

The logo consists of a solid purple square. Inside the square, the text "SPB DOT NET" is written in white, uppercase, sans-serif font, stacked vertically in three lines.

SPB
DOT
NET

Восток

Правильная телеметрия
для микросервисов на .NET

Алексей Кирпичников

Контур

контур

к^онтур
Бухгалтерия

к^онтур
Фокус

к^онтур
Закупки

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EDI

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Диадок

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Экстерн

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Эльба

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Бухгалтерия

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Фокус



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Диадок

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Экстерн



Правильный продакшн

- Метрики

- Логи

- Трассировки

- Конфигурация

- Service discovery

- Деплой

- Хостинг

Правильный продакшн

- Метрики
- Логи
- Трассировки

- Конфигурация
- Service discovery
- Деплой
- Хостинг

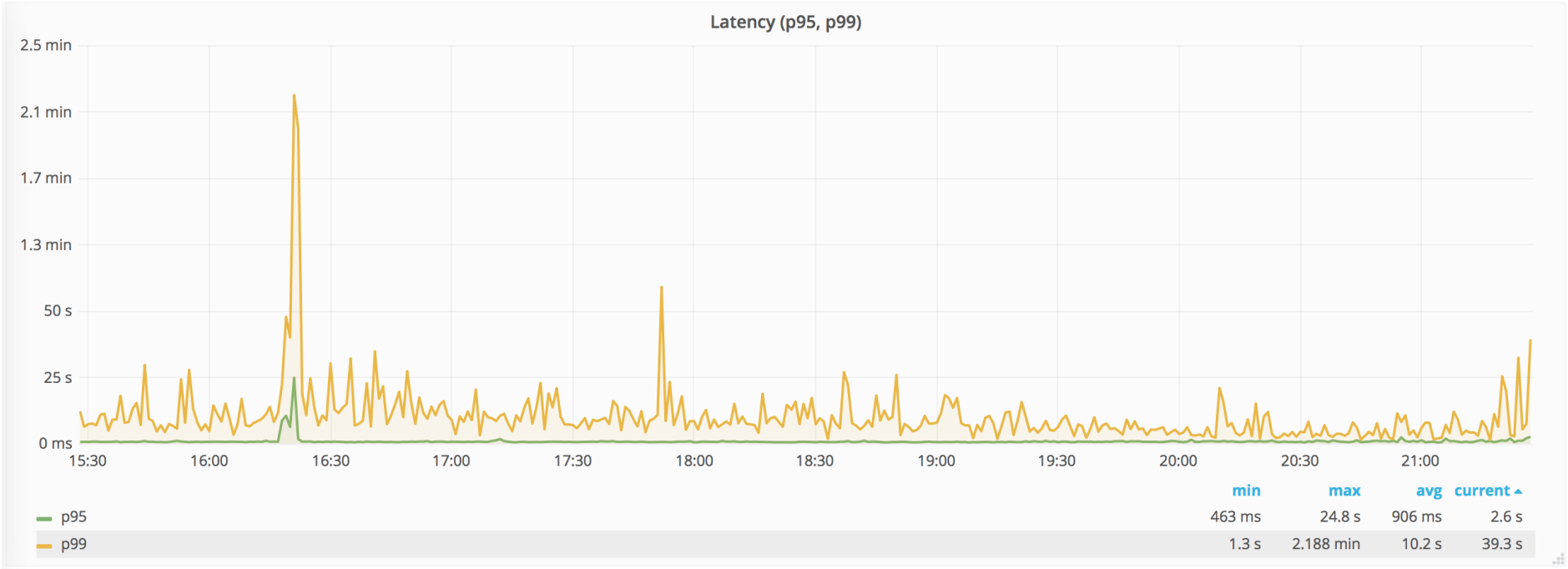
Метрики

```
private readonly Timer timer =  
    Metric.Timer("Requests", Unit.Requests);  
  
public void Process(string documentId)  
{  
    using (var context = timer.NewContext(documentId))  
    {  
        ActualProcessingOfTheRequest(documentId);  
    }  
}
```

Метрики

MyService.host01.Requests.Duration-p95	875	1520758574
MyService.host01.Requests.Duration-p99	1564	1520758574

