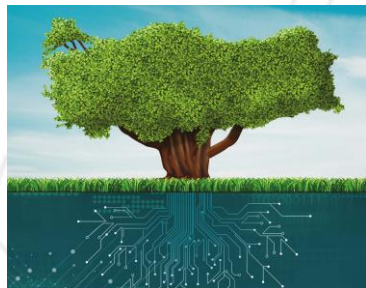
Financial Services	          
General industry/ Conglomerates	       
Telecom Service Providers	       
Government & Public Entities	      
Retail/FMCG, Healthcare & Education	             
Utilities & Energy	      
Public Safety	    
Technology / R&D	      
International	     

Strategic Technology Partners



Major Big Ticket Projects

Increasing momentum as 'The Technology Power Behind Verticals'



**Disaster & Emergency Mgmt
Center Decision Support**

Enabling government to manage multiple decision support systems into a single easy-to-use interface for disaster & emergency operations

**Education System Technology
Transformation**

Empowering Turkish Ministry of Education with latest ICT infrastructure & solutions nationwide

**Unified Communications for
Turkish Ministry of Justice**

Transforming Turkish Judicial system with ICT for efficiency and operational effectiveness



**Turkish Football Federation
Smart Stadiums**

Alter the way Turkish football fans support their teams by transforming stadiums into smart entertainment centers



**Akbank
IP Transformation**

Moving bank's comms into Cloud and upgrading IP Infrastructure to serve all branches nationwide



**Aydem
Transformation**

In recently privatized utilities market, delivering Aydem with Automated Meter Reading Systems & ICT infra