Метрики



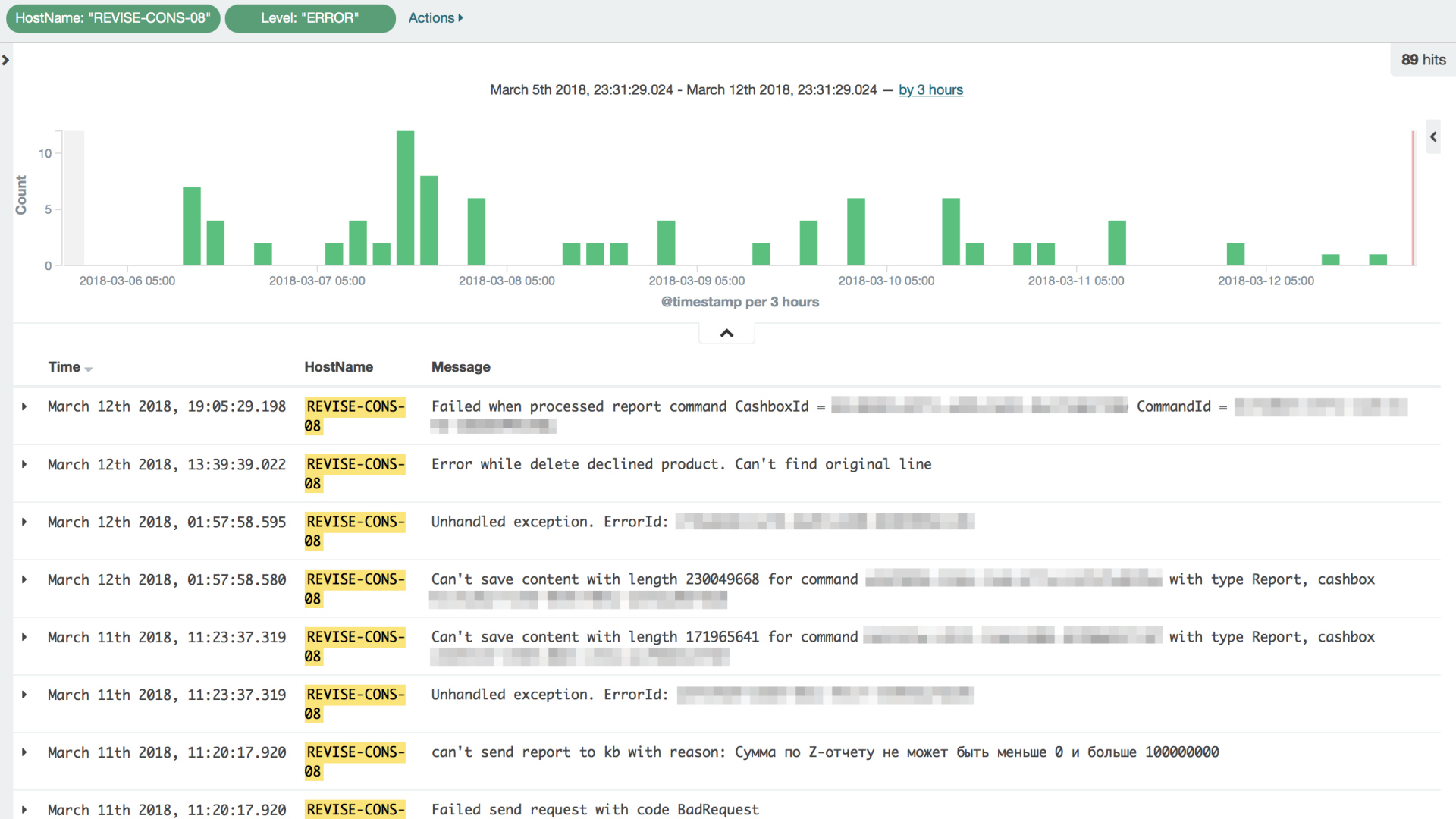
Логи

Логи

```
{  
  "@timestamp": "2017-11-13T13:11:17.0275008Z",  
  "AppDomain": "Store.Api.exe",  
  "HostName": "REVISE-CONS-08",  
  "Level": "INFO",  
  "LoggerName": "request",  
  "Message": "Incoming request GET /store/v1/shops",  
  ...  
}
```

Логи

```
{  
  "@timestamp": "2017-11-13T13:11:17.0275008Z",  
  "AppDomain": "Store.Api.exe",  
  "HostName": "REVISE-CONS-08",  
  "Level": "INFO",  
  "LoggerName": "request",  
  "Message": "Incoming request GET /store/v1/shops",  
  ...  
}
```



Трассировки

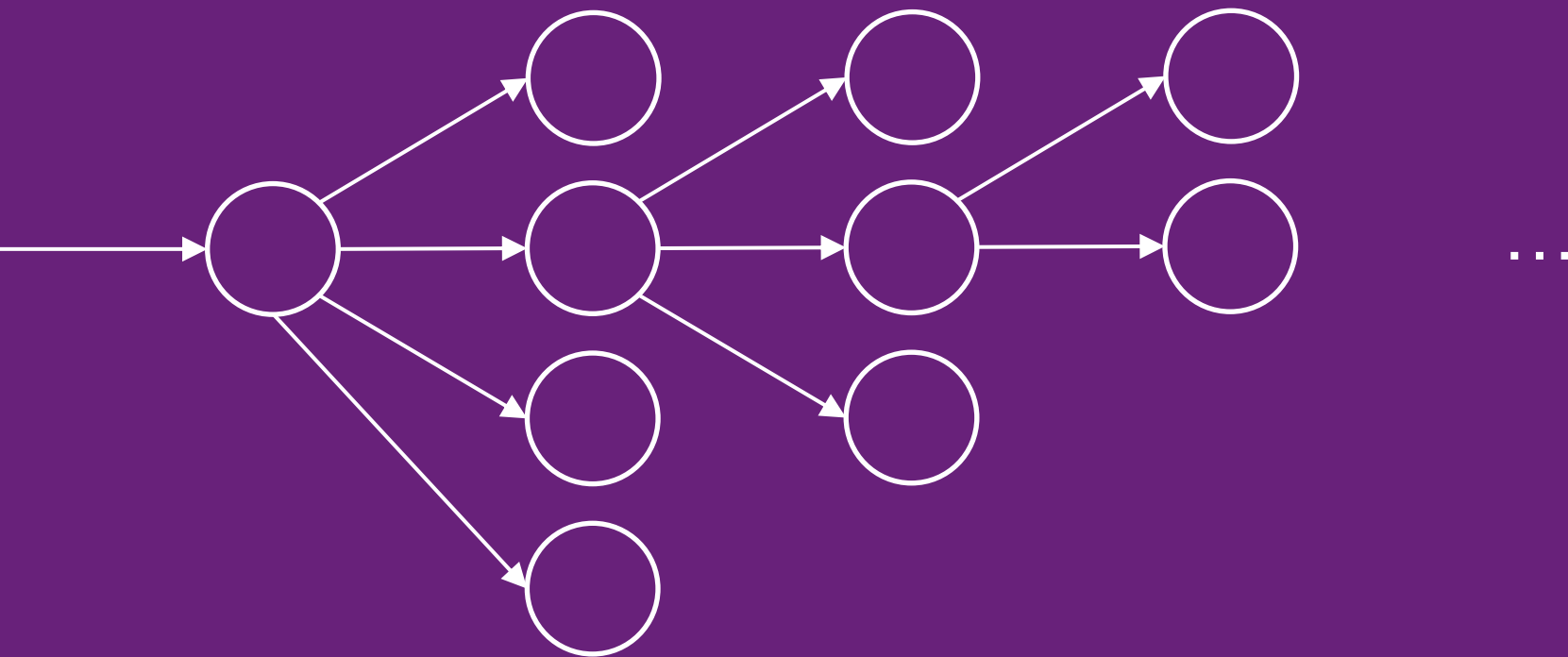
Трассировки



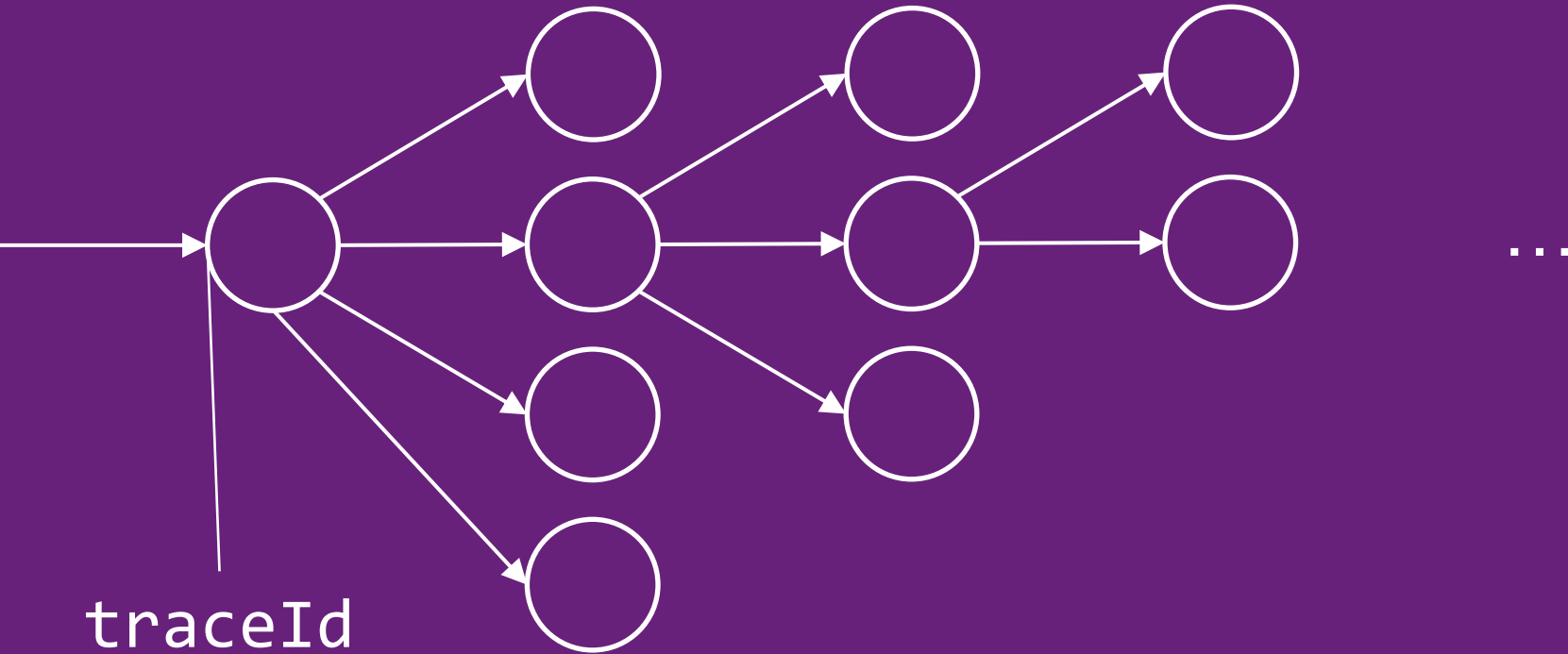
Трассировки



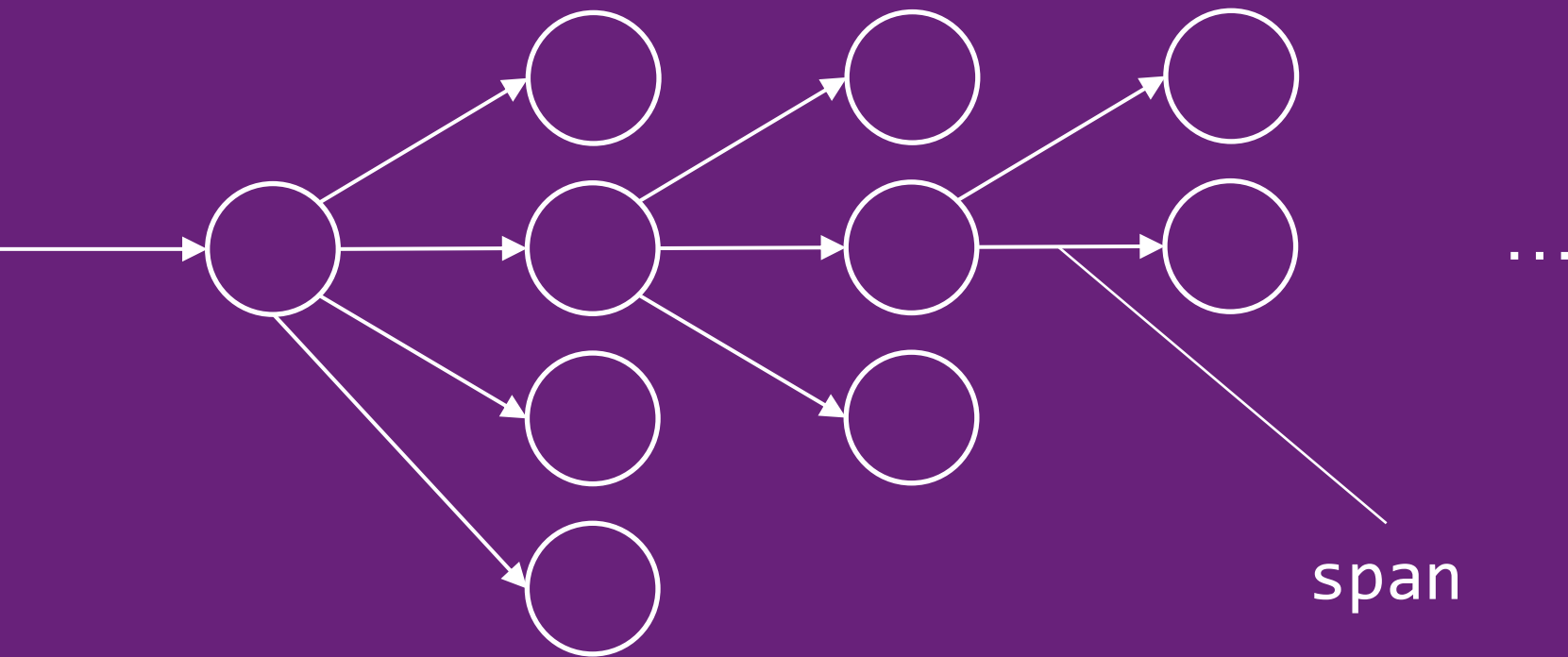
Трассировки



Трассировки



Трассировки



Трассировки

```
{  
  "TraceId": "bade332746024d6ea45d33237e36c361",  
  "SpanId": "ad23e9c9000000000000000000000000",  
  "OperationName": "HTTP",  
  "BeginTimestamp": "2017-11-13T15:49:17.2180000+03:00",  
  "EndTimestamp": "2017-11-13T15:49:37.3906473+03:00",  
  "Annotations": {  
    "OriginHost": "vm-livechat2",  
    "OriginId": "LiveChat.Service",  
    "IsClientSpan": false  
  }  
}
```