**Algerian Ministry of Defense &
Algerian mobile SP, Mobilis**

Bringing next generation ICT technologies to North Africa



NETAS

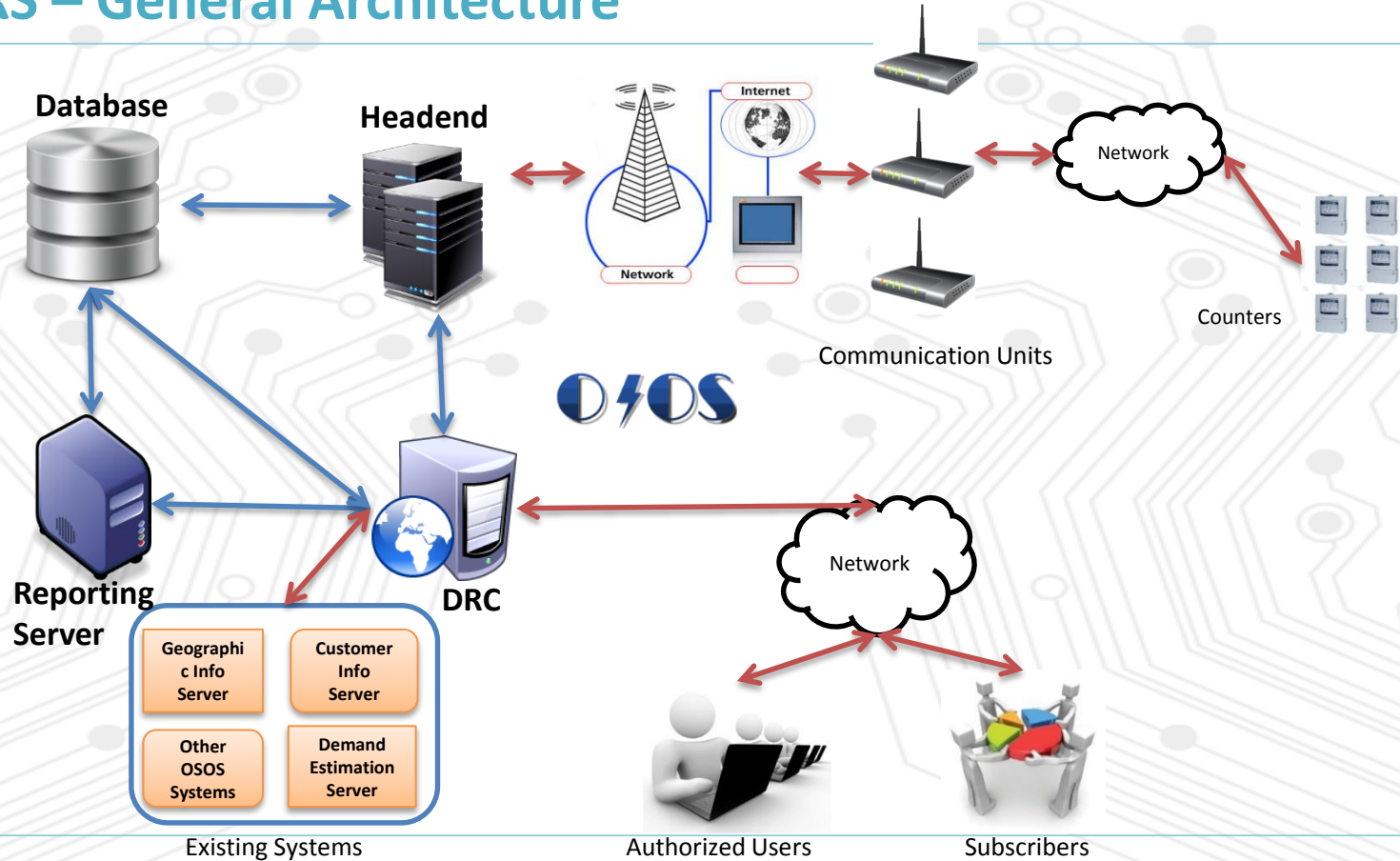
AYDEM

Automated Meter Reading System Solution

Index

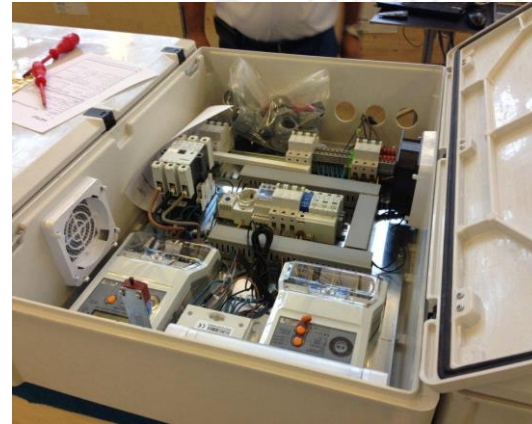
- Architecture
- Solution Components
- Functionality
- Netaş Effectiveness Model

AMRS – General Architecture



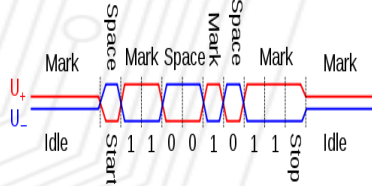
AMRS Panel

- Netas Unic Custom Design
- V0 unburnt, IK10 and IP55 protection, Glass&Fibre Strength Polyester
- 180 degree opening doors, internal lightening, user protection (IP2X)
- Central HW Management



AMRS Communication Unit

- M2M Sim cards used for communication between Modem and Center
- RS-485 used for communication with Meters
- 256 meters can be connected to each Unit



RS-485



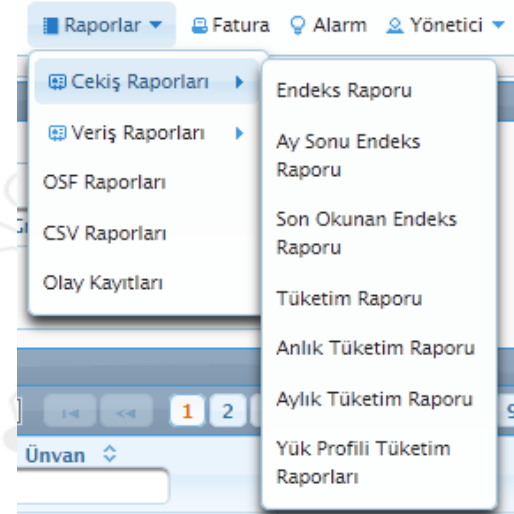
AMRS Integrated Meters

- MAKEL
- KOHLER
- LUNA
- ELEKTROMED
- VIKO
- ABB/ELSTER A1350-1500
- ACTARIS/SCHLUMBERGER/ITRON SL7000 Series
- LANDIS+GYR EMG/ZMG Series
- ISKRA
- ITRON
- ELSTER



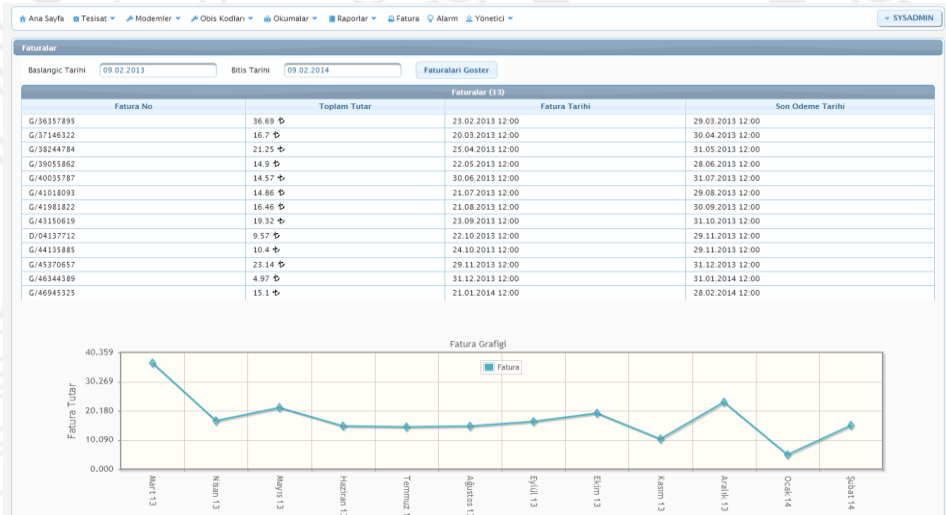
AMRS Reporting Module

- OSF reports, Decision Support Reports, Metering and Reading Reports, Modem Reports, Daily Recording Reports and investigation
- Daily, instant and historical reports in different formats
- Historically or Time Range based Graphical and Table Reports
- Web Service and e-mail support
- Automated, periodic reporting option



AMRS Invoice Unit

- Subscriber and fitment based invoices
- Graphical display
- Filtering




Netaş Efficiency Model

- AMRS System designed and applied to AYDEM by NETAS is a cost efficient, improvable, extendible, stable and flexible solution.
- Experienced R&D Engineers, providing fast and reliable problem solution and support according to international standards.
- HW and SW independency



Meters

 Aydem

Ana Sayfa Tesisat Modemler Obis Kodları Okumalar Raporlar Fatura Alarm Yönetici SYSADMIN

Sayaçlar

Sayaçlar (12075) (1 of 604)