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Трассировки

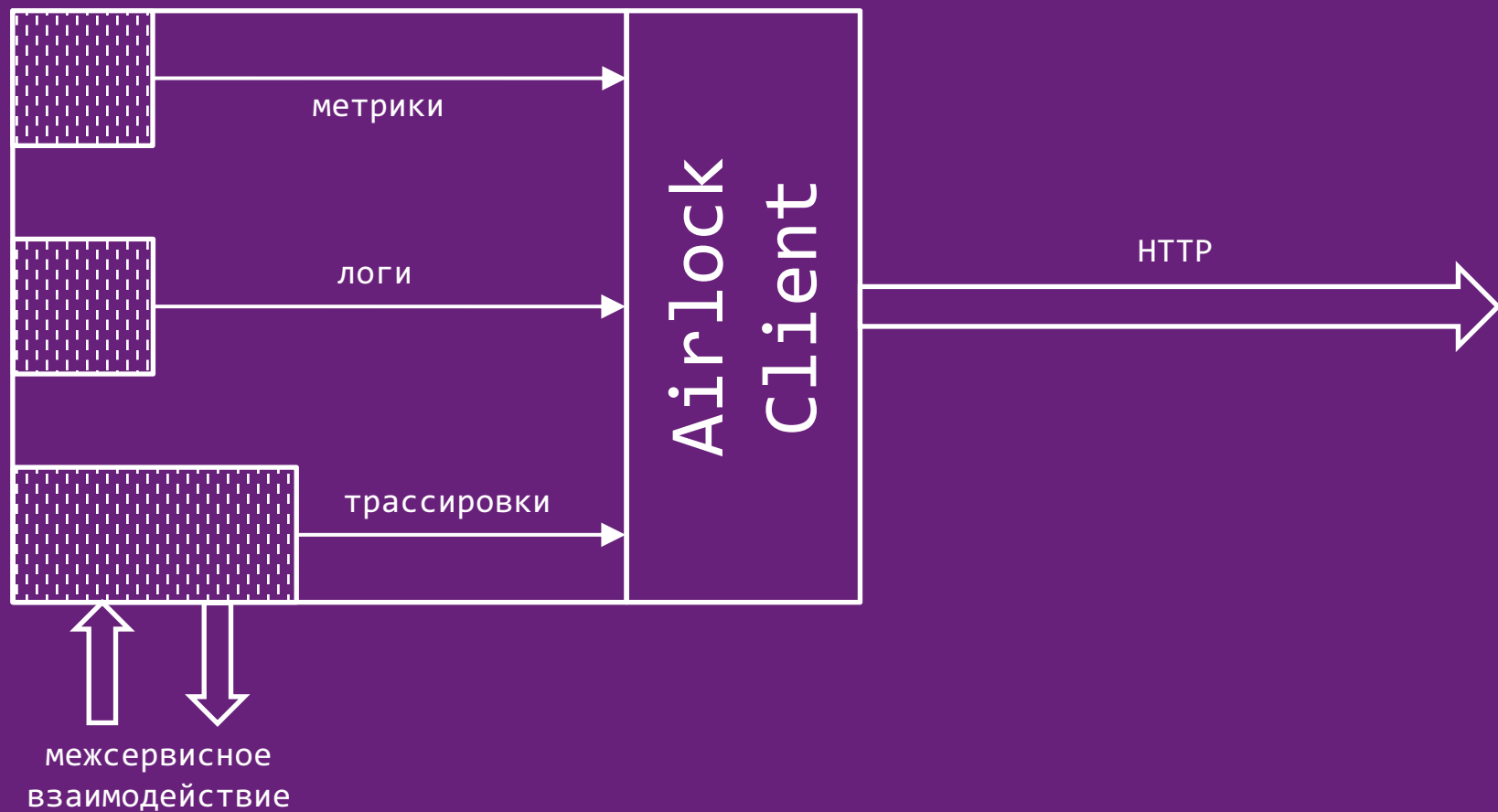
```
{  
  "TraceId": "bade332746024d6ea45d33237e36c361",  
  "SpanId": "ad23e9c9000000000000000000000000",  
  "OperationName": "HTTP",  
  "BeginTimestamp": "2017-11-13T15:49:17.2180000+03:00",  
  "EndTimestamp": "2017-11-13T15:49:37.3906473+03:00",  
  "Annotations": {  
    "OriginHost": "vm-livechat2",  
    "OriginId": "LiveChat.Service",  
    "IsClientSpan": false  
  }  
}
```