Seri No	Tesisat No	Ünvan	Sayaç Tipi	Modem IMEI	Çarpan	Şehir
01758341	48.68.0331	KALINAÇIL TR-03	Trafo	356612027027087	1.0	MUĞLA
01758981	48.68.0322	İKİZTAŞ TR-01	Trafo	356612027040064	1.0	MUĞLA
01986545	48.68.0337	KARAAÇAÇ TR-MERKEZ	Trafo	356612026748675	1.0	MUĞLA
01986624	48.68.0319	İKİZKÖY TR-IŞIKDERE MAH.	Trafo	356612027028366	1.0	MUĞLA
01986825	48.68.0340	KARAHAYIT TR-01	Trafo	356612027027467	1.0	MUĞLA
01986976	48.68.0339	KARACAHİŞAR TR-BAĞCAĞIZ MAH.	Trafo	356612027022427	1.0	MUĞLA
01987025	48.68.0325	KAFACA TR-02	Trafo	356612026739427	1.0	MUĞLA
01987147	48.68.0324	KAFACA TR-01	Trafo	356612026750564	1.0	MUĞLA
01987347	48.68.0315	HÜSAMLAR TR-01	Trafo	356612027043142	1.0	MUĞLA
01987442	48.68.0332	KALINAÇIL TR-02	Trafo	356612027038100	1.0	MUĞLA
01987809	48.68.0334	KAPIKIRI TR-MERKEZ	Trafo	356612027040403	1.0	MUĞLA
01987821	48.68.0317	İÇME TR-02	Trafo	356612027356718	1.0	MUĞLA
01987981	48.68.0327	KAFACA TR-04	Trafo	356612027020090	1.0	MUĞLA
01988053	48.68.0311	HACIAHMETLER TR-01	Trafo	356612027022302	1.0	MUĞLA
01988204	48.68.0338	KARACAHİŞAR TR-01	Trafo	356612027026253	1.0	MUĞLA
01988230	48.68.0329	KALEM TR-01	Trafo	356612027358722	1.0	MUĞLA

Detaylar

Telemetrix Bilgileri

Sayaç Özellikleri

Etkin	1
İletişim hızı	300
Framing	7E1
Üretici	VI-KO
Üretici kodu	VIK
Model	
Belirlenmiş cihaz özelliği	0
Seri numara değiştirilemez	1
Tesisat numarası	
Sms hedefleri	
Email hedefleri	
Model numarası	/VIK5<1>VEMC01758341
Aux sayaç numarası 1	
Aux sayaç numarası 2	0
Uyumluluk klasları	VIK,TEDAS
Son saat	1990-01-01
Saniye cinsinden son saat farkı	0

Modems

Ana Sayfa

Tesisat

Modemler

Obis Kodları

Okumalar

Raporlar

Fatura

Alarm

Yönetici

SYSADMIN

Modemler

Modemler (9790)

20

1 2 3 4 5 6 7 8 9 10

(1 of 766)

356612027361205	1.110	192.168.129.171	1999.0	+905344493455	20.10.0053
356612027437013	1.100ECL0	192.168.140.181	1199.0		XXX
356612027359365	1.110	192.168.127.61	2499.0	+905344401492	xxx
356612026488199	1.110	192.168.118.214	1599.0	+905344490511	01756971
356612026740888	1.110	192.168.111.61	2299.0	+905337737618	01757249
356612026728818	1.110	192.168.119.101	2599.0	+905363103795	01757822
356612027038019	1.110	192.168.137.96	3199.0	+905363565211	01758329
356612027041245	1.110	192.168.137.118	2399.0	+905363594981	01758350
356612027038241	1.110	192.168.133.246	2399.0	+905363320121	01758437
356612026746505	1.110	192.168.136.169	1799.0	+905363367414	01759197
356612027030636	1.110	192.168.137.98	2399.0	+905363567088	01759226
356612026488686	1.106ECL03	192.168.111.205	899.0		01772723
356612026737199	1.110	192.168.121.27	2799.0	+905363147340	01772848
356612026721086	1.110	192.168.118.90	3199.0	+905363164951	01773069
356612026729550	1.110	192.168.119.243	3199.0	+905363117162	01773354
356612026741605	1.110	192.168.114.185	1999.0	+905344434612	01773448
356612026517815	1.110	192.168.118.37	1899.0	+905344491767	01773483
356612026735862	1.110	192.168.120.87	2599.0	+905363127537	01773497
356612026736464	1.110	192.168.121.35	2799.0	+905363148491	01773519
356612026525347	1.110	192.168.114.171	1599.0	+905344411904	01773606

20 1 2 3 4 5 6 7 8 9 10 (1 of 766)

Detaylar

Modem Bilgileri

Bağlantı Şeması

Yazılım numarası	1.110
Motor bilgisi	ATI Cinterion EC55 REVISION 02.004
IMSI	286015326219769
Güncelleme zamanı	09.02.2014 07:23:35
Erişim tipi	1
Erişim GPRS IPsi	192.168.133.246
Erişim GPRS portu	80
Erişim CSD alan kodu	
Erişim CSD numarası	+905363320121
Admin şifresi	6185
Güncelleme URLi	http://update.eclipse-tr.com/tc65/Test/Goz
Güncelleme HTTP kullanıcısı	
HTTP şifresi	
Güncelleme APN	internet
Güncelleme APN kullanıcısı	
Güncelleme APN şifresi	
Ayarlar	

Reports

OSF Aydem

Ana Sayfa Tesisat Modemler Obis Kodları Okumalar **Raporlar** Fatura Alarm Yönetici

SYSADMIN

OSF Raporu

Filtre

Rapor Zamanı: 02.2014 Sayaç Grubu: --G

Filtrele

- Cekiş Raporları
- Veriş Raporları
- OSF Raporları
- CSV Raporları
- Olay Kayıtları
- Endeks Raporu
- Ay Sonu Endeks Raporu
- Son Okunan Endeks Raporu
- Tüketim Raporu
- Anlık Tüketim Raporu
- Aylık Tüketim Raporu
- Yük Profili Tüketim Raporları

20 1 2

9 10 (1 of 604) >> >

	Sayaç Seri No	Tesisat No	Ünvan		Çarpan	Şehir	İlçe	Tarife
	01988053	48.68.0311	HACIAHMETLER TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987347	48.68.0315	HÜSAMLAR TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987821	48.68.0317	İÇME TR-02	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01986624	48.68.0319	İKİZKÖY TR-İŞIKDERE MAH.	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01988428	48.68.0321	İKİZKÖY TR-YOLKENARI	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01758981	48.68.0322	İKİZTAŞ TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987147	48.68.0324	KAFACA TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987025	48.68.0325	KAFACA TR-02	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01988301	48.68.0326	KAFACA TR-03	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987981	48.68.0327	KAFACA TR-04	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01988230	48.68.0329	KALEM TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01758341	48.68.0331	KALINAÇIL TR-03	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01987442	48.68.0332	KALINAÇIL TR-02	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ
	01988243	48.68.0333	KANDAK TR-01	Trafo	1	MUĞLA	BULUNAMADI	GEÇERSİZ