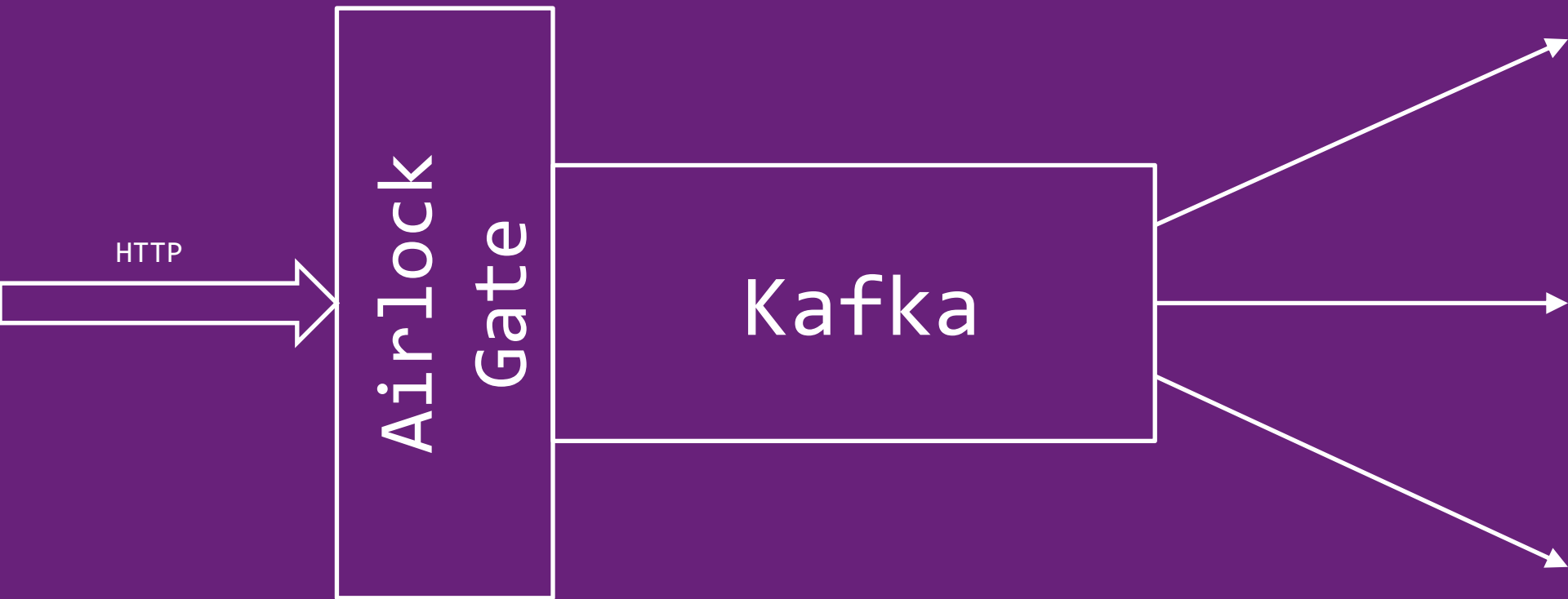
Логи

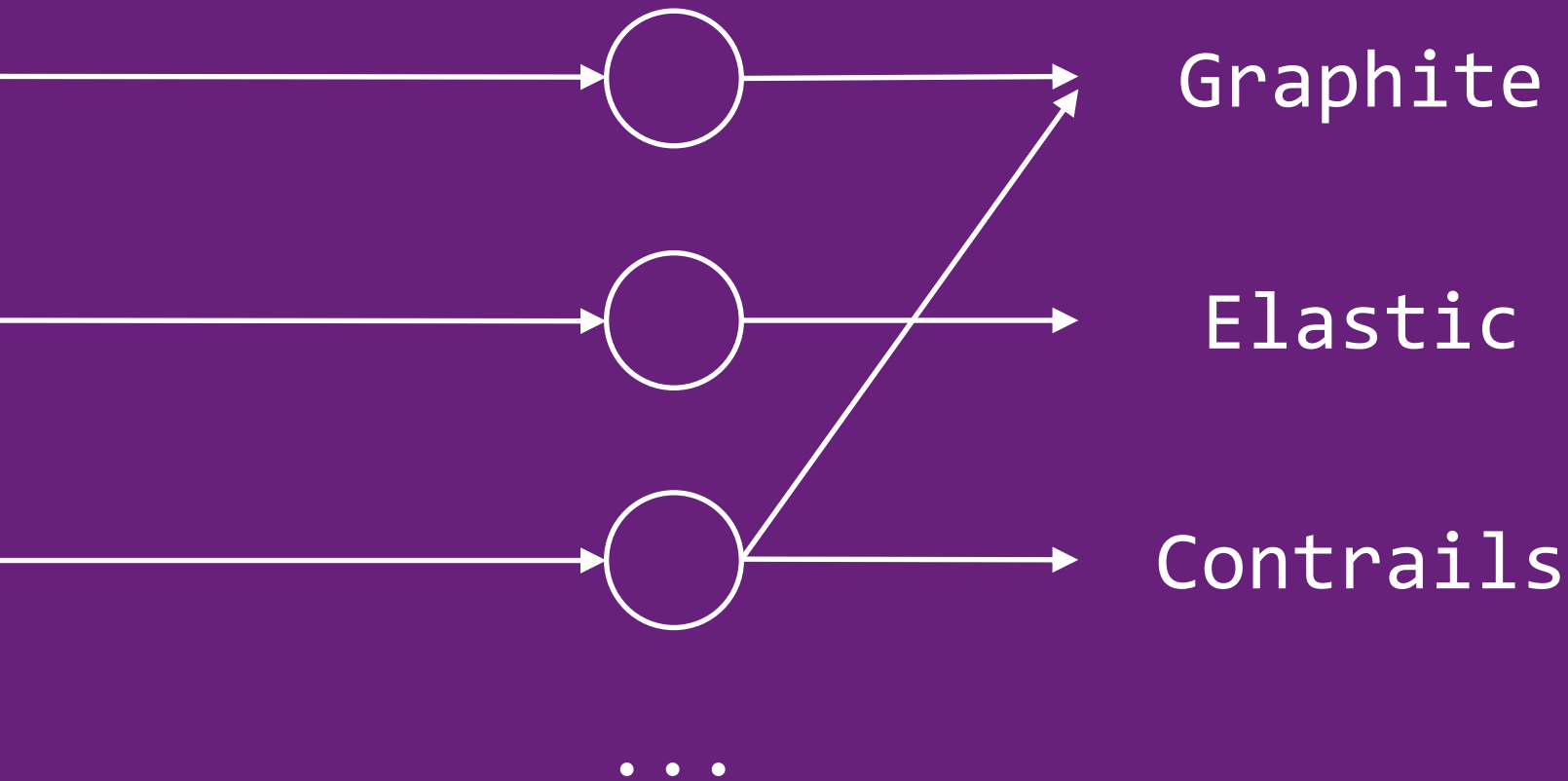
```
{  
  "@timestamp": "2017-11-13T13:11:17.0275008Z",  
  "AppDomain": "Store.Api.exe",  
  "HostName": "REVISE-CONS-08",  
  "Level": "INFO",  
  "LoggerName": "request",  
  "Message": "Incoming request GET /store/v1/shops",  
  ...  
}
```

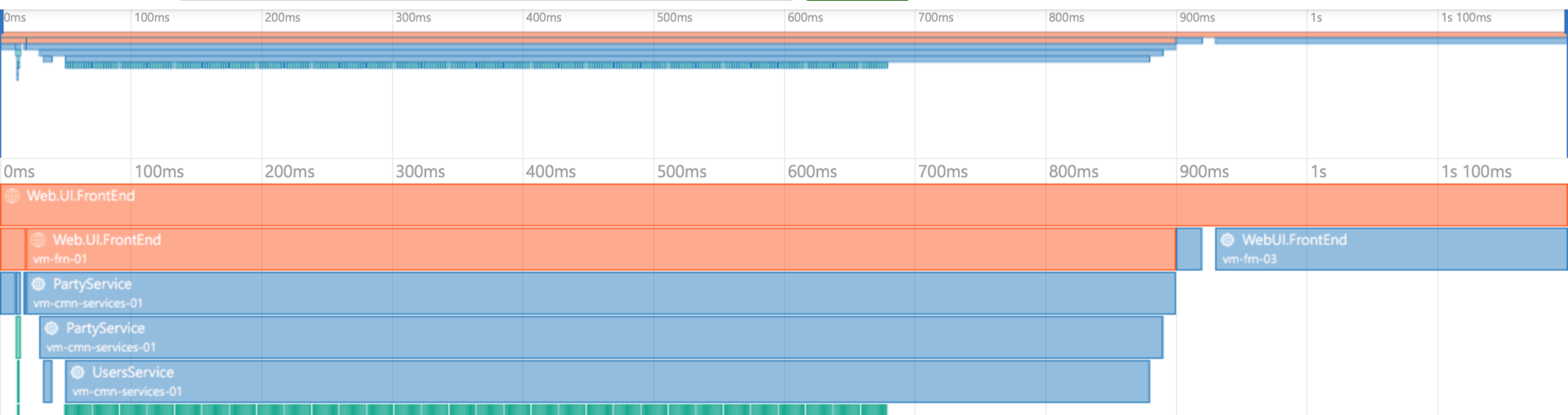
Метрики

MyService. host01 .Requests.Duration-p95	875	1520758574
MyService. host01 .Requests.Duration-p99	1564	1520758574









Full call stack		Call stack		
Total time	Self time	Service		Timeline
1s 200ms 100%	10ms 0.8%	▼ Web.UI.FrontEnd		
20ms 1.7%	2ms 0.2%	▶ Web.UI.FrontEnd		
880ms 73.3%	0 0%	▼ Web.UI.FrontEnd		
880ms 73.3%	20ms 1.7%	▼ PartyService		
860ms 71.7%	23ms 1.9%	▼ PartyService		
7ms 0.6%	7ms 0.6%	PartyService		
830ms 69.2%	230ms 19.2%	▼ UserService		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		
2ms 0.2%	2ms 0.2%	Billy.Payments		

General

Traceld: 831a3146-d50f-4fe1-b91e-d37b3197670d

SpanId: 7cea8798b8e0410821bcbbe4c748918c

ParentSpanId: 454024e12cf0937315341dcb6755a768

OperationName: Name

Duration: 2ms

BeginTimestamp:

UTC: 08.02.2013 12:00:00.0500000

Relative (root begin): 50ms

Relative (parent begin): 0ms

EndTimestamp:

UTC: 08.02.2013 12:00:00.0520000

Relative (root begin): 52ms

Relative (parent begin): 2ms

Annotations

service: Billy.Payments

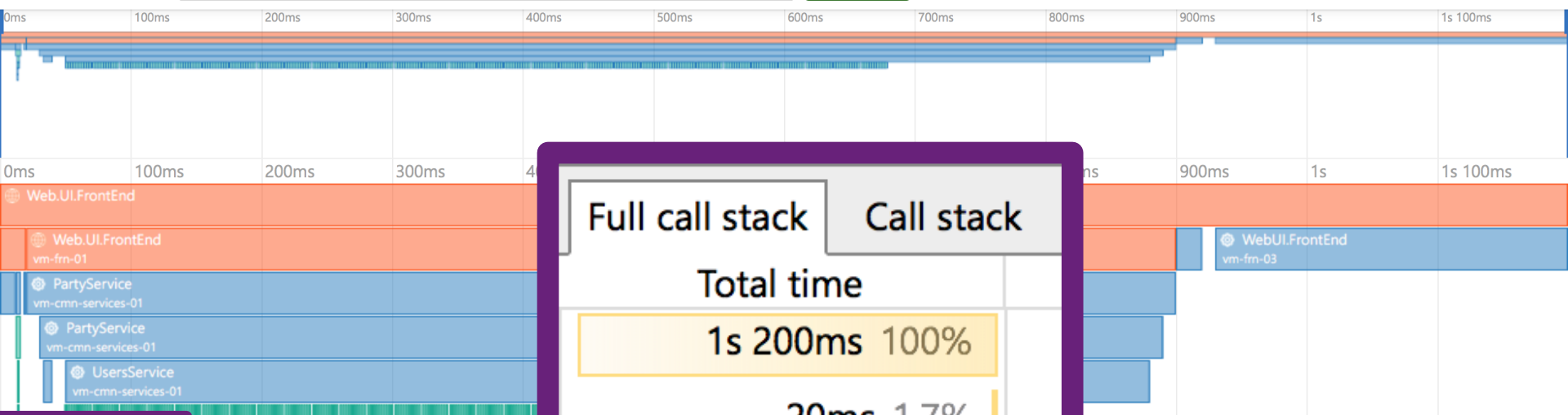
host: vm-host-01



Contrails

84cbafbc-40b3-49b9-ac4e-28fab6099c58

Открыть



Full call stack

Call stack

Total time

1s 200ms 100%

20ms 1.7%

880ms 73.3%

Full call stack	Call stack
Total time	
1s 200ms 100%	
20ms 1.7%	
880ms 73.3%	
880ms 73.3%	
860ms 71.7%	
7ms 0.6%	
830ms 69.2%	
2ms 0.2%	
2ms 0.2%	
2ms 0.2%	
2ms 0.2%	
2ms 0.2%	
2ms 0.2%	
2ms 0.2%	

Self time	Service
10ms 0.8%	Web.UI.FrontEnd
2ms 0.2%	Web.UI.FrontEnd
0 0%	Web.UI.FrontEnd
20ms 1.7%	PartyService
23ms 1.9%	PartyService
7ms 0.6%	PartyService
230ms 19.2%	UserService
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments
2ms 0.2%	Billy.Payments

General

Traceld: 831a3146-d50f-4fe1-b91e-d37b3197670d

SpanId: 7cea8798b8e0410821bcbbe4c748918c

ParentSpanId: 454024e12cf0937315341dcb6755a768

OperationName: Name

Duration: 2ms

BeginTimestamp:

UTC: 08.02.2013 12:00:00.0500000

Relative (root begin): 50ms

Relative (parent begin): 0ms

EndTimestamp:

UTC: 08.02.2013 12:00:00.0520000

Relative (root begin): 52ms

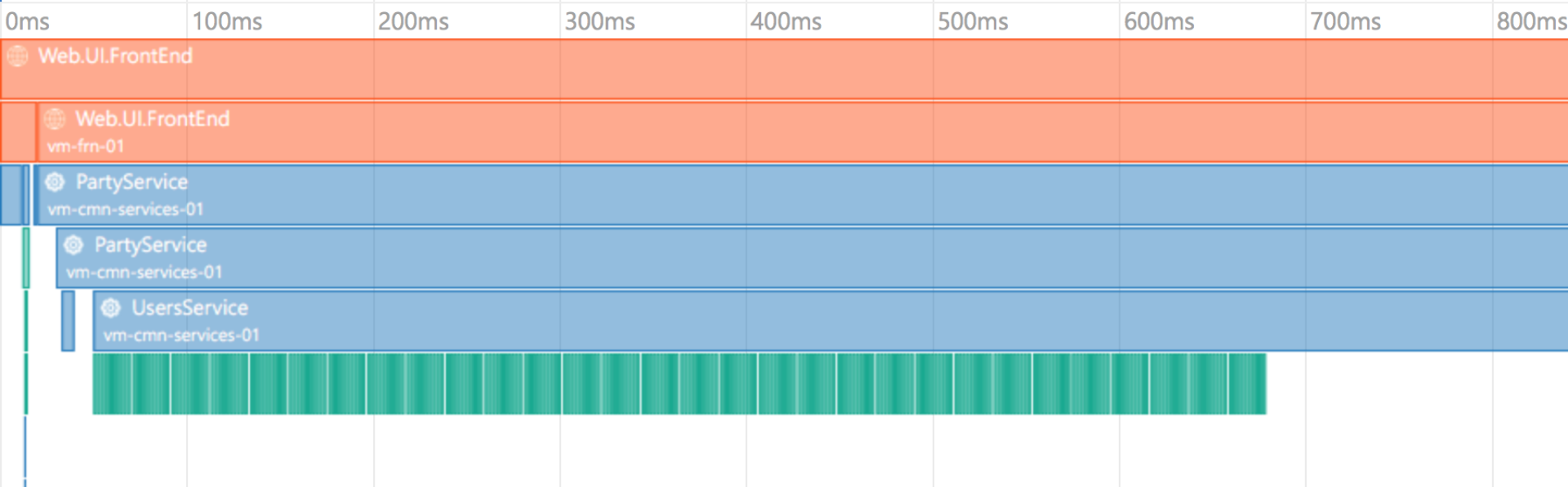
Relative (parent begin): 2ms

Annotations

service: Billy.Payments

host: vm-host-01

[illegible]