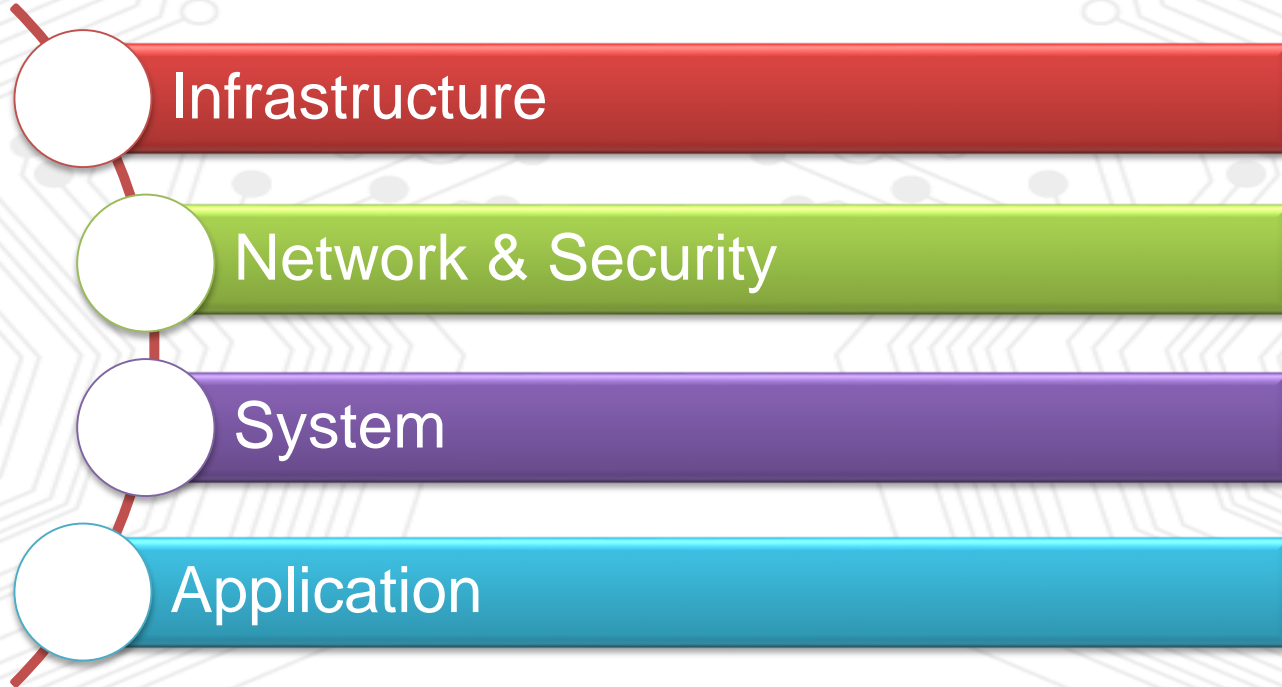
TR 100% 23:19 09.02.2014



Aydem DRC Project

June 2015

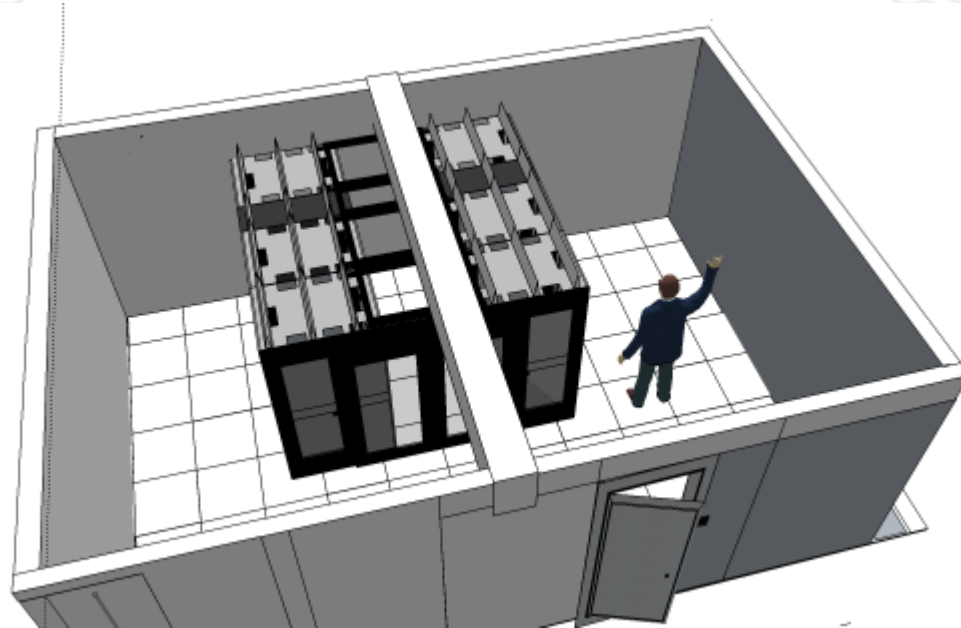
Content



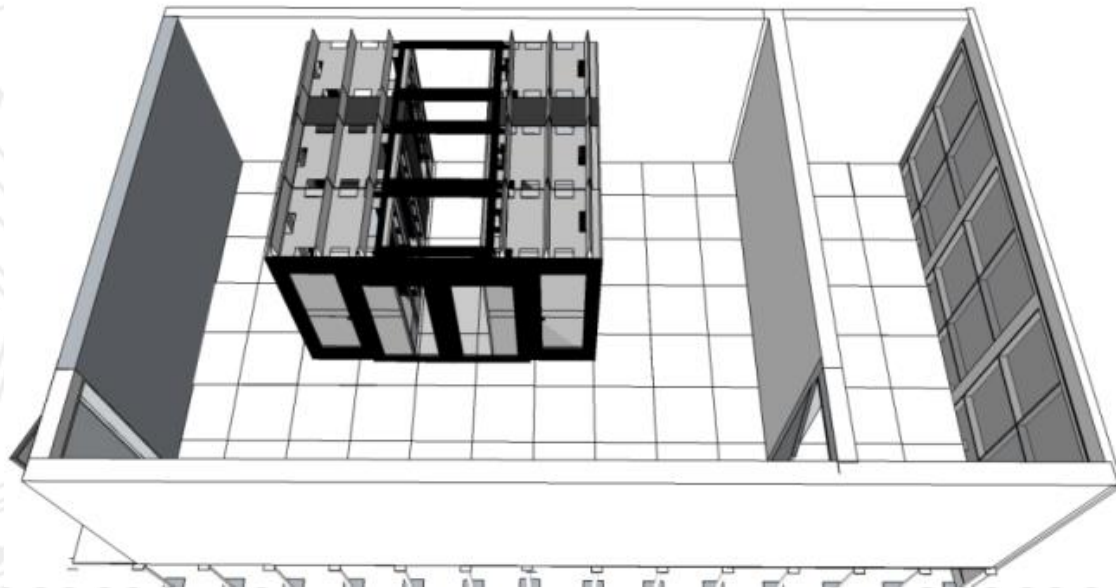
Datacenter - Denizli



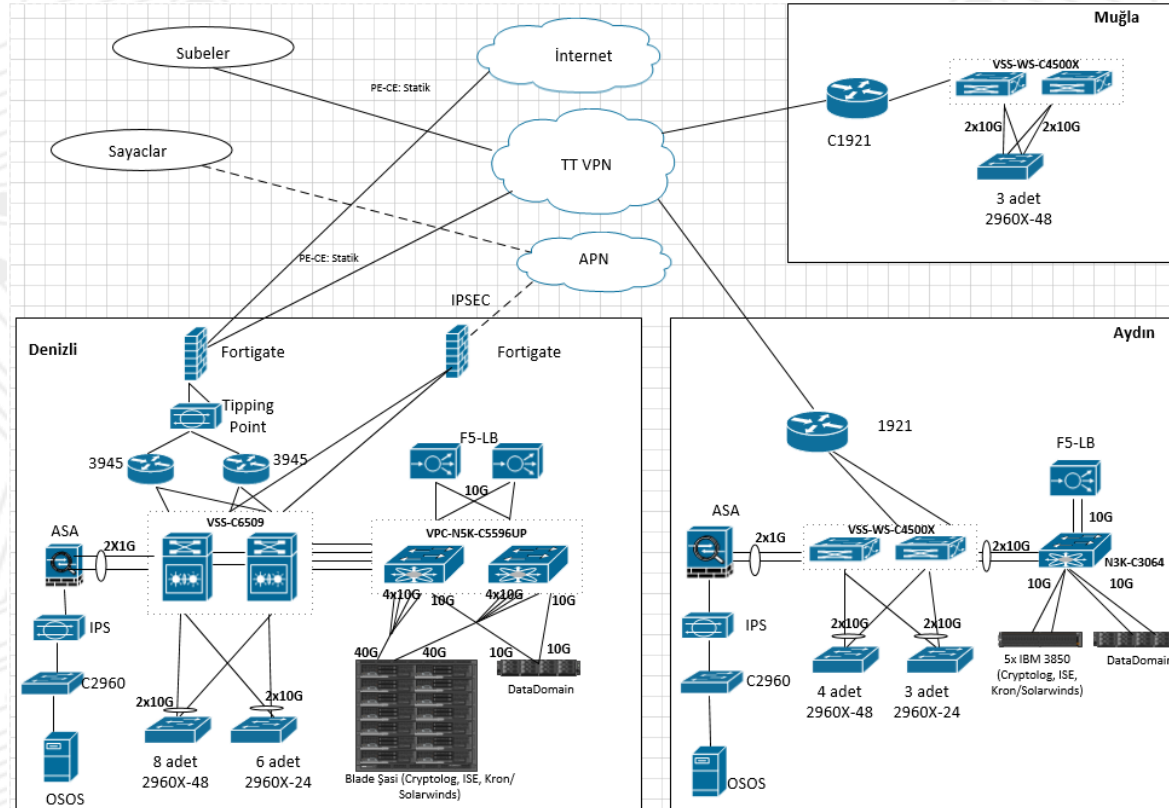
Datacenter - Aydın



Datacenter - Muğla



Topology



Network & Security

Solution	Vendor / Provider	Product	I&C&A
Local Area Network	Cisco	Catalyst	Netaş
Wide Area Network	Türk Telekom	TT VPN	TT & Netaş & Aydem
DC Network	Cisco	Nexus	Netaş
IP Adress Management	Blue Cat	3000 Series	Netaş
Event Management	Crypttech	Cryptolog	Netaş & Crypttech
IPS	HP Tipping Point	S2600	3rd Party
Network Connection	Cisco	ISE	Netaş
System Monitoring	Kron	SMON E	Kron
Load Balancing and Application Security	F5	BIG IP	Netaş

System Components

Solution	Vendor	Product	I&C&A