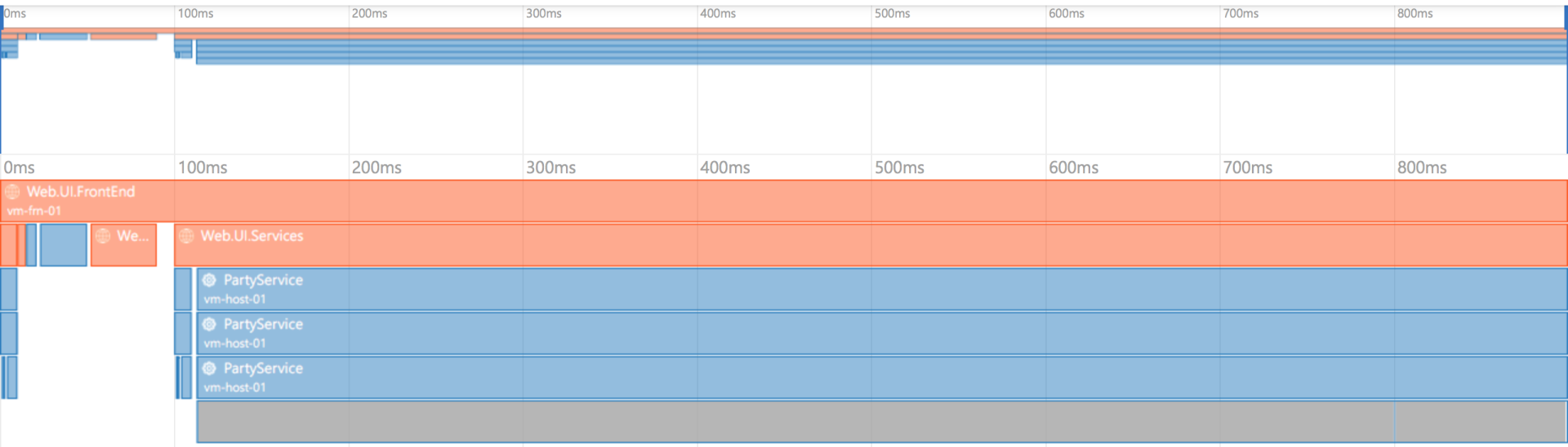
Full call stack		Call stack		
Total time	Self time	Service		Timeline
1s 200ms 100%	10ms 0.8%	▼ Web.UI.FrontEnd		
20ms 1.7%	2ms 0.2%	▶ Web.UI.FrontEnd		
880ms 73.3%	0 0%	▼ Web.UI.FrontEnd		
880ms 73.3%	20ms 1.7%	▼ PartyService		
860ms 71.7%	23ms 1.9%	▼ PartyService		
7ms 0.6%	7ms 0.6%	PartyService		
830ms 69.2%	230ms 19.2%	▼ UsersService		
2ms 0.2%	2ms 0.2%	Billy.Payments		



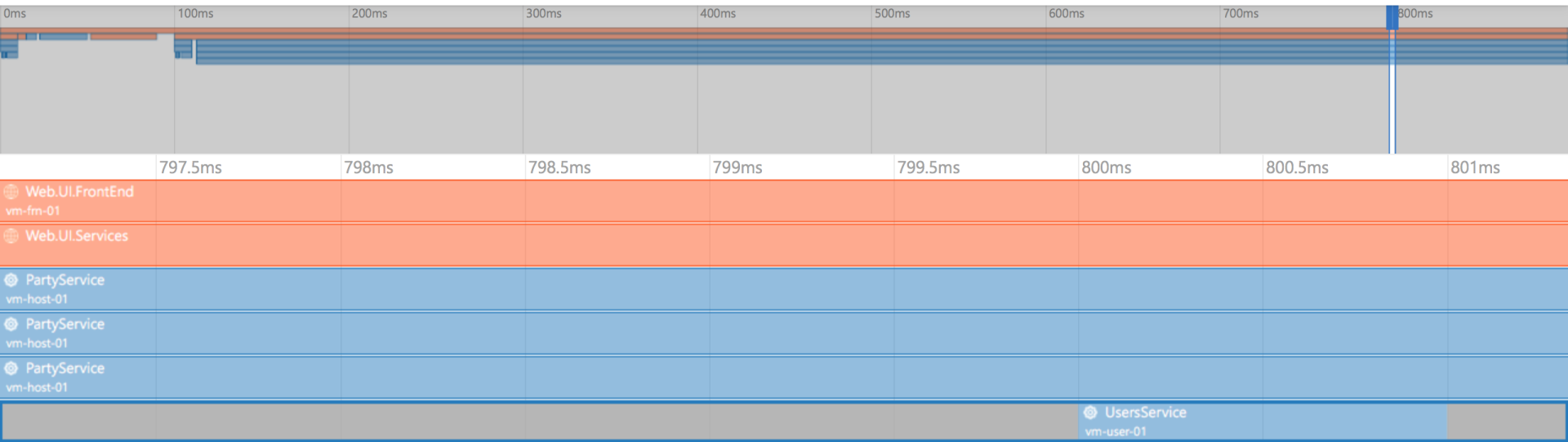
Contrails

831a3146-d50f-4fe1-b91e-d37b3197670d

Открыть



Full call stack		Call stack		
Total time		Self time	Service	Timeline
900ms 100%		14ms 1.6%	► Web.UI.FrontEnd	



Full call stack		Call stack	
Total time	Self time	Service	Timeline
900ms 100%	14ms 1.6%	Web.UI.FrontEnd	
800ms 88.9%	3ms 0.3%	Web.UI.Services	
787ms 87.4%	0 0%	PartyService	
787ms 87.4%	0 0%	PartyService	
787ms 87.4%	0 0%	PartyService	
787ms 87.4%	787ms 87.4%	UserService	

CLIENT

General

Traceld: 831a3146-d50f-4fe1-b91e-d37b3197670d

SpanId: a882565c1f3a84a49af90c29f75e9b8a

ParentSpanId: c8a778ef7caf5bafc1da9a6a26d74b05

OperationName: Name

Duration: 787ms

BeginTimestamp:

UTC: 08.02.2013 12:00:00.1130000

Relative (root begin): 113ms

Relative (parent begin): 0ms

EndTimestamp:

UTC: 08.02.2013 12:00:00.9000000

Relative (root begin): 900ms

Duration: 209.323ms Services: 5 Depth: 7 Total Spans: 24

Expand All

Collapse All

Filter Service Se... ▾

client x4

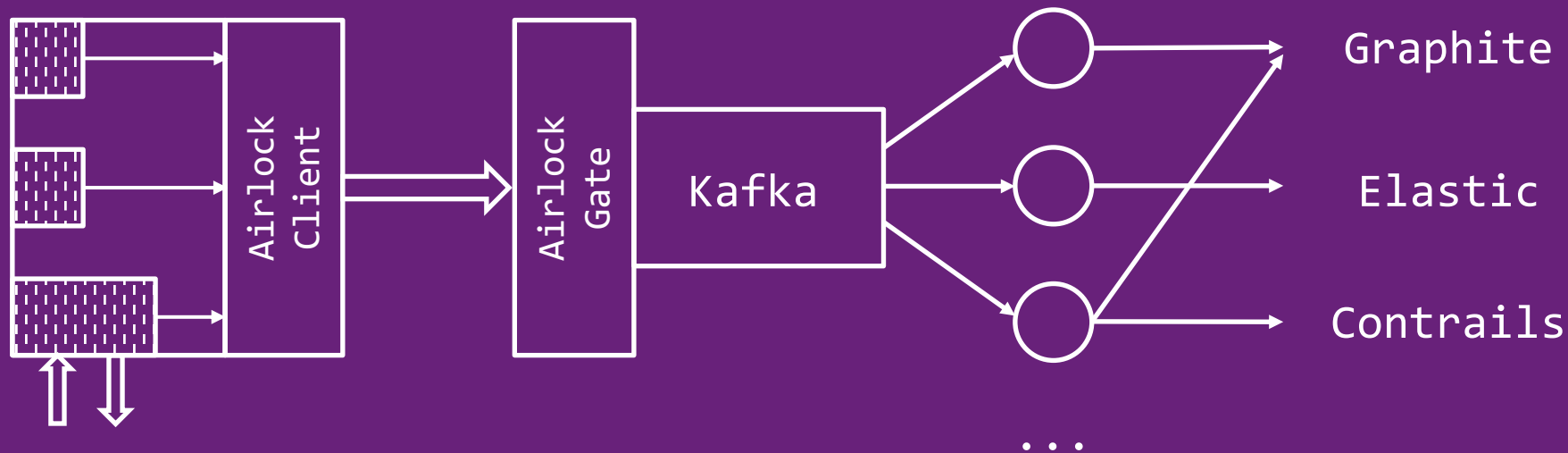
flask-server x10

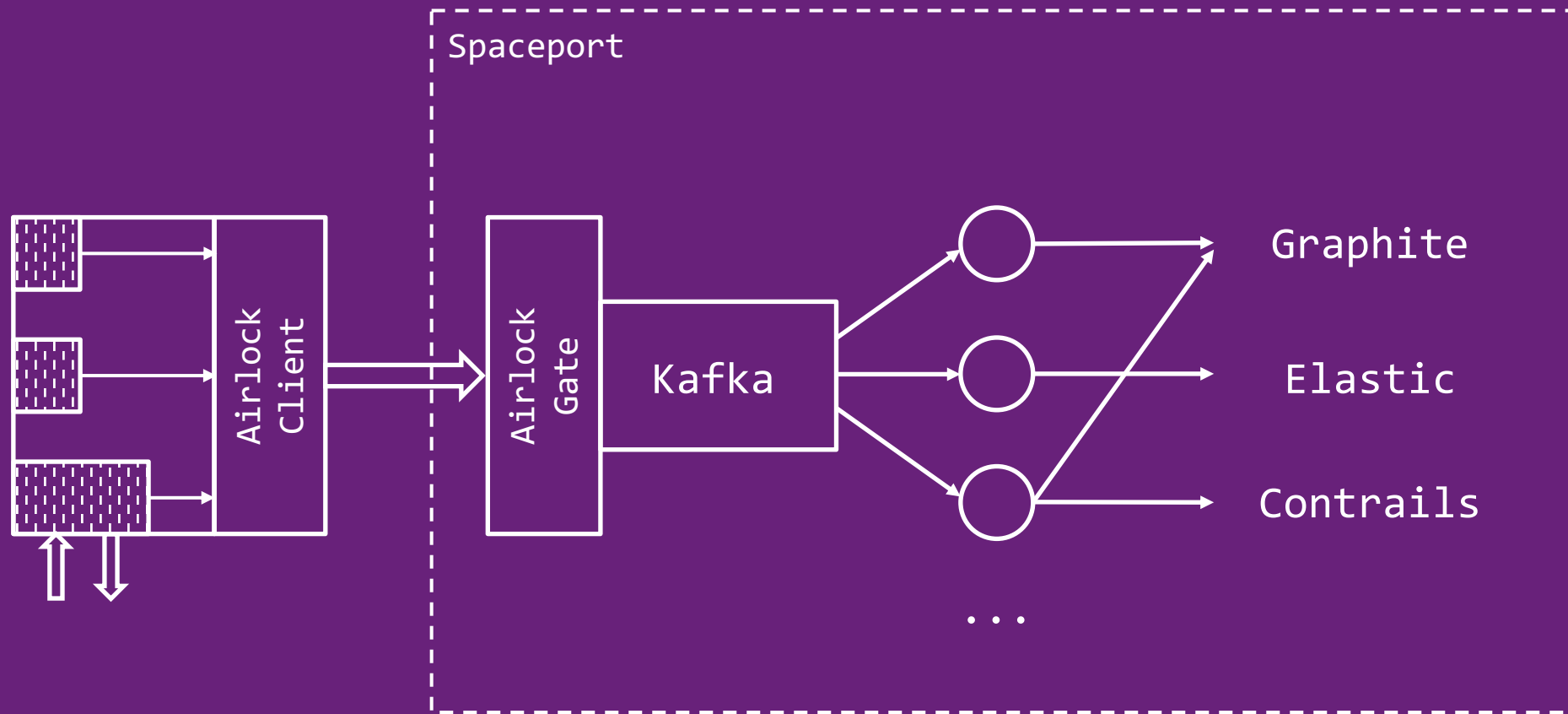
missing-service-name x2

tchannel-server x2

tornado-server x11

Services	41.864ms	83.729ms	125.593ms	167.458ms
- client	.181.126ms : client-calls-server-via-get	.	.	.
- flask-server	.180.527ms : get	.	.	.
- flask-server	.605μ : mysqlpdb:connect	.	.	.
- flask-server	.54.152ms : mysqlpdb:select	.	.	.
- flask-server	.	.394μ : mysqlpdb:connect	.	.
- flask-server	.	.46μ : mysqlpdb:begin_transaction	.	.
- flask-server	.	.40.910ms : mysqlpdb:select	.	.
- flask-server	.	.	.1.000ms : mysqlpdb:commit	.
- tornado-server	.	.	.41.194ms : get	.
- tornado-server	.	.	.32.659ms : get_root	.
- tornado-server	.	.	.12.489ms : call-downstream	.
- tornado-server	.	.	.11.492ms : get	.
- tornado-server	.	.	.105μ : tornado-x2	.
- tornado-server	.	.	.11.494ms : call-downstream	.
- tornado-server	.	.	.10.511ms : get	.
- tornado-server	.	.	.85μ : tornado-x3	.
- tornado-server	.	.	.29.816ms : call-tchannel-	.
- tornado-server	.	.	.12.153ms : call_in_request	.
- tchannel-server9.712ms : endpoint





Демо-трассировки

- 8fce28c6-985b-4d51-b474-ca93032fafeb
- 831a3146-d50f-4fe1-b91e-d37b3197670d
- 84cbaabc-40b3-49b9-ac4e-28fab6099c58

Правильный продакшн

— Метрики

— Логи

— Трассировки

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— Service discovery

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— Хостинг

The logo consists of a solid purple square. Inside the square, the text "SPB DOT NET" is written in a white, sans-serif, all-caps font, stacked vertically in three lines.

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`alexkir@kontur.ru`
`github.com/vostok`

Алексей Кирпичников

Контур