Server	IBM	Pureflex	Netaş
Storage			
Deduplication	EMC	Data Domain	Netaş
Virtualization	VMWare	ESX	Netaş
Backup	Veeam		Netaş
System Management SW	Microsoft	System Center	Netaş

Migrated DRC Applications

Varolan Sunucular								
Sunucu	IP Adres	Donanım	OS	Seviye	Tahammül Süresi	Uygulama	Görevi	Lokasyon
DNZMRKNET1		Blade	W2K-8 STD 64	1	Anlık	Active Directory	Domain controller DNS, WINS, DHCP	Denizli, ODM
RACK2	192.168.0.234	Blade	RedHat 5.0 Ent	1	2 Saat	Müşteri Bilgi Sistemi Oracle DB	Abone Yönetimi	Denizli, ODM
ENDEKSOR	192.168.0.102	Blade	RedHat 5.0 Ent	1	2 Saat	Oracle DB	Sahadan veri toplama	Denizli, ODM
BANKALAR	192.168.0.101	Blade	RedHat 5.0 Ent	1	2 Saat	Oracle DB	Bankalar ile iletişim	Denizli, ODM
CRM	192.168.0.213	Blade	W2K-3 STD 32	1	Anlık	CRM Uygulama	Çağrı Merkezi Veri Girişi	Denizli, ODM
CRMSQL	192.168.0.217	Blade	W2K-3 STD 32	1	Anlık	MSSQL 2008 STD 32 Bit	Veri Tabanı	Denizli, ODM
IVR	192.168.0.214	IBM x3850	W2K-3 STD 32	1	Anlık		Sesli Yanıt Sistemi	Denizli
OUTBOUND	192.168.0.216	Blade	W2K-3 ENT 32	1	Anlık	MSSQL 2008 STD 32 Bit	Anket Bilgi Sistemi	Denizli, ODM
WEB	192.168.0.110	Blade	W2K-3 ENT 32	1	2 Saat	MSSQL 2008 Ent 32 Bit	aydem.com, webservice borç/tesisat	Denizli, ODM
DYS	192.168.0.205	Blade	W2K-8 STD 64	1	2 Saat	Fileserver, MSSQL 2008 Ent	Doküman Yönetim Sistemi	Denizli, ODM
CBS	192.168.0.235	Blade	W2K-8 STD 64	1	2 Saat	Oracle 11 G	Araç Takip Sistemi	Denizli, ODM
TTS	-	Blade	W2K-8 STD 64	1	2 Saat	Windows	Talep Tahmin Sistemi	Denizli, ODM
CRM	-	Blade	W2K-8 STD 64	1	Anlık	Windows	Netsis	Denizli, ODM



Thank you

NETAS

